APPENDIX

A Questions for Study on Current Practices

This open-ended set of questions was used to guide the study described in Chapter 2.

1. What is your educational background and job experience?
2. Which devices have you designed for?
3. Which devices were targeted for the project you worked on?
4. Please choose the organizational structure that most closely fits your situation:
    a. Desktop group (project A, project B), Mobile group (project A, project C, project D)
    b. Project A, Project B (desktop, mobile), Project C
    c. Project A, Project B desktop, Project B mobile, Project C
5. Does this division make sense?
6. Pick the statement that most closely fits your situation:
    a. There are desktop and mobile versions of our software product. The desktop version is managed and designed separately from the mobile versions. However, we do synchronize our releases.

   b. There are desktop and mobile versions of our software product. The desktop version is managed and designed separately from the mobile versions, and we do not synchronize our releases.
   c. There are desktop and mobile versions of our software product, and we design and manage all of the versions together as one project.
   d. There is one product that has desktop and mobile components. We don't think of "desktop" and "mobile" versions of the product.
7. How many UI designers work in your company? On your cross-device project?
8. Pick the statement that most closely fits your situation:
   a. All of the designers are responsible for designing for all of the devices.
   b. All of the designers are responsible for designing the whole system. We don't think in terms of different versions for each device.
   c. Each designer concentrates on designing a version targeting only 1 or 2 devices.
9. If same project:
   a. How do the designers keep the interfaces across devices synchronized? Meetings? Tools? Web site? Simply looking at sketches?
   b. Did you do design first, then meet with other designers? Or also do some initial design in the first joint meeting?
   c. How much design takes place at meetings with other designers?
10. If different projects:

   a. Why? Is it timing? Was it because only later did the company decide to target a program to several devices? Or do you do PC-Mobile-PC-Mobile... as the version cycle?
   b. Was it a different group that designed the second interface, or the same?
   c. If different, how much consultation was there with the group that designed the original interface? Informally or meetings? One-time or regular?
   d. Were design documents for the original interface used at all? Or did the design team only look at the final interface?
   e. How much of the original interface was used as the basis of the final (in interaction flow, tasks, in spirit only, almost nothing?)
   f. In future cross-device projects, will there be more coordination (i.e., one team, synchronization of releases)? Should there be?
   g. What if you could take original interface, generate a new interface automatically, and then tweak it? How much detail would the generated interface need?

11. What was good and bad about your design process? What's your wish list (both ideal and more realistic)? Auto-generated interfaces? What if the generated interfaces are bad? How much tweaking?
12. Do you ever see patterns in your multi-device design work?

Reaction to pattern idea:

13. Does pattern idea make sense? Do you think this way now? If not, do you think you could think this way (i.e., how much of a stretch is this)?

14. Suppose there were still several people designing. How could a tool like this still help? Would auto-generate still be useful? More coordination issues as opposed to auto-generate issues? Perhaps each designer could do one, auto-generate the other, then compare.
15. Should there be other types of explicit multi-designer support? What type?
16. Would you like to see, if you changed one interface, how the other interfaces would change, in real-time?
17. How would you deal with the question of which changes would propagate? For example, if you removed a whole interaction sequence in mobile because it was not appropriate, how would the PC version know not to delete it? Should the tool present multiple choices? If so, when?
18. How important would creating your own patterns be?

APPENDIX

B Prototype Evaluation and Questionnaire

B.1 HopiSketch Test Plan

B.1.1 Roles

Test administrator (Jimmy): *reads instructions, handles transitions from one section of test to another, handles participant questions & gets participants unstuck if necessary*

Observer & Logger (Larry, Guru, Danny, or Rich): *records times & tallies of tracked metrics, handles note-taking*

Demo Giver (Jimmy): *gives a demonstration of HopiSketch*

B.1.2 Introduction

Thank you very much for helping us to evaluate HopiSketch. HopiSketch is a prototype of an application that we hope will help designers such as yourself design multi-device web sites. The purpose of this study is to determine how useful HopiSketch could be to designers.

Here's what we have planned for the next 2 hours:

1. First, we will give you a short overview of HopiSketch.
2. Next, we will ask you to perform a short warm-up task to get familiar with the system.

3. After that, we will ask you to create a preliminary design for a web site based on a set of requirements. You will have 60 minutes or so to sketch out some ideas for a multi-device web site using HopiSketch.
4. Finally, after the main design task is done, we will ask you to fill out a questionnaire to give us feedback on HopiSketch and your experience using it.

Throughout the study, feel free to ask for help if you have trouble with any of the tasks we ask you to perform. Also, *(recorder)* will be taking notes as you perform your tasks.

This consent form just says that you understand what this test is about, that you understand we will respect your privacy wishes, and that you will allow us to publish any results from this study.

B.1.3 Tasks

For each of the following tasks, the participant will be given a printout of the task description (one at a time). All users will use a Wacom tablet attached to an IBM ThinkPad. Task 1 should take 15 minutes and Task 2 should take 60–75 minutes.

Task 0: *We open the file "flower.bmp" for them. Ask them to move the watering can over the flower. Then add a bee to the drawing, then handwrite the label "Flower with bee."*

Task 1: *Walk through creating a site with the participant. Cover:*

- *Sitemap creation*
- *Sketching*
- *Transition specification (arrows)*
- *Pie menus*
- *Zooming*
- *Gestures for cut, copy, paste, pan, move, and delete*

- *Running*
- *Retargeting*
- *Editing retargeted design: add, delete, edit pages*

Task 2: *Give them the requirements for the TotalMusic.com project (in task2_requirements.doc). Each participant has 60 to 75 minutes to create a preliminary design for the site.*

- *Give user the first task description (task2_requirements.doc)*
- *After test,* ***save the dnm files****.*

B.1.4 Post-test questions

Hand the participant the questionnaire.

B.1.5 Debriefing

Do you have any final comments about the system, this study, the questionnaire, or anything else?

Would you like to hear about some future improvements we're thinking about making to HopiSketch?

Thank you for participating in our experiment. The purpose of the experiment was to see whether designers can use a new electronic sketching tool to design multi-device web sites. Additionally, we wished to get feedback on how designers feel a tool like HopiSketch could fit into their current design practices. Ultimately, we wish to know whether HopiSketch encourages the exploration of a wider variety of design ideas and the production of higher quality user interfaces.

Our plan is to continue to use the feedback from this experiment and observation of any problems with the HopiSketch user interface to improve the application.

B.2 Consent Form for HopiSketch User Study

This study is being conducted as part of a research project at the IBM Watson Research Center. This study should take about 2 hours and poses no hazards to you other than those normally encountered working in an office environment.

All of the information that we obtain from your session will be kept confidential. We will not use your name or identifying information in any reports of my research.

Your participation in this research is voluntary. You are free to refuse to participate or leave at any point during the study. Whether or not you choose to participate will have no bearing on your standing in relation to IBM or to UC Berkeley.

If you have any questions about the research, you may call Guruduth Banavar at (914) 784-7755, or send e- mail to banavar@us.ibm.com. You may keep the other copy of this form for future reference.

By signing this form you agree to the following statement:

I agree to participate in the evaluation of HopiSketch. I understand that I will be using an experimental web design application. I know that the researchers are studying how people perform web site design and are evaluating HopiSketch, an experimental multi-device web design application. I realize that I will be asked to discuss some designs over 1-2 hours.

I understand that any information obtained during this study will be kept confidential. Only members of the Group for User Interface Research or IBM will view the video tapes in detail, and no other individuals will have access to these tapes.

I give Jimmy Lin, Guruduth Banavar, and their associates permission to present the results of this work in written/oral form, without further permission from me.

Date & Signature

B.3 Task 1

Go through the following steps to add the ability to make lodging reservations to the Northern California Tourism site shown on the screen:

a) Create a new page entitled "Make Reservations."
b) Quickly sketch the "Make Reservations" page, including spaces for the user to indicate
    a. Number of guests
    b. Length of stay
    c. Credit card number and expiration date
c) Link the "Make Reservations" page to the "Pinot Grigio Inn" page. The text for the link should be "Make a reservation."
d) Use the "Run" feature to run through the site, showing how a user coming into the home page would find her way through the site and make a reservation at the Pinot Grigio Inn.

B.4 Task 2

You have been hired to design an online music store that will target two types of devices: a PC and a mobile phone with a PDA-sized screen. Some requirements for the service are included on the next page. Please spend 60–75 minutes creating a preliminary design for the site.

The purpose of this exercise is to see how well HopiSketch can be used to conduct a realistic design task. This is not intended in any way to be a test of your ability as a designer or your ability to use this particular tool. *It is intended as an evaluation of the tool.*

We would like you to try to create the best design you can in the time provided using HopiSketch. Feel free to ask for assistance using HopiSketch. You can also use paper and pencil for part of the design process.

We have given many requirements, and it is very possible that you will not be able to "finish" your design. This is fine. By the way, since we are interested in the design process for multiple devices, it is better to have two partial designs for two devices than one complete design for only one device. Conversely, it is also okay if you feel your design is done before the allotted time is up. You can stop at any time before the time is up.

We will also remind you to think aloud while using HopiSketch so we can get an idea of what you are thinking while using the tool.

TotalMusic.com Requirements

A new startup called TotalMusic.com is creating a web site that will let customers buy CDs, MP3s for download, and even snippets of music for mobile phone ringtones. TotalMusic.com will launch two versions of its site, one targeted to PC users, and the other targeted to users of mobile phones with PDA-sized screens.

Please create a preliminary design for the online store, following as many of the requirements below as possible:

Common Requirements

Make Search function available on every page

Allow users to sample music

Album listing should include format (CD, cassette), release date, and label

Allow users to rate music on a scale (1–5)

Desktop-specific Requirements

List special offers on home page

Show reviews and recommendations from other customers

Allow users to create and read reviews

Allow users to access shopping cart from every page

Offer albums related to or similar to the album being browsed

Mobile-specific Requirements

Allow users to download sample of music for ringtone

Purchasing music must be via one-click

B.5 Post-Test Questionnaire

Each question is followed by the participants' answers. Freeform answers are given in their entirety, while numerical answers are shown in chart form and as a mean, median, and standard deviation where appropriate.

1) Can you think of something that you did differently by using HopiSketch compared to what you normally do?

   ❶ Worked more with whole concept of site, not on individual pages. Would work more on experience threads, not pages

   ❷ Nature of cartoons was more constrained by tool: normally, cartoon purely for visual communication. HopiSketch: also functional. Wouldn't be a problem, would just get used to it. Functional: think in a different way about the design: usually think at more conceptual level than functional

   ❸ Dragging lines connecting specific buttons and links to their targets

❹ I began by writing text and objects freehand as opposed to using the text tool, but I'm not sure why. I think I may have thought of it more as a sketching tool than a design tool.

❺ Not really. Would sketch pages, site map on paper (Haven't designed for multiple devices at the same time before)

❻ Testing using Run mode: good to show were you missed links. Normally would use paper for key parts of site map, didn't do so for testing purposes

2) Did HopiSketch help you see new ideas, or did it prevent you from exploring ideas?

❶ Helps you see "there is way too much stuff here for the Palm" earlier than normal. Allows non-artist into the artist/designer's mind (glimpse into design process) – the key

❷ Helped keep ideas organized: translation kept raw material from first PC design, felt more confident throwing things away. Hard to deal with mode changes of objects (e.g., various states of shopping cart)

❸ It did both. It helped me experience my design, but it made editing my designs more difficult through its gestural user interface.

❹ This may be a function of limited exploration and/or familiarity with the tool, including not using the "Run" feature that much. It may also be a function of shifting my mental paradigm from a Visio-type visualization to a more "white board" type of visualization; currently, my facility with Visio, as well as its being a building block in a final deliverable, means that I tend to "sketch" using Visio more than I do freehand (i.e. on paper, on a white board), so this, in addition to my lack of familiarity with the product, may have impeded my ability to see and/or explore ideas. In addition, the difficulty in manipulating (selecting, grouping, etc.) objects within the tool was a barrier as it took time and effort away from actively creating something.

❺ Normally, I would have more time to play with more ideas (because of learning curve with DENIM, stylus)

❻ No to both

3) What aspects of HopiSketch do you particularly *like*?

❶ Takes napkin sketching to a new experiential level without making it beautiful. Focuses on idea, whether idea is valid. Selecting, linking napkin-sketch type gestures

❷ linking, rudimentary support for widgets. Run mode

❸ I liked the ability to zoom in and out easily.

❹ Being able to see how a page might actually function (i.e. the prototype/"Run" feature").

❺ The Site Map view, and showing the structure of the site

❻ Run mode, the potential of gestures

4) What aspects of HopiSketch do you particularly *dislike*?

❶ Interdevice problem is hard—haven't gotten there yet. Size estimates of page (5 MB page, hard to download on Palm). Need priorities: in PC design, what parts can make it to Palm, what cannot?

❷ Emphasis on page/site map paradigm too heavy. Would like more "object" emphasis

❸ The gestural user interface and the requirement to hand-draw UI elements.

❹
- pen (rather have mouse)
- visible groups (should be invisible)
- should smooth out strokes
- sketches not suitable for clients
- keystroke grouping, alignment tool, pre-made shapes, ability to customize page sizes and set default values for lines, pages, boxes, etc

❺ Interaction is quirky (and buggy)

❻ Using pen for selecting, manipulating objects; bugs; interaction did not flow; not used to zooming besides zooming in and out in place

5) What benefits do you see in using a tool that can automatically retarget a web user interface to another device?

❶ It's a good starting point. Good to explain to non-designers the limitations

❷ Thoroughness. It's easier to make sure that all the work you did on one platform gets carried over to the other platforms

❸ I do not see a tool such as this is appropriate

❹ Time savings

❺ Time savings! Great advantage. Especially it it's a matter of hundreds or thousands of pages

❻ Help see potential pitfalls (or opportunities), over time, I could see this product helping designers to predict needs across devices

6) Did you use the results of the retargeting process? Were the results beneficial? If not, why not?

❶ It makes a good case for content deletion, but without "groupings" it's impossible to "hone" down

❷ They were a good starting point. I still have a philosophical problem with the notion of PDAs and cell phones presenting subsets of desktop functionality. I believe that these devices should serve as complements instead. So it is entirely possible that the design for the hand-held device could contain none of the same functionality as the desktop product. Perhaps if the exercise involved creating a set of GUIs for a variety of different hand-held devices, then the theme and variation functionality would make more sense.

❸ The results were unsatisfactory

❹ Yes (results were used). (No) the results weren't (beneficial) as the grouping didn't hold. There was no continuity of function intra- or interpage.

❺ I used them, but had to move things around quite a bit.

❻ Not really 1) false assumptions were made about size of text/widgets causing extra pages when they were not needed.

7) What additional features would you like to see in HopiSketch? What would it take for it to be truly *useful* to you?

❶ Content prioritization, groupings, new tools

❷ I use sketching tools in the early stage of design, when I am trying to define functionality, rather than layout. Creating derivative GUIs for a variety of platforms is a later-stage activity for me. Therefore the sketching functionality would be very useful to me, but the multi-platform functionality would be more useful to me in a higher-fidelity tool.

❸ N/A

❹ Simplified grouping, alignment tools, prioritization of elements, ability to select elements to retarget (as opposed to all), "fuzzy" layout logic

❺ Persistent navigation or templates—would save much time

❻ Ability to "program" conditions that aid in retargeting process. Ability to work on multiple targets simultaneously

8) How likely would you use a commercial-strength sketching application?

❷❺ Very Likely

❶❻ Somewhat Likely

❹ Neither Likely nor Unlikely

Somewhat Unlikely

❸ Very Unlikely

Assuming 1 = Very unlikely, 3 = Neither likely nor unlikely, 5 = Very likely:

Mean = 3.67
Median = 4
Std dev = 1.51

9) How likely would you use a commercial-strength tool that can retarget your design to multiple devices?

Very Likely

❺❻ Somewhat Likely

❷❹ Neither Likely nor Unlikely

❶ Somewhat Unlikely

❸ Very Unlikely

Assuming 1 = Very unlikely, 3 = Neither likely nor unlikely, 5 = Very likely:

Mean = 2.83
Median = 3
Std dev = 1.17

10) Did you find the Run mode useful for PC? All: yes

For the PDA? ❻ yes | ❶❸: no | ❷❹❺: didn't use

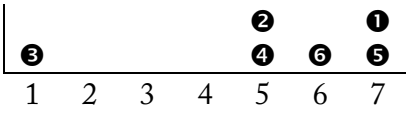
11) Suppose you had to design a user interface for multiple devices. How many devices would it take before HopiSketch became useful?

❶❹❺❻: 2 devices
❷: 2 devices of similar form factors
❸: it will never be useful

12) What effect do you think incorporating HopiSketch into your process would have on each of the following factors? (1 = negative, 7 = positive)

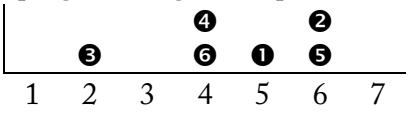
Ability to communicate with…

a) clients



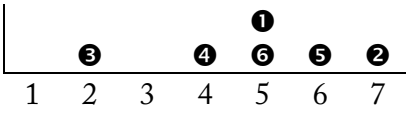
mean = 5.17, median = 5.5, std dev = 2.23

b) programming/development team members



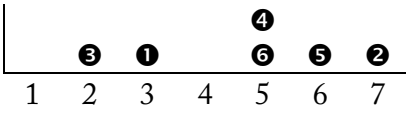
mean = 4.5, median = 4.5, std dev = 1.52

c) information architects



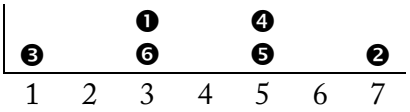
mean = 4.83, median = 5, std dev = 1.72

d) user interface designers



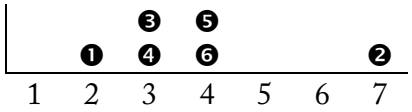
mean = 4.67, median = 5, std dev = 1.86

e) graphic designers



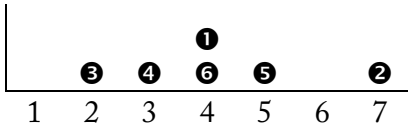
mean = 4, median = 4, std dev = 2.10

f) copywriters



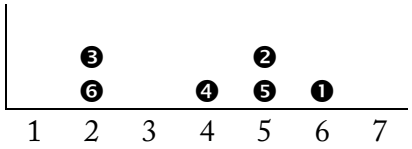
mean = 3.83, median = 3.5, std dev = 1.72

g) design team members



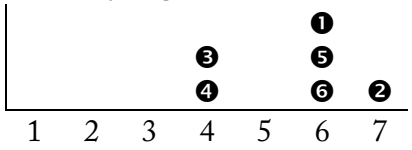
mean = 4.17, median = 4, std dev = 1.72

h) internal managers



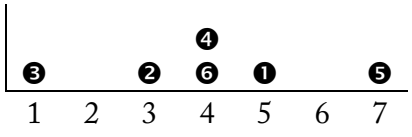
mean = 4, median = 4.5, std dev = 1.67

i) usability engineers/testers



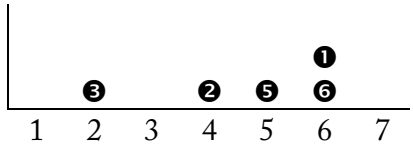
mean = 5.5, median = 6, std dev = 1.22

j) users



mean = 4, median = 4, std dev = 2

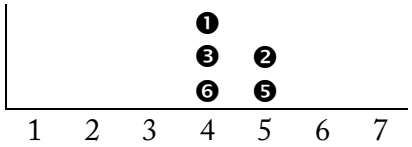
k) Ability to conduct usability tests



❹ did not answer

mean = 4.6, median = 5, std dev = 1.67

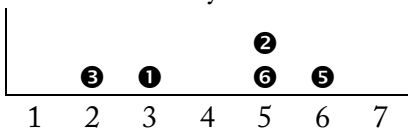
l) Overall expressiveness



❹ did not answer

mean = 4.8, median = 4, std dev = 1.10

m) Overall efficiency



❹ did not answer

mean = 4.2, median = 5, std dev = 1.64

13) What tools would you use in your normal work practice? *(free text entry)*

❶❷❸❹ Adobe Photoshop

❶❺❻ Adobe Illustrator

❷ Macromedia Fireworks

❸❹❻ Microsoft Visio

❸ Macromedia Flash

❷❺ Macromedia Dreamweaver

❶❷❸ Microsoft PowerPoint

❶❸❺ Microsoft Word

❶ Microsoft Excel

❻ Text editor

14) Which of the following activities do you engage in as part of your *current* design responsibilities?

❶❷❸❹❺❻ Information architecture

❶❷❸❹❺❻ Navigation design

❶❷❸❹❺❻ User interface design

❶❷❸❹❺❻ Interaction design

❶❸❻ Graphic design

❶❷❸❹❺❻ Usability testing

❶❷❸❹❺❻ Usability evaluation (e.g. Heuristic Evaluation, Cognitive Walkthroughs)

❶❷❸❹❻ Project management

❶❸ Web site programming/development

❶❸❹❻ Development of interactive prototypes

❶❸❹❻ Copywriting

❶ Other

15) Which of the following best describes your *primary* responsibility with respect to design?

❸❹ Information architecture

Navigation design

❶❺❻ User interface design

❷❺ Interaction design

Graphic design

❺ Usability testing

❺ Usability evaluation (e.g. Heuristic Evaluation, Cognitive Walkthroughs)

Project management

Web site programming/development

Development of interactive prototypes

Copywriting

Other

16) What percentage of your *current workload* is made up of PC-based web site design projects?

❺ 0-25%

❶❸ 26-50%

❷ 51-75%

❹❻ 76-100%

17) What percentage of your *current workload* is made up of mobile device design projects?

❷❸❹❻ 0-25%
❶ 26-50%
❺ 51-75%
76-100%

18) What percentage of your current workload is made up of design projects which target multiple types of devices (e.g., PDA and cell phone)?

❷❸❹❺❻ 0-25%
❶ 26-50%
51-75%
76-100%

19) What other types of design projects are part of your current workload?

❶❷❸❻ User interface design for non-web desktop PC productivity software
❶❸❹ User interface design for non-web PDA software
Game design for a PC or game console
Game design for a PDA or cell phone
❶❺❻ Other multimedia design for a PC
❶❹❺ Other multimedia design for a PDA or cell phone
❻ Design for voice-based applications
❶❸❻ Print design
❸ Industrial design
Other type of design

20) How long have you been involved in web site design?

Less than one year
❺ 1-2 years
2-3 years
❷❹ 3-5 years
❶❸❻ More than 5 years

21) How long have you been involved in design for mobile devices?

Less than one year
❹❺ 1-2 years
❸❻ 2-3 years
❶❷ 3-5 years
More than 5 years

22) How long have you been involved in any kind of design (including user interface, print, multimedia, etc.)?

Less than one year
1-2 years
2-3 years
❺ 3-5 years
❷ 5-10 years
❶❸❹❻ More than 10 years

23) Other than interaction design, which of the following best describes your background?

❶❻ Graphic design
Industrial design
Other design
❸❺ Programming/Computer Science
Other engineering
❸ Business
❷ Liberal arts
❹ Media (TV, photography)

24) Including ongoing projects, how many web sites for the PC have you helped design?

❺[1] 1-5
❹ 6-10
❷ 11-20
❸❻ 20-50

❶ More than 50

[1]But big ones, more than 10,000 pages

25) Including ongoing projects, how many UIs for mobile devices have you helped design?

❷❹❺❻ 1-5

❸ 6-10

11-20

20-50

❶ More than 50

26) Including ongoing projects, how many UIs have you helped design for more than one device for the same project?

❸❺ 0

❷❹❻ 1-5

6-10

11-20

❶ 20-50

More than 50

27) What is the highest level of education that you have completed?

Some High School

High School Diploma

Some College

❶❷❸❹ College Degree

❻ Some Graduate School

❺ Graduate or Professional Degree

28) Which of the following degrees/higher education experiences do you have? (Please write the field of study after the degree.)

❶ BFA, illustration

❷ BA, fiction writing

❸ BS, engineering—human interface design

❹ BA, history

❺ MS, human-computer interaction

❻ BFA, graphic design; some grad school, interactive communications; other degree, graphic design

APPENDIX

C Damask Evaluation Materials

C.1 Consent Forms

C.1.1 Consent form for desktop/smartphone participants

My name is James Lin. I am a graduate student in Computer Science at UC Berkeley. I would like to invite you to take part in my research. It consists of possibly taking a short quiz, using a computer program to design a user interface that runs on two types of devices, and a questionnaire. The user interface design task will be videotaped with your agreement. The purpose of the study is to learn more about this design process.

If you agree to take part in my research, I will conduct a study with you at the time and location of your choice. There will be two sessions. For each session, I ask that you schedule 3 hours for this study, though it is possible that you will finish early. The study will consist of a task to design a user interface for two types of devices, and a written questionnaire. I would like to emphasize that this experiment should be approached as a fun activity and a contributing effort. It is okay if you do not complete the task. I may ask to contact you by telephone or e-mail if there are any follow-up questions I have after our interviews.

I may want to use some of the information and videotape in public presentations of the research. There is a Video Records Release Consent Form attached that

outlines several possible uses for the tapes and asks for specific consent to use these items in each way. If you agree to allow these items to be used after this research study is over, please read, initial, and sign that form as well. I will not use the tapes or other identifiable information about you in any future presentation without your consent.

If you agree to participate, you will receive a $250 gift certificate from Amazon.com after the second session to thank you for your participation.

There are no known risks to you from taking part in this research, and no foreseeable direct benefit to you either. However, your participation will contribute to my efforts to improve the state of the art in user interface design.

The design that you will create will be kept on my secured computer, and the videotapes will be stored in a secure location in my office. We will not use any identifying information in any reports of my research. After this research is completed, I may save this data for use in future research by others or myself.

Your participation in this research is voluntary. You are free to refuse to take part. You may refuse to answer any questions and may stop taking part in the study at any time. Whether or not you participate in this research will have no bearing on your job or your relationship with UC Berkeley. If you decide to stop in the middle of the session for any reason, you will still receive the $250 gift certificate as a sign of our appreciation for your effort.

If you have any questions about the research, you may contact me, James Lin, at (510) 643-7354 or jimlin@cs.berkeley.edu. If you agree to take part in the research, please sign the form below. Please keep the other copy of this agreement for your future reference.

If you have any question regarding your treatment or rights as a participant in this research project, please contact UC Berkeley's Committee for the Protection of Human Subjects at (510) 642-7461 or subjects@uclink.berkeley.edu.

I have read this consent form and I agree to take part in this research.

_____	_____	_____
Name (please print)	Signature	Date

C.1.2 Consent form for desktop/voice participants

My name is James Lin. I am a graduate student in Computer Science at UC Berkeley. I would like to invite you to take part in my research. It consists of possibly taking a short quiz, using a computer program to design a user interface that runs on two types of devices, and a questionnaire. The user interface design task will be videotaped with your agreement. The purpose of the study is to learn more about this design process.

If you agree to take part in my research, I will conduct a study with you at the time and location of your choice. There will be three sessions. For each session, I ask that you schedule 3 hours for this study, though it is possible that you will finish early. The study will consist of a task to design a user interface for two types of devices, and a written questionnaire. I would like to emphasize that this experiment should be approached as a fun activity and a contributing effort. It is okay if you do not complete the task. I may ask to contact you by telephone or e-mail if there are any follow-up questions I have after our interviews.

I may want to use some of the information and videotape in public presentations of the research. There is a Video Records Release Consent Form attached that outlines several possible uses for the tapes and asks for specific consent to use these items in each way. If you agree to allow these items to be used after this research study is over, please read, initial, and sign that form as well. I will not use the tapes or other identifiable information about you in any future presentation without your consent.

If you agree to participate, you will receive a $375 gift certificate from Amazon.com after the second session to thank you for your participation.

There are no known risks to you from taking part in this research, and no foreseeable direct benefit to you either. However, your participation will contribute to my efforts to improve the state of the art in user interface design.

The design that you will create will be kept on my secured computer, and the videotapes will be stored in a secure location in my office. We will not use any identifying information in any reports of my research. After this research is completed, I may save this data for use in future research by others or myself.

Your participation in this research is voluntary. You are free to refuse to take part. You may refuse to answer any questions and may stop taking part in the study at any time. Whether or not you participate in this research will have no bearing on your job or your relationship with UC Berkeley. If you decide to stop in the middle of the session for any reason, you will still receive the $375 gift certificate as a sign of our appreciation for your effort.

If you have any questions about the research, you may contact me, James Lin, at (408) 927-2687 or jimlin@cs.berkeley.edu. If you agree to take part in the research,

please sign the form below. Please keep the other copy of this agreement for your future reference.

If you have any question regarding your treatment or rights as a participant in this research project, please contact UC Berkeley's Committee for the Protection of Human Subjects at (510) 642-7461 or subjects@uclink.berkeley.edu.

I have read this consent form and I agree to take part in this research.

_____ _____ _____

Name (please print) Signature Date

C.1.3 Video records release consent form

As part of this project we have made a video recording of you while you participated in the research. Although we will only visually record the computer screen, your voice will also be recorded, which might allow someone to identify you. We would like you to indicate below what uses of these records you are willing to consent to, by initialing in the appropriate blanks. This is completely up to you. We will only use the records in ways that you agree to. In any case, your name will not be associated with these records.

If you have any question regarding your treatment or rights as a participant in this research project, please contact UC Berkeley's Committee for the Protection of Human Subjects at (510) 642-7461 or subjects@uclink.berkeley.edu.

1. The record can be studied by the research team for use in the research project.

_____

2. The records can be shown to subjects in other experiments.

   _____

3. The record can be used for scientific publications.

   _____

4. The record can be shown at meetings of researchers interested in human-computer interaction.

   _____

5. The record can be shown in classrooms to students.

   _____

6. The record can be shown in public presentations to nonscientific groups.

   _____

I have read the above description and give my consent for the use of the records as indicated above.

_____ _____ _____

Name (please print) Signature Date

C.2 Oral Instructions

Thank you very much for helping us with our evaluation. Today we are exploring how designers create user interfaces that are targeted to many different types of

devices, in our case, the web and mobile phones, by using a tool called Damask. Here's what we have planned for the next 3 hours:

1. First, we will give you a short overview and demo of Damask.
2. Next, we will ask you to perform a couple of short warm-up tasks to get familiar with the Tablet PC and with Damask.
3. After that, we will ask you to create a preliminary design for an application based on a set of requirements. You will have 2 hours or so to sketch out some ideas for the application using Damask.
4. Finally, after the main design task is done, we will ask you to fill out a questionnaire to give us feedback on Damask and your experience using it. (*Disclaimer*)

We would like to stress that we are testing the system, not you. We are looking for places where the system may be difficult to use. If you have trouble with some of the tasks we ask you to perform, it is the system's fault, not yours. Do not feel bad—trouble spots are exactly what we're looking for. And please remember that this is totally voluntary. Although I don't know any reason why this should happen, if you become uncomfortable or find this objectionable in any way, feel free to quit at any time.

This consent form just says that you understand what this test is about, you allow us to videotape the test, that you understand we will respect your privacy wishes, and that you will allow us to publish any results from this study.

C.3 Damask Tutorial

Give a 10-minute demonstration of Damask, showing

- *Sitemap creation*

- *Sketching*
- *Change content type*
- *Pages*
- *Page fold*
- *Page regions*
- *Title bar and moving pages*
- *Transition specification (arrows)*
- *Thumbnail view*
- *Panning and zooming*
- *Tools and controls*
- *Resizing text*
- *Cut, copy, paste, delete elements and pages*
- *Templates*
- *Running*

C.4 Introductory Session for All Participants

We open the file "flower.bmp" for them. Ask them to move the watering can over the flower. Then add a bee to the drawing, then handwrite the label "Flower with bee."

C.5 Introductory Session for Desktop/Voice Participants

C.5.1 Task 1

Go through the following steps to add the ability to make lodging reservations to the Northern California Tourism site shown on the screen:

a) Create a new page entitled "Make a Reservation."

b) Quickly sketch the "Make a Reservation" page, including spaces for the user to indicate

    a. Number of guests

b. Length of stay

c. Credit card number and expiration date

c) Create a link on the "Pinot Grigio Inn" page called "Make a reservation", and link it to the new "Make a Reservation" page.

d) Use the "Run" feature to run through the site, showing how a user coming into the home page would find her way through the site and make a reservation at the Pinot Grigio Inn.

Do the analogous steps for the Voice version. For part b, put all of the prompts and responses in one form.

C.5.2 Task 2

You have been hired to design an online bank that can be accessed through the web and over the phone using a prompt-and-response voice interface. Some requirements for the service are included on the next page.

The purpose of this exercise is to see how well Damask can be used to conduct a realistic design task. This is not intended in any way to be a test of your ability as a designer or your ability to use this particular tool. *It is intended as an evaluation of the tool.*

We would like you to try to create the best design you can using Damask. Feel free to ask for assistance using Damask. You can also use paper and pencil for part of the design process.

We will also remind you to think aloud while using Damask so we can get an idea of what you are thinking while using the tool.

Bank88.com Requirements

A bank called Bank88 is creating a web site that will let customers access their accounts. Bank88 will launch two versions of its site, one targeted to PC users, and the other targeted to speech.

Please create a preliminary design for the online bank, implementing the requirements below. It's more important that you implement something for every requirement than to implement a few requirements in a detailed manner.

Common Requirements

- Assume the user has a checking and savings account. For each account, the user should be able to view
  - balance
  - recent activity
    - checks and withdrawals
    - deposits and credits
    - interest earned
- Transfer funds from one account to another
- Reorder checks
- Pay bills by phone/web
  - For each payee, enter amount due, account to pay from, and date to be posted
  - For the purposes of this exercise, we will ignore adding payees

Desktop-specific Requirements

- Users sign in with a username and password that they previously set up.

Mobile-specific Requirements

- Users sign in with their account number and a PIN that they previously set up.

C.6 No Patterns or Layers Condition

C.6.1 Desktop/smartphone participants

Task 1

(This task was skipped if the participant had already done the patterns and layers condition. This is the same as section C.5.1 except for the last sentence.)

Go through the following steps to add the ability to make lodging reservations to the Northern California Tourism site shown on the screen:

a) Create a new page entitled "Make a Reservation."

b) Quickly sketch the "Make a Reservation" page, including spaces for the user to indicate

    a. Number of guests

    b. Length of stay

    c. Credit card number and expiration date

c) Create a link on the "Pinot Grigio Inn" page called "Make a reservation", and link it to the new "Make a Reservation" page.

d) Use the "Run" feature to run through the site, showing how a user coming into the home page would find her way through the site and make a reservation at the Pinot Grigio Inn.

    Be sure to do these steps for both Desktop and Mobile Phone versions

Task 2

You have been hired to design an online music store that will target two types of devices: a PC and a smartphone (a mobile phone with a screen size of about 180×215). Some requirements for the service are included on the next page.

The purpose of this exercise is to see how well Damask can be used to conduct a realistic design task. This is not intended in any way to be a test of your ability as a designer or your ability to use this particular tool. *It is intended as an evaluation of the tool.*

We would like you to try to create the best design you can using Damask. Feel free to ask for assistance using Damask. You can also use paper and pencil for part of the design process.

We will also remind you to think aloud while using Damask so we can get an idea of what you are thinking while using the tool.

TotalMusic.com Requirements

A new startup called TotalMusic.com is creating a web site that will let customers buy CDs and snippets of music for cell phone ringtones. TotalMusic.com will launch two versions of its site, one targeted to PC users, and the other targeted to users of smartphones. Both sites will be in HTML.

Please create a preliminary design for the online store, implementing the requirements below. It's more important that you implement something for every requirement than to implement a few requirements in a detailed manner.

Common Requirements

- Make Search function available on every page.
- The home page should include a list of genres. Implement a page for one genre of music linked off the home page. The genre page should contain "featured albums" in this genre.
- On a product page:
    - Allow users to listen to a sample of each song in the album
    - Album listing should include

        - format (CD, cassette)
        - release date
        - record label
    - Have shopping cart and checkout functionality. Besides the usual requirements, be sure to include the following:
        - Allow users to choose from multiple shipping addresses.
        - Provide a way for users to choose a shipping method and a payment method
        - Provide a thank-you page with an order summary
    - Assume users are already logged into their account.

Desktop-specific Requirements

- When choosing from multiple addresses, users should be able to choose an address they stored before, or type in a new address.
- When choosing a payment method, users should be able to choose a credit card they stored before, or type in a new card and billing address.
- Allow users to access shopping cart from every page.
- Offer albums related to or similar to the album being browsed.
- Desktop users cannot buy ringtones.

Mobile-specific Requirements

- When choosing from multiple addresses, users should be able to choose an address they stored before, or have it shipped to their cell phone billing address.
- When choosing a payment method, users should be able to choose a credit card they stored before, or have their order billed to their cell phone bill.

- For each song in an album, allow users to listen to sample of the song for a ringtone.
- Allow users to download a ringtone directly to the phone.

C.6.2 Desktop/voice participants

(This is largely the same as Task 2 for desktop/smartphone participants.)

You have been hired to design an online music store that will target two types of platforms: the web and voice. Some requirements for the service are included on the next page.

The purpose of this exercise is to see how well Damask can be used to conduct a realistic design task. This is not intended in any way to be a test of your ability as a designer or your ability to use this particular tool. *It is intended as an evaluation of the tool.*

We would like you to try to create the best design you can using Damask. Feel free to ask for assistance using Damask. You can also use paper and pencil for part of the design process.

We will also remind you to think aloud while using Damask so we can get an idea of what you are thinking while using the tool.

TotalMusic.com Requirements

A new startup called TotalMusic.com is creating a web site that will let customers buy CDs. TotalMusic.com will launch two versions of its site, a web version and a voice version.

Please create a preliminary design for the online store, implementing the requirements below. It's more important that you implement something for every requirement than to implement a few requirements in a detailed manner.

Common Requirements

- The home page should include a list of genres. Implement a page for one genre of music linked off the home page. The genre page should contain "featured music" in this genre.
- For each product:
  - Allow users to listen to a sample of each song in the album
  - Album listing should include
    - format (CD, cassette)
    - release date
    - record label
  - Include shopping cart and checkout functionality.

Desktop-specific Requirements

- Make Search function available on every page.
- Allow users to access shopping cart from every page.
- Offer albums related to or similar to the album being browsed.
- You can assume that the user already has a user name and password, and has already stored shipping addresses and credit card info before.
- For checkout, be sure to include the following:
  - Allow users to choose from several shipping addresses stored before, or enter a new address.
  - Provide a way for users to choose a shipping method and a payment method
  - Provide a thank-you page with an order summary
  - When choosing a payment method, users should be able to choose a credit card they stored before, or enter a new card and billing address.

Voice-specific Requirements

- From the home page, the user should be able to say a genre, which will go to a genre page, or say the title of an album, which will go to a product page.
- You can assume that the user already has an account number and PIN, and has already stored shipping addresses and credit card info before.

C.6.3 Questionnaire A

1. Can you think of something that you did differently by using Damask compared to what you normally do?

   ④ Normally I don't do wireframes and sitemaps simultaneously, but I like this better.

   ⑤ Having the templating tool allow you to link back to other documents is a nice feature.

   ⑥ I might have filled in slightly less detail than I would using pencil and paper or even HTML, due to the difficulty of using the handwriting recognition or pencil tools. I would ordinarily be able to scribble down simple labels much faster and would use more of them.

   ⑦ I normally start with site maps. In this case, I just winged it with roughly hand drawn ones. After that it was all pretty much the same.

   ⑧ I used less detail, because it was hard to enter text.

   ⑨ Couldn't copy and paste repeating individual elements from page to page.

   ⑩ I liked being able to copy/paste elements between pages quite a bit. I sometimes do 1 paper/pencil sketch of the standard UI components for a design and then run it through the copy machine to get a standard UI. Copy/paste does that for me in a more flexible way, which I liked a lot.

   ⑪ I generally do most of my site architecture and layout on paper; with Damask, I did a lot of the same "sketching" tasks in the application. I also did a lot more conceptualization on page layout in the application than I would normally do.

⑬ Being able to hear the TTS version of the app so quickly after put it down on "paper" was really great. I think it makes a huge difference in the design process to be able to hear what you have written for a purely audio medium. I critiqued my own work in a different way because of being able to listen to the call flow so early on in the design process.

⑮ I did less - because the interface can only do so much.

⑯ Yes, I wrote mock prompts and designed the flow in the same step. Normally, the first concrete design step (after req gathering and user profiling, etc.) is to design a workflow / callflow. Here, I was creating a rough sketch at the same time as the flow.

⑰ As soon as I had a callflow, I was able to run it.

2. Did Damask help you see new ideas, or did it prevent you from exploring ideas?

④ It sped up the process of looking at alternate designs. For example, the checkout process functions were easier to flesh out and understand their behavior by using damask.

⑤ It helped me get things down, but I could only refer to things that I could implement immediately. I make use of notes or comments often in apps I use to keep track of ToDos within my list of tasks.

⑥ I probably didn't explore as much as I might have ordinarily. However, this is probably due to the time limit as much as the tool.

⑦ because I was getting up to speed with using a new application, it hindered me from exploring new ideas and was a bit more focused on just using Damask to do the basics that I needed to get the flow through.

⑧ see above (question 1).

⑨ I spent a lot of time struggling with basic functions like entering text, and Damask didn't do any cleanup; in fact it jumbled up elements that I transferred from desktop to cellphone mode. I would have found an app like Visio easier to use.

⑩ Damask seemed to help me work at more of a middle level of "fidelity" where I was working at a more detailed level than a simple flow chart, so I was able to

think a little about how certain features might actually work. I might be able to find certain issues with my design if I actually have to think a little about how features would work, rather than just representing a page as a box.

⑪ It definitely helped with new ideas, as it allowed me views of my design that I can't normally get as quickly using conventional design tools. I would definitely be able to explore additional ideas and design approaches if I were a regular user of the application; I would expect to utilize the design patterns a great deal, as well as to develop "my own" design patterns.

⑬ In combination with my answer from #1, I think it helped me see new ideas. I liked being able to actually draw graphics on the desktop mode-- wire frames don't allow for that type of expression very easily.

⑮ Both. There are new ideas around the parallels between the two interfaces, but there are also certain limitations when you start with one interface and map that to the other.

I'd say the patterns actually make it easier to see new ideas as opposed to hinder. They are a good reminder of what kinds of things are needed to implement a certain aspect.

⑯ Difficult to say, but I'd say both. My answer really hasn't changed since yesterday. *(See Participant 16's answer to Question 2 in Questionnaire B, section.)*

⑰ For voice, I would say neither--I don't think it helped me see new ideas or kept me from exploring ideas. But for web, I don't have any kind of equivalent tool, so I felt it helped me see new ideas because now I could lay everything out quickly and link things together easily.

3. What aspects of Damask do you particularly like?

④ Sketching non-standard ui widgets (tables, copy blocks) without spending time drawing lines and getting the right # of characters.

⑤ I like the zoomability, templating, the playback, use of text and lines (greeking).

⑥ The ability to quickly templatize site elements and the "runtime" mode for simulating user experience are easily my favorite aspects. Because of the latter especially, this would be more valuable to me in early user testing than in the

initial brainstorming/design process. I imagine it would be good for rapid prototyping in a user test situation.

⑦ I liked the showing the flow through linking on Damask

⑧ I did like the trace function for finding bugs, but wish there could be an automated tree-traverse.

⑨ The patterns and layers in the other version.

⑩ I felt like I could pretty quickly create both a flow chart and a usable prototype... I like that a lot. I can turn out a pencil/paper flow chart pretty quickly, but getting to a prototype would require all kinds of HTML, or lots of shuffling of papers (for a paper prototype). The application without layers felt easier to use, less to worry about and keep track of.

⑪ I liked the sketching functionality, the device-specific layering and templates, and the ability to quickly generate a top-down view of the site and then zoom in on the details of each page.

⑬ I like being able to hear the call flow so quickly after putting down the ideas. That would be really useful. I also like the idea of how 'sketchy' the windows seem-- it really allows for informal brainstorming to be formalized a bit-- and easily shared.

⑮ 1) the ability to create a parallel interface automatically.
2) the ability to quickly set up a prototype web site
3) the templates and patterns
I like #2. Of course, having the templates and patterns are helpful towards being able to quickly set up the prototype.

⑯ I like being able to prototype quickly and not feeling constrained to make something beautiful on the first cut. My advice: NEVER add color options, that's the first step towards shifting the focus from design concepts to art. But maybe I'm just bitter because my colleagues are better artists. ;)

⑰ It's very quick to add new pages and to link items together, or change links.

4. What aspects of Damask do you particularly dislike?

④ Not having keyboard shortcuts to zoom, scroll, and center.

⑤ Latency, a bit of wonkiness between the Java interface and the Windows tablet UI

⑥ The most frustrating part was trying to move about the workspace. Many tasks involved this laborious traversal of space, from copying and pasting elements between pages to linking distant pages to objects on the current page.

⑦ no alignment; would like to see better templating/copying capabilities.

⑧ The platform (tablet PC) was hard to deal with.

⑨ See answer 2.

⑩ Speed is an issue, of course. I think using screen real estate is also extremely important - It's a little hard to link pages if you can't see both pages on the screen, for instance. Generally I thought the application conformed to UI standards established in some other applications I use as a designer (like photoshop), but certain features could probably be moved more in the direction of how other applications do them. An example would be zooming (ie photoshop)

⑪ I found the performance to be the most hindering aspect of the application; it also could use some refinement in terms of shortcut keys, retaining focus between tabbed views, and the like. But, I had no major "dislikes" of the application.

⑬ I had a slight annoyance with having to switch modes -- for example, using the selector button vs. the pencil vs. etc. I would have preferred that the tool were a little bit more robust and know that if I draw in a 'response' bubble, the next thing I would likely want to do is type in the response options. Also, I would have liked a drag and drop feature on the desktop.

⑮ 1) automatic interface creation introduces several non-ideal defaults in the other device

2) voice interface in particular was quite limiting

3) lack of ability to map to even a fake backend

4) the use of patterns is useful but it is not intuitive how these may play with each other or with the templates

5) the reminders for how a change made in one device will also impact the other device should be displayed more often.

#4 and #1 were probably the worst offenders here, in my opinion.

⑯ Today word wrap and view were big issues, especially in the voice workspace. Damask partially defeats what I think is one of its greatest strengths by making it difficult for the user to view the prompts s/he's writing and their responses. It would help to have the prompts wrap better and place the responses ('grammars') closer to the prompt that provoked them. It would also be nice to have different views - sometimes I just want to see flow between forms, especially when there are a lot of them, and sometimes I just want to read my prompts. It would be nice if I could switch between them.

⑰ Sometimes I would forget what mode I was in and not be able to type or drag when I thought I would be able to. Also sometimes I had difficult maneuvering (e.g. scrolling around)

5. What additional features would you like to see in Damask? What would it take for it to be truly useful to you?

④ Annotations for individual widgets or pages. Pixel size information for the mobile screens.

⑤ notations, additional screen resolutions, a delete selected toolbar icon, history of previous files, less obtrusive navigation pane, export to some other type of document type like TIFF or exporting to a type of document like Activity Diagrams

⑥ I'd like to see a quick index of pages I can jump to or link items to. I'd like to be able to create not only page templates but common-element templates so that I could quickly store a library of components to add to pages on a less "regular" basis (I see how the template system could allow this, but it didn't initially occur to me to use it that way). I'd like a few simple graphics tools, so I could add color and quick shapes.

It's truly useful to me now, because of the runtime mode alone. But for it to be comfortable, the navigation issues would have to be fixed (easy jumping between page mode and sitemap mode, quick paging across the workspace).

⑦ does it come out on the Mac? ability to type rather than using pen. Also ability to selectively copy elements from desktop mode to smartphone mode

⑧ Large screen output (even if input is on a touch screen or tablet). Automated tree-traverse (go down all the branches).

⑨ Patterns and layers. Also easier text entry, i.e., a bigger screen and a setup that lets you use the tablet only when you want.

⑩ Conditional linking would be very useful (if user selects A, button goes to 1, if selects B, button goes to 2). Better zooming, better sketching with the pen tool (faster), etc.

⑪ I would like the ability to also link up images/graphics with the pages and to create/access basic page templates (in addition to the design pattern library).

The application as is is already useful to me; however, the performance issues and handwriting sensitivity would need to be refined for me to incorporate it into daily use.

⑬ I would like the ability to record the prompts using the tool. and a click-through-play feature with those recorded prompts.

⑮ speed of prototype development

⑯ I just listed a few in (4) and will expand on my last point: it would be nice to be able to view the design at a high level as a flowchart connecting all the nodes to each other, and at an individual page/form level. This is partially accomplished by zoom, but could be cleaner. It would also be nice to see the prompts in a sample dialog format of some kind, something like:

System: Would you like a stock quote or driving information.
Caller: Driving information
System: Okay, driving information. First, let me get your location. Say a city and

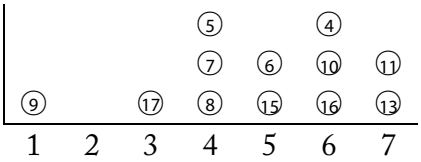
state, or say or enter your zip code.

This would be a nice way to list them for quick reading, especially since the prompts and responses are just samples anyway, and not any attempt at a full spec.

⑰ The ability to use dynamic info, e.g. when caller gives some info, confirm with that actual info. For voice, I'd need real error/help handling, more complex grammars (maybe the ability to point to an external grammar file).

6. How likely would you use a commercial-strength version of Damask?

(1 = very unlikely, 7 = very likely)



mean = 4.83, median = 5, std dev = 1.75

7. What for? (or if not, why not?)

④ For early brainstorming of site structure and page templates, but eventually would want it to export into a program that cleans up presentation (visio or illustrator).

⑤ Rapid prototyping for usability tests, maybe for use for creating graphics for use in storyboard docs

⑥ I'd use it for quick sketches to present to project teams and for rapid prototyping for user testing.

⑦ interaction design work... happy with the run mode; not too happy with how the pages look; pages still need to be cleaned up as far as writing with pencil and alignment

⑧ would depend on how much it cost, and what other development tools I was using (if it could take in html files it would be much more useful - for site redesign).

⑨ See answer 2.

⑩ flowcharts, proofs of concept, prototypes, testing

⑪ I would use it regularly (daily, or multiple times a week) for professional design and conceptualization.

⑬ Sample call creation at work. Potentially some kind of wizard of Oz tool. Also, it would be very useful for brainstorming with a tangible end result (well, as tangible as waveforms could be! ;o)).

⑮ Mostly for prototyping - not for real development

⑯ Rapid prototyping.

⑰ We already have a more powerful tool (V-Builder) in-house.

8. Did you find the Run mode useful for…

   Desktop?

   all participants: Yes

   no participants: No

   Smartphone

   ④⑥⑦⑧⑨⑩⑪: Yes

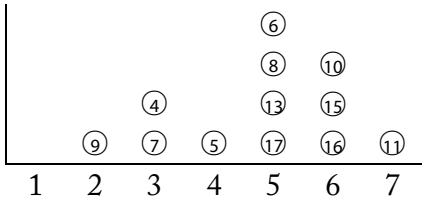
   ⑤: No

   Voice?

   ⑬⑮⑯⑰: Yes

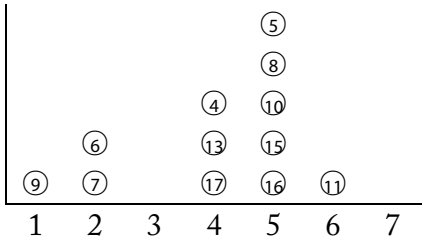
   no participants: No

9. How easy was it to accomplish the task? (1 = not easy, 7 = very easy)



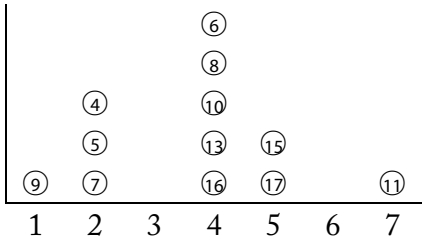
   mean = 4.75, median = 5, std dev = 1.48

10. How easy was it to maintain appropriate consistency between both devices? (1 = not easy, 7 = very easy)



mean = 4, median = 4.5, std dev = 1.

11. How easy was it to transfer relevant parts of the design from one device to another? (1 = not easy, 7 = very easy)



mean = 3.67, median = 4, std dev = 1.67

12. What is your age?

under 20

④⑤⑥⑩⑬⑯ 21-30

⑦⑧⑪⑮⑰ 31-40

⑨ 41-50

51 or above

13. How many years of design experience do you have?

Less than 1 year

1-2 years

⑯ 3-4 years

④⑤⑥⑦⑧⑨⑩⑪⑬⑮⑰ At least 5 years

14. How many years of web design experience do you have?

I have never designed for the web

⑬⑮⑯⑰ Less than 1 year

1-2 years

3-4 years

④⑤⑥⑦⑧⑨⑩⑪ At least 5 years

15. *(asked desktop/smartphone participants)* How many years of mobile phone or PDA UI design experience do you have?

⑨ I have never designed a UI for mobile phones or PDAs

④⑦⑧⑩⑪ Less than 1 year

⑤⑥ 1-2 years

3-4 years

At least 5 years

(asked desktop/voice participants) How many years of voice UI design experience do you have?

I have never designed a UI for voice

Less than 1 year

1-2 years

⑯ 3-4 years

⑬⑮⑰ At least 5 years

16. *(asked desktop/smartphone participants)* If you have designed mobile apps, please give a brief summary of the types of apps you've designed:

④ A sales rep contact organizer, and a shopping comparison tool.

⑤ Apps that are mostly used for PDAs: data entry forms, command forms for operators of hardware

⑥ Web browsing for PDA and WAP (AvantGo Mobile Internet)

⑦ photo app, messenger apps, wap mode

⑧ ATM machine. CSS-based website.

⑨ (N/A)

⑩ I worked on some apps for data collection on the Apple Newton in 1998-1999. They were oriented towards farmers (believe it or not) who would need to track crop development in the field. The tool was also used by bio students for field research. The data was then used to create reports on a desktop PC.

⑪ e-commerce sites

(asked desktop/voice participants) If you have designed voice apps, please give a brief summary of the types of apps you've designed:

⑬ Bilingual apps (English and Spanish)
Banking, Tech support lines, Singapore Post, Call center routing apps, Natural Language (How may I help you? sort of apps), SBC, Australian Centrelink (Australian Welfare) call router and income logging, unified communications, Gas and Electric self service app. Car rental

⑮ I've designed a wide variety of voice applications - here are some examples:
a yellow pages application coupled with getting directions (at my previous job)
a voice-enable conferencing system
a call routing application for a wireless company
a voice authentication application, etc.

⑯ Reusable Voice Apps (vertical), Voice Portals, Call Routers, Directory Assistance, Finance, Dating services.

⑰ All over-the-phone speech apps. Banking, travel, personal assistant, etc.

17. Please check the kinds of design in which you feel you are knowledgeable.

④⑤⑧⑨⑩⑪ Information architecture

④⑦⑩⑪ Graphic design

④⑤⑥⑦⑧⑨⑩⑪⑬ Web design

④⑤⑥⑧⑨⑩⑪⑬⑮ GUI design
(the overall interaction for desktop applications)

⑦⑮ Mobile phone UI design

⑬⑮⑯⑰ Voice UI design

Other:

⑧ 508 accessibility issues

⑨ I've used WAP phones and have written product copy for mobile phones

⑩ software design

⑬ Interaction design

18. Which of the following do you normally use when you design UIs?

Adobe GoLive

④⑤⑦⑪ Adobe Illustrator

⑤⑥⑧⑩⑪⑮⑯ Adobe Photoshop

Macromedia Director

⑧⑨⑩⑪ Macromedia Dreamweaver

⑧ Macromedia Flash

⑤⑪⑮ Microsoft Excel

⑪ Microsoft FrontPage

④⑥⑪ Microsoft PowerPoint

④⑤⑥⑧⑨⑩⑪⑬⑮⑯⑰ Microsoft Visio

⑤⑦⑧⑨⑩⑪⑬⑮⑯⑰ Microsoft Word

⑥⑧⑪⑯ Text editor

④⑤⑥⑦⑧⑨⑩⑪⑬⑮⑯ Paper and pencil

④⑤⑥⑦⑧⑨⑩⑪⑬⑮⑯ Whiteboard

Other:

⑨ OmniGraffle (Mac product)

⑬ Internal Software, Audio processing software

⑯ Every voice company has internal proprietary design tools

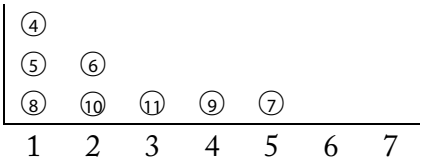
⑰ Nuance V-Builder

19. *(Desktop/smartphone participants only)* Do you own a mobile phone?

④⑤⑥⑦⑧⑨⑩⑪ Yes

No

20. *(Desktop/smartphone participants only)* If so, how often do you use your mobile phone for online services (e-mail, web, SMS, etc.)? (1 = not often, 7 = very often)



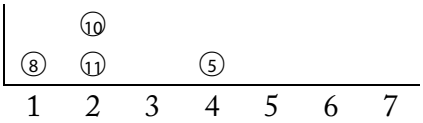
mean = 2.38, median = 2, std dev = 1.51

21. *(Desktop/smartphone participants only)* Do you own a PDA?

⑤⑧⑩⑪ Yes

④⑥⑦⑨ No

22. *(Desktop/smartphone participants only)* If so, how often do you use your PDA for online services (e-mail, web, etc.)? (1 = not often, 7 = very often)



mean = 2.25, median = 2, std dev = 1.26

23. *(Desktop/smartphone participants only)* Do you own a wireless e-mail device like a BlackBerry?

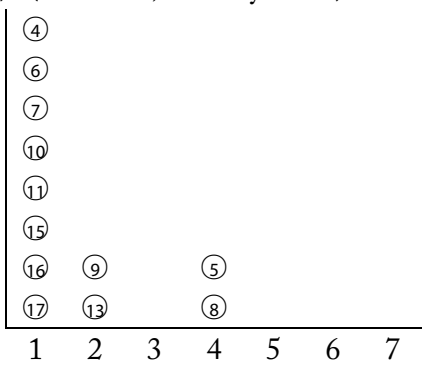
Yes

④⑤⑥⑦⑧⑨⑩⑪ No

24. *(Desktop/smartphone participants only)* If so, how often do you use it?

(N/A)

25. How often do you use a tablet (such as a Wacom tablet, display tablet, or Tablet PC)? (1 = never, 7 = very often)



mean = 1.67, median = 1, std dev = 1.15

26. How often have you bought anything online in the past 12 months?

Never

⑮ 1-3 times

⑰ 4-6 times

⑤⑨⑬⑯ 7-11 times

④⑥⑦⑧⑩⑪ At least 12 times

27. If you have, how have you bought stuff?

④⑥⑦⑧⑨⑩⑪⑬⑮⑯⑰ Through the web on a desktop PC

Through a mobile phone display

⑬ Through an automated voice system over the phone

Other

⑤ No answer

28. How often have you bought music albums online in the past 12 months?

⑮ Never

⑧⑨⑰ 1-3 times

⑤⑥⑦⑩⑬⑯ 4-6 times

7-11 times

④⑪ At least 12 times

29. If you have, how have you bought them?

④⑥⑦⑧⑨⑩⑪⑬⑯⑰ Through the web on a desktop PC

Through a mobile phone display

Through an automated voice system over the phone

Other

⑤ No answer

30. *(Desktop/smartphone participants only)* How often have you bought ringtones online in the past 12 months?

④⑦⑧⑨⑩⑪ Never

⑤⑥ 1-3 times

4-6 times

7-11 times

At least 12 times

31. *(Desktop/smartphone participants only)* If you have, how have you bought them?

⑤⑥ Through the web on a desktop PC

Through a mobile phone display

Other

32. How often have you used a web design and prototyping tool called DENIM?

⑦⑬⑮⑯⑰ I've never heard of DENIM

⑧⑨⑪ I've heard of DENIM but haven't used it

④⑤⑥⑩ I've played around with DENIM a bit

I've used DENIM for 1 or 2 projects

I've used DENIM for 3 or more projects

33. *(Voice participants only)* How often have you used a speech design and prototyping tool called SUEDE?

⑮⑯ I've never heard of SUEDE

⑬ I've heard of SUEDE but haven't used it

⑰ I've played around with SUEDE a bit

I've used SUEDE for 1 or 2 projects

I've used SUEDE for 3 or more projects

34. Additional comments:

④ jimmy rocks

⑥ Since I never use a tablet, I would hope that I could accomplish a lot with the tool using mouse and keyboard. I'd probably end up drawing less and typing more!

⑩ I like Damask quite a bit during this session - I probably advanced up the learning curve during the test yesterday which made things easier to use today... It felt like it helped me get a lot of work done relatively quickly.

⑪ Great application - can't wait to see it available commercially! :)

C.7 With Patterns and Layers Condition

C.7.1 Oral introduction to layers

If this is the first session, then give the 10-minute demonstration described in section C.3.

Give a 5-minute demonstration of layers:

- *Radio buttons for selecting layers*
- *Describing when you can link objects between layers*
- *Change in background color between layers*

- *"Move Object to Other Layer" button in toolbar*

C.7.2 Task 1, Part 1

(This part was skipped by desktop/smartphone participants if they had already done the no patterns or layers condition, and by desktop/voice participants)

Go through the following steps to add the ability to make lodging reservations to the Northern California Tourism site shown on the screen:

a) Create a new page titled "Make a Reservation".

b) Sketch the "Make a Reservation" page, including spaces for the user to indicate
   a. Number of guests
   b. Length of stay
   c. Credit card number and expiration date

c) Create a link on the "Pinot Grigio Inn" page called "Make a reservation", and link it to the new "Make a Reservation" page.

C.7.3 Oral introduction to pattern browser

Give a 5-minute demonstration of the pattern browser:

- *Pattern index and genres*
- *Format of a pattern*
- *Searching for patterns*
- *Adding a pattern instance*
- *Editing a pattern instance*

Let the participant browse the Pattern Browser for 15 minutes, then give him or her the patterns quiz.

C.7.4 Patterns quiz

This quiz is open notes!

1. Please name and briefly describe four pattern groups:

   Name: _____

   Description: _____

   _____

   _____

   _____

   Name: _____

   Description: _____

   _____

   _____

   _____

   Name: _____

   Description: _____

   _____

   _____

   _____

   Name: _____

   Description: _____

   _____

   _____

   _____

2. Name three other patterns that "C1: Homepage Portal" uses:

   a) _____

b) _____

c) _____

3. Which pattern is concerned with a web site identifying and tracking customers, so that it can provide personalized services?

_____

4. Briefly describe how the "Context-Sensitive Help" and "Pop-Up Windows" patterns can be used in conjunction?

_____

_____

_____

_____

C.7.5 Task 1, Part 2

d) Using the CATEGORY PAGES pattern, create a new page titled "Wine Country". Link the "Wine Country" label in the home page to this new page.

e) *For the desktop only,* in the "Wine Country" page, modify the contents of the center region so that it includes placeholders for two blurbs, on V. Sattui Winery and the Culinary Institute of America.

f) In the "Wine Country" page, there are 5 subcategories. Rename the first 3 to "Hotels", "Restaurants", and "Attractions." Link the "Hotel" subcategory to the Hotel page. Remove the other 2 subcategories.

g) Use the "Run" feature to run through the site, showing how a user coming into the home page would find her way through the site and make a reservation at the Pinot Grigio Inn.

Make sure all user interface changes occur in both the desktop and [mobile phone or voice] versions (except step e).

C.7.6 Task 2

Desktop/smartphone participants

You have been hired to design an online book store that will target two types of devices: a pc and a smartphone (a mobile phone with a screen size of about 180×215). Some requirements for the service are included on the next page.

The purpose of this exercise is to see how well Damask can be used to conduct a realistic design task. This is not intended in any way to be a test of your ability as a designer or your ability to use this particular tool. *It is intended as an evaluation of the tool.*

We would like you to try to create the best design you can using Damask. Feel free to ask for assistance using Damask. You can also use paper and pencil for part of the design process.

We will also remind you to think aloud while using Damask so we can get an idea of what you are thinking while using the tool.

TotalBooks.com Requirements

A bookstore called TotalBooks is setting up a companion web site called TotalBooks.com that will let customers buy books. TotalBooks.com will launch two versions of its site, one targeted to PC users, and the other targeted to users of smartphones. Both sites will be in HTML.

Please create a preliminary design for the online store, implementing the requirements below. It's more important that you implement something for every requirement than to implement a few requirements in a detailed manner.

Common Requirements

- Make Search function available on every page.
- The home page should include a list of genres. Implement a page for one genre of books linked off the home page. The genre page should contain "featured books" in this genre.
- On a product page, book info should include
    - title
    - author
    - price
    - edition (hardback, paperback)
    - publisher and year
    - ISBN
- Have shopping cart and checkout functionality. Besides the usual requirements, be sure to include the following:
    - Allow users to choose from multiple shipping addresses.
    - Provide a way for users to choose a shipping method and a payment method
    - Provide a thank-you page with an order summary
- You can assume users are already logged into their account.

Desktop-specific Requirements

- On the product page:
    - Also include number of pages and dimensions

    - Sketch out placeholders for editorial reviews and reviews from customers
- When choosing from multiple addresses, users should be able to choose an address they stored before, or type in a new address.
- When choosing a payment method, users should be able to choose a credit card they stored before, or type in a new card and billing address.
- Allow users to access shopping cart from every page.
- Offer books related to or similar to the book being browsed.

Mobile-specific Requirements

- On the product page, link to a page that tells customers where the nearest TotalBooks bricks-and-mortar store is where they can pick up the book. Customers don't need to enter where they are, because the web site can automatically detect it from the mobile phone's location. (Let's assume such technology exists, is widespread, and is accepted by customers because of rigorous privacy enforcement.)
- When choosing from multiple addresses, users should be able to choose an address they stored before, or have it shipped to their cell phone billing address.
- When choosing a payment method, users should be able to choose a credit card they stored before, or have their order billed to their cell phone bill.

Desktop/voice participants

You have been hired to design an online book store that will target two types of platforms: the web and voice. Some requirements for the service are included on the next page.

The purpose of this exercise is to see how well Damask can be used to conduct a realistic design task. This is not intended in any way to be a test of your ability as a designer or your ability to use this particular tool. *It is intended as an evaluation of the tool.*

We would like you to try to create the best design you can using Damask. Feel free to ask for assistance using Damask. You can also use paper and pencil for part of the design process.

We will also remind you to think aloud while using Damask so we can get an idea of what you are thinking while using the tool.

TotalBooks.com Requirements

A bookstore called TotalBooks is setting up a companion web site called TotalBooks.com that will let customers buy books. TotalBooks.com will launch two versions of its site, a web version and a voice version.

Please create a preliminary design for the online store, implementing the requirements below. It's more important that you implement something for every requirement than to implement a few requirements in a detailed manner.

Common Requirements

- The home page should include a list of genres. Implement a page for one genre of books linked off the home page. The genre page should contain "featured books" in this genre.
- On a product page, book info should include
    - title
    - author
    - price

    - edition (hardback, paperback)
    - publisher and year
    - Include shopping cart and checkout functionality.

Desktop-specific Requirements

- Make Search function available on every page.
- Allow users to access shopping cart from every page.
- On the product page:
    - Also include ISBN, number of pages and dimensions
    - Sketch out placeholders for editorial reviews and reviews from customers
    - Offer books related to or similar to the book being browsed.
- You can assume that the user already has a user name and password, and has already stored shipping addresses and credit card info before.
- For checkout, be sure to include the following:
    - Allow users to choose from several shipping addresses stored before, or enter a new address.
    - Provide a way for users to choose a shipping method and a payment method
    - Provide a thank-you page with an order summary
    - When choosing a payment method, users should be able to choose a credit card they stored before, or enter a new card and billing address.

Voice-specific Requirements

- From the home page, the user should be able to say a genre, which will go to a genre page, or say the title of a book, which will go to a product page.

- You can assume that the user already has an account number and PIN, and has already stored shipping addresses and credit card info before.

C.7.7 Questionnaire B

1. Can you think of something that you did differently by using Damask compared to what you normally do?

   ④ I went into a lot more detail on functionality that normally would take a long time to create from scratch (like forgotten passwords, etc)

   ⑤ worked on two interfaces simultaneously

   ⑥ Obviously I wouldn't normally have access to canned templates in building a sitemap.

   ⑦ used the pre-fab patterns rather than think through the pages and starting from zero

   ⑧ I was more inclined to create new screens for the handheld interaction.

   ⑨ Grab ready-made plans (IA and page-level interaction) for existing sites.

   ⑩ I usually use pen/paper to do this kind of sketching, so this was quite a bit different. It's also impossible to link pen/paper drawings, so Damask would basically allow me to create a low-fi mockup that includes links… which is great!

   ⑪ Drawing and sketching directly onscreen was the biggest difference between what I normally do and what I did using Damask.

   ⑬ Using Damask, I was able to consider both the GUI and the speech UI at the same time. Features from one translated into features or flow in the other.

   ⑮ I did less - because the interface can only do so much.

   ⑯ Yes, I designed the web UI and speech UI in parallel. Typically, I'll do this in the sense of mapping different traversals through a common problem, but not with the actual content, as the layers function does here. I also like how painless it is to include drawings in an otherwise digital design.

   ⑰ I don't normally construct web and voice designs at the same time

2. Did Damask help you see new ideas, or did it prevent you from exploring ideas?

④ I may have limited my initial explorations on other ways to solve the problem, but this was a fairly standard store so I didn't feel the need to explore more.

⑤ neutral

⑥ This version probably would have helped me see many new ideas and different ways of looking at a site design. The pattern browser was excellent for remembering usability concerns I might not have remembered at this stage of the design.

⑦ patterns reminded me of things I might have left out, but on the whole, the technical issues prevented me from exploring ideas

⑧ The tablet PC text input was a pain - I didn't bother going into detail on several pages

⑨ If I had been able to print out the pages so that I could see them all at once, it would have helped me grasp the functionality of an existing site very quickly. I don't know of another way to do this but to enter fake data into an existing site and try to click all the links and recreate all errors.

A second monitor might also make Damask easier to use (one for zooming out and one for zooming in, or one for each device view).

⑩ I learned a lot about the tool while using it, so I have the impression that I explored lots of new ideas! Actually I think Damask would get kind of cumbersome if I really worried about linking all of the pages in all of the possible ways, so I'd have to be sure to stay at a higher level in order to stay productive. The patterns helped out with this in some ways because I could drop in a set of functionality without having to worry about linking, etc.

⑪ I saw new ideas, particularly in applying the design patterns from the library. However, the performance issues I encountered prevented me from exploring these as much as I would have liked.

⑬ using the patterns, it saved quite a bit of time-- esp with the e-commerce website functionality. this allowed a lot of work to be done and allowed for time to be spent exploring other ideas.

⑮ Both. There are new ideas around the parallels between the two interfaces, but there are also certain limitations when you start with one interface and map that to the other.

⑯ Both. Mostly, it helped me stay organized while prototyping rapidly. Designers have needed better tools like this for a long time, and Damask allows a designer to develop his or her ideas faster that s/he could otherwise. The downside was mostly in cases where layering complicated parts of the process that should have been left separate. But overall I like the idea of layering, I just think the division in a design between 'all devices' objects and 'this device' needs to be more distinct. For example, objects in all devices could have a reddish background, and those in local devices could have a bluish background.

⑰ I think it might prevent me from seeing a voice design in the bigger picture--for example I might create my web design and it creates my initial voice design, and I might then be tied into thinking of my dialog in a certain style, whereas if I thought about it from scratch I might have chosen a different dialog flow.

3. What aspects of Damask do you particularly like?

④ The patterns that save me time creating common functions.

⑤ I like the grouping of objects and the drag to link feature

⑥ I love the new hand scroll tool. I'm keen on the patterns, too, as you might have noticed. Otherwise, see previous answers (as for almost all of these questions).

⑦ patterns and the ability to reuse elements from desktop view to smartphone view saved me time

⑧ the layers concept (though not the execution)

⑨ Being able to grab ready-made plans, because it helps avoid reinventing the wheel.

⑩ The pen input was really good. We talked a bit about using a "pure" sketch model where the tool wouldn't have any form widgets to choose from, but to

some extent I liked that I could simple "drop" a widget and not have to draw it out each time… this may more may not actually save time versus drawing, though.

⑪ the ability to draw directly on the "canvas", the ability to visualize the site as it's being built, the ability to use both templates and design patterns from the library, the ability to enter device-specific info in the form of layers

⑬ I like the vxml being generated so quickly-- it would be wonderful if I could have that functionality for sample calls etc in my job.

⑮ 1) the ability to create a parallel interface automatically.
2) the ability to quickly set up a prototype web site
3) the templates and patterns

⑯ Quick 'n dirty, quick 'n dirty. I like the feeling that this really is just a sketch, it really is rapid prototyping, and I don't have to worry about impressing someone with the finer points of my design, just getting a concept out there. I think this would be especially powerful on a team of designers trying to focus on the larger conceptual issues - the whole app sets a tone where you're not going to worry about a subtle difference in color or wording, just how the thing hangs together as a whole unit and concept.

⑰ For building the web prototype it was very useful to have the patterns, so I didn't have to do some things from scratch (like login, shopping cart, etc.) I think the same could work for voice patterns--having things we do commonly (like yes/no, account balance, list traversal, etc) be patterns. I'm not sure if we could have them be for both web and voice though.

4. What aspects of Damask do you particularly dislike?

④ Lack of ability to write comments

⑤ The templates are a bit funky, the window for the templates is massive and is hard to use in conjunction w/ the main window. Also a bit hard to scroll

⑥ I'm still on the fence about the layers. Perhaps it's just that I don't work across devices that much anymore, but I can imagine forgetting which mode I was in quite often. The grayed-out icons could be even more grayed-out, also; they

tended to look like they were intentionally dark. As I mentioned, consider playing up the arrow part of the icon more. Finally—I still find it very cumbersome to move around the page. That's the single biggest complaint I have this time around and it's a make-or-break issue.

⑦ input device... writing with a pen didn't translate well

⑧ The layers execution - the background shading in particular. The infinite field, and no scroll bars.

⑨ Text entry (selecting, typing) is way too awkward and slow.

⑩ The concept of layers was a little hard to grasp. With more experience I could pick it up, but I had to keep thinking about it.

⑪ I struggled with the performance issues and the implementation glitches the most. The handwriting and drawing capabilities weren't as precise as the corresponding ones in Windows, which made it more difficult.

⑬ I had a hard time remembering to switch between modes (selector mode v. pencil mode v. text)

⑮ 1) automatic interface creation introduces several non-ideal defaults in the other device

2) voice interface in particular was quite limiting

3) lack of ability to map to even a fake backend

4) the use of patterns is useful but it is not intuitive how these may play with each other or with the templates

5) the reminders for how a change made in one device will also impact the other device should be displayed more often.

⑯ I wanted more functionality for making margin notes, highlighting pieces, and tying strings. When you're designing quickly, you have to leave notes for yourself and other designers, and unfortunately, there weren't a lot of ways to do this gracefully.

⑰ I'm just not sure it's possible to build a website and a voice app at the same time--I think the designs need to be thought of in different ways because web and voice are very different modalities.

5. What benefits do you see in using a tool that can automatically retarget a web user interface to another device?

④ I rarely have projects at work that require us to do both at the same time, but if I created smaller applications from scratch or was playing around with prototypes, it would be useful.

⑤ cuts the time required to design and develop the mockup

⑥ Well, clearly it could save plenty of time in reproducing controls. The consistency value would be the obvious answer, but obviously a better algorithm for preserving the layout of controls would be needed to make that easier than cutting and pasting.

⑦ saves on time and makes pages more consistent

⑧ (So can CSS). It should save some design time, and could be useful in demos.

⑨ Huge. Also the patterns could be especially useful for phone interface design.

⑩ If done properly I think there would be lots of benefits for products that want to be available in multiple devices. Lots of web sites probably want a phone-enabled interface.

⑪ Many benefits, namely that I can design for both devices in tandem and maintain a top-down view of the sites that I'm working on. I can also easily transfer elements and artifacts between the two devices, while optimizing the layout for each, respectively.

⑬ Lots of benefits-- it's a huge time saver and allows effort to be spent on other areas when using patterns. it would be very beneficial to use in internal meetings and customer presentations.

⑮ speed of prototype development

⑯ In the case of speech, even if the so-called 'voice-web' never got off the ground, one of the biggest problems with the concept of a voice web and voice sites was content. A tool that was able to quickly convert existing web pages to voice sites would be incredible, even if it wasn't perfect. On our web UI / speech UI design tasks, I think the result was pretty much a mixed bag - I'm sure the

results with a Smartphone interface would be better. Better web -> speech design patterns would help, too. How should Damask's existing design patterns sound in a speech interface?

⑰ Maybe if it's web + another visual device, like a cell phone screen, it would be useful to have the design already partially completed for the 2nd device once you've created it for the first,

6. Did you use the UI design that was automatically generated for the second device? Were the results beneficial? If so, why? If not, why not?

④ Yes, it saved me a lot of time, but sometimes the layers confused me.

⑤ yes, included all the necessary elements of the UI

⑥ I did use it, but to be honest it was hard to tell if the results were good or bad because I didn't have time to scrutinize the details of the layout.

⑦ yes, I used the ui design automatically generated for the second device. It was beneficial in that it saved me time to not have to redraw the same elements and maintain a consistent experience for the user.

⑧ yes. helped find architecture bugs.

⑨ Didn't really get to the second device, but what I saw seemed sort of jumbled. I liked that it removed some items automatically, but maybe make those elements visible by clicking (i.e., a tray that opens and closes) instead of dragging the page layout box.

⑩ The patterns tended to be a lot more useful in this capacity than my own sketches were. My sketches don't really happen in chronological order, so the field order on the second device wasn't really useful. I think it might be cumbersome to assign a layer to each new bit in the sketch, too - like I'd have to say "this device" or "all devices" for each thing I draw to determine what device it shows up in.

⑪ Yes, I did. The results were beneficial because for the most part, the second device layout was optimized for me due to the fact that I based the design on design patterns provided.

⑬ yes, I did use it-- very beneficial. see #5

⑮ yes, I did. They provided a beneficial starting point.

⑯ Yes, and the benefit was probably organization. Once I'd generated the page, it was easy to remember what needed to be in the speech UI by looking at the objects in the speech UI workspace. However, I don't think there was a single prompt that I didn't rewrite, so it seemed wrong to link text in web and speech interfaces by default.

⑰ I did reuse it for the shopping cart/login/order confirmation. It was useful to have something immediately available but there was a lot of stuff I'd change if I were creating a real system (changing prompts, number of prompts, expected responses, etc.)

7. What additional features would you like to see in Damask? What would it take for it to be truly useful to you?

④ I would like to see comments about other design patterns, or be able to make my own comments. I would also like it to tell me more information about what page I'm currently working on (patterns used, alternate device views, etc)

⑤ zoom tool. A panel for the patterns

⑥ Same as previous answer, really, except that the patterns do add some benefit. I mentioned custom patterns and custom components earlier, which would really make it massively useful, since I work on a site with a custom style guide and we reuse elements all the time.

⑦ hard to say, b/c there's a fine line between too many features (confusing) and keeping it simple and easy to use. I would like to see an advance mode where I could align elements (I like anything that's in electronic format to be perfect)

⑧ a flow-chart view using page names. keyboard interface.

⑨ Easier text entry. A bigger screen and a more precise tablet interface would help...

⑩ I'd want some more powerful grouping functionality - so that I could draw a series of widgets and then have them stay together as a cohesive set of functionality (ie radio buttons).

⑪ Additional features = retained focus on views when switching between tabs; comparative views within the same window (instead of opening a new window to compare between tabs), floating toolbars and palettes, short cut keys on the window, faster zoom capabilities

To be truly useful, the system would need to improve in performance and precision. I felt frustrated accomplishing work that I clearly understood the path to completing because I was hindered by the UI.

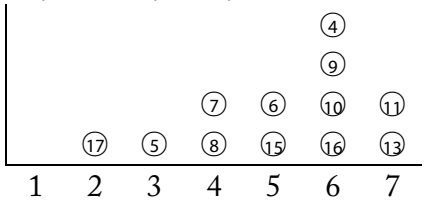
⑬ I'd like to be able to record prompts in a human voice and play those in the run mode. that would be really useful and a good demo for customers.

⑮ 1) fewer but more flexible patterns
2) addition of a fake backend
3) improved richness for the voice interface

⑯ In addition to the issues I've already mentioned, it would be nice to be able to size individual forms, etc. to fit the entire screen when you're working inside them.

⑰ I think I'd unhook the web--> voice stuff being so connected. Still not sure that it's a good idea. To be useful to me the voice part would need to be more powerful, as I mentioned before--ability to use real grammars, have dynamic info, etc.

8. How likely would you use a commercial-strength version of Damask? (1 = very unlikely, 7 = very likely)



mean = 5.08, median = 5.5, std dev = 1.56

9. What for? (or if not, why not?)

④ I like having a sketching tool for early brainstorming. I would rarely use the multiple devices at once.

⑤ To build prototypes for rapid testing of new interfaces. Unlikely b/c my interfaces are far more dynamic than simple point and click

⑥ As before, I'd use it for quick sketches to present to project teams and for rapid prototyping for user testing.

⑦ I would still initially sketch on paper.. then transfer it to Damask to edit so that I could run through.. sort of like a check process.

⑧ The page layout tool would have to be better than dreamweaver. The whiteboard would have to be able to handle hundreds of pages.

⑨ For other existing designs for common apps such as logging in/out, and to create my own templates for various kinds of content pages.

⑩ rapid-prototyping would be very useful, less work that creating a full prototype.

⑪ Professional web and UI design and development, primarily desktop.

⑬ sample call generation. demoing ideas for applications for potential customers

⑮ Mostly for prototyping - not for real development

⑯ Rapid prototyping. Of course, I'd want it to handle some of the issues I mentioned above. :)

⑰ Already have a more powerful tool in-house.

10. Did you find the Run mode useful for…

Desktop?

all participants: Yes

no participants: No

Smartphone?

all desktop/smartphone participants: Yes

no desktop/smartphone participants: No

Voice?

all desktop/voice participants: Yes

no desktop/voice participants: No

11. Suppose you had to design a user interface for several types of devices. How many types of devices would it take before Damask became useful? (Enter 0 if you don't think Damask would become useful at all.)

⑪⑰ 1

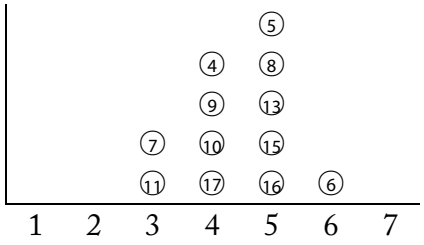
④⑥⑦⑨⑩⑬⑮ 2

⑤⑯ 3

⑧ 4

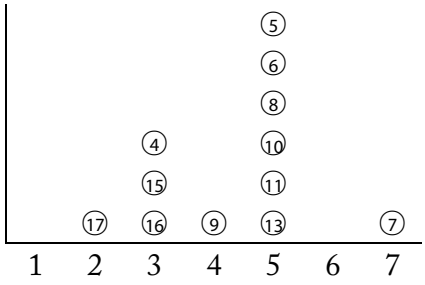
mean = 2.17, median = 2, std dev = 0.83

12. How easy was it to accomplish the task? (1 = not easy, 7 = very easy)



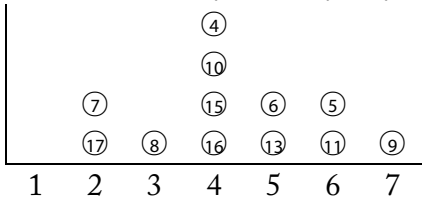
mean = 4.42, median = 4.5, std dev = 0.90

13. How easy was it to maintain appropriate consistency between both devices? (1 = not easy, 7 = very easy)



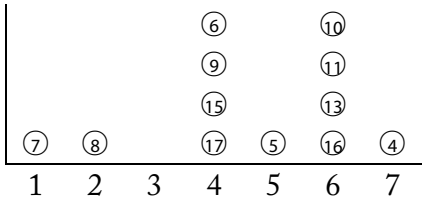
mean = 4.33, median = 5, std dev = 1.37

14. How easy was it to transfer relevant parts of the design from one device to another? (1 = not easy, 7 = very easy)



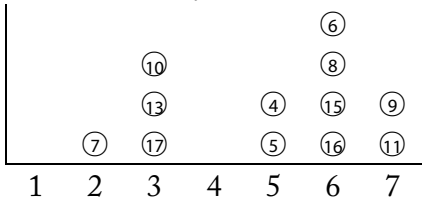
mean = 4.33, median = 4, std dev = 1.56

15. How much did you like the sketch-based interface of Damask? (1 = did not like, 7 = liked a lot)



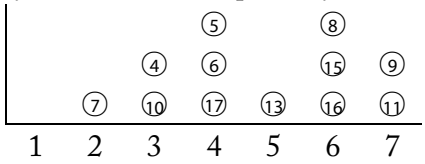
mean = 4.58, median = 4.5, std dev = 1.78

16. How easy to understand was the concept of layers in Damask? (1 = hard to understand, 7 = easy to understand)



mean = 4.92, median = 5.5, std dev = 1.73

17. Did you like the concept of layers in Damask? (1 = did not like, 7 = liked a lot)



mean = 4.75, median = 4.5, std dev = 1.66

18. Have you used design patterns before?

④⑤⑦⑧⑨⑬⑯ Yes

⑥⑩⑪⑮⑰ No

19. If so, please briefly describe what projects and how they were used:

④ I refer to them a lot for projects I have done to validate that I haven't missed any common issues.

⑤ I use them in all of my UI work, but I don't typically use a formal index of them

⑦ we are in the midst of writing design patterns for Yahoo! properties

⑧ Technical writing - manual layout

⑨ -web sites, for content at different levels of a site and for standard repeated elements

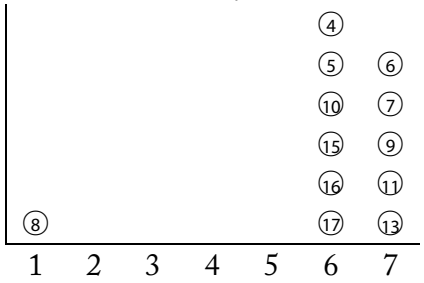
-books, for page layout and for standard repeated elements

-technical documents, for standard repeated elements

⑬ in my job I routinely use modules of pre-designed and coded speech recognition contexts

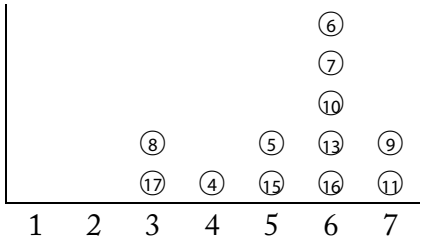
⑯ That's a weak yes. I've used templates and pattern suggestions such as what Damask had, but mostly in school projects. In professional settings, we've had to make the look and feel or sound and tone of our designs match other components, but it was never a formal design patterns process.

20. How useful do you feel the design patterns in this study were for the design task? (1 = not useful, 7 = very useful)



mean = 6, median = 6, std dev = 1.65

21. How useful do you feel the design patterns in this study might be for other projects you do (current or future)? (1 = very unlikely, 7 = very likely)



mean = 5.33, median = 6, std dev = 1.37

22. How many design patterns did you use in your design for Task 2?

Participant	Answer given by participant	No. of patterns explicitly used	No. of total patterns used
④	4	5	11
⑤	4	6	6
⑥	3	4	10
⑦	6	5	11
⑧	0	0	0

⑨	5	5	11
⑩	4	7	8
⑪	5	4	10
⑬	6	4	10
⑮	1	2	8
⑯	1	1	1
⑰	9	9	9

23. What did you like about the design patterns?

④ Saves me time.

⑤ drag an drop simplicity. Included all links

⑥ I didn't have time to study them closely enough to comment on the subpage contents of them. But I appreciated that they existed, corresponded well to patterns that really do occur frequently in my work, and easily functioned as independent units.

⑦ saved me a bunch of steps in designing those pages.

⑧ lots of possibilities - would be good for client meetings/needs analysis.

⑨ They let you skip the step of creating them and just pick up stuff that's already been proven to work.

⑩ The help enforce consistency and they also save a bunch of time when designing something that doesn't really require a whole bunch of innovation. Nice that the patterns are flexible, too. I can delete portions if I don't want to use them.

⑪ The 'templatized' approach they brought to the site I was designing; the clarify with which they were presented and layed out; the fact that they saved me a great deal of time in both creating pages AND optimizing them between the two devices.

⑬ they saved a ton of time

⑮ get something for free

⑯ It made the process faster without sacrificing quality.

⑰ Some of them were practically finished without having to change anything, like login.

24. What did you not like about the design patterns? How can the provided design patterns be improved (e.g., any patterns that you disagreed with)?

④ Sometimes they assumed I was using them in a particular way.

⑤ had to have both windows open, hard to access them from a window

⑥ A somewhat cleaner layout of pages would help, to make it easier to see what you've just pasted in. The sketches are very clean and the patterns should correspond to them as much as possible. I didn't see any I thought were invalid.

⑦ It would be nice if the patterns and templates worked together better.

⑧ too hard to integrate and customize

⑨ Hard to move around precisely. Hard to enter text.

⑩ I thought the conversion from PC to Smart Phone was a little strange in the case of Category Pages and Product Pages. I don't think I'd want to list *every* book on a category page in the Smart Phone, but I don't know how else I'd do it!

⑪ I would have liked to had templates available for ALL the design patterns in the library. There wasn't much that I didn't like about them otherwise.

⑬ the arrows were a bit difficult to organize

⑮ even with 80 patterns, sometimes the pattern you pick does not match what you want.

⑯ Little thing - it would be nice to drag the design pattern itself onto the workspace, not just the text.

⑰ Can't think of anything

25. You may have noticed that the Quick-Flow Checkout pattern has a lot of detail and functionality. Is it useful for this pattern to have this much functionality? Does it help you in your design process?

④ Yes, I'd rather have more detail then less.

⑤ I think that this would be helpful. I think it would be best if I could make some edits to the pattern so that it matches my org's needs.

⑥ Absolutely it's helpful. At some point I'd need all of that stuff, and I think it'd be easier to delete screens than remember to add them in. especially at this stage of the design.

⑦ It's very useful as a plug and play templated interaction. It also serves as a good reminder of functionality that I may have forgotten. However, I would need to play with it more to see if when using it as a starting point, it helps or hinders designing the interaction.

⑧ I would usually put in this level of functionality late in the design process, and use black-box designs earlier. There is usually a detour into terminology decisions, so I would also use more "greeking", or words that are clearly not the final version ("Acme" "foo book" etc.)

⑨ The detail seems like the whole point of the template - it's there so a designer doesn't have to figure it out. But if there were a written summary or list of the functions that could help some designers. (It would help me.)

⑩ I thought it was useful to have fairly complete functionality as part of each pattern. As long as it's easy to delete pages and section within pages (it seemed easy), then I think there's no problem with having a fairly complete set of base functionality.

⑪ Yes and yes. It provided a solid "blueprint" for designing the checkout process.

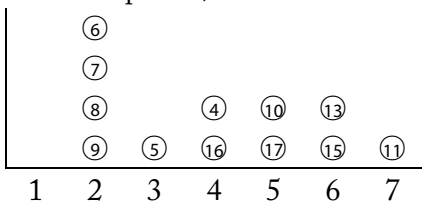
⑬ For the website design, it was very useful to have that much functionality, however, it caused the speech application to be pretty messy.

⑮ It helps - but I think maybe there is too much detail. It may be more helpful to have the basic functionality and then reminders fo what else "could" be added.

⑯ Yes, but I think it's too noisy in its present form (especially for voice interfaces). Perhaps only displaying the arrows for the page in scope, or allowing the user to turn certain functionality on and off would solve the problem. In the voice dialogs, I feel it would also be useful to put the user responses/commands closer to the prompts, as we discussed before.

⑰ I think so... these are things that it's very common to group together

26. A design that uses patterns has them embedded in the design, surrounded by blue dotted boxes. Do you feel that this way of showing which patterns your design uses would help you explain your design to other designers? (1 = would not help, 7 = would help a lot)



mean = 4, median = 4, std dev = 1.81

Comments:

④ it would help somewhat, but most designers I work with don't understand patterns (yet!)

⑥ only if they used this too. As presented, it adds visual noise; my design ended up overlapping the blue captions. If you could find a way to avoid that problem (some kind of hover text? of course, that wouldn't print...) it might go up to 4 or 5.

⑦ What is the benefit of showing that I'm using a pattern? Esp. if I'm going to use it as a starting point and modify it... I could see the benefit if I don't modify it... Maybe as a mental model of what to expect, but I don't think it would really help.

⑧ most designers would see the patterns anyway (like chess experts see the lines of attack and defense, without having to trace them out).

⑩ it'd take a little time for people to become familiar with this kind of notation.

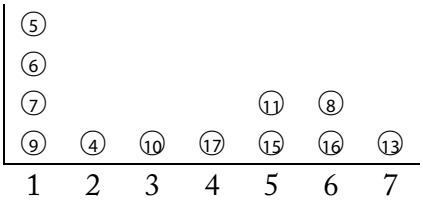
⑪ definitely helpful information

⑬ Especially if they were familiar with the software and patterns too.

⑯ Perhaps for complicated designs, but only if it can be easily toggled. If a design is complicated enough to warrant this, it probably has enough noise already, and designers are likely to recognize general patterns with or without this.

It also depends on the designer. Some love thinking in patterns and understanding the reusable components of a design, while others prefer to focus on the unique solution to a problem presented by a design. Of course, competent designers tend to think both ways, but this only further stresses that it should be easy to toggle.

27. To potential clients? (1 = would not help, 7 = would help a lot)



mean = 3.5, median = 3.5, std dev = 2.28

Comments:

④ most clients would not want to think their site is not designed specifically for them.

⑥ They don't care anyway. I could see using the boxes to corral groups of pages, but again the main problem is that it's hard to read. A clearer presentation would go up to maybe a 4.

⑦ In order for the pattern to be useful, clients would need to understand what patterns are and the difference between different patterns. Currently, I don't feel they have that kind of knowledge.

⑧ yes, this would help, and might open the option for presenting different designs of the same type of page.

(but it's hard to read the blue under the black text)

⑩ I feel like it's less likely that my clients would be familiar with this kind of notation.

⑬ Clients would be able to follow along-- the concept is an easy one to grasp-- however, I don't necessarily think that all clients would need to know that a pattern was being used.

⑯ 6/7 - Yes, I think this would definitely help explain a design to clients without forcing them to see the general patterns that designers are likely to see naturally.

28. How often have you bought books online in the past 12 months?

Never

⑦⑧⑩⑮⑰ 1-3 times

⑨⑬⑯ 4-6 times

⑤⑥ 7-11 times

④⑪ At least 12 times

29. If you have, how have you bought them?

all participants: Through the web on a desktop PC

no participants: Through a mobile phone

no participants: Through an automated voice system over the phone

no participants: Other

30. How many e-commerce web sites have you designed, if any?

⑬⑮⑰ 0

⑥⑩ 1

④⑤⑯ 2

⑧⑨ 3

⑦ 5–7

⑪ 7

Comments:

⑤ One I worked on over a period of 2 years and a number of iterations

⑥ Depends on your definition.

1. I'm one of three designers working on http://www.vendio.com/, and many parts of it were designed years ago and just haven't been revamped yet. We do sell our services on it, but our services consist of e-commerce sites, in a way; we do online stores among other things. So in a way I currently help design a meta-e-commerce site.
2. I'm about to embark on a revamp of http://www.national-comedy.com/, for the improv group I perform with. We sell tickets on our site. But that's not exactly e-commerce, I guess, and I haven't done it yet. :)

That's really about it, I think!

⑥ Depends on your definition.

⑧ One with e-commerce via Amazon. Consulted on two "real" ones.

⑩ I'm working at eBay, which I guess qualifies as e-commerce. Other than that, 0.

⑪ (all or part of 7)

⑯ One and a half. The full one was included everything checked below, the other was a desktop-only draft that we never fully implemented.

31. If you have designed e-commerce web sites, what platforms were they targeted at?

④⑤⑥⑦⑧⑨⑩⑪⑯ Desktop web

⑦⑪⑯ PDA or Mobile phone

⑯ Voice

Other

32. Additional comments:

④ jimmy rocks

⑥ Thanks for allowing me to participate -- very interesting and exciting stuff. I'm now looking forward to seeing how the project develops further, and this 2nd phase has definitely convinced me to give it a try if and when it become available.

⑦ we talked about exploring another metaphor for the different views... maybe more of a parent/child relationship where the child (desktop, smartphone, voice) view takes on some/all of the elements of the parent (All view).

⑪ Great application and concepts - this could be very applicable commercially for UI designers, engineers, web designers and anyone else who designs professionally and for cross-device sites and applications.

⑬ I really would like to see a version of this tool to use in my daily job.

33. *(This was asked after the participant completed both sessions, over e-mail. Participants were sent URLs of their designs.)* Which of your designs did you feel was a better design?

⑧⑪⑯ TotalMusic.com (without layers or patterns)

④⑦⑨⑩⑬⑮⑰ TotalBooks.com (with layers and patterns)

They are about the same

⑥ It depends

⑤ Did not reply

Why?

TotalMusic.com (without layers or patterns)

⑧ My second session, because I was more comfortable with the interface at that point, so was actually thinking about the design process.

⑪ My second design was the better of the two. The design was easier to produce and the details easier to remember and include because I was much more familiar with the tool and was also not fighting with the design-pattern-related performance issues in the application.

⑯ I would say TotalMusic.com is my superior design, although I hesitate slightly because I can't seem to pull up my desktop design for TotalMusic.

Since I was designing a similar interface using the same tools and nearly the same method as the first time, it's natural that my second design would be

superior, but it's more than that. By my memory, I was still fighting with a few of Damask's features the first time around, and sometimes found myself thinking it would be faster and easier with a pencil and paper, and perhaps the first design would have been better had I sketched on a blank sheet of paper.

However, by the second design I was not only more comfortable with Damask, I found myself appreciating many of Damask's features and finding them far superior to anything I could produce that quickly with pencil and paper.

Damask also seems a LOT easier to use when you have a rough idea in mind vs. starting from scratch, as I did on the second design. Perhaps part of the Damask design process could encourage the designer to develop that sort of big, general picture before beginning anything on Damask, rather than drafting from absolute scratch.

TotalBooks.com (without layers or patterns)

④ I felt more comfortable in the 2nd round, that alot more details were covered by the patterns

⑦ In the scenario where I had only 0.5-1 hour to come up with the interaction for a site, TotalBooks is the better design. I'm sure I missed some stuff in TotalMusic. In a more real scenario where I had maybe a couple of days to design, hard to say...

⑨ Because the templates included a lot more worked-out functionality than I could think up on the fly.

⑩ I think I actually liked parts of my 2nd session design better, but the 1st session offered a more complete picture of the workflow, so it's kind of a tossup. The 1st session is probably the winner in my book because it contains all of the steps in the browsing/purchase process. Wireframes should be more about boxes and arrows than design/layout within the pages, so the 1st design is probably better.

⑬ I suppose the second session's design was better in that it was a more complete design. It allowed users more freedom to do the tasks they would want to do

when ordering books. Although it was more complex, it was still easy to navigate and was more useful to the customer.

⑮ The first session - honestly, I was still new to using the tool and it was fun to do it. It was more interesting at that time.

⑰ The patterns made me realize I'd forgotten a lot of things in the first one, like all the functionality for shipping addresses/credit cards etc

C.8 Summary of Likes and Dislikes of Damask

C.8.1 What did you like about Damask?

(Section C.6.3, Question 3 and Section C.7.7, Question 3)

④⑥⑦⑨⑪⑮⑰ Patterns

⑤⑥⑧⑩⑬⑮⑯ Run mode

④⑤⑩⑪⑯ Sketching or pen input

⑩⑮⑯⑰ Speed of creating prototypes

⑤⑥⑪⑮ Templates

⑨⑪ (⑧ concept only) Layers

⑦⑮ Automatic generation of designs for other devices

⑤⑦ Sitemap view

⑤⑪ Zooming

C.8.2 What do you not like about Damask? What additional features would you like to see?

(Section C.6.3, Questions 4 and 5, and Section C.7.7, Questions 4 and 7)

⑥⑧⑩⑮ Layers

⑤⑦⑧⑪ Sketching and/or pen input

⑤⑥⑧⑰ Panning/zooming

⑤⑩⑪ Bugs/performance problems

⑥⑦⑨ No tools for alignment, shapes, or colors

⑮⑰ Cannot simulate a data-driven web site

⑮⑰ Can only create simple voice UIs (e.g., cannot incorporate user's input)

⑥⑩ Linking

⑬⑰ Mode switching

④⑯ No annotations

④⑪ Not enough keyboard shortcuts

⑨⑯ Text entry is awkward, or no word wrap

⑰ Automatic generation of designs for other devices

⑬ Cannot record voice prompts

⑯ Cannot view a sample conversation (ala SUEDE)

⑩ Lack of conditional transitions

⑤ Needs exporting to more formats

⑯ Needs more views (e.g., only flow, only prompts)

⑧ No automatic testing of UI

⑯ Semantic zooming

⑦ Templates

C.9 Debriefing

Do you have any final comments about the system, this study, the questionnaire, or anything else?

After the second session:

Would you like to hear about some future improvements we're thinking about making to Damask? *(Talk about the Trays concept, explained in Section 8.3.3.)*

Thank you for participating in our experiment. The purpose of the experiment was to see whether designers can use a new electronic sketching tool, called Damask, to design and prototype cross-device user interfaces. Ultimately, we wish to know whether Damask makes it easier for designers to create cross-device user interfaces.

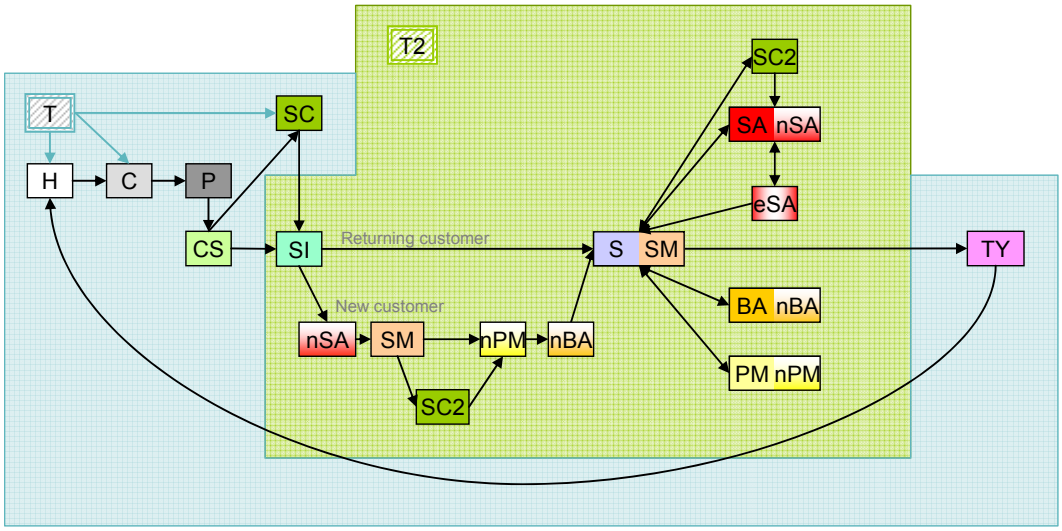
Our plan is to continue to use the feedback from this experiment and observation of any problems with the Damask user interface to improve the application. We hope to release Damask for free to the public within a few months.

APPENDIX

D Designs Created in Damask Evaluation

For each desktop and smartphone design, the overall structure and a diagrammatic sitemap version is first shown. The key for the sitemap is at the beginning of this chapter. Each page is then shown in detail, next to the cleaned-up version that was used in the online evaluations described in Sections 6.5.2 and 6.6.2. For the cleaned-up versions, the sitemap is shown for the home page and hidden for the rest.

D.1 Key for Sitemaps



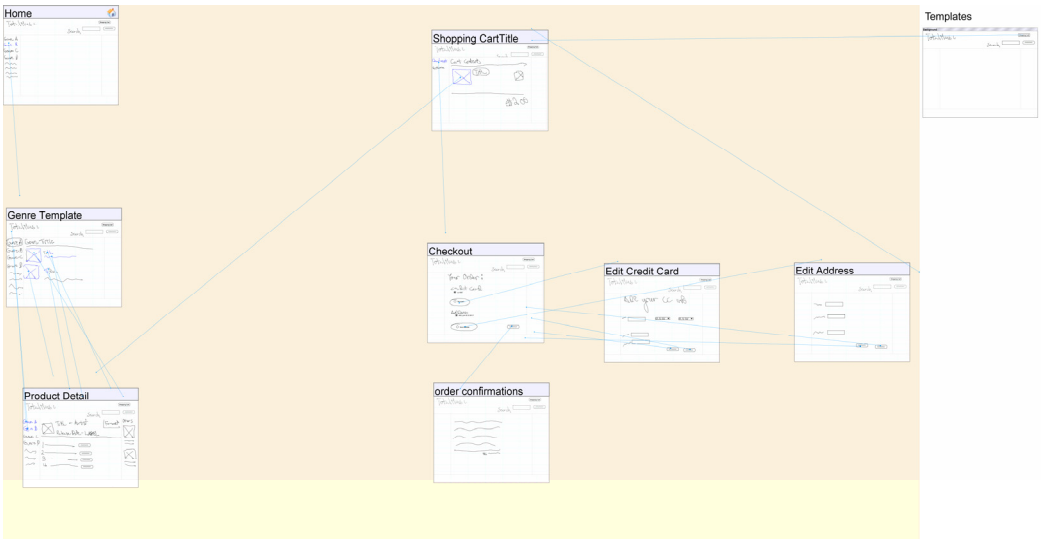
T T2 Templates

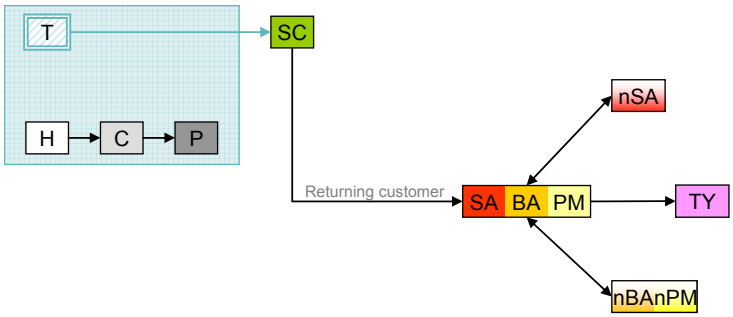
H Home
C Category
P Product
CS Cross-selling and up-selling
SC Shopping cart
SI Sign-in/New account
SA Select shipping address eSA Edit shipping address nSA New shipping address
SM Shipping method
SC2 Change quantities or delete in shopping cart
BA Select billing address eBA Edit billing address nBA New billing address
PM Select payment method ePM Edit payment method nPM New payment method
S Order summary
TY Order confirmation and thank you

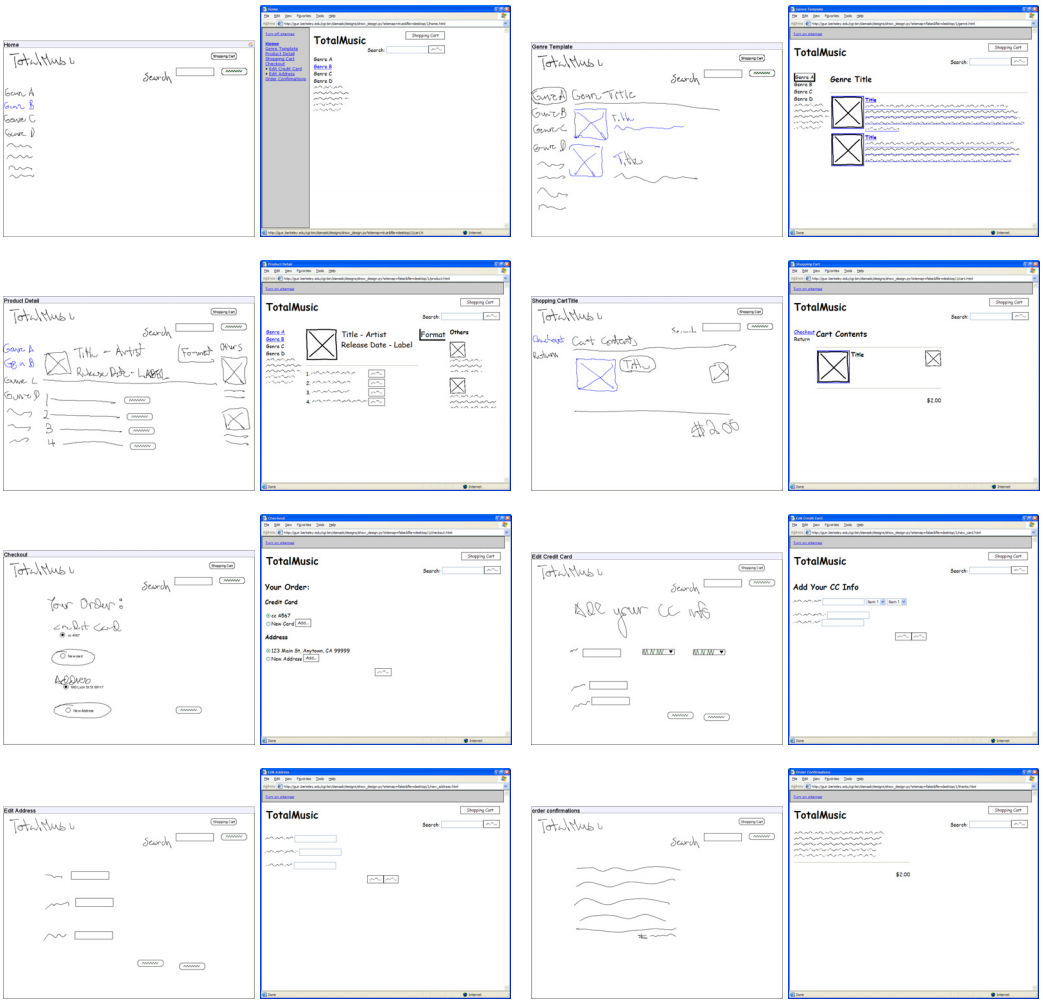
D.2 Designer 4

D.2.1 TotalMusic (no layers or patterns)

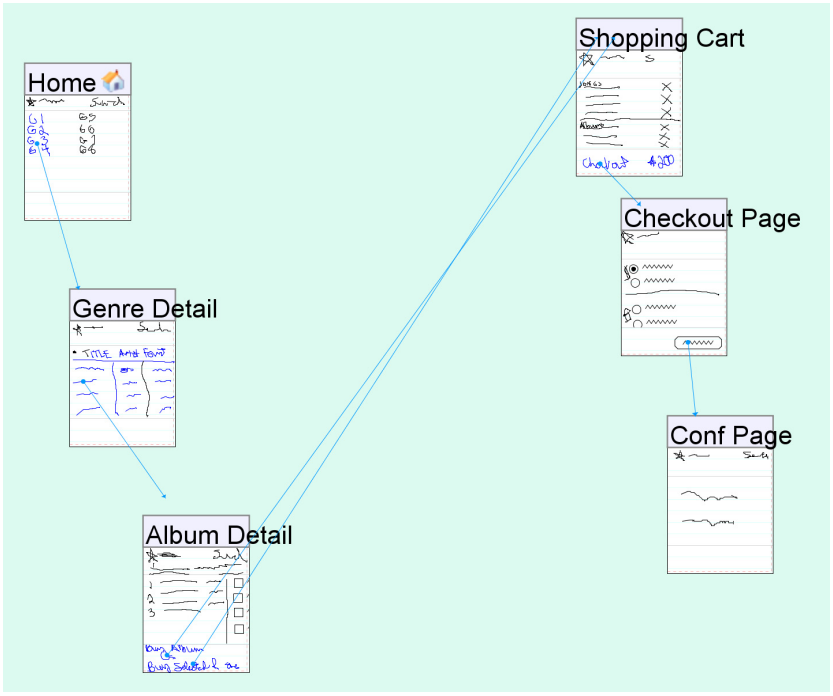
Desktop

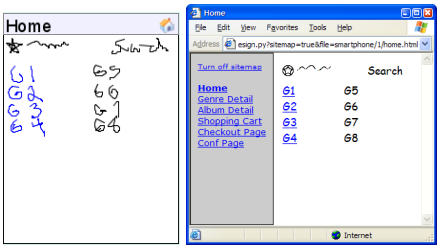


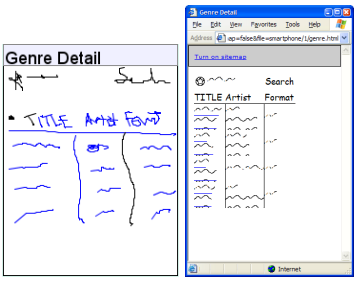

T
SC
H
C
P
nSA
Returning customer
SA
BA
PM
TY
nBAnPM

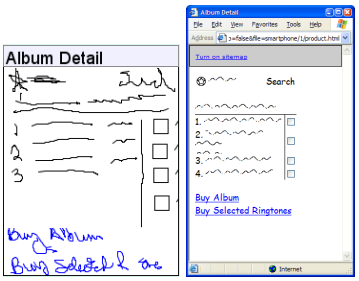


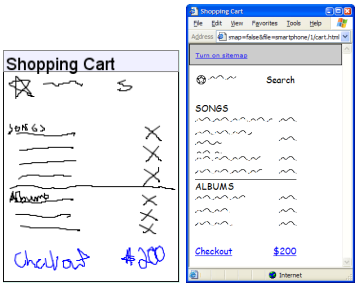
Smartphone

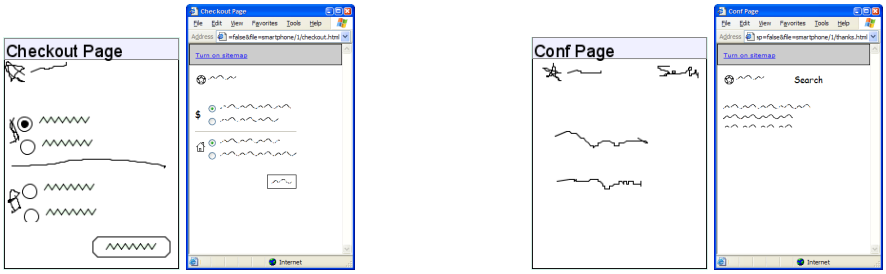

Home
Shopping Cart
Checkout Page
Genre Detail
Conf Page
Album Detail


Home
Turn off sitemap
Home
Genre Detail
Album Detail
Shopping Cart
Checkout Page
Conf Page
Search
G1
G2
G3
G4
G5
G6
G7
G8


Genre Detail
TITLE Artist Format
Search

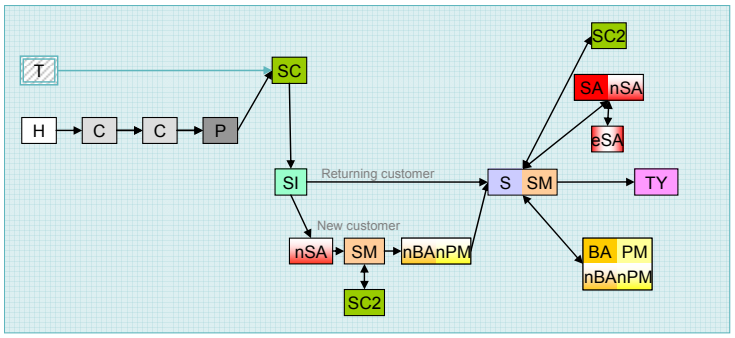

Album Detail
Turn on sitemap
Search
Buy Album
Buy Selected Ringtones

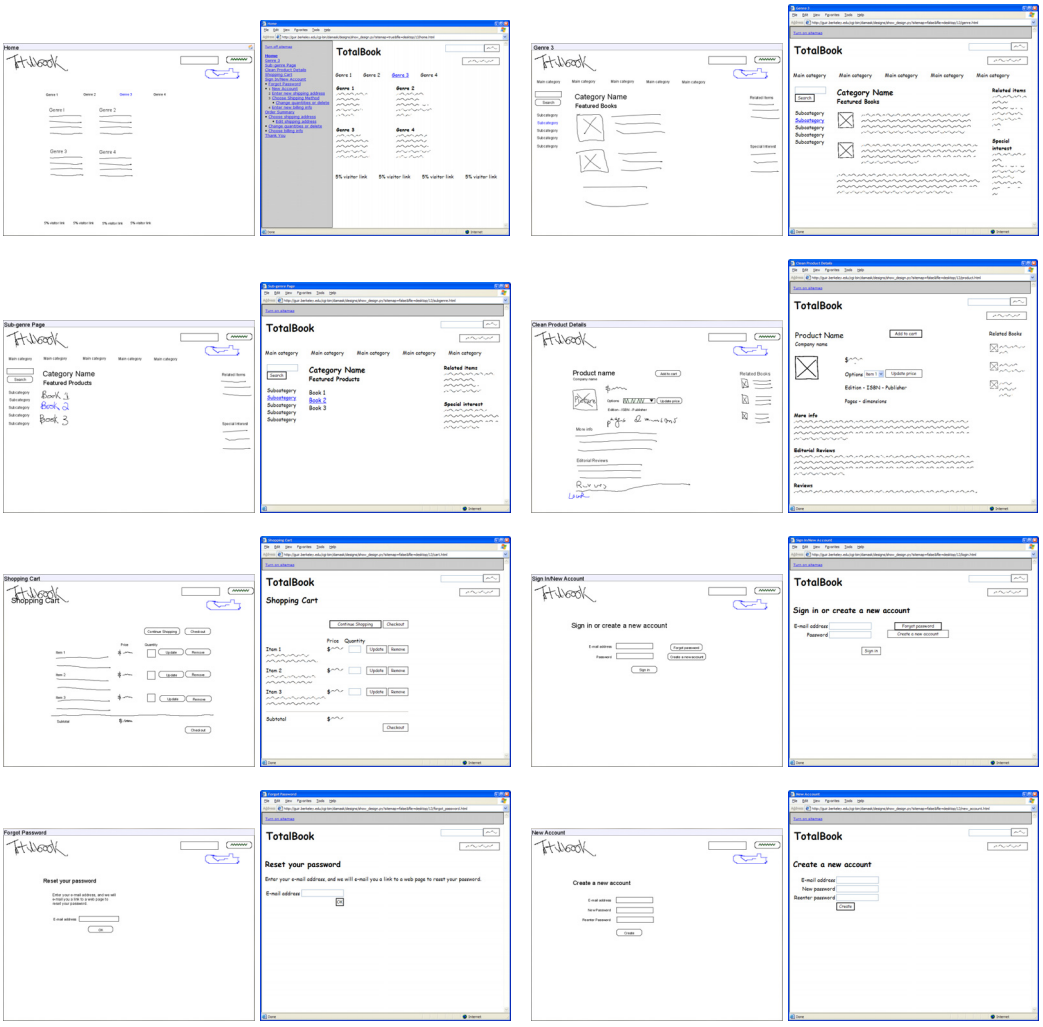

Shopping Cart
SONGS
ALBUMS
Checkout
$200
Search



D.2.2 TotalBooks (with layers and patterns)

Desktop


T
H
C
C
P
SC
SC2
SA
nSA
eSA
SI
Returning customer
S
SM
TY
New customer
nSA
SM
nBAnPM
BA
PM
nBAnPM
SC2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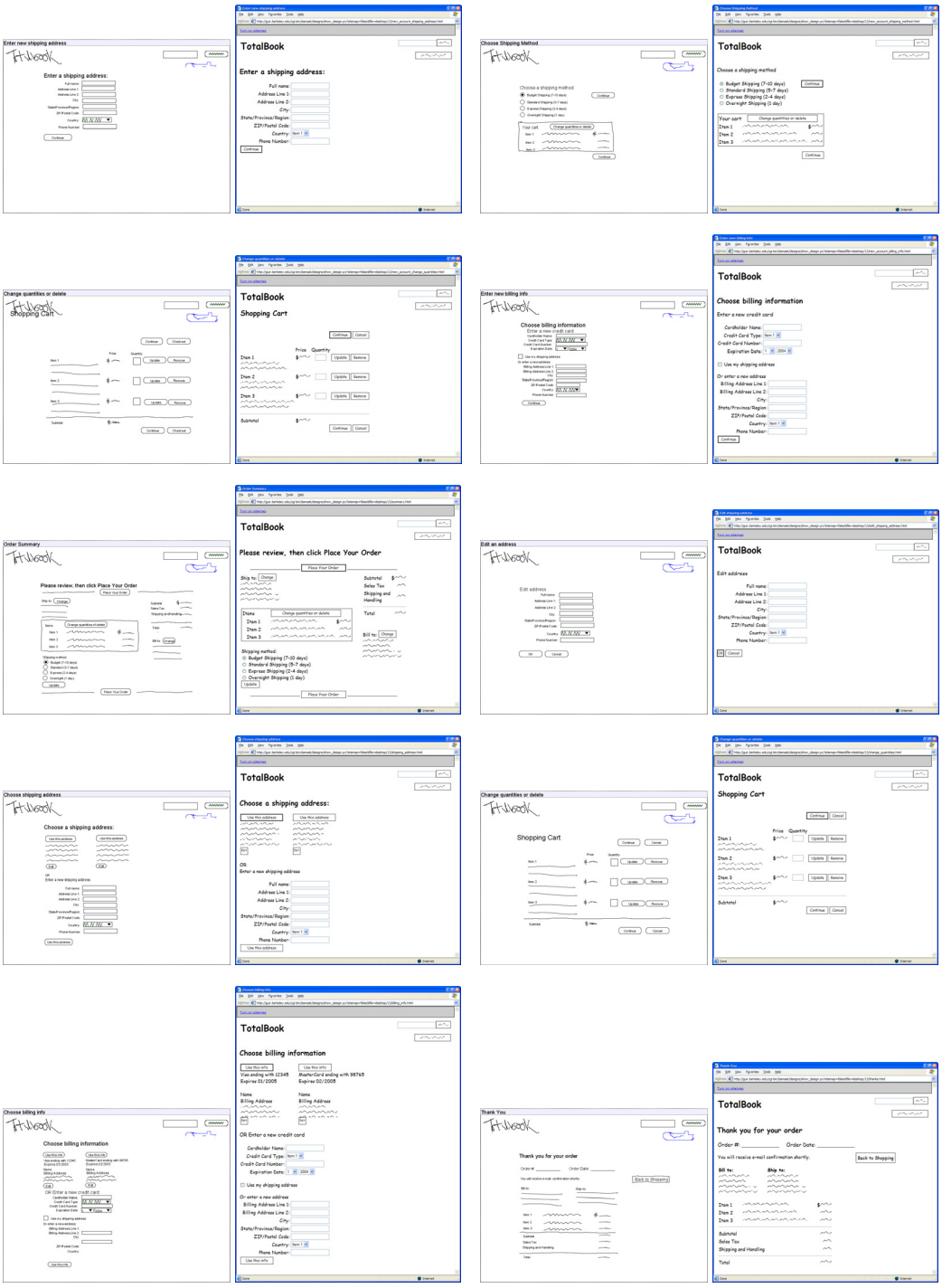
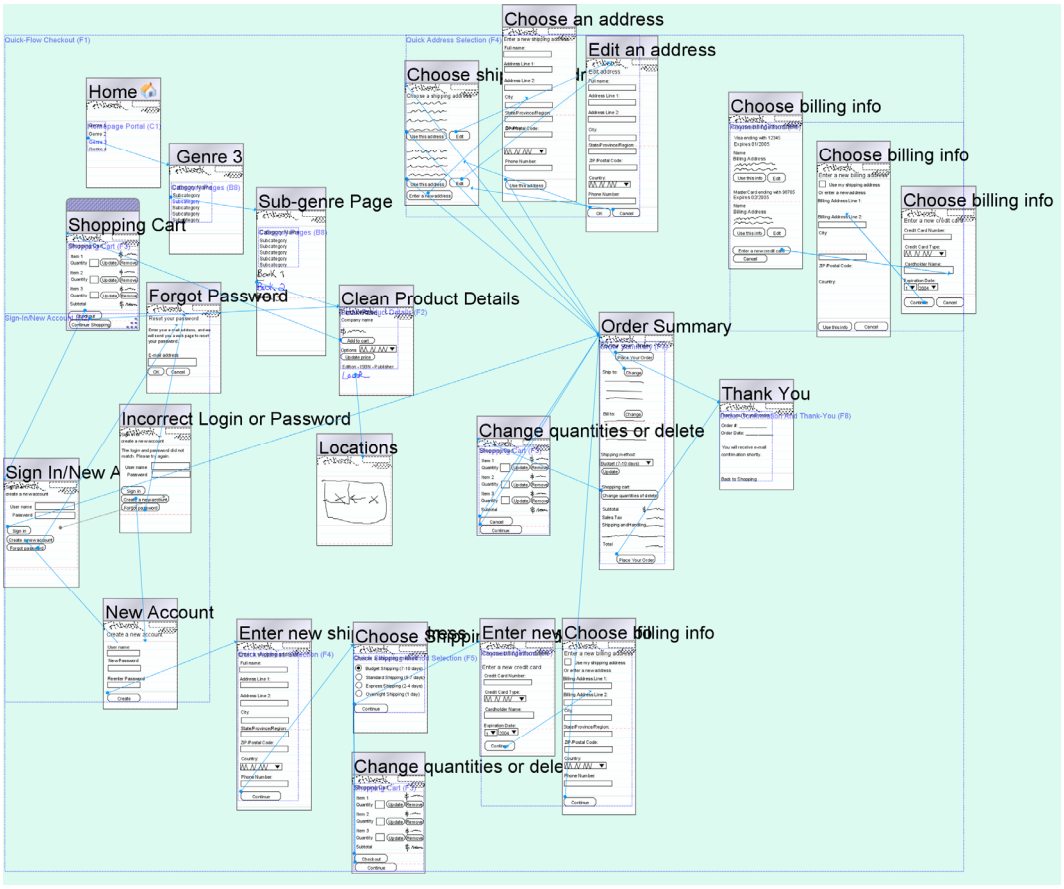
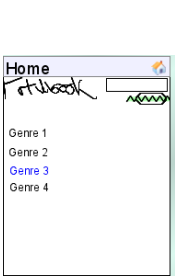
Category Name
Featured Books
Product Name
Shopping Cart
Sign in or create a new account
Reset your password
Create a new account


Enter new shipping address
Enter a shipping address:
TotalBook
Enter a shipping address:
Full name:
Address Line 1:
Address Line 2:
City:
State/Province/Region:
ZIP/Postal Code:
Country:
Phone Number:
Continue
Choose Shipping Method
Choose a shipping method
Budget Shipping (7-10 days)
Standard Shipping (5-7 days)
Express Shipping (2-4 days)
Overnight Shipping (1 day)
Your cart
Change quantities or delete
Item 1
Item 2
Item 3
Change quantities or delete
Shopping Cart
Price
Quantity
Update
Remove
Subtotal
Checkout
Cancel
Enter new billing info
Choose billing information
Enter a new credit card
Cardholder Name:
Credit Card Type:
Credit Card Number:
Expiration Date:
Use my shipping address
Or enter a new address
Billing Address Line 1:
Billing Address Line 2:
Order Summary
Please review, then click Place Your Order
Place Your Order
Skip to:
Change
Subtotal
Sales Tax
Shipping and Handling
Total
Bill to:
Shipping method:
Budget Shipping (7-10 days)
Standard Shipping (5-7 days)
Express Shipping (2-4 days)
Overnight Shipping (1 day)
Update
Edit an address
Edit address
Choose shipping address
Choose a shipping address:
Use this address
OR
Enter a new shipping address
Choose billing info
Choose billing information
Use this info
Visa ending with 12345
Expires 01/2005
MasterCard ending with 98765
Expires 02/2005
Name
Billing Address
Edit
OR Enter a new credit card
Thank You
Thank you for your order
Order #:
Order Date:
You will receive e-mail confirmation shortly.
Back to Shopping

Smartphone


Choose an address
Edit an address
Choose billing info
Choose billing info
Choose billing info
Home
Genre 3
Sub-genre Page
Shopping Cart
Forgot Password
Clean Product Details
Order Summary
Thank You
Incorrect Login or Password
Locations
Change quantities or delete
Sign In/New A
New Account
Enter new shi
Choose billing info
Change quantities or dele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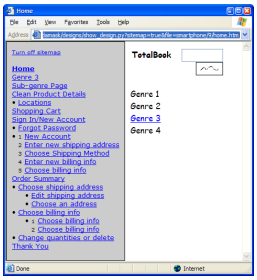
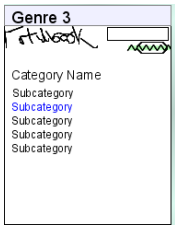
Genre 1
Genre 2
Genre 3
Genre 4


Home
TotalBook
Genre 1
Genre 2
Genre 3
Genre 4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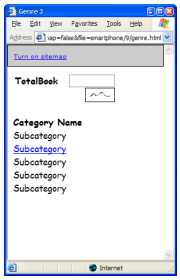
Category Name
Subcategory
Subcategory
Subcategory
Subcategory
Subcategory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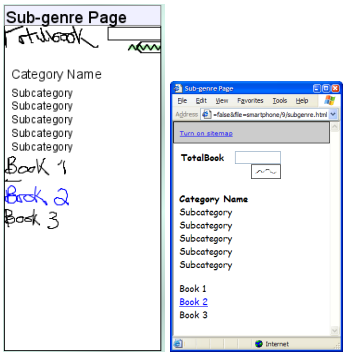
Subcategory
Subcategory
Subcategory
Subcategory
Subcategory


Sub-genre Page
Category Name
Subcategory
Subcategory
Subcategory
Subcategory
Subcategory
Book 1
Book 2
Book 3
TotalBook
Category Name
Subcategory
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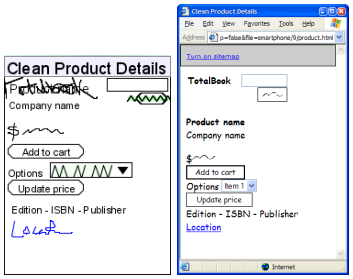
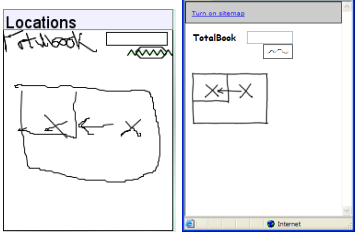
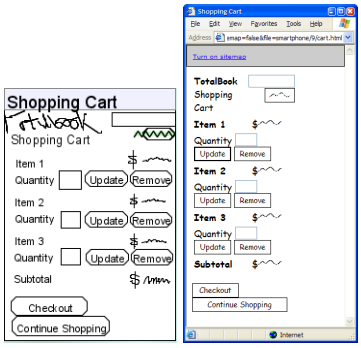
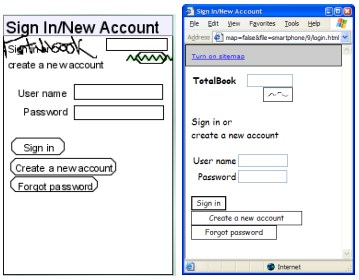
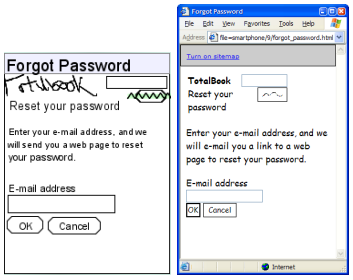
Subcategory
Subcategory
Subcategory
Book 1
Book 2
Book 3

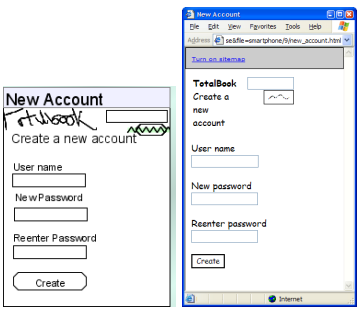

Clean Product Details
Company name
Add to cart
Options
Update price
Edition - ISBN - Publisher
TotalBook
Product name
Company name
Add to cart
Options
Update price
Edition - ISBN - Publisher
Location


Locations
TotalBook


Shopping Cart
Shopping Cart
Item 1
Quantity
Update
Remove
Item 2
Quantity
Update
Remove
Item 3
Quantity
Update
Remove
Subtotal
Check out
Continue Shopping
TotalBook
Shopping Cart
Item 1
Quantity
Update
Remove
Item 2
Quantity
Update
Remove
Item 3
Quantity
Update
Remove
Subtotal
Checkout
Continue Shopping


Sign In/New Account
create a new account
User name
Password
Sign in
Create a new account
Forgot password
TotalBook
Sign in or
create a new account
User name
Password
Sign in
Create a new account
Forgot password


Forgot Password
Reset your password
Enter your e-mail address, and we will send you a web page to reset your password.
E-mail address
OK
Cancel
TotalBook
Reset your password
Enter your e-mail address, and we will e-mail you a link to a web page to reset your password.
E-mail address
OK
Cancel


New Account
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New Password
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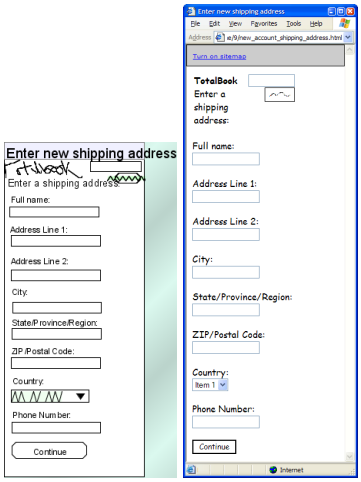
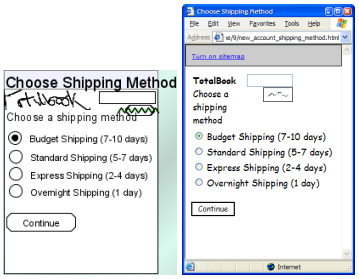
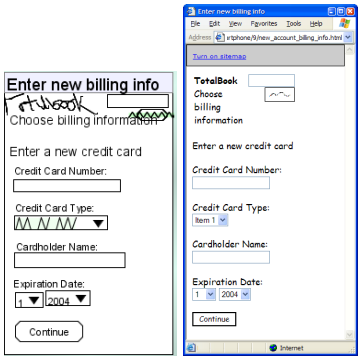
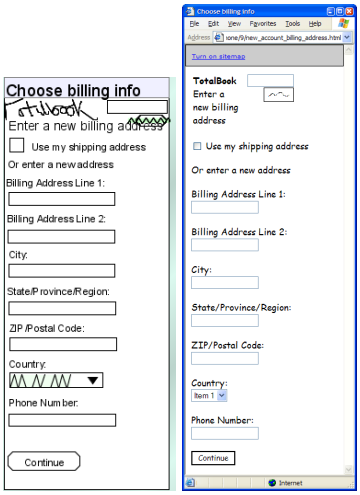
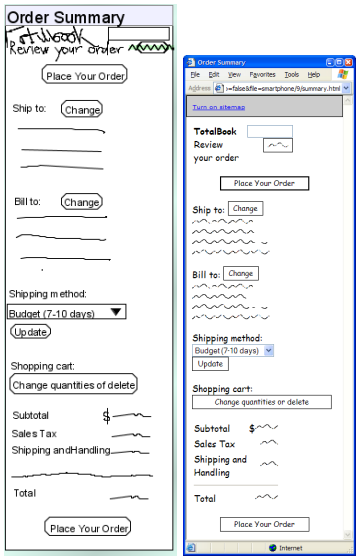
Create
TotalBook
Create a new account
User name
New password
Reenter password
Create

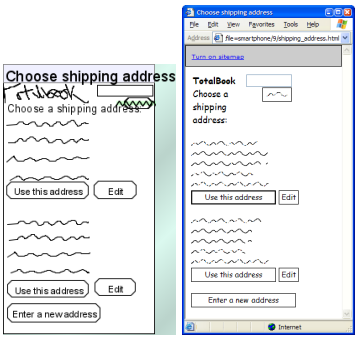

Enter new shipping address
Enter a shipping address
Full name:
Address Line 1:
Address Line 2:
City:
State/Province/Region:
ZIP/Postal Code:
Country:
Phone Number:
Continue
TotalBook
Enter a shipping address:
Full name:
Address Line 1:
Address Line 2:
City:
State/Province/Region:
ZIP/Postal Code:
Country:
Item 1
Phone Number:
Continue

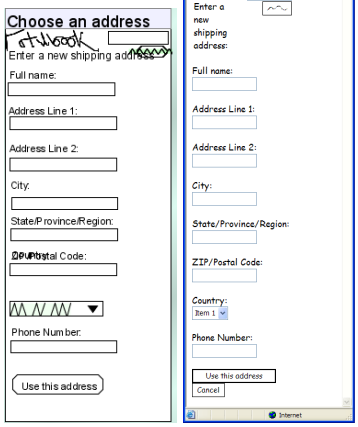

Choose Shipping Method
Choose a shipping method
Budget Shipping (7-10 days)
Standard Shipping (5-7 days)
Express Shipping (2-4 days)
Overnight Shipping (1 day)
Continue
TotalBook
Choose a shipping method
Budget Shipping (7-10 days)
Standard Shipping (5-7 days)
Express Shipping (2-4 days)
Overnight Shipping (1 day)
Continue

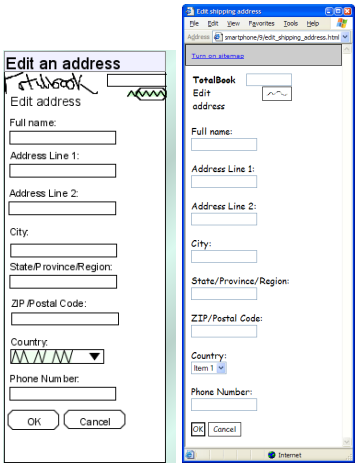

Enter new billing info
Choose billing information
Enter a new credit card
Credit Card Number:
Credit Card Type:
Cardholder Name:
Expiration Date:
Continue
TotalBook
Choose billing information
Enter a new credit card
Credit Card Number:
Credit Card Type:
Cardholder Name:
Expiration Date:
Continue

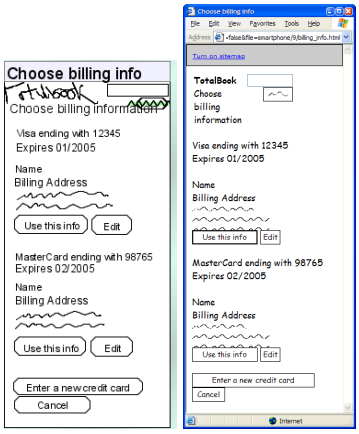

Choose billing info
Enter a new billing address
Use my shipping address
Or enter a new address
Billing Address Line 1:
Billing Address Line 2:
City:
State/Province/Region:
ZIP/Postal Code:
Country:
Phone Number:
Continue
TotalBook
Enter a new billing address
Use my shipping address
Or enter a new address
Billing Address Line 1:
Billing Address Line 2:
City:
State/Province/Region:
ZIP/Postal Code:
Country:
Phone Number:
Continue

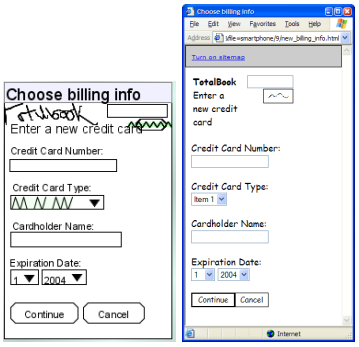

Order Summary
Review your order
Place Your Order
Ship to:
Change
Bill to:
Change
Shipping method:
Budget (7-10 days)
Update
Shopping cart:
Change quantities or delete
Subtotal
Sales Tax
Shipping and Handling
Total
Place Your Order
TotalBook
Review your order
Place Your Order
Ship to:
Change
Bill to:
Change
Shipping method:
Budget (7-10 days)
Update
Shopping cart:
Change quantities or delete
Subtotal
Sales Tax
Shipping and Handling
Total
Place Your Order

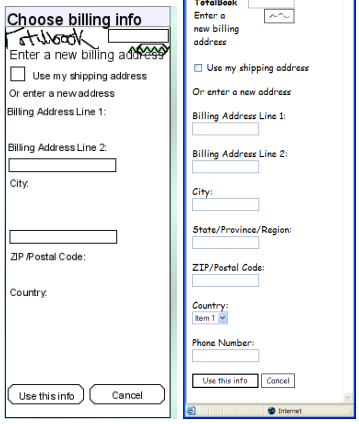

Choose shipping address
Choose a shipping address
Use this address
Edit
Use this address
Edit
Enter a new address
TotalBook
Choose a shipping address:
Use this address
Edit
Use this address
Edit
Enter a new address

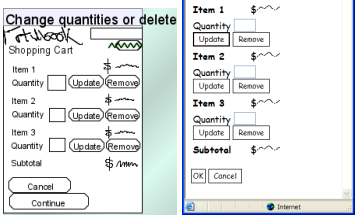

Choose an address
Enter a new shipping address
Full name:
Address Line 1:
Address Line 2:
City:
State/Province/Region:
ZIP/Postal Code:
Phone Number:
Use this address
TotalBook
Enter a new shipping address:
Full name:
Address Line 1:
Address Line 2:
City:
State/Province/Region:
ZIP/Postal Code:
Country:
Phone Number:
Use this address
Cancel

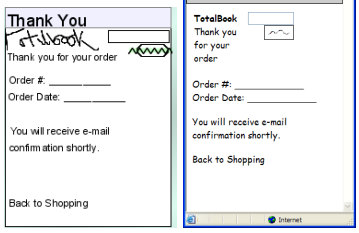

Edit an address
Edit address
Full name:
Address Line 1:
Address Line 2:
City:
State/Province/Region:
ZIP/Postal Code:
Country:
Phone Number:
OK
Cancel


Choose billing info
Choose billing information
Visa ending with 12345
Expires 01/2005
Name
Billing Address
Use this info
Edit
MasterCard ending with 98765
Expires 02/2005
Enter a new credit card
Cancel


Choose billing info
Enter a new credit card
Credit Card Number:
Credit Card Type:
Cardholder Name:
Expiration Date:
Continue
Cancel


Choose billing info
Enter a new billing address
Use my shipping address
Or enter a new address
Billing Address Line 1:
Billing Address Line 2:
City:
ZIP/Postal Code:
Country:
Use this info
Cancel

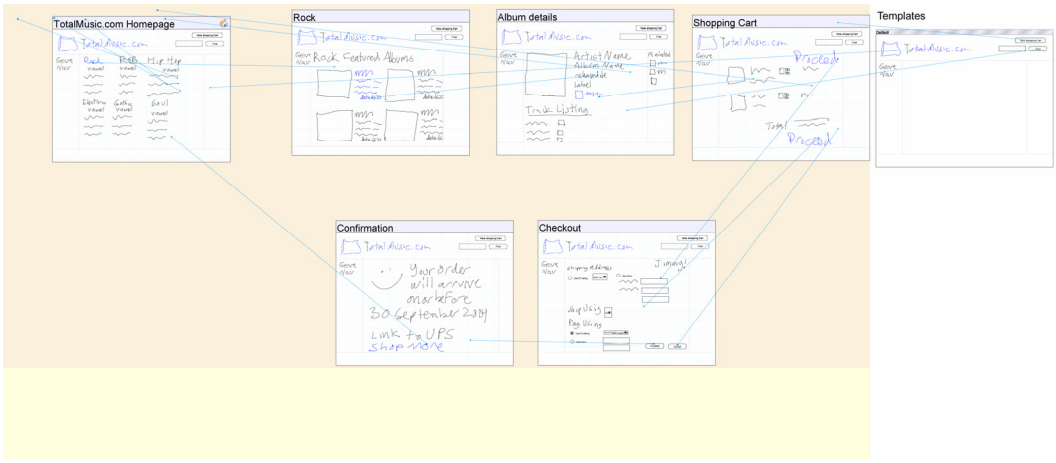

Change quantities or delete
Shopping Cart
Item 1
Quantity
Update
Remove
Item 2
Item 3
Subtotal
Cancel
Continue

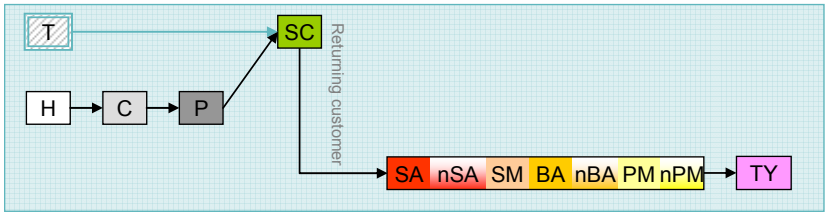

Thank You
Thank you for your order
Order #:
Order Date:
You will receive e-mail confirmation shortly.
Back to Shopping

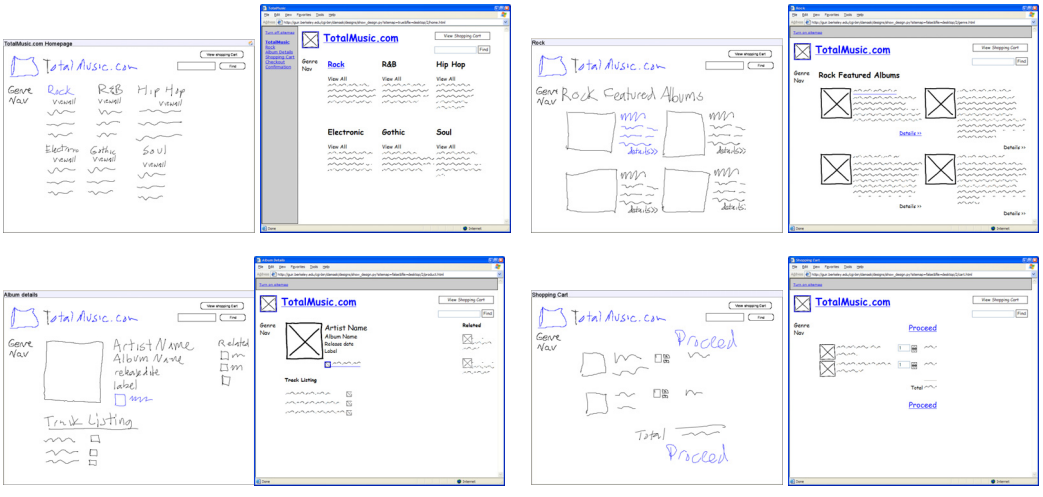
D.3 Designer 5

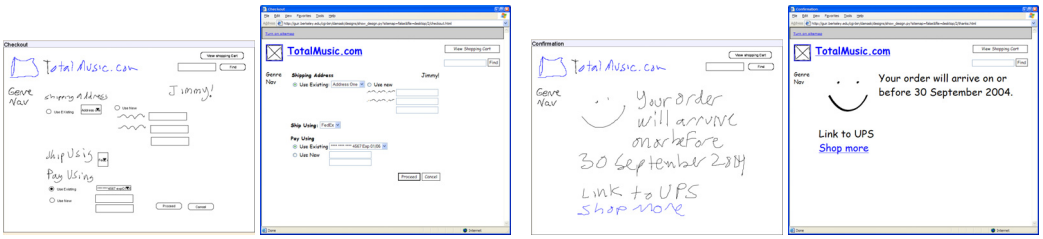
D.3.1 TotalMusic (no layers or patterns)

Desktop

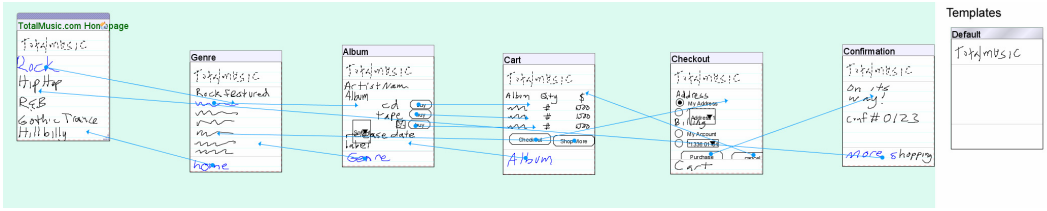


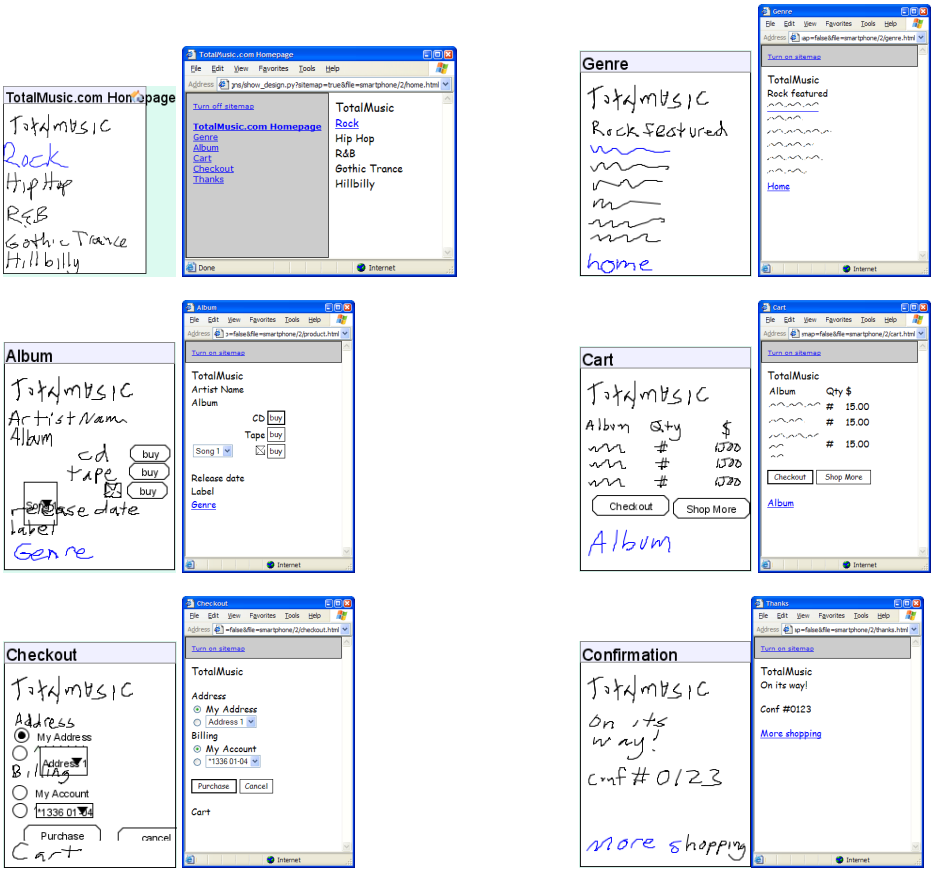





Checkout
TotalMusic.com
Jimmy!
TotalMusic.com
Confirmation
TotalMusic.com
Your order will arrive on or before 30 September 2004.
Link to UPS
Shop more

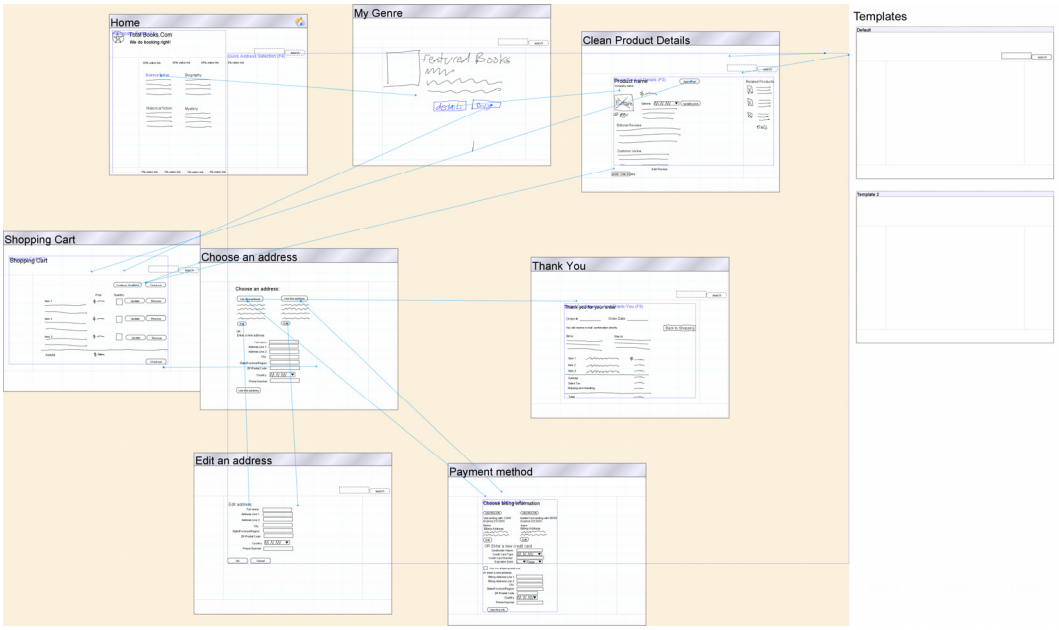
Smartphone

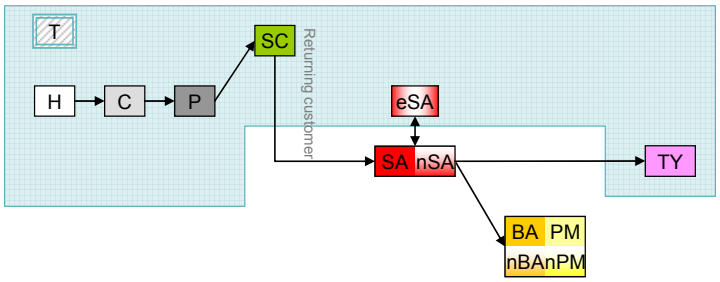

TotalMusic.com Homepage
Genre
Album
Cart
Checkout
Confirmation
Templates
Default

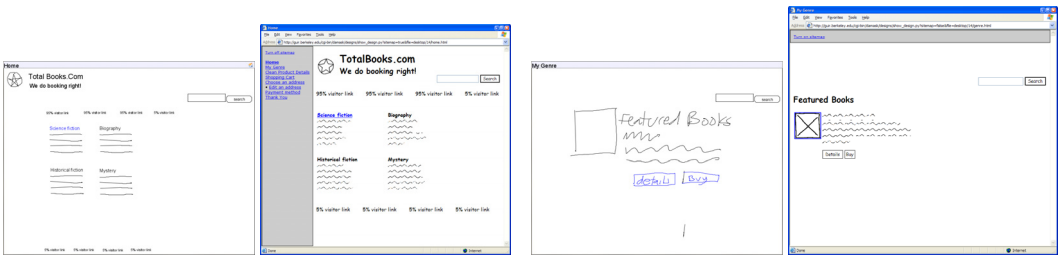

TotalMusic.com Homepage
TotalMusic
Rock
Hip Hop
R&B
Gothic Trance
Hillbilly
Genre
Rock featured
Home
Album
Artist Name
Album
cd
tape
buy
Release date
Label
Genre
Cart
Album
Qty
Checkout
Shop More
Checkout
Address
My Address
My Account
Purchase
Cancel
Confirmation
On its way!
Conf #0123
More shopping

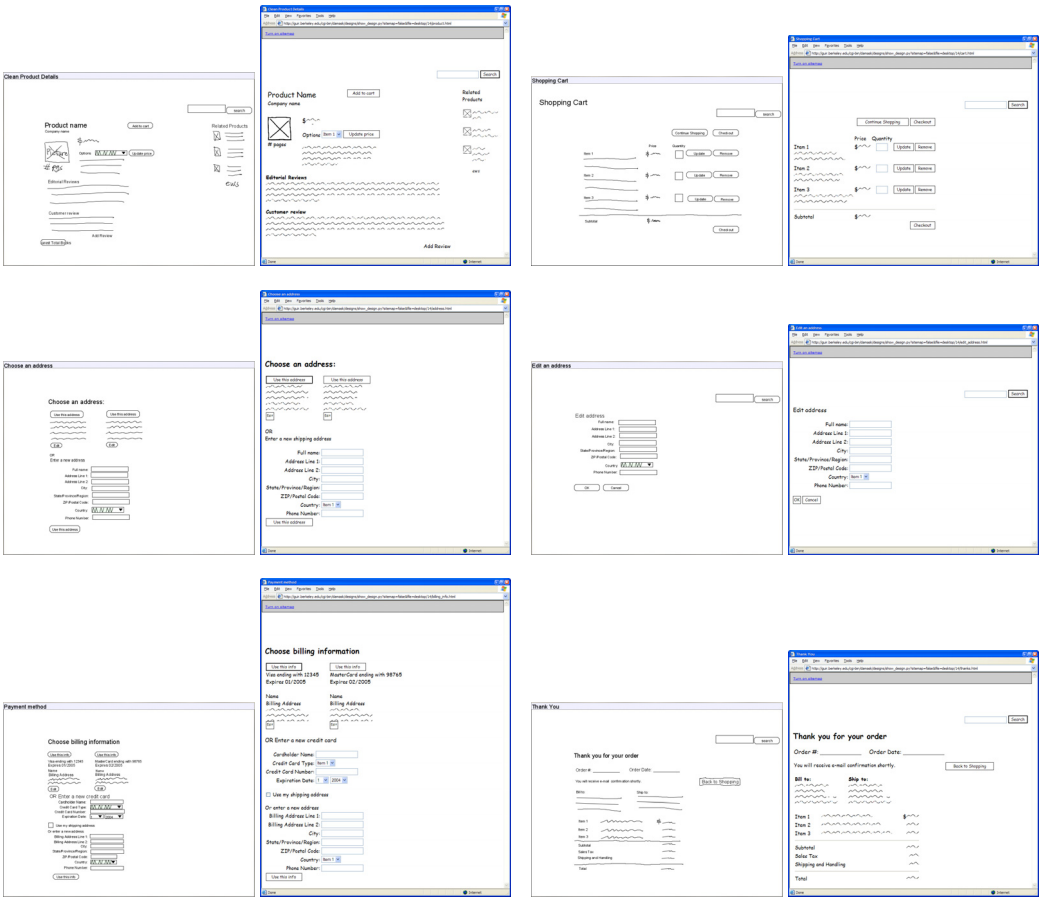
D.3.2 TotalBooks (with layers and patterns)

Desktop

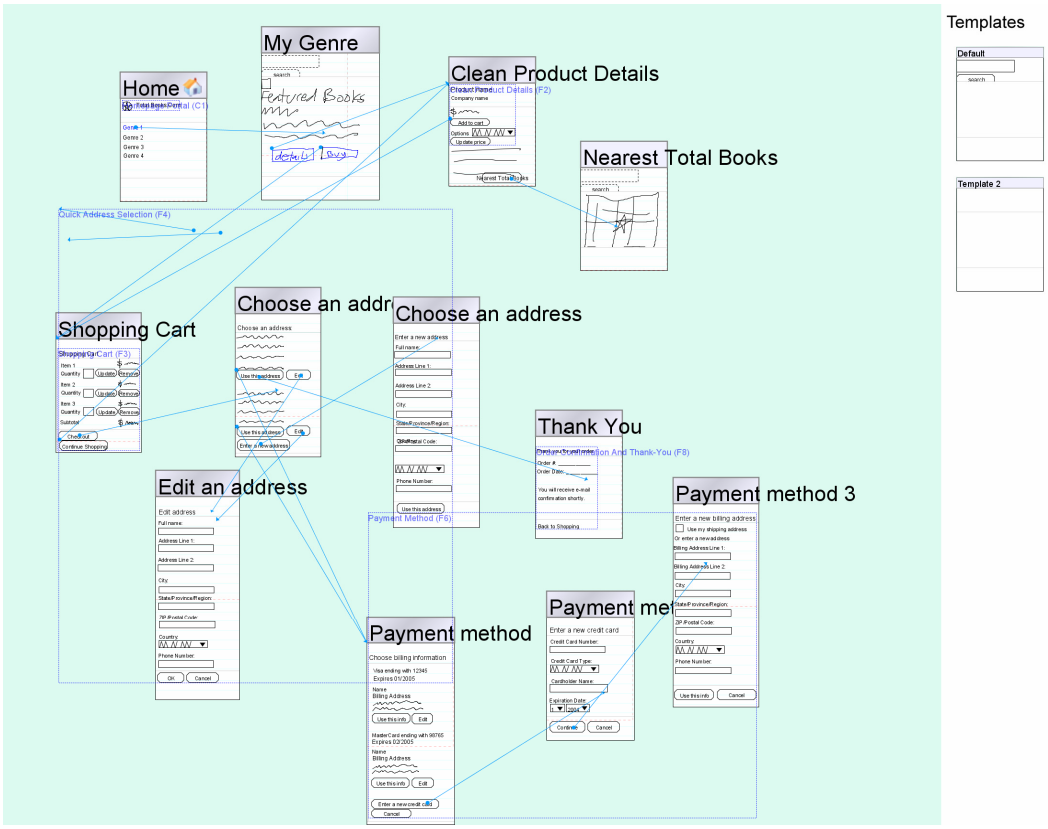


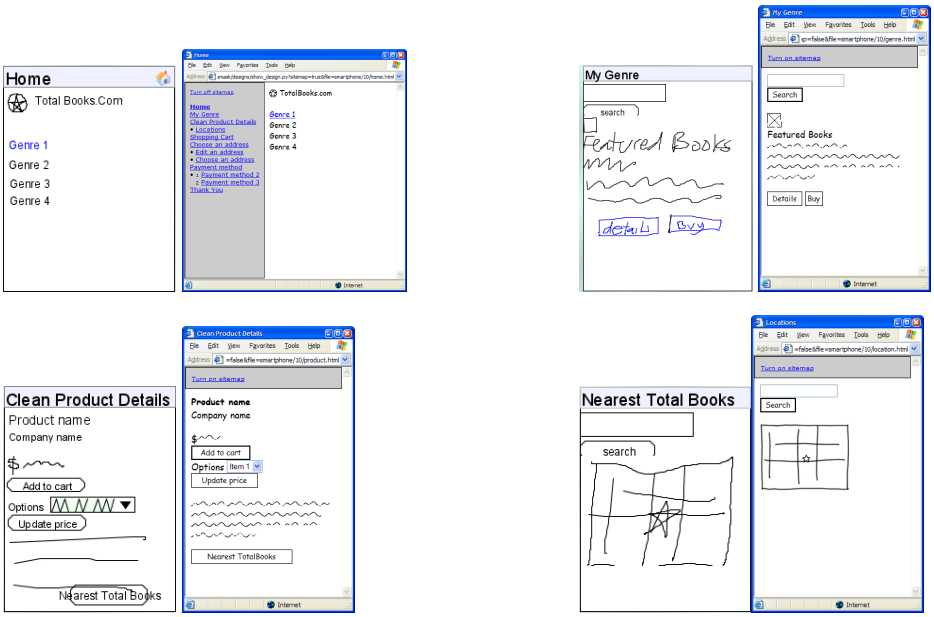


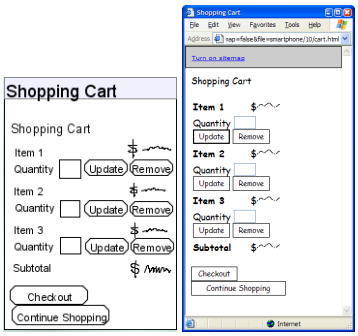


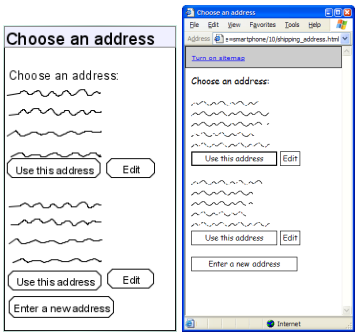

Clean Product Details
Product name
Product Name
Company name
Add to cart
Related Products
Editorial Reviews
Customer review
Add Review
Shopping Cart
Shopping Cart
Continue Shopping
Checkout
Item 1
Item 2
Item 3
Subtotal
Choose an address
Choose an address:
Use this address
Edit
OR
Enter a new shipping address
Full name:
Address Line 1:
Address Line 2:
City:
State/Province/Region:
ZIP/Postal Code:
Country:
Phone Number:
Edit an address
Edit address
Payment method
Choose billing information
Visa ending with 12345
Expires 01/2005
MasterCard ending with 98765
Expires 02/2005
Name
Billing Address
OR Enter a new credit card
Cardholder Name:
Credit Card Type:
Credit Card Number:
Expiration Date:
Use my shipping address
Or enter a new address
Billing Address Line 1:
Billing Address Line 2:
City:
State/Province/Region:
ZIP/Postal Code:
Country:
Phone Number:
Use this info
Thank You
Thank you for your order
Order #:
Order Date:
You will receive e-mail confirmation shortly.
Back to Shopping
Bill to:
Ship to:
Item 1
Item 2
Item 3
Subtotal
Sales Tax
Shipping and Handling
Total

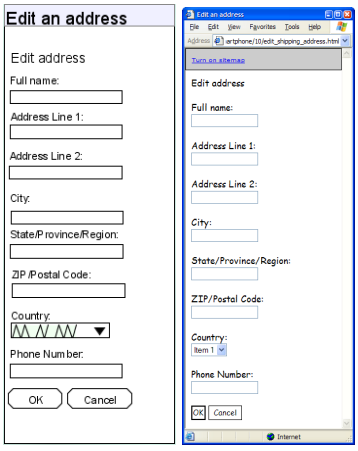
Smartphone

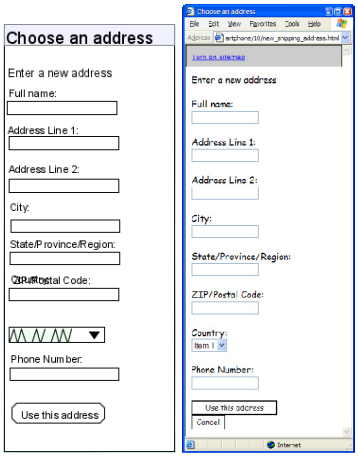

Templates
Default
Template 2
Home
My Genre
Clean Product Details
Nearest Total Books
Shopping Cart
Choose an address
Edit an address
Thank You
Payment method 3
Payment method

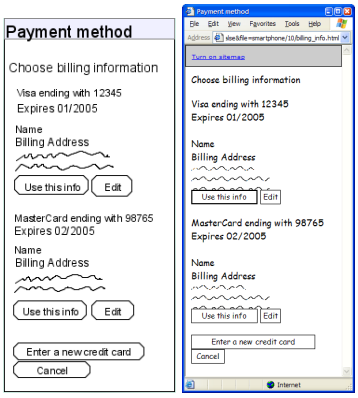

Home
Total Books.Com
Genre 1
Genre 2
Genre 3
Genre 4
My Genre
search
Featured Books
details
Buy
Search
Clean Product Details
Product name
Company name
Add to cart
Options
Update price
Nearest Total Books
Nearest Total Books
search
Search

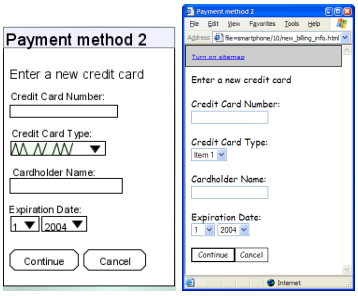

Shopping Cart
Shopping Cart
Item 1
Quantity
Update
Remove
Item 2
Quantity
Update
Remove
Item 3
Quantity
Update
Remove
Subtotal
Checkout
Continue Shopping

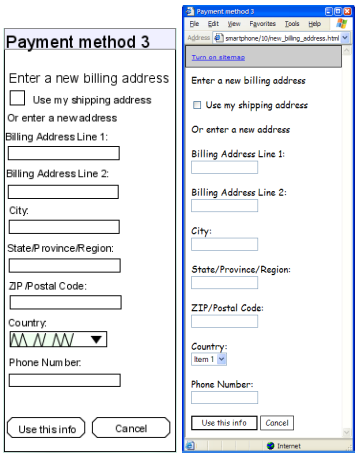

Choose an address
Choose an address:
Use this address
Edit
Use this address
Edit
Enter a new address

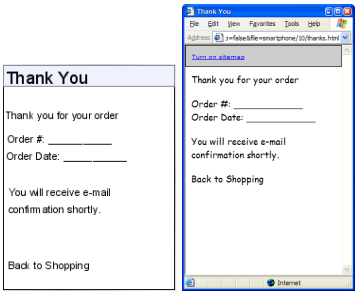

Edit an address
Edit address
Full name:
Address Line 1:
Address Line 2:
City:
State/Province/Region:
ZIP/Postal Code:
Country:
Phone Number:
OK
Cancel


Choose an address
Enter a new address
Full name:
Address Line 1:
Address Line 2:
City:
State/Province/Region:
ZIP/Postal Code:
Country:
Phone Number:
Use this address


Payment method
Choose billing information
Visa ending with 12345
Expires 01/2005
Name
Billing Address
Use this info
Edit
MasterCard ending with 98765
Expires 02/2005
Name
Billing Address
Use this info
Edit
Enter a new credit card
Cancel


Payment method 2
Enter a new credit card
Credit Card Number:
Credit Card Type:
Cardholder Name:
Expiration Date:
Continue
Cancel

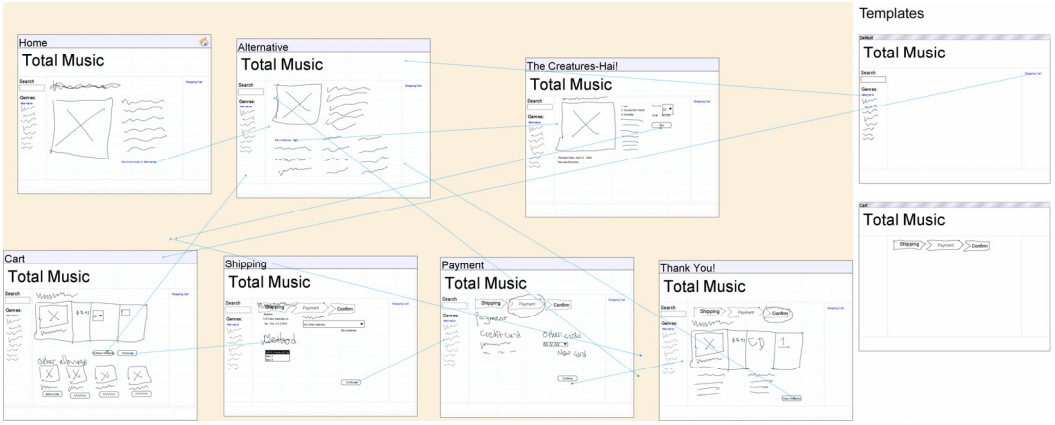

Payment method 3
Enter a new billing address
Use my shipping address
Or enter a new address
Billing Address Line 1:
Billing Address Line 2:
City:
State/Province/Region:
ZIP/Postal Code:
Country:
Phone Number:
Use this info
Cancel
Payment method 3
Turn on sitemap
Enter a new billing address
Use my shipping address
Or enter a new address
Billing Address Line 1:
Billing Address Line 2:
City:
State/Province/Region:
ZIP/Postal Code:
Country:
Item 1
Phone Number:
Use this info
Cancel
Internet

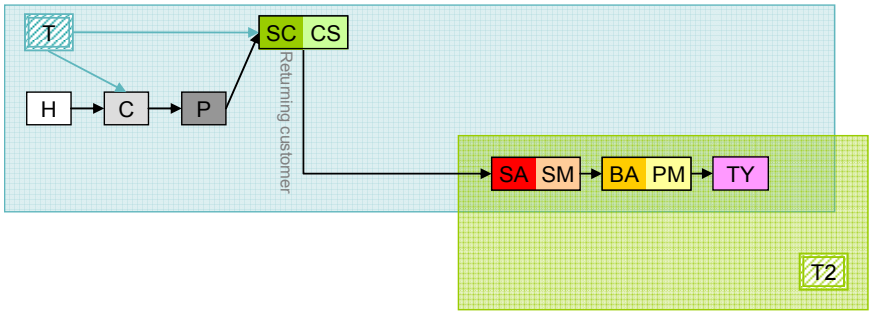

Thank You
Thank you for your order
Order #: _____
Order Date: _____
You will receive e-mail confirmation shortly.
Back to Shopping
Thank You
Turn on sitemap
Thank you for your order
Order #: _____
Order Date: _____
You will receive e-mail confirmation shortly.
Back to Shopping
Internet

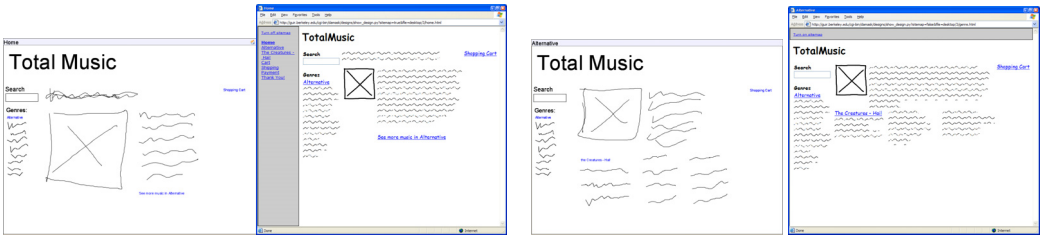
D.4 Designer 6

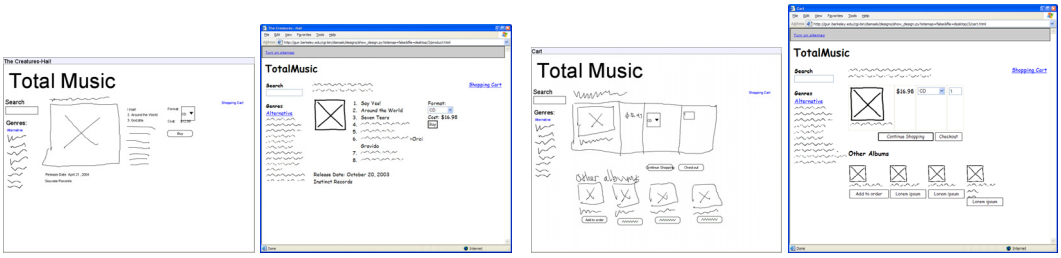
D.4.1 TotalMusic (no layers or patterns)

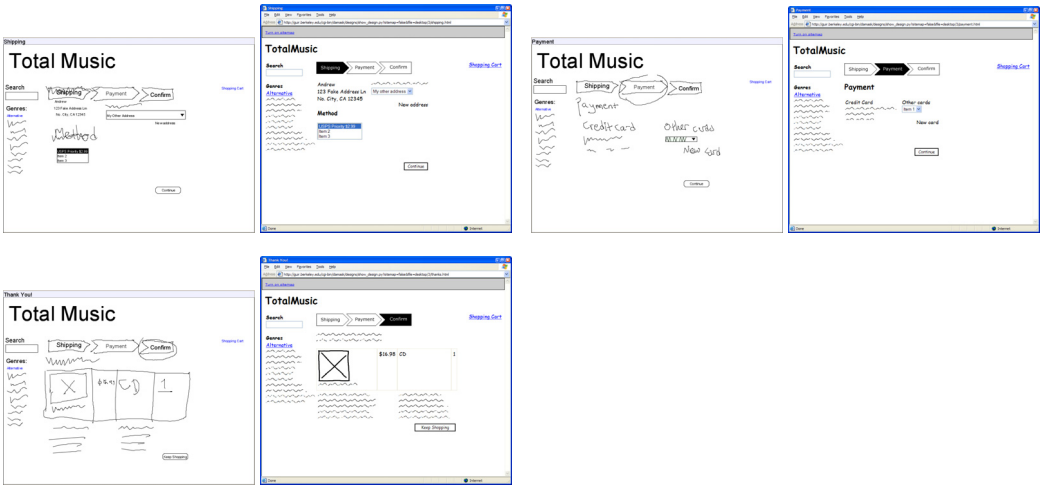
Desktop



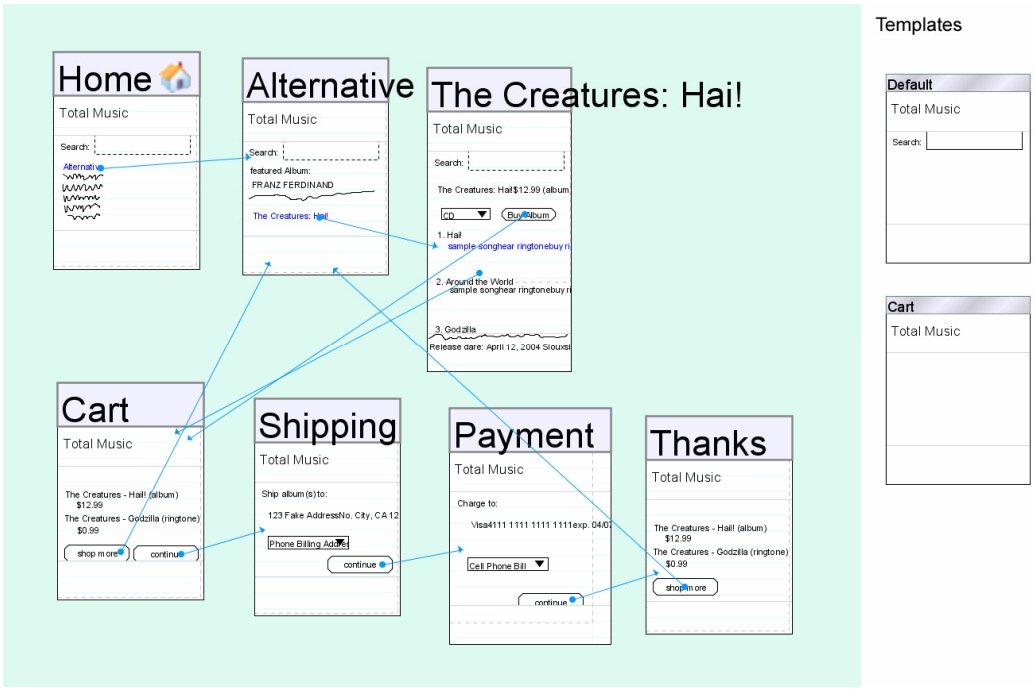


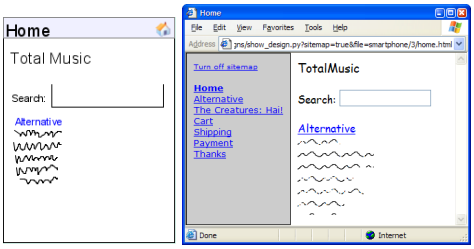


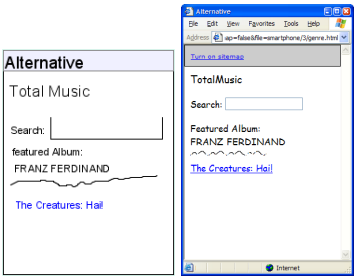


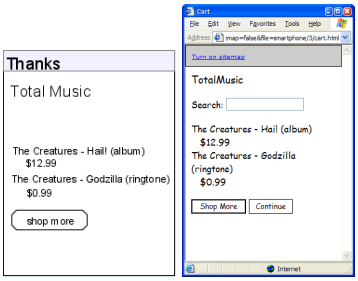

Total Music
TotalMusic
Total Music
TotalMusic
Total Music
TotalMusic

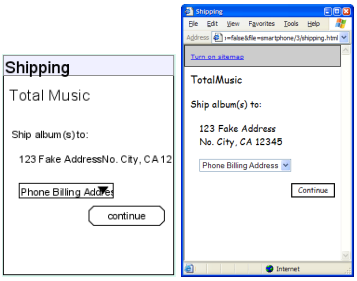
Smartphone

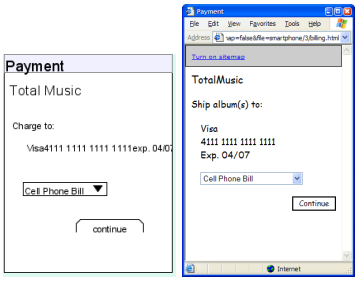

Home
Total Music
Search:
Alternative
Alternative
Total Music
Search:
featured Album:
FRANZ FERDINAND
The Creatures: Hail
The Creatures: Hai!
Total Music
Search:
The Creatures: Hail $12.99 (album
cd
Buy album
1. Hail
2. Around the World
3. Godzilla
Release date: April 12, 2004
Cart
Total Music
The Creatures - Hail! (album)
$12.99
The Creatures - Godzilla (ringtone)
$0.99
shop more
continue
Shipping
Total Music
Ship album(s) to:
123 Fake AddressNo. City, CA 12
Phone Billing Addres
continue
Payment
Total Music
Charge to:
Visa4111 1111 1111 1111exp. 04/07
Cell Phone Bill
continue
Thanks
Total Music
The Creatures - Hail! (album)
$12.99
The Creatures - Godzilla (ringtone)
$0.99
shop more
Templates
Default
Total Music
Search:
Cart
Total Music

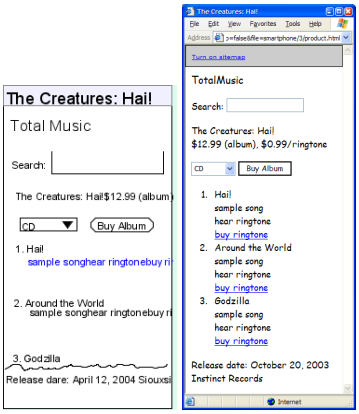

Home
Total Music
Search:
Alternative
Home
Alternative
The Creatures: Hail
Cart
Shipping
Payment
Thanks
TotalMusic
Search:
Alternative

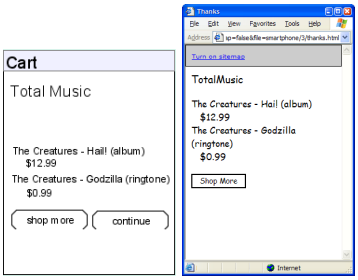

Alternative
Total Music
Search:
featured Album:
FRANZ FERDINAND
The Creatures: Hail
TotalMusic
Search:
Featured Album:
FRANZ FERDINAND
The Creatures: Hail


Thanks
Total Music
The Creatures - Hail! (album)
$12.99
The Creatures - Godzilla (ringtone)
$0.99
shop more
TotalMusic
Search:
The Creatures - Hail (album)
$12.99
The Creatures - Godzilla
(ringtone)
$0.99
Shop More
Continue


Shipping
Total Music
Ship album(s) to:
123 Fake Address
No. City, CA 12
Phone Billing Addres
continue
TotalMusic
Ship album(s) to:
123 Fake Address
No. City, CA 12345
Phone Billing Address
Continue

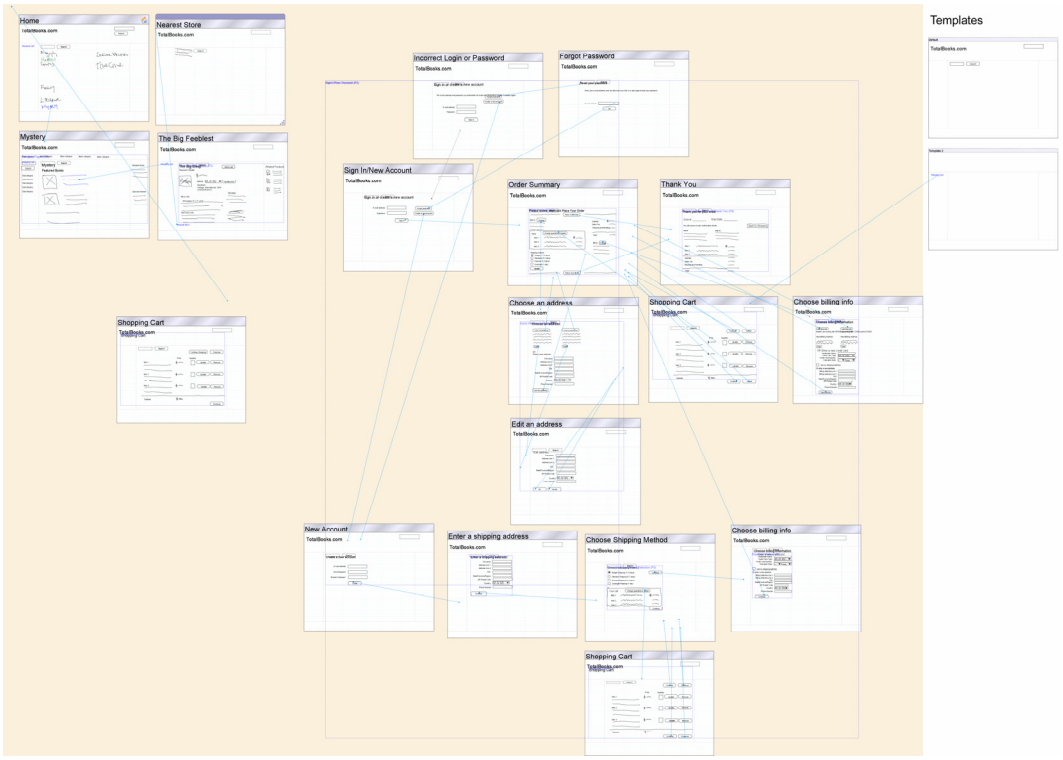

Payment
Total Music
Charge to:
Visa4111 1111 1111 1111exp. 04/07
Cell Phone Bill
continue
TotalMusic
Ship album(s) to:
Visa
4111 1111 1111 1111
Exp. 04/07
Cell Phone Bill
Continue

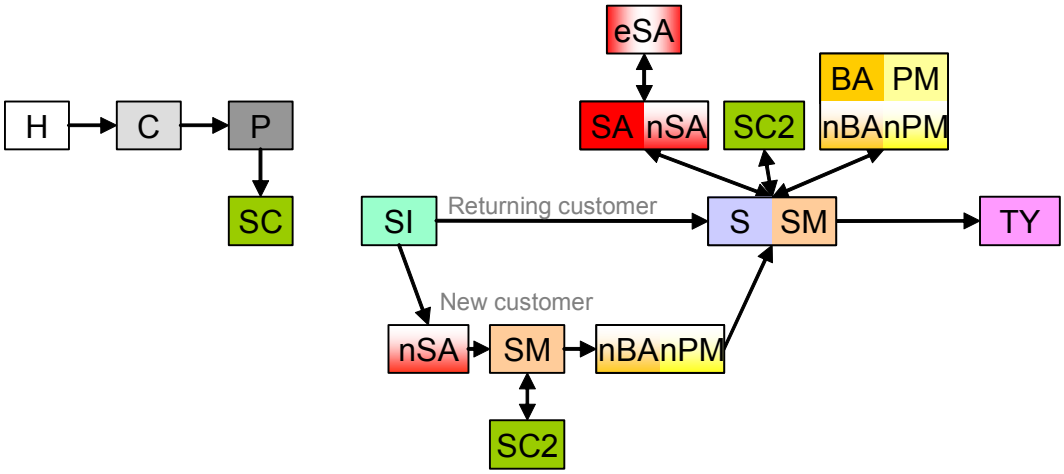

The Creatures: Hail!
Total Music
Search:
The Creatures: Hail$12.99 (album)
CD
Buy Album
1. Hail
sample songhear ringtonebuy ri
2. Around the World
sample songhear ringtonebuy ri
3. Godzilla
Release dare: April 12, 2004 Siouxsi
TotalMusic
Search:
The Creatures: Hail
$12.99 (album), $0.99/ringtone
CD
Buy Album
1. Hail
sample song
hear ringtone
buy ringtone
2. Around the World
sample song
hear ringtone
buy ringtone
3. Godzilla
sample song
hear ringtone
buy ringtone
Release date: October 20, 2003
Instinct Records

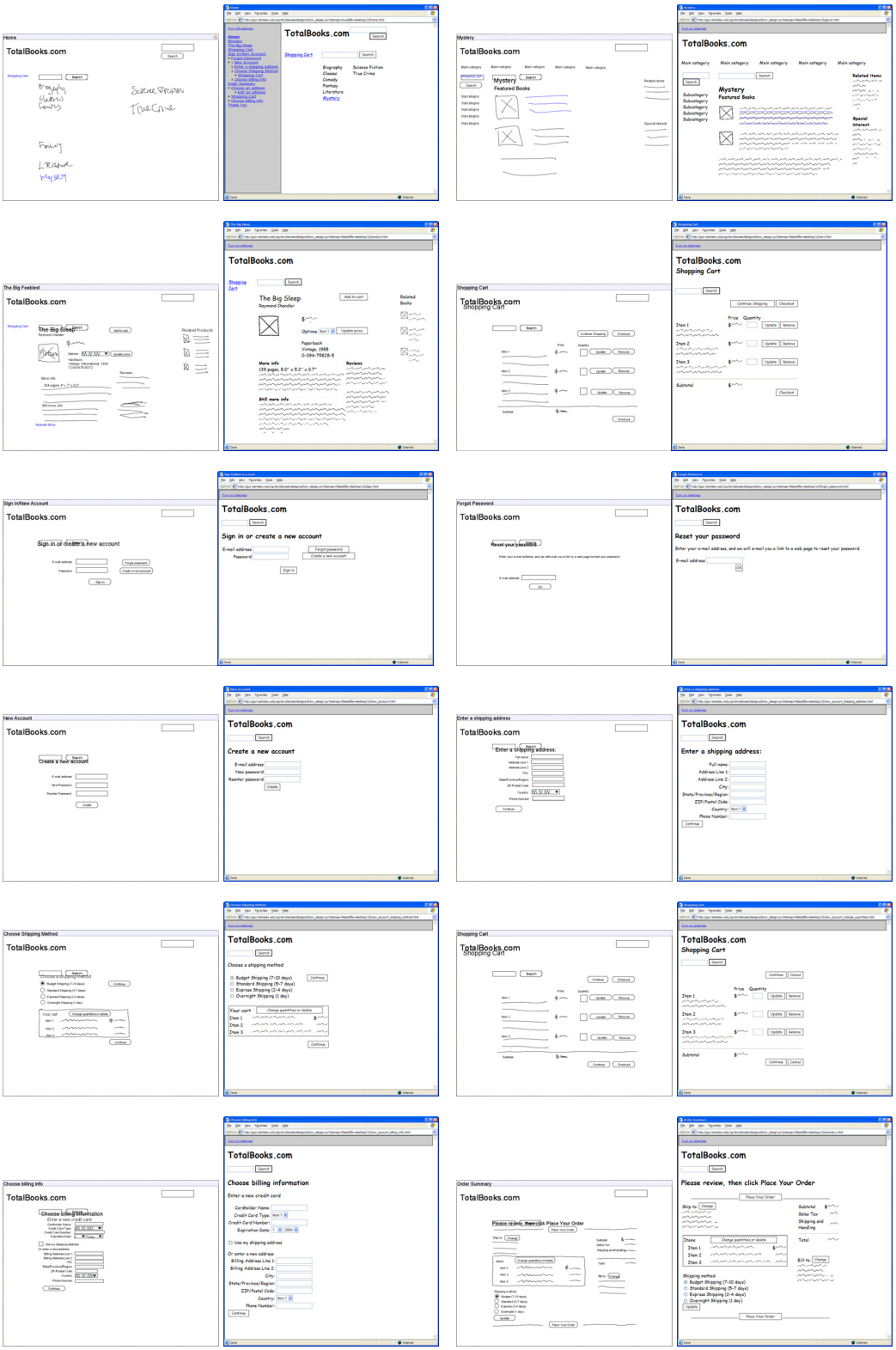

Cart
Total Music
The Creatures - Hail! (album)
$12.99
The Creatures - Godzilla (ringtone)
$0.99
shop more
continue
TotalMusic
The Creatures - Hail (album)
$12.99
The Creatures - Godzilla
(ringtone)
$0.99
Shop More

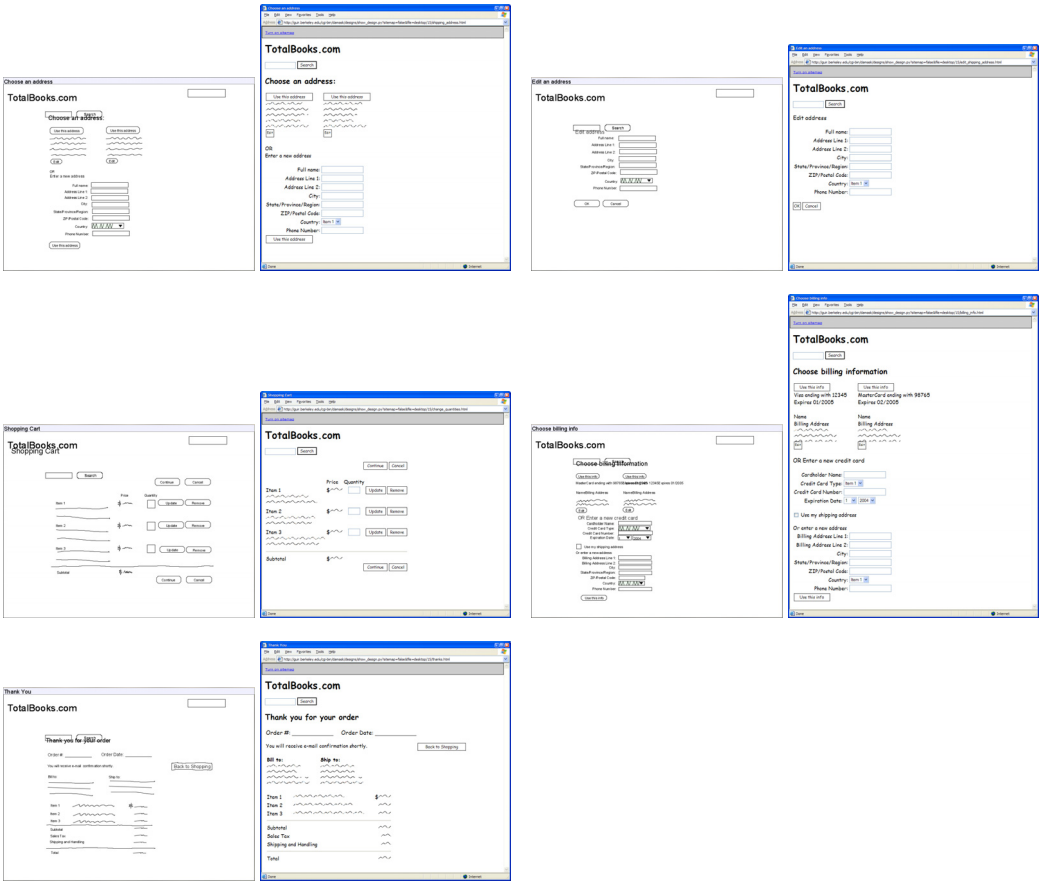
D.4.2 TotalBooks (with layers and patterns)

Desktop

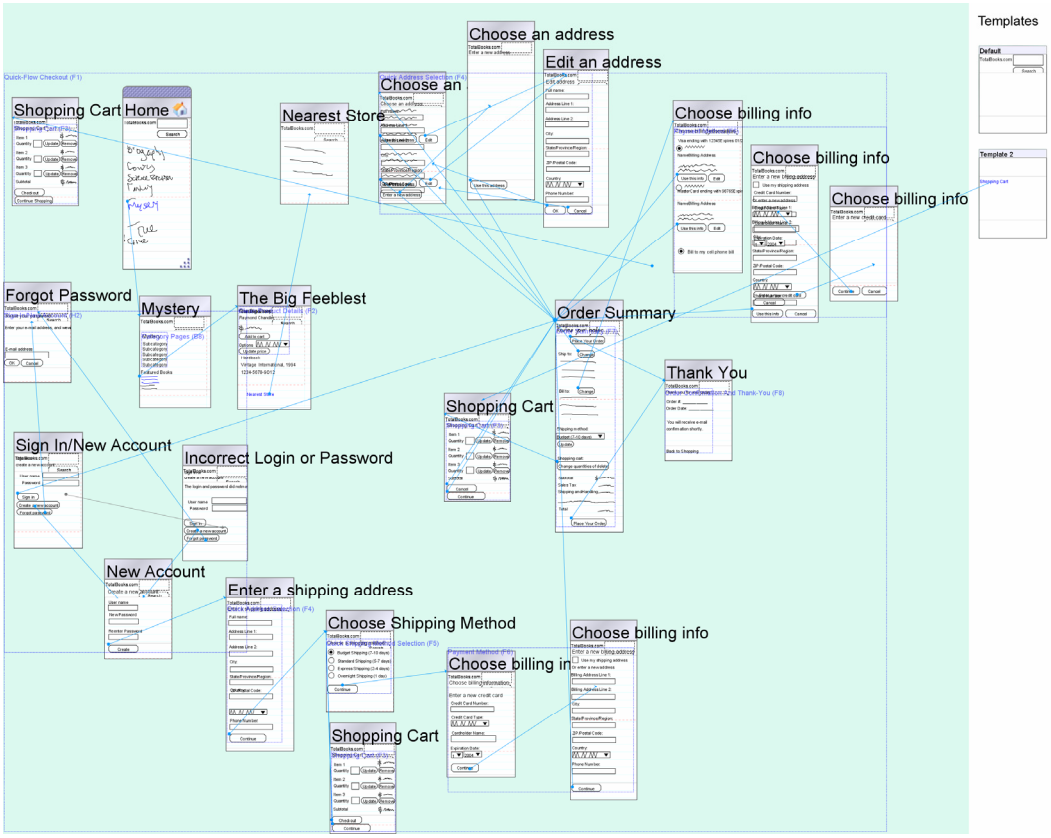


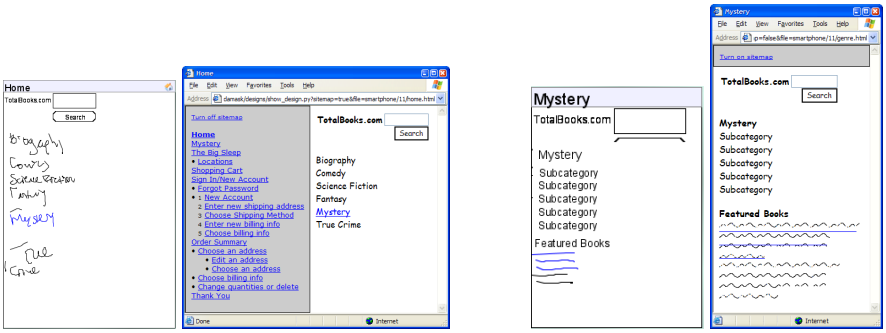


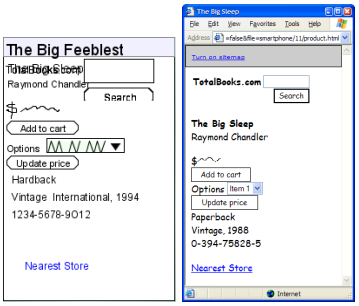


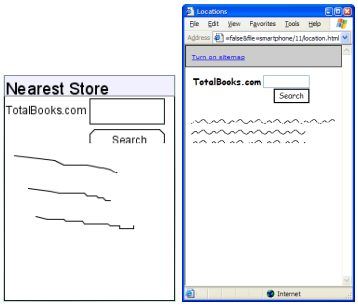

Choose an address
TotalBooks.com
Edit an address
Shopping Cart
Choose billing info
Thank You
Choose billing information
Thank you for your order

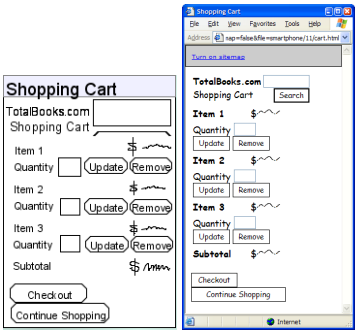
Smartphone

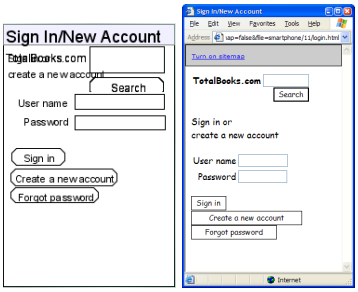

Templates
Choose an address
Edit an address
Choose an
Shopping Cart
Home
Nearest Store
Choose billing info
Choose billing info
Choose billing info
Forgot Password
Mystery
The Big Feeblest
Order Summary
Thank You
Shopping Cart
Sign In/New Account
Incorrect Login or Password
New Account
Enter a shipping address
Choose Shipping Method
Choose billing info
Choose billing in
Shopping Cart

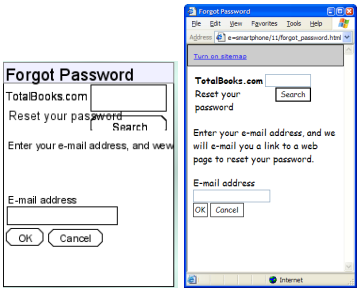

Home
TotalBooks.com
Search
Biography
Comedy
Science Fiction
Fantasy
Mystery
True Crime
Mystery
TotalBooks.com
Mystery
Subcategory
Subcategory
Subcategory
Subcategory
Subcategory
Featured Books
Mystery
TotalBooks.com
Search
Mystery
Subcategory
Subcategory
Subcategory
Subcategory
Subcategory
Featured Books

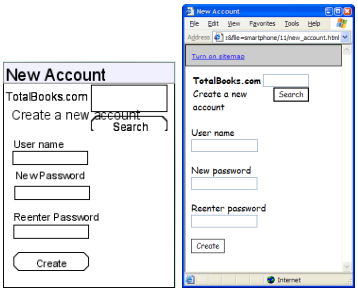

The Big Feeblest
Raymond Chandler
Search
Add to cart
Options
Update price
Hardback
Vintage International, 1994
1234-5678-9012
Nearest Store
TotalBooks.com
Search
The Big Sleep
Raymond Chandler
Add to cart
Options Item 1
Update price
Paperback
Vintage, 1988
0-394-75828-5
Nearest Store

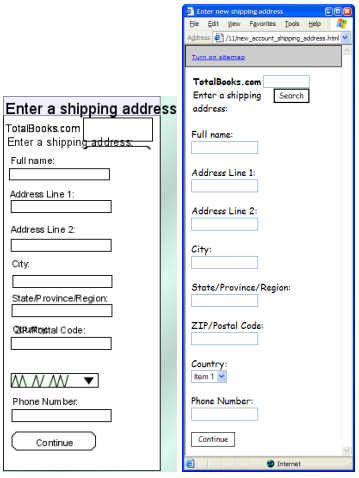

Nearest Store
TotalBooks.com
Search
TotalBooks.com
Search

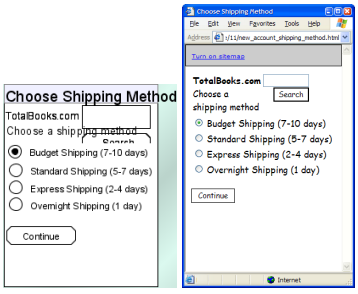

Shopping Cart
TotalBooks.com
Shopping Cart
Item 1
Quantity
Update
Remove
Item 2
Quantity
Update
Remove
Item 3
Quantity
Update
Remove
Subtotal
Checkout
Continue Shopping
TotalBooks.com
Shopping Cart
Search
Item 1
Quantity
Update
Remove
Item 2
Quantity
Update
Remove
Item 3
Quantity
Update
Remove
Subtotal
Checkout
Continue Shopping

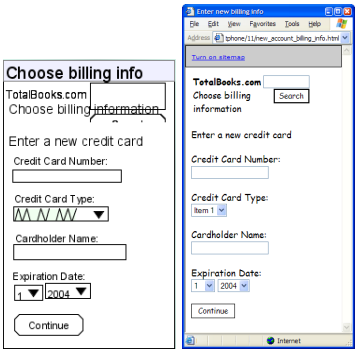

Sign In/New Account
TotalBooks.com
create a new account
Search
User name
Password
Sign in
Create a new account
Forgot password
TotalBooks.com
Search
Sign in or
create a new account
User name
Password
Sign in
Create a new account
Forgot password

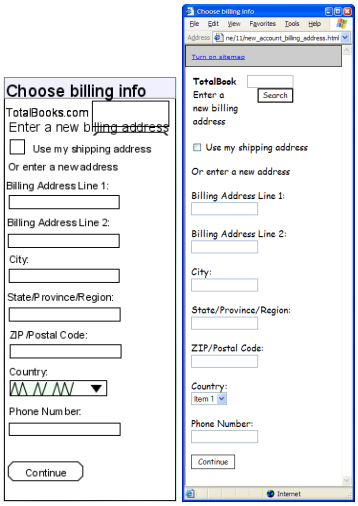

Forgot Password
TotalBooks.com
Reset your password
Search
Enter your e-mail address, and we
E-mail address
OK
Cancel
TotalBooks.com
Reset your password
Search
Enter your e-mail address, and we will e-mail you a link to a web page to reset your password.
E-mail address
OK
Cancel

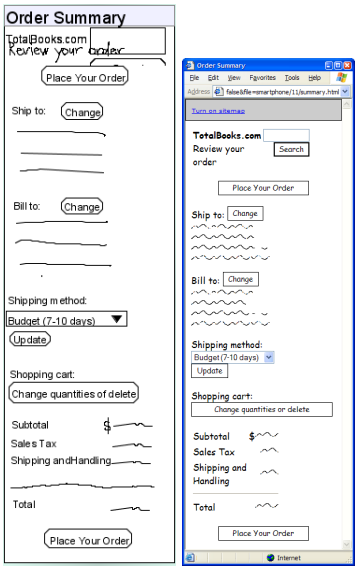

New Account
TotalBooks.com
Create a new account
Search
User name
New Password
Reenter Password
Create
TotalBooks.com
Create a new account
Search
User name
New password
Reenter password
Create

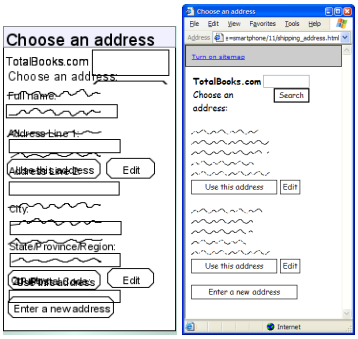

Enter a shipping address
TotalBooks.com
Enter a shipping address:
Full name:
Address Line 1:
Address Line 2:
City:
State/Province/Region:
ZIP/Postal Code:
Country:
Phone Number:
Continue
TotalBooks.com
Enter a shipping address:
Search
Full name:
Address Line 1:
Address Line 2:
City:
State/Province/Region:
ZIP/Postal Code:
Country:
Item 1
Phone Number:
Continue

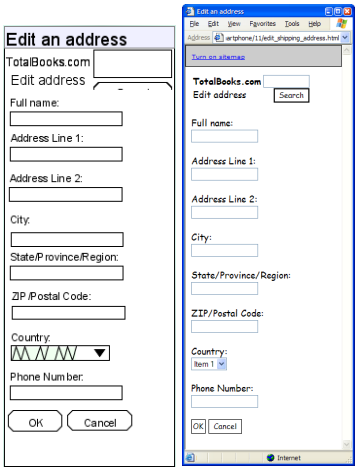

Choose Shipping Method
TotalBooks.com
Choose a shipping method
Budget Shipping (7-10 days)
Standard Shipping (5-7 days)
Express Shipping (2-4 days)
Overnight Shipping (1 day)
Continue
TotalBooks.com
Choose a shipping method
Search
Budget Shipping (7-10 days)
Standard Shipping (5-7 days)
Express Shipping (2-4 days)
Overnight Shipping (1 day)
Continue

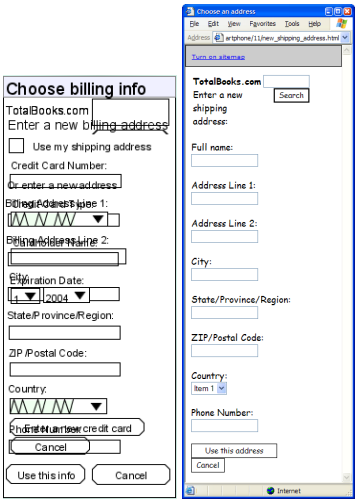

Choose billing info
TotalBooks.com
Choose billing information
Enter a new credit card
Credit Card Number:
Credit Card Type:
Cardholder Name:
Expiration Date:
Continue

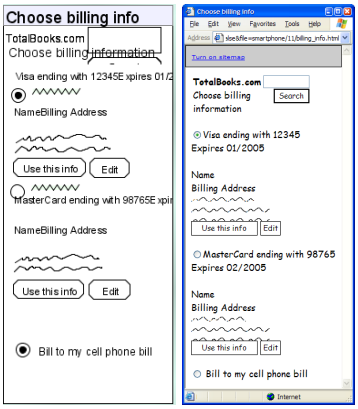

Choose billing info
TotalBooks.com
Enter a new billing address
Use my shipping address
Or enter a new address
Billing Address Line 1:
Billing Address Line 2:
City:
State/Province/Region:
ZIP/Postal Code:
Country:
Phone Number:
Continue

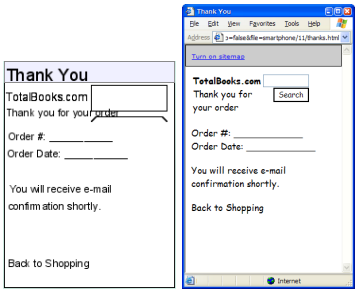

Order Summary
TotalBooks.com
Review your order
Place Your Order
Ship to:
Change
Bill to:
Shipping method:
Budget (7-10 days)
Update
Shopping cart:
Change quantities or delete
Subtotal
Sales Tax
Shipping and Handling
Total

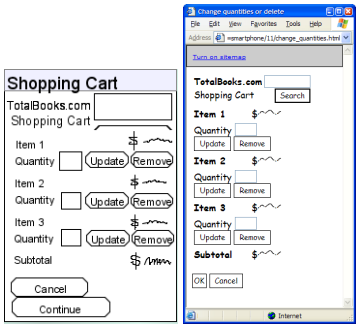

Choose an address
TotalBooks.com
Choose an address:
Full name:
Address Line 1:
Edit
City:
State/Province/Region:
Enter a new address


Edit an address
TotalBooks.com
Edit address
Full name:
Address Line 1:
Address Line 2:
City:
State/Province/Region:
ZIP/Postal Code:
Country:
Phone Number:
OK
Cancel


Choose billing info
TotalBooks.com
Enter a new billing address
Use my shipping address
Credit Card Number:
Or enter a new address
Billing Address Line 1:
Billing Address Line 2:
Cardholder Name:
Expiration Date:
State/Province/Region:
ZIP/Postal Code:
Country:
Enter a new credit card
Cancel
Use this info
Cancel


Choose billing info
TotalBooks.com
Choose billing information
Visa ending with 12345E xpires 01/2
NameBilling Address
Use this info
Edit
MasterCard ending with 98765E xpir
NameBilling Address
Use this info
Edit
Bill to my cell phone bill
Choose billing info
TotalBooks.com
Choose billing information
Search
Visa ending with 12345
Expires 01/2005
Name
Billing Address
Use this info
Edit
MasterCard ending with 98765
Expires 02/2005
Name
Billing Address
Use this info
Edit
Bill to my cell phone bill

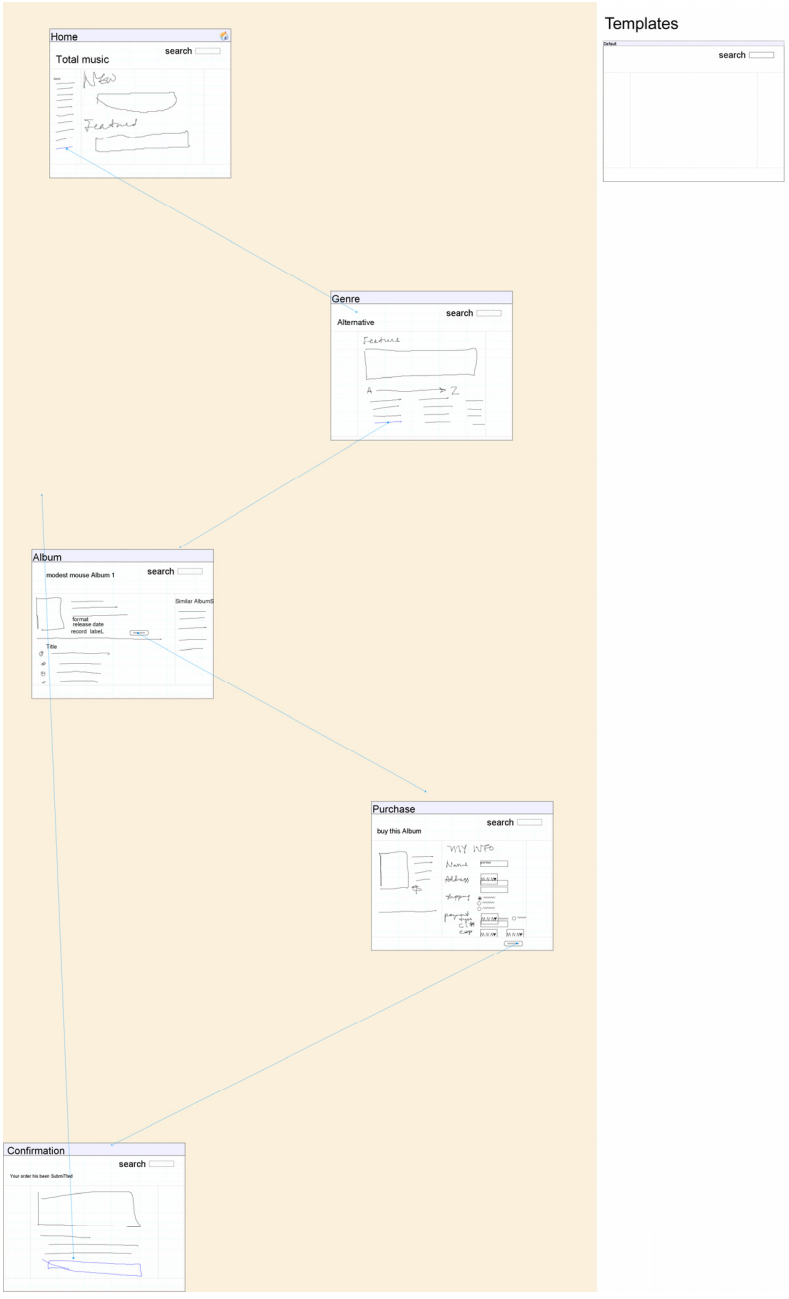

Thank You
TotalBooks.com
Thank you for your order
Order #: _____
Order Date: _____
You will receive e-mail confirmation shortly.
Back to Shopping
Thank You
TotalBooks.com
Thank you for your order
Search
Order #: _____
Order Date: _____
You will receive e-mail confirmation shortly.
Back to Shopping

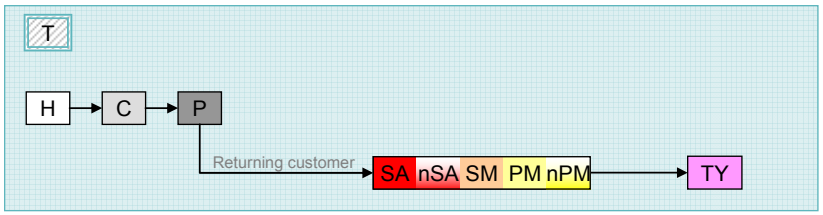

Shopping Cart
TotalBooks.com
Shopping Cart
Item 1
Quantity
Update
Remove
Item 2
Quantity
Update
Remove
Item 3
Quantity
Update
Remove
Subtotal
Cancel
Continue
Change quantities or delete
TotalBooks.com
Shopping Cart
Search
Item 1
Quantity
Update
Remove
Item 2
Quantity
Update
Remove
Item 3
Quantity
Update
Remove
Subtotal
OK
Cancel

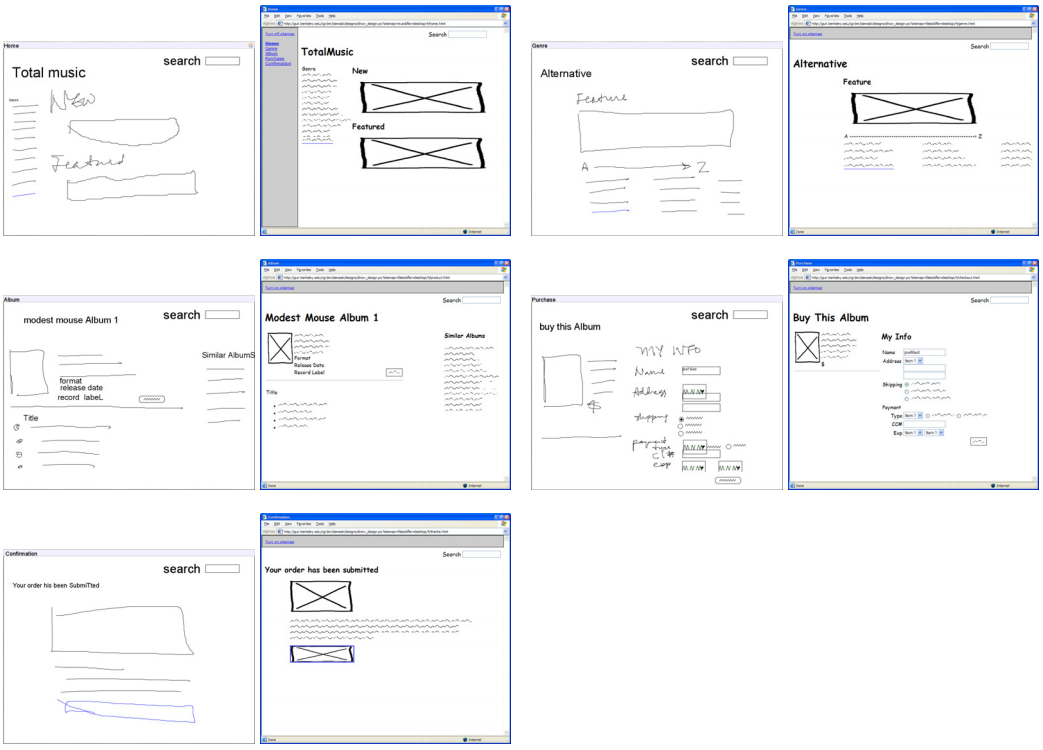
D.5 Designer 7

D.5.1 TotalMusic (no layers or patterns)

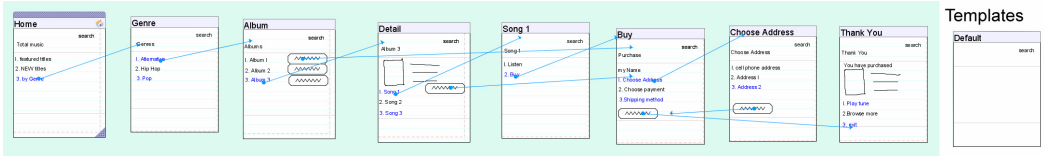
Desktop

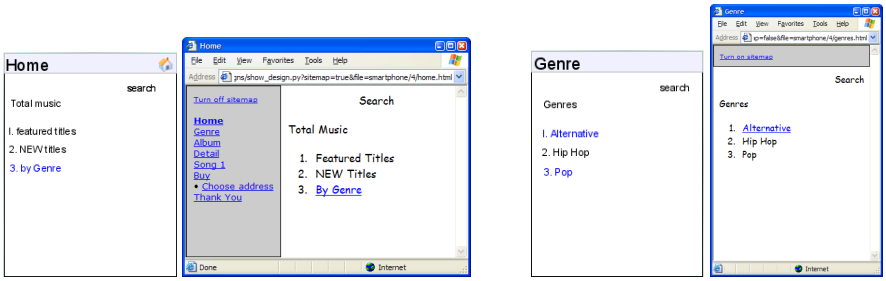


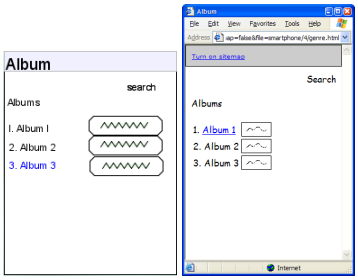

T
H
C
P
Returning customer
SA nSA SM PM nPM
TY

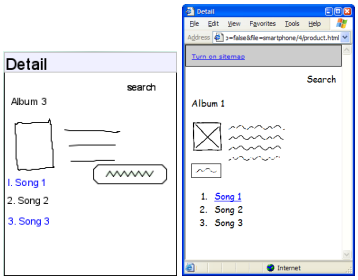

Total music
search
TotalMusic
New
Featured
Alternative
Feature
modest mouse Album 1
Modest Mouse Album 1
buy this Album
Buy This Album
My Info
Your order has been submitted

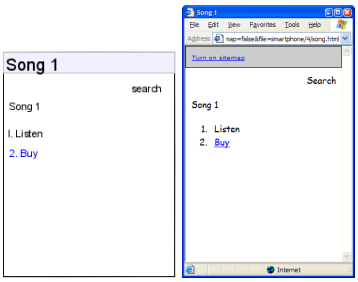
Smartphone

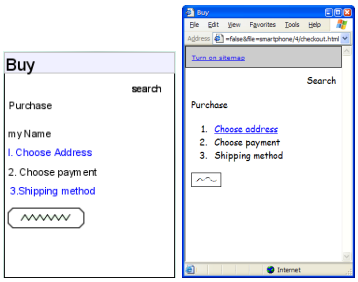

Templates
Default
Home
Genre
Album
Detail
Song 1
Buy
Choose Address
Thank You

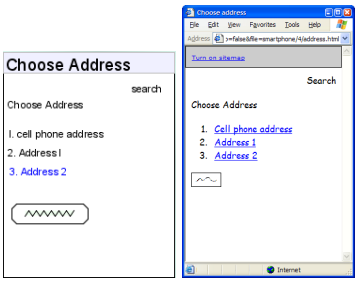

Home
search
Total music
1. featured titles
2. NEW titles
3. by Genre
Turn off sitemap
Home
Genre
Album
Detail
Song 1
Buy
Choose address
Thank You
Search
Total Music
1. Featured Titles
2. NEW Titles
3. By Genre
Genre
search
Genres
1. Alternative
2. Hip Hop
3. Pop

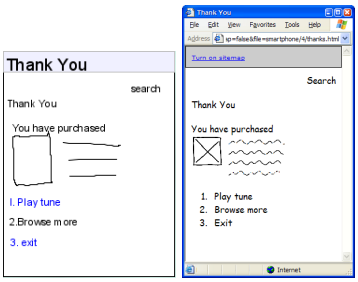

Album
search
Albums
1. Album 1
2. Album 2
3. Album 3
Search
Albums
1. Album 1
2. Album 2
3. Album 3


Detail
search
Album 3
1. Song 1
2. Song 2
3. Song 3
Search
Album 1
1. Song 1
2. Song 2
3. Song 3


Song 1
search
Song 1
1. Listen
2. Buy
Search
Song 1
1. Listen
2. Buy

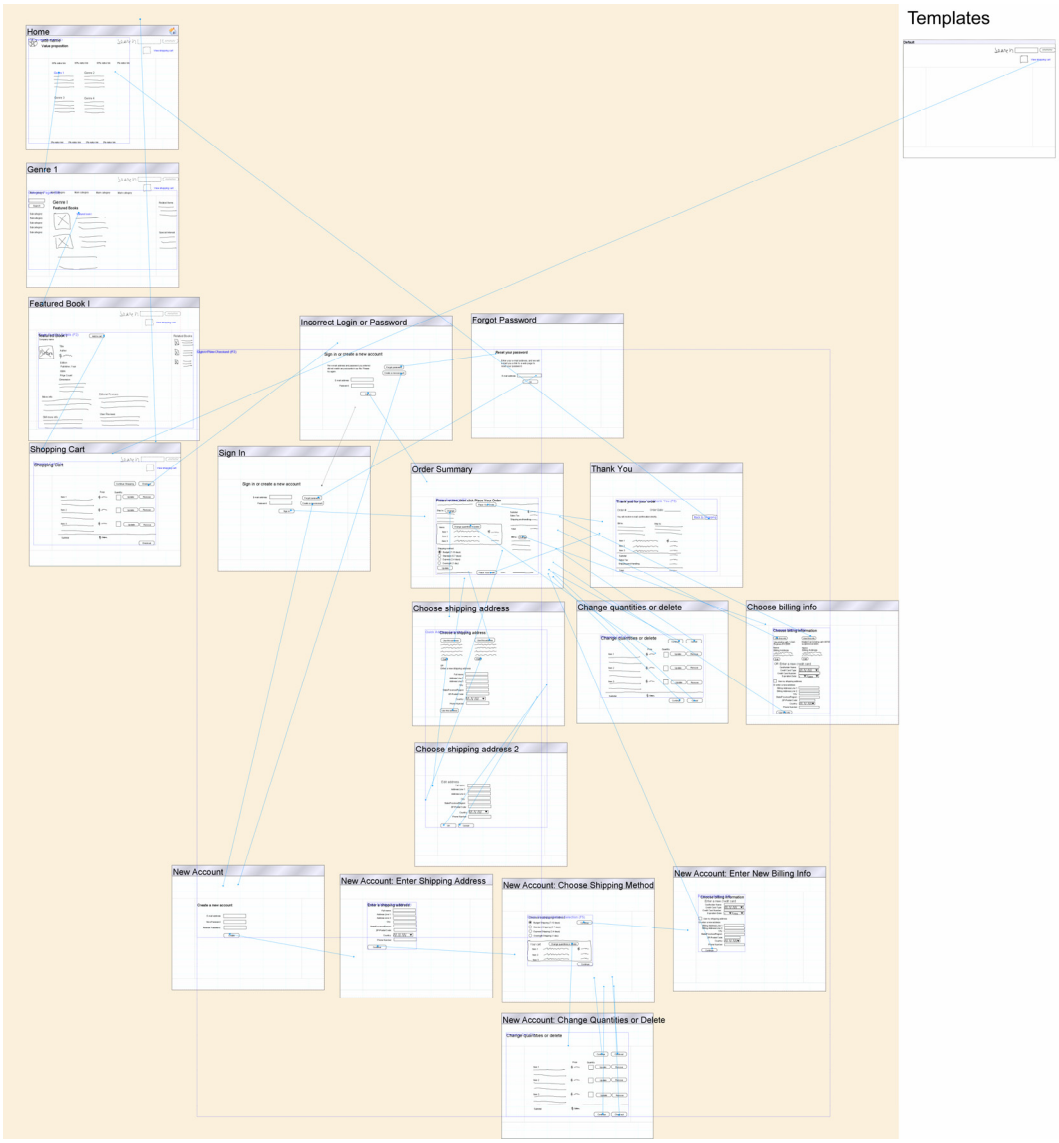

Buy
search
Purchase
my Name
1. Choose Address
2. Choose payment
3.Shipping method
Search
Purchase
1. Choose address
2. Choose payment
3. Shipping method

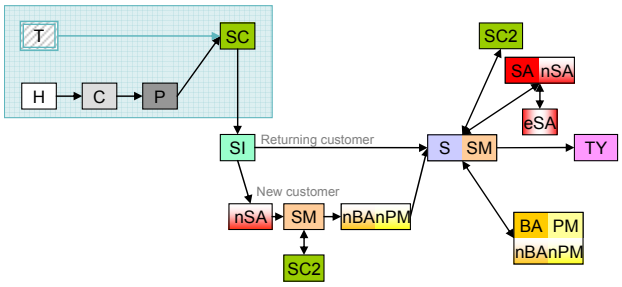

Choose Address
search
Choose Address
1. cell phone address
2. Address1
3. Address 2
Search
Choose Address
1. Cell phone address
2. Address 1
3. Address 2

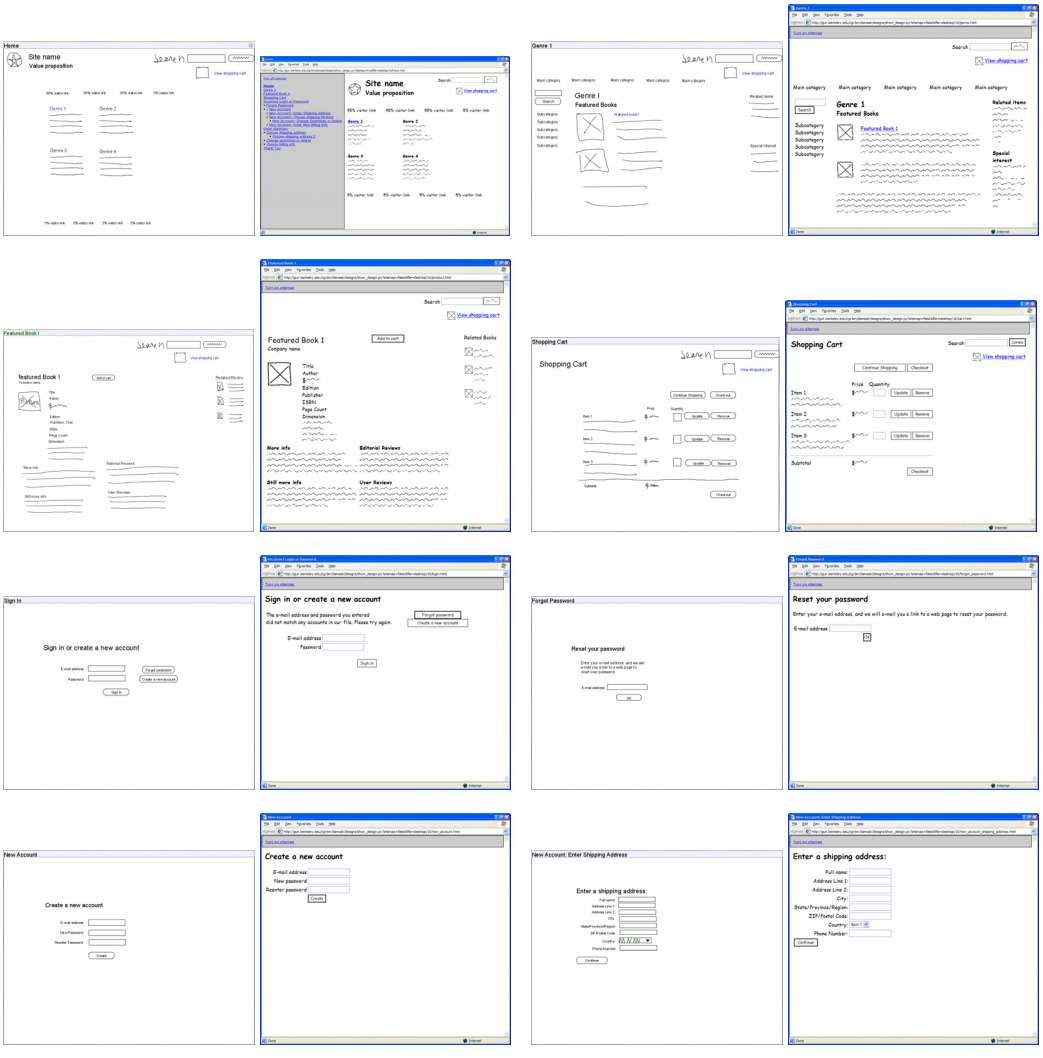

Thank You
search
Thank You
You have purchased
1. Play tune
2.Browse more
3. exit
Search
Thank You
You have purchased
1. Play tune
2. Browse more
3. Exit

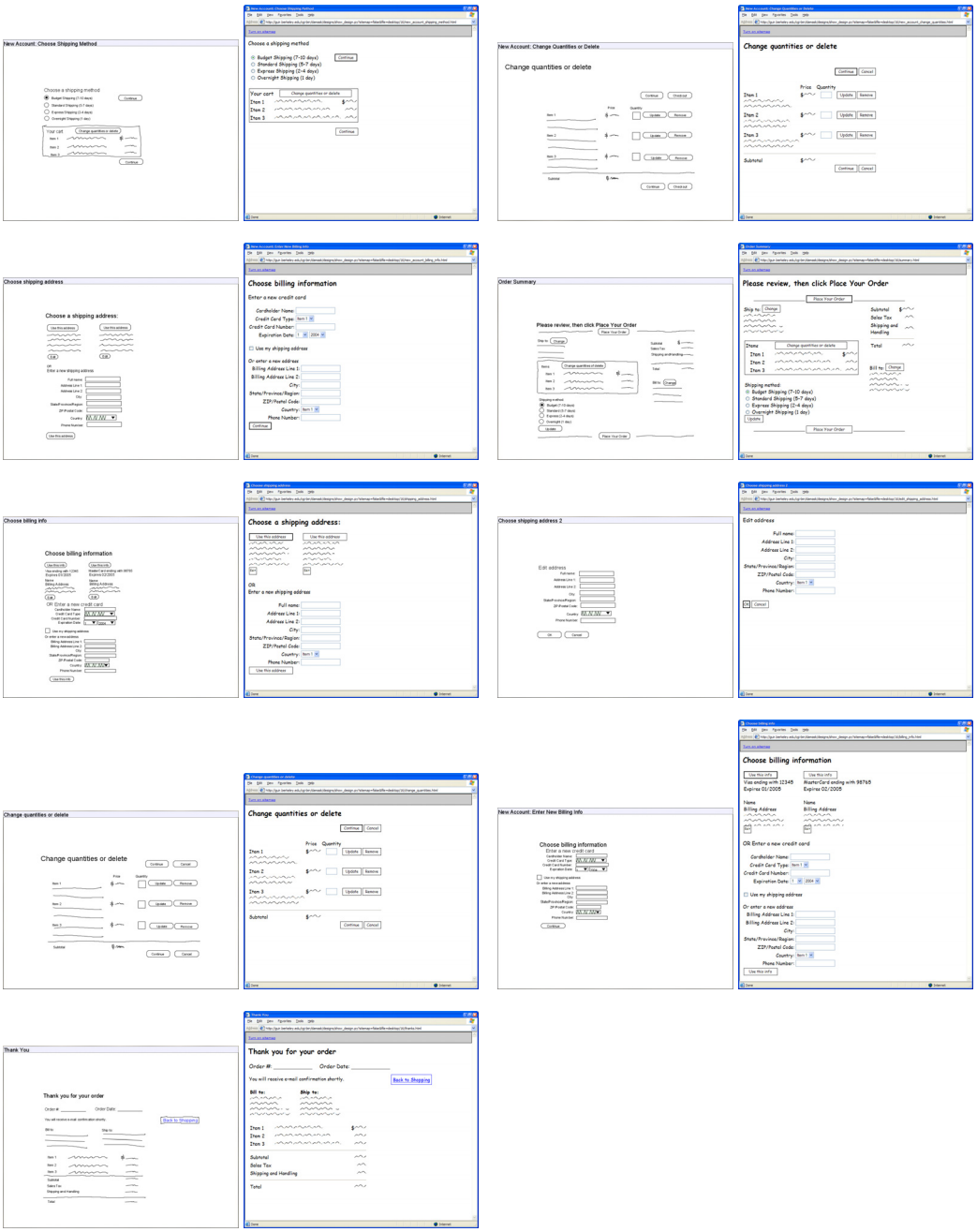
D.5.2 TotalBooks (with layers and patterns)

Desktop

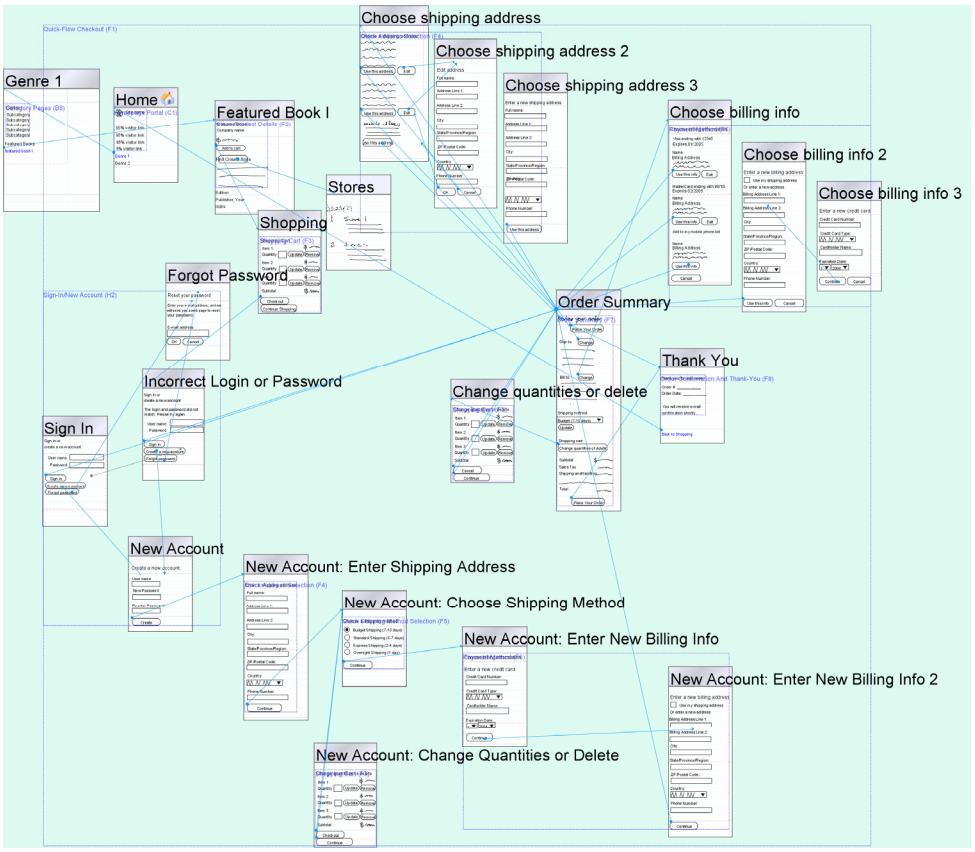


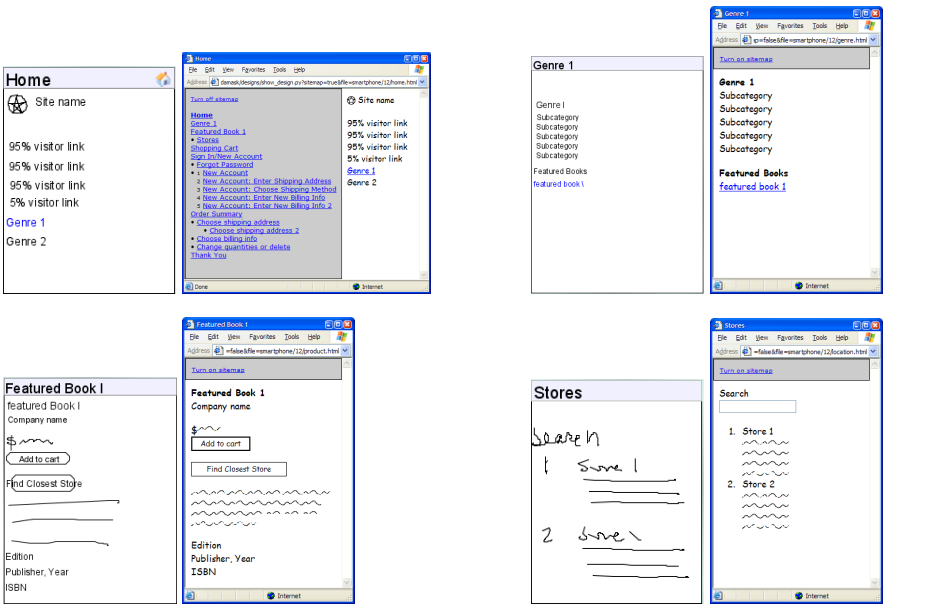

T
SC
H
C
P
SC2
SA nSA
eSA
SI
Returning customer
S SM
TY
New customer
nSA
SM
nBAnPM
BA PM
nBAnPM
SC2

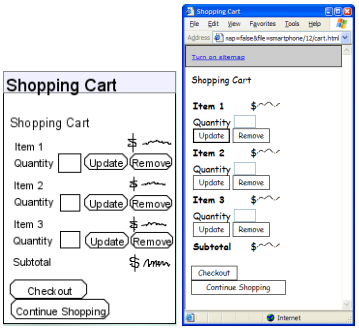


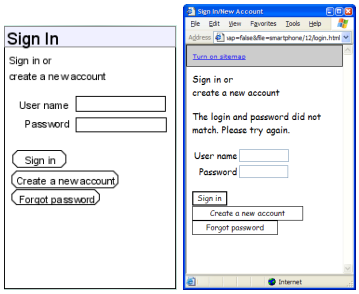


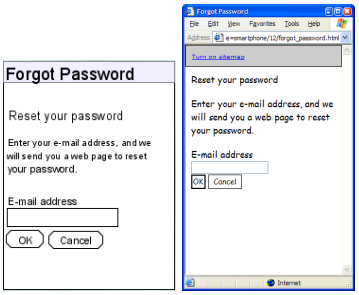
Smartphone

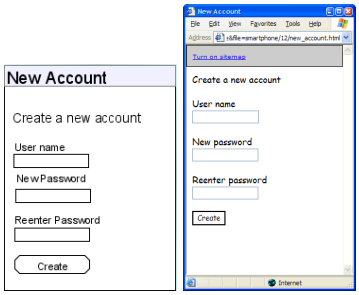

Choose shipping address
Choose shipping address 2
Choose shipping address 3
Genre 1
Home
Featured Book I
Stores
Shopping
Choose billing info
Choose billing info 2
Choose billing info 3
Forgot Password
Order Summary
Thank You
Incorrect Login or Password
Change quantities or delete
Sign In
New Account
New Account: Enter Shipping Address
New Account: Choose Shipping Method
New Account: Enter New Billing Info
New Account: Enter New Billing Info 2
New Account: Change Quantities or Delete

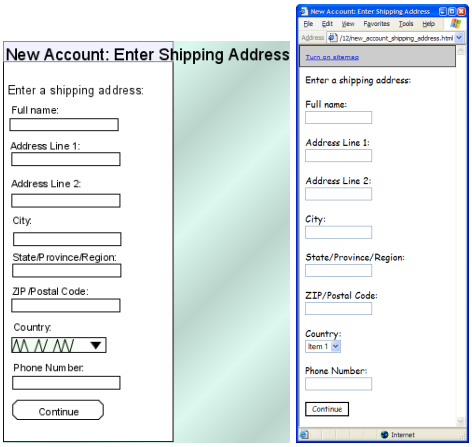

Home
Site name
95% visitor link
95% visitor link
95% visitor link
5% visitor link
Genre 1
Genre 2
Genre 1
Subcategory
Featured Books
Featured book I
Genre 1
Subcategory
Featured Books
featured book 1
Featured Book I
featured Book I
Company name
Add to cart
Find Closest Store
Edition
Publisher, Year
ISBN
Featured Book 1
Company name
Add to cart
Find Closest Store
Edition
Publisher, Year
ISBN
Stores
Search
1. Store 1
2. Store 2

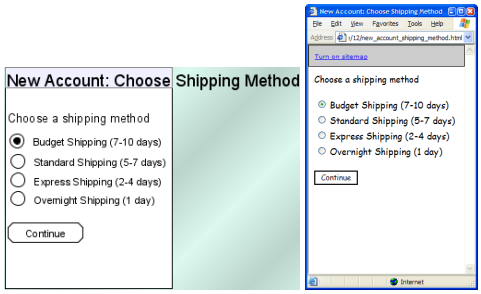

Shopping Cart
Shopping Cart
Item 1
Quantity
Update
Remove
Item 2
Quantity
Update
Remove
Item 3
Quantity
Update
Remove
Subtotal
Checkout
Continue Shopping

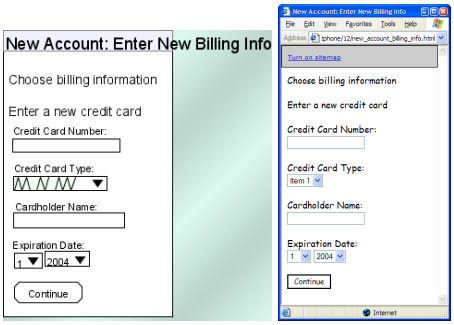

Sign In
Sign in or
create a new account
User name
Password
Sign in
Create a new account
Forgot password

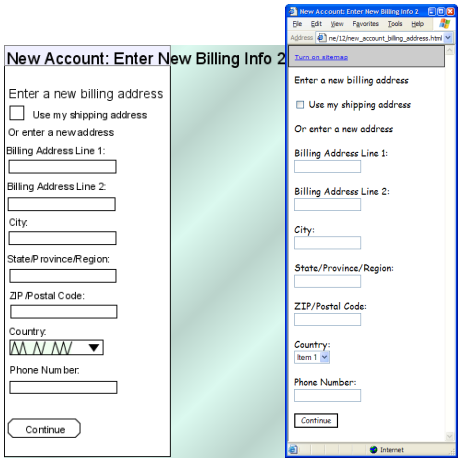

Forgot Password
Reset your password
Enter your e-mail address, and we will send you a web page to reset your password.
E-mail address
OK
Cancel

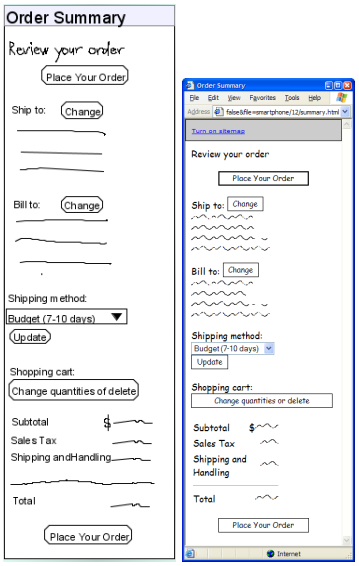

New Account
Create a new account
User name
New Password
Reenter Password
Create

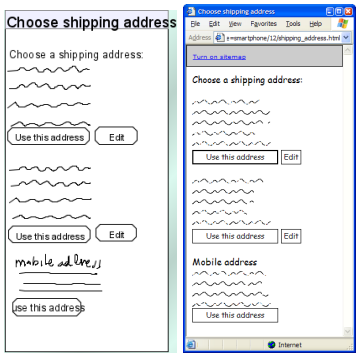

New Account: Enter Shipping Address
Enter a shipping address:
Full name:
Address Line 1:
Address Line 2:
City:
State/Province/Region:
ZIP/Postal Code:
Country:
Phone Number:
Continue

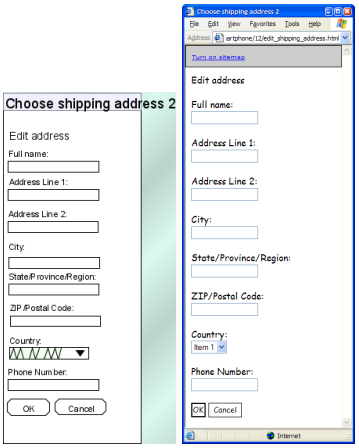

New Account: Choose Shipping Method
Choose a shipping method
Budget Shipping (7-10 days)
Standard Shipping (5-7 days)
Express Shipping (2-4 days)
Overnight Shipping (1 day)
Continue

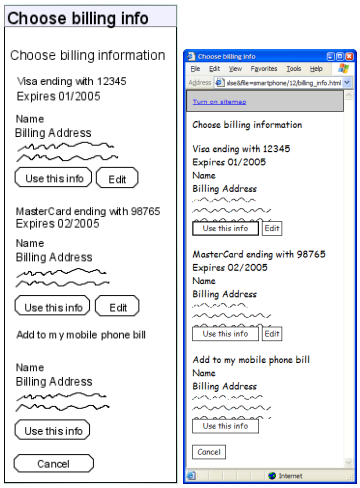

New Account: Enter New Billing Info
Choose billing information
Enter a new credit card
Credit Card Number:
Credit Card Type:
Cardholder Name:
Expiration Date:
Continue

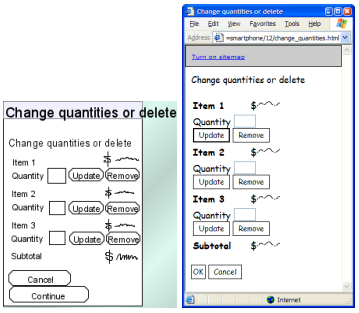

New Account: Enter New Billing Info 2
Enter a new billing address
Use my shipping address
Or enter a new address
Billing Address Line 1:
Billing Address Line 2:
City:
State/Province/Region:
ZIP/Postal Code:
Country:
Phone Number:
Continue

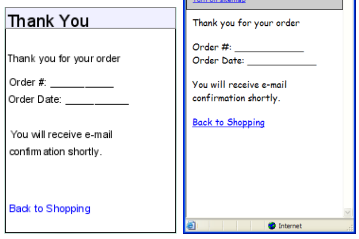

Order Summary
Review your order
Place Your Order
Ship to:
Change
Bill to:
Change
Shipping method:
Budget (7-10 days)
Update
Shopping cart:
Change quantities of delete
Subtotal
Sales Tax
Shipping and Handling
Total
Place Your Order


Choose shipping address
Choose a shipping address:
Use this address
Edit
Mobile address
Use this address


Choose shipping address 2
Edit address
Full name:
Address Line 1:
Address Line 2:
City:
State/Province/Region:
ZIP/Postal Code:
Country:
Phone Number:
OK
Cancel


Choose billing info
Choose billing information
Visa ending with 12345
Expires 01/2005
Name
Billing Address
Use this info
Edit
MasterCard ending with 98765
Expires 02/2005
Add to my mobile phone bill
Cancel

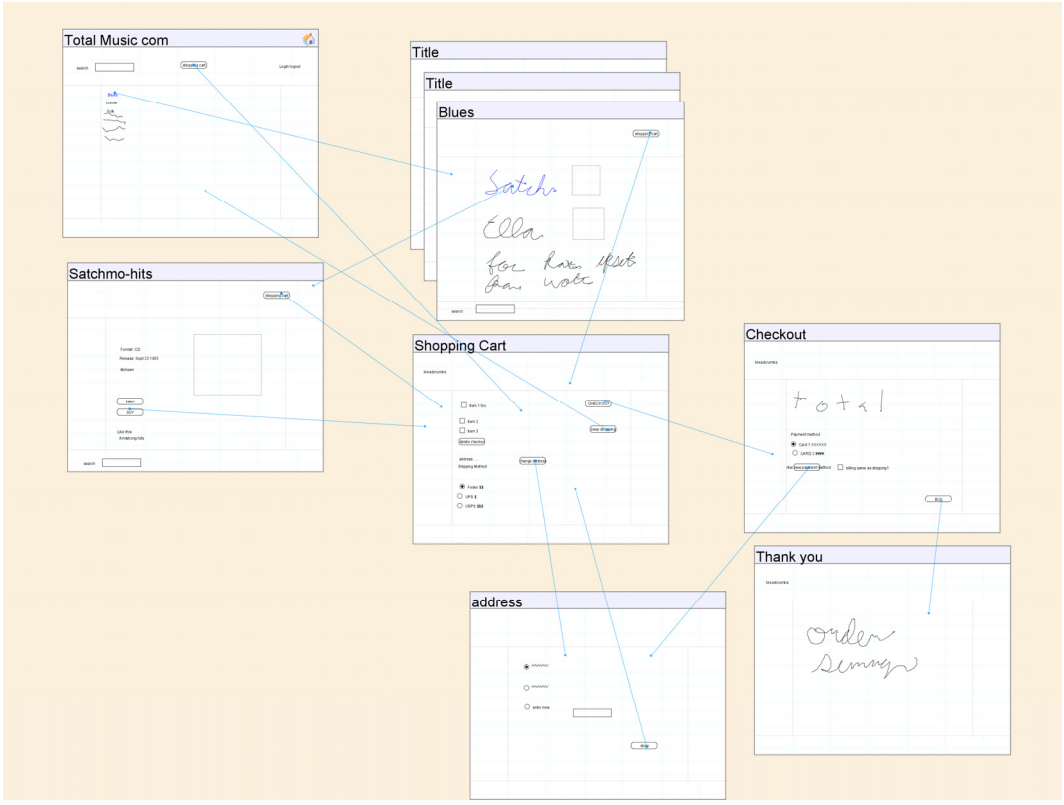

Change quantities or delete
Item 1
Quantity
Update
Remove
Item 2
Item 3
Subtotal
Cancel
Continue

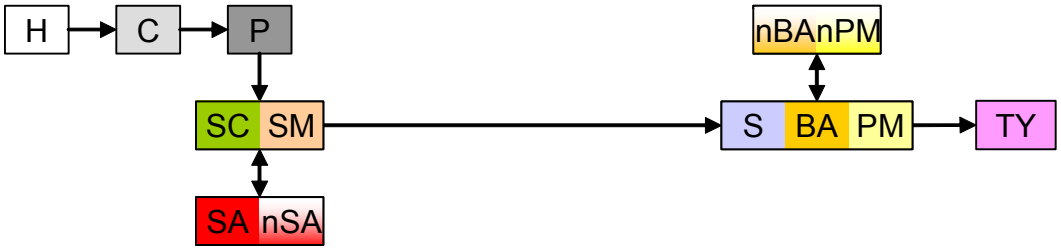

Thank You
Thank you for your order
Order #: _____
Order Date: _____
You will receive e-mail confirmation shortly.
Back to Shopping

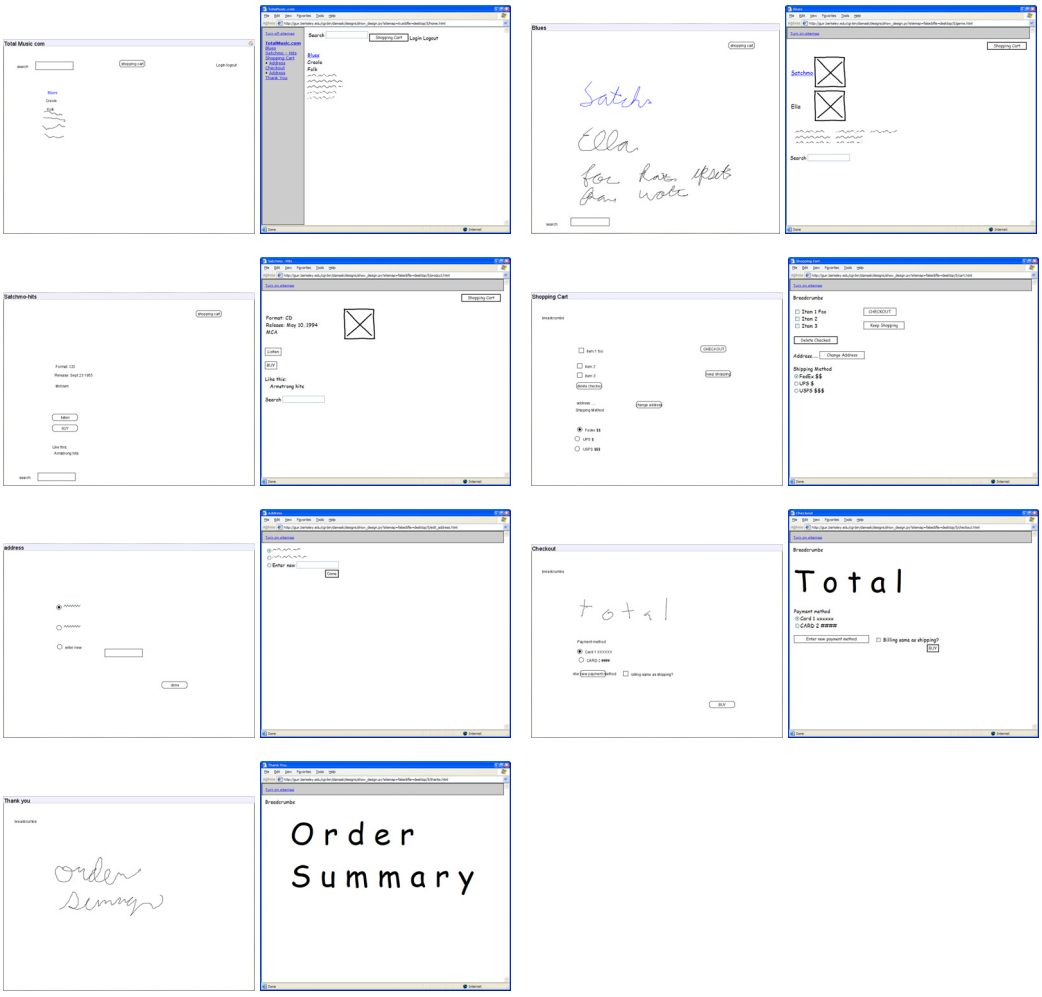
D.6 Designer 8

D.6.1 TotalMusic (no layers or patterns)

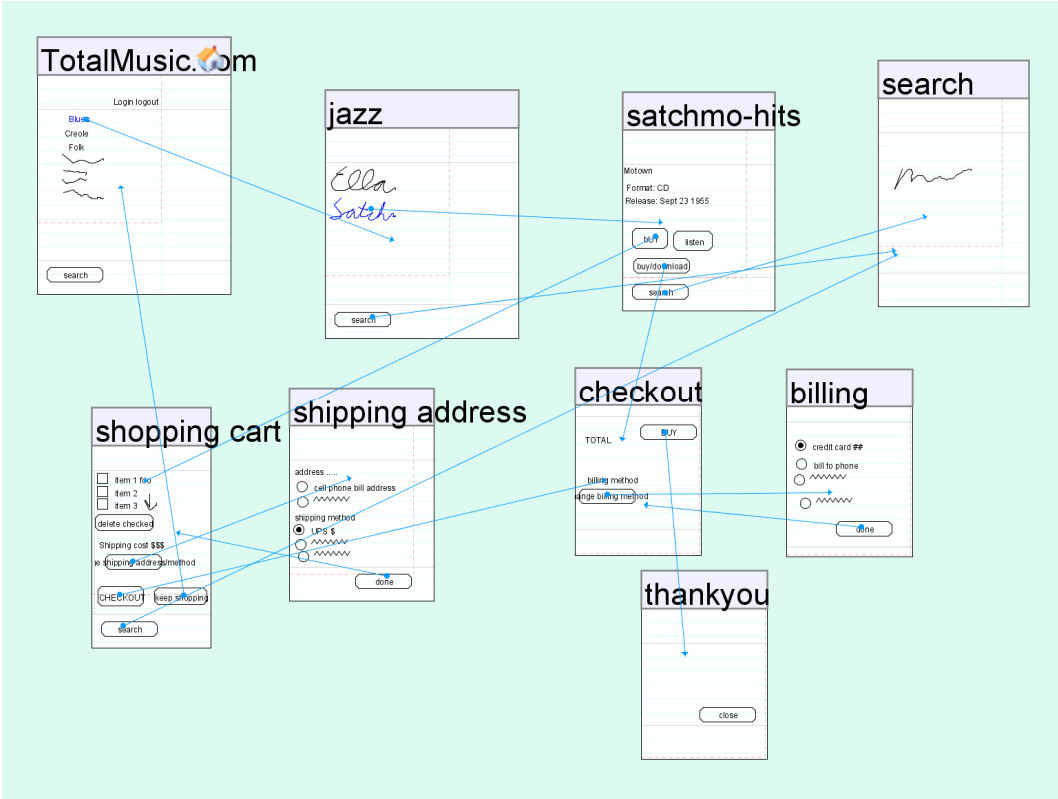
Desktop

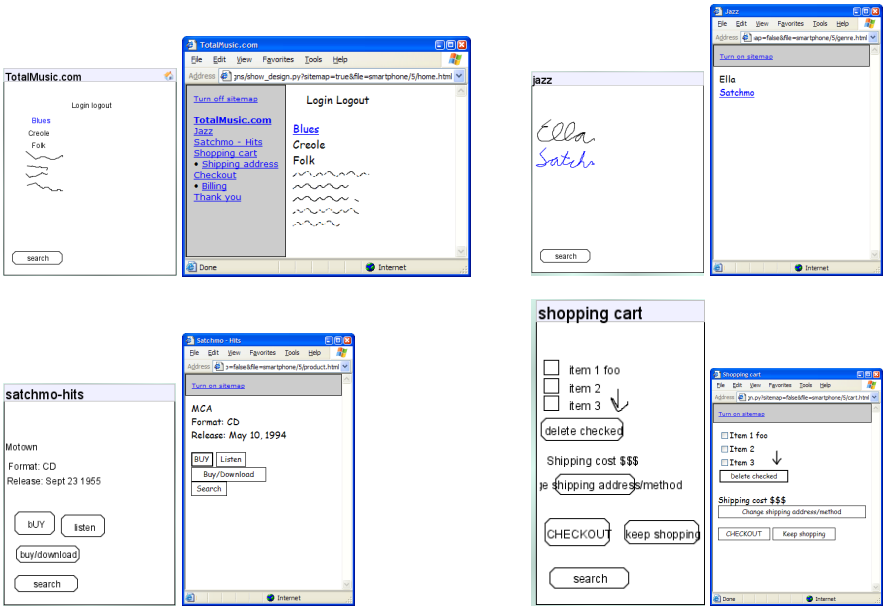


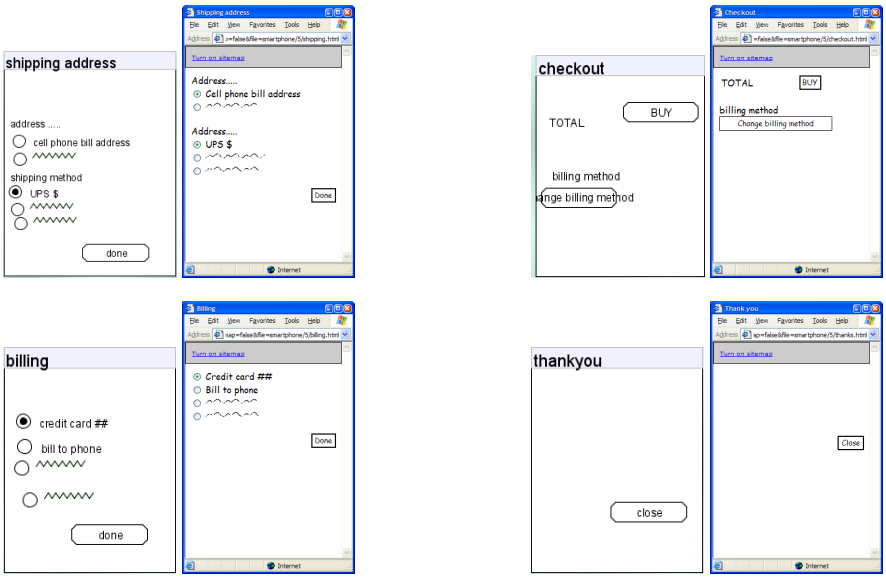



Total Music com
Blues
Satchmo
Ella
Satchmo-hits
Shopping Cart
Breadcrumbs
address
Checkout
Total
Thank you
Order
Summary

Smartphone

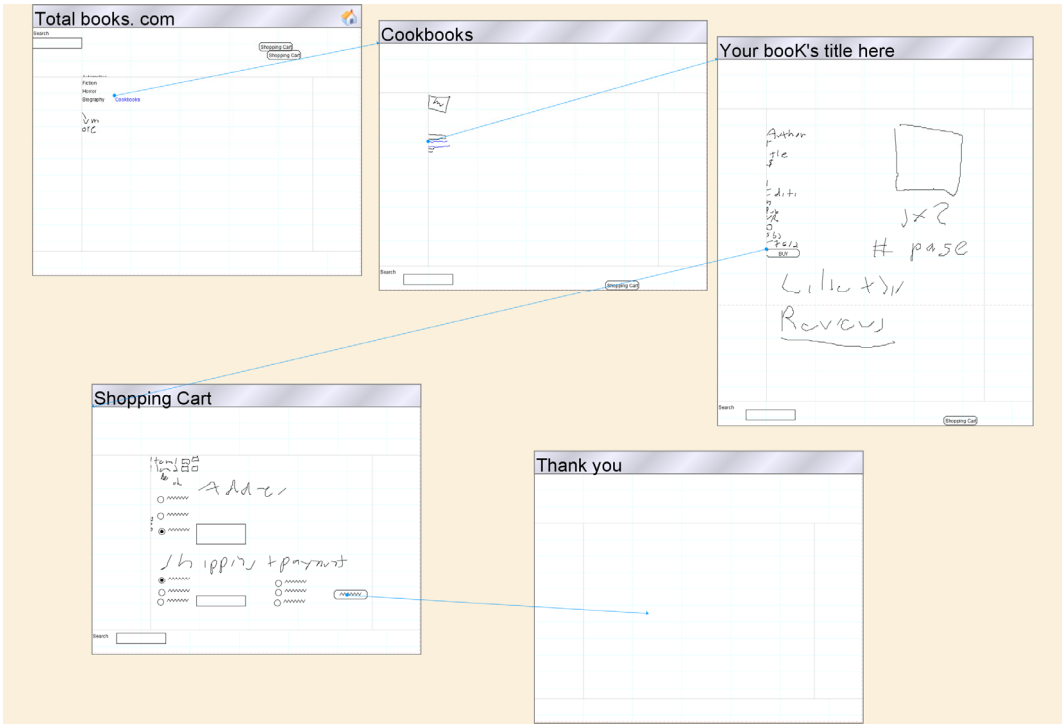

TotalMusic.com
Login logout
Blues
Creole
Folk
search
jazz
Ella
Satch.
search
satchmo-hits
Motown
Format: CD
Release: Sept 23 1955
buy
listen
buy/download
search
search
shopping cart
item 1 foo
item 2
item 3
delete checked
Shipping cost $$$
shipping address/method
CHECKOUT
keep shopping
search
shipping address
address ....
cell phone bill address
shipping method
UPS $
done
checkout
TOTAL
BUY
billing method
change billing method
billing
credit card ##
bill to phone
done
thankyou
close


TotalMusic.com
Login logout
Blues
Creole
Folk
search
TotalMusic.com
Turn off sitemap
TotalMusic.com
Jazz
Satchmo - Hits
Shopping cart
• Shipping address
Checkout
• Billing
Thank you
Login Logout
Blues
Creole
Folk
jazz
Ella
Satch.
search
Turn on sitemap
Ella
Satchmo
satchmo-hits
Motown
Format: CD
Release: Sept 23 1955
bUY
listen
buy/download
search
MCA
Format: CD
Release: May 10, 1994
BUY
Listen
Buy/Download
Search
shopping cart
item 1 foo
item 2
item 3
delete checked
Shipping cost $$$
shipping address/method
CHECKOUT
keep shopping
search



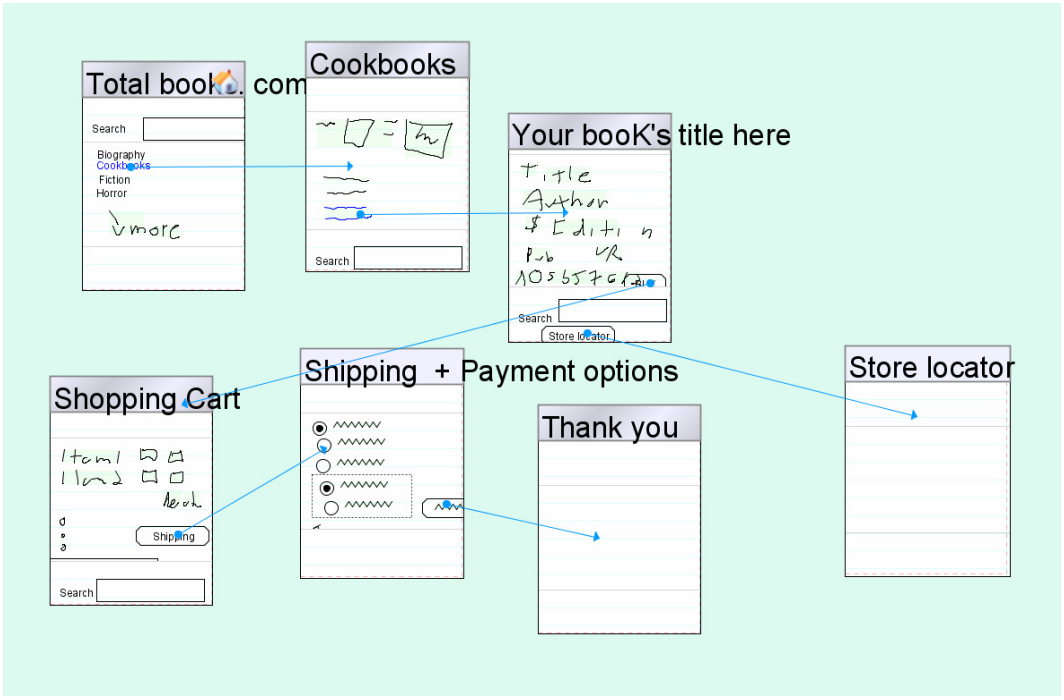
D.6.2 TotalBooks (with layers and patterns)

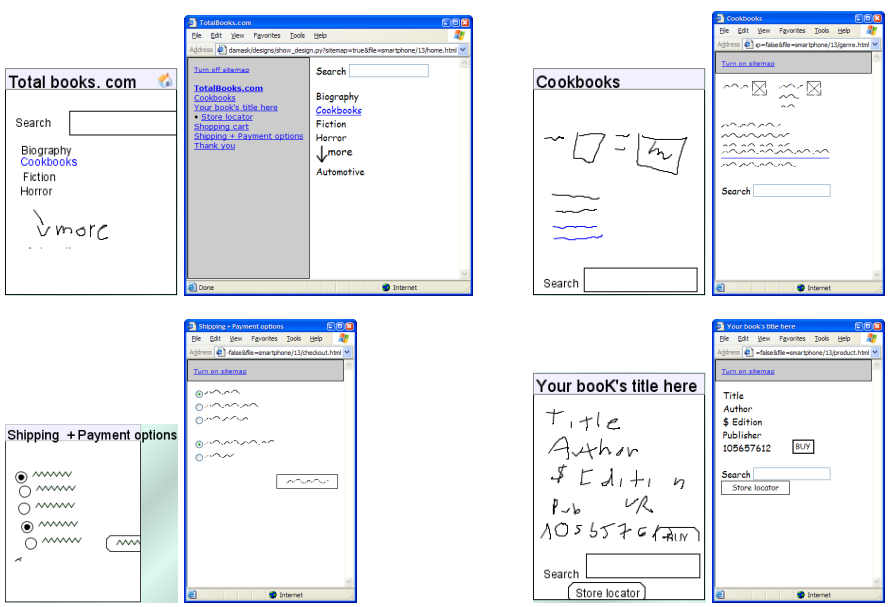
Desktop

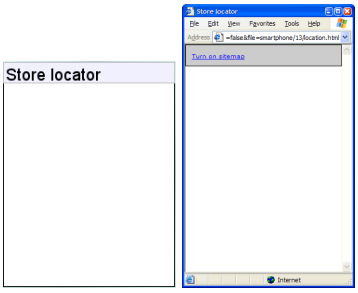


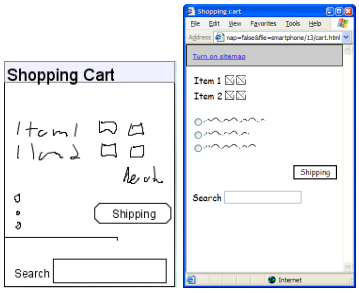
H
C
P
SC
SA
nSA
SM
BA
PM
TY
Cookbooks
Total books: core
Your book's title here
Reviews
Shopping Cart
Address
Shipping
+ payment
Thank you

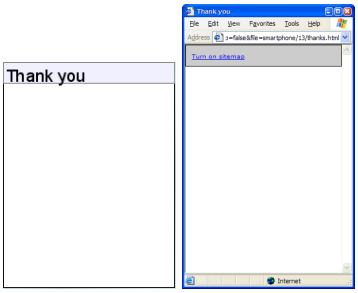
Smartphone


Total books. com
Search
Biography
Cookbooks
Fiction
Horror
more
Cookbooks
Search
Your booK's title here
Title
Author
$ Edition
Pub
UR
105657612
Search
Store locator
Shopping Cart
Shipping
Search
Shipping + Payment options
Thank you
Store locator


Total books. com
Search
Biography
Cookbooks
Fiction
Horror
more
TotalBooks.com
Cookbooks
Your book's title here
Store locator
Shopping cart
Shipping + Payment options
Thank you
Search
Biography
Cookbooks
Fiction
Horror
more
Automotive
Cookbooks
Search
Shipping + Payment options
Your booK's title here
Title
Author
$ Edition
Pub
UR
105657612
Search
Store locator
Your book's title here
Title
Author
$ Edition
Publisher
105657612
BUY
Search
Store locator


Store locator

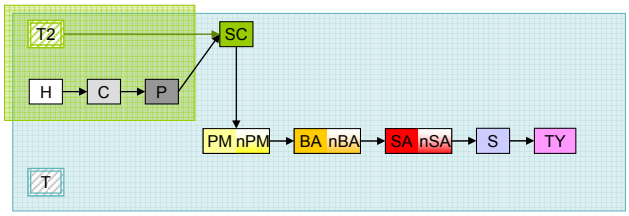

Shopping Cart
Shipping
Search
Item 1
Item 2
Shipping
Search

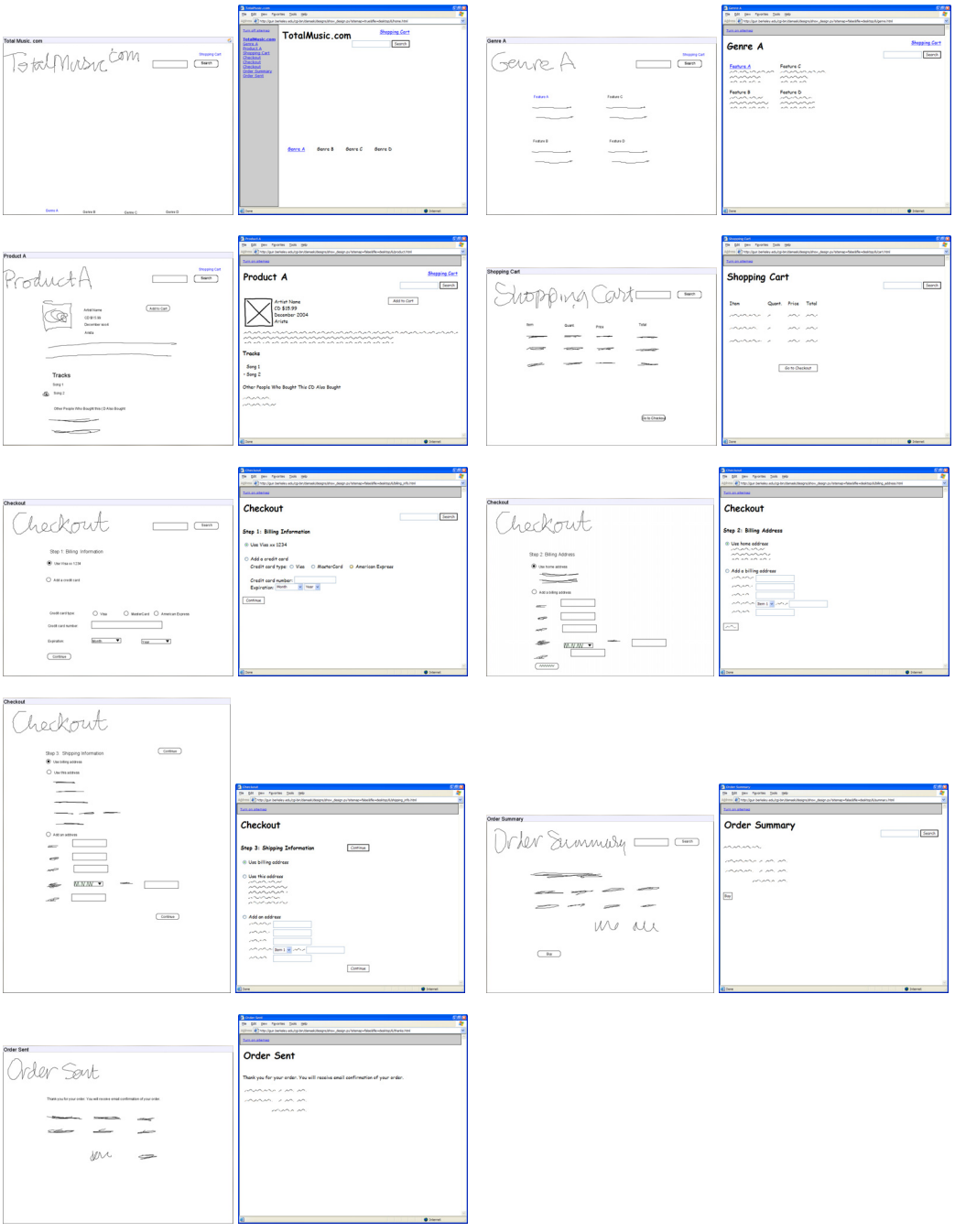

Thank you

D.7 Designer 9

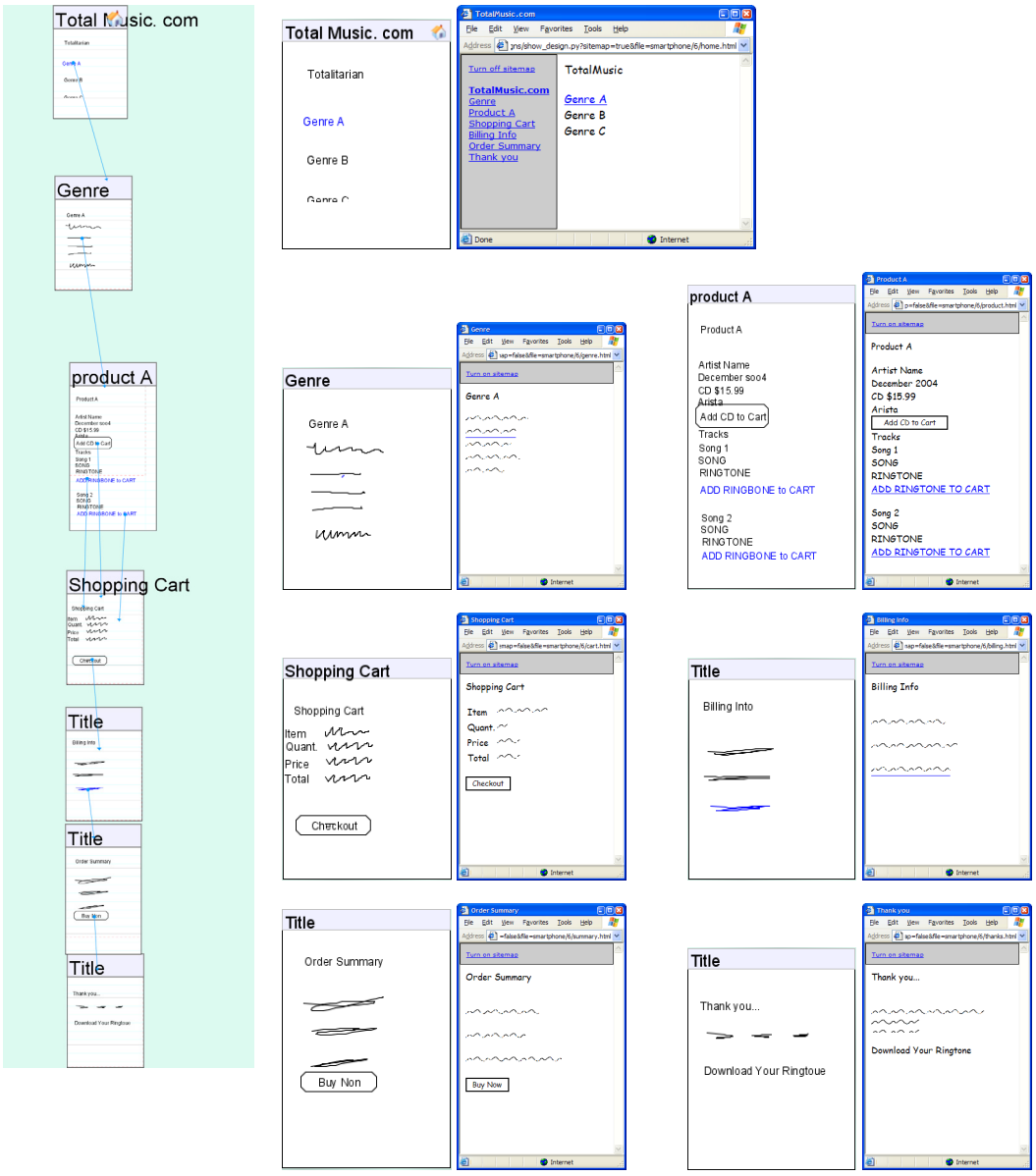
D.7.1 TotalMusic (no layers or patterns)

Desktop



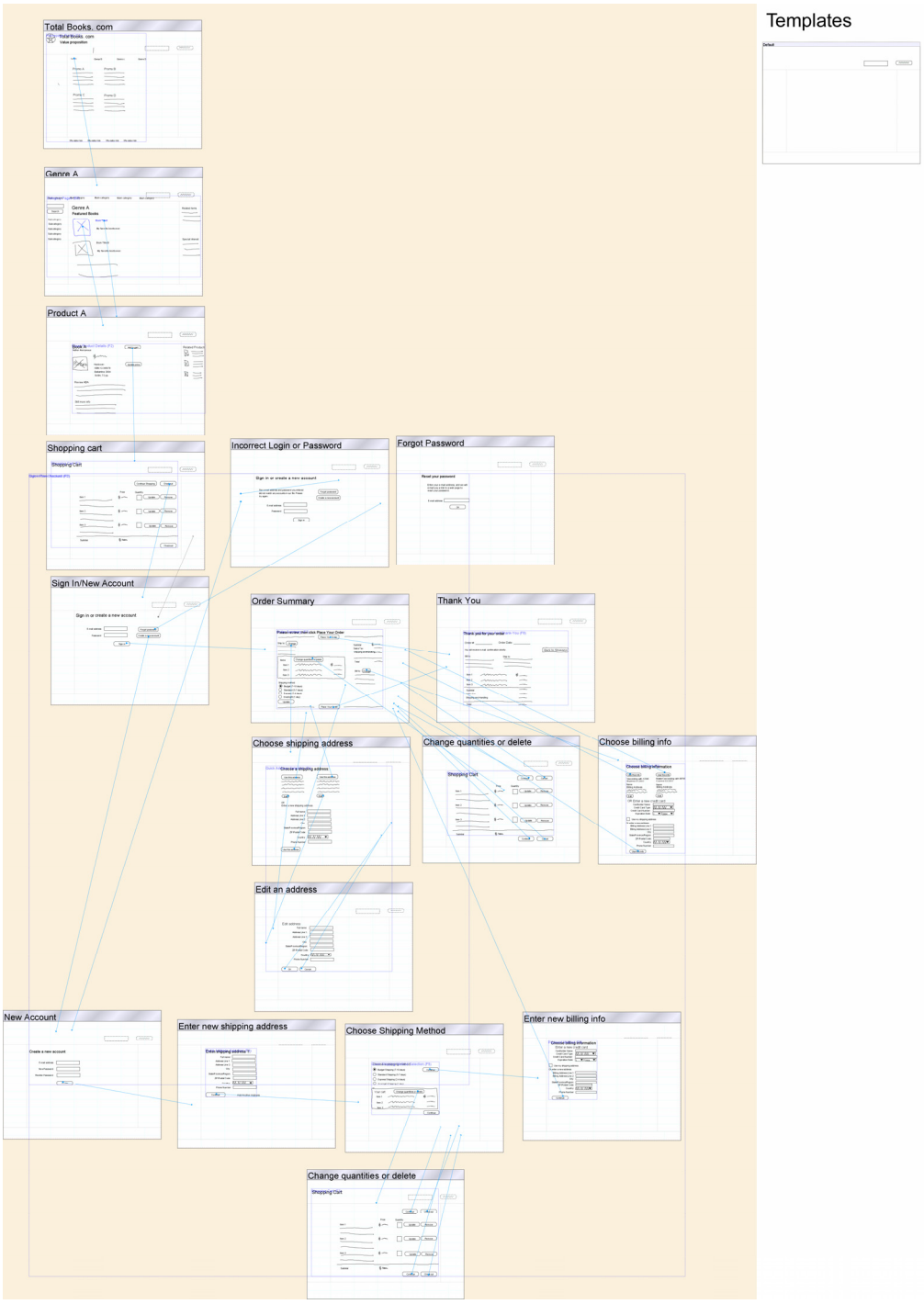


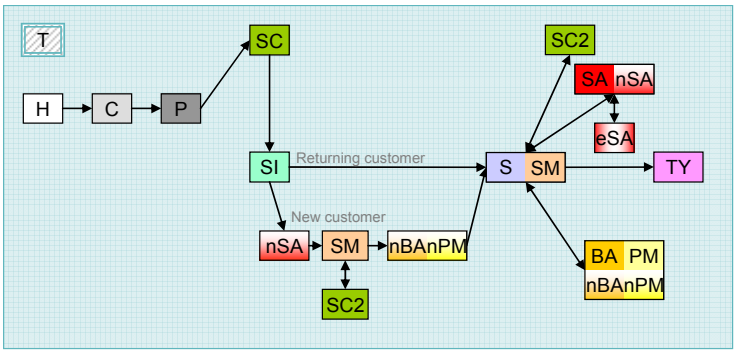
Smartphone

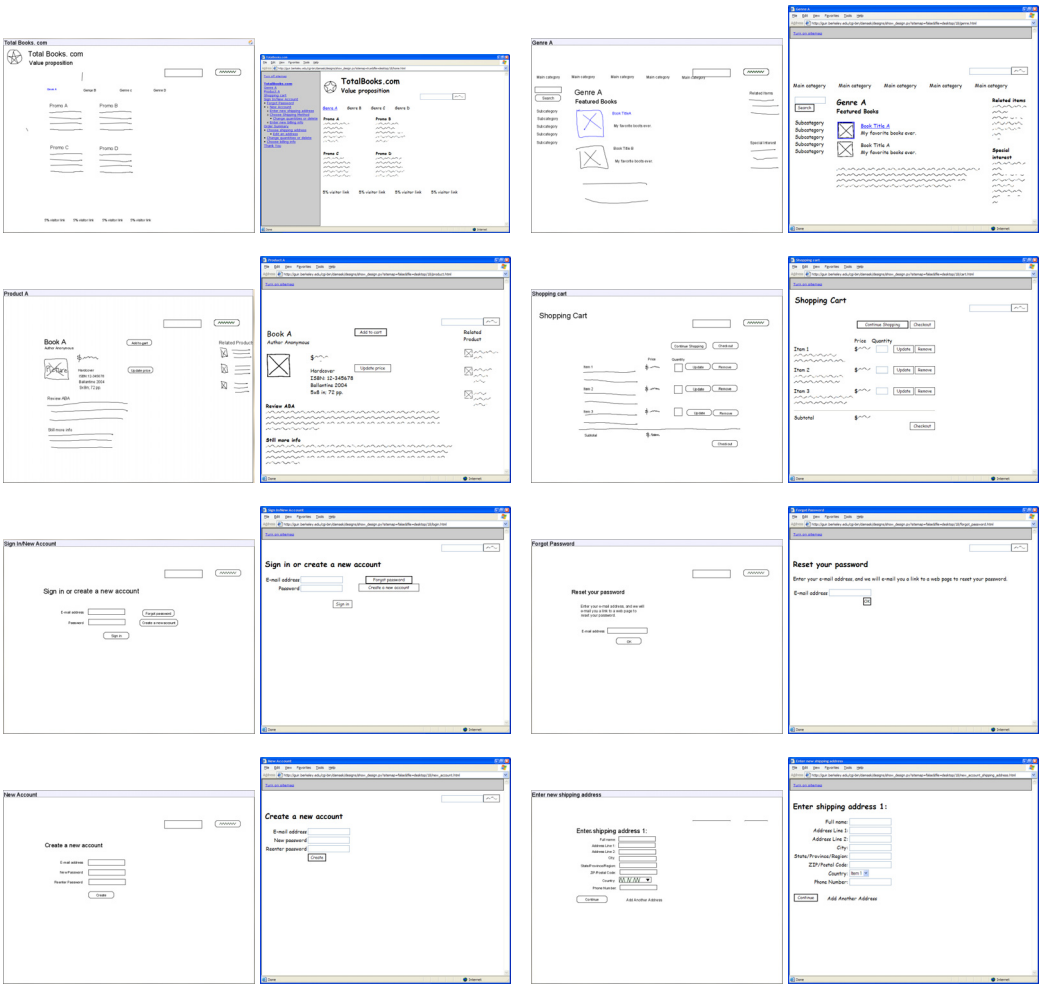

Total Music. com
Genre
product A
Shopping Cart
Title
Title
Title
Total Music. com
Totalitarian
Genre A
Genre B
Genre C
Turn off sitemap
TotalMusic.com
Genre
Product A
Shopping Cart
Billing Info
Order Summary
Thank you
TotalMusic
Genre A
Genre B
Genre C
Done
Internet
Genre
Genre A
product A
Product A
Artist Name
December soo4
CD $15.99
Arista
Add CD to Cart
Tracks
Song 1
SONG
RINGTONE
ADD RINGBONE to CART
Song 2
SONG
RINGTONE
ADD RINGBONE to CART
Product A
Artist Name
December 2004
CD $15.99
Arista
Add CD to Cart
Tracks
Song 1
SONG
RINGTONE
ADD RINGTONE TO CART
Song 2
SONG
RINGTONE
ADD RINGTONE TO CART
Shopping Cart
Item
Quant.
Price
Total
Checkout
Title
Billing Into
Billing Info
Title
Order Summary
Buy Non
Title
Thank you...
Download Your Ringtoue
Thank you...
Download Your Ringtone

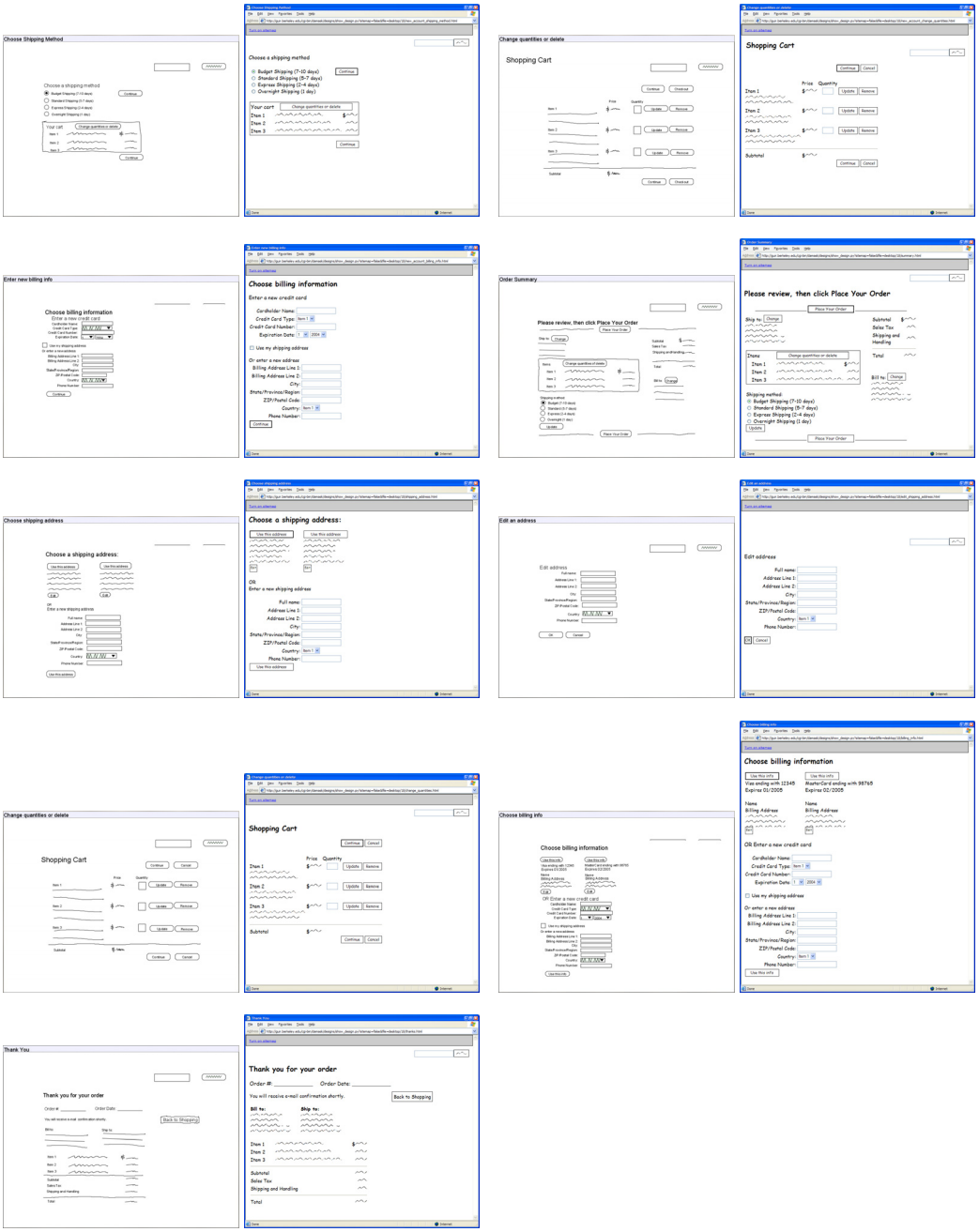
D.7.2 TotalBooks (with layers and patterns)

Desktop

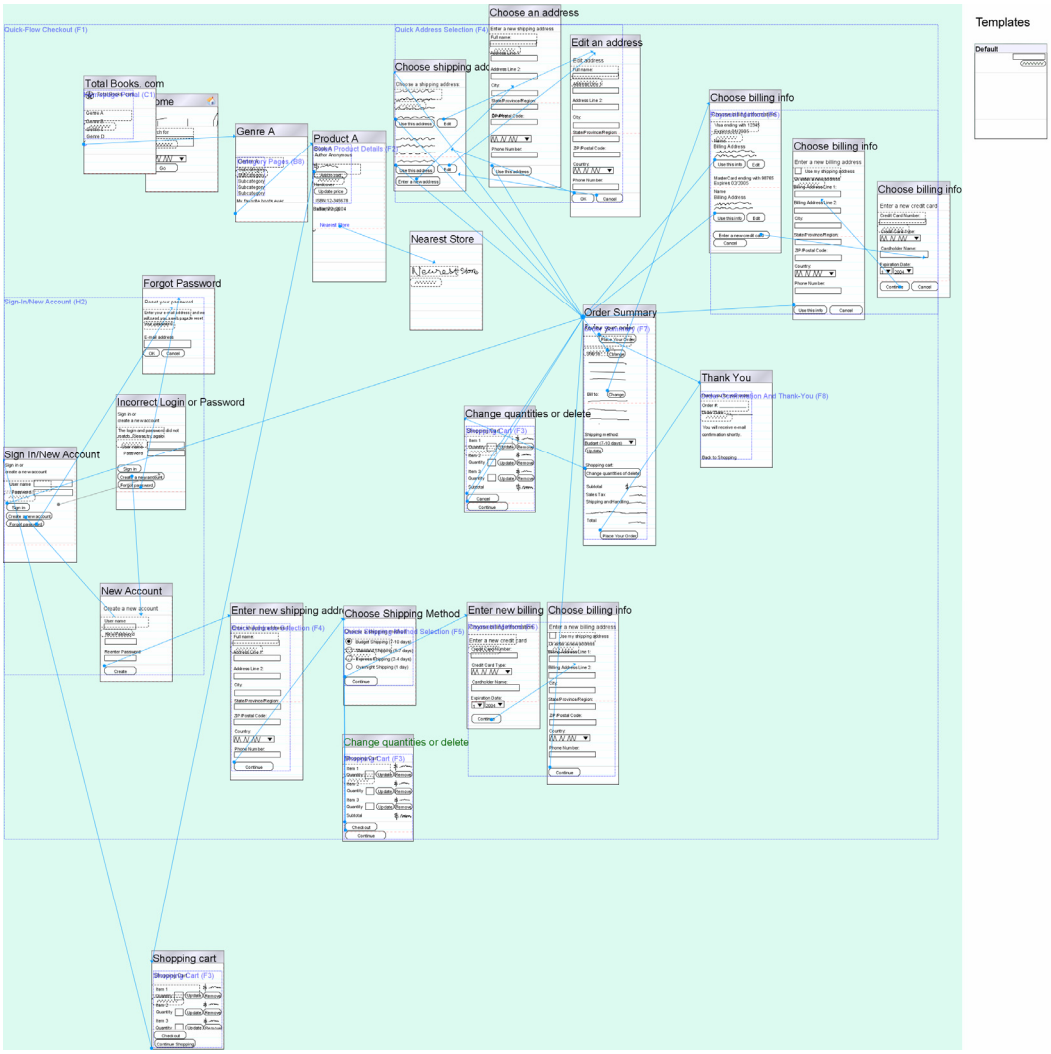


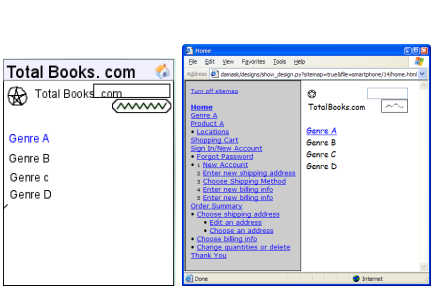

T
SC
SC2
SA nSA
H
C
P
eSA
SI
Returning customer
S
SM
TY
New customer
nSA
SM
nBAnPM
BA PM
nBAnPM
SC2

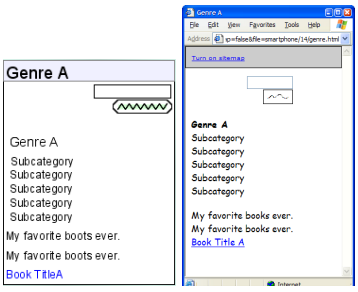


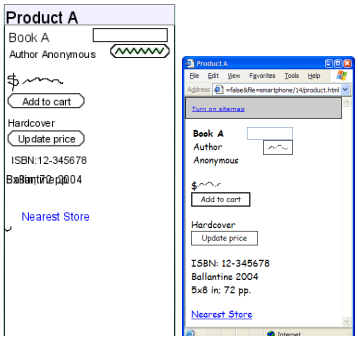

Choose Shipping Method
Change quantities or delete
Shopping Cart
Enter new billing info
Choose billing information
Order Summary
Please review, then click Place Your Order
Choose shipping address
Choose a shipping address:
Edit an address
Edit address
Change quantities or delete
Shopping Cart
Choose billing info
Choose billing information
Thank You
Thank you for your order

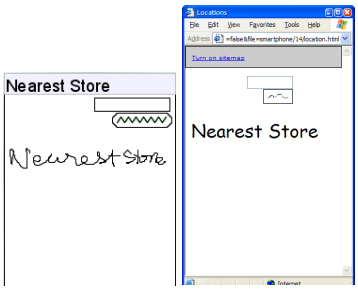
Smartphone

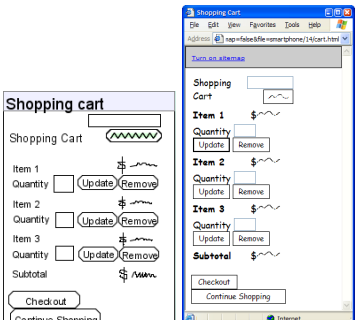

Choose an address
Templates
Default
Total Books. com
Genre A
Product A
Choose shipping address
Edit an address
Choose billing info
Choose billing info
Choose billing info
Nearest Store
Forgot Password
Order Summary
Thank You
Incorrect Login or Password
Change quantities or delete
Sign In/New Account
New Account
Enter new shipping address
Choose Shipping Method
Enter new billing info
Choose billing info
Change quantities or delete
Shopping cart

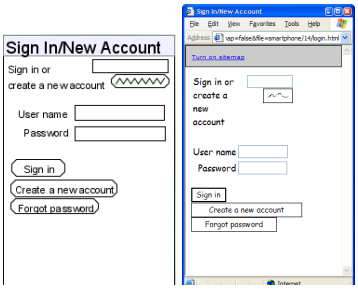

Total Books. com
Total Books. com
Genre A
Genre B
Genre c
Genre D
Home
TotalBooks.com
Genre A
Genre B
Genre C
Genre D

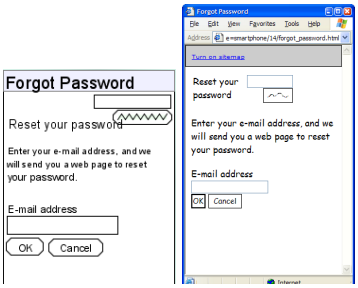

Genre A
Genre A
Subcategory
Subcategory
Subcategory
Subcategory
Subcategory
My favorite boots ever.
My favorite boots ever.
Book TitleA
Genre A
Subcategory
Subcategory
Subcategory
Subcategory
Subcategory
My favorite books ever.
My favorite books ever.
Book Title A

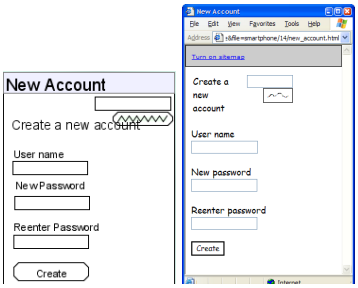

Product A
Book A
Author Anonymous
Add to cart
Hardcover
Update price
ISBN:12-345678
Nearest Store

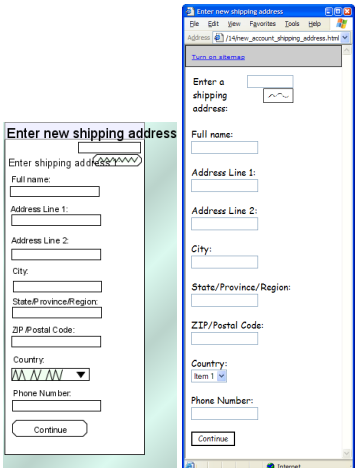

Nearest Store
Nearest Store

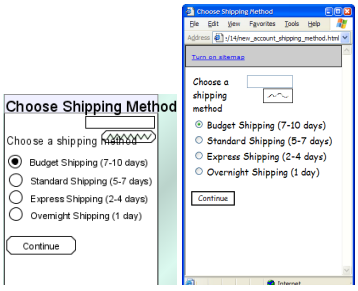

Shopping cart
Shopping Cart
Item 1
Quantity
Update
Remove
Item 2
Item 3
Subtotal
Check out

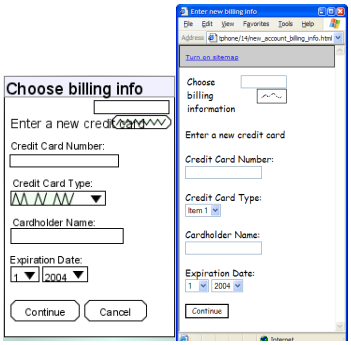

Sign In/New Account
Sign in or
create a new account
User name
Password
Sign in
Create a new account
Forgot password

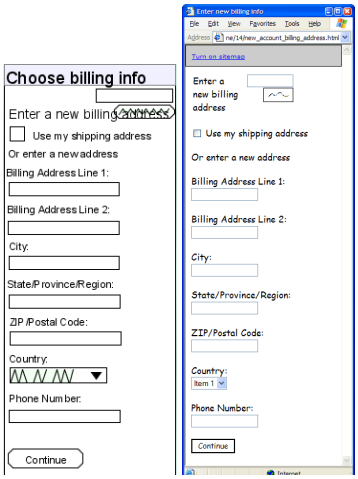

Forgot Password
Reset your password
Enter your e-mail address, and we will send you a web page to reset your password.
E-mail address
OK
Cancel

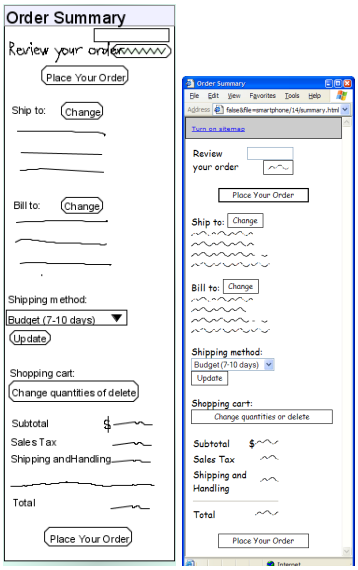

New Account
Create a new account
User name
New Password
Reenter Password
Create

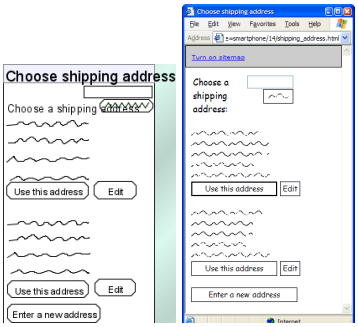

Enter new shipping address
Enter shipping address
Full name:
Address Line 1:
Address Line 2:
City:
State/Province/Region:
ZIP/Postal Code:
Country:
Phone Number:
Continue

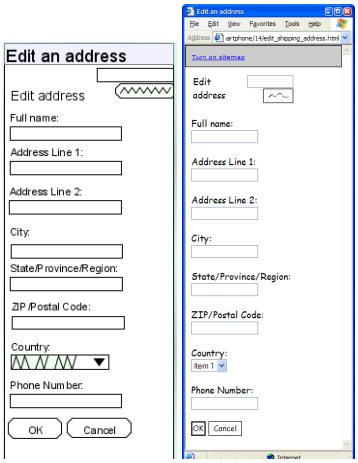

Choose Shipping Method
Choose a shipping method
Budget Shipping (7-10 days)
Standard Shipping (5-7 days)
Express Shipping (2-4 days)
Overnight Shipping (1 day)
Continue

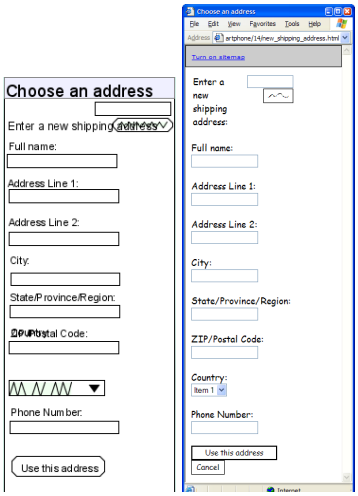

Choose billing info
Enter a new credit card
Credit Card Number:
Credit Card Type:
Cardholder Name:
Expiration Date:
Continue
Cancel

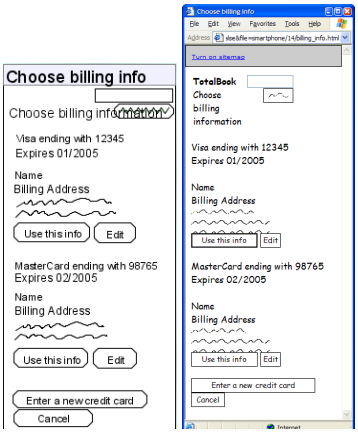

Choose billing info
Enter a new billing address
Use my shipping address
Or enter a new address
Billing Address Line 1:
Billing Address Line 2:
City:
State/Province/Region:
ZIP/Postal Code:
Country:
Phone Number:
Continue

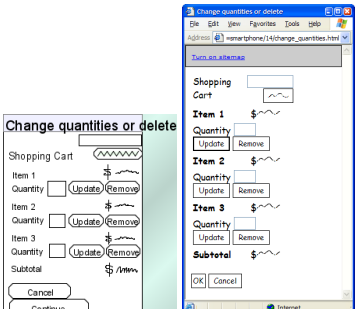

Order Summary
Review your order
Place Your Order
Ship to:
Change
Bill to:
Shipping method:
Budget (7-10 days)
Update
Shopping cart:
Change quantities of delete
Subtotal
Sales Tax
Shipping and Handling
Total
Place Your Order


Choose shipping address
Choose a shipping address
Use this address
Edit
Enter a new address


Edit an address
Edit address
Full name:
Address Line 1:
Address Line 2:
City:
State/Province/Region:
ZIP/Postal Code:
Country:
Phone Number:
OK
Cancel


Choose an address
Enter a new shipping address
Full name:
Address Line 1:
Address Line 2:
City:
State/Province/Region:
ZIP/Postal Code:
Phone Number:
Use this address


Choose billing info
Choose billing information
Visa ending with 12345
Expires 01/2005
Name
Billing Address
Use this info
Edit
MasterCard ending with 98765
Expires 02/2005
Name
Billing Address
Use this info
Edit
Enter a new credit card
Cancel
TotalBook
Choose billing information
Visa ending with 12345
Expires 01/2005
Name
Billing Address
Use this info
Edit
MasterCard ending with 98765
Expires 02/2005
Name
Billing Address
Use this info
Edit
Enter a new credit card
Cancel


Change quantities or delete
Shopping Cart
Item 1
Quantity
Update
Remove
Item 2
Quantity
Update
Remove
Item 3
Quantity
Update
Remove
Subtotal
Cancel
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Quantity
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Item 3
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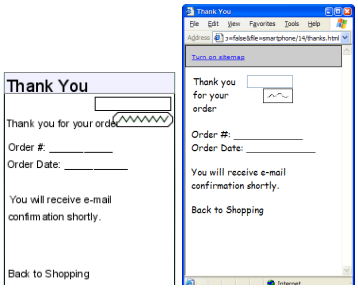
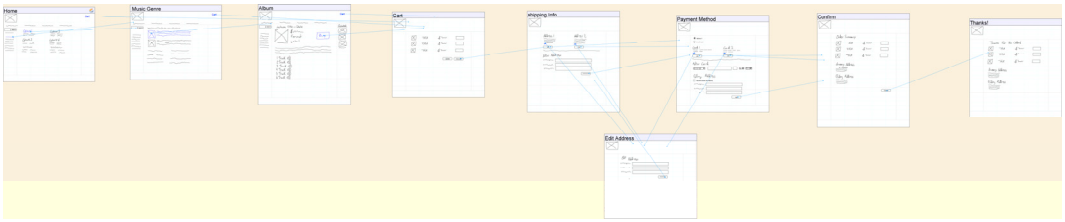
Update
Remove
Subtotal
OK
Cancel

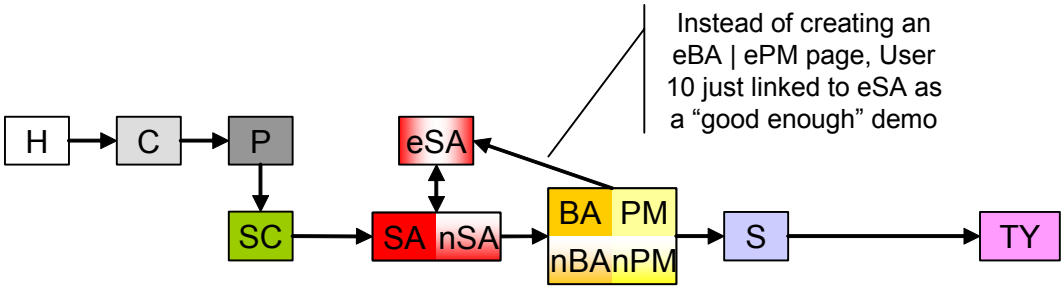

Thank You
Thank you for your order
Order #: _____
Order Date: _____
You will receive e-mail confirmation shortly.
Back to Shopping
Thank you for your order
Order #: _____
Order Date: _____
You will receive e-mail confirmation shortly.
Back to Shopping

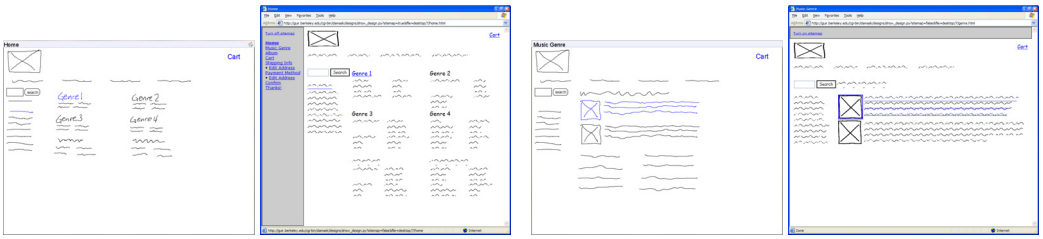
D.8 Designer 10

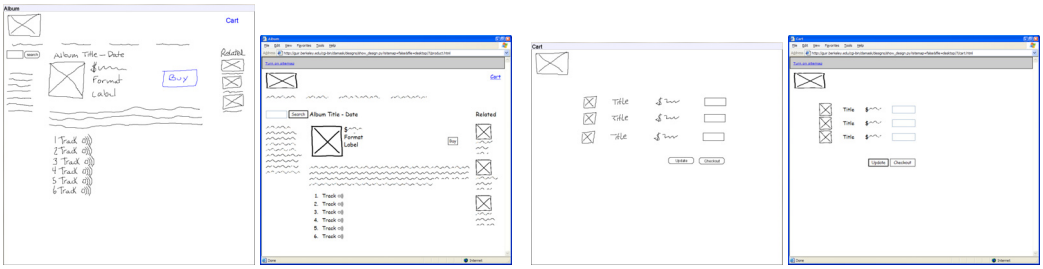
D.8.1 TotalMusic (no layers or patterns)

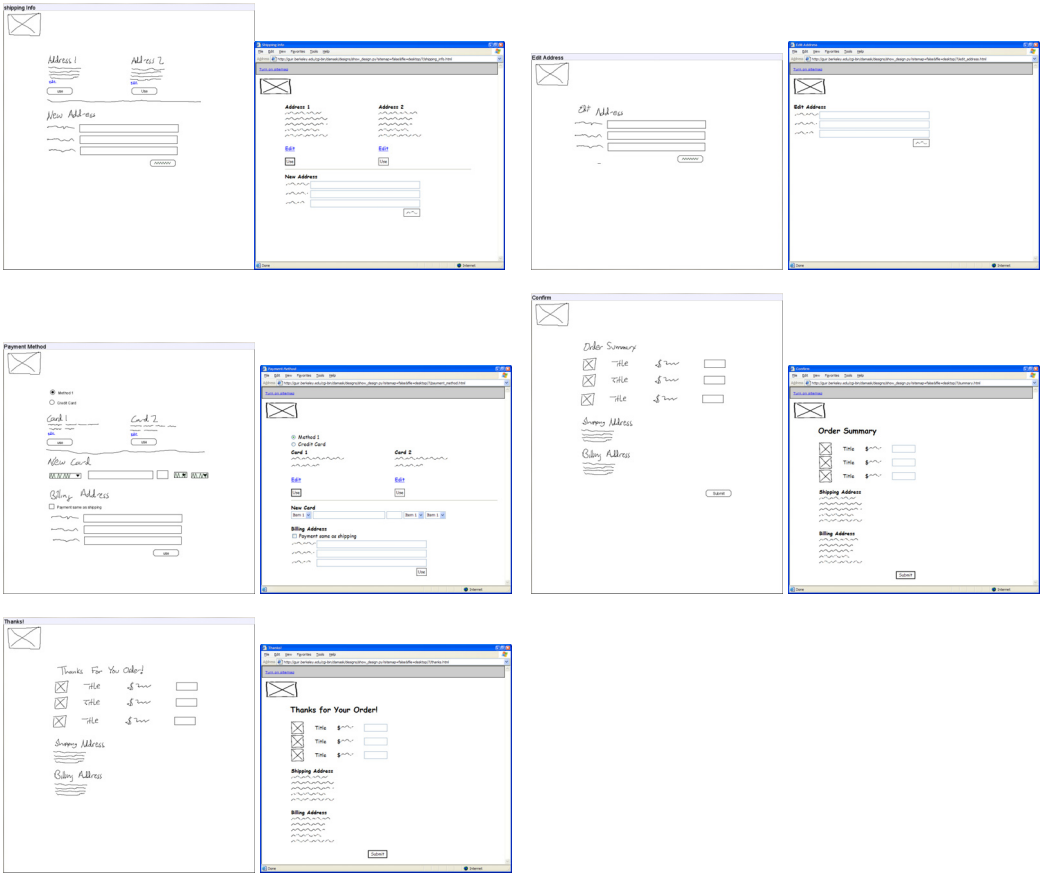
Desktop



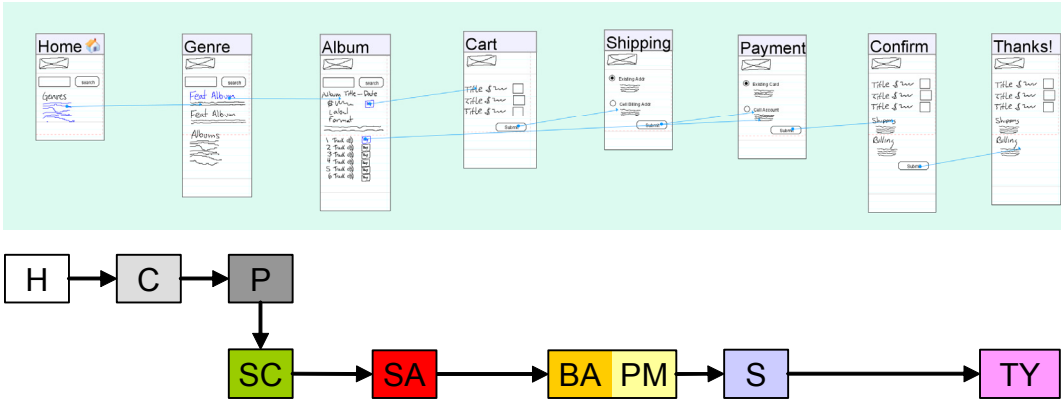


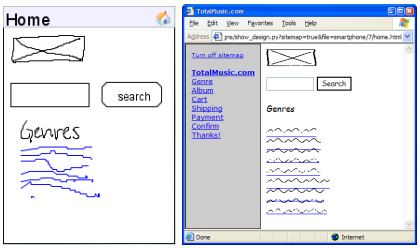




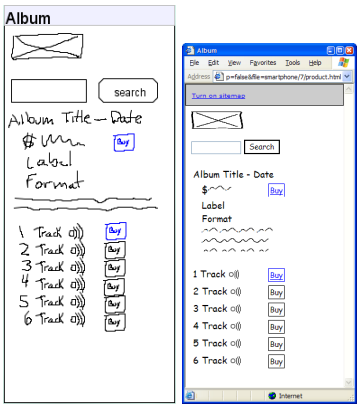


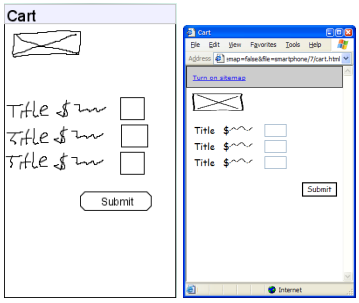
Smartphone

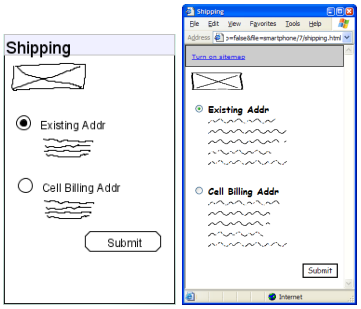

Home
Genre
Album
Cart
Shipping
Payment
Confirm
Thanks!
H
C
P
SC
SA
BA
PM
S
TY

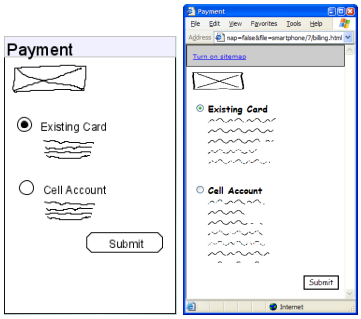

Home
search
Genres

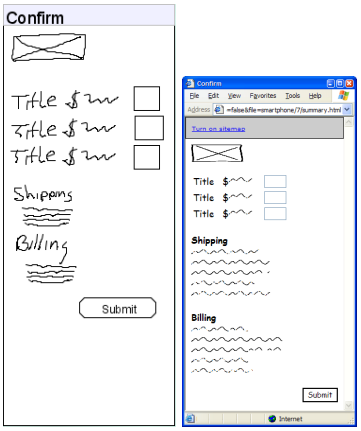
Genre
search
Feat Album
Feat Album
Albums

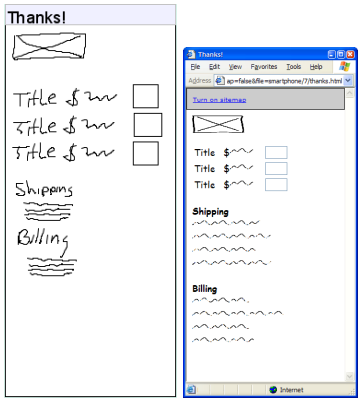

Album
search
Album Title – Date
$
Label
Format
1 Track
2 Track
3 Track
4 Track
5 Track
6 Track


Cart
Title $
Title $
Title $
Submit


Shipping
Existing Addr
Cell Billing Addr
Submit

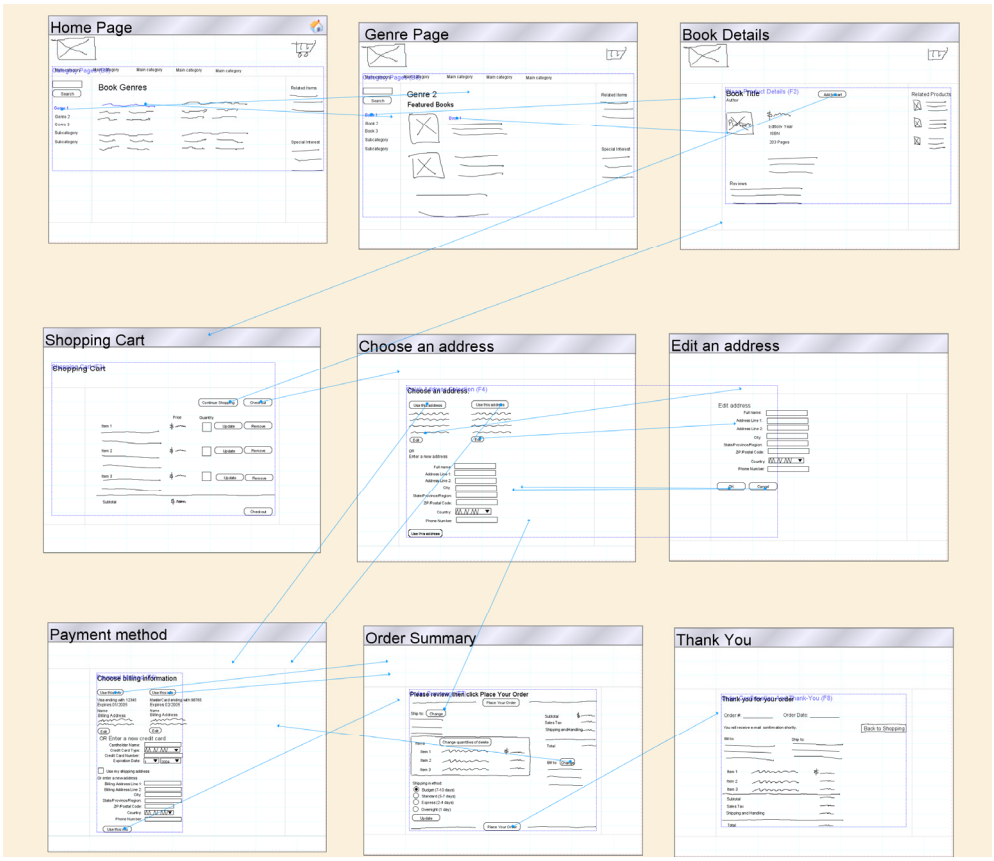

Payment
Existing Card
Cell Account
Submit

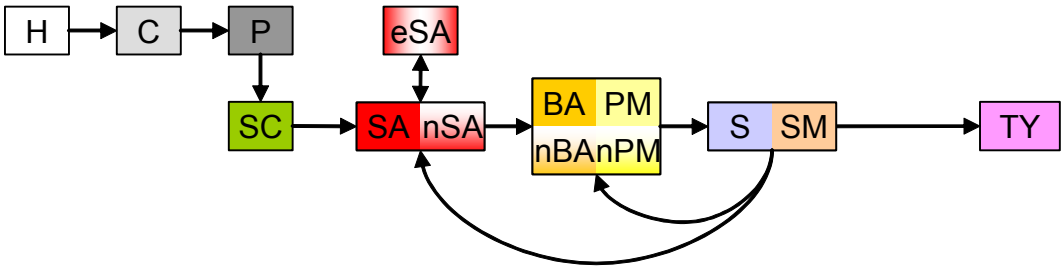

Confirm
Title $
Title $
Title $
Shipping
Billing
Submit

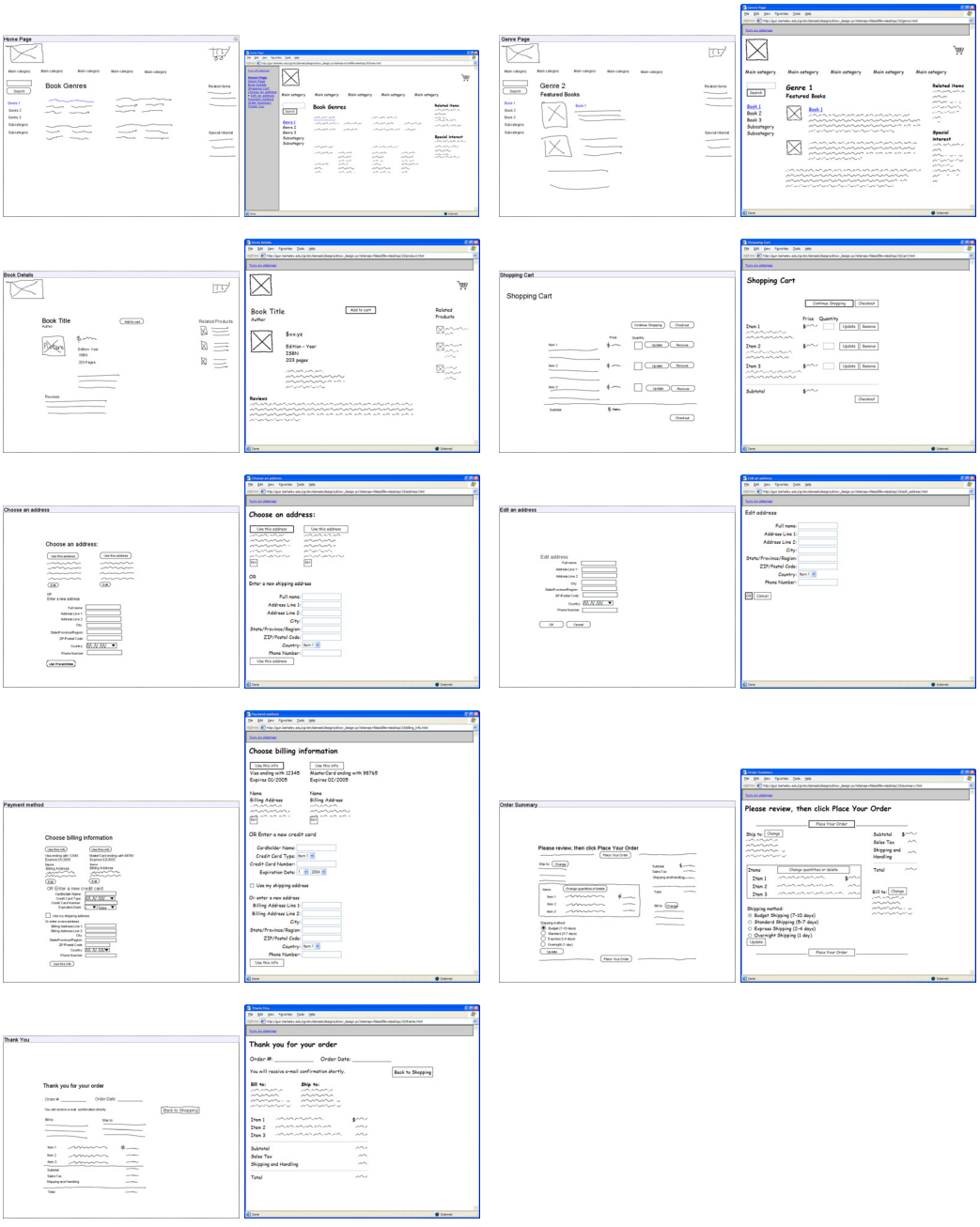

Thanks!
Title $
Title $
Title $
Shipping
Billing

D.8.2 TotalBooks (with layers and patterns)

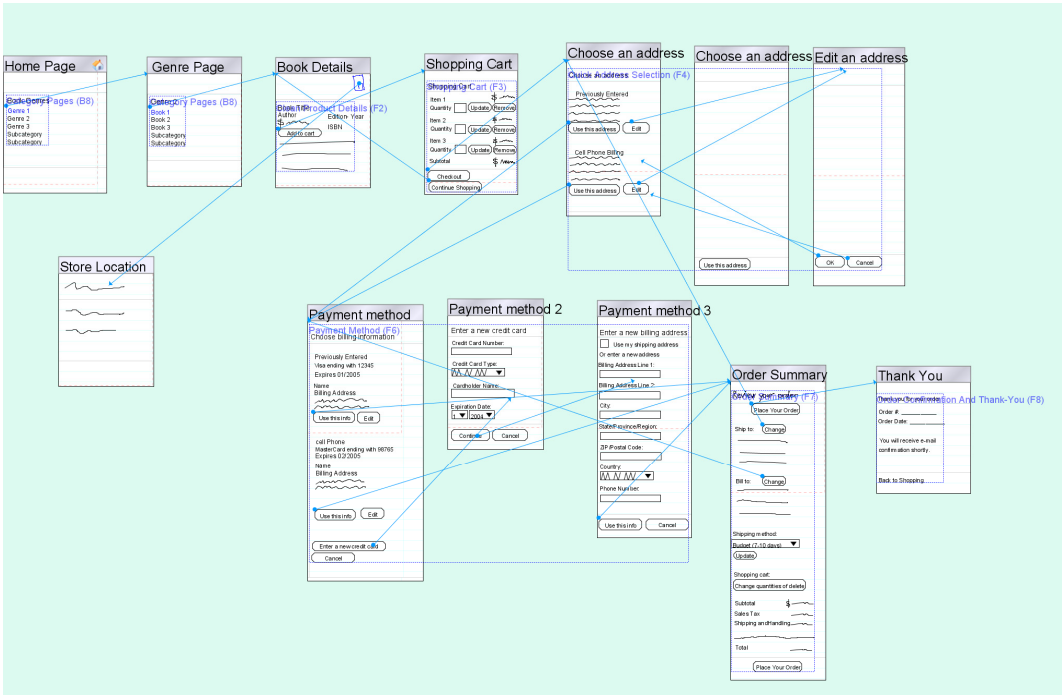
Desktop

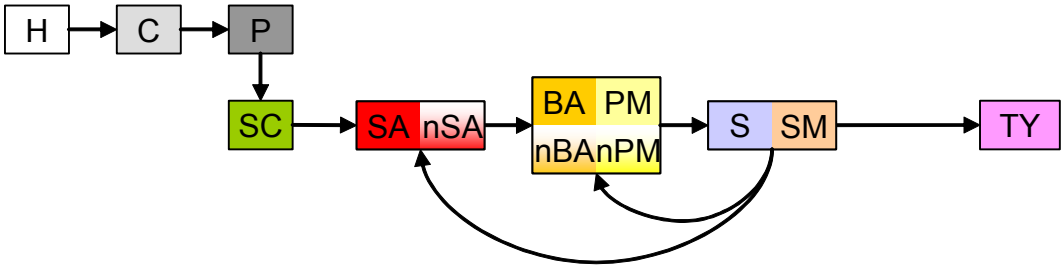


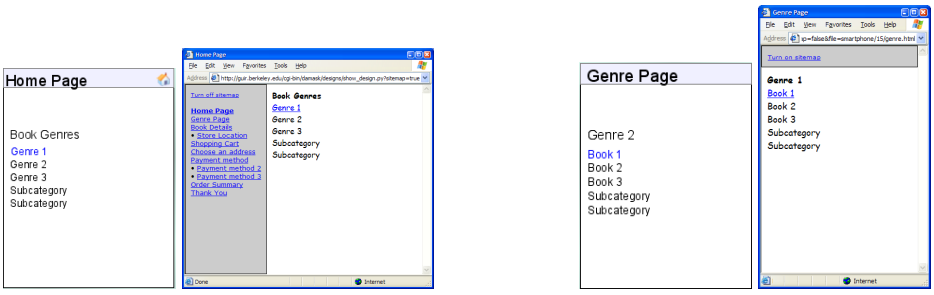


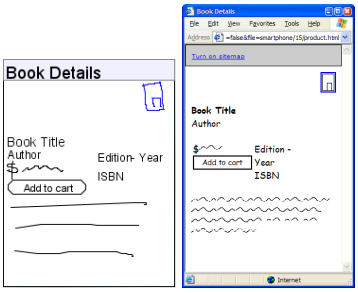

Home Page
Book Genres
Genre Page
Genre 2
Featured Books
Genre 1
Book Details
Book Title
Shopping Cart
Choose an address
Edit an address
Payment method
Choose billing information
Order Summary
Please review, then click Place Your Order
Thank You
Thank you for your order

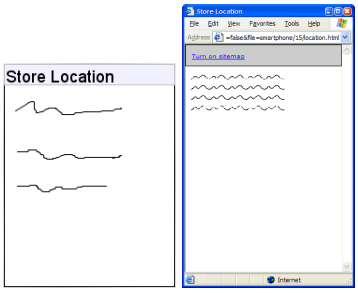
Smartphone

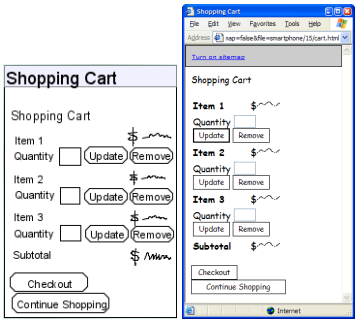

Home Page
Genre Page
Book Details
Shopping Cart
Choose an address
Choose an address
Edit an address
Store Location
Payment method
Payment method 2
Payment method 3
Order Summary
Thank You

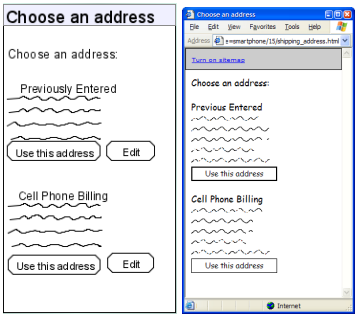

H
C
P
SC
SA
nSA
BA
PM
nBAnPM
S
SM
TY

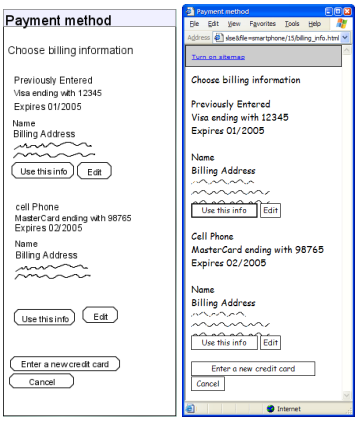

Home Page
Book Genres
Genre 1
Genre 2
Genre 3
Subcategory
Subcategory
Genre Page
Genre 2
Book 1
Book 2
Book 3
Subcategory
Subcategory

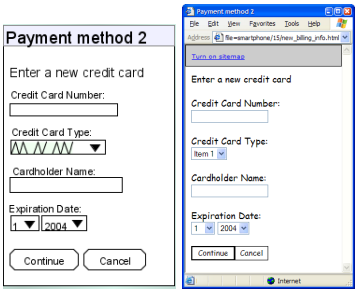

Book Details
Book Title
Author
$
Edition- Year
ISBN
Add to cart
Book Details
Turn on sitemap
Book Title
Author
$
Edition -
Year
ISBN
Add to cart
Internet

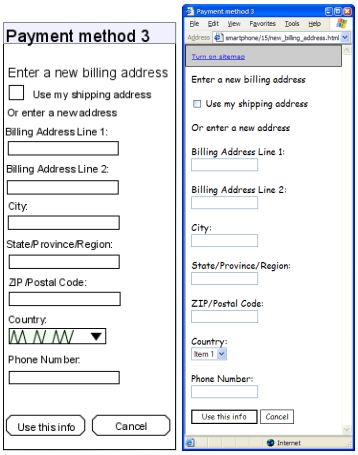

Store Location
Store Location
Turn on sitemap
Internet

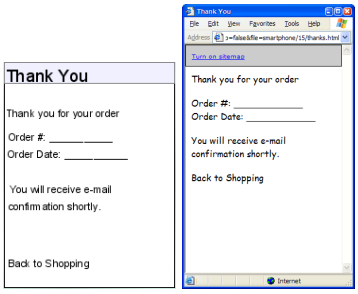

Shopping Cart
Shopping Cart
Item 1
Quantity
Update
Remove
Item 2
Quantity
Update
Remove
Item 3
Quantity
Update
Remove
Subtotal
$
Check out
Continue Shopping
Shopping Cart
Turn on sitemap
Shopping Cart
Item 1 $
Quantity
Update
Remove
Item 2 $
Quantity
Update
Remove
Item 3 $
Quantity
Update
Remove
Subtotal $
Checkout
Continue Shopping
Internet

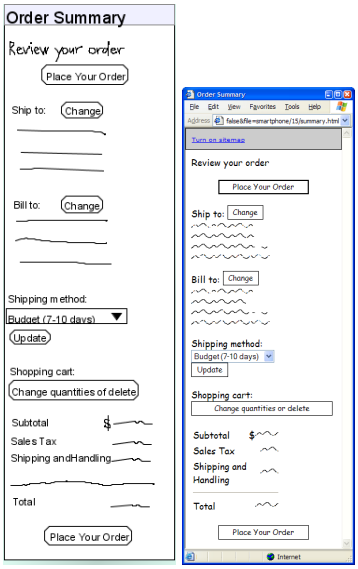

Choose an address
Choose an address:
Previously Entered
Use this address
Edit
Cell Phone Billing
Use this address
Edit
Choose an address
Turn on sitemap
Choose an address:
Previous Entered
Use this address
Cell Phone Billing
Use this address
Internet


Payment method
Choose billing information
Previously Entered
Visa ending with 12345
Expires 01/2005
Name
Billing Address
Use this info
Edit
cell Phone
MasterCard ending with 98765
Expires 02/2005
Name
Billing Address
Use this info
Edit
Enter a new credit card
Cancel
Payment method
Turn on sitemap
Choose billing information
Previously Entered
Visa ending with 12345
Expires 01/2005
Name
Billing Address
Use this info
Edit
Cell Phone
MasterCard ending with 98765
Expires 02/2005
Name
Billing Address
Use this info
Edit
Enter a new credit card
Cancel
Internet


Payment method 2
Enter a new credit card
Credit Card Number:
Credit Card Type:
Cardholder Name:
Expiration Date:
1
2004
Continue
Cancel
Payment method 2
Turn on sitemap
Enter a new credit card
Credit Card Number:
Credit Card Type:
Item 1
Cardholder Name:
Expiration Date:
1
2004
Continue
Cancel
Internet


Payment method 3
Enter a new billing address
Use my shipping address
Or enter a new address
Billing Address Line 1:
Billing Address Line 2:
City:
State/Province/Region:
ZIP/Postal Code:
Country:
Phone Number:
Use this info
Cancel

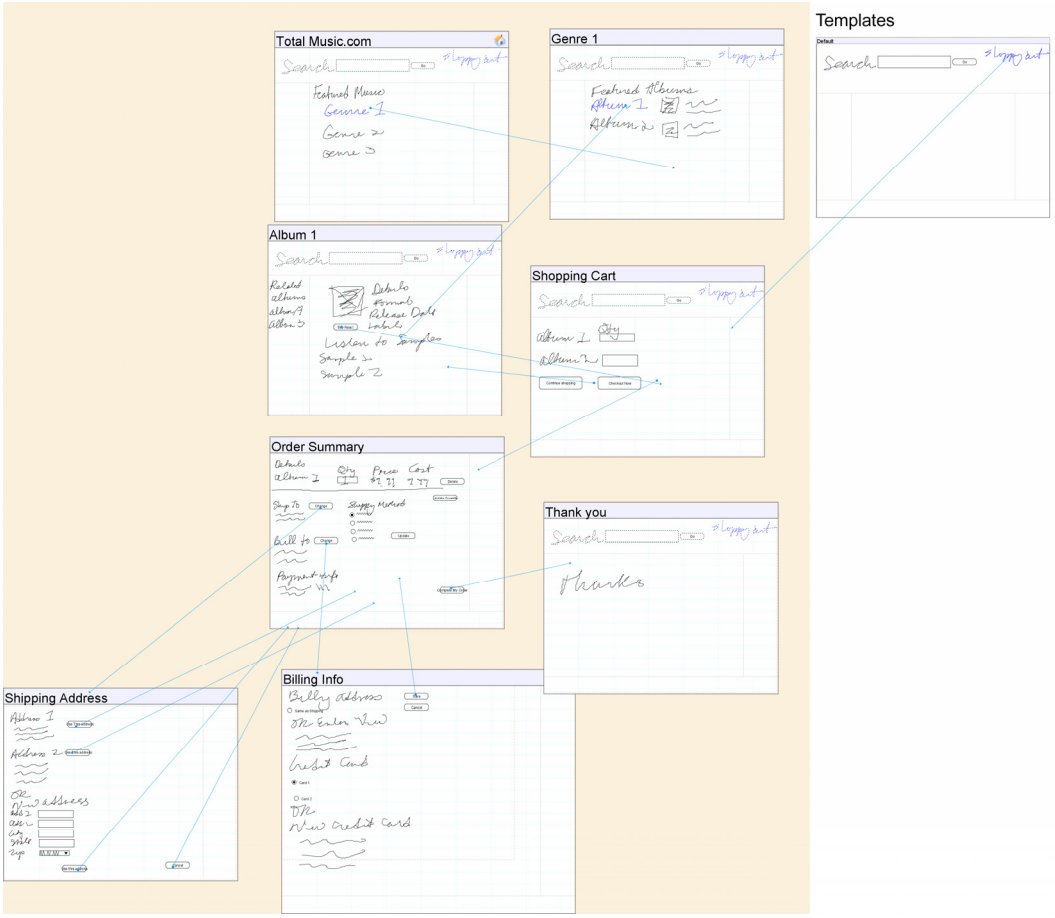

Thank You
Thank you for your order
Order #: _____
Order Date: _____
You will receive e-mail confirmation shortly.
Back to Shopping

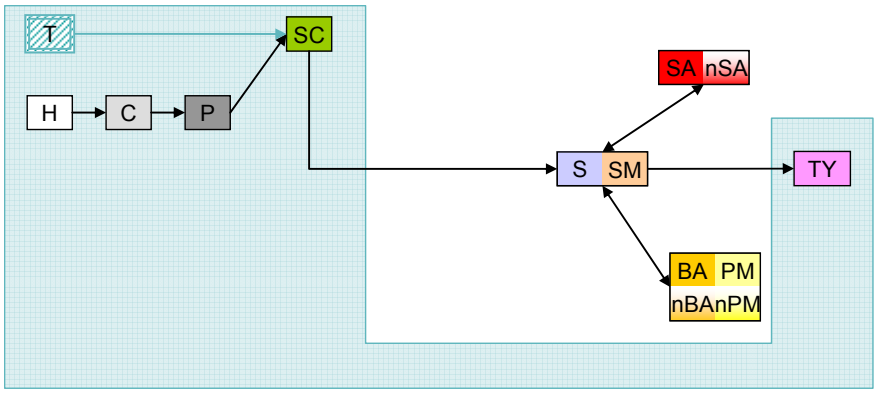

Order Summary
Review your order
Place Your Order
Ship to:
Change
Bill to:
Change
Shipping method:
Budget (7-10 days)
Update
Shopping cart:
Change quantities or delete
Subtotal
Sales Tax
Shipping and Handling
Total
Place Your Order

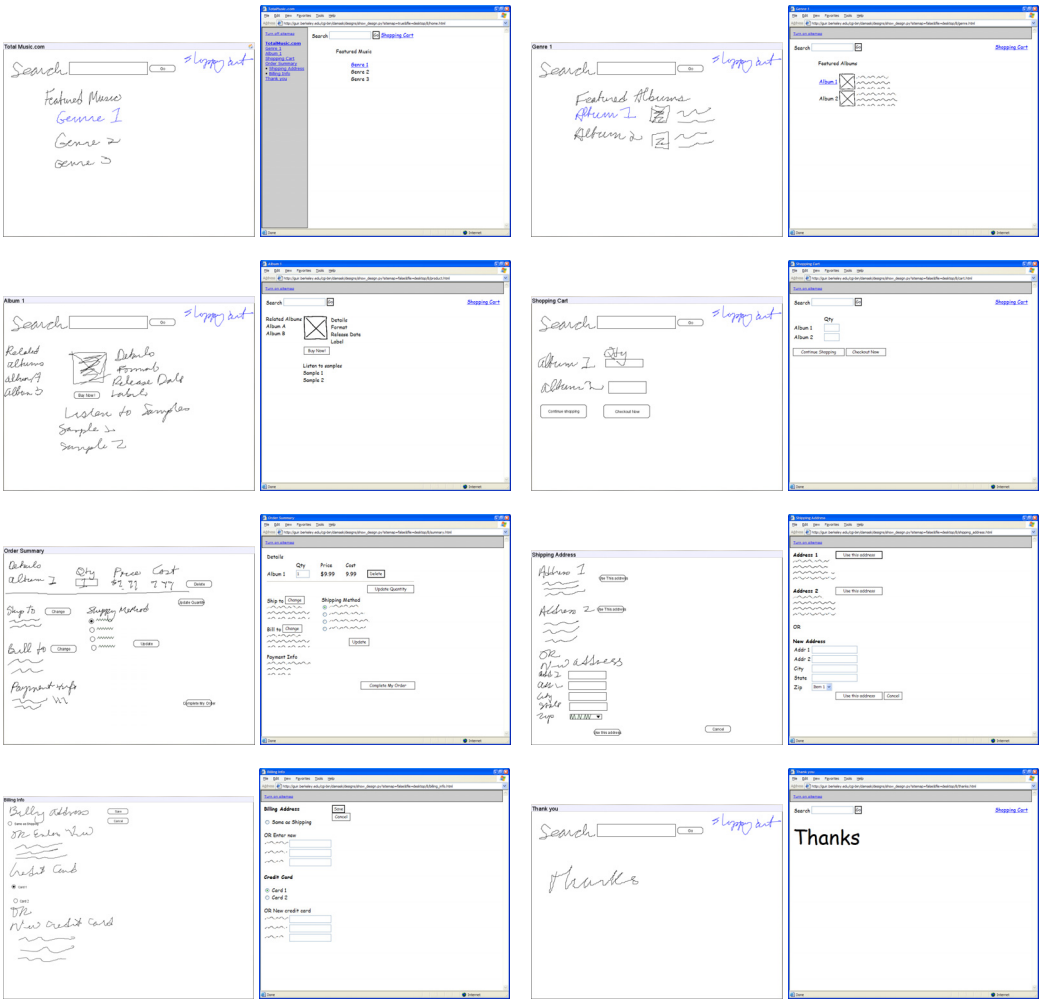
D.9 Designer 11

D.9.1 TotalMusic (no layers or patterns)

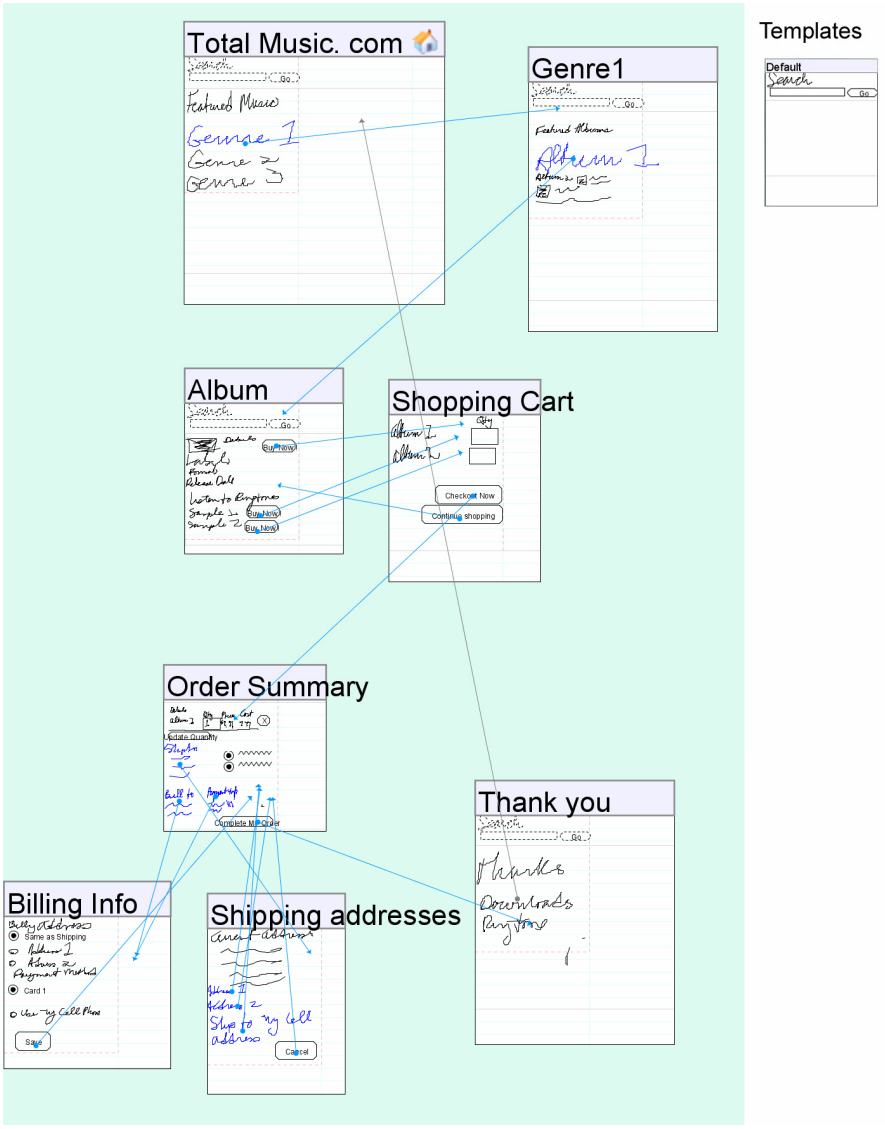
Desktop

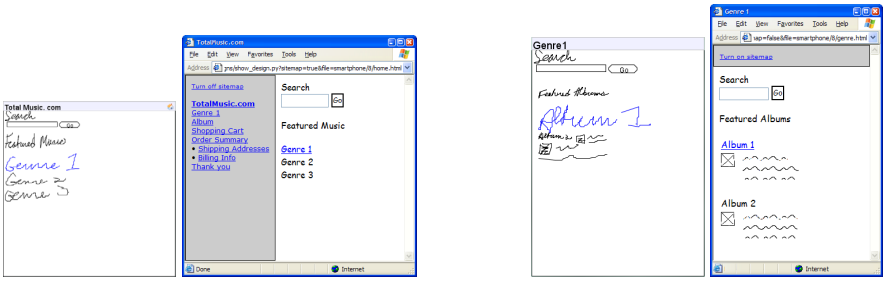


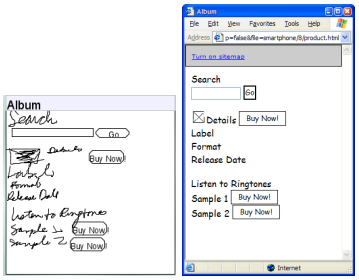

T
SC
H
C
P
SA nSA
S SM
TY
BA PM
nBAnPM

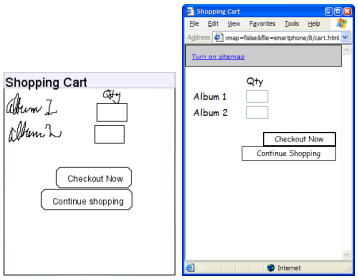

Thanks

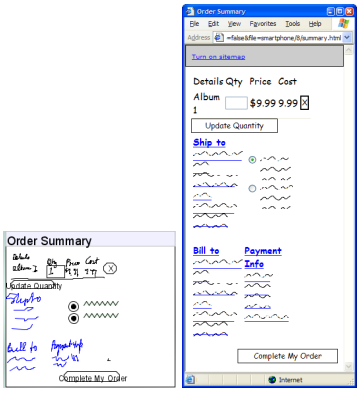
Smartphone

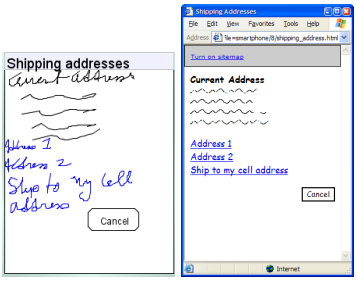

Total Music. com
Genre1
Templates
Default
Search
Go
Album
Shopping Cart
Checkout Now
Continue shopping
Order Summary
Thank you
Billing Info
Shipping addresses
Cancel

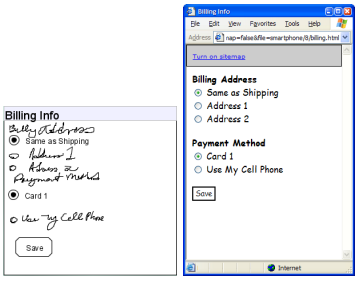

Total Music. com
Search
Featured Music
Genre 1
Genre 2
Genre 3
Genre1
Featured Albums
Album 1
Album 2

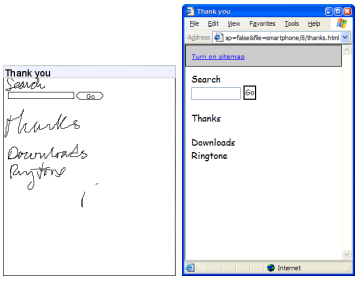

Album
Search
Go
Buy Now!
Label
Format
Release Date
Listen to Ringtones
Sample 1
Sample 2
Buy Now!
Buy Now!
Turn on sitemap
Search
Go
Details
Buy Now!
Label
Format
Release Date
Listen to Ringtones
Sample 1
Buy Now!
Sample 2
Buy Now!
Internet


Shopping Cart
Qty
Checkout Now
Continue shopping
Shopping Cart
Turn on sitemap
Qty
Album 1
Album 2
Checkout Now
Continue Shopping
Internet


Order Summary
Update Quantity
Ship to
Bill to
Payment Info
Complete My Order
Order Summary
Turn on sitemap
Details Qty Price Cost
Album 1
$9.99 9.99
Update Quantity
Ship to
Bill to
Payment Info
Complete My Order
Internet

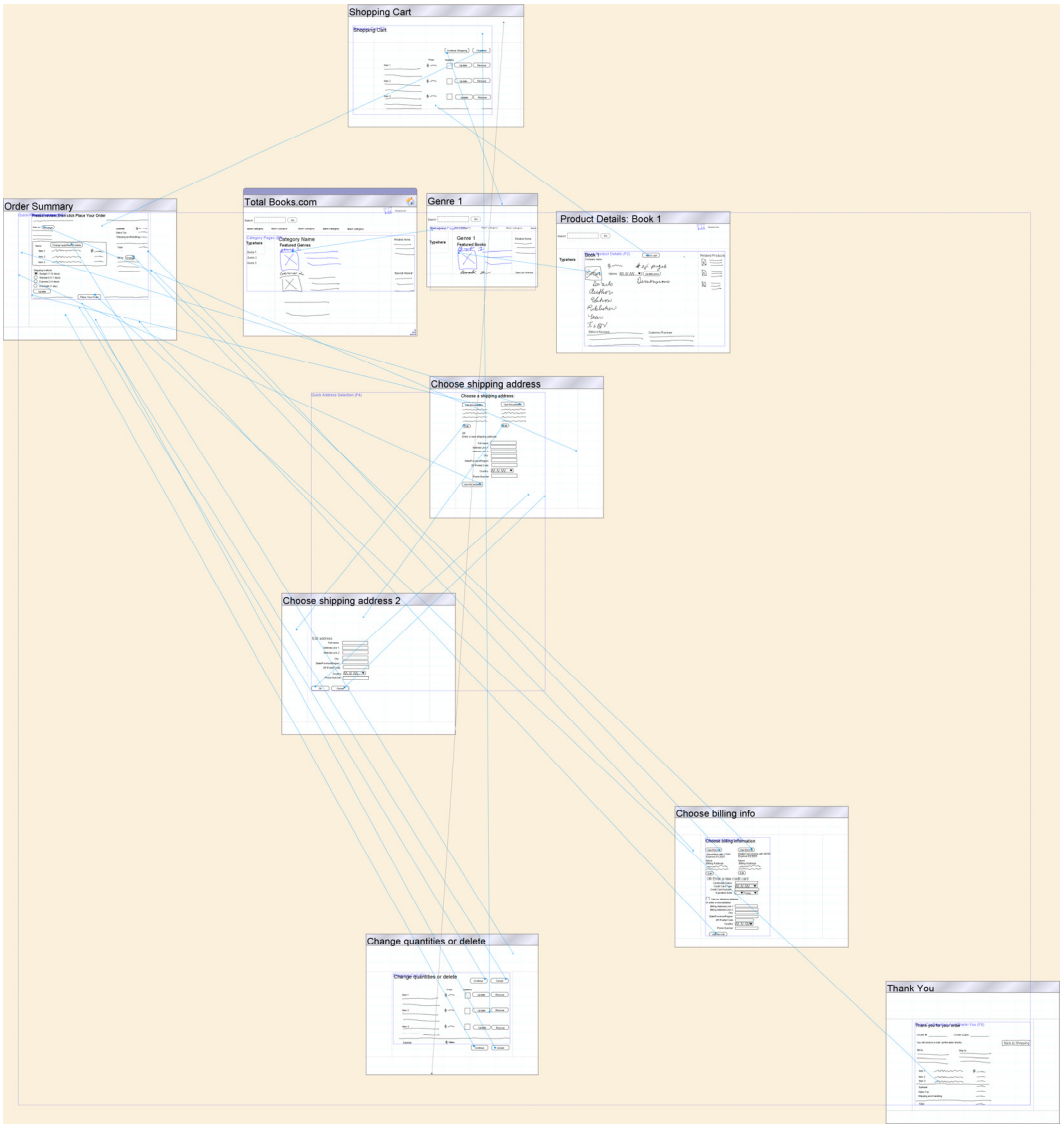

Shipping addresses
Address 1
Address 2
Ship to my cell address
Cancel
Shipping Addresses
Turn on sitemap
Current Address
Address 1
Address 2
Ship to my cell address
Cancel
Internet

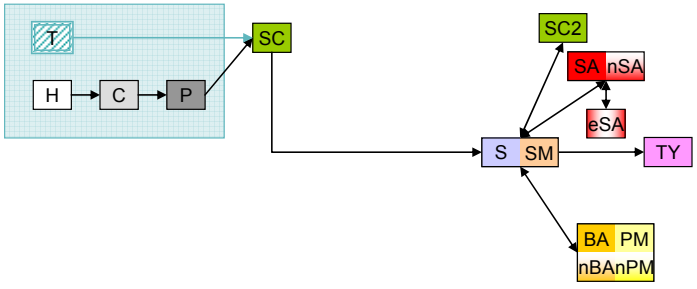

Billing Info
Same as Shipping
Address 1
Address 2
Payment Method
Card 1
Use My Cell Phone
Save
Billing Info
Turn on sitemap
Billing Address
Same as Shipping
Address 1
Address 2
Payment Method
Card 1
Use My Cell Phone
Save
Internet

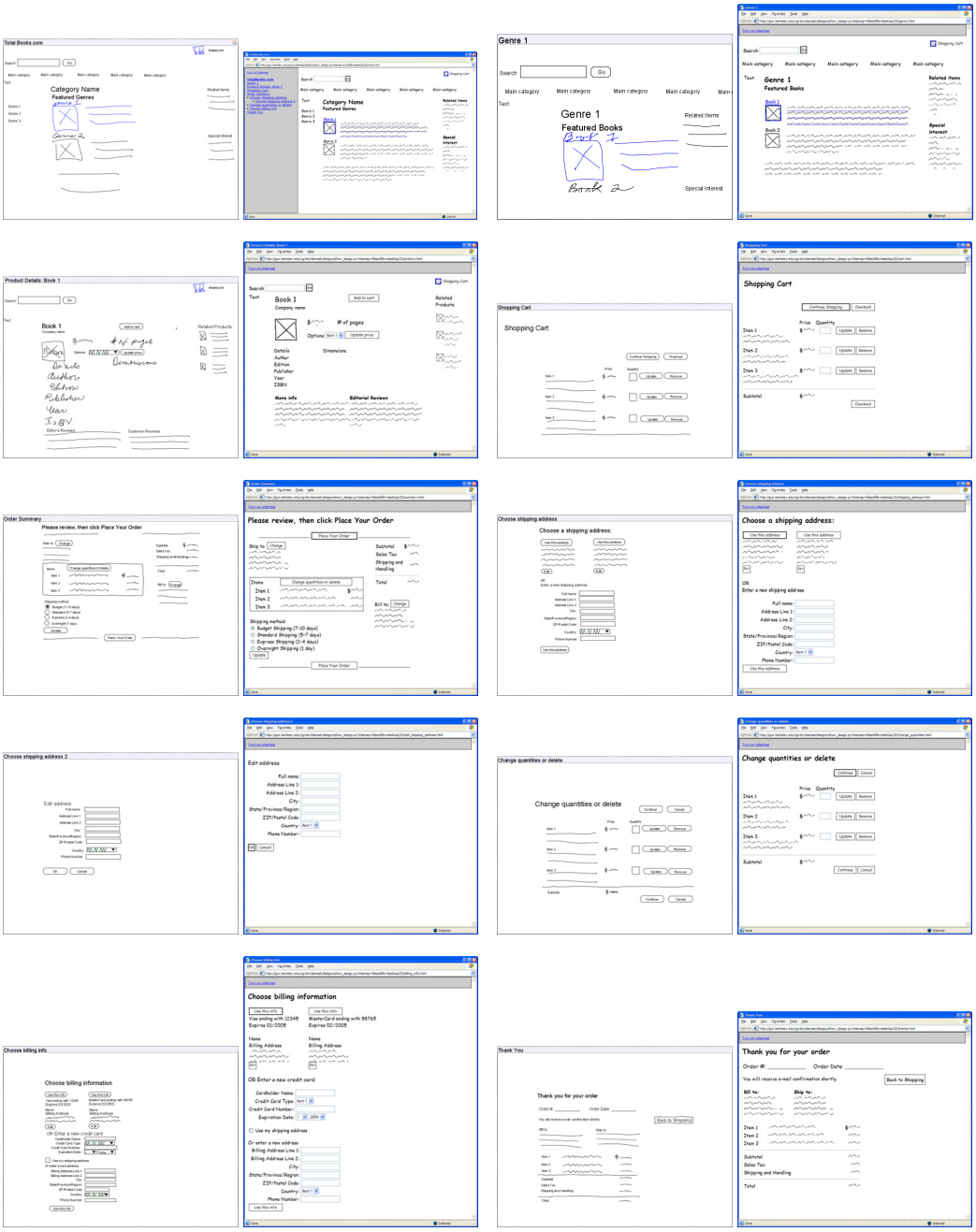

Thank you
Search
Go
Thanks
Downloads
Ringtone
Thank you
Turn on sitemap
Search
Go
Thanks
Downloads
Ringtone
Internet

D.9.2 TotalBooks (with layers and patterns)

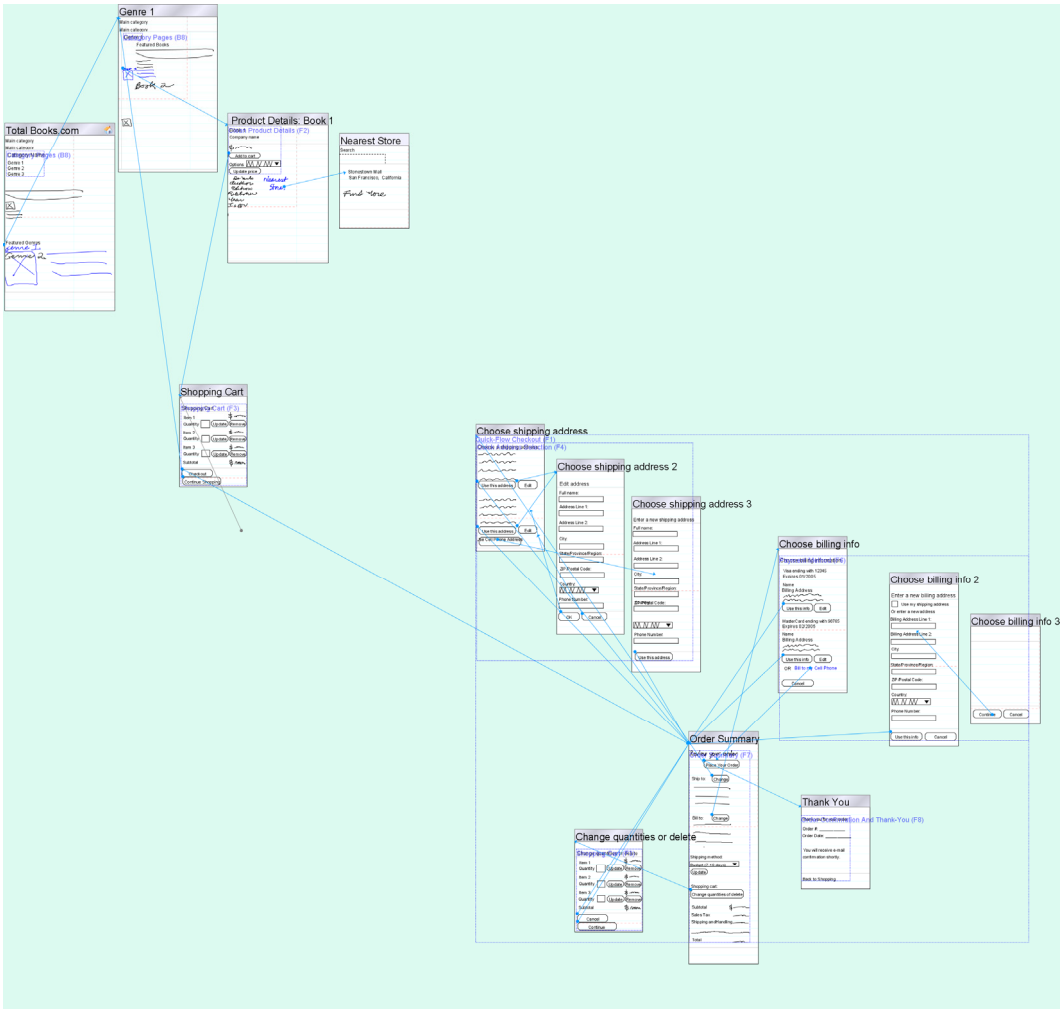
Desktop

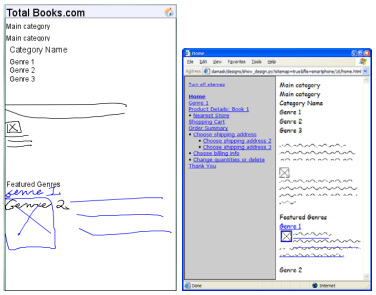


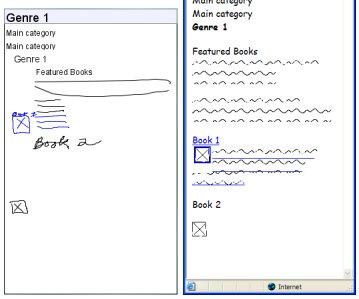


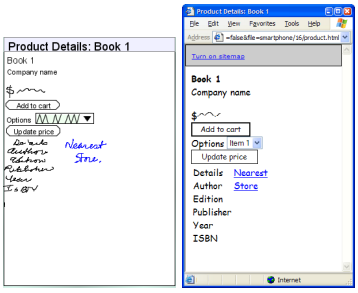


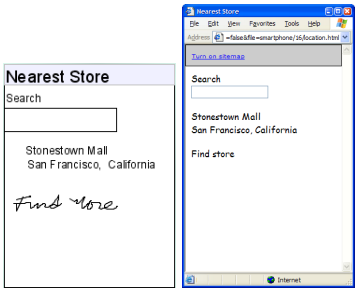
Smartphone

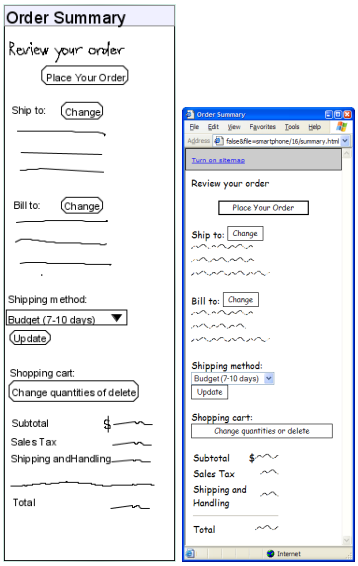

Genre 1
Total Books.com
Product Details: Book 1
Nearest Store
Shopping Cart
Choose shipping address
Choose shipping address 2
Choose shipping address 3
Choose billing info
Choose billing info 2
Choose billing info 3
Order Summary
Thank You
Change quantities or delete

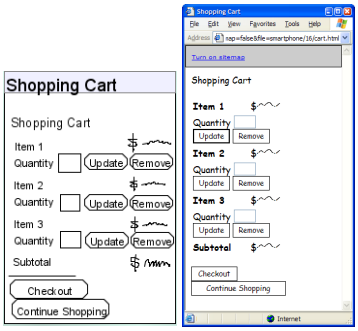

Total Books.com
Main category
Main category
Category Name
Genre 1
Genre 2
Genre 3
Featured Genres

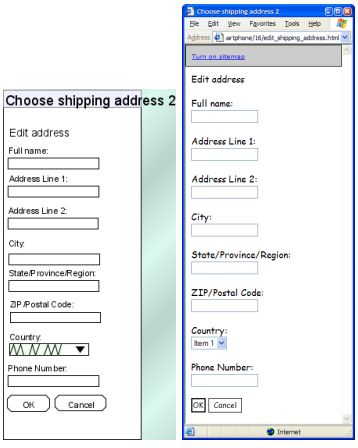

Genre 1
Main category
Main category
Genre 1
Featured Books
Book 1
Book 2

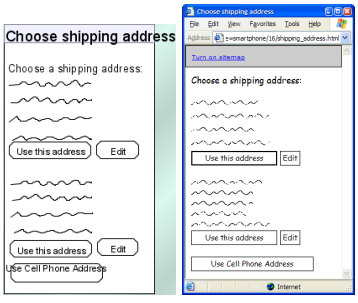

Product Details: Book 1
Book 1
Company name
Add to cart
Options
Update price
Nearest Store
Book 1
Company name
Add to cart
Options Item 1
Update price
Details Nearest
Author Store
Edition
Publisher
Year
ISBN

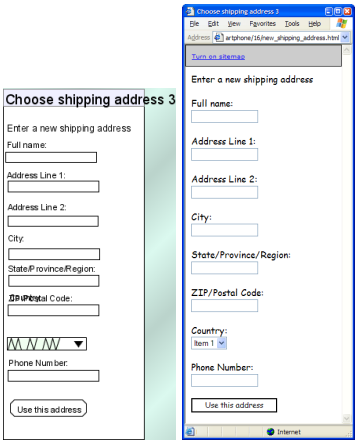

Nearest Store
Search
Stonestown Mall
San Francisco, California
Find store
Search
Stonestown Mall
San Francisco, California
Find store

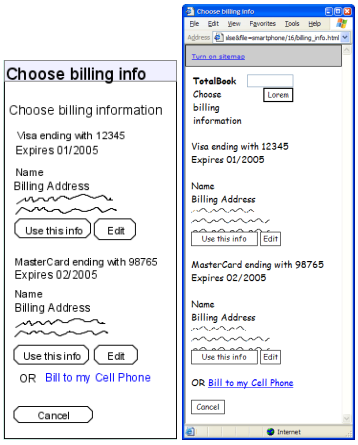

Order Summary
Review your order
Place Your Order
Ship to: Change
Bill to: Change
Shipping method:
Budget (7-10 days)
Update
Shopping cart:
Change quantities or delete
Subtotal
Sales Tax
Shipping and Handling
Total
Review your order
Place Your Order
Ship to: Change
Bill to: Change
Shipping method:
Budget (7-10 days)
Update
Shopping cart:
Change quantities or delete
Subtotal
Sales Tax
Shipping and Handling
Total

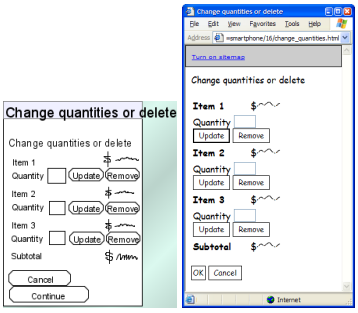

Shopping Cart
Shopping Cart
Item 1
Quantity
Update
Remove
Item 2
Quantity
Update
Remove
Item 3
Quantity
Update
Remove
Subtotal
Checkout
Continue Shopping
Shopping Cart
Item 1
Quantity
Update
Remove
Item 2
Quantity
Update
Remove
Item 3
Quantity
Update
Remove
Subtotal
Checkout
Continue Shopping

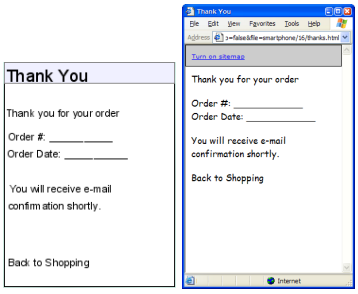

Choose shipping address 2
Edit address
Full name:
Address Line 1:
Address Line 2:
City:
State/Province/Region:
ZIP/Postal Code:
Country:
Phone Number:
OK
Cancel
Edit address
Full name:
Address Line 1:
Address Line 2:
City:
State/Province/Region:
ZIP/Postal Code:
Country:
Item 1
Phone Number:
OK
Cancel


Choose shipping address
Choose a shipping address:
Use this address
Edit
Use this address
Edit
Use Cell Phone Address
Choose a shipping address:
Use this address
Edit
Use this address
Edit
Use Cell Phone Address


Choose shipping address 3
Enter a new shipping address
Full name:
Address Line 1:
Address Line 2:
City:
State/Province/Region:
ZIP/Postal Code:
Country:
Phone Number:
Use this address


Choose billing info
Choose billing information
Visa ending with 12345
Expires 01/2005
Name
Billing Address
Use this info
Edit
MasterCard ending with 98765
Expires 02/2005
OR Bill to my Cell Phone
Cancel

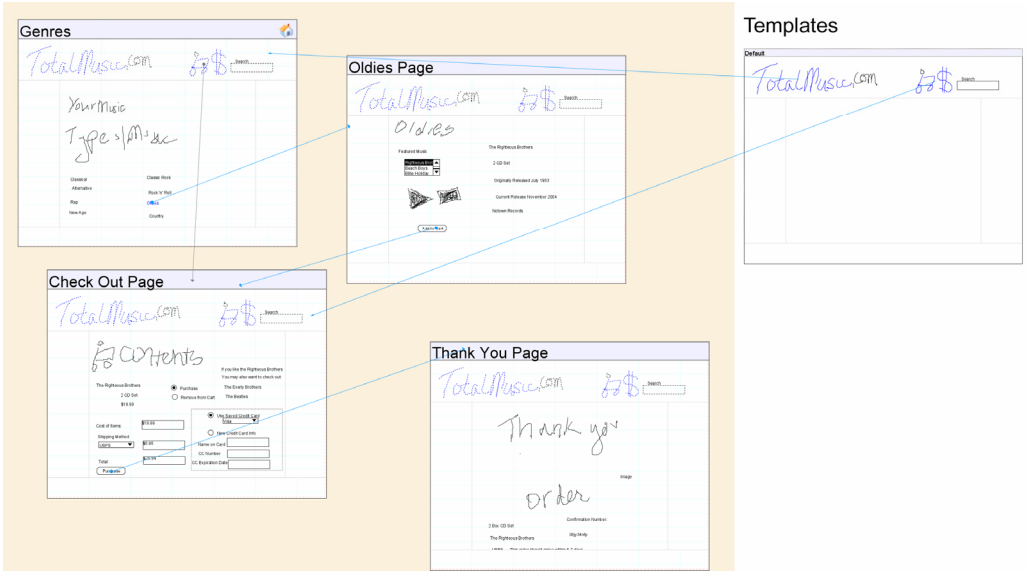

Change quantities or delete
Change quantities or delete
Item 1
Quantity
Update
Remove
Item 2
Item 3
Subtotal
Cancel
Continue
OK

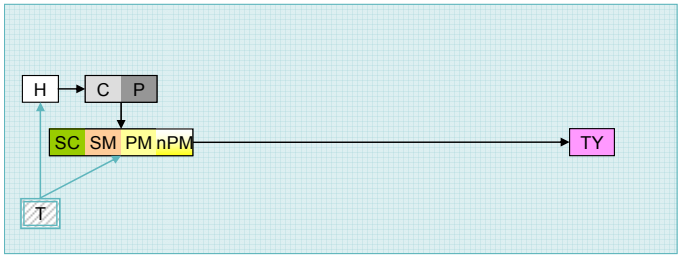

Thank You
Thank you for your order
Order #: _____
Order Date: _____
You will receive e-mail confirmation shortly.
Back to Shopping

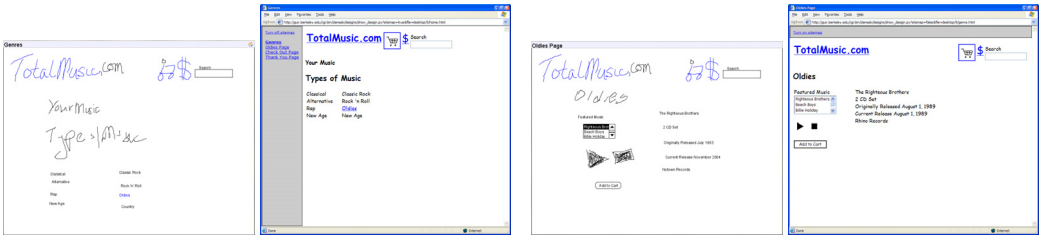
D.10 Designer 13

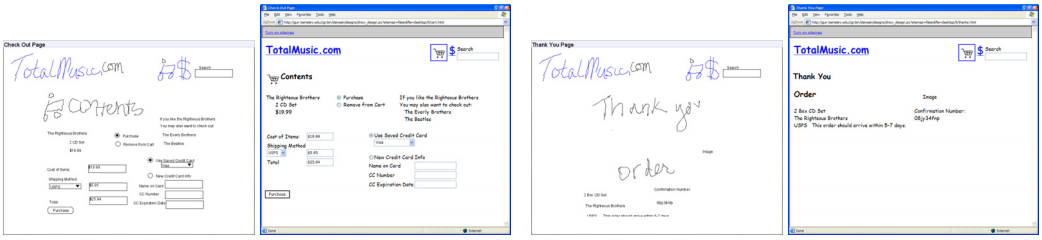
D.10.1 TotalMusic (no layers or patterns)

Desktop

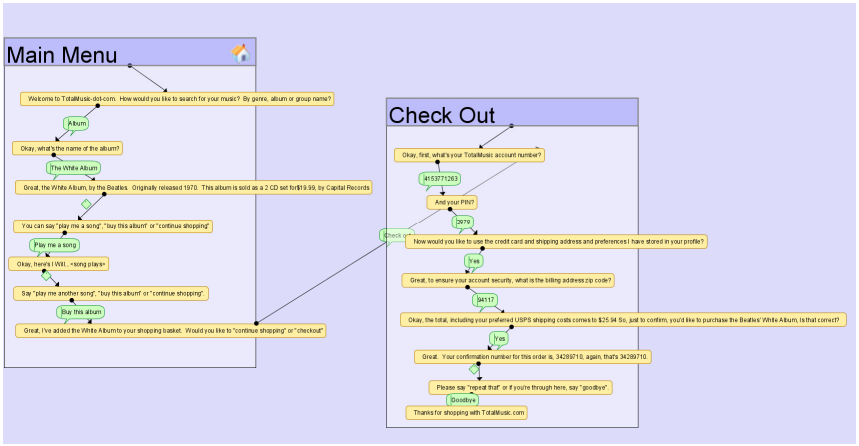






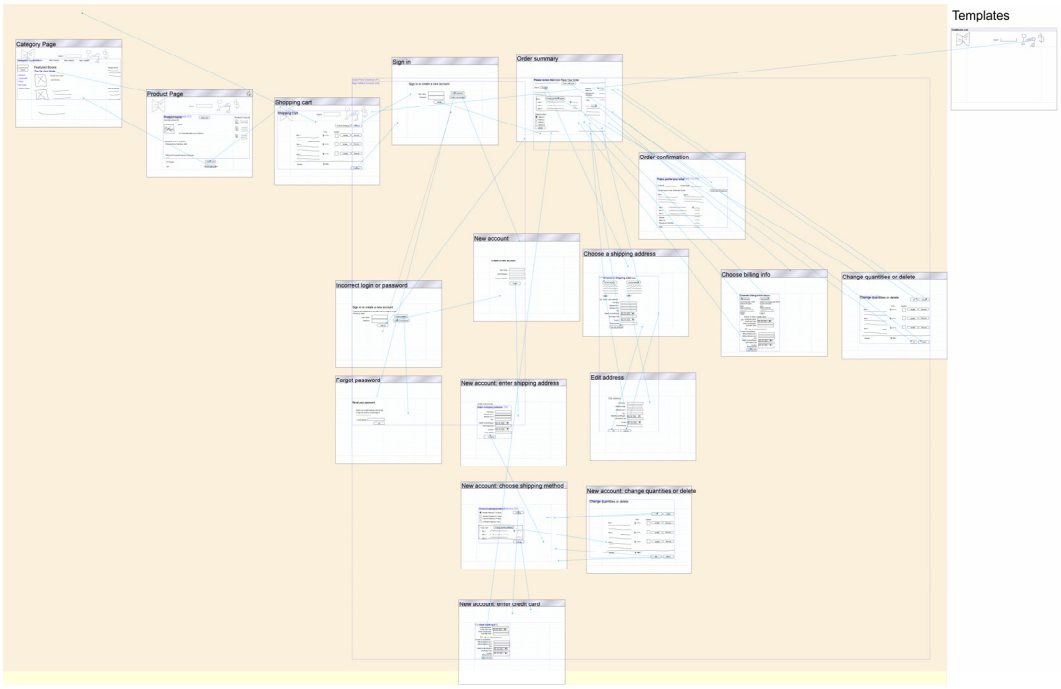

Check Out Page
TotalMusic.com
Contents
TotalMusic.com
Contents
Thank You Page
TotalMusic.com
Thank you
order
TotalMusic.com
Thank You
Order

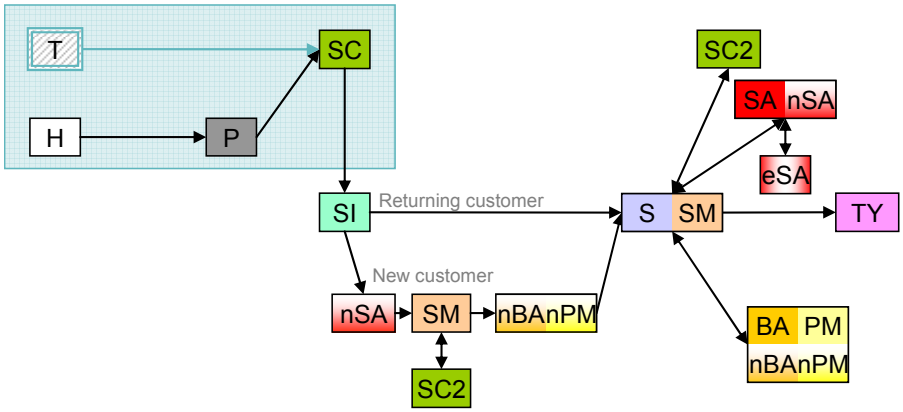
Voice

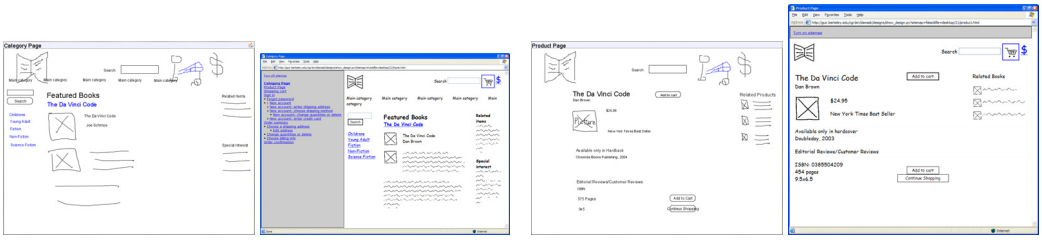

Main Menu
Welcome to TotalMusic-dot-com. How would you like to search for your music? By genre, album or group name?
Album
Okay, what's the name of the album?
The White Album
Great, the White Album, by the Beatles. Originally released 1970. This album is sold as a 2 CD set for$19.99, by Capital Records
You can say "play me a song", "buy this album" or "continue shopping"
Play me a song
Okay, here's I Will.. <song plays>
Say "play me another song", "buy this album" or "continue shopping".
Buy this album
Great, I've added the White Album to your shopping basket. Would you like to "continue shopping" or "checkout"
Check Out
Okay, first, what's your TotalMusic account number?
And your PIN?
How would you like to use the credit card and shipping address and preferences I have stored in your profile?
Yes
Great, to ensure your account security, what is the billing address zip code?
Okay, the total, including your preferred USPS shipping costs comes to $25.94 So, just to confirm, you'd like to purchase the Beatles' White Album, is that correct?
Yes
Great. Your confirmation number for this order is, 34289710, again, that's 34289710.
Please say "repeat that" or if you're through here, say "goodbye".
Goodbye
Thanks for shopping with TotalMusic.com

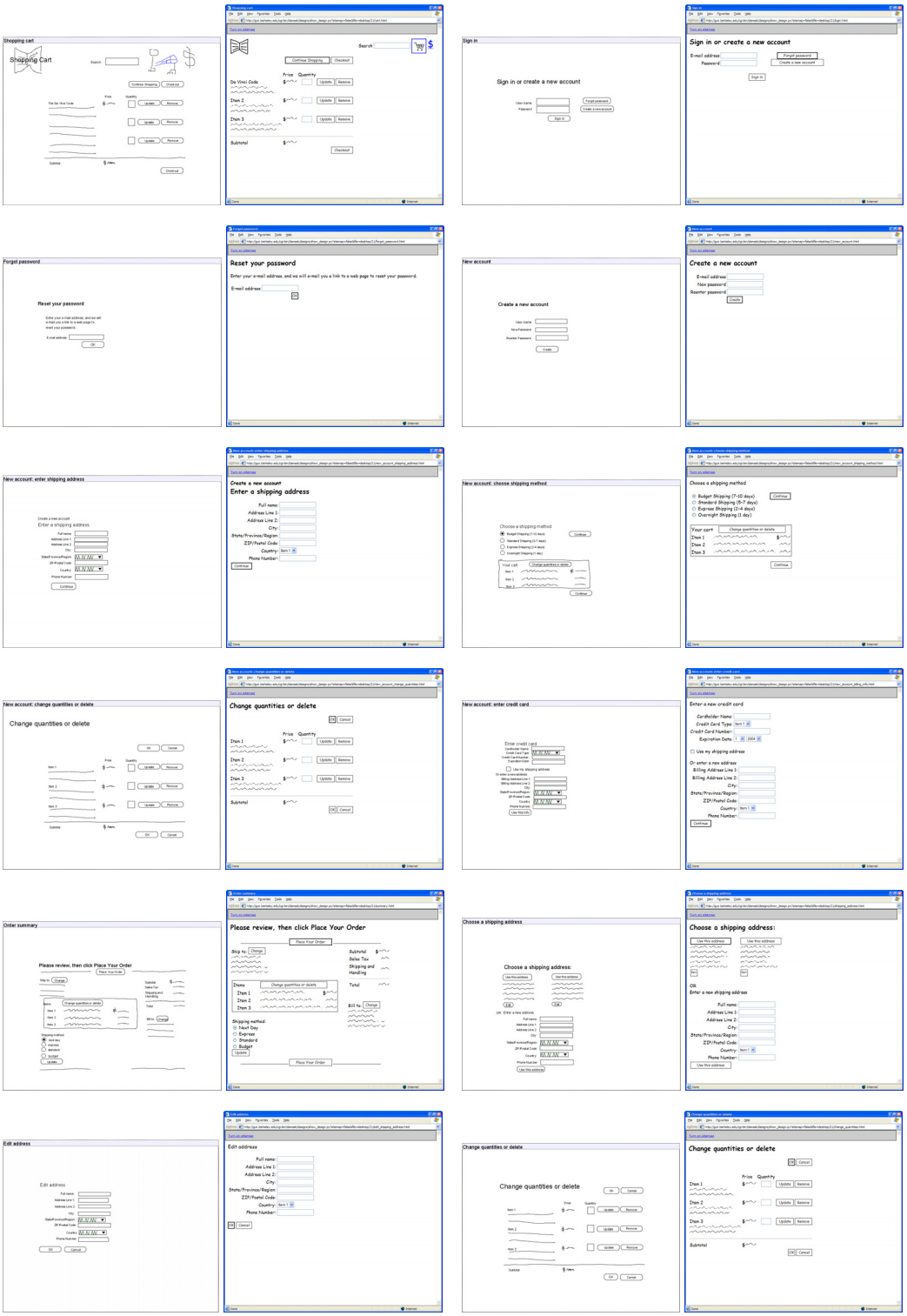
D.10.2 TotalBooks (with layers and patterns)

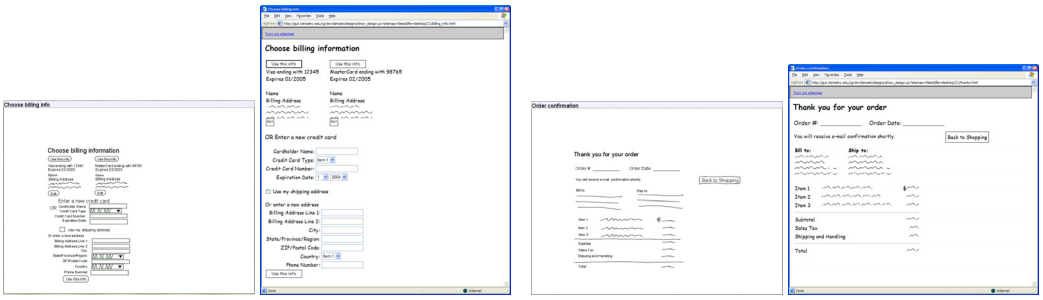
Desktop



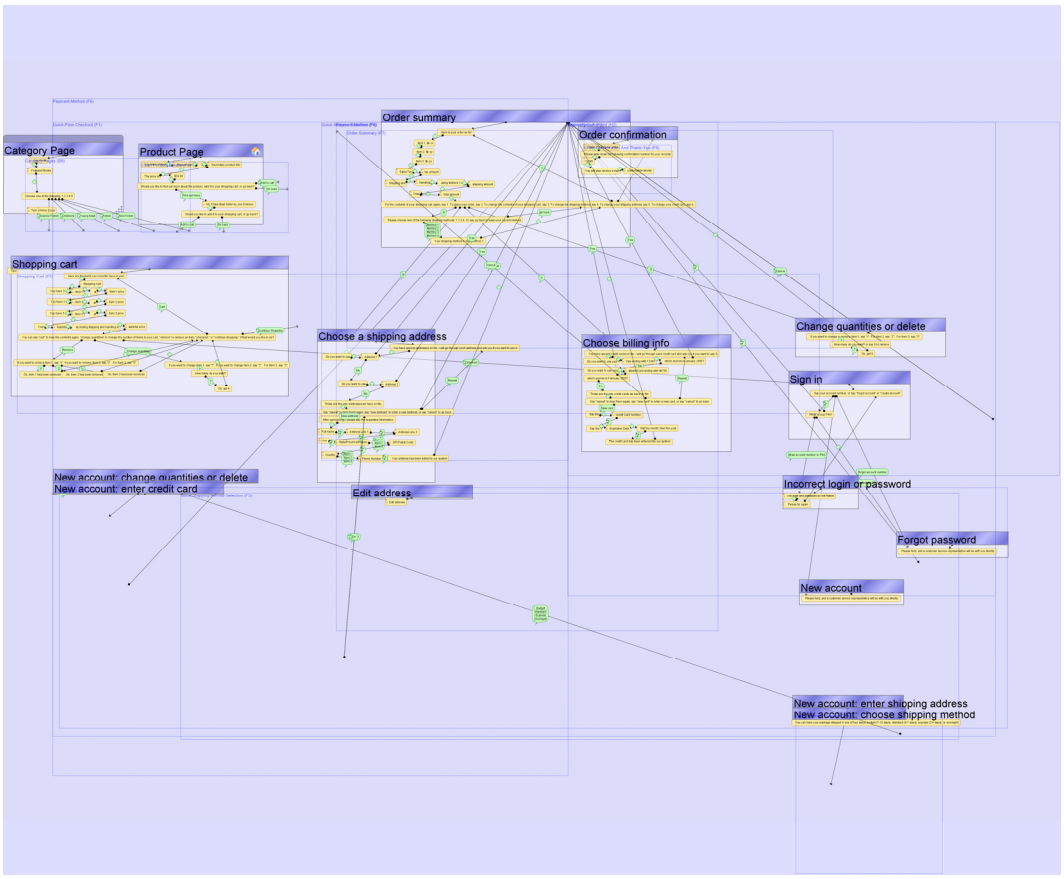







Choose billing info
Choose billing information
Choose billing information
Order confirmation
Thank you for your order
Thank you for your order

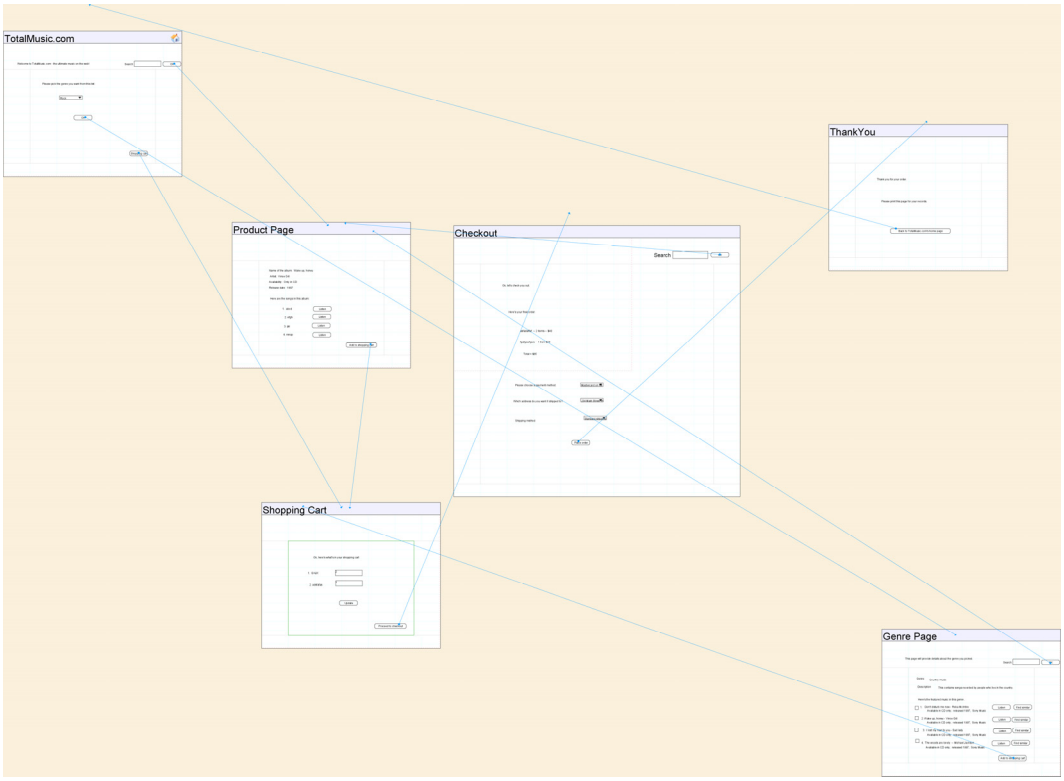
Voice

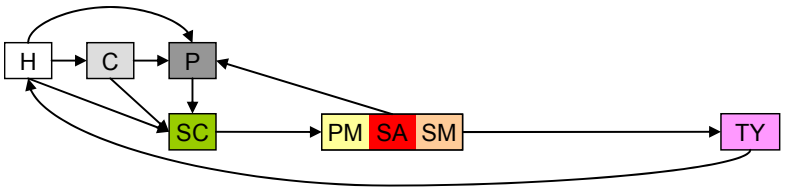

Category Page
Product Page
Order summary
Order confirmation
Shopping cart
Choose a shipping address
Choose billing info
Change quantities or delete
Sign in
New account: change quantities or delete
New account: enter credit card
Edit address
Incorrect login or password
Forgot password
New account
New account: enter shipping address
New account: choose shipping method

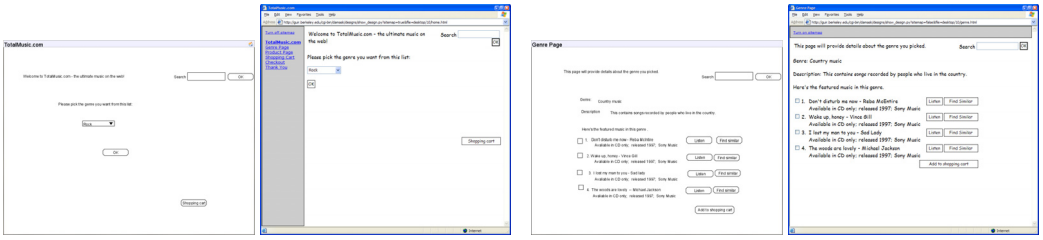
D.11 Designer 15

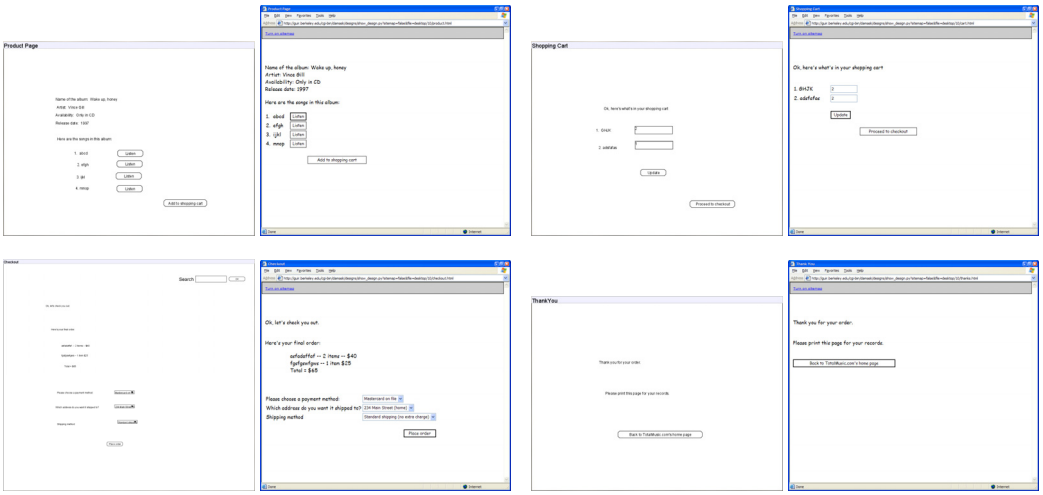
D.11.1 TotalMusic (no layers or patterns)

Desktop

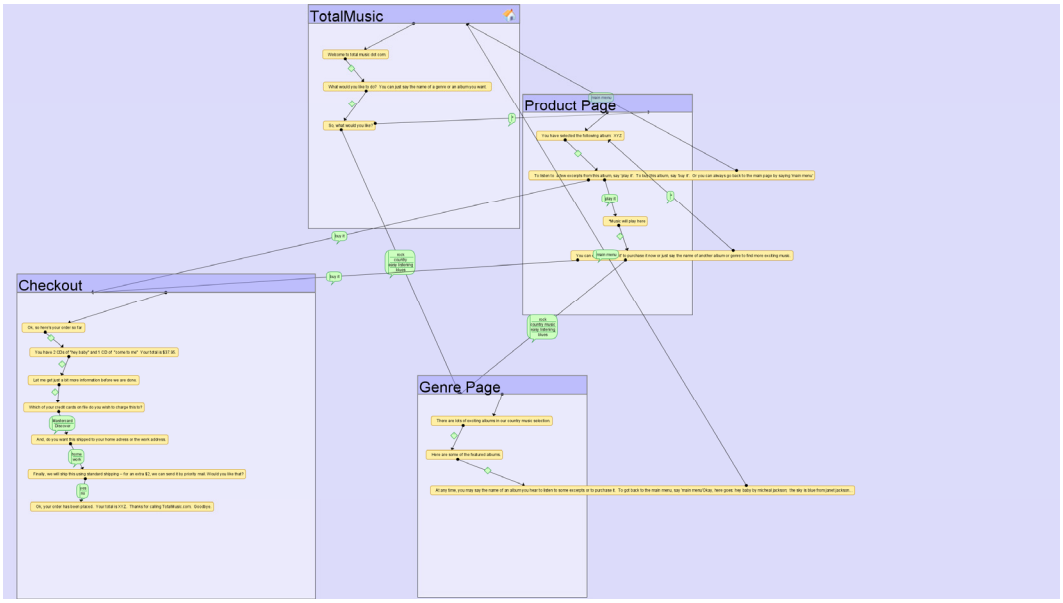






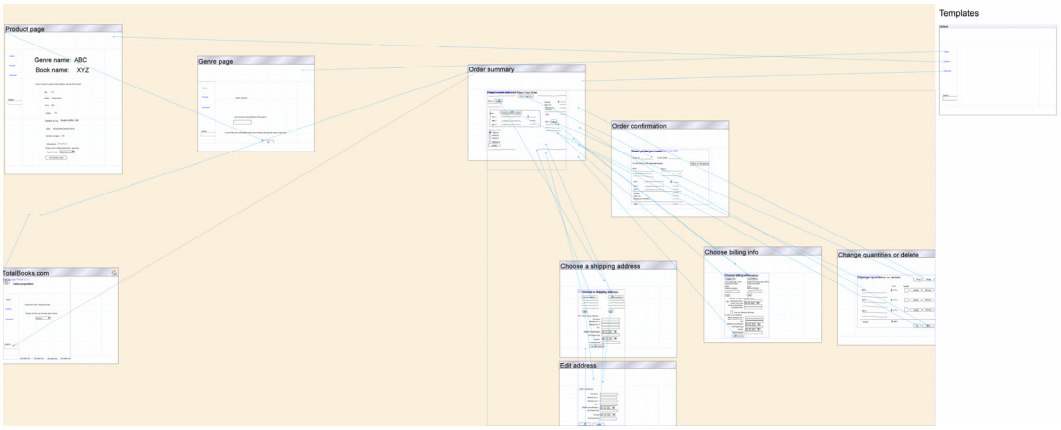

Product Page
Shopping Cart
Checkout
ThankYou

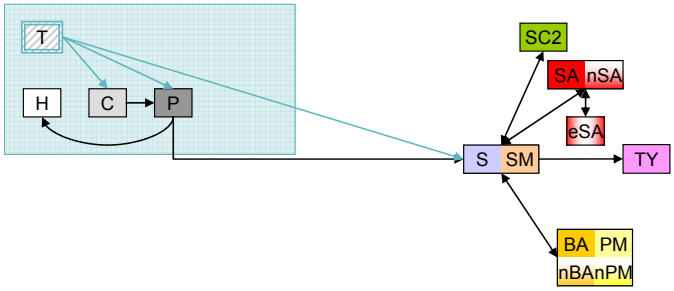
Voice

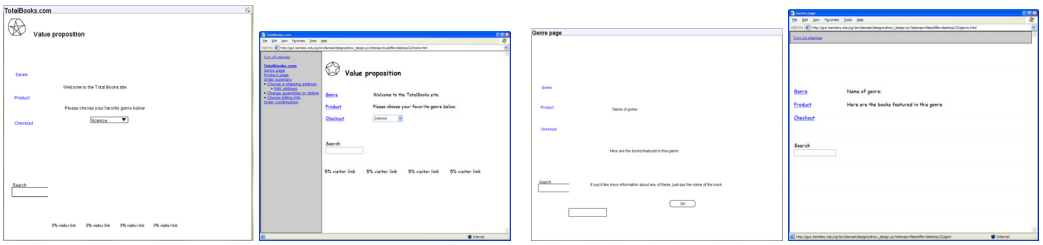

TotalMusic
Product Page
Checkout
Genre Page

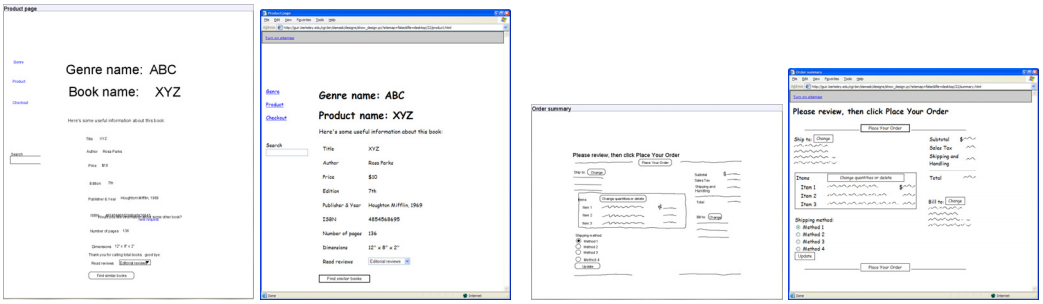
D.11.2 TotalBooks (with layers and patterns)

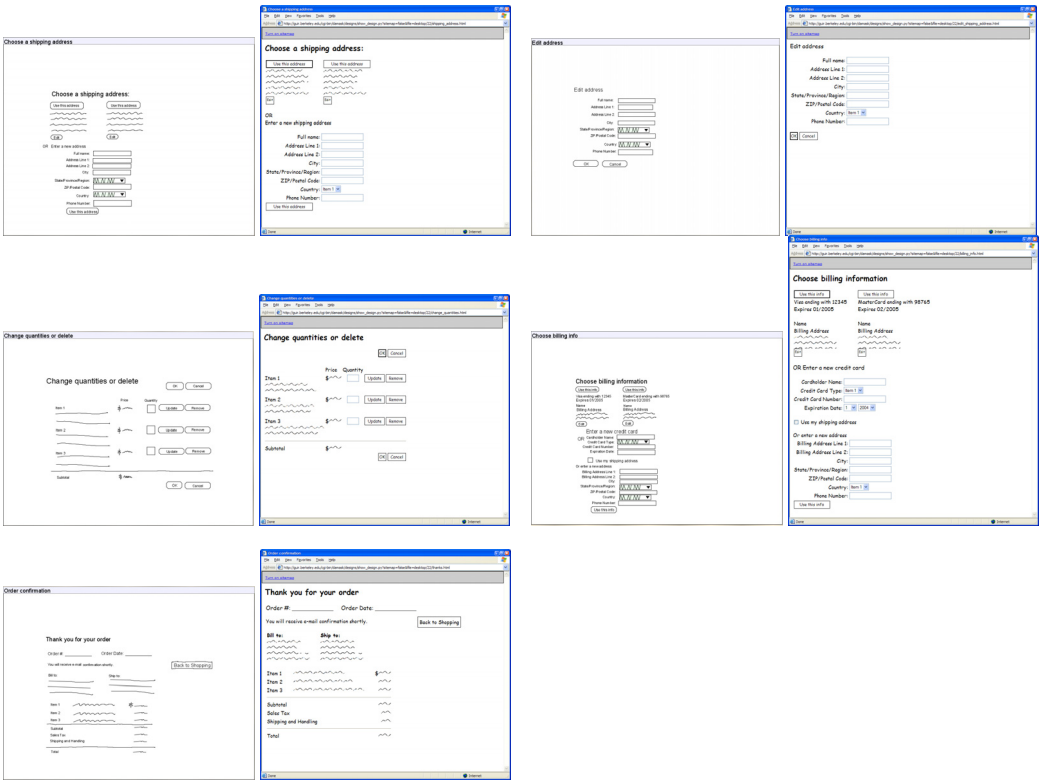
Desktop



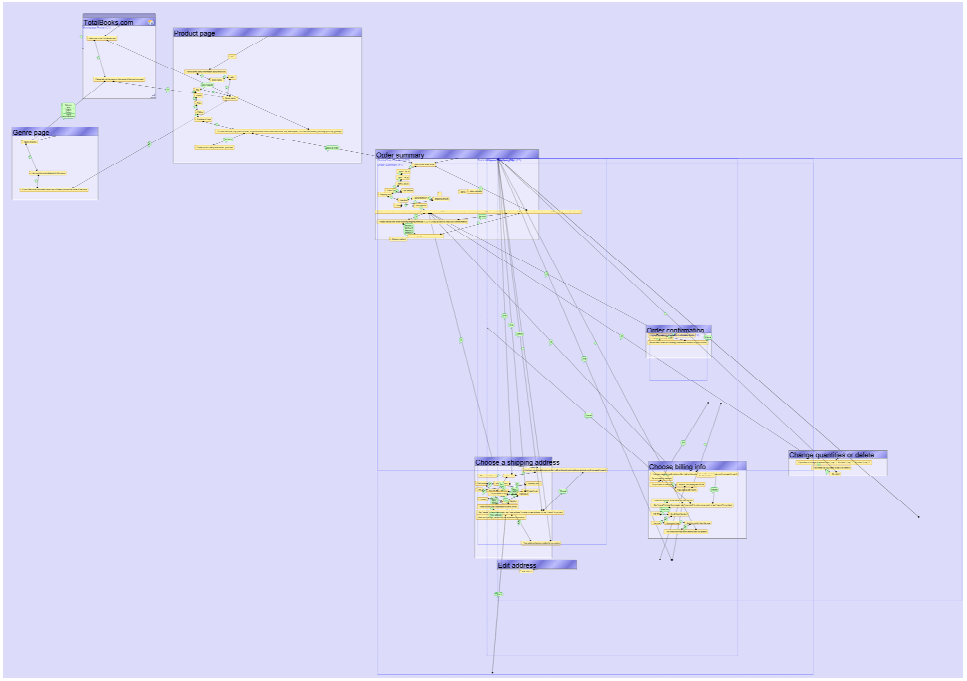







Choose a shipping address
Choose a shipping address:
Edit address
Change quantities or delete
Choose billing information
Order confirmation
Thank you for your order

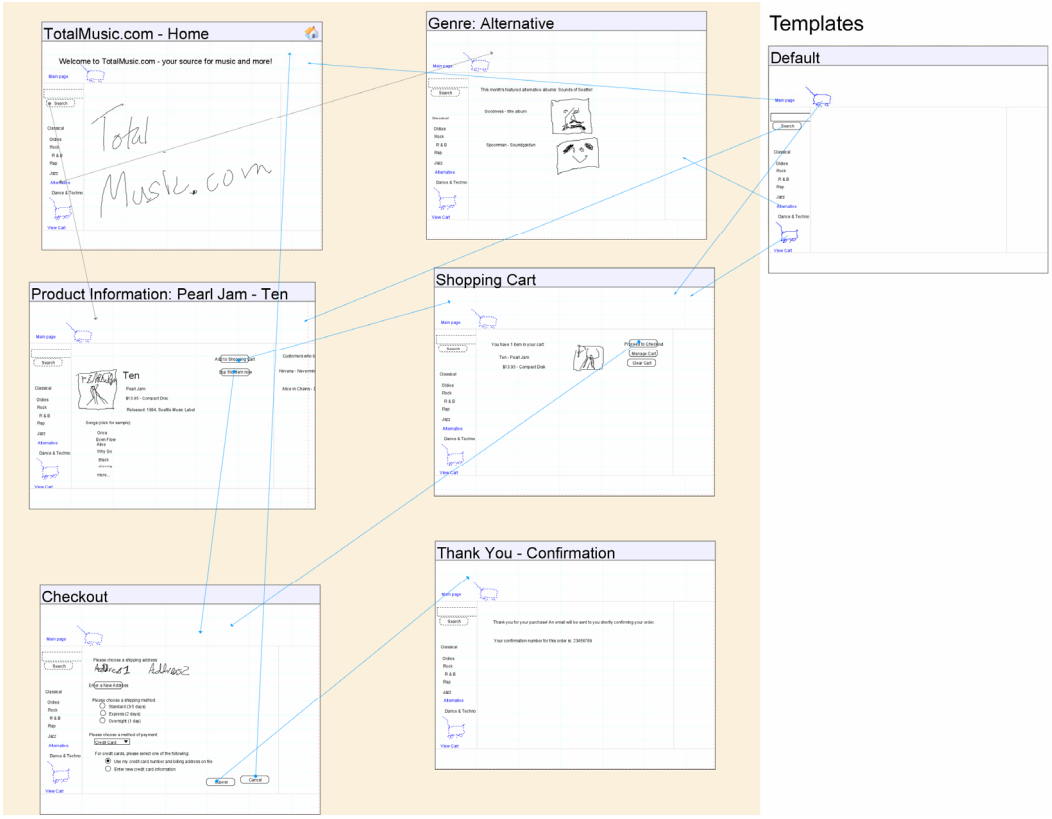
Voice

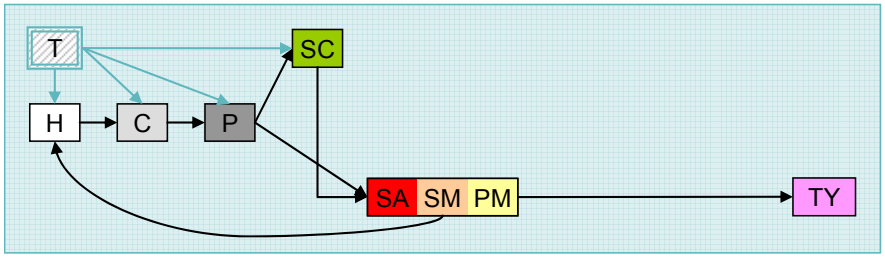

TotalBooks.com
Product page
Gothic page
Order summary
Choose a shipping address
Choose billing info
Change quantities or delete
Edit address

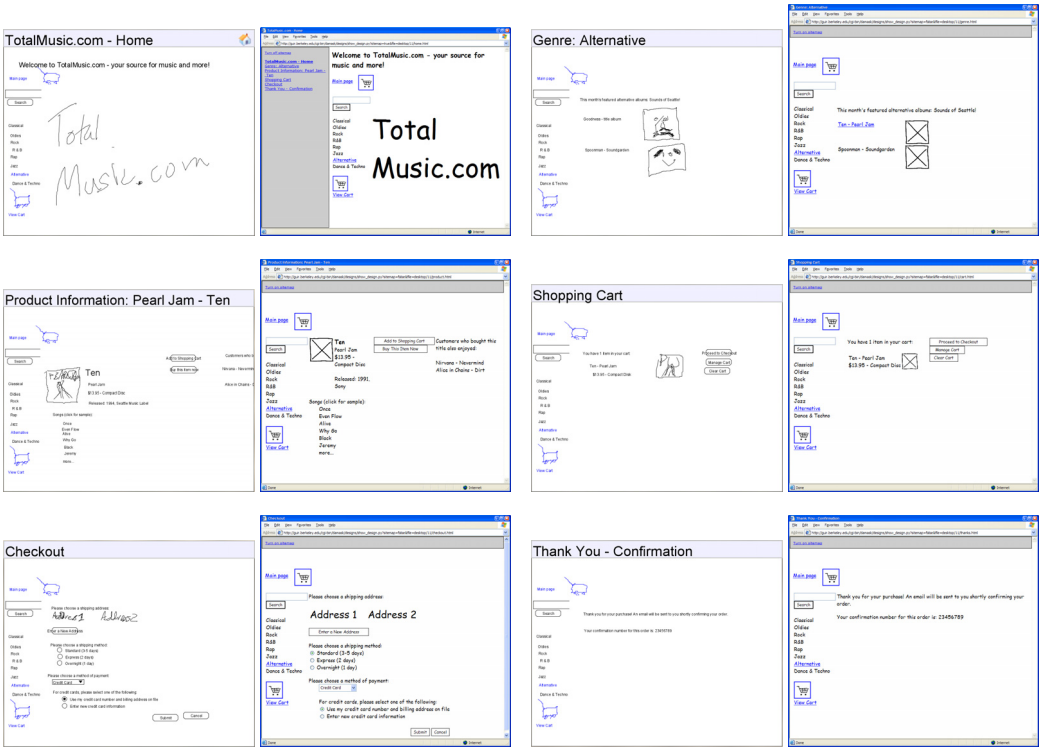
D.12 Designer 16

D.12.1 TotalMusic (no layers or patterns)

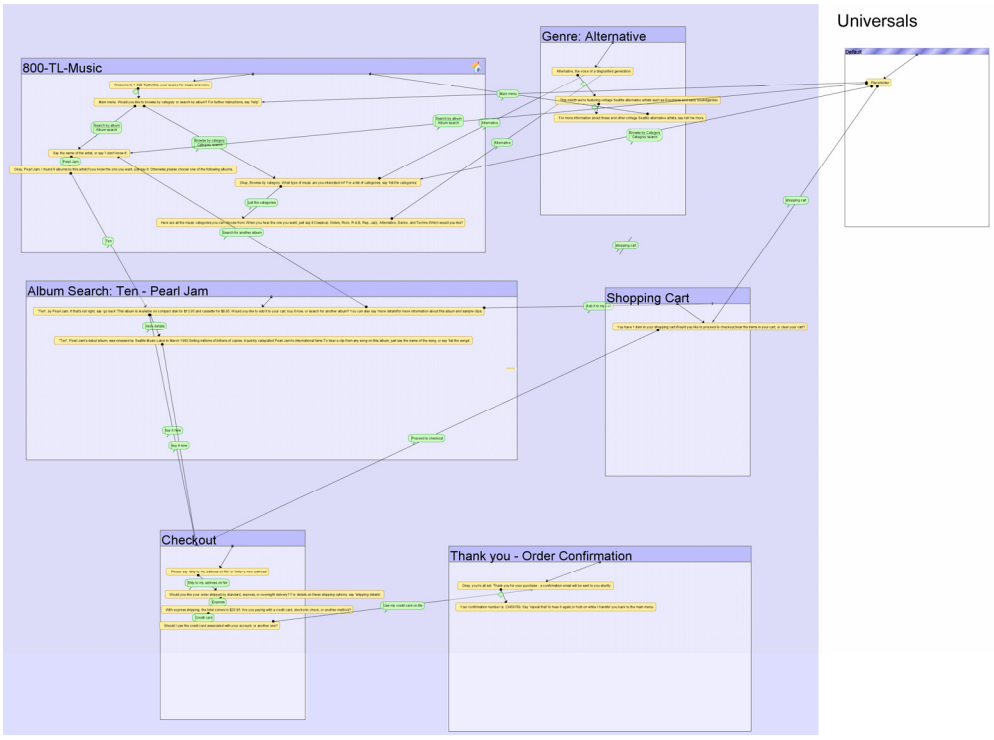
Desktop





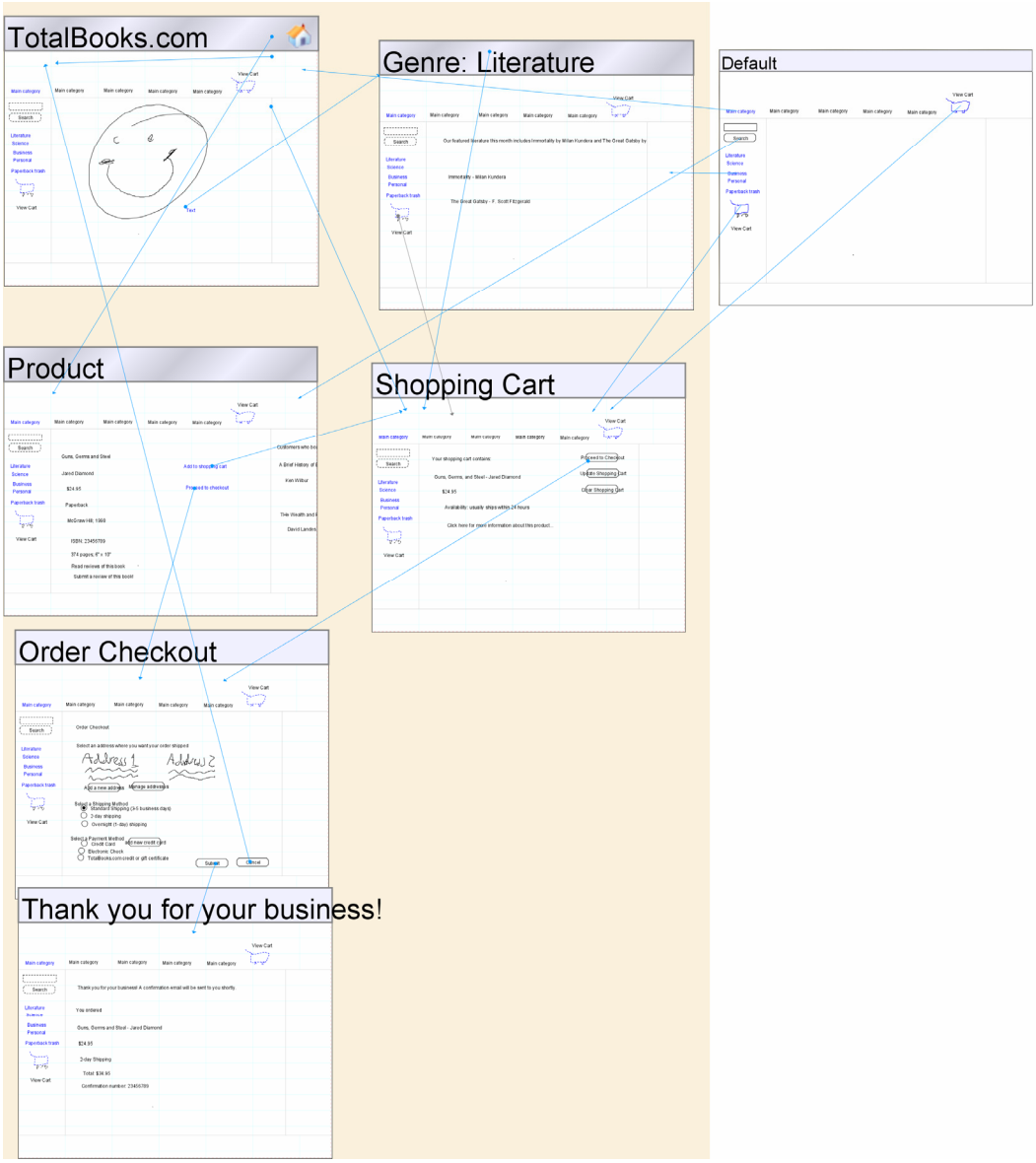

TotalMusic.com - Home
Welcome to TotalMusic.com - your source for music and more!
Total Music.com
Genre: Alternative
Product Information: Pearl Jam - Ten
Shopping Cart
Checkout
Thank You - Confirmation

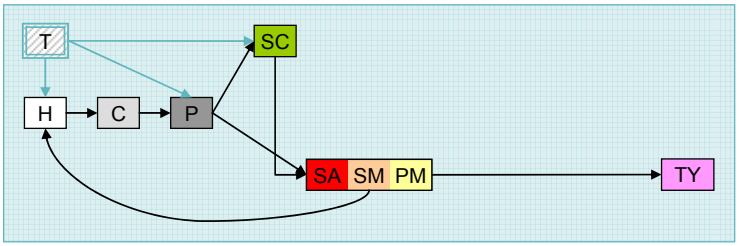
Voice


800-TL-Music
Genre: Alternative
Universals
Album Search: Ten - Pearl Jam
Shopping Cart
Checkout
Thank you - Order Confirmation

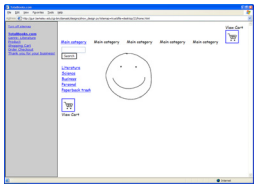
D.12.2 TotalBooks (with layers and patterns)

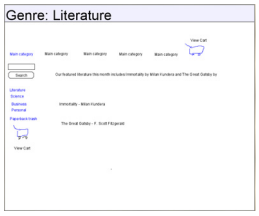
Desktop

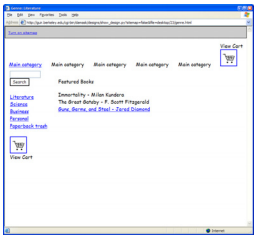


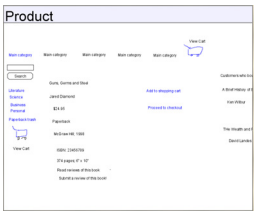

T
SC
H
C
P
SA
SM
PM
TY

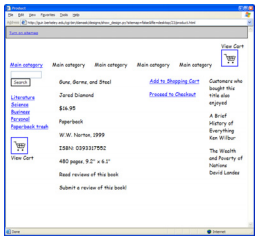
TotalBooks.com



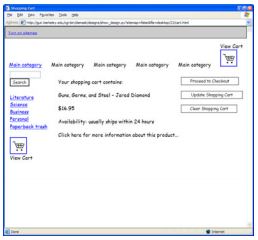

Genre: Literature

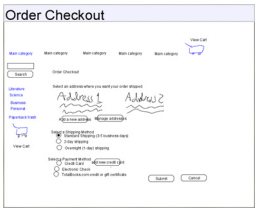


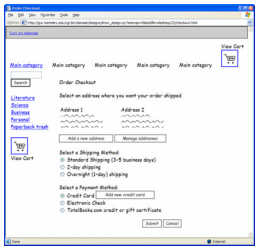

Product



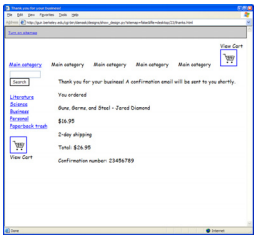
Shopping Cart



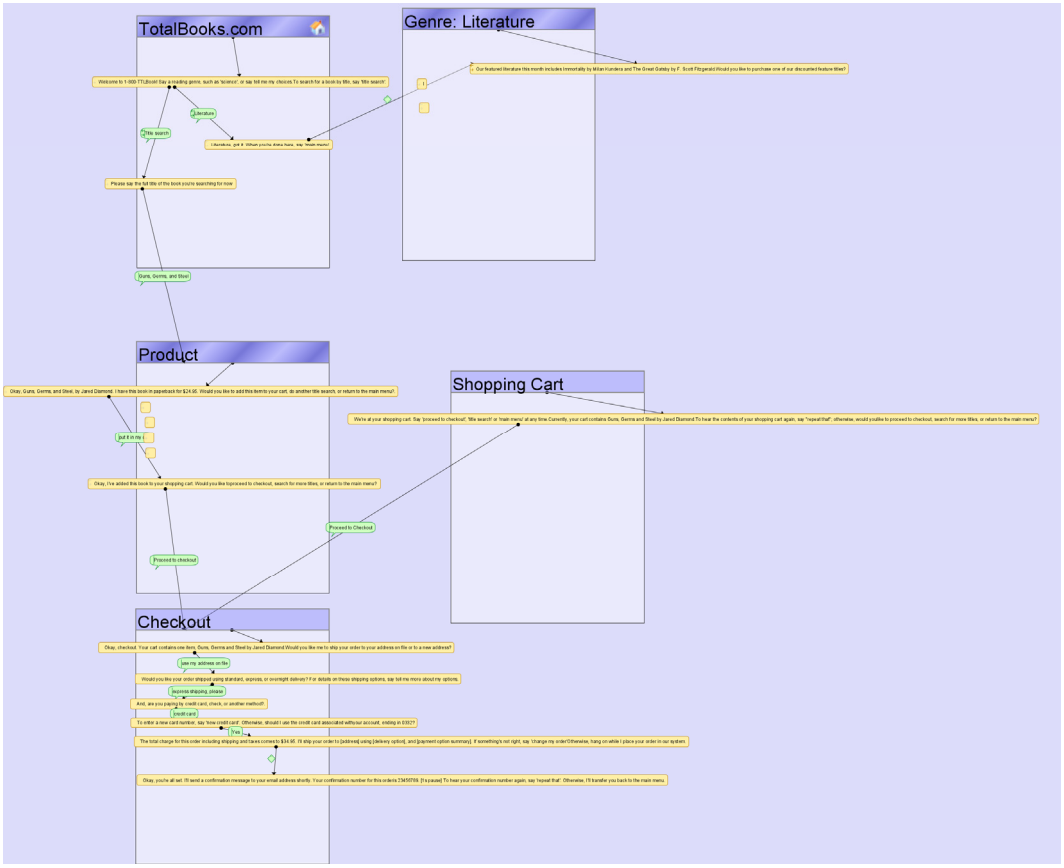

Order Checkout



Thank you for your business!



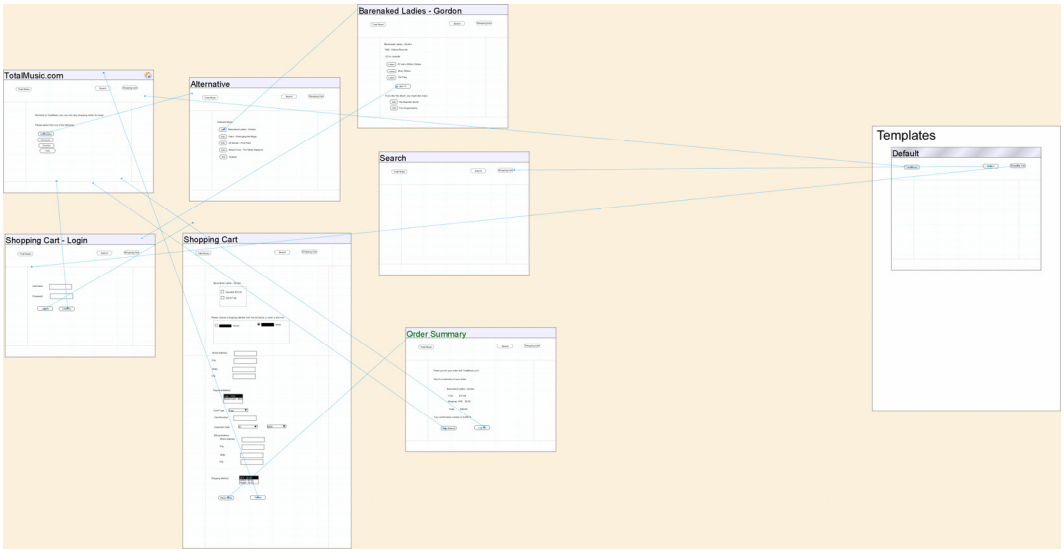
Voice

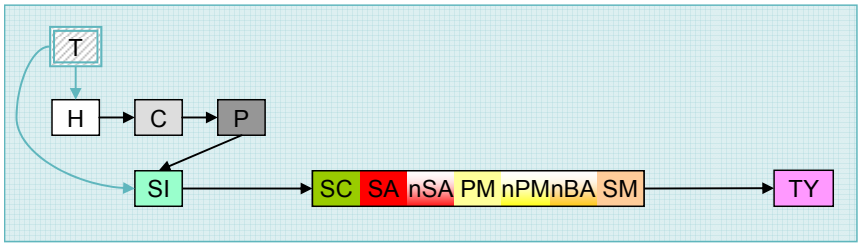

TotalBooks.com
Genre: Literature
Product
Shopping Cart
Checkout

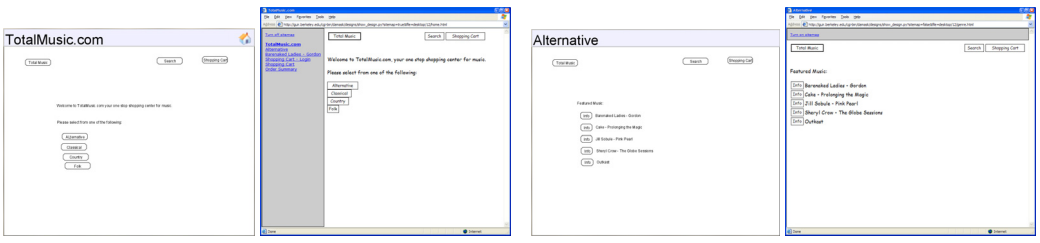
D.13 Designer 17

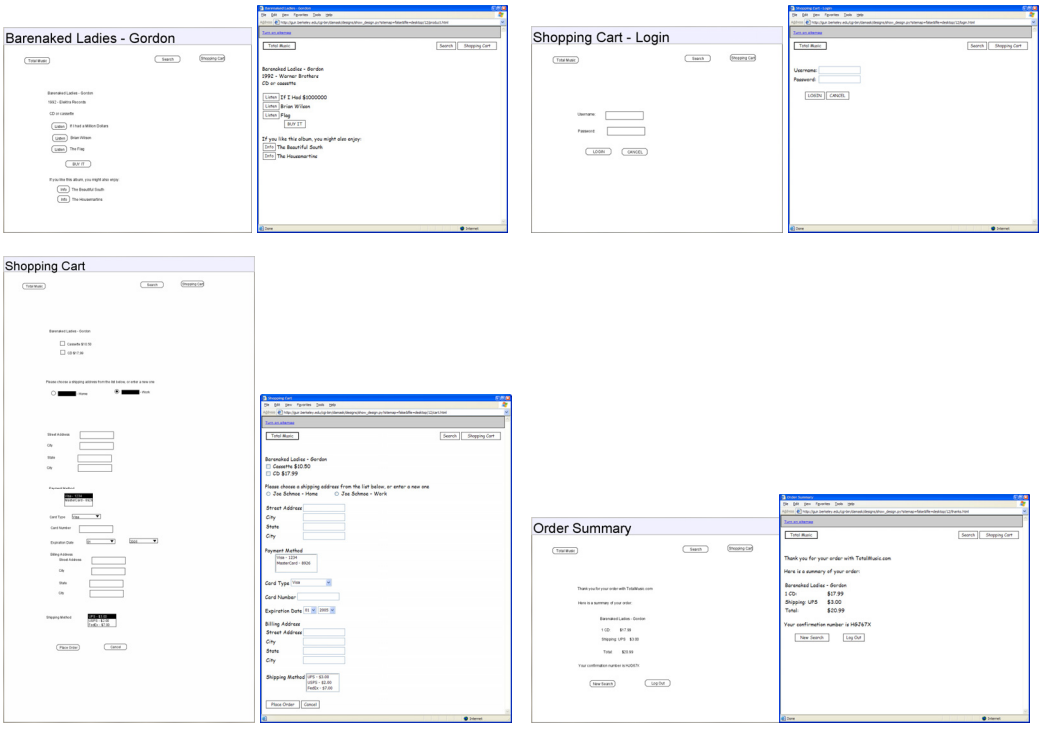
D.13.1 TotalMusic (no layers or patterns)

Desktop

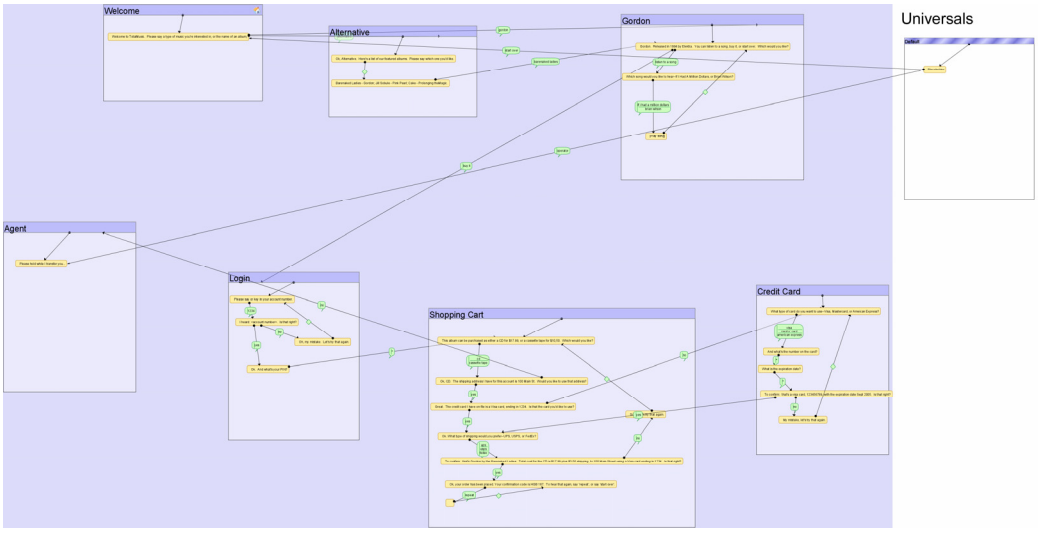






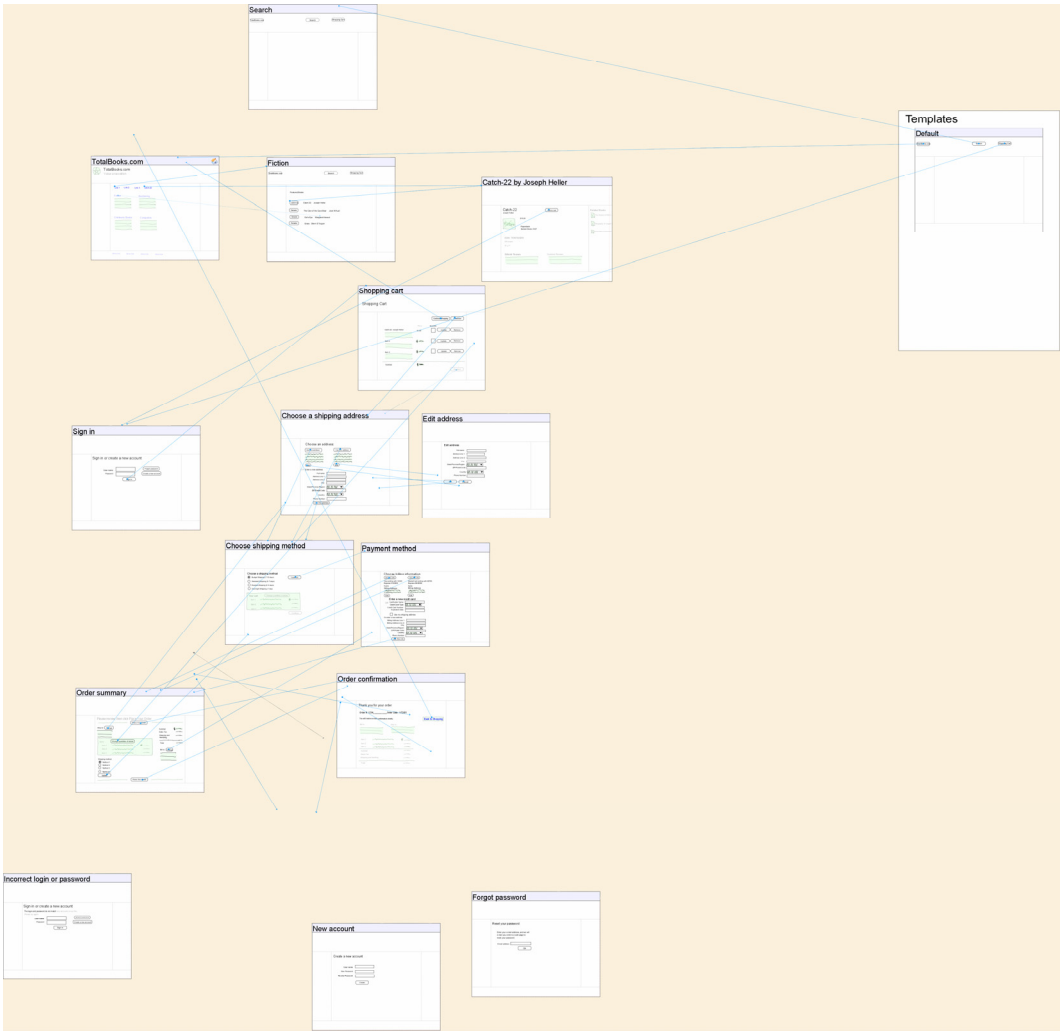

Barenaked Ladies - Gordon
Shopping Cart - Login
Shopping Cart
Order Summary

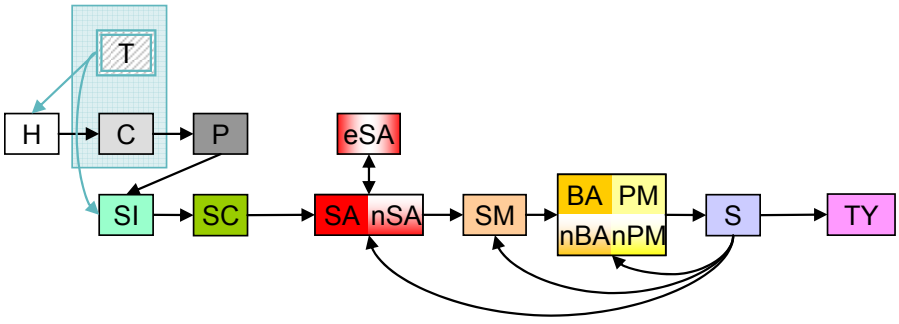
Voice

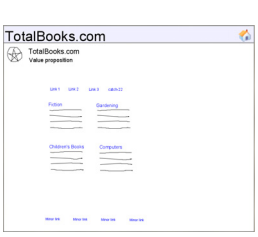

Welcome
Alternative
Gordon
Universals
Agent
Login
Shopping Cart
Credit Card

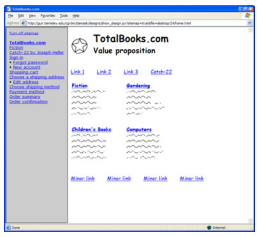
D.13.2 TotalBooks (with layers and patterns)

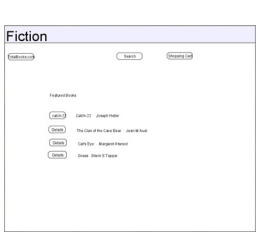
Desktop

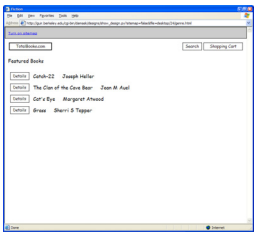


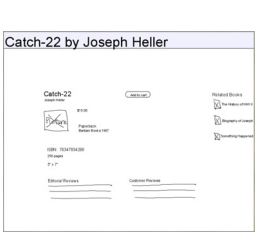


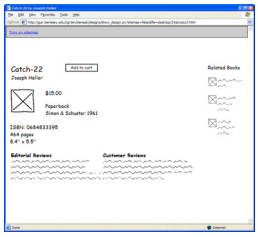

TotalBooks.com
TotalBooks.com
Value proposition


TotalBooks.com
Value proposition

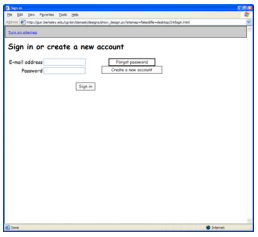

Fiction

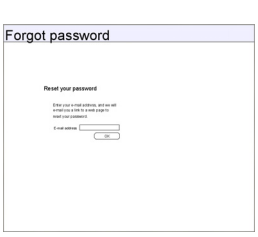


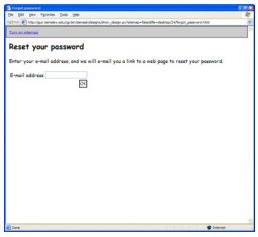

Catch-22 by Joseph Heller
Catch-22

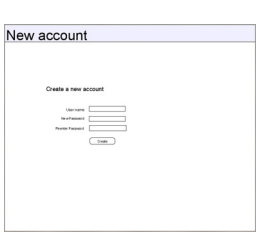

Catch-22
Joseph Heller

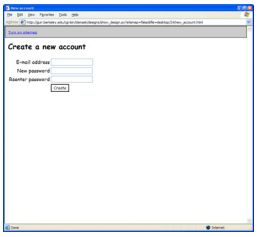
Sign in
Sign in or create a new account

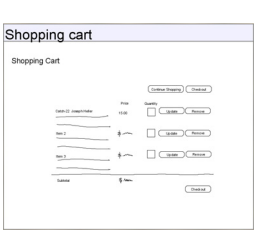

Sign in or create a new account


Forgot password
Reset your password


Reset your password


New account
Create a new account


Create a new account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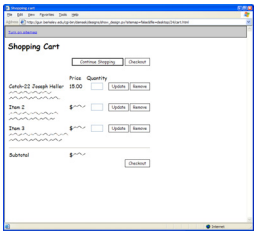
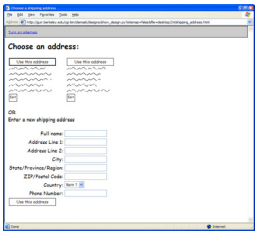
Shopping Cart


Shopping Cart

Choose a shipping address
Choose an address: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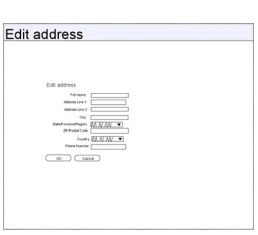
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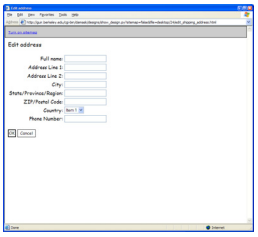
Edit address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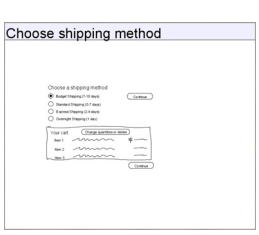
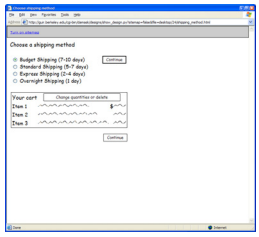
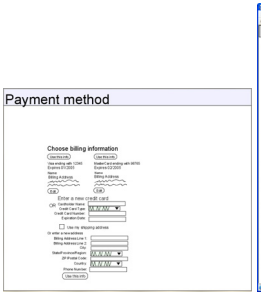
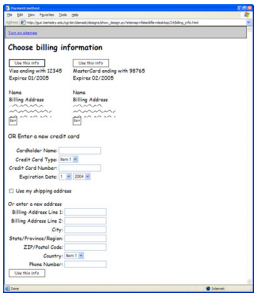
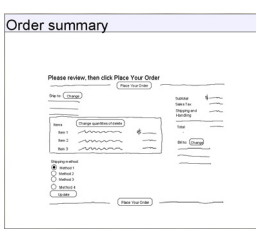
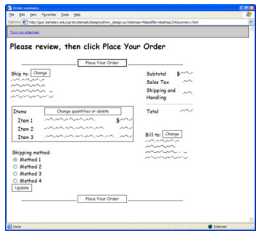

Choose shipping method

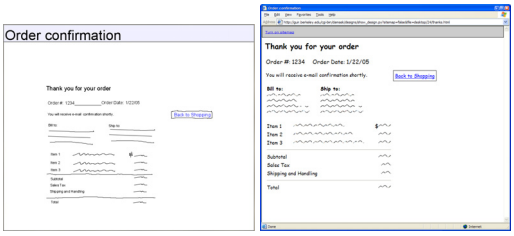

Choose a shipping method


Payment method
Choose billing information

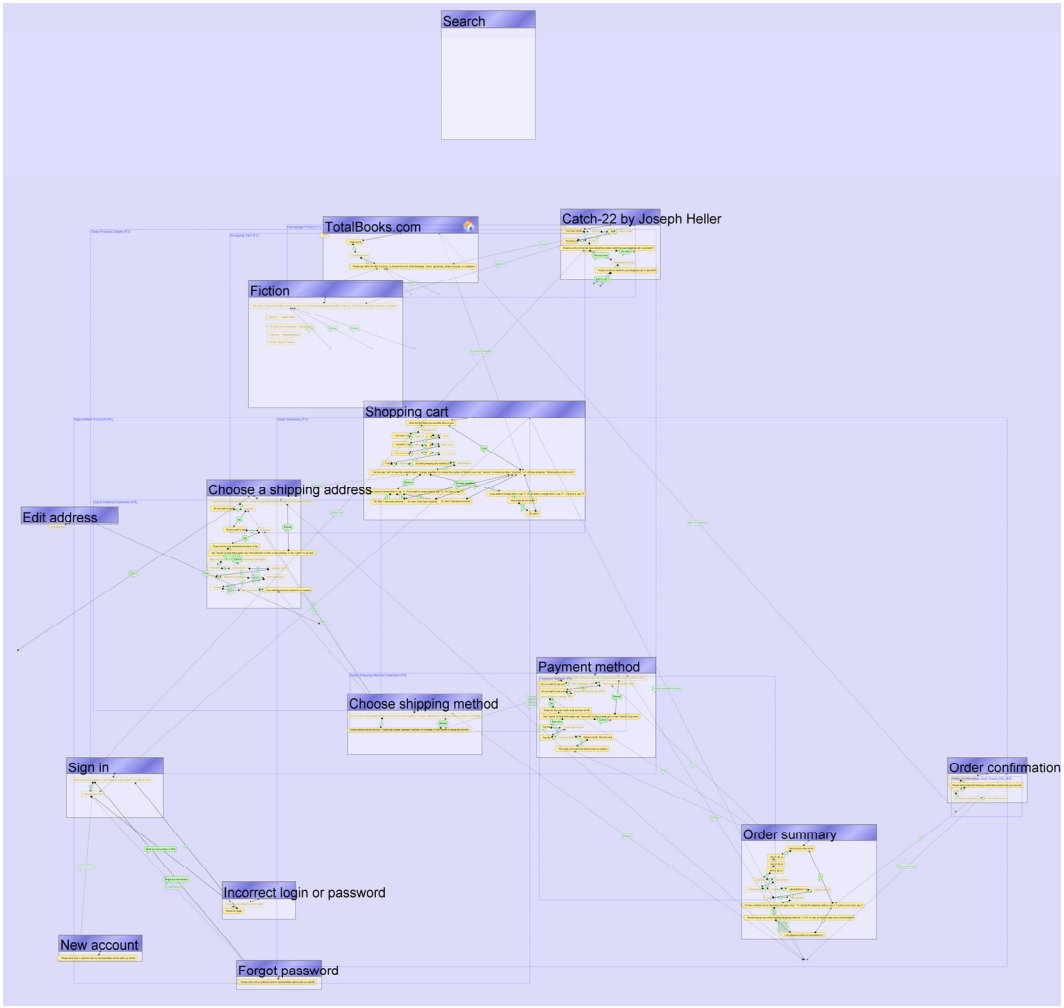

Choose billing information


Order summary
Please review, then click Place Your Order


Please review, then click Place Your Order


Order confirmation
Thank you for your order
Back to Shopping
Thank you for your order
Order #: 1234 Order Date: 1/22/05
You will receive e-mail confirmation shortly.
Back to Shopping
Bill to:
Ship to:
Item 1
Item 2
Item 3
Subtotal
Sales Tax
Shipping and Handling
Total

Voice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Choose shipping method
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Order summary
Incorrect login or password
New account
Forgot password

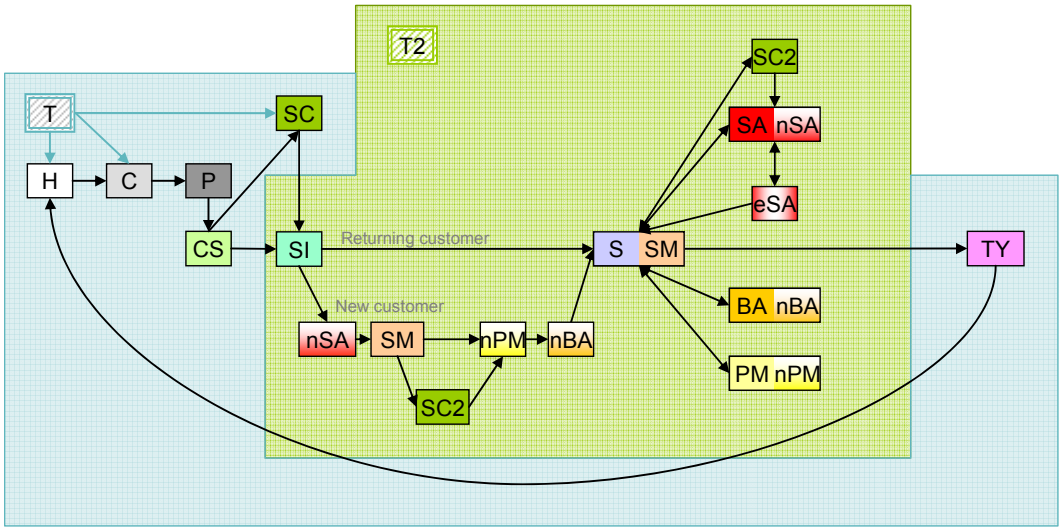
APPENDIX

E Designs and Sitemaps of Amazon.com and BarnesAndNoble.com

E.1 Amazon.com — as of April 26, 2005

E.1.1 Sitemap

See Section D.1 for the key to the sitemap.



E.1.2 Pages

Home (H)

Category (C)

amazon.com.
Return to Hogwarts on July 16, 2005
Books
34% Off Books over $25
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Ya-Yas in Bloom
Holmes Sweet Holmes
Get HarperBusiness Sense
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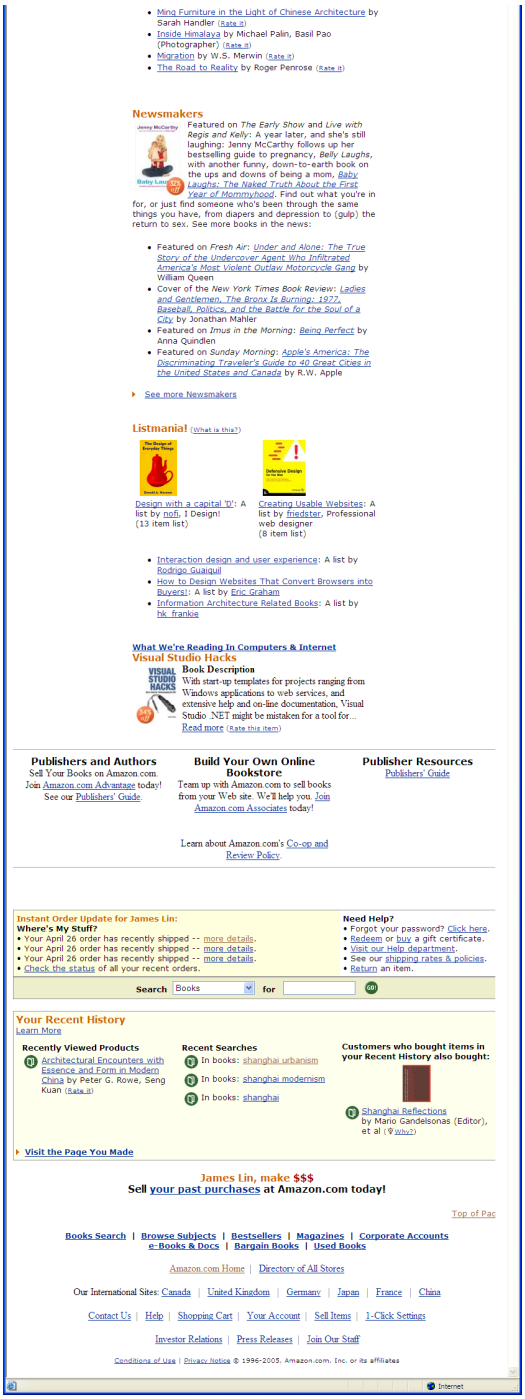
The Amazon.com 100
Save up to 40%
Fiction Forecast
Hot Pick
Tune In to TokyoPop
Around Our Bookstore
Browse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Shanghai: Architecture & Urbanism For Modern China
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Book Description
An architectural view of one of the world's most dynamic and exciting cities.
Shanghai's explosive development since the early 1990s has provided students and fans of architecture with myriad examples of superlatives: from the world's tallest buildings to its longest bridges. As timely as it is comprehensive this collection of essays confronts the broader concerns of Shanghai's role as a harbinger of China's future and a global testing ground. Essays cover the socio-political, cultural, and historic aspects of the city as well as offer more pointed topical analyses of urban design, preservation and the developments of the city's waterfronts. Throughout the book, color photographs and illustrations examine thirty ongoing and completed projects. The resulting overview presents a vibrant city of tension and contradiction, one that both mirrors and drives China's struggle to break free from economic constraints while adhering to its political ideals.
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Publisher: Prestel Publishing (October 30, 2004)
ISBN: 3791331159
Product Dimensions: 11.4 x 8.8 x 0.8 inches
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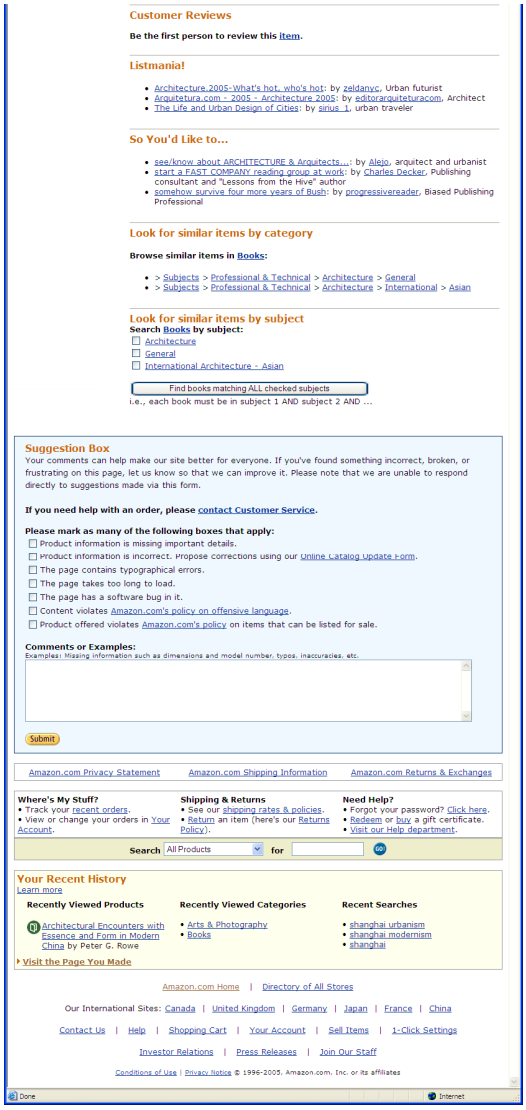
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> Subjects > Professional & Technical > Architecture > International > Asian
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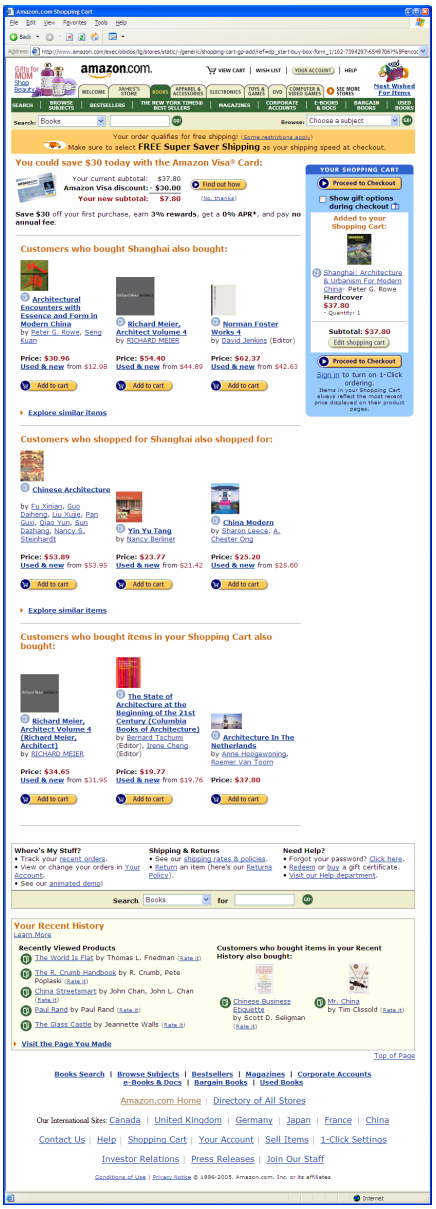
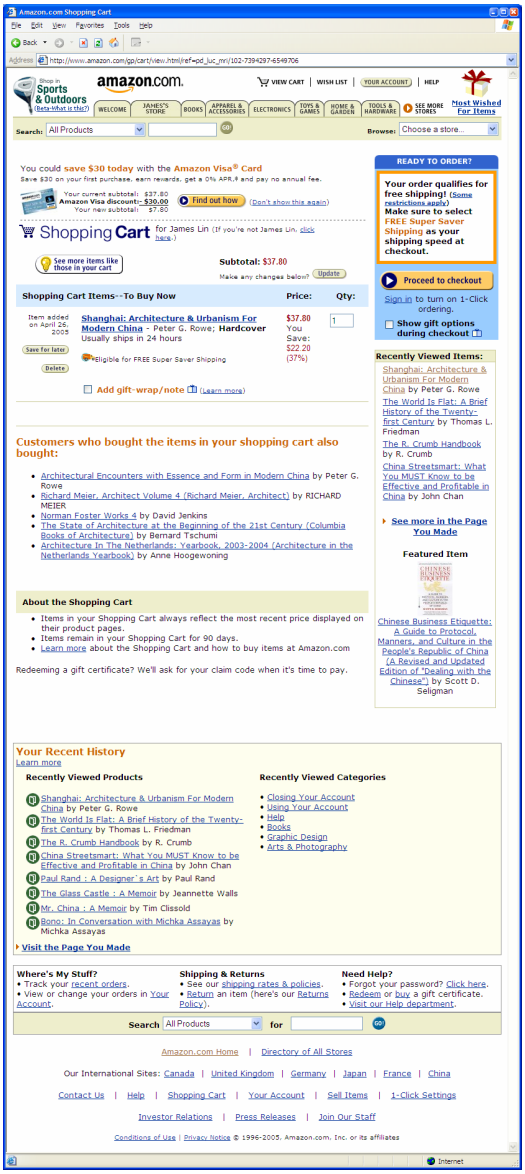
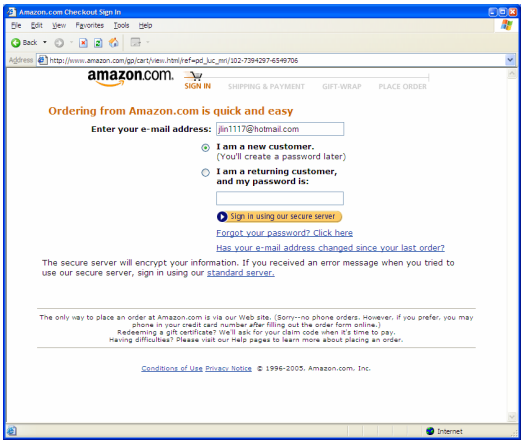
Add to Shopping Cart/Cross-Selling (CS)



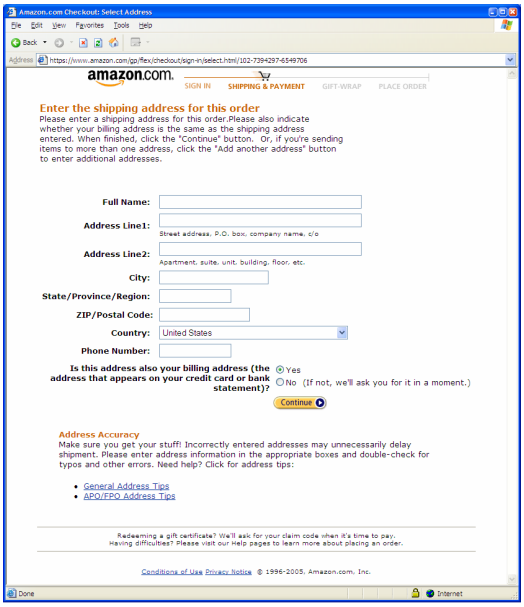
Shopping Cart (SC)



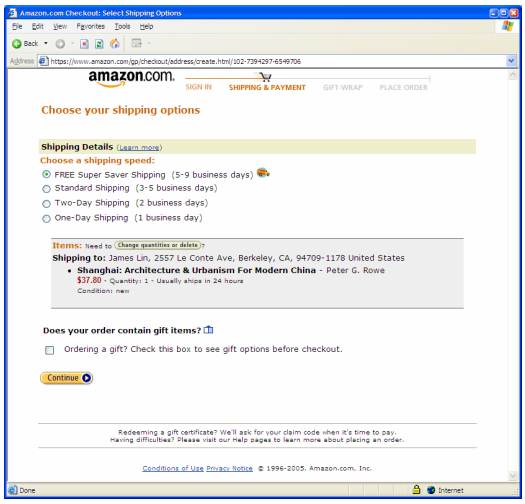
Sign-In (SI)



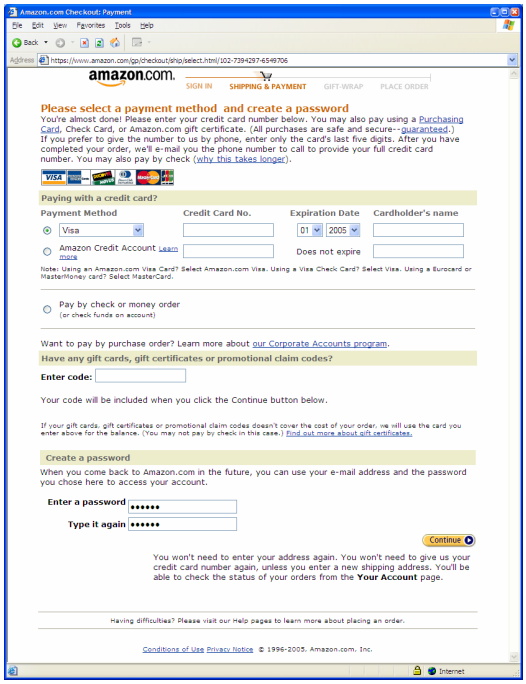
New Customer: New Shipping Address (nSA)



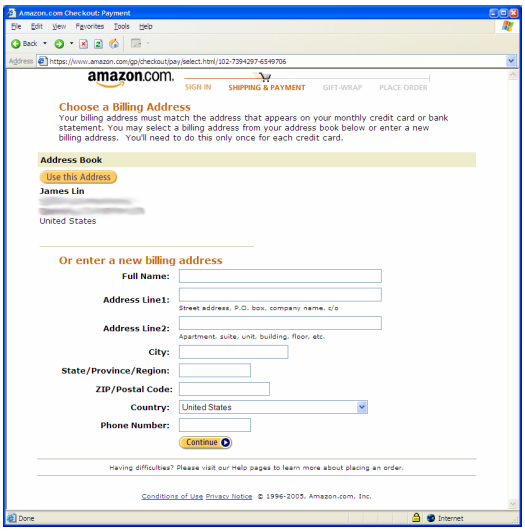
New Customer: Shipping Method (SM)



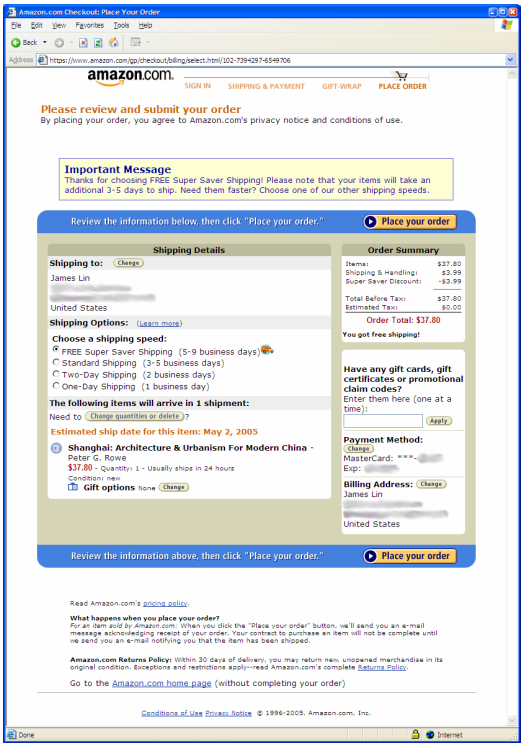
New Customer: New Payment Method (nPM)



New Customer: New Billing Address (nBA)



Order Summary (S | SM)



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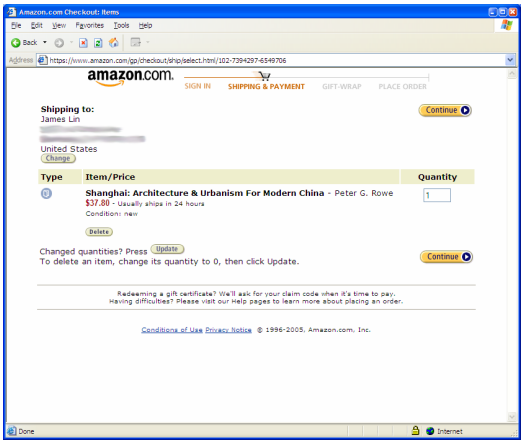
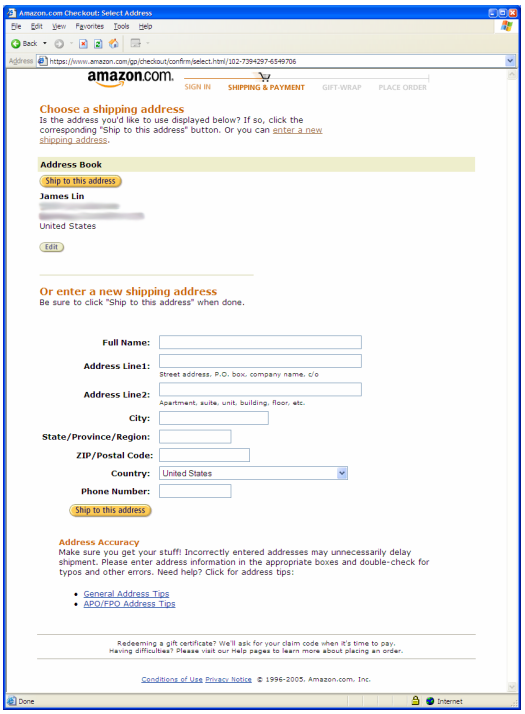
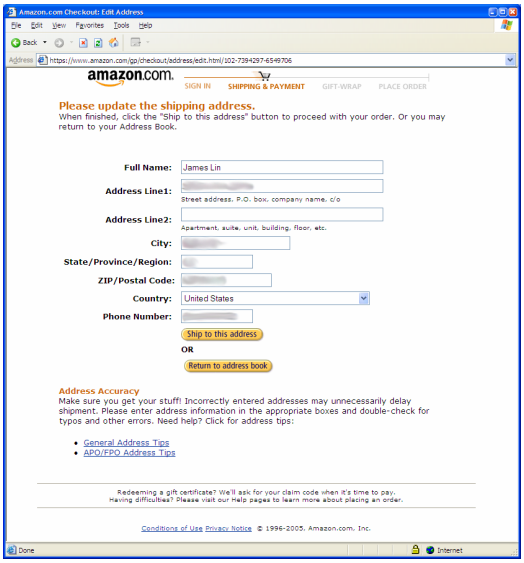


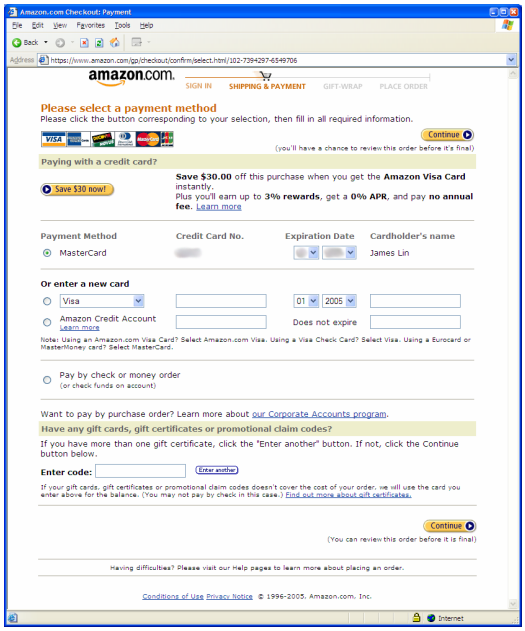
Shipping Address (SA | nSA)



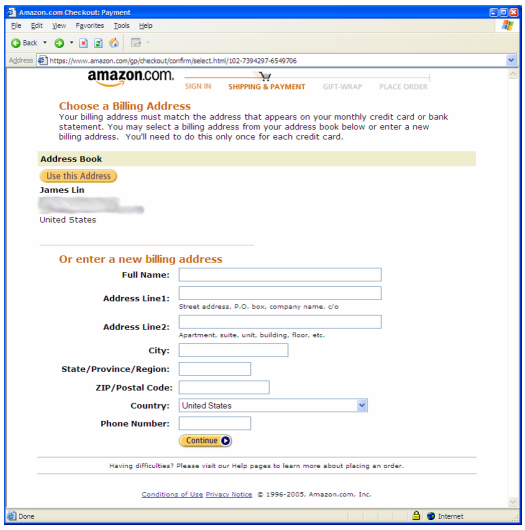
Edit Shipping Address (eSA)



Payment Method (PM | nPM)



Billing Address (BA | nBA)



Thank You (TY)

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Quicken 2005 Basic [Track, Balance, Budget]
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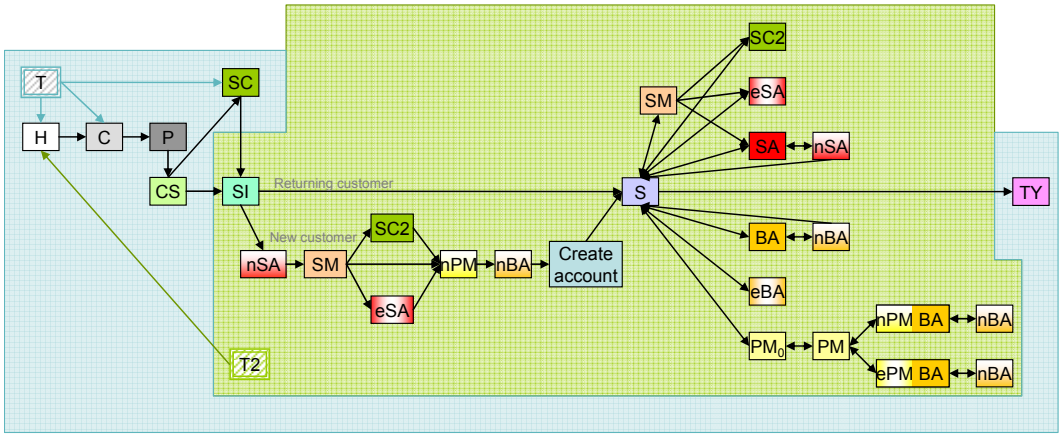
E.2 BarnesAndNoble.com — as of April 27, 2005

E.2.1 Sitemap



E.2.2 Pages

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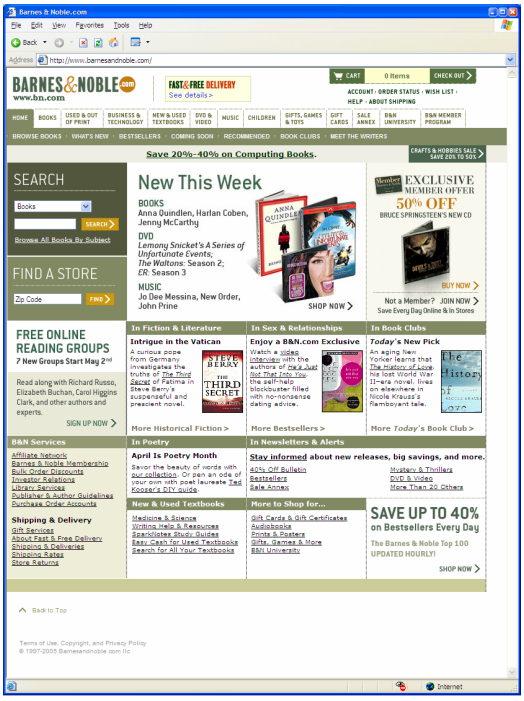
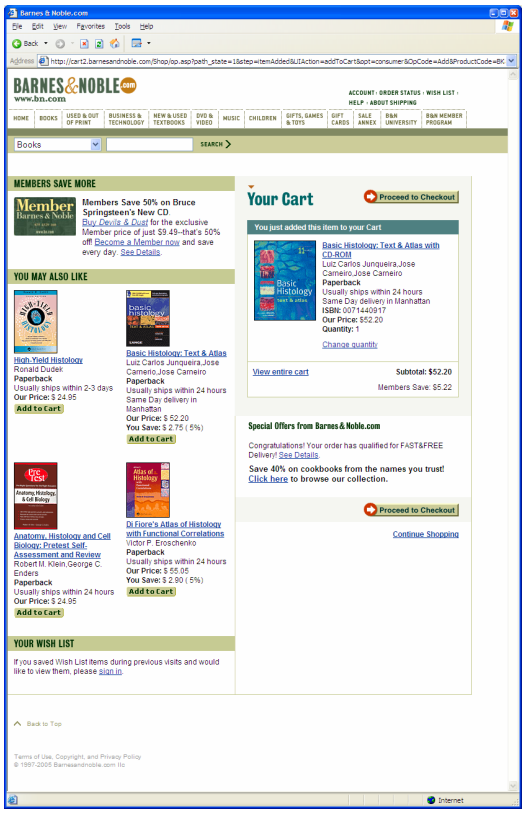


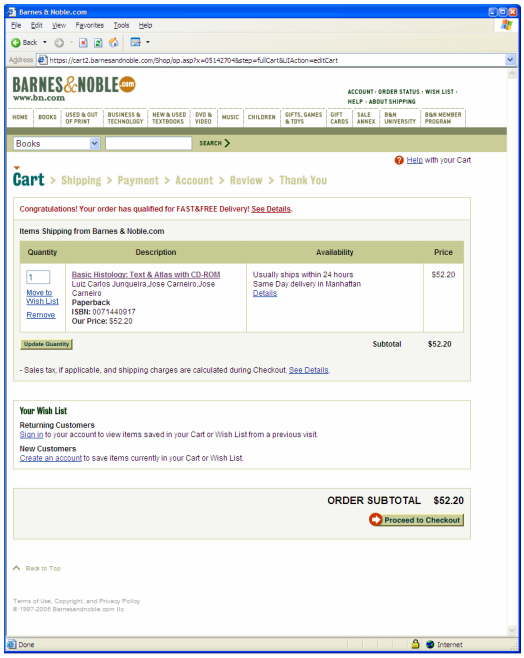
Category (C)

Product (P)

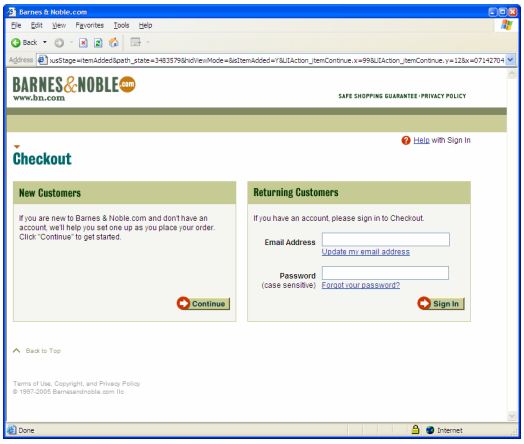
Add to Shopping Cart/Cross-Selling (CS)



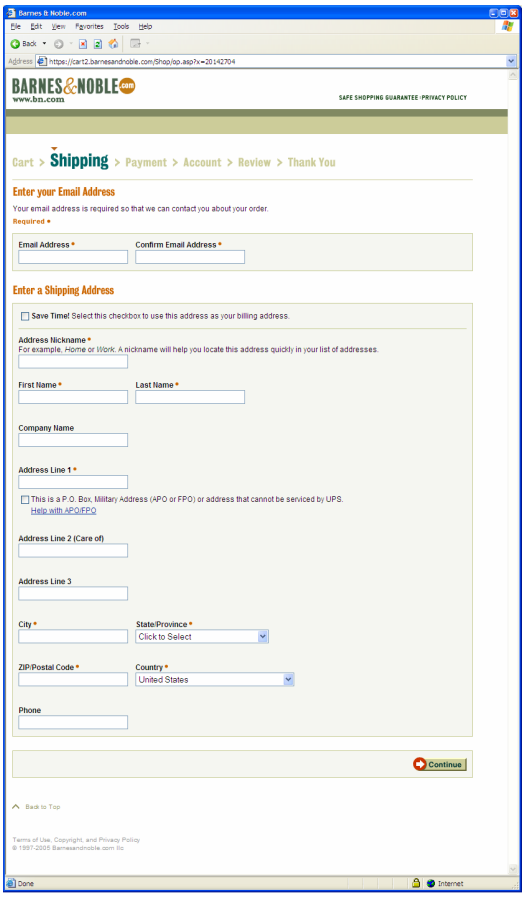
Shopping Cart (SC)



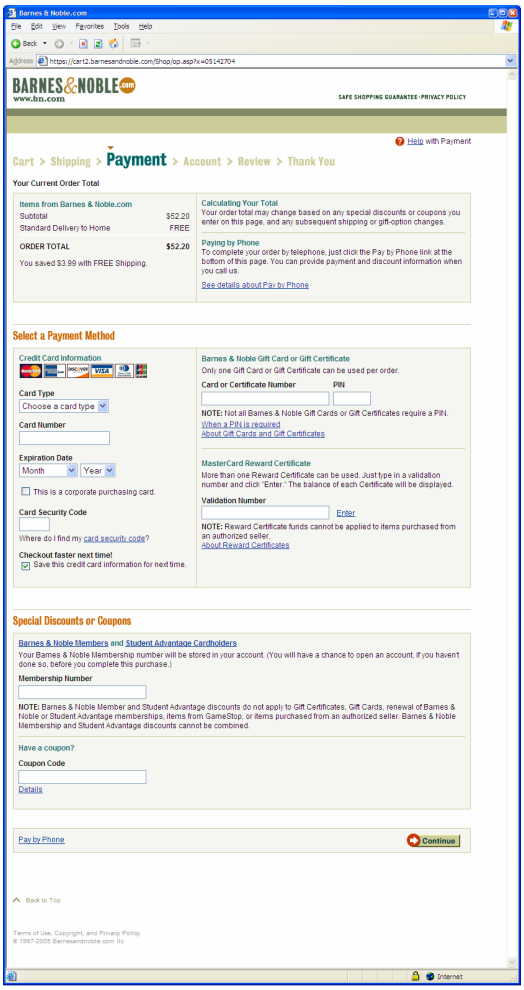
Sign-In (SI)



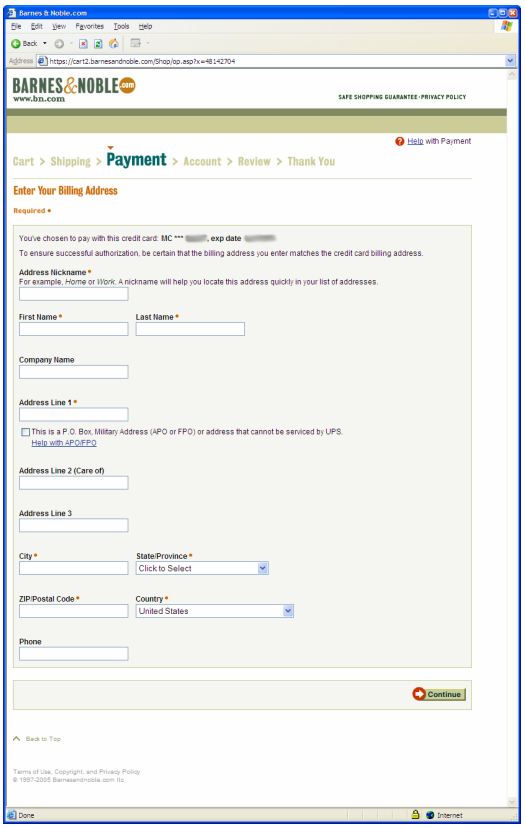
New Customer: New Shipping Address (nSA)



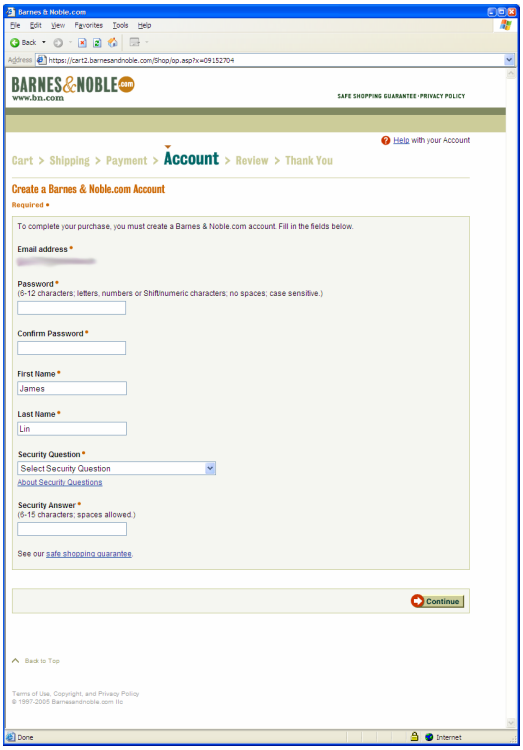
New Customer: New Payment Method (nPM)



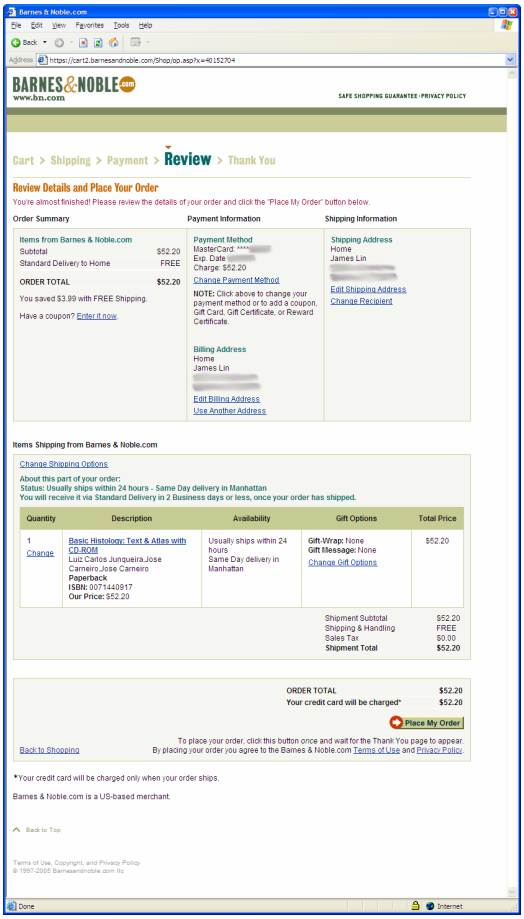
New Customer: New Billing Address (nBA)



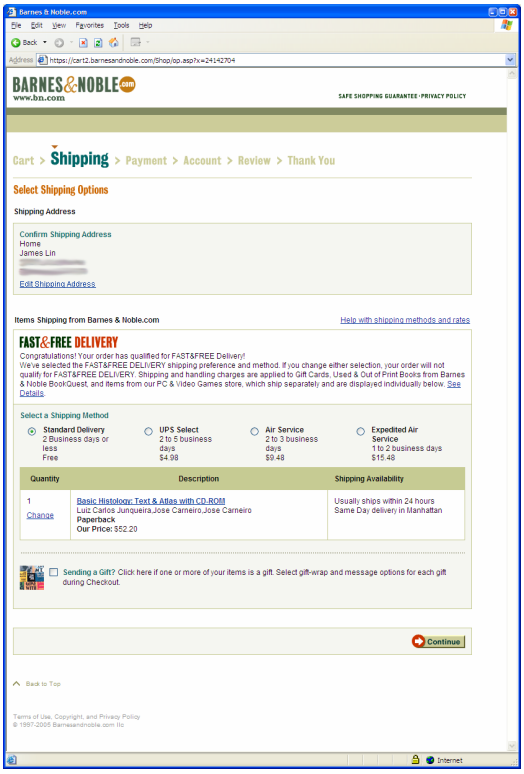
Create account



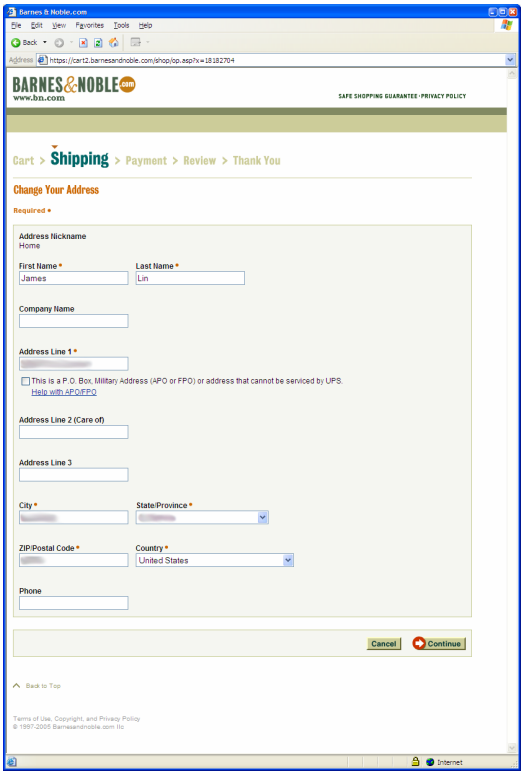
Order Summary (S)



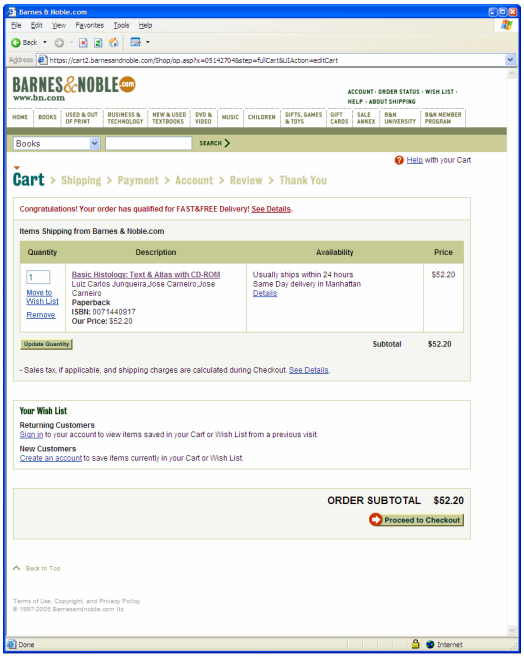
Shipping Method (SM)



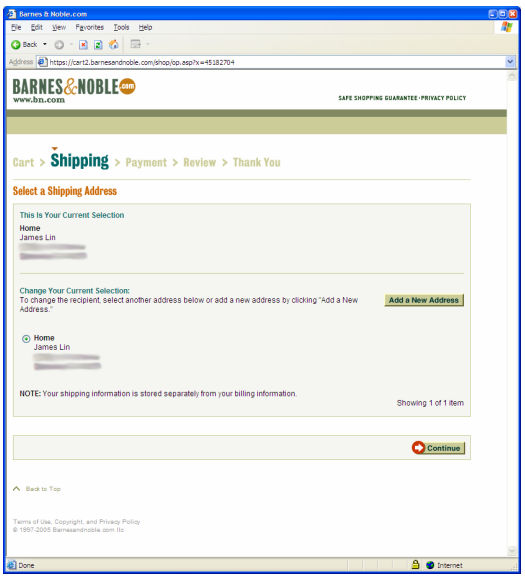
Edit Shipping Address (eSA)



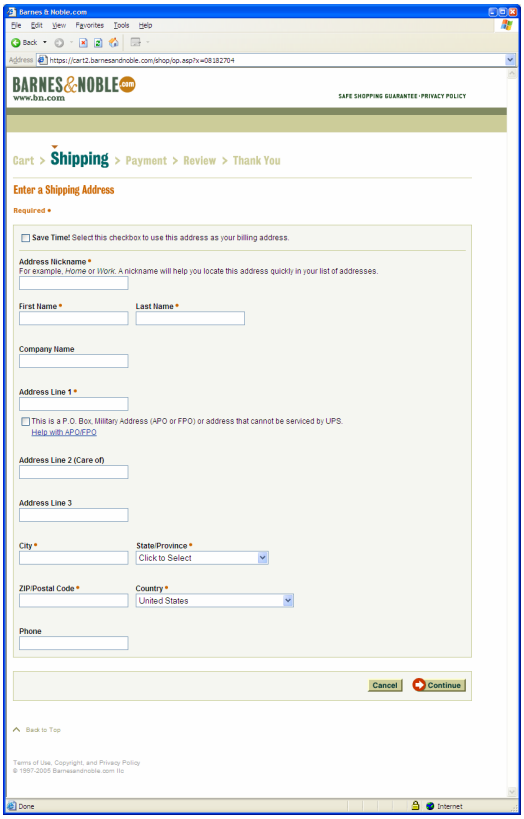
Change Quantities (SC2)



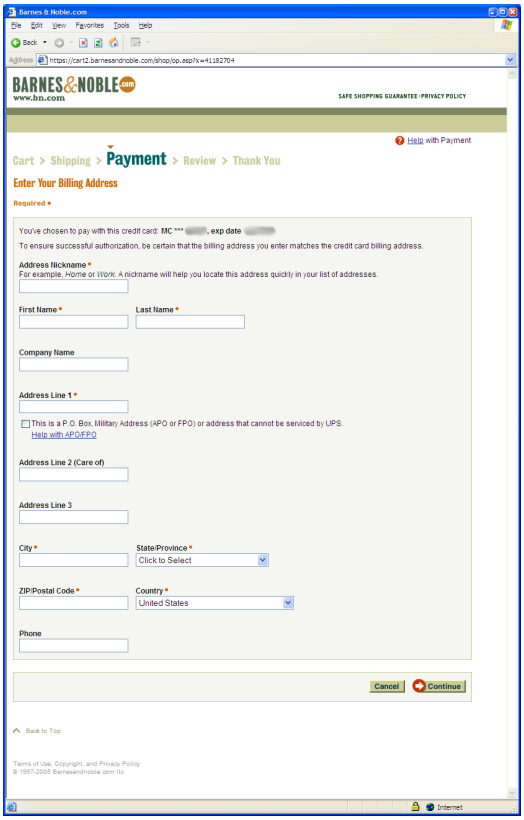
Shipping Address (SA)



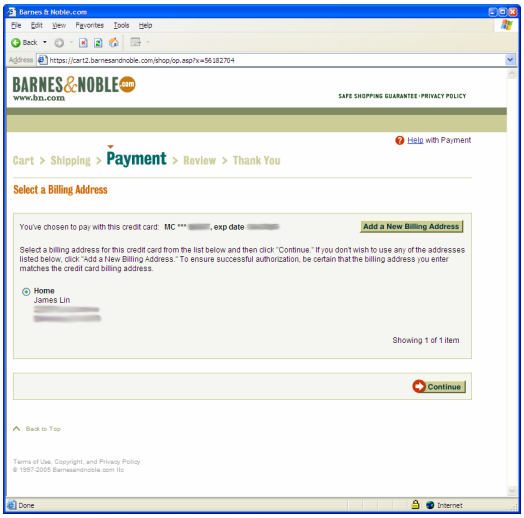
New Shipping Address (nSA)



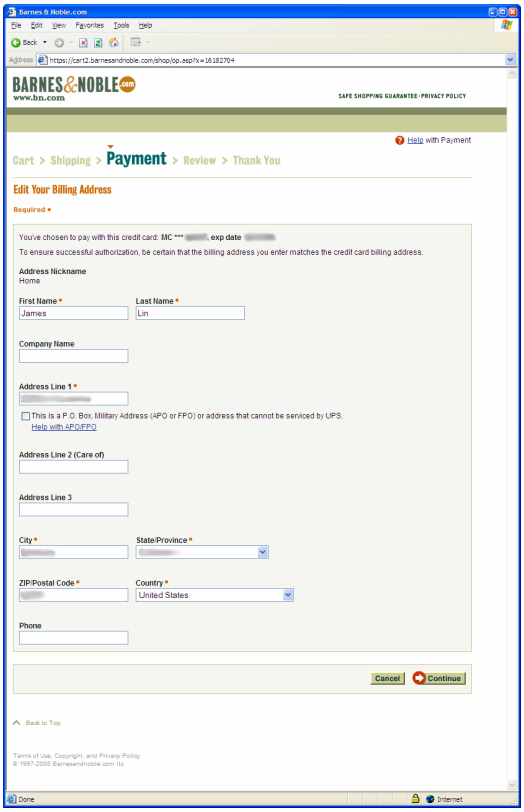
New Billing Address (nBA)



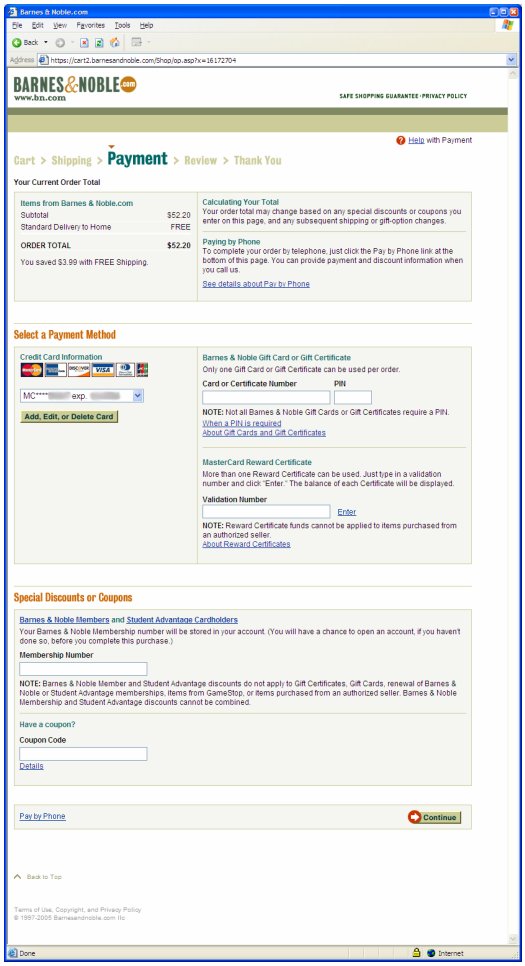
Billing Address (BA)



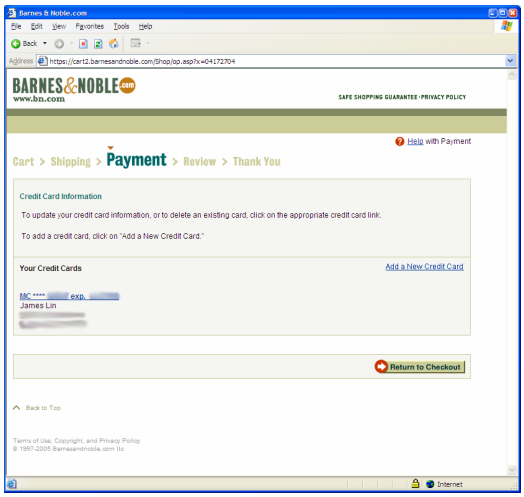
Edit Billing Address (eBA)



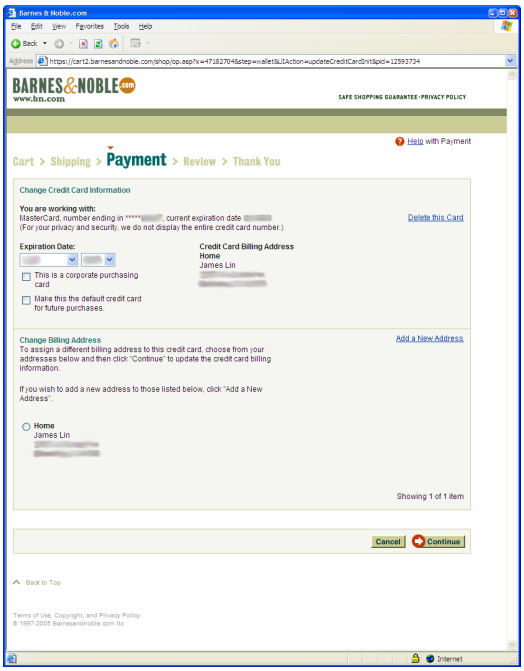
Payment Method (PM_0)



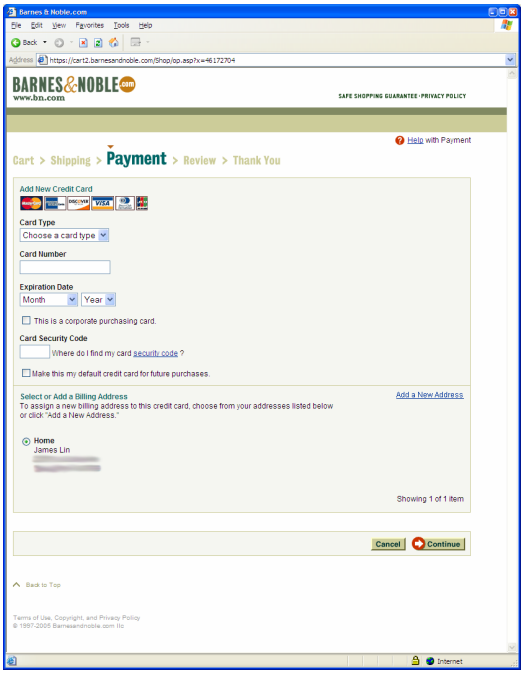
Payment Method: Choose Credit Card (PM)



Payment Method: Edit Credit Card (ePM | BA)



Payment Method: New Credit Card (nPM | BA)



APPENDIX

F Materials for Judging Damask Desktop and Smartphone User Interfaces

F.1 Consent Form

My name is James Lin. I am a graduate student in Computer Science at UC Berkeley. I would like to invite you to take part in my research. It consists of evaluating user interface designs over the web. The purpose of the study is to learn more about the design of user interfaces.

If you agree to take part in my research, you fill out a questionnaire on the web at the time and location of your choice. There will be one session. I ask that you schedule one hour for this study, though it is possible that you will finish early. The study will consist of looking through and evaluating several user interfaces on the web, and filling out a written questionnaire after each user interface. I would like to emphasize that this experiment should be approached as a fun activity and a contributing effort. It is okay if you do not complete the task. I may ask to contact you by telephone or e-mail if there are any follow-up questions I have after our interviews.

If you agree to participate and finish the questionnaire, you will receive a $50 gift certificate from Amazon.com to thank you for your participation.

There are no known risks to you from taking part in this research, and no foreseeable direct benefit to you either. However, your participation will contribute to my efforts to improve the state of the art in user interface design.

The judging results that you will create will be kept on my secured computer. We will not use any identifying information in any reports of my research. After this research is completed, I may save this data for use in future research by others or myself.

Your participation in this research is voluntary. You are free to refuse to take part. You may refuse to answer any questions and may stop taking part in the study at any time. Whether or not you participate in this research will have no bearing on your job or your relationship with UC Berkeley.

If you have any questions about the research, you may contact me, James Lin, at (408) 927-2687 or jimlin@cs.berkeley.edu. If you agree to take part in the research, please sign the form below. Please keep the other copy of this agreement for your future reference.

If you have any question regarding your treatment or rights as a participant in this research project, please contact UC Berkeley's Committee for the Protection of Human Subjects at (510) 642-7461 or subjects@uclink.berkeley.edu.

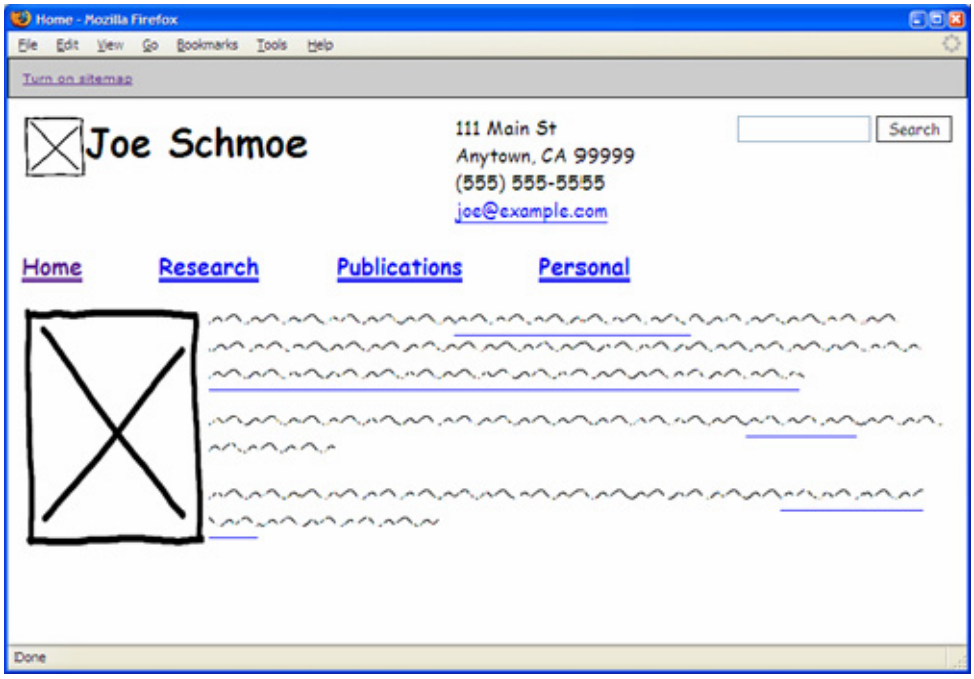
I have read this consent form and I agree to take part in this research.

_____	_____	_____
Name (please print)	Signature	Date

F.2 Introduction

Thanks for participating in our study of early-stage UI designs. You will be asked to look at four early-stage UI designs and evaluate them based on several criteria, both freeform questions and ratings. These UI designs were all created in less than 1 hour and 45 minutes, with an average time of 1 hour.

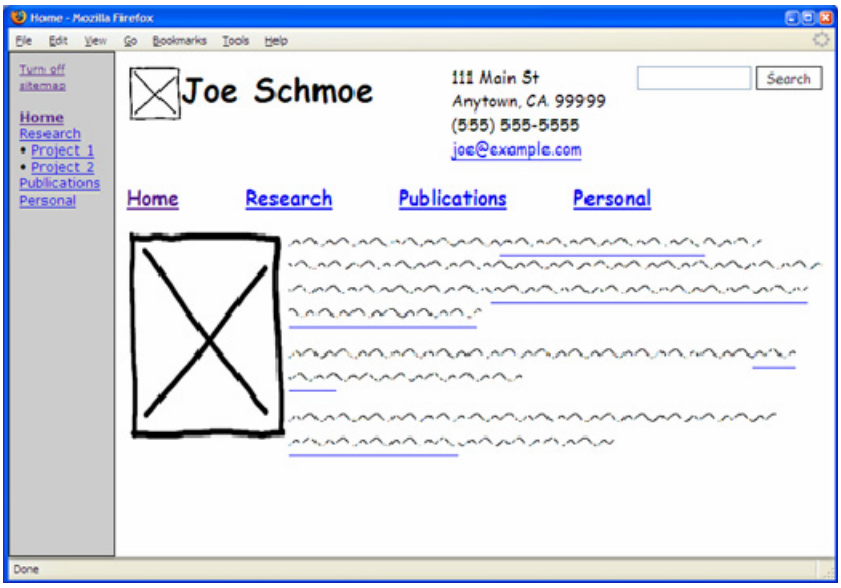
You are to evaluate the designs as if the designer is applying for a job at your firm, and the designs were created as part of the job application process. The designs will look similar to the screenshot below:



A few things to note:

- A blue line under a squiggle means that it is a link.
- Buttons (like the *Search* button in the upper right-hand corner of the example) may or may not be linked to another page.

- If you get lost, you can click the link labeled "Turn sitemap on" in the upper left-hand corner, which will make the design look like this:



Within the sitemap, the page you are currently viewing is in bold (in this case, *Home*).

Throughout the evaluation form itself, there are buttons labeled Save the whole form as a draft (just in case). This allows you to save your answers so that you can come back later. After saving the form, you can close your browser without losing your answers. To resume evaluating, simply come back to this page and login again.

Before starting, make sure you have **enabled cookies and JavaScript** in your browser.

To begin, please enter the evaluator number and password that you received from us by e-mail.

Evaluator number: [ ]

Password: [ ]

F.3 Questionnaire

***x* out of 4 designs**

Evaluation of Design *y*

A designer is applying for a job at your firm and has been asked to create a preliminary design for a web site for selling books. Here are requirements that were given to the designer, and the designer's design:

- Instructions for design task *(linked to the instructions given to the participants: §C.6.1, Task 2; §C.6.2; or §C.7.6, depending on the design)*
- Design *y (linked to the appropriate design, Appendix D)*

As part of the job application process, you are to evaluate the design and the designer. Please fill out the following form.

Browsing for a (CD | Book)

Page flow

1. Please give a rating for how well the pages for browsing for a (CD | book) were *linked together*: (1 = negative, 5 = positive; evaluator number in parentheses)

Designer	Ratings			
	1	2	3	Average
Desktop—No patterns or layers				
4	(9) 4	(10) 2	(12) 4	3.33
5	(3) 3	(8) 3	(9) 2	2.67
6	(5) 2	(6) 2	(11) 3	2.33
7	(1) 3	(2) 2	(3) 3	2.67

8	(1) 5	(4) 4	(7) 1	3.33
9	(4) 4	(6) 3	(10) 1	2.67
10	(2) 4	(5) 3	(8) 4	3.67
11	(7) 2	(11) 4	(12) 4	3.33
13	(15) 3	(16) 3	(17) 3	3.00
15	(13) 1	(14) 3	(17) 4	2.67
16	(15) 5	(16) 4	(18) 4	4.33
17	(13) 3	(14) 2	(18) 2	2.33
Desktop—Patterns and layers				
4	(9) 4	(10) 2	(12) 4	3.33
5	(3) 2	(8) 4	(9) 3	3.00
6	(5) 3	(6) 2	(11) 3	2.67
7	(1) 4	(2) 4	(3) 4	4.00
8	(1) 2	(4) 2	(7) 2	2.00
9	(4) 4	(6) 3	(10) 2	3.00
10	(2) 4	(5) 3	(8) 3	3.33
11	(7) 4	(11) 4	(12) 4	4.00
13	(15) 2	(16) 3	(17) 4	3.00
15	(13) 1	(14) 4	(17) 4	3.00
16	(15) 4	(16) 3	(18) 4	3.67
17	(13) 2	(14) 4	(18) 1	2.33
Smartphone—No patterns or layers				
4	(19) 4	(22) 3	(29) 5	4.00
5	(24) 4	(25) 3	(26) 2	3.00

6	(20) 5	(21) 3	(28) 3	3.67
7	(23) 4	(24) 3	(27) 4	3.67
8	(19) 2	(20) 2	(30) 4	2.67
9	(23) 2	(27) 3	(29) 4	3.00
10	(21) 1	(25) 2	(30) 4	2.33
11	(22) 2	(26) 5	(28) 4	3.67
Smartphone—Patterns and layers				
4	(19) 3	(22) 3	(29) 3	3.00
5	(24) 1	(25) 1	(26) 2	1.33
6	(20) 4	(21) 3	(28) 3	3.33
7	(23) 4	(24) 2	(27) 3	3.00
8	(19) 3	(20) 2	(30) 5	3.33
9	(23) 3	(27) 4	(29) 3	3.33
10	(21) 2	(25) 1	(30) 4	2.33
11	(22) 5	(26) 2	(28) 3	3.33

2. Discuss with the designer what you like and do not like about the how the pages for browsing for a (CD | book) were *linked together*.

Designer 4 · desktop · no patterns or layers

(9) I thought it worked fine.

(10) I like the fact that i have visibility into all genres on the top left nav. I like the use of the horizontal space. All the important information is in my face, i like that.

(12) Seemed familiar and comparable to other online music seller web sites.

Designer 5 · desktop · no patterns or layers

(3) Some of the language is awkward, such as proceed. I wasn't sure where I was goign with this link. I wasn't sure what the link below the album details was for (the add to shopping cart). This seems like an odd detail to leave off a design. I think the artist name should have been linked to the listing of all their albums.¶I like that there is some navigation on the Album page but it still doesn't really give much indication of where you currently are in the category structure.

(8) should have secondary method of interaction menus for users to retrieve information. users should be able to directly purchase music instead of looking at details, then purchase.

(9) Ok this was confusing. I click on a "featured album" and I go to an "artist's name" type item???? Put an album name item on that first page for each of those "featured albums" such that when I click on it, the next page makes better sense.

DESIGNER 6 · DESKTOP · NO PATTERNS OR LAYERS

(5) not entirely clear the connection between the main genre page and the selection of possible artists. or how this design would support backing up and browsing for another selection.

(6) As with Design 1, the linking from home to genre to CD info is straightforward. I'm missing some "scent" trail in the way of page titling - I'm in Alternative, I'm looking at the album called Hai! (I think). I like that the genre navigation stays with you.

(11) The flow was fine.

DESIGNER 7 · DESKTOP · NO PATTERNS OR LAYERS

(1) no problems

(2) Can't choose another album or genre easily.

(3) The flow seems adequate. Main page>genre>album page.

DESIGNER 8 · DESKTOP · NO PATTERNS OR LAYERS

(1) No problems, web-standard browse path

(4) The pages were all linked well. I didn't notice any errors.

(7) Difficult to navigate bewteen levels

Designer 9 · desktop · no patterns or layers

(4) The pages seemed to link well and I didn't see any broken links.

(6) Path was pretty direct, information scent is supported through titles. There is a lack of other navigation on the pages, however. Also missing any references to the ringtones - should be creating awareness and telling people how to get it.

(10) I like the fact that it is simple. ¶Why are the genres at the bottom?¶I do not like the fact that I cannot go back to where I came from without hitting back button several times. How do I go back to the home page?

Designer 10 · desktop · no patterns or layers

(2) I like the shopping cart to be linked on browsing page, so I can always go there to check what is in my cart.¶¶I don't like that the checkout page is totally separate from the CD browsing. What if I want to go back to buy a new CD during the checkout process?

(5) are breadcrumbs part of this design? if so, these could be more clearly marked in these mockups. would be interested in hearing the rationale behind browsing by genre - are there compelling use cases for this versus say browsing by new releases or top rated?

(8) Browsing for CDs make sense

Designer 11 · desktop · no patterns or layers

(7) Unable to navigate efficiently between pages

(11) I like that the user can easily "drill down" to an album by choosing a genre and then selecting an album from a list of albums.¶¶I'd like to see a more creative

way of presenting a "search for a specific album" feature. But doing so wasn't part of the requirements, so I suppose that's fine.

(12) Interface seemed familiar to me, comparable to other online music sellers.

Designer 13 · desktop · no patterns or layers

(15) Browsing for a CD was possible, but contained errors.¶¶The homepage was successful. The simple genre links from the homepage work fine, because they resemble the very familiar pattern of the categories on a search-enging homepage.¶¶The requirements stated both "a page for one genre of music" and also a "product page." I see a page entitled Oldies, which satisfies the one-genre requirement; however I see no "product" page. Folding the individual products into the same page is a nice way to save a click, and would be worth putting in front of users for their response. However, the big problem here is that the designer assumed a very small data set (the list of featured albums). The designer offered eight genres, yet only four featured albums in one genre. Granted, the requirements should have specified a number range; a stated upper limit of three, 20, or 200 featured albums would make a big difference in the linking to individual albums. But absent that upper limit, the designer should not have assumed just four featured albums and skipped the "product page" requirement.¶¶The requirements did not specify how easy it is to browse from one genre to another. There are real-world reasons why a browser might want to (1) stay highly focused in a genre, or (2) jump among genres. It appears that the designer assumed #1 -- a fair assumption -- by providing only a link to the homepage rather than "sideways" navigation to other genres from the Oldies page.

(16) It seems to me that this design would work well if there was a very limited inventory of CDs, but that as soon as the number of CDs increased the browse mechanism would fail.

(17) Clicking from the genre page was easy, but the way to link from music isn't readily understandable.

Designer 15 · desktop · no patterns or layers

(13) A drop down menu is not the best way to start the customer experience, especially when there are only 4 options in that menu. The OK button seems unnecessary, why not just link on select? A simpler UI could be made that requires fewer clicks.¶¶Once a genre has been selected the add to cart functionality should be a priority. Once again by using a form method, you're adding extra work for the customer. Checkboxes and submit also suffer from lack of proximity.¶¶Good that Search is persistant, but results present a different UI.

(14) it's pretty easy to get around,¶it would be nice if the home page had some features on it

(17) The pages seem to link well together -- there might be more interactivity on each page (allowing a user to continue shopping after they view their cart, and on an album page, allowing a user to purchase either individual songs or a whole CD).

Designer 16 · desktop · no patterns or layers

(15) Phew, what a relief. I thought I was going crazy.¶¶The hyperlinks are done right, reflecting a hierarchy as specified. They are implemented in global nav plus drilldown. No problems - all the way down to song samples.

(16) This design seems to have a better flow from genre through album listing through album details to purchase. (I know that I am reacting to the overall similarity to shops like Amazon.com here.)

(18) Browsing and search both work, there's a clear navigation element to the screen. I know where I am, I can get home, I am an enabled user. The Buy Now accelerator was handy, although personally I don't find myself making use of such things on product websites. (iTunes, on the other hand...)

Designer 17 · desktop · no patterns or layers

(13) Pretty good. Appropriate use of graphical links for each major genre section.¶¶Featured Music is acceptable. Could link text instead of more info button...or perhaps repeat graphical links?¶¶Consistent top navigation is good!

(14) No links between genres, no way to hyperlink through a lot of stuff at once.

(18) Access to merchandise is very narrow and constrained, and I feel like I'm doing Big Things when I'm clicking buttons; where are the links?

Designer 4 · desktop · patterns and layers

(9) The flow is ok.

(10) How do I go back?

(12) Fulfills application spec requirements. I like the ability to change several options, such as billing address, mailing address, and change of order. I also like the option of emailing a password back to customer.

Designer 5 · desktop · patterns and layers

(3) I found this very awkward. Do you really have only the one book to purchase for this genre? The pages were linked together adequately, there's just not much there to link. There should be more pages and the navigation should be evident. It's hard to determine how users get around in the site.

(8) It is linked together in the natural progression of online shopping experience. it is fine, but there are inconsistency in link options and no clear indication on how to "go back."

(9) What's the difference between BUY and ADD TO CART.¶This isn't very clear. Make the difference between these much bigger or make the PURCHASE command more consistent.¶¶The multiple column format is good vs. forcing user to scroll down. Nice clean spacial organization. I don't understand the "95% visitor link" links - what is this supposed to provide user link to? What is the value of this feature?

Designer 6 · desktop · patterns and layers

(5) seems like it works - but i'm not sure how the genre heading connects with the main category sub-header at top?

(6) The path from the category on the home page to a featured book to book detail is clear. ¶¶What isn't so clear is the navigation in the opposite direction - or navigation if your frst path isn't what you wanted. I felt a little stranded on the book info page with the loss of the navigation. I also didn't feel confident on how to search books that were not featured on the Mystery category page(search function is very basic), or what the main versus sub categories were supposed to be without seeing an example. The two different search fields on the home page and the mystery page also confused me.

(11) This is fine.

Designer 7 · desktop · patterns and layers

(1) Fabulous, although consistent button placement would be an improvement

(2) Double visitor links are not necessary. And it distract the user. Main category should also show on detailed book page.¶¶It is good to have shopping cart and search box everywhere.

(3) It would have been nice to provide breadcrumbs to allow quicker navigation out of the page but otherwise I think this was done well. I would also recommend linking author to assist users in finding other books by the same writer. ¶I liked being able to jump quickly to related books from the book page (another reason for breadcrumbs). Otherwise browsing navigation is functional, allows user to view items directly in the direct path as well as branching off to related items.

Designer 8 · desktop · patterns and layers

(1) some detail for the destination of each link should be provided¶¶otherwise, fine.

(4) There were broken links in this process.

(7) Unable to get to all types of books.¶Deeper pages unable to browse

Designer 9 · desktop · patterns and layers

(4) The pages were linked well. No errors or broken links.

(6) The path down is straightforward, and there is good information scent. The other navigation seems to come in and out though.

(10) Once I am on Genre A how do I go back to all the Genres? Site map link was too small and not in my visible area so I missed it.

Designer 10 · desktop · patterns and layers

(2) I like the horizontal category bar which can bring user's attention.¶¶But on the detail book information page, there is not like to go back to the other books or categories.

(5) pretty good - but how would the genre page support browsing by any other means that featured books? don't like how i lose my side naviagtion when moving to the product page.

(8) Order makes sense

Designer 11 · desktop · patterns and layers

(7) Design allows more navigation between pages; assume many of these areas are linked.

(11) The flow was fine.

(12) Interface seemed familiar to me and comparable to other online book seller web sites.

Designer 13 · desktop · patterns and layers

(15) (As an evaluator, I do not understand the relationship between this question and the requirements doc. Actually, same was true for the last design. Are you trying to find out whether the site map is right? Since I don't really understand

what you want, I'll just give you my subjective opinion.)¶¶Links are incomplete. There is no genre page. There are only homepage and product page.¶¶There is no return link to Home, nor for that matter any global nav. "Continue Shopping" button is nonstandard for a product detail page, and insufficient. Aside from the "continue shopping" button, drill-down is a one way trip - oops.

(16) Difficult to evaluate, because I was dumped in with the 'Da Vinci' code already selected, and didn't get to go through the browsing process. Nonetheless, it seems reasonable enough for the detail that is there.

(17) The two Da Vinci pages are well done, but almost seem like they should be switched -- The product page has less information than the category page. While offering related and featured items from the product page is not a requirement from the specs, it's a nice addition... knowing when to add (or subtract) a feature also shows critical thought and will let the client know they are very important to the designer.

Designer 15 · desktop · patterns and layers

(13) Pages are barely linked at all! ¶¶What or where is the submit on the drop-down menu on the homepage? The word "Genre" is linked, and I'd assume that it would show me a list of genres available, not a specific one. What specific genre is it anyway?¶¶Search also has no submit element.

(14) straightforward + easy to get through, but no way to get back to the home page.. and the "product" link makes no sense, I mean, what product IS it? this page shouldn't be in the navigation like that, you should get to that page by clicking on a particular product, like, once you are inside the genre listing or whatever

(17) The pages seem to flow logically together.

Designer 16 · desktop · patterns and layers

(15) The overall hierarchy is correct.¶¶I was a little confused by the multiple "main category" items across the top. What are these supposed to be? If I ignore them entirely, the rest appears correct.

(16) Seems ok. Fits most of my standard model for how this should work. ¶¶The largest problem is that when I am browsing there seems to be no clear indication of what genre I am currenlty browsing. The 'featured books' header is not precise enough.

(18) It is fairly intuitive with regards to browsing. I don't have a sense for where I am in the site once I begin to drill down, so a breadcrumb trail of sorts would help.

Designer 17 · desktop · patterns and layers

(13) Text links on homepage, but now a graphical (button) link on Genre page. Make links consistent. Link title names if using text.¶¶"Catch 22" is not a genre yet exists at same level as Link 1,2,3 at the top of homepage.

(14) This is a very complete design for browsing for books.. It lets you know what the categories are and lets you drill down through them into book details.. and once you get to a book you can get to other books easily.. it would be good to have navigation from the book detail page to get back to the genre you came from though

(18) This is utterly foul. You have no sense where you are or where you've been, and you're forced to go one way. I despise it.

Designer 4 · smartphone · no patterns or layers

(19) Good aspects are that there is consistency in links and navigation, and follows the intuitive way of performing this task. However in case of dozens of genres and in each genres, there can be hudreds of artists, navigation can be a bit problematic. A breadcrumb trail of links would be good (considering that smartphones would have stylus to click the links). Zooming interfaces could be another approach.

(22) They are linked together just fine, again in a linear fashion. But none of the advanced features you'd like to see were presented, such as featured product, other ways to browse besides genre, etc. If I wanted to find tones by Sinatra, I'd have to figure out what genre that might be, and I might think it's something other than the person who chose it.

(29) These proceed as I would expect.

Designer 5 · smartphone · no patterns or layers

(24) Good job in keeping the screen count to a minimum. The flow made sense and it was fast and easy to get where I wanted to.

(25) - "Home" link below fold¶- Could we save a click by "buy" icon in genre text (so user could chose between getting further album details or starting transaction)¶- CD / Tape should be checkboxes so user can buy tape and cd in one click

(26) incomplete design. user cannot listen to songs, cannot download to phone, search not available on each page, etc.

Designer 6 · smartphone · no patterns or layers

(20) The pages browing for a CD were linked together pretty well. I was able to logically navigate to the music, and on this page I see the information that a user would expect to see.

(21) The pages are clearly linked together and easy to find, though I'm not sure how to get back if I want to see a different genre.

(28) Linkage and progression were OK. You could have used some additional backlinks at the bottom of each page to allow the user to pop back up to a different level of the site -- just using the back button can get frustrating over a slow connection. Incidentally, I can't really tell when something is a mocked-out hyperlink and when something is just text in your prototype.

Designer 7 · smartphone · no patterns or layers

(23) Much better than previous flow. Allows me to listen to the tune, which should result in more purchases.

(24) Although the requirements called for less steps and different interaction, overall the page flow was pretty good. Intuitive to a point. The lack of button labeling was definitely a problem when it came to the genre and product detail pages. What does that button do? Having to click on it to figure it out is not good.¶¶I liked the usage of ordered lists. For smartphone navigation this is a MUST.

(27) Simple, but not clear how you would handle more than the few options available.

Designer 8 · smartphone · no patterns or layers

(19) Search is not present. Forward and back button would be helpful. Breadcrumbs would be further helpful. No Link to home page? Interface needs to be a bit more detailed for appropriate evaluation.

(20) Judging by the 'login' 'logout' experiences at the top, it seems like I have already had to log-in to the site to browse through the content. This shouldn't be the case. ¶¶The pages for getting to a specific piece of music lack titles / explanation. What am I looking at here? Featured artists? Most popular artists? etc It is unclear. ¶¶I am unable to search from each page throughout this experience.

(30) Pages link together logically.

Designer 9 · smartphone · no patterns or layers

(23) Is it possible to hear samples of songs?¶Liked the ringtone option.¶A bit confused after viewing artist information, how navigate to another artist. Seemed like a deadend.¶This flow doesn't seem as complete as the previous flow.

(27) Linking was straightforward, but without turning on the sitemap, there wasn't much context.

(29) These link as I would expect.

Designer 10 · smartphone · no patterns or layers

(21) I often could not tell where I was, how I got there, or what to do next. The buttons did not tell me what would happen when I clicked them, and the links were not very descriptive.

(25) - impossible to assess quality of linking without seeing text on home page¶- no back links or way to move laterally¶- do you consider listening to mp3 demo part of browsing?

(30) Standard shopping experience

Designer 11 · smartphone · no patterns or layers

(22) Only giving me a choice of what was featured in the genre was too limiting. What else is there? It's good to show the featured items but I need the big picture.

(26) seems to meet requirements and provide navigation

(28) Adequate. A link back to the site home would be useful for each page.

Designer 4 · smartphone · patterns and layers

(19) There should be a breadcrumb trail of the links clicked, so that the user could go back and precisely know their location. Again, back and forward buttons would be helpful.¶¶The user should not be taken to the shopping cart page, unless they specifically want to. Clicking on "Add to cart" should be such that the user is not taken away from the current page.¶¶Price should be updated automatically.¶¶There is no way to go back if you clicked on the link 'location'. Instead of a dropdown, 'Shipping Method" can be a radio button.¶¶The 'back to shopping' link is not shown as a button. It should be active.

(22) I was really only given the choice to follow a linear pattern in finding a book. I wasn't sure if the box up top was search or not, as it was not labeled. Other than

that, things were linked up fine. There should have been some featured books or some clues to what was popular on the site.

(29) These proceed as I expect-- general to specific.

Designer 5 · smartphone · patterns and layers

(24) Honestly, I was a bit confused when I clicked on the Genre link. I thought I may have made a mistake and clicked on the wrong item. I went back and forth a couple of times before I noticed that you were using the HTML title element as your sole method of displaying the page title. While that is definitely correct usage, I think people are also used to seeing a visual page title within the view port itself.¶¶On the product detail page, the label "Featured Books" coupled with a single set of "Details" and "Buy" buttons threw me off-track again. The plural "Featured Books" implies more than one. I would expect a "Details" and "Buy" link for each book listed. ¶¶I am not sure what kind of "Options" one would have when purchasing a book, but this set of form controls doesn't make sense and only adds to the confusion.

(25) How do I buy a non-featured book? ¶How can I move from one genre to the next?¶Can I search for a book on the home page?¶Can I browse by author or title from the home page?

(26) Does not seem to fit together well¶¶search not available on every page

Designer 6 · smartphone · patterns and layers

(20) The design is simple - which is a good thing for people browsing to a book. I would have expected the list of genre's to be ordered alphabetically, or have an option for this. In general it seemed simple to move from the genre to a specific book.

(21) The overall hierarchy is fine - browsing the categories makes sense. Once on the detail page of the specific book, where there are multiple actions, the links between pages became less clear. I also need a way to get "home" from anywhere in the site.

(28) The linking was adequate. I couldn't tell from the prototype how sensibly the link text was chosen for some sections (e.g. the book titles). Generally, in mobile applications that's fairly important, since less context is available on the screen at any given time. ¶¶You probably also want a backlink or toplink at the bottom of each page, so that a user can quickly pop back up to to a higher level of the site.

DESIGNER 7 · SMARTPHONE · PATTERNS AND LAYERS

(23) I would like to be able to view Other Books by the author. (I may want to buy more than one, or see what they had written in the past or more recently.)

(24) I don't like like the fact that scrolling was required to find the link that would take me to the next page. There are too many superfluous links between me and my intended target. Also, your choice of sample text and fake titles aren't the greatest, but I won't hold that against you. ;-)

(27) I did not see a search function, and did not get a feel for what browsing multiple books would be like. Some context and navigation would help. If customer did not like the featured book, not obvious what I could do next.¶¶Not sure what the 95% user lines are.

DESIGNER 8 · SMARTPHONE · PATTERNS AND LAYERS

(19) Position of links is not consistent. There should be 'back' and 'forward' buttons. Some form of hint should be given to user about how many more steps are remaining before the purchase is finalized. Global navigation needs to be improved a lot and should be made consistent.¶¶There are a few blank pages with no links, so the chain of links is broken, and user could not go ahead without using the sitemap.

(20) I was able to get into the genre of cooking; but I could not understand what the content was supposed to be on the next page. I needed to see some content here. ¶¶Once I found a book, I was given a store locater; however, it would have been preferable to initially tell me my nearest store.

(30) A basic shopping experience - seems logical. Homepage > category page > product detail page.

Designer 9 · smartphone · patterns and layers

(23) Didn't see two functions in the requirements document: ¶1. When choosing from multiple addresses, users should be able to have it shipped to their cell phone billing address.¶2 When choosing a payment method, users should be able to have their order billed to their cell phone bill.

(27) The site flow was okay. No real changes to recommend.

(29) These flow as I would expect.

Designer 10 · smartphone · patterns and layers

(21) The only option was to drill down - there was no way to get back to previous pages.

(25) cannot realisticaly assess flow and design separately in a mobile device interface. see thoughts below

(30) Flow seems logical

Designer 11 · smartphone · patterns and layers

(22) Very well done, giving me multiple ways to shop. Can't really find anything negative to say about it.

(26) users should be able to browse for a book without knowing or following a particular genre. The instructions assume users use genre as a major navigation theme for the website. Even if genre is used as a navigation theme, users should be able to search book titles and authors.

(28) Adequate. Excess link text in many places. And backlinks / toplinks would've been nice.

Page design and layout

3. Please give a rating for the page *layout and design* for (CD | book) browsing:
(1 = negative, 5 = positive)

Designer	Ratings			
	1	2	3	Average
Desktop—No patterns or layers				
4	(9) 2	(10) 2	(12) 3	2.33
5	(3) 3	(8) 4	(9) 3	3.33
6	(5) 2	(6) 2	(11) 2	2.00
7	(1) 3	(2) 3	(3) 3	3.00
8	(1) 2	(4) 3	(7) 2	2.33
9	(4) 4	(6) 3	(10) 1	2.67
10	(2) 3	(5) 3	(8) 4	3.33
11	(7) 2	(11) 3	(12) 4	3.00
13	(15) 2	(16) 2	(17) 2	2.00
15	(13) 1	(14) 3	(17) 3	2.33
16	(15) 4	(16) 4	(18) 4	4.00
17	(13) 3	(14) 2	(18) 2	2.33
Desktop—Patterns and layers				
4	(9) 2	(10) 3	(12) 3	2.67
5	(3) 3	(8) 4	(9) 2	3.00
6	(5) 4	(6) 2	(11) 3	3.00
7	(1) 4	(2) 4	(3) 2	3.33
8	(1) 2	(4) 3	(7) 3	2.67
9	(4) 4	(6) 2	(10) 3	3.00

10	(2) 4	(5) 3	(8) 4	3.67
11	(7) 4	(11) 3	(12) 4	3.67
13	(15) 4	(16) 4	(17) 5	4.33
15	(13) 1	(14) 2	(17) 3	2.00
16	(15) 4	(16) 3	(18) 3	3.33
17	(13) 2	(14) 4	(18) 2	2.67
Smartphone—No patterns or layers				
4	(19) 2	(22) 3	(29) 1	2.00
5	(24) 2	(25) 3	(26) 1	2.00
6	(20) 5	(21) 4	(28) 3	4.00
7	(23) 3	(24) 4	(27) 4	3.67
8	(19) 2	(20) 1	(30) 3	2.00
9	(23) 3	(27) 2	(29) 2	2.33
10	(21) 1	(25) 3	(30) 4	2.67
11	(22) 3	(26) 5	(28) 3	3.67
Smartphone—Patterns and layers				
4	(19) 3	(22) 4	(29) 2	3.00
5	(24) 1	(25) 1	(26) 3	1.67
6	(20) 3	(21) 3	(28) 2	2.67
7	(23) 3	(24) 2	(27) 2	2.33
8	(19) 3	(20) 2	(30) 3	2.67
9	(23) 3	(27) 2	(29) 1	2.00
10	(21) 2	(25) 2	(30) 3	2.33
11	(22) 4	(26) 4	(28) 1	3.00

4. Discuss with the designer what you like and do not like about the *layout and design* of the pages for browsing for a (CD | book).

Designer 4 · desktop · no patterns or layers

(9) The page with the actual title and detail of the title should be much more similar in design than the list of titles on the page before it. The addition of the 3rd column might work IF you can design that 3rd column such that the info in it is much more flush giving it a true simple 3rd columnar feel rather than stuff not quite lining up well enough. That little bit of spacial disorganization could throw a user off thus slowing them down and disrupting their thought process at this point.

(10) I like that the various items are one below another. Good use of vertical space.

(12) Seemed familiar and comparable to other online music seller web sites.

Designer 5 · desktop · no patterns or layers

(3) The album page should have had the album title higher than the artist name. I found this a bit odd. Given that this is the primary info on this page. I would also think that the designer would want to provide some review information on this page. Otherwise the browsing is pretty standard.

(8) no concerns

(9) There is more of a solid underlying grid in these designs. Still, use of indentation would help dilineate categories of information a little more quickly and easily (ex., indenting 'track listing' items).

Designer 6 · desktop · no patterns or layers

(5) difficult to discern - design could be more complete by showing interesting and possible content areas. the album page shows more detail - which is nice.

(6) Shopping cart and search are in standard places, which is good.¶¶Home page is very confusing to me. I see a featured album, but not much else. It doesn't appear that I can link to that albumn. I like the way that the link is listed as see

more music in alternative. I would expect at least to see some representation of other albumns and genres, and less copy for each of them. ¶¶I would also expect to see something abaout ringtones, even if I can't get them from the web site, I want to be made aware of them and learn how to download from my phone.¶¶Alternative Category page¶There is not enough sketch here to get a good sense of how this page would work. The top text is going to be too wide...the other columns are probably fine although the first column looks like it is associated with the image above it.¶¶Product page¶I don't see the ability to listen to a track. I feel a little unsettled to see the track info right next to the image of the CD. It occurs to me now that the scribbling on top might be the page title, but I think in these kinds of sketches it is worth spelling that out.¶The layout doesn't feel as tight as it could - not sure about the decision to put the price/buy button to the right. There's no quantity.¶There is a missed oppty to fufil the cross sell requirement - other albumns by this band or others in this genre.

(11) I don't see related albums offered to me when I'm looking at a specific album, only when I check out. This seems to me to only speak to one use case -- that of the buyer -- rather than multiple use cases (e.g. the buyer and the browser). I'd rather have related albums offered to me before I decide to buy a particular album.¶¶Everything else was fine.

Designer 7 · desktop · no patterns or layers

(1) standard stuff

(2) I like this simple and clean layout and it bring attention to user what they are doing. But it is not easy to start a new album or go to homepage or go to shopping cart.

(3) The first page needs more detail to convey the concept. I wasn't sure what was linked (why didn't the designer take the extra minute to add the genre for the link?).¶The picture element on the main page seem to large for albums, so I'm not sure what they are intended to represent. Also there's no textual

information to provide detail. On the genre page, there's no easy navigation (shortcuts) to the promoted items except the one featured which lacks title and artist to provide links. ¶Also, the A-Z navigation is understandable it's hard to understand how the titles are organized underneath. Am I looking at all the titles, only the A's? ¶The album page is nice, I like how this is laid out. I would provide some genre indicator and/or navigation on this page back to the higher sections in the site map.

Designer 8 · desktop · no patterns or layers

(1) too vertical, could have made better use of the horizontal space.¶¶inconsistent shopping cart placement, log in/out placement, search placement, awkward product page layout¶¶no indication the user is logged in

(4) This design seemed a little cluttered. Was not as predictable or easy to interpret as I would like.

(7) Unable to understand some of the info; [pages look confusing

Designer 9 · desktop · no patterns or layers

(4) The main page seemed a little bland with not much info. Overall the layout seemed predictable if not innovative.

(6) I don't understand what is happening with the home page, and why the links are at the bottom of the page. ¶Shopping cart and search are in common places.¶¶The category page is pretty minimal - no issues with the layout but it is lacking additional information and browsing functionality.¶¶¶Same comments on the others as far as the text column being too wide on the product page, and that secondary info (e.g., * of pages) is in prime sselling real estate. The add to cart button is in an odd place, outside the eyeflow. Tracks are in a better position than the other designs, but there is no indication that you can listen to the tracks.

(10) I would prefer to have the results be displayed neatly in a table. I would prefer it to be a vertical display rather than horizontal display. If there are several results,

there would be too much horizontal scrolling to do. I do not mind vertical scrolling but I mind the horizontal scrolling.

Designer 10 · desktop · no patterns or layers

(2) Nothing dramatic. It is a common layout. ¶¶One thing I don't like is the search box is not big enough. Search is so important these days. User likes to find what they need by search. Also there is no histories about the CDs I browsed before.

(5) i liked the layout. seems to leverage well established conventions.

(8) centralized area for buttons and links.

Designer 11 · desktop · no patterns or layers

(7) Easy to get to genre, find checkout and search¶¶Difficult to move between pages

(11) The layout and design are very functional but not particularly creative. You could, for example, offer a description of the genre next to each genre type, which would allow the user to make a more informed decision about genre selection. I think it's safe to assume that different people might think a record falls into different genres.

(12) Content categories were clearly apparent and choices can be easily made.

Designer 13 · desktop · no patterns or layers

(15) The home page is fine.¶¶Continuing the comments in question #2 regarding the absence of a "product page." Even if we were to assume a maximum of four Featured Albums, the Select box was unnecessarily small, hiding the fourth album. There is plenty of room on a browser screen to show five or ten albums at a time.¶¶Minor issue: I see "The Righteous Brothers" details prefilled on the right. Here I would ask the designer for their intention. Is this the initial state of the screen (defaulting to the first item in the list), or the state after the user has clicked an item? If the latter, there is no problem. However, if the former, we

would do better with a drill-down. When there is no intrinsically best item in the selection list, there should be no default; this further helps guide the user's attention toward learning that they must click the selection list.¶¶Minor issue: The requirement stated a list of "featured albums." The designer changed the words to "featured music." I tend to favor the more specific, tangible "albums," but we can leave that question for testing.¶¶Final observation: although question #4 asks only about browsing for a CD, it's worth noting that the design completely missed the requirement to "listen to a sample of each song in the album." Design #9 *[i.e., this design]* looks like a great way to play whole albums, but offers no way to play sample of each song in an album. A list of songs must appear somewhere.

(16) Generally speaking, the layout has a good flow from heading of the site down. Two items, however, seem to be misplaced: the 'play' and 'stop' buttons (presumably for starting and stopping playback of sample tracks) and the 'add to cart' button appear below the list of albums, not below the album listing itself.¶¶Also, I don't think a combo-box is the best selection method for albums. This might work when the inventory is small, but it will not scale well to a large number of albums.

(17) The scroll-down menu hides products from the visitor: users with basic internet experience might not ever know the Beatles were on the list... for a retail site, it's important to make purchasing a product as easy as possible for the end user. There doesn't seem to be a reasonable association between the link in the menu and the play and stop buttons below.

Designer 15 · desktop · no patterns or layers

(13) Again a poor choice to use forms in this instance. Too many clicks for the user. Page should have consistent header where Search, Cart, root navigation could live. ¶¶Search runs into body text on Genre page. ¶¶Lack of consistency.

(14) The search was not on every page.¶¶there's no way to get back to the home page from the cart, or add anything else to the cart

(17) On the Genre: Country music page, it's not readily apparent that a user needs to click the box on the left and then add to cart... it'd be simpler to have the 'add to cart' button next to each song, and eliminate the checkboxes on that page.¶¶Product page is easy to understand and offers a clear and logical flow of information. ¶¶The checkout page should offer, instead of 2 items, the unit price for each item and then a total in line.¶¶The landing page might offer content, and a help button sh/could be utilized here.

Designer 16 · desktop · no patterns or layers

(15) The homepage is hard to take in. What is the priority? -- I get that the huge text would be rendered attractively. But that leaves the nav so small and squished as to be an afterthought. This is a shopping site; shopping needs to be easy as pie.¶¶It gets better in the detail pages. Pages appear information -rich and sensible. I like the eye for conciseness, e.g. folding release date and label into one line.¶¶It's not beautiful - but heck it was done in under two hours and meets the requirements.

(16) Much better than the previous design *[Designer 13, no patterns or layers, desktop]*. Overall, the ordering of items seems much better, and matches my expectations. Of course, the layout is still only very rough and a lot of tuning is needed, but most stuff seems to be where it needs to be.

(18) It's your standard L-shaped web layout with product drilldown, but it works. Why mess with something that works?

Designer 17 · desktop · no patterns or layers

(13) Layout seems pretty good. Clean and simple, links appear in front of items.¶¶What Outkast album are you selling exactly?¶¶Top nav is shifting around... try to lock each element in place across all pages.¶¶CD or Cassette is shown but no place to make a choice between formats on this page.

(14) There should be pictures of the album art. It doesn't tell me how much an item costs before clicking on buy. Recommnendations links are well placed.

(18) The page size is woefully underused. Everything is compressed together, nothing breathes and the feeling of constriction the browsing provides is amplified by the various actions being so close to together, e.g. Info, Buy It, Listen. It's all linear, and no thought was given to how the page might be broken up by feature or functionality.

Designer 4 · desktop · patterns and layers

(9) Grid used here is a hell of a lot better than the other designs. The page design still could be better organized, though. RELATED BOOKS is placed on the page in a spot which suggests it is equally as important as the book that was selected and equally as important as THEE most important command/feature on the page which is the ADD TO CART button. Organize the info on the page such that that IMPORTANT "finalization" command is ALWAYS in the same place on each page and design that space so that NOTHING else distracts from its importance. CHECKOUT button is another "finalization" type command and should be placed in same place on page where ADD TO CART was on previous pages (or any other 'finalization' type command button was).

(10) I dont like the navigation on the first page with genres on the top and their description in columnar fashion.

(12) Layout seemed familiar and comparative to other online book sellers.

Designer 5 · desktop · patterns and layers

(3) I like the layout for the book page on this design. It's easier to read the way the information is chunked together. But I'm not sure where the book description would belong. There should be more detailed information for the book, data like author, format, etc.

(8) layout using hierarchies such as font size, style, and location is used properly. However, there should be more clear separations using other visual clues. a

good example is the layout for address change, i feel there should be a distinct separation of addresses.

(9) The multiple column format is good vs. forcing user to scroll down. Nice clean spacial organization. I don't understand the "95% visitor link" links - what is this supposed to provide user link to? Search mechanism needs MUCH more prominent and thoughtful placement, though. Since the SEARCH command will likely be the most used feature.

Designer 6 · desktop · patterns and layers

(5) very nice. i like the idea of featured books, the side options of special interests makes sense. and i like the thought put into the possible content sections of the actual book page.

(6) Home¶The page misses an opportunity to market specific titles - this isn't a req but the page is very open and feels incomplete. It needs some sort of titling.¶¶The shopping cart link is in a non-standard position on the pages.¶¶Mystery¶I would guess that the text column is too wide for good readability. Aside from the search functions mentioned earlier, and the fact that we've lost the shopping cart, this is probably the most successful page layout wise. I would suggest exploring the alignment of the top nav coming in to be flush with the body copy.¶¶I would also suggest that the link should not be an entire paragraph.¶¶Page detail¶I've lost the navigation; The big hole left on the right side of the book info is distracting and will make your visual designer smack you :-) It also pushes the related books beyond the attention of the user.¶¶I don't understand why you would update the price on this page - the price is set for the book, and I would expect to see that type of functionality in the cart. I think users might confuse this with add to cart.¶¶The add to cart should not be on top of the information - it should be grouped with the quantity selection.¶¶Even though the reqs said to include the information to the right of the book image, it seems relatively unimportant for the position it is getting on the page - that area could be some selling text and the other

information could be listed as facts either to the right of that or below. The genral layout of the book info in the main body is fine (e.g., where the book title is, the book image, etc.)¶¶Shopping cart link is missing from the mystery category page

(11) Why is the edition dropdown menu labeled "option"? It should be labled "edition," and the appropriate values displayed for selection (hardback, paperback).

DESIGNER 7 · DESKTOP · PATTERNS AND LAYERS

(1) Nice work

(2) Add to shopping card button should not bring user to the order summary page. Most cases, user want to shop for another book.¶¶The left side search box is not necessary.

(3) I found the layout on the book page a bit difficult to read - the grouping of information chunks in a column next to reviews was a bit awkward and distracting.¶The sketch for the Genre was incomplete. It only showed the featured books and lacked an indication of where the bulk of the listings would appear.

DESIGNER 8 · DESKTOP · PATTERNS AND LAYERS

(1) inconsistent placement of global elements

(4) The layout wasn't very intuitive. the main page was very sparse.

(7) Unclear place on interface¶Unclear where navigation goes¶Unable to navigate back to referreing page

DESIGNER 9 · DESKTOP · PATTERNS AND LAYERS

(4) The design was interesting with lots of info on each page. It was easy to follow the process of browsing for a book.

(6) Similar to one of the earlier designs - width of text column can be too wide. Not sure what the two different search mechanisms are; some space could be better utilized (e.g., to the right of the featured books). Also suffers from some problems in the placement of the Add to Cart button, and has an update price control (which doesn't make sense in this context) instead of quantity. On the book page, again the most prminent place for text is being used for secondary info. There's a large white space hole in the upper right.

(10) I like the related items and special links on the right. Information is easy to read.

Designer 10 · desktop · patterns and layers

(2) The search bar should be on every page, a heavy search user want to search at any time.

(5) layout seems fine - but would be interested in seeing more ideas about content sections of the pages. would anything else be on the product page besides reviews?

(8) more links to move from one category to another. easier to link up with other sections. Side navigation menu helps users find necessary information if the main content area becomes too overwhelming.

Designer 11 · desktop · patterns and layers

(7) Easy to see where you are; good labels and lots of detail

(11) I don't like that the genres and the books look exactly alike, at least from a rough sketch perspective. These should be visually different.¶¶The related books should be presented more aggressively on the page. They need to somehow -look- related, rather than just be listed way over on the right-hand side of the page.

(12) Interface seemed familiar to me and comparable to other online book seller web sites.

Designer 13 · desktop · patterns and layers

(15) The layout of homepage and book product page have good layout reflecting the requirements. Title is prominent above details. Details are grouped conceptually.¶¶The homepage has an error. Two images appear below the words "Featured Books" yet there is an extraneous hyperlink to the words "The Da Vinci Code." The text and image below should be hyperlinked. A simple error, easily fixed.

(16) The layout and design here work quite well. The general areas for information work much better. ¶¶In the actual details page, I would put the book info (ISBN, etc.) before the reviews. This is important information!¶¶(Note as well that the design representation - the 'greeking' helps a better focus on the high level organization over the details.)

(17) There's clearly been a lot of thought here, and the designer has tried to implement items that work successfully from other e-commerce sites. The layout and design offer a logical arrangement of information, allowing the user to navigate the site effectively.

DESIGNER 15 · DESKTOP · PATTERNS AND LAYERS

(13) Bad. Weird changes in Font sizes on product page. Lack of a consistent navigation type. ¶¶No add to cart? How do I buy? ¶¶Looks like absolutely no thought was put into this part of the site.

(14) I don't really see good navigation for browsing books. There is a link that says "Genre" and that's it. There should be a list of books inside here, a way to navigate and narrow down the list. So this feels very incomplete to me. Also the requirement for linking to similar books is not displayed on these mockups

(17) A couple of issues stand out -- the product page offers drop down menus for reviews and a button for finding similar items... "flattening" the site a bit (reducing buttons, adding content), and offering some sample similar items as a "teaser" element might have been a more effective strategy. The layout and design are clean, although the heirarchy of information on the product page is a

little confusing (why is the genre page as large as the product text, when the user is on the product page and not on the genre page)

Designer 16 · desktop · patterns and layers

(15) The layout is very spare. The list of recommended books appears run together. The product page has the "add to cart" link far separated from the book description - an unnecessary disconnect.¶¶The designer punted on some layout choices, but no biggie, all easily fixed in graphic design.

(16) Good, but nothing too stellar. Missing is an indication that there will be pictures of the book available, etc. and it is overall unclear how graphic elements are going to be incorporated into this page.

(18) Why are there several Main Categories across the top of the page? For a site that just sells books, I would expect the Main Categories to be types of books. Of course, given the scale, maybe it would be the most popular types of book categories? Or maybe there would be no Main Categories at all, instead, save the screen real estate.

Designer 17 · desktop · patterns and layers

(13) Genres in right hand column too far out. Tighten layout.¶¶Logo changed on Genre page. Should remain consistent across all pages, at least in design if not size as well. No logo at all on Detail page.¶¶Again content too widely dispersed on Detail page. Tighten design.

(14) Makes sense. But the "search" is nonexistent from the home page, and also from the book detail page... and when it is present, why is it a button -- might as well just stick the form on the page & make it that much easier for people to actually search

(18) The front page is not the worst thing in the world (it is the second worst thing); it reminds me of a portal though, so it's misused here.

Designer 4 · smartphone · no patterns or layers

(19) Good thing is that the page is designed in a way which is literally like buying the song or album like in a store. However this entire experience can be designed to be more computer imaginative. Search can be elaborated more. There can be multiple columns depending upon the genres of the song or album. Sorting according to names, generes, artist etc. should be allowed.

(22) Almost too simple - there are bound to be tens or hundreds of genres and thousands and thousands of artists. I need more ways of finding information. What's there is clear, but the user needs more help.

(29) Is the Search feature on the home page a link to a separate page? Why can't this be a properly labeled form?¶¶Why are the Genre names on the Home page duplicated? If the links are labeled unambiguously, I'll know which Genre pages I'll access by clicking on them.¶¶I need more contextual cues-- when I navigate to a Genre page, please restate that Genre atop the results. I can't tell from the Site Map where I am, since the link for a certain page stays active even when I'm on that page.¶¶I think re-ordering the Genre results as Artist, Title, Format will honor more user expectations than the current arrangement.¶¶I don't see the Featured Albums on the Genre page. ¶¶How can I listen to a music sample from the Product page? This doesn't seem possible.

Designer 5 · smartphone · no patterns or layers

(24) The home and genre pages were simple and to the point. ¶¶The layout and design of the product detail pages were not the most intuitive. I was confused by the usage of a drop-down menu for the songs.¶¶The Search function, which was the number one requirement, is nowhere to be found. Also, the ability to listen to a sample of each song is missing along with the ability to download a ringtone directly to the phone.

(25) not much to say as there isn't really a browse mechanism

(26) poor, incomplete layout and design

Designer 6 · smartphone · no patterns or layers

(20) The layout seems appropriate for a mobile product. Neat efficient, and providing all the necessary details. I can see that I can buy either the album, in a variety of media formats, or buy ringtones for each song.

(21) The information is very clearly presented, although it's hard to tell which Genre page I'm on. The elements of the album page take up a lot of space vertically, so the user has to scroll a lot. This may become a problem if there are many songs on the album.

(28) Pretty decent. The lack of a button to execute a search may be confusing for some users. Also, it would be appropriate to include a header or description of some kind for the genre listing on the front page. Also, how will you deal with the different prices for CD, cassette and Vinyl in the product page?

Designer 7 · smartphone · no patterns or layers

(23) Good use of language. Uses current ecommerce standards.

(24) I liked the layout and design of each page. Simple and effective. The page titles were clear as were the menu items. ¶¶You are obviously aware of basic smartphone UI.

(27) Clean design. Liked the use of numbered choices, and assume they could be activated from the keypad. There did not appear to be the option to download the ringtone.

Designer 8 · smartphone · no patterns or layers

(19) Pages of genres or artists may be designed in a better way. Maybe according to alphabets (as it can become very crowded later on, with thousands of artists and generes). Page layout Okay and standard. Not much innovativeness. There are many opportunities to design it well.

(20) When I get to 'Satchmo - Hits', the user experience is confusing. All the options are gathered together. As a user I wouod not be sure of the difference between 'buy' and 'buy and download'. If I choose to listen, what is it that I am listening to? (the beginning of the album?). Also, At this point I'm not sure what I'd be searching on, since I've just been offered the option. May of the options here should not be clustered as different buttons. Search for example, should be a text input field. Listen should be able t be done from this page, rather than having to move to another.

(30) Didn't see a search function on each page - only on the product detail page. And I feel the function would be more usable if it were a field instead of a button.¶¶What would the "Listen" button do? On the product detail page, i would insert an album title.

Designer 9 · smartphone · no patterns or layers

(23) I had problems with the flow, not the design or content.

(27) Shouldn't the user have some option to navigate the available albums/genres? Prev/Next would have been useful. What happens when there are 20 tracks, not 2.¶¶I did not see a listen to a track option, nor did I see the search (which was to be available on all pages).

(29) I don't find the Featured Albums on the Genre page, nor the Search function on any pages.

Designer 10 · smartphone · no patterns or layers

(21) I can't figure out that I'm on the Genre page - it doesn't say what genre it is or how I got there. I also can't get back.¶¶On the album page, there are multiple "buy" links but I can't tell what the difference is. Is one for buying the album and the other for buying a song? I only see one sample icon for each song - is that for both the song and the ringtone?

(25) - layout gives a feeling of richness and depth of choice¶- no spacial awareness (menu bar etc)¶- when does browse end and shopping cart begin?¶- does IA

assume a given artist will appear only in one genre?¶- is the 'radiant' icon a link to listen to demo of track?

(30) Good layout. I like the Buy button next to price. Would like to see a price next to the tracks,

Designer ii · smartphone · no patterns or layers

(22) Nice to show related ringtones on the page. I wanted more info about the product I chose however.

(26) simple, well-designed layout

(28) Good. Thumbnails are a nice touch, although I doubt they'll show up well on smaller screens. I would've liked to see the greek as actual text, just so I could tell if the wrapping would be ugly. ¶¶Ditto with the CD product page. Where would the "Buy Now" button end up if the title of the CD was 120 characters long? The text on the "Buy Now!" button could be clearer when it's next to the ringtone - what am I buying when I click on that? And where's the link to listen to the ringtone sample? ¶¶Finally, where's the site logo? It'd be nice to know I'm on TotalMusic.com.

Designer 4 · smartphone · patterns and layers

(19) Mostly OK, few times the page becomes too large. At places, the process can be easily broken up into different steps.¶¶The search button should be in line with the search field.¶¶Order of "OK" & "Cancel" should be reversed. As usually a stylus is used by right hand (and considering that tab key won't be pressed to go to next field), its usually easier, if the OK button is on the right and cancel button on left.

(22) The pages presented were easy to understand and not too busy. Some more thought could be put into labeling and clarifying the function of each element on the page.

(29) I like the persistent "TotalBook" branding! I don't need the ".com," just the company name, to tell me where I am.¶¶Please label the Search input with a text label ("Search" or "find" or something). I want to know what that text input does.¶¶Where are the Featured Titles?¶¶When I'm on a Sub-genre page, I'm less interested in the other sub-genres. Maybe place the links to these below the book titles. Or, better, place a breadcrumb (Home>Genre>Sub-genre) so that I can back up to Genre. Yes, this is redundant with the Site Map, but gives me one-click access to a level just one higher in the hierarchy.¶¶The Product Details page confuses me greatly. I'm not sure from context alone what "Options" are, so label these more clearly. Place product details such as Edition, ISBN, and the link to Location. with other non-form elements such as Title and Author. Why can't I Update Price before I Add to Cart? Place "Add to Cart" below all elements-- this is a final step, so place it last on the page.

Designer 5 · smartphone · patterns and layers

(24) I found the layout and design inconsistent and counter-intuitive.¶¶The requirement calls for making the search function available on every page, however it is only included on the Genre page and the "Nearest Totalbooks" page. Further, the labeling for the Search box is not clear so its inclusion on the "Nearest Totalbooks" page is confusing and brings up the question of what we would be searching for; store or book?

(25) - no use of max-width attribute¶- no recuring button bar (see Nokia / Opera design guidelines)¶- button destinations unclear

(26) missing content¶- home page has no information and details on genres¶- book page does not display book information

Designer 6 · smartphone · patterns and layers

(20) On the page featuring a single genre, I liked how the subcategories were organized at the top; but there was still ample room to display the featured books well. ¶¶In the page featuring a single book, information about things in

my shopping basket need not be here, for example, the ability to up-date the price is not necessary on this screen.

(21) I don't really understand the "options" selection where you choose item 1-3 and update the price. Maybe it's because the text is generic and I can't see examples? I'm also not sure how the Update Price button interacts with or affects the Add to Cart.¶¶I would like to see how you get back to higher categories once you've drilled down.

(28) Layout and design was OK. You really need a section header or title of some kind for the genre listing. And a problem on the book page -- you do not want to force the user to have another round trip (over a painfully slow GPRS network) just to update the price when choosing an option. A better solution would be to put the option and the price in a single combo box entry, and do away with the update price button. It would depend on how long the option text is. Just what are those options supposed to be, anyway?

DESIGNER 7 · SMARTPHONE · PATTERNS AND LAYERS

(23) Clear and concise. Although I wasn't sure what ¶"95% visitor link¶95% visitor link¶95% visitor link¶5% visitor link"¶¶represented.

(24) There are missing elements. Namely the Search function, which was the number one requirement.¶¶While the layout is simple, from a hierarchical standpoint it is neither intuitive nor consistent. For example, on the Genre sub page, the heading for Featured Books has the same weight as the page title.

(27) I don't find sufficient context and navigation. Browsing tends would imply ease of movement and awareness of context. Don't see that in this work.

DESIGNER 8 · SMARTPHONE · PATTERNS AND LAYERS

(19) Not many comments as the overall layout and design need to be more detailed. However there is much scope for improvement. The position of "Search" field needs to be consistent throughout the design. Interface should give more

feedback about in what stage the transaction is.¶¶Prices of items in shopping cart needs to be shown clearly.

(20) Search was always at the bottom. While this is good on consistency, it is poor on famiiarity, as typically customers are used to finding search at the top of a screen. ¶¶While the screen on a single book was easy to understand, there was missing information, such as the year published. ¶¶Additonally, it would have been preferable to allow the user to add the item to their shopping cart, rather than simply opt to 'buy'.

(30) This is fine, considering the tiny amount of real estate present on cellphones. Super simple pages are necessary. Shows an understanding of the limitations of cellphones.¶¶Could've added some more detail on the comps, such as book titles, or some ideas for the store locator page.

DESIGNER 9 · SMARTPHONE · PATTERNS AND LAYERS

(23) 1. The linking and organization of screens almost meet all the functional requirments.[Postive]¶2. User can become "lost" in the process, so we need to establish a mechanism for giving user a context of their place in the process. (I wasn't clear if sitemap functionality was actually part of the design, or just part of the evaluation.) [Negative]¶3. Content was clear and intuitive. [Positive]¶4. No method for seeking help, either through a call or email. This could result is lost sales. [Negative]¶5. Do users use the phone's buttons to go forward and move back in the flow? (Perhaps I missed something in the instructions?)¶6. After clicking on Nearest Store, I move forward to a screen with Nearest Store, but no text is mocked up below to suggest 1. an address 2. a link to a map¶7. Friendly wording/content.

(27) Did not like the placement of the seach (I assume it was search). Without some other kind of visual differentiation, it was visually confusing.

(29) Please give a text label to the Search input-- it will improve accessibility, and will also separate the form visually from the logo.¶¶What are the items on "my favorite books?" If this is the Featured Books list, label it so, with something like

a <dl><dt> construct.¶¶I suggest placing featured books beneath individual book titles-- I'm more interested in finding (buying) exact matches to my search, and don't make me scroll to find them.¶¶The TotalBooks logo disappears from interior pages. I won't find this useful on a phone screen, which won't be displaying the URL to remind me where I am. ¶¶Give me back to top/skip to main content links, so I can navigate the page without my phone's tiny scrolling mechanism.

Designer 10 · smartphone · patterns and layers

(21) On any given page, I had no way of knowing where I was in the site. There were no navigational elements to show what I was looking at.¶¶I also did not notice the "store location" icon in the corner. Once I saw it, I had no idea what it was or what it did, without clicking on it first (at which point I had no way to get back).

(25) - what is a genre, what is a subcat?¶- why book list and subcat list displayed at same level?¶- are subcats nested?¶- why no bread-crumb?¶- what is box in top-right corner that links to a paragraph of text?

(30) Good thought to include subcategories, but i wasn't clear how they were related to the items in the list. ¶¶Didn't like the product detail page - wouldve preferrred the edition/year/isbn to be under the book title/author, and the price and add to cart button under everything else. Perhaps you were trying to ensure the add to cart button is visble w/o scrolling.

Designer 11 · smartphone · patterns and layers

(22) Well ordered information makes the pages easy to skim and understand. Lots of information for me to make my decision, including a store locator in case I want to drop in and pick it up.

(26) straightforward navigation and design

(28) Awful. Was this design randomly generated? ¶¶1) Unnecessary text everywhere. Nobody cares about your explanation of the genre, especially when it adds download time. ¶2) Why are there repeated titles (e.g. Main category / Main

category)? ¶3) What is "Company name" on the book detail page? Our company? ¶4) Buttons on detail page are shmooshed together - bad spacing / layout. ¶5) It's unnecessary to force another round trip to update the price based on options. For that matter, the label "Options" is meaningless. I KNOW it's a set of options. The text in the dropdown should be self-explanatory. ¶6) Layout is incomplete on the Detail Page. "Details" will be a blob of text, and the layout should reflect that. Author should be up at the top next to the title. "Nearest Store" is a good thing to have near the top, but it should be below the details section.¶7) What does the "Find Store" link do on the store page?¶8) Failed to meet requirements: search function is not on every page.

Shopping Cart/Checkout

Page flow

5. Please give a rating for how well the pages for shopping cart and checkout were *linked together*: (1 = negative, 5 = positive)

Designer	Ratings			
	1	2	3	Average
Desktop—No patterns or layers				
4	(9) 4	(10) 2	(12) 3	3.00
5	(3) 2	(8) 3	(9) 4	3.00
6	(5) 4	(6) 3	(11) 4	3.67
7	(1) 3	(2) 4	(3) 2	3.00
8	(1) 4	(4) 4	(7) 2	3.33
9	(4) 4	(6) 3	(10) 2	3.00
10	(2) 3	(5) 4	(8) 3	3.33
11	(7) 3	(11) 5	(12) 4	4.00

13	(15) 5	(16) 1	(17) 2	2.67
15	(13) 3	(14) 3	(17) 3	3.00
16	(15) 3	(16) 4	(18) 5	4.00
17	(13) 3	(14) 1	(18) 1	1.67
Desktop—Patterns and layers				
4	(9) 3	(10) 3	(12) 4	3.33
5	(3) 2	(8) 4	(9) 4	3.33
6	(5) 4	(6) 2	(11) 2	2.67
7	(1) 4	(2) 5	(3) 4	4.33
8	(1) 3	(4) 2	(7) 2	2.33
9	(4) 4	(6) 2	(10) 3	3.00
10	(2) 4	(5) 3	(8) 3	3.33
11	(7) 4	(11) 2	(12) 4	3.33
13	(15) 5	(16) 4	(17) 5	4.67
15	(13) 4	(14) 4	(17) 4	4.00
16	(15) 4	(16) 4	(18) 4	4.00
17	(13) 2	(14) 2	(18) 2	2.00
Smartphone—No patterns or layers				
4	(19) 2	(22) 4	(29) 4	3.33
5	(24) 4	(25) 3	(26) 2	3.00
6	(20) 3	(21) 3	(28) 2	2.67
7	(23) 4	(24) 1	(27) 4	3.00
8	(19) 3	(20) 1	(30) 4	2.67
9	(23) 2	(27) 3	(29) 2	2.33

10	(21) 2	(25) 2	(30) 5	3.00
11	(22) 4	(26) 4	(28) 4	4.00
Smartphone—Patterns and layers				
4	(19) 3	(22) 4	(29) 4	3.67
5	(24) 1	(25) 3	(26) 4	2.67
6	(20) 4	(21) 4	(28) 4	4.00
7	(23) 3	(24) 1	(27) 3	2.33
8	(19) 3	(20) 1	(30) 4	2.67
9	(23) 4	(27) 4	(29) 5	4.33
10	(21) 3	(25) 1	(30) 4	2.67
11	(22) 5	(26) 4	(28) 4	4.33

6. Discuss with the designer what you like and do not like about the how the pages for shopping cart and checkout were *linked together*.

Designer 4 · desktop · no patterns or layers

(9) I think it's fine.

(10) Well linked compared to previous layout *[Designer 9, desktop, no patterns or layers]*.

(12) I think the 'checkout' link should be below or next to the total price amount ($2.00)

Designer 5 · desktop · no patterns or layers

(3) I'm not sure why the browsing navigation (genre nav) is showing on this page. It seems out of place. Is this sitewide navigation because it's not appearing consistently on other pages. ¶This design makes the assumption that you are a known users. You should provide an easy out for other users to create a new

account. Something like Jimmy! (not you). ¶And there's recalculation for the total with shipping cost. It's really disconcerting to suddenly jump into the receipt after providing address and payment method.¶Why is there a continue shopping link on the receipt page but not on the total with items page? This would be a more logical location to nudge the user to add to their total rather than after they've gone through the payment process.

(8) it's good to give users less pages to click through, however, there needs to be clear feedback.

(9) Flow was ok.

Designer 6 · desktop · no patterns or layers

(5) nice process for indicating progression of ordering/checkout process (shipping payment confirm steps)

(6) Designer going the right way with the progress bar. I also don't mind having more shorter steps, this seems to test better than fewer more complicated pages (even though you have to fight with the old "the fewer clicks the better" belief of your clients). One thing that is missing is an overal review page of all the info before you buy.¶¶The button on the payment page doesn't give you the sense that you are about to commit yourself to the purchase. Payment also needs to collect the billing address if different from the shipping address.

(11) The workflow was fine.

Designer 7 · desktop · no patterns or layers

(1) better, more prominent/consisten buttons needed. buy button miles away from product being purchased

(2) The checkout process is simple, one click done. But user can't easily add another item or change the cart. ¶¶The best of all, user doesn't need to go to separate page to enter the address and credit card information.

(3) This lacks a page showing a total and giving the user feedback on what they are purchasing. The final page should act as a receipt and it too is lacking

information.¶For the shipping info, *'m not sure what the item 1, etc. information is intended to convey. Is this stored info? and if so what's supposed to go in the text fields below it? And how do you add a new address, new user?

DESIGNER 8 · DESKTOP · NO PATTERNS OR LAYERS

(1) standard, no problems

(4) The pages were linked fine. No errors or broken links.

(7) They don't seem to be well linked together

DESIGNER 9 · DESKTOP · NO PATTERNS OR LAYERS

(4) The pages were linked together well. No errors.

(6) Has a standard request-review-confirm structure, which is good. The steps don't tell you how many steps to expect. Payment method and billing address could be combined. Lacks other navigation.

(10) I like the continue button, I like the layout with radio buttons. I do not like that I do not have the back button.

DESIGNER 10 · DESKTOP · NO PATTERNS OR LAYERS

(2) The thing I don't like is that user have to select the address and credit to finish the transaction. For most users, they never changed the address and credit card information. The order summary page should perform the address and credit card selection funtion. So user can save at least two cliks.¶¶Also there is no link for the shopping cart on the address or credit card page .

(5) i like it. simple - click checkout and move to shipping address page. i might want to know more about what other navigation is on this page for error correction - or if the idea were to get someone "locked" into the process flow.

(8) there is also no method for me to correct my mistakes. such as a method for me to go "back." can we combine address and credit card change into the same page rather than 2 separate pages.

Designer 11 · desktop · no patterns or layers

(7) Not bad, hard to tell in shopping cart on the checkout.

(11) The division of tasks among the various pages was clear and fairly standard.

(12) Seemless linkage. If I wanted my music right now, I would have been successful.

Designer 13 · desktop · no patterns or layers

(15) No problems linking to the checkout.

(16) The transition from shopping cart to fully purchased material was too quick. I would think (though this might need to be confirmed via testing) that most users would be accustomed to the following:¶¶1. View cart; indicate you want to purchase.¶2. Review account information, shipping address, etc.¶3. Confirm payment information.¶4. Feedback that purchase is complete.¶¶If this flow is chosen, a message is needed on the page to the effect that, "To complete your purchase, press the Purchase button below. Your credit card will be charged xxx".¶¶I think what's going on here is a misread of the shopping cart metaphor. One action is to put items in your cart; another is to review your cart; another is to commit to purchasing all of the items in your cart; finally, another is to pay for those items. By calling the shopping cart page 'checkout' the flow has been too abbreviated.¶¶Also, I missed any information about a shipping address. I would expect that the system can store multiple shipping addresses for my account, and I would want to be able to review / select / correct a shipping address.

(17) The user, when they add an item to the cart, is presented with a cart and a checkout window. This will scare the user if they're not ready to buy -- the checkout information should be on a separate page, giving users the control when they're ready to buy.

Designer 15 · desktop · no patterns or layers

(13) relatively straight forward, price confirmation at the Cart level would be helpful. Remove button might be more logical for a user than to have to change

quantity to "0" and click update.¶¶On checkout page a back to Cart button would be good to have. The use of credit cards on file is worrisome. No security mechanism here? ¶¶Otherwise flow is good and follows a logical path. ¶Friendly language is nice for customers. Seems personable.

(14) there's no way to get back to the home page¶there's no way to remove items¶there's no way to get to the cart unless i add something

(17) While the shopping cart gave the user a clear way to check out and fulfills the requirements of the instructions, a couple of items can help the end user browse and purchase more effectively. Shopping cart might offer an option to remove items from cart, rather than set quantity to 0. CSS technology can allow the user not to leave the page and just click 'add to cart' to toggle a desired item (similar to the way a Netflix user reviews movies). The shopping cart should let the user know where they are in the process, and the design seems to achieve this.

Designer 16 · desktop · no patterns or layers

(15) "Add to shopping cart" combined with "Buy this item now" is incorrect. There should be just one link, not two. After all, what would happen if I first did an "add" followed by a "buy now"? Wouldn't make sense. You'll always want to review your cart.¶¶A minor issue: Next, looking at the links from cart to checkout. Forget about "clear cart" - it's an edge case. Just build "manage" functionality right into the ¶¶I'm marking down significantly (3 instead of 4) because simple "buy this item" and "proceed to checkout" links would have been the obvious slam dunk.

(16) Again, this matches my model much more closely. It's a rip off of Amazon.com, but who isn't doing that?!

(18) It's easy enough to get to checkout: one click from the shopping cart, and an accelerator from any product page.

Designer 17 · desktop · no patterns or layers

(13) Although the assumption is that the customer is already signed in, good to see login page.¶¶Consider seperating the Cart and finalize order (payment, address) on diffrent pages.

(14) Really dislike this. ¶1) I shouldn't be asked to log in where I am.. it's a huge setback. Let me add stuff to my cart@¶2) is there even a cart? when i say i want to buy something it sends me straight to checkout. this makes no sense.¶3) Sloppy. City/State/City labels in the form? it says "joe work" and "joe home" but there's no way to label a new addreses like that.¶4) let me confirm the total and everything before placing the order!

(18) Given that the shopping cart is the checkout page, should the rating asymptotically approach 5 as convergence approaches 1? ¶It completely stinks that the only access to your shopping cart is via BUY IT. It is also bizarre that you choose the media in the shopping cart, rather than when you choose to BUY IT.

Designer 4 · desktop · patterns and layers

(9) Flow is ok.

(10) Why is the continue shopping button not repeated at the bottom just as checkout button has been?¶¶Why is sign in in the middle of the process..i wud expect sign in early in the process.

(12) Fulfills application spec requirements. I like the ability to change several options, such as billing address, mailing address, and change of order. I also like the option of emailing a password back to customer. I like its flexibility.

Designer 5 · desktop · patterns and layers

(3) The designer should have provided easier access to the checkout flow. The only way into it, is by choosing to buy a book.¶I'm a new user, how do I create a new account (the system is 'recognizing me' but I've never previously used this site. This is consistent on the pages that follow such as credit card. The design would work better if there were two flows, one for registered users and one for new.

(8) Shopping cart and check out makes a lot of sense.

(9) It seems fairly logical.

Designer 6 · desktop · patterns and layers

(5) seems fine. the continue shopping works. straight forward.

(6) Flow is straightforward, even though the button placement is bouncing around. It has a standard request-verify-confirm sequence. I have an issue with the no navigation here as well, though the designer may have been instructed to tunnel the user in the cart, so I didn't mark off for that.

(11) I'm being asked to log in to check out. One of the assumptions is that the user is logged in. This was a requirement for the design.¶¶Why are the order number and order date fields on the thank you page shown as lines? Wouldn't they be filled in with information by the back-end?

Designer 7 · desktop · patterns and layers

(1) well done. might think about pervasive account controls

(2) Very good check out process. Can change the address and credit card in one page. Can navigate to continue shopping.

(3) This is pretty much to industry standard. I found the 'Place order button' across the top of the Place Order page a little disconcerting. I think the treatment on this page makes the button too primary. You really want the user to go to review the order and then commit. I don't see a need for two buttons here. Otherwise, the way the pages are put together are good. You've allowed for plenty of shortcuts and opportunities to recover from errors (except for the button placement mentioned above).

Designer 8 · desktop · patterns and layers

(1) standard

(4) There were broken links. I could not complete the checkout process since the button on the shopping cart was non funtional.

(7) Shopping cart not persisten so it's not linked together thorugh the desing

Designer 9 · desktop · patterns and layers

(4) No errors. All links worked.

(6) See comments from first design *[Designer 6, desktop, patterns and layers]*

(10) They are linked well. How do I go back though? By hitting the back button on browser?? Is that my only option?

Designer 10 · desktop · patterns and layers

(2) It is good to have the continue shopping button. But if the book genre or categories can be shown, it will help user link to a specific place.¶¶The address and credit card choose page should be optional.

(5) nice - everything seems well connected. fairly conventional

(8) too many buttons everywhere. lack consistency with other pages. why is "place your order" on the top of the page?

Designer 11 · desktop · patterns and layers

(7) Easier to navigate between sections of site

(11) I don't like that when I put a book in my shopping cart, and choose to continue shopping, I'm thrown back to the list of books for the genre I chose earlier. I'd rather go to the book I was just looking at. Otherwise it seems like I was dropped somewhere at random while I was off trying to buy a specific book ...

(12) Shopping cart seemed familiar and comparable to other online book seller web sites.

Designer 13 · desktop · patterns and layers

(15) Impressive, but excessive. Instructions stated to assume the user is already logged in.¶¶If I ignore the login screen (which is not a design error, just a reading-the-instructions error), then the links to Shopping Cart and Checkout are good, as expected. I like the duplicate links at top and bottom.

(16) I like this flow. The only thing lacking is that I should be able to add items to my shopping cart without having to view my cart every time. Some feedback at the top of the page that the item has been added would be sufficient.¶¶On reflection, this design shows that there is a much better way to manage cart items than does the previous design.

(17) Again, a logical flow of items. The user is constantly aware of where they are in the process.

Designer 15 · desktop · patterns and layers

(13) Aside from not finding any way to actual add items to a cart this process looks pretty good. More thought here than in the browse pages.

(14) this is the most complete string of pages. It makes sense, and meets the requirements

(17) The pages link logically, although the change quantities or delete might be more effective if there's the ability to do that within that page.

Designer 16 · desktop · patterns and layers

(15) Minor issue: I would skip the "proceed to checkout" link from the product page. What is this meant to do - add the product and then buy the whole cart? Confusing. Just omit this particular link.¶¶"Proceed to checkout" works fine. Again, I would demote or omit those other two links (update, clear).

(16) Seems OK. The necessity to go to a secondary page to add another shipping address or credit card could be a problem, though.¶¶On this design (and on the others) there were also no elements to tell the user up front what the steps of the ordering process are. This could be a problem.

(18) Checking out is an action, and the metaphor is upheld by the use of a button.

Designer 17 · desktop · patterns and layers

(13) Login is nice and simple, however 'Create a new account' is a high level feature, right now it seems grouped with the login for an existing account. Seperate.¶¶'Forgot Password' button show line up with the password field, not the e-mail field as they're related.¶¶Cart looks good. Consider putting a continue shopping button along with the bottom Checkout button for consistency and accessability.

(14) the buttons through the checkout are inconsistently labelled. sometims you click on "continue" or "use this address" lots of different words for "move to the next step" it could be more clear. also there are too many pages. it could be a shorter, cleaner more straighfroward process. And aren't i supposed to be logged in already?

(18) You can only get to the shopping cart by adding something to it, and you have to login to get to it. I've used sites like this (X10.com). I dislike them intensely. From shopping cart to checkout isn't terrible, it's still an action button. It's annoying that checkout is a multi-step process from review, address, shipping... and then it blows up on the payment page. Too many disparate pieces of information, especially since the user's expectation has been set to deal with them separately. (Why is the shipping address selection not on the shipping type page?)

Designer 4 · smartphone · no patterns or layers

(19) Link to the checkout page is obvious, however it can be more efficient. Making '$200' a link does not make much sense. There is no way or link to go back an change anything in checkout page. There should be 'back' and 'forward' buttons on all pages. Again there should be a 'Save Cart' feature.¶¶The checkout page has a button which takes to the next page, however this button is not found anywhere else. This is a good feature but needs to be consistent.

(22) Once I had what I want the buy process was quick and painless, giving me the option to bill and ship to different places.

(29) These proceed as I expect, except for the absence of Change Quantity/Delete Item options.

Designer 5 · smartphone · no patterns or layers

(24) Again, as with the previous section, the pages flowed nicely from one to the next. I never had the sense of being lost. The one thing that is missing is the ability to select a shipping method.

(25) see above

(26) incomplete, inaccurate design

Designer 6 · smartphone · no patterns or layers

(20) The good user experience breaks-down when it comes to the shipping cart / checkout experience. There is a problem with purchasing ringtones - since the UI details that I am also purchasing the album, even if I did not intend to do so. ¶¶While the ordering of the experience in terms of the site map seems reasonable, unfortunately the content is not in-line with this and the whole experience for the user is very confusing.

(21) Why does the Shop More button take you back to the Genre page? Shouldn't it go Home?¶¶There's no way to get back if I change my mind on one of the options during checkout.

(28) No back button for the checkout process.¶The "Shop More" button in the cart is great.¶¶Ugh! No confirmation page for the order. How do I know my order was placed?

Designer 7 · smartphone · no patterns or layers

(23) Good. Complete and clear.

(24) The fact that a shopping cart page doesn't exist is obviously a problem. The payment selection and shipping method pages don't exist either. I got stuck in an endless loop because, again, the button wasn't labeled.

(27) Had no problem with this flow.

Designer 8 · smartphone · no patterns or layers

(19) There should be back and forward buttons during checkout. Also user should be provided information about how many more steps remain before final purchase.

(20) The checkout procedure is not is a logical / desirable order. For example, the user should not be providing billing information after they have been through a page entitled 'checkout'. ¶¶In this design, confirming shipping information is an optional procedure from the shopping cart page. The user is not taken through the essential steps sequentially, and this is problematic.

(30) Interesting choice of having the billing method pre-selected with a "change billing method" button. At first i was put off by this but i think it's ok as long as some research was done as to the preferred default billing method.

Designer 9 · smartphone · no patterns or layers

(23) No way to navigate from the buying a CD screen back to the browsing function. How can I buy more CDs, either by this artist or others?

(27) Would the user be able to "continue shopping"? I did not see that capability. How would the user remove an item from the cart? Why are some things buttons and some links?

(29) I think "usual requirements," as specified in the Instructions, includes delete/change quantity functions. I suggest placing these functions on an prototype Order Summary page, which could precede the Billing Info page.

Designer 10 · smartphone · no patterns or layers

(21) I was never given a chance when buying this album to enter my shipping address, but I did when I bought a particular song. (I think that's what I was doing - couldn't tell from the layout of the page.)¶¶Not sure what I would do if I wanted to add multiple items to my cart. There's no way to continue shopping.

(25) - distinction between buying track and album is unclear¶- unclear what text input box is for (if to change quantity then were is the 'update' button?)

(30) Seems to make sense.

Designer ii · smartphone · no patterns or layers

(22) The process was linked up fine, giving me many options to adjust billing, address and shipping info, as well as quantity control and item removal.

(26) seems to meet requirements

(28) Adequate. A backlink at the bottom of each page would've been nice.

Designer 4 · smartphone · patterns and layers

(19) Its very cluttered. Space could have been efficiently utilized. There should be no need of the update button.

(22) At this point it made perfect sense how you walked through the process, and here I wanted a linear process. Being able to change items, addresses, etc was good.

(29) Few surprises, which is good for online purchasing.¶¶The position of Sign In is problematic-- I'd prefer it somewhere before Checkout, of course, but want also to be able to view an order's total (subtotal + shipping) without a login screen between display of the subtotal and final totals. I'm not sure what to recommend, however.

Designer 5 · smartphone · patterns and layers

(24) After clicking a button that says Checkout, I would expect the next page to be more instructional and descriptive when asking me to select an address. What kind of address? Billing, Shipping? There is no way to tell. ¶¶On the next page, we're asked to choose billing information. This is much better than the previous page. I would encourage the use of this page as a template for the shipping page. ¶¶I have a question about the Cancel button. What are we canceling? The billing page, the order process? It's the first time we're presented with such a button.¶¶After choosing the billing information and clicking "Use this info", I was shocked to be taken to the "Thank You" page. I think a confirmation screen with a summary of choices and links to change those choices would be more appropriate.

(25) - Checkout works well¶¶- Could user link back to shopping once past the "checkout" link?¶¶- Could addresses be given labels to allow choice without scrolling through them? (select, multiple-coice list or other form widget)¶¶- Same question with card/billing details

(26) Seems too linear

Designer 6 · smartphone · patterns and layers

(20) In general I liked the flow of the pages as it built upon previous experiences that customers may have - utilizing familiarity. It only took 4 screens to purchase the book, including signing in, so this seems efficient.

(21) The general page flow seems to make sense. I like that there is a link to the Shopping Cart on the Review Order page, but I would rather just see the itemized list on the page.¶¶I thought the requirement was not to include the Sign In flow in this case? Even so, the flow for creating an account and adding all of the information that would have otherwise been saved is clean. My only suggestion is that the order in which shipping address, billing address, and shipping option are presented be consistent between the account creation flow and the review order page.

(28) Adequately. It would've been nice to have a backlink at the bottom.

Designer 7 · smartphone · patterns and layers

(23) When I add to the cart, many items are added. I'm confused. Otherwise, this seems to follow current ecommerce standards.

(24) In the list of requirements it is clearly stated that "You can assume users are already logged into their account.", so I am a bit perplexed as to why you included a login failure redirect page. If it were removed from the flow, it wouldn't be a bad transition. Digging deeper it appears that you spent a lot of time on the account and password management pages. It would have better to spend that time on actual requirements.

(27) I found it straightforward. The process for creating a new account was okay, but more used to seeing billing before shipping address.

Designer 8 · smartphone · patterns and layers

(19) The Shopping Cart and Checkout pages could be linked more tightly. Maybe even combined together to some extent. Overall the linking is quite generic and straightforward.

(20) There was a huge amount of missing information in the shopping cart experience, the user familiar with online shopping would feel dis-concerted that the typical procedures were not attended to. ¶¶Additionally the verb used 'shipping', is not what the customer does, and should not have been used for the button. 'Continue' or 'add to' or 'use' etc... are all better verbs that mean something to the consumer.

(30) seems logical. Could've used a bit more detail.

Designer 9 · smartphone · patterns and layers

(23) Unclear what was the funciton of the Update Price button before I add the book to my shopping cart. (The default view.) This is usually associated with selecting the quantity of a product, but I hadn't gotten to that stage of the process. [Negative]

(27) Check out flow was good.

(29) These work as I would expect.¶¶I know it isn't in the Instructions, but is there really no way to display the Nearest Store data on the Product page, and not force the user to leave the shopping process to find a store?

DESIGNER IO · SMARTPHONE · PATTERNS AND LAYERS

(21) The order of actions in the checkout flow is logical. However, there was no sense of status - I didn't know where I was in the process, what to expect next, and how to go back.

(25) see 7 below

(30) Worked great - though I think the "Continue Shopping" button should return user to last genre page or home page, not the product detail page.

DESIGNER II · SMARTPHONE · PATTERNS AND LAYERS

(22) Linked up just right, giving me the option to go back and change things when I need to, go back and shop if I need to.

(26) "Place Your Order" button should be at the top and bottom of the page.

(28) Partitioning of functionality among several pages was OK. I'm concerned about the number of round trips required, but it might be OK. It covers the default case quite well, at the expense of making it harder for customers to alter their order.

Page design and layout

7. Please give a rating for the page *layout and design* for shopping cart and checkout: (1 = negative, 5 = positive)

Designer	Ratings			
	1	2	3	Average
Desktop—No patterns or layers				

4	(9) 2	(10) 3	(12) 3	2.67
5	(3) 2	(8) 4	(9) 2	2.67
6	(5) 4	(6) 3	(11) 3	3.33
7	(1) 3	(2) 3	(3) 1	2.33
8	(1) 3	(4) 3	(7) 1	2.33
9	(4) 4	(6) 2	(10) 2	2.67
10	(2) 3	(5) 2	(8) 3	2.67
11	(7) 3	(11) 1	(12) 1	1.67
13	(15) 2	(16) 1	(17) 2	1.67
15	(13) 1	(14) 3	(17) 4	2.67
16	(15) 3	(16) 4	(18) 4	3.67
17	(13) 4	(14) 1	(18) 1	2.00
Desktop—Patterns and layers				
4	(9) 2	(10) 2	(12) 4	2.67
5	(3) 2	(8) 3	(9) 2	2.33
6	(5) 4	(6) 2	(11) 2	2.67
7	(1) 4	(2) 5	(3) 4	4.33
8	(1) 1	(4) 3	(7) 3	2.33
9	(4) 4	(6) 2	(10) 3	3.00
10	(2) 4	(5) 4	(8) 4	4.00
11	(7) 4	(11) 3	(12) 3	3.33
13	(15) 4	(16) 5	(17) 5	4.67
15	(13) 3	(14) 4	(17) 3	3.33
16	(15) 3	(16) 3	(18) 4	3.33

17	(13) 3	(14) 3	(18) 2	2.67
Smartphone—No patterns or layers				
4	(19) 3	(22) 3	(29) 1	2.33
5	(24) 3	(25) 3	(26) 1	2.33
6	(20) 1	(21) 2	(28) 1	1.33
7	(23) 4	(24) 3	(27) 4	3.67
8	(19) 4	(20) 1	(30) 3	2.67
9	(23) 2	(27) 3	(29) 2	2.33
10	(21) 1	(25) 2	(30) 4	2.33
11	(22) 3	(26) 5	(28) 1	3.00
Smartphone—Patterns and layers				
4	(19) 3	(22) 4	(29) 3	3.33
5	(24) 2	(25) 3	(26) 3	2.67
6	(20) 4	(21) 4	(28) 2	3.33
7	(23) 4	(24) 4	(27) 3	3.67
8	(19) 2	(20) 1	(30) 3	2.00
9	(23) 3	(27) 2	(29) 2	2.33
10	(21) 4	(25) 4	(30) 5	4.33
11	(22) 5	(26) 4	(28) 2	3.67

8. Discuss with the designer what you like and do not like about the *layout and design* of the pages for shopping cart and checkout.

DESIGNER 4 · DESKTOP · NO PATTERNS OR LAYERS

(9) The grid beneath ALL pages needs to be worked out and use a standard grid - not this tiny column on the left huge column in the middle and medium and

sometimes tiny column on the right. GET A BASIC GRID that you can use for the ENTIRE site. The inconsistency of the column widths looks AND feels disorganized. ¶Also, place important commands and features like CHECKOUT over on the right (that's the last and most important critical command on the page; it should echo the 'period' in an English sentence).

(10) I like the return link. ¶I like the fact that I can add another card I am still missing a confrmation age.¶I like the fact that the shopping cart button does not disappear.

(12) The only suggestion I would make is: I think the 'checkout' link should be below or next to the total price amount ($2.00)

Designer 5 · desktop · no patterns or layers

(3) I found some of the language ('Proceed') a bit awkward and non-standard. I think it's best to use common language like continue or checkout.¶The address and payment method page is oddly organized with the user's name on the same level as the shipping address this should be integrated into the flow of the information preferably above the address. Also, why is this not a consistent element on all the pages? The navigation on the left seems inconsistent across the pages and out of place on this page. The last page, with the receipt, doesn't provide any information except the approximate arrival date and access to UPS (and the continue shopping link, see above comment). I would expect this page to be more formal, providing a total (and detailed information on the items in the order) for the order and allowing the user to print it or somehow retain for their records.

(8) combo box is a nice way to for mouse interaction only. that is nice, but i believe you are not giving users a method to go back if there are errors. the

(9) The underlying grid got trampled on here. PROCEED buttons/commands need to be organized into an area/column which is consistent in ALL pages of the site for 'finalization' type commands. Right now it is neither here or there. Shipping

page info needs better cleaner organization. Again, stick to a well designed underlying grid and better dilineate logical groups of items.

Designer 6 · desktop · no patterns or layers

(5) layout is solid. i like the content areas for other albums below - i'd be interested to hear what design elements would be included to distinguish these albums from the ones in the user's cart.

(6) I'm not sure what the new address and new payment headings are supposed to be doing. I would expect the drop down to change the current address in the same space.¶¶I'm not sure that the cart is the best cross-sell placement. I think that would be up for testing.¶¶¶Overall the layout seems pretty straightforward, the buttons are in the expected places, and having real info would make a difference.

(11) I didn't like that the shopping cart was embedded in a page similar to the one I had arrived from (i.e. with a left hand nav). I'd rather have a simplified interface for a shopping cart, where the user is conscious of leaving the browsing portion of the site to move into buying mode. Otherwise the user might unconsciously assume that there is a shopping cart content area similar to a genre content area. Also, the user could click on a link on the left hand nav and accidentally leave the buying workflow. We don't want this to happen.¶¶I really like the tabular layout for the shopping cart, though. Very nice.¶¶The shipping page is a little confusing. I don't like "Method" as a shipping method label. It sounds very developer-y, like jargon. I don't understand why "New Address" is hanging out on the right-hand side seemingly attached to nothing on the page. What's it for? Also, the left-hand nav is on this page ... it shouldn't be, unless we want to encourage users to leave the buying workflow. Same goes for the "shopping cart" link. Aren't we in the cart, sort of? I know that being able to access the shopping cart from every page was a requirement, but this seems redundant when the user is essentially in the cart already.¶¶The progress bar on the shipping page is nice.¶¶The confirm page seems a little weird. I expected to see

information that I could confirm before finalizing my order. Instead, I see that this has already been done and that I've submitted my order. Maybe the button on the previous page should have been labeled "submit order."

Designer 7 · desktop · no patterns or layers

(1) 2-cloumn grid is fine, but inconsistently used

(2) Put order summary and checkout information on the same page is good. And it needs

(3) I like that the user shows the album with the price but I'd rather have this on a separate page, one that shows the total cost outlined (in other words, the albums plus tax and shipping).¶The final page is very abrupt, I wasn't expecting the process to be finalized. I'm not sure what the images and text are intended to be on this page. The bottom one links back to the purchased album which makes some sense but I'm not sure what the context is.¶Also, there's no link to allow users to step out and continue with their shopping.

Designer 8 · desktop · no patterns or layers

(1) ok, could have used horizontal space better. should/could assume/show multiple shipping addresses on one page, as with payment methods

(4) The shopping cart and checkout seemed cluttered and not as intuitive to use as I would expect.

(7) Some order of operations are confusing

Designer 9 · desktop · no patterns or layers

(4) Again, the layout was simple and predictable. I was confused by the checkout page, which didn't have a clear submit button at the bottom.

(6) Cart has no controls for updating the cart, and doesn't have a total for all items. Also missing navigation to continue shopping.¶¶Payment methods don't supply the ability to select among more than one previously saved. Copy could

be made clearer but there aren't any other major layout issues.¶¶The other address pages have the same problem. I'm not sure what the drop-down control is for.¶¶The pages get really sketchy after this point. The order summary should have a link back to edit the information in addition to the buy button.¶¶The shipping info page has an extra continue btn that the others don't have.

(10) Why does the shopping cart link disappear? How do I select the item to put in the shopping cart? When I want to checkout I want to confirm first what I need to get, not give my visa information immediately.

DESIGNER IO · DESKTOP · NO PATTERNS OR LAYERS

(2) 1) No total amount and shipping fee information¶2) if the use button is right beside of address label, user don't need to move the mouse too much. Otherwise, they may accidently click the wrong button.

(5) again - appealing to well established conventions seems more important than anything else on these pages. if business case supports upsells during the process, i'd like to see these represented in the layout. had you considered putting the update button under the edit fields? what about any summary line? or option to add more? what made you decide to use large action buttons for the addresses instead of radio buttons?

(8) no clear indicaation of where users are.looks like order summary, users can still change order settings. should it allow users to do that?

DESIGNER II · DESKTOP · NO PATTERNS OR LAYERS

(7) Checkout is too far right, hard to see.

(11) I would like the shopping cart to be prepopulated with a quantity of "1" for the album I'm viewing when I click "buy now." ¶¶Why are the "continue shopping" and "checkout now" buttons next to each other? They are not equivalent actions ... I'd rather see the continue shopping action presented as a link below the form.¶¶When I change my shipping address, the save and cancel buttons

appear at the top of the form (perhaps this is a Firefox issue). This is confusing.¶¶The "thanks" page did not contain an order summary. Also, it should contain information telling the user what to expect from totalmusic.com. I was suprprised to not see it (even dummied up) in this design. A giant "Thanks" isn't helpful to the user at all, except to tell them that the process has ended.

(12) Did not like the 'Thanks' at end of online transaction. I felt like somebody just took my money and ran.

Designer 13 · desktop · no patterns or layers

(15) Good features...¶- The product listing (Righteous Brother) was prominent and clear.¶- The "also want to check out" thing is a nice touch, and cognitively consistent when placed next to the product listing and above the interactive form features.¶- Credit card (saved/new) looks fine.¶¶Needs work...¶- Missing features: new shipping address, and saved shipping addresses.¶- The shipping cost and total cost should not appear editable.¶- There was no update button to submit the "remove from cart" radio button. There should be a separate "update" and "purchase" buttons.

(16) The ordering of items on the page doesn't seem to work that well. Especially the 'related purchases' information should be linked differently (perhaps this is a flaw related to having the shopping cart fully integrated with the purchase action).¶¶Also, there shouldn't be option buttons for 'purchase' and 'remove from cart'. Remove from cart should be a link, not an option button, and the purchase option isn't needed (the stuff is in your shopping cart; you already know that you want to purchase it).¶¶There is no good title on the shopping cart page.¶¶The items to indicate how much you are going to pay shouldn't be text fields, but should rather just be standard HTML text. They aren't user editable, and they shouldn't look like they are.¶¶The shipping options could possibly be a set of option buttons.¶¶The saved credit card information should give some indication of the selected account number (last four digits?); as is, if a

person has more than one MasterCard, it is difficult to know which one is linked to this application.

(17) The layout here seems confusing, as noted above, with shopping cart and checkout knocked together in one page. The layout feels crowded, and having suggestions in the cart seems strange -- it seems logical to have them on a product page, and not an account page. Purchase and remove from cart buttons don't seem like they associate with the product they identify with

DESIGNER 15 · DESKTOP · NO PATTERNS OR LAYERS

(13) Mostly good.¶¶Confused as to how the "New Credit Card" or "New Address" field is acted upon? On select? when customer clicks Place order? Consider taking this out of the drop down and making it a text link.¶¶Shipping method is missing the colon.

(14) it doesnt tell me how much each thing costs¶it doesnt tell me how far through the process i am

(17) As this is a skeletal structure, this offers a clear way to browse items, with the commentary above. There's clearly been some research into the way a user purchases items, and in a way that a user is familiar with.

DESIGNER 16 · DESKTOP · NO PATTERNS OR LAYERS

(15) Does the job. Changing addresses is a bit confused. The words "Please choose" are unnecessary and add clutter.¶¶Ouch - very important, you don't just drop a "submit" button on the final page. Should at least say "purchase now!" or similarly final-sounding language. Much better: provide an order summary prior to final order placement, rather than this form page.

(16) Some items are rough (notably the Submit button at the end of the purchase chain; some more action oriented text like "Complete Purchase" would be better) but overall it looks like things are in place for a good design.

(18) How do I select an address (maybe this isn't a valid point?)? Address 1 and 2 are listed, but no selector is provided for either of them. I would also find it more

intuitive for the on-file credit cards to provide some sort of up front information so I could identify which one of my cards I have daringly allowed the site to memorize for perpetuity. The "Enter New..." address and card buttons didn't do anything, but that might also be unimportant in the demo.

DESIGNER 17 · DESKTOP · NO PATTERNS OR LAYERS

(13) Easy to read and clear to follow. ¶¶City is repeated in the Address sections. Replace with ZIP.¶¶Manual address entry needs a radio button of its own so we'll know if they're using address on file on new one. Also show existing address in full so customer knows right away what addresses are already on file so they don't enter one again.¶¶Payment method needs something like a radio button to specify whether or not customer is using on file card or entering new.

(14) The payment method select box combined with the card type/entry fields make no sense. How is this supposed to work? ¶¶Why am I being asked format at the top of the checkout pages? I should be asked format before placing something in the cart. and this should show me what's in the cart maybe. And why is format tick boxes anyway. ¶¶Where IS the cart? I can't seem to buy more than one thing at a time. ¶¶I want to be able to make billing+shipping the same withot having to retype.

(18) Everything is on one page. They get one point for having all the things on the page, but it's terrible. There is no segmentation, no process, nothing. Only someone who creates web pages for a living might have hope of getting through it.

DESIGNER 4 · DESKTOP · PATTERNS AND LAYERS

(9) Better than the book description but SUBTOTAL needs to be distinguished from another 'item' in the 'item' column (i.e., indent it like traditional invoices). Place 'finalization' type buttons/commands in a different column of the underlying grid than the information for items that command will affect (i.e., place those

'finalization' command/buttons on the right in the 3rd column of your underlying design grid).

(10) Inconsistency in update price or update??¶¶Liked the forgot password and create a new account. Would have preferred them to be links rather than buttons.¶¶Like the place your order links at top as well as bottom.¶¶Dont like the use of two similar terms change and update.¶¶What if I want to cancel at any point and want to go back to the previous screen?¶¶Why are change quantities and delete a single button?

(12) The steps in the online transaction appeared to work seemlessly.

Designer 5 · desktop · patterns and layers

(3) For each of the data pages, address and payment method, it would be better (for registered users) to provide the existing information and have a link to allow users to add a new address or credit card. There's no reason to take up so much space allowing users to add the new info if it's not necessary. Also, the mixing of the billing address and the credit card info is confusing. I think there's a fairly well established industry standard that allows users to enter a billing address and then specify a shipping address if necessary.

(8) interaction buttons are located all over the page. the overall layout doesn't have a sense of stability.

(9) Buttons/commands for very important things like CHECK OUT and BUY and anything that's got a feel of "finalization" should be in pretty much the same place on each page. SUBTOTAL label needs to be indented - to echo a more traditional invoice format (which will enable the user to differentiate subtotal from another list item more quickly).

Designer 6 · desktop · patterns and layers

(5) layout's nice. fairly conventional - i'd want to ask the designer why he/she chose to have an update button next to each item instead of at the end of the entire column.

(6) Button placement moving around¶Buttons at the top of the info instead of at the bottom¶Different strategies on repeating the cart navigation on top and bottom¶Overall navigation/search placement aplies throughout here as well.¶¶Cart page¶Probably the most succesful page. Aside from the navigation/button issues, the body is fairly easy to read and understand. Using buttons for update and remove is something I would discuss based on the user group/technology resources. Here I expect the continue shopping to be down by the checkout button.¶¶Sign in¶Should be some instructional copy here. ¶The forgot password should be grouped with the log in¶Don't like the two buttons centered and different sizes¶Probably needs more separation between returning and new users¶I would not recommend making the user create an account in order to buy a book.¶The reqs probably imply you would bypass this page altogether.¶¶Review page¶Very hard to scan the information here. More grouping problems include items and totals.. also not sure about how the shipping and billing addresses and the shipping method are placed.¶There's no way to select payment, which was in the reqs¶The selection of another shipping address would work but is unsophisticated...and you have to assume that the linked page will do what the reqs are asking.¶Navigation back to the cart is a little fuzzy - assuming it is the button above the items.¶¶Confirmation page¶This one is layed out better than the previous - I see the address info together and the items and total. The back to shopping link is misplaced

(11) The order summary (not the one on the "thank you" page, the one before that) isn't organized in an intuitive fashion. It seems like the information is just displayed willy-nilly. ¶¶The "checkout" button on the order summary page looked like a graphic title, not a button. I didn't like the placement. Very atypical for a form button. I clicked it accidentally.

DESIGNER 7 · DESKTOP · PATTERNS AND LAYERS

(1) nice. 3-column grid is good.

(2) Excellent. It will be great for the thank you page to display something other than order summary.

(3) The pages flow nicely and the layout is easy to read and navigate. For the most part, it's easy to understand where you are and where you have left to go but I'd still add a progress bar for the registration process.

Designer 8 · desktop · patterns and layers

(1) inconsistent layout, incomplete labeling

(4) The layout was sparse in some areas and not very easy to understand.

(7) Easy to find on first page¶inconsistent location - needs to be consistent

Designer 9 · desktop · patterns and layers

(4) The design seemed very complete. It was easy to follow the process to completion.

(6) See comments from first design *[Designer 6, desktop, patterns and layers]*

(10) What is update price? How do I find out more about something I do not understand on first glance? I like that the links are in my face.

Designer 10 · desktop · patterns and layers

(2) I like the remove button, so user don't need to enter 0 and click a link to get rid of the item. And it is good to have address button is on the top.¶¶Using my shipping address can be default for the new credit card information page. And it can be automatically unchecked when user starts input the new address.

(5) much more complete than some of the browsing pages - but perhaps only so for filling in the names of the fiedls (which are common in any case)

(8) layout is nice. it is placed in different groups and most of it is on the top page. it's easier to view the bill.

Designer 11 · desktop · patterns and layers

(7) Good labels, easier to navigate, more valuable details

(11) The order summary (not the one on the "thank you" page, the one before that) isn't organized in an intuitive fashion. It seems like the information is just displayed willy-nilly. I want to see the billing and shipping addresses next to each other.¶¶The "checkout" button on the order summary page looked like a graphic title, not a button. I didn't like the placement. Very atypical for a form button.

(12) It's really hard to say without any visuals. I've been long accustomed to see form buttons and I sort of automatically fill in the gaps (gestalt) on what to do next.

Designer 13 · desktop · patterns and layers

(15) Pretty good. They have all the right information.¶¶Shopping cart page is perfect - well grouped and presented.¶¶The checkout page could be improved by¶- placing the order total below the item total.¶- placing the ship-to address adjacent to the bill-to address

(16) This is really good. The flow is sensible, and the final invoice-like form that you accept works really well. It would seem this design has done a better job at understanding the details of information flow on a page.¶¶(Again, the improved design representation might be somehow biasing my reaction - if the other designs had used greeking like this one I might have been better able to see the forest instead of the trees.)

(17) Having charge information on the right hand side of the page allows a user to be constantly aware of charges and items. The update and remove buttons are a clearly thought-out feature and easy to understand.

Designer 15 · desktop · patterns and layers

(13) Pretty good. I would challenge the designer to thinkn of a way to combine the confirmation and edit pages together. Feels like a lot of extra page types needed for something that perhaps could exist together.¶¶Confirmation and Order summary are both well made with nice divisions between sections.

(14) Overall it makes sense but I think that the ship to and bill to should be next to each other.

(17) The thank you screen is logically arranged, but the order summary page separates bill to and ship to information, making it a bit scattered.

Designer 16 · desktop · patterns and layers

(15) Cart page is barebones (underdeveloped) but can't complain.¶¶Checkout page lacks any confirmation function. "Submit" is insufficient for a final purchase click.

(16) Ok, but not stellar. Need to know more about how it is all going to come together.

(18) Clear Shopping Cart is a dangerous button. If there is no confirmation, it should not be present.

Designer 17 · desktop · patterns and layers

(13) Checkout process seems good (after cart). All relevant fields are there, in a sensible order, and submit/edit buttons are all in appropriate places.¶¶Also we wanted a link to cart on all pages. Please add to homepage.

(14) Some of the pages are clean and make sense but some of them are very jumbled and it's difficult to tell what i am supposed to be looking at. There are a lot of links on some of these pages with little indiciation of where they will take me or what i will do.

(18) If I have two addresses on file, I don't think half the page should be wasted on input of a new one in checkout. Likewise with the credit card page. Again, I can't stand the multi step checkout process, it should be reduced to fewer steps.

Designer 4 · smartphone · no patterns or layers

(19) The layout and design is quite average (nothing special or helpful about it). It should be easy to use as it follows old conventions. Categorization into 'Songs'

and 'Albums' is okay, but even individual songs belong to some album. So categorization needs to improve.¶¶The checkout page brings in a button to go to the next page, and this convention was not followed elsewhere. There should be consistency in design.¶¶Why is the search feature there on the confirmation page? The last thing that a site would want is to push the customer away from the page, just when they are about to make a purchase.

(22) Again, clear and concise. Seems to tell me exactly what I chose and what the cost is before making me press the pay button. There was no way to adjust quantity however, or any way to buy related items.

(29) What is this "$200" to the right of the Checkout submit button on the Shopping Cart page? Is this the total? Why not label it so? It should be separated visually from both the list of items in the Shopping Cart, and the Checkout element.¶¶How can I add or delete to the Shopping Cart? Why not enclose this info in a form with Change/Delete checkboxes, and have "Checkout" as the text on its submit button?¶ ¶There's nothing technically wrong with having "Checkout" as a mere text link if there's no form on this page, but it suggests lack of functionality to me-- I suspect that my Shopping Cart will not be saved, and I won't be able to complete my purchase.¶¶How can I download a ringtone as a Shipping option? This doesn't seem possible.

Designer 5 · smartphone · no patterns or layers

(24) I liked the layout and design of the shopping cart. The checkout page wasn't bad, but it didn't include the ability to choose a shipping method. The Thank-you page didn't inlude an order summary.

(25) track and delivery mechanism page is confusing

(26) does not meet UI requirements

Designer 6 · smartphone · no patterns or layers

(20) There is a problem with purchasing ringtones - since the UI details that I am also purchasing the album, even if I did not intend to do so. ¶¶I am unable to update

the shipping address. Additionally on this page, it is unclear why there is a drop-down list for the phone billing address.¶¶Moving on to payment, it still provides the title 'ship album(s) to', which is inappropriate on this page. Again, I am unable to change billing information, and the user experience on this page in not at all clear, with the combination of text and drop-down field list that appears here. ¶¶Finally, the 'thanks' page is more of a summary. It's certainly not clearly a 'thanks' page, and a user would be left wondering whether they really had purchased anything.

(21) I don't really understand the layout of the two "Ship Items to" pages. Is the one displayed the one that's selected? Are the items in the dropdown the alternate options? I can't tell what I'm selecting here.¶¶The "Thanks" page doesn't tell me that I've purchased. In fact, nothing told me that I was confirming the transaction - the button just said "Continue." This is unnerving when a credit card is being charged.

(28) A few important things missing from the prototype. ¶¶What is that dropdown in the ship-to page? What happens when I select a different address? Does it refresh the page? Does it confirm that I selected a new address when I hit "continue"? ¶¶On the payment page, the header is incorrect (should be "Bill Order To" or somesuch). Same problem as the ship-to page -- how can I confirm the credit card information? Also, NEVER NEVER NEVER display the customer's credit card information and expiration date unless you're in a secure browser -- X-out the last eight digits. ¶¶What I *think* is the confirmation page doesn't really confirm anything. It just displays some items without telling me what really happened.

Designer 7 · smartphone · no patterns or layers

(23) Works for me.

(24) The pages that were created in the "Shopping Cart/Checkout" section show the same thoughful layout and design as the other section. They definitely are a bit sparse though.

(27) Frequent users would like the

Designer 8 · smartphone · no patterns or layers

(19) There should be individual pricing listed as well. Overall layout and design is standatd. But interface can be improved overall. Placement of interface elements is not the best.

(20) The shopping cart page is confusing. It provides the user with too many options. They need to work through this sequentially. ¶On the 'shipping' page (which is really about shipping addresses not shipping methods), the user is not given the option of providing new billing or shipping information - though it is at this point that they would recognise that they would want and need the option for that. ¶¶When the user is given the option to change the billing address, they are then taken to an additional screen - which is unnecessary.

(30) Need more info on the Thank you page. What happens to my ringtone? is it automatically installed? It should tell me where to go or what to do to activate it. ¶¶In the Shopping cart. The "Delete Checked" seems to encourage deleting of product out of the cart - i wouldn't have included that functionality at all. ¶¶In Shopping Cart: i like that you included Shipping Cost up front.

Designer 9 · smartphone · no patterns or layers

(23) Again, didn't seem as complete as the previous product.¶I can't choose my mailing address. This part of the flow wasn't as rich as previous flow.

(27) Given the intended platform is the smartphone, the layout seems reasonable. However, I am concerned about the overall lack of navigation.

(29) I don't see a form which permits the user to change the billing information, such as shipping address or payment method.

Designer 10 · smartphone · no patterns or layers

(21) I have no idea whether I've bought or not. I'm not clear on the layout of the checkout page - what are the text fields supposed to be for? They are still there on the "thanks" page.

(25) - this layout would certainly require lots of scrolling on my euro smart-phone (Symbian OS 192x192pixels)¶- no visual cueue as to where one is in checkout process¶- no back or lateral links

(30) Not necessary to have quantity control on the thank you page, and I would consider removing it from the confirmation page.¶¶The "thank you" page seemed lacking - could have some instructions here.

Designer ii · smartphone · no patterns or layers

(22) While I liked the options on the second screen, and the ability to adjust quantities, I found it odd that I had to enter a quantity when first adding the album to the cart. Why do I want more than one album? 99.9% of the time I won't. You're making me do more work than I need to.

(26) well laid out billing and shipping pages

(28) Yow! What is going on in the order page?!?!?¶¶1) Too much stuff crowded in horizontally. Everywhere. I can barely read the little table in there.¶¶2) The greek makes it even more incomprehensible. No idea what the radio buttons do. Why is the entire greeked address hyperlinked? It is a mystery.¶¶3) I would make quantity a dropdown box. Two operations to update quantity makes no sense. ¶¶4) what does the [x] button do? Delete, I guess, but that's pretty unclear. ¶¶5) TY page should confirm what I ordered and the billing / shipping methods. What do the "Downloads" and "Ringtone" links do?

Designer 4 · smartphone · patterns and layers

(19) Page design is constrained by the small screen size. However, a progress bar showing the state of transaction would be useful. The order confirmation should tell the books bought as well.

(22) Well done, easy to understand. I'd like a little less scrolling if possible on the longer pages, but I'm thinking that won't be a problem on the actual pages when implemented.

(29) I'm glad to see the page headings ("Shopping Cart," "Thank you for your order"); on a small screen it's easy for me to lose track of where I am on a site.¶¶Again, I think the Update/Remove options on the Shopping Cart page could be streamlined with just one checkbox for Remove, and one submit button sufficing to send the revision on.¶¶The Subtotal on the Shopping Cart page needs to be distinguished more, such as by margins.

Designer 5 · smartphone · patterns and layers

(24) Aside from the Shopping Cart page, the layout and design leaves much to be desired for the same reasons that are outlined above in the responses to the flow questions.

(25) see comments on links and avoidance of excesive scrolling above

(26) seems OK. Not all page elements are visible - no Search

Designer 6 · smartphone · patterns and layers

(20) The information was clear and concise. The information was layed out well for mobile use.

(21) For the returning customer, it is not clear (because of the use of squiggly lines) that "bill to" contains saved credit card information also. I expected to have to enter my credit card information at some point and never did.¶¶Otherwise, the layout is pretty clear, considering everything is in static text with plain buttons. I would recommend using some lines or formatting to emphasize the calls to action over the peripheral actions.

(28) Unfortunately, some poor choices here. ¶¶1) The Update Quantity button requires a round trip for every minor edit the user wants to make to the cart. Depending on the platform, either a dropdown (with quantity in it) or Javascript-enabled +/- buttons would be preferable for quantity.¶¶2) Also,

crowding the title of the section in the corner between the page header and the search button is a poor choice. You really want to visually distinguish the title a bit more -- either with positioning or fontage. ¶¶3) Does someone neeed to enter a username and password in order to press the "Create a New Account" button? It sure looks that way -- those choices are hidden below the fold of your screen. But then you force the user to re-enter the username and password on the next screen. Not great when all you have to work with is Multitap. ¶¶4) Same "Update Price" round-trip problem on the shopping cart page. ¶¶5) Where does "Back to Shopping" on the TY page go to?¶¶6) TY page should echo back the email address to which the confirmation was sent.

Designer 7 · smartphone · patterns and layers

(23) Develop to cross promote authors' other books within the user's current view of a book.

(24) I like the layout for the Shopping Cart. You limit each Product to three lines in a concise and clear manner and the organization of each element makes good sense. ¶¶Again, I do take issue with your font-weighting choices which are not consistent from page to page.¶¶On the Order Summary page, you separate shipping methods from shipping address. They should probably go together. There is a lot of scrolling on this page and it's confusing to have so many buttons on such a critical page. Perhaps the buttons to "Change" should be changed to linked text instead. Food for thought.¶¶In the list of requirements you are asked to provide a thank-you page with an order summary. While there is a thank-you page, the order summary is lacking.

(27) Overall, I found the shopping cart and checkout usable.

Designer 8 · smartphone · patterns and layers

(19) Information is not presented where it should be. Gestalt principle of space and closure violated. It is not quite evident, which piece of information to read first,

and what all information is associated. There should be clear headings on top of the page to let the users know clearly, which page are they in currently.

(20) Agai, I have no idea what most of the content was supposed to be. Not enough text is included to tell what's happening. On one page check-boxes are bring used next to the item; but I have no idea what for. ¶¶While I acknowledge that shipping and payment options have been included, as has an summary of the order, it is necessary for the user to have more input, for example, to specify a new shipping address, change billing etc...

(30) I'm a bit confused by the shopping cart page - why two graphics for each item, and what do the radio buttons represent? Same for the Shipping & Payemnt options - not clear what the radio buttons represent.¶¶Should've had an "add to cart" button present on the product detail page, since there are two items in your cart.

DESIGNER 9 · SMARTPHONE · PATTERNS AND LAYERS

(23) 1. What is the function of the box on the opening screen? I was unclear. [Negative]¶2. Would be helpful to have a progression model. I'm in step 3 of six, for example.¶3. The flow related to user name and account were clear to me, and seem to offer the current standards.¶4. Suggest explicitly telling user the Order number and other details will be sent in the email confirmation. (Some people print these out; other save them on their hard drive.)

(27) I have the same comment on the search intruding upon the main role of the page. I think this would be simple to correct.

(29) Group the book's details on the Product page together, and the form elements together. For instance, the ISBN and publisher info belongs with the other book details, such as Author.¶¶What does the "Update price" form submit do? Is this really an auction? I'm leery of buying, then.¶¶I like the columnar layout on the Shopping Cart page. I'm convinced it can be streamlined, though-- instead of three separate form submits, why not use a checkbox on each item to indicate

deletion, and one big Update Quantity submit button, before displaying a Checkout submit.

Designer 10 · smartphone · patterns and layers

(21) I liked the layout on the shipping and billing pages. Showing the known information and then having a "use this address/info" button is clearer than having a selection interaction followed by a "Next" button.¶¶I'm not sure why "use this info" had an edit button but "use this address" did not. That would have been helpful.

(25) - "continue shopping" link is useful¶- "update" is expected functionality¶- "use this address" is nicer than radio-button+select link as it cuts out a link and user knows what to expect¶- this cart works well

(30) Very thorough and well thought out. Impressed that you were able to create detailed designs for all pages, including billing information, enter new credit card (even though it wasn't in the requirements), order summary, and thank you page.

Designer 11 · smartphone · patterns and layers

(22) The only odd thing I found was the complete order button at the top of the page only - it should be on the bottom as well. I had to search for a moment to find it. Everything else is just as it should be.

(26) simple and straighforward

(28) Again, bad. ¶¶"Place your Order" should be further down the page. Nobody's going to click on it without reviewing the information. ¶¶"Ship To" is OK. ¶¶"Bill To" conflates the credit card and billing address information. The layout is confusing, and lo! there's the Search box specified in the requirements. No reason at all to show a separate billing address for each card. ¶¶At least we finally see a decent TY page.

Overall

9. Please give an overall rating: (1 = negative, 5 = positive)

Designer	Ratings			
	1	2	3	Average
Desktop—No patterns or layers				
4	(9) 3	(10) 3	(12) 3	3.00
5	(3) 2	(8) 4	(9) 3	3.00
6	(5) 3	(6) 3	(11) 2	2.67
7	(1) 3	(2) 3	(3) 2	2.67
8	(1) 3	(4) 3	(7) 2	2.67
9	(4) 4	(6) 3	(10) 2	3.00
10	(2) 3	(5) 3	(8) 3	3.00
11	(7) 3	(11) 3	(12) 3	3.00
13	(15) 3	(16) 1	(17) 2	2.00
15	(13) 2	(14) 3	(17) 4	3.00
16	(15) 4	(16) 4	(18) 5	4.33
17	(13) 4	(14) 1	(18) 1	2.00
Desktop—Patterns and layers				
4	(9) 3	(10) 3	(12) 4	3.33
5	(3) 2	(8) 4	(9) 4	3.33
6	(5) 4	(6) 2	(11) 2	2.67
7	(1) 4	(2) 5	(3) 4	4.33
8	(1) 2	(4) 3	(7) 2	2.33
9	(4) 4	(6) 2	(10) 2	2.67
10	(2) 4	(5) 3	(8) 4	3.67

11	(7) 4	(11) 3	(12) 4	3.67
13	(15) 5	(16) 4	(17) 5	4.67
15	(13) 3	(14) 3	(17) 3	3.00
16	(15) 4	(16) 4	(18) 4	4.00
17	(13) 2	(14) 4	(18) 1	2.33
Smartphone—No patterns or layers				
4	(19) 2	(22) 3	(29) 2	2.33
5	(24) 3	(25) 4	(26) 1	2.67
6	(20) 2	(21) 4	(28) 2	2.67
7	(23) 4	(24) 3	(27) 4	3.67
8	(19) 3	(20) 1	(30) 4	2.67
9	(23) 1	(27) 3	(29) 2	2.00
10	(21) 1	(25) 2	(30) 4	2.33
11	(22) 3	(26) 5	(28) 3	3.67
Smartphone—Patterns and layers				
4	(19) 3	(22) 4	(29) 4	3.67
5	(24) 1	(25) 3	(26) 3	2.33
6	(20) 4	(21) 3	(28) 3	3.33
7	(23) 4	(24) 2	(27) 3	3.00
8	(19) 2	(20) 2	(30) 3	2.33
9	(23) 4	(27) 4	(29) 2	3.33
10	(21) 3	(25) 3	(30) 5	3.67
11	(22) 5	(26) 4	(28) 2	3.67

10. How complete do you consider this design to be? (1 = not complete, 5 = complete)

Designer	Ratings			
	1	2	3	Average
Desktop—No patterns or layers				
4	(9) 2	(10) 2	(12) 3	2.33
5	(3) 3	(8) 3	(9) 2	2.67
6	(5) 3	(6) 3	(11) 3	3.00
7	(1) 3	(2) 3	(3) 1	2.33
8	(1) 2	(4) 4	(7) 2	2.67
9	(4) 4	(6) 1	(10) 1	2.00
10	(2) 4	(5) 3	(8) 3	3.33
11	(7) 3	(11) 2	(12) 2	2.33
13	(15) 2	(16) 1	(17) 2	1.67
15	(13) 1	(14) 2	(17) 3	2.00
16	(15) 3	(16) 3	(18) 4	3.33
17	(13) 3	(14) 1	(18) 1	1.67
Desktop—Patterns and layers				
4	(9) 2	(10) 3	(12) 3	2.67
5	(3) 2	(8) 5	(9) 3	3.33
6	(5) 4	(6) 2	(11) 2	2.67
7	(1) 4	(2) 4	(3) 3	3.67
8	(1) 1	(4) 3	(7) 2	2.00
9	(4) 4	(6) 2	(10) 2	2.67

10	(2) 4	(5) 3	(8) 4	3.67
11	(7) 4	(11) 4	(12) 4	4.00
13	(15) 4	(16) 4	(17) 4	4.00
15	(13) 2	(14) 3	(17) 3	2.67
16	(15) 3	(16) 3	(18) 3	3.00
17	(13) 1	(14) 4	(18) 2	2.33
Smartphone—No patterns or layers				
4	(19) 1	(22) 3	(29) 2	2.00
5	(24) 2	(25) 2	(26) 1	1.67
6	(20) 1	(21) 3	(28) 2	2.00
7	(23) 3	(24) 2	(27) 3	2.67
8	(19) 2	(20) 1	(30) 3	2.00
9	(23) 1	(27) 1	(29) 1	1.00
10	(21) 1	(25) 1	(30) 4	2.00
11	(22) 3	(26) 5	(28) 3	3.67
Smartphone—Patterns and layers				
4	(19) 4	(22) 2	(29) 4	3.33
5	(24) 2	(25) 1	(26) 3	2.00
6	(20) 2	(21) 4	(28) 4	3.33
7	(23) 4	(24) 2	(27) 3	3.00
8	(19) 1	(20) 1	(30) 3	1.67
9	(23) 3	(27) 4	(29) 1	2.67
10	(21) 2	(25) 3	(30) 4	3.00
11	(22) 4	(26) 4	(28) 2	3.33

11. How skilled do you think this designer is? (1 = not skilled, 5 = very skilled)

Designer	Ratings			
	1	2	3	Average
Desktop—No patterns or layers				
4	(9) 2	(10) 3	(12) 3	2.67
5	(3) 3	(8) 4	(9) 2	3.00
6	(5) 3	(6) 3	(11) 3	3.00
7	(1) 3	(2) 4	(3) 2	3.00
8	(1) 3	(4) 3	(7) 2	2.67
9	(4) 3	(6) 2	(10) 1	2.00
10	(2) 3	(5) 3	(8) 3	3.00
11	(7) 3	(11) 3	(12) 3	3.00
13	(15) 3	(16) 1	(17) 2	2.00
15	(13) 2	(14) 2	(17) 4	2.67
16	(15) 3	(16) 3	(18) 4	3.33
17	(13) 4	(14) 1	(18) 1	2.00
Desktop—Patterns and layers				
4	(9) 2	(10) 3	(12) 3	2.67
5	(3) 2	(8) 3	(9) 2	2.33
6	(5) 4	(6) 1	(11) 2	2.33
7	(1) 4	(2) 5	(3) 3	4.00
8	(1) 1	(4) 2	(7) 2	1.67
9	(4) 5	(6) 2	(10) 2	3.00
10	(2) 4	(5) 3	(8) 4	3.67

11	(7) 4	(11) 3	(12) 3	3.33
13	(15) 4	(16) 5	(17) 5	4.67
15	(13) 3	(14) 3	(17) 4	3.33
16	(15) 3	(16) 3	(18) 4	3.33
17	(13) 1	(14) 3	(18) 2	2.00
Smartphone—No patterns or layers				
4	(19) 2	(22) 3	(29) 3	2.67
5	(24) 3	(25) 3	(26) 1	2.33
6	(20) 1	(21) 4	(28) 3	2.67
7	(23) 4	(24) 4	(27) 4	4.00
8	(19) 3	(20) 1	(30) 4	2.67
9	(23) 1	(27) 2	(29) 2	1.67
10	(21) 1	(25) 1	(30) 4	2.00
11	(22) 3	(26) 5	(28) 3	3.67
Smartphone—Patterns and layers				
4	(19) 3	(22) 3	(29) 3	3.00
5	(24) 1	(25) 3	(26) 3	2.33
6	(20) 3	(21) 3	(28) 4	3.33
7	(23) 3	(24) 2	(27) 3	2.67
8	(19) 2	(20) 1	(30) 4	2.33
9	(23) 3	(27) 4	(29) 2	3.00
10	(21) 3	(25) 3	(30) 5	3.67
11	(22) 4	(26) 3	(28) 2	3.00

12. Is there anything more you would like to add? *(optional)*

Designer 4 · desktop · no patterns or layers

(9) You need to work with a good professional GRAPHIC designer as well as a usability engineer type. This design feels like the designer has more of a background in "web design" vs. either usability engineering OR graphic and visual design.

(10) *[blank]*

(12) *[blank]*

Designer 5 · desktop · no patterns or layers

(3) On most of the browse pages the designer seems to be close to on target but they really fall down in the checkout flow. The page with the shipping address is really nice and compact but there's the odd user id shoved in there.

(8) *[blank]*

(9) See #12 on last design *[Designer 4, desktop, patterns and layers]*.

Designer 6 · desktop · no patterns or layers

(5) browsing pages were weaker and less complete than the checkout process - which seemed well thought through.

(6) *[blank]*

(11) The designer took the requirements very literally. The designer seems somewhat creative (i.e. tabular layout for the shopping cart) but not very sensitive to usability issues, or even the best interests of the business (i.e. not pushing users out of buying mode).

Designer 7 · desktop · no patterns or layers

(1) *[blank]*

(2) *[blank]*

(3) I don't feel that the designer put much effort or thought into this design. Many of these interactions are fairly standard throughout the web so I don't feel that the designer has much experience.

Designer 8 · desktop · no patterns or layers

(1) even given the limited time allowed, I would expect much more attention to detail

(4) *[blank]*

(7) *[blank]*

Designer 9 · desktop · no patterns or layers

(4) *[blank]*

(6) *[blank]*

(10) Perhaps it is because these are representative mockups, they seem very incomplete. Not illustrative of the designer's skills.

Designer 10 · desktop · no patterns or layers

(2) Summary page is pretty much same as the Thanks page. It is redundant. If a thanks page is needed, it should display something else instead of the order information.

(5) *[blank]*

(8) *[blank]*

Designer 11 · desktop · no patterns or layers

(7) *[blank]*

(11) *[blank]*

(12) *[blank]*

Designer 13 · desktop · no patterns or layers

(15) Under the time constraints, not too shabby.¶¶As an evaluator, it was very challenging for me to evaluate this design, because I was trying to comprehend the requirements at the same time!¶¶I actually have one big gripe about the requirements themselves. They throw around hierarchical terms (home, genre, product/album, song) without quite specifying the relationship among them. I can infer that hierarchy that I just listed, but that's asking a lot of a designer with just 1:45 start to finish!

(16) For a 1.45 hour design project, it seems that the designer has gotten a little bit too detailed. The details seems to have been dealt with first, instead of taking a deeper look at flow and ordering of information.

(17) While it's admirable to try new metaphors to purchase, it can be done if (a) users aren't alienated from the purchasing process (especially those with basic skill -- and many music purchasers can fall into this category) and (b) a clear and logical layout doesn't confuse viewing with purchasing (mixed shopping cart and checkout).

Designer 15 · desktop · no patterns or layers

(13) Would be nice to be able to see some more thought process going on with this design. Designing for a scalable system and imaging how it can be technically implemented should show in the design. Designer needs to consider each page element and where it is coming from. Does the design scale? ¶¶Some big errors in this design exist, like not helping the user with calling out the primary action and not thinking ahead to the next step.

(14) *[blank]*

(17) As a rule of thumb, it's a good idea to let the user know at all times where they are in a process -- it provides them with the interactivity they need to allow them and is helpful to retain the user as a future visitor.

Designer 16 · desktop · no patterns or layers

(15) Not bad. The overall architecture is correct. The few glaring errors are easy to fix.

(16) Difficult to rate the skill of the designer. The ability to copy a model like Amazon's is really determined by your ability to get the fine details right; copying at the coarse level of this design is easy.

(18) *[blank]*

Designer 17 · desktop · no patterns or layers

(13) *[blank]*

(14) *[blank]*

(18) An engineer must have made this.

Designer 4 · desktop · patterns and layers

(9) No.

(10) *[blank]*

(12) *[blank]*

Designer 5 · desktop · patterns and layers

(3) There are a lot of details missing from these pages and a lot of ideas that aren't using well established industry formats. I think this designer needs to spend more time exploring other sites and develop a better understanding of best practices.

(8) this is very similar to amazon's shopping experience. a wizard would also be very helpful during shopping designs.

(9) No.

Designer 6 · desktop · patterns and layers

(5) *[blank]*

(6) The designer seems to not be familiar with shopping cart patterns and grammer.

(11) *[blank]*

Designer 7 · desktop · patterns and layers

(1) *[blank]*

(2) *[blank]*

(3) This is a pretty easy concept to design and I think it's fairly complete. I really wish that the designer had provided a search results page and I was curious to see what the subcategory looked like (I assume it's basically the genre page but what about the left nav? Also, what's the difference between a genre and a main category (and a subcategory).¶I liked the consistent placement of the shopping cart but some recognition of the user would be valuable, especially for users that share a computer. ¶There's also no main navigation (header) and footer indicated on the designs so I'm not entirely sure how the primary navigation would work.

Designer 8 · desktop · patterns and layers

(1) added reviews but missed other req's

(4) *[blank]*

(7) *[blank]*

Designer 9 · desktop · patterns and layers

(4) *[blank]*

(6) I hope you can see what I commented on in the first design *[Designer 6, desktop, patterns and layers]* - not sure how random this is.

(10) *[blank]*

Designer 10 · desktop · patterns and layers

(2) Back to shopping on the thank you page is good. But the order summary on this page is redundant. Put something new.

(5) *[blank]*

(8) design is more comprehensive than previous version *[Designer 5, desktop, patterns and layers]*.

Designer 11 · desktop · patterns and layers

(7) *[blank]*

(11) *[blank]*

(12) *[blank]*

Designer 13 · desktop · patterns and layers

(15) This designer knows shopping carts inside and out, and showed off his/her skills there. Short changed the product browsing, though.

(16) *[blank]*

(17) The designer really thought this through and took some insight into how a user navigates a site. The site requirements specified that it was assumed the user was already logged in, but adding a new account item in the design structure filled in a blank that was necessary to communicate complete account functionality.

Designer 15 · desktop · patterns and layers

(13) The browse pages had no thought put into them at all... Disappointed in that regard. The cart and checkout process are pretty good however. Did the designer just need some more time?

(14) *[blank]*

(17) While there was limited time requirement for the site design, it seemed like some pages (genre) could have been flushed out a bit more. The designer has a few quirks to work out with the shopping cart order summary design. A good way to think about it is, "how can I achieve a result with as few clicks as possible?"

Designer 16 · desktop · patterns and layers

(15) Numberous small errors.

(16) *[blank]*

(18) *[blank]*

Designer 17 · desktop · patterns and layers

(13) This design obviously needs a lot of polish. Some good starting ideas, but need to see next step. I think something more impressive could be done in 1 hour 45 minutes.¶¶Search only exists on Genre page. Needs to be on all pages.

(14) *[blank]*

(18) It's a crap design, but it's "complete" in that it's been completely thought through and that person wouldn't be working with me.

Designer 4 · smartphone · no patterns or layers

(19) Some more detail in the design and layout would have helped. It is not clear if the Sitemap feature is part of the design by the applicant? A left navigation panel is not the best navigation method for such sites.

(22) *[blank]*

(29) *[blank]*

Designer 5 · smartphone · no patterns or layers

(24) Overall, the flow was definitely better than the design. Skipping the number one requirement is troubling.

(25) stab in the dark, I wouldn't hire this designer based on this wireframe

(26) poor, unusable design

Designer 6 · smartphone · no patterns or layers

(20) *[blank]*

(21) *[blank]*

(28) The designer understands some of the basic issues, but simply designed to requirements instead of putting thought into the design.

Designer 7 · smartphone · no patterns or layers

(23) *[blank]*

(24) It is obvious that you ran out of time. You made some good design choices. On the other hand, you added some uneccesary steps and ignored some of the requirements. I would defintely like to see how you would flesh-out these pages and complete the interaction flow if given more time.

(27) *[blank]*

Designer 8 · smartphone · no patterns or layers

(19) Design needs to be more detailed, and overall navigation needs to be improved.

(20) The designer does not understand the user, and their wants needs, and aquired experiences. In addition the designer has not met a number of requirements of the project, such as providing the user with the option of different media formats. The sequencing of procedures is confused from beginning to end, and the use of interaction methods for changing data and providing input is often not appropriate. For example, buttons for downloading music, or changing addresses, taking the user on to different screens creates unnecessary interactions.

(30) Shows some good thinking and attention to common shopping issues (e.g. shipping cost), but also left out specific requirements though (e.g. search function). Difficult to rate this disigner.

Designer 9 · smartphone · no patterns or layers

(23) Half-baked.

(27) *[blank]*

(29) *[blank]*

Designer 10 · smartphone · no patterns or layers

(21) *[blank]*

(25) - nicer 'feel'¶- too incomplete to rationally assess¶- this has to be a crap way of hiring a designer!

(30) Seems to understand the basics of ecommerce design and the basics of cellphone UI.¶¶Some pages could've used more thought, but it may be due to the time constraints.

Designer 11 · smartphone · no patterns or layers

(22) *[blank]*

(26) best design

(28) Again, skilled designer who made some pretty awful choices for a mobile platform.

Designer 4 · smartphone · patterns and layers

(19) Design is pretty well formed, except some problems with usability. Things like breadcrumbs and progress bars, and less cluttered spaces would make a good interface.

(22) *[blank]*

(29) I still really want in-page links (back to top, etc.) on the non-form pages, such as Genre lists-- these have the potential to grow very long.

Designer 5 · smartphone · patterns and layers

(24) I found myself wondering whether or not the designer has a good command of the english language. The decision not to label the Shipping page as such has a lot to with it. Some requirements were completely over looked as well. Namely the last two of being able to choose a previously stored shipping address or

payment method or using their cell phone billing address and billing to thier cell phone account.

(25) impossible to completely assess information-design skill from this wireframe demo

(26) *[blank]*

Designer 6 · smartphone · patterns and layers

(20) This is a conventional design. It is well done in that it is simple, easy to follow, and builds upon users previous experience with online commerce; while bring designed with the constraints of mobile devices in mind. The design does not bring a new paradigm to shopping online by mobile device.

(21) This design follows many of the conventions of other online shopping sites. Because it is consistent, customers will be able to figure it out, and any usability issues will be more annoyances than serious problems.

(28) Clearly skilled, but needs more experience with mobile application design.

Designer 7 · smartphone · patterns and layers

(23) *[blank]*

(24) Overall, I think the main problem is the failure to understand a simple set of requirements.

(27) *[blank]*

Designer 8 · smartphone · patterns and layers

(19) More details needs to be added in the page, and layout and structure should be a bit tighter and coupled with the interface as a whole.

(20) *[blank]*

(30) Considering the requirements, the limited time available, and the limitations of screen real estate on smartphones, i would say this designer has had some experience with both ecommerce and cellphone design, or is skilled enough to

figure out shopping UI problems quickly. ¶¶Would've appreciated a bit more detail.

Designer 9 · smartphone · patterns and layers

(23) Strong start. Good use of language. For the most part, seemed to follow current convention in ecommerce. So, this will be familiar to end user.

(27) I want to give this a good rating. The design was nearly complete and the flow was effective. My low marks on layout stem from the search function (again that is an assumption), as it dominates the limited screen real estate by including a search button and entry field. Would recommend putting a link to a search page.

(29) This design still shows bias towards computer screen, not mobile device, usage-- there needs to be stronger branding (TotalBooks) on each page, as well as in-page links to help users on smaller screens navigate the site.

Designer 10 · smartphone · patterns and layers

(21) I liked the checkout interaction much more than the browsing interaction on this design. I also did not see a "search" functionality on every page, as specified in the requirements.¶¶I think the user would have some problems using this site, mostly because of an overall lack in navigation and status information.

(25) - again, impossible to properly assess designer skill.¶¶- also, mobile apps don't really present themselves as linked pages, more 'states' of a given system so hard to assess IA in terms of boxes and arrows. Main thing about this last example is that user doesn't get as lost as in the previous examples.¶¶- user unlikely to shop for books or music using this app. User might buy tracks for use on iPod or similar...

(30) This designer has extensive experience in ecommerce - very well thought out pages and attention to detail. This designer was able to create a thorough

shopping experience in a short amount of time, with only minor ui issues¶¶Did not have a search function on every page.

Designer ii · smartphone · patterns and layers

(22) *[blank]*

(26) basic, simplistic design. Not elegant or unique.

(28) Bonus points for a good TY page, otherwise this is pretty bad.

Demographics

Desktop evaluators are represented with outlined squares, smartphone evaluators with solid squares.

13. What is your gender?

Male 1 2 4 5 8 12 13 15 16 17 18 19 22 24 25 26 27 28 30

Female 3 6 7 9 10 11 14 20 21 23 29

14. What is your age?

19 and under

20–29 2 8 13 14 18 19 21 28

30–39 1 3 4 5 6 10 11 12 15 16 17 20 22 24 29 30

40–49 7 23 25 27

50 or above 9 26

15. How many years of design experience do you have?

1 1 2

2 3

4 5

5 10

6 13 16 18 21 28

7 11 15 19 29

9 8 12

10 14 20 23

11 4 6

12 22

13 24

16 17 30

17 7

20 25 26 27

25 9

(Comments)

2 1–2 years
3 2.5 years
5 4+ years
19 6 years educational and 1.5 yrs professional
27 20+ years

16. How many years of *web* design experience do you have?

1 1 2 20

2 3 5 19 28

4 10 16

5 8

6 11 12 18 21 30

7 15 29

8 6 9 13

9 4 22 25

10 7 14 17 23 24 26 27

(Comments)

2 1–2 years
3 2.5 years
5 2–3 years

20 >1 year

17. *(smartphone evaluators only)* How many years of *mobile phone or PDA* UI design experience do you have?

1 20 21 22 23 28 30

2 19 26 29

3 24

6 25 27

(Comments)

20 >1 year
22 1–2 years

18. What devices have you designed user interfaces for?

GUIs	1 2 3 4 5 6 7 8 9 10 11 13 14 15 16 17 18 19 20 21 22 24 25 26 27 28
Web on a personal computer	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
PDA or mobile phone	7 9 10 17 19 21 22 24 25 27 28 29 30
Voice	5 19 21 25 27 29
Other:	
Point-of-sale interfaces	4
Businesses, products, services	6
Exercise machine visual displays	9
Cockpits, electronic flight displays, etc.	16 27
Kiosks	27
ATM-style and touch screen interfaces for gas station pumps	30

19. How many e-commerce web sites have you designed?

0 [12] [16] [20]

1 [4] [23] [28] [29]

2 [2] [3] [15]

3 [1] [8] [9] [10] [13] [18] [19] [27] [30]

4 [24]

5 [6] [14] [22]

6 [11]

7 [7] [21]

8 [17]

10 [5] [25] [26]

(Comments)

[1] several large ones - macys, beyond, currently walmart
[5] 10? *(sic)*
[9] 3–4
[17] about 8
[22] around 5

20. If you have designed e-commerce web sites, what devices were they target at?

Web on a personal computer [1] [2] [3] [4] [5] [6] [7] [8] [9] [10] [11] [13] [14] [15] [17] [18] [19] [21] [22] [23] [24] [25] [26] [27] [28] [29] [30]

PDA or mobile phone [7] [9] [10] [18] [21] [24] [25] [30]

Voice [5] [19]

Other:

Windows Media Player on a PC [1]

software to manage industrial sites [8]

(Comments)

23 For the web, but selling mobile phones and plans

21. What is your primary job responsibility?

Information architecture	10 11 12 14 21
Graphic design	8 17
Web design	1 3 13 15 18 22 24 29 30
GUI design (the overall interaction for desktop applications)	2 4 26
Mobile phone UI design	
Voice UI design	5
Other:	
Design management	6 7 23 25
Everything	9
Human factors engineering	16
User experience design	19
User research/usability testing	20
Information accessibility design (for people with disabilities)	27
Design and rapid prototyping	28

(Comments)

1 interaction design for the web

6 Team lead/creative direction/management

9 soup to nuts: IA, design, usability eng, proj mgmt, marketing, doc, edit writing, support

16 Human Factors Engineering (like GUI design, but broader with much more analysis responsibilities)

23 Online community manager, including IA, proj. management, UI design

25 UX consultancy, research and management

22. Please check the kinds of design in which you feel you are knowledgeable.

Information architecture	1 2 3 4 5 6 7 8 9 10 11 12 14 15 16 17 18 19 20 21 22 23 24 25 27 29 30
Graphic design	1 4 6 8 9 11 12 13 14 17 19 22 25 28 30
Web design	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 21 22 23 24 25 26 27 28 29 30
GUI design (the overall interaction for desktop applications)	2 4 5 6 7 8 9 10 11 13 15 16 17 18 19 20 21 22 26 27 28
Mobile phone UI design	5 7 10 19 25 29 30
Voice UI design	5 19 21 27
Other:	
Physical/hardware design	6 16
Design for people with disabilities	27

(Comments)

6 General interaction design, also with physical products
16 Hardware design

23. How many times have you bought anything online in the past 12 months?

Never	
1–3 times	
4–6 times	4 8 10 12 13 20 30
7–11 times	1 2 3 14 16 26 28
At least 12 times	5 6 7 9 11 15 17 18 19 21 22 23 24 25 27 29

24. If you have, how did you buy those items?

Through the web on a personal computer	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
Through a mobile phone	1 25 27

display	
Through an automated voice system over the phone	5 9 19 22 25
Other:	
Called 1-800 number	12

25. How many times have you bought books online in the past 12 months?

Never	
1–3 times	2 4 7 8 10 14 15 16 21 23 25 26 30
4–6 times	1 3 5 9 11 12 13 20 22 27 28 29
7–11 times	6
At least 12 times	17 18 19 24

26. If you have, how did you buy those books?

Through the web on a personal computer	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
Through a mobile phone display	
Through an automated voice system over the phone	
Other:	
Called 1-800 number	12

27. How many times have you bought music albums online in the past 12 months?

Never	2 4 5 8 10 12 15 19 21 26
1–3 times	3 7 9 16 17 18 20 22 27 30
4–6 times	11 13 14 25 28 29

7–11 times [6] [23]

At least 12 times [1] [24]

28. If you have, how did you buy those albums?

Through the web on a personal computer [1] [3] [6] [7] [9] [11] [13] [14] [16] [17] [18] [20] [22] [23] [24] [27] [28] [29] [30]

Through a mobile phone display [25]

Through an automated voice system over the phone

Other:

Desktop application [13] [23] [25] [30]

(Comments)

[6] Digital music service (desktop app)
[23] [25] [30] iTunes

29. *(smartphone evaluators only)* How many times have you bought ringtones online in the past 12 months?

Never [19] [20] [22] [23] [26] [29] [30]

1–3 times [21] [24] [27] [28]

4–6 times [25]

7–11 times

At least 12 times

30. *(smartphone evaluators only)* If you have, how did you buy those ringtones?

Through the web on a personal computer 21 24 25 27

Through a mobile phone display 21 24 25 27 28

Through an automated voice system over the phone

Other:

APPENDIX

G Materials for Judging Damask Voice User Interfaces

G.1 Consent Form

My name is James Lin. I am a graduate student in Computer Science at UC Berkeley. I would like to invite you to take part in my research. It consists of performing tasks by using a phone-based system. The purpose of the study is to learn more about the design of voice user interfaces.

If you agree to take part in my research, I will conduct a study with you at the time and location of your choice. There will be one session. I ask that you schedule one hour for this study, though it is possible that you will finish early. The study will consist of using several voice user interfaces to perform tasks, and filling out a written questionnaire after each user interface. I would like to emphasize that this experiment should be approached as a fun activity and a contributing effort. It is okay if you do not complete the task. I may ask to contact you by telephone or e-mail if there are any follow-up questions I have after our interviews.

If you agree to participate, you will receive a $20 gift certificate from Amazon.com to thank you for your participation.

There are no known risks to you from taking part in this research, and no foreseeable direct benefit to you either. However, your participation will contribute to my efforts to improve the state of the art in user interface design.

The judging results that you will create will be kept on my secured computer. We will not use any identifying information in any reports of my research. After this research is completed, I may save this data for use in future research by others or myself.

Your participation in this research is voluntary. You are free to refuse to take part. You may refuse to answer any questions and may stop taking part in the study at any time. Whether or not you participate in this research will have no bearing on your job or your relationship with UC Berkeley. If you decide to stop in the middle of the session for any reason, you will still receive the $20 gift certificate as a sign of our appreciation for your effort.

If you have any questions about the research, you may contact me, James Lin, at (408) 927-2687 or jimlin@cs.berkeley.edu. If you agree to take part in the research, please sign the form below. Please keep the other copy of this agreement for your future reference.

If you have any question regarding your treatment or rights as a participant in this research project, please contact UC Berkeley's Committee for the Protection of Human Subjects at (510) 642-7461 or subjects@uclink.berkeley.edu.

I have read this consent form and I agree to take part in this research.

_____	_____	_____
Name (please print)	Signature	Date

G.2 Directions

You are about to go on a spending spree for books and music. You will do eight shopping tasks, four for books and four for music, using the phone. Each task comes with an instruction sheet. For each task, order the item on the instruction using any other information on that sheet, such as the "account number." Write down the confirmation number and the total amount of the order. Then fill out the questionnaire after each task.

G.3 Tasks

Buy the item as quickly as possible. You can hang up immediately after you have completed your order. *(The designer numbers were not included in the actual materials.)*

Design 1 (TotalMusic) *[Designer 13]*

Buy *The White Album*.

Use the following information to check out:

- account number: **1234567**
- PIN: **9876**
- Payment method: **credit card stored in profile**
- Shipping address: **address stored in profile**
- Shipping method: **stored in profile**
- Billing address zip code: **94720**

Design 2 (TotalBooks) *[Designer 13]*

Buy *The Da Vinci Code* by Dan Brown.

Use the following information to check out:

- account number: **1234567**

- PIN: **9876**
- Payment method: **credit card stored in profile**
- Shipping address: **address stored in profile**
- Shipping method: **stored in profile**

Design 3 (TotalBooks) *[Designer 15]*

Buy the book *Life of Pi* by Yann Martel.

Use the following information to check out:

- account number: **1234567**
- PIN: **9876**
- Payment method: **credit card stored in profile**
- Shipping address: **address stored in profile**
- Shipping method: **stored in profile**

Design 4 (TotalMusic) *[Designer 15]*

Buy the album *OK Computer* by Radiohead.

Use the following information to check out:

- Credit card: **MasterCard**
- Shipping address: **home**
- Shipping method: **standard**

Design 5 (TotalBooks) *[Designer 16]*

Buy *Guns, Germs, and Steel* by Jared Diamond.

Use the following information to check out:

- Shipping address: **use address on file**
- Shipping method: **express**

- Payment method: **use credit card associated with the account**

Design 6 (TotalMusic) *[Designer 16]*

Buy *Ten* by Pearl Jam.

Use the following information to check out:

- Shipping address: **address on file**
- Shipping method: **express**
- Payment method: **credit card on file**

Design 7 (TotalMusic) *[Designer 17]*

Buy *Gordon* by Barenaked Ladies.

Use the following information to check out:

- account number: **1234567**
- PIN: **9876**
- CD or cassette: **CD**
- Shipping address: **100 Main Street**
- Payment method: **Visa ending in 1234**
- Shipping method: **USPS**

Design 8 (TotalBooks) *[Designer 17]*

Buy *Catch-22* by Joseph Heller.

Use the following information to check out:

- account number: **1234567**
- PIN: **9876**
- Shipping address: **100 Main Street, Anywhere, USA**
- Shipping method: **budget**

- Payment method: **Visa ending in 12345**

G.4 Questionnaire

G.4.1 Questions

1. What is the confirmation number?
   - ○ The confirmation number is ➔
   - ○ There is a confirmation number, but I didn't catch it.
   - ○ There is no confirmation number.
   - ○ I don't know if there is a confirmation number or not.
2. What is the total?

   ➔
3. What did you like about this interface?

   ➔
4. What did you not like about this interface?

   ➔
5. How much did you like this interface (1 = did not like, 7 = liked a lot)?

   ➔

G.4.2 Design 1: TotalMusic (Designer 13, no patterns or layers)

1. What is the confirmation number?
   - ❶ 342897
   - ❷ 342897
   - ❸ 342847
   - ❹ 342897
2. What is the total?
   - ❶ $26.00

❷ $26.00

❸ $26.00

❹ $19.99

3. What did you like about this interface?

❶ It said "goodbye" (i.e. I knew when the transaction was over and I could hang up). It asked for billing address zip code, so I had more confidence that the info contained in my profile was correct. Compared to some other interfaces, when I had to speak a selection, the words I needed to speak seemed to be clearer.

❷ It was fast and easy to use. It also appended the artist's name to the album even though I didn't supply that information. That is useful for error avoidance (purchasing the wrong album).

❸ Was pretty efficient, and the default task (shipping using my credit card, address, and method stored in my profile) was the first choice

❹ most was fast, professional, good trust

4. What did you not like about this interface?

❶ After selecting the album, I had to say "continue shopping" before I could get to "checkout". Would have preferred to be able to go directly to "checkout"

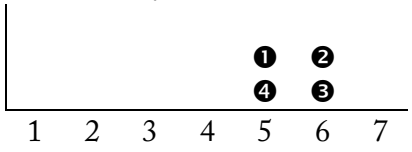
❷ Computerized voice-inflection was sometimes off.

❸ Had no problems with it, but I would wonder how hard it is to do non-default tasks.

❹ forced me to listen confirmation repeat

Forced me to confirm white album

5. How much did you like this interface (1 = did not like, 7 = liked a lot)?



mean = 5.5, median = 5.5, std dev = 0.58

G.4.3 Design 2: TotalBooks (Designer 13, with patterns and layers)

1. What is the confirmation number?

❶ 351918

❷ 351918

❸ 351918

❹ 351918

2. What is the total?

❶ $29.50

❷ $29.50

❸ $29.50

❹ $29.50

3. What did you like about this interface?

❶ (blank)

❷ Nothing

❸ I felt secure that this order was done correctly, given the amount of repetition and confirmation steps

❹ (blank)

4. What did you not like about this interface?

❶ Didn't like hearing about "featured" book (at least when I know exactly what I want, and I just want to buy it. However, it was a nice coincidence that the featured book was the exact one I wanted to buy). Didn't like hearing a bunch of options before selecting "checkout". Didn't like not being able to confirm payment/address/ship method (because it used what was in my profile). No "goodbye"

❷ The computerized voice was very difficult to understand. The voice inflection was incorrect in many places, which meant the words did not sound as they should. I could not understand much of the system and had to guess and hope I guessed right. Led to a fear of getting lost inside the system.

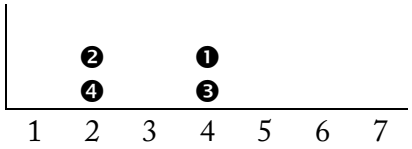
❸ Provided lots of detail, and seemed to repeat info excessively. Also, there was an extra "Place Order" step that I didn't think was necessary

❹ The initial prompt only allowed you to say a topic or the featured book

Repeated cart contents twice

I wanted Checkout, was 5th item in list

5. How much did you like this interface (1 = did not like, 7 = liked a lot)?



mean = 3, median = 3, std dev = 1.15

G.4.4 Design 3: TotalBooks (Designer 15, with patterns and layers)

1. What is the confirmation number?

❶ 364386

❷ 364386

❸ 364386

❹ 364386

2. What is the total?

❶ $17.00

❷ $17.00

❸ $17.00

❹ $17.00

3. What did you like about this interface?

❶ Quick to tell me I could say the title. Liked that it gave me the price of the book before I placed the order. Was OK that it gave info about the book, but I prefer a minimum of info (title/author/price) and if I need more info, I'll ask for it.

❷ It was fairly fast and simple to use, aside from the uncertainty concerns mentioned below.

❸ Pretty efficient, used defaults sensibly, but maybe not completely sure of where this book is being sent to (didn't confirm shipping address, just used implied defaults)

❹ really fast

4. What did you not like about this interface?

   ❶ Didn't ask for billing info. (implication is that it will use info on profile, but I would prefer confirmation of that). No "goodbye".

   ❷ There was some level of uncertainty about whether I was confirming the order vs. placing another order.

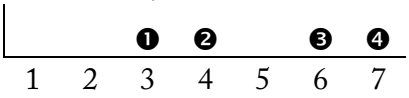
   ❸ Did not appear to let me interrupt. Did not explicitly tell me when we were done (just ended, so lacked closure)

   Question voice prompted to say "Place Your order", but as a human, I want to say "Place My order". The voice prompt wasn't worded correctly.

   ❹ what if I didn't want 1-click?. Surprising

   Ready to be annoyed about "here's some useful info" Assumed would be irrelevant

5. How much did you like this interface (1 = did not like, 7 = liked a lot)?



   mean = 5, median = 5, std dev = 1.83

G.4.5 Design 4: TotalMusic (Designer 15, no patterns or layers)

1. What is the confirmation number?

   ❶ There is no confirmation number

   ❷ There is no confirmation number

   ❸ There is no confirmation number

   ❹ There is no confirmation number

2. What is the total?

   ❶ $17.98

   ❷ $17.98

   ❸ $17.98

   ❹ $17.98

3. What did you like about this interface?

❶ That it asked if I'd like it sent to "home" or "work". Speeds up interaction. Same goes for "which credit card".

❷ It was fast to use.

❸ Pretty efficient. I liked that it could simply allow me to speak an album title, rather than having to declare what "search mechanism" I wanted to use first (smart anticipation of default approach)

❹ very fast, I trusted it

1-click

4. What did you not like about this interface?

❶ Ambiguity of how to respond to "You can do A or you can do B. Would you like to do that?" No confirmation #. No email confirmation. No "goodbye".

❷ There didn't appear to be a way to confirm that the album I purchased was the correct one, as the system never mentioned the artist.

❸ There were a couple questions where I couldn't anticipate how to interrupt to give the right voice command to make my selection. (like, "I have your standard shipping method, but for $2 extra…, do you want me to use this, yes or no?)

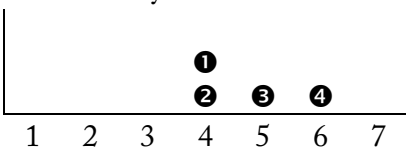
Didn't provide enough confirmation to know that I bought the right album and would send it to the right "home"

Also, I was a little surprised that it didn't tell me which credit card options I had, and just expected me to say which card I wanted to use

❹ no shipping charge and tax

I think it repeated my cart items

5. How much did you like this interface (1 = did not like, 7 = liked a lot)?



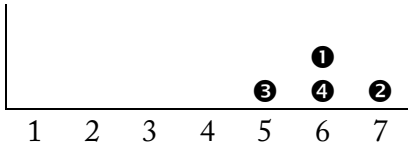
mean = 4.75, median = 4.5, std dev = 0.96

G.4.6 Design 5: TotalBooks (Designer 16, with patterns and layers)

1. What is the confirmation number?
   - ❶ 767152
   - ❷ 767152
   - ❸ 767152
   - ❹ 767152
2. What is the total?
   - ❶ $34.95
   - ❷ $34.95
   - ❸ $34.95
   - ❹ $34.95
3. What did you like about this interface?
   - ❶ Liked that selection process was fast because I could select "address on file"/"credit card on file" but the specific info was read back to me for confirmation. Liked getting email confirmation.
   - ❷ It was very fast to use, while still allowing some measure of control over where the user is in the system.
   - ❸ It worked, reasonably efficiently
   - ❹ liked it the most

     Great summary of defaults
4. What did you not like about this interface?
   - ❶ Didn't like that "say title of book" wasn't given as my first option. No "goodbye" (but at least "I'll transfer you back to the main menu" basically hints that the transaction is over)
   - ❷ I didn't have any complaints about this interface.
   - ❸ I didn't appear to be able to interrupt it. Wasn't clear if it responded to "yes" as it was listing through the choices. Plus, sometimes the answer was "yes" and sometimes the answer was to repeat a key phrase (at least according to the prompting
   - ❹ did not accept a book title in the first prompt. Had to say "title", then the book title

5. How much did you like this interface (1 = did not like, 7 = liked a lot)?



mean = 6, median = 6, std dev = 0.82

G.4.7 Design 6: TotalMusic (Designer 16, no patterns or layers)

1. What is the confirmation number?
   - ❶ 415453
   - ❷ 415453
   - ❸ 415453
   - ❹ I don't know—I hung up too soon
2. What is the total?
   - ❶ $20.95
   - ❷ $20.95
   - ❸ $20.95
   - ❹ $20.95
3. What did you like about this interface?
   - ❶ (blank)
   - ❷ It was easy to use and fairly efficient. I liked the fact that it always left a reference to a main menu in case I got "lost". I had more control as a user than in the previous two systems.
   - ❸ OK, allowed interruption, I did like the "But it Now" option
   - ❹ very fast – can answer without waiting for full list
4. What did you not like about this interface?
   - ❶ Didn't like the "ad" at the beginning (prefer that it just state the name of the business then proceed). Didn't like that I had to first state whether I wanted to search by category vs album (prefer that I just say the name of the album up front). Didn't like not knowing the price of the album before ordering. Didn't like not knowing the

breakdown between album/shipping. Would have preferred a confirmation of the address/credit card on file before going ahead. No "goodbye"

❷ It was a little slow, but that was tempered by the fact that mechanisms to go back to a main menu were provided.

❸ Seemed a little inefficient, and didn't like being forced to say the artist first.

Did not confirm shipping location (just using standard profile without confirming could be dangerous)

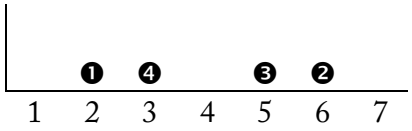
No closure, just sends back to main menu (although that's better than saying nothing at all)

❹ it said "thank you", but it wasn't done, since it had not said the conf. # yet

Bug? Didn't ask if I wanted cd

This is the first one with real problems

5. How much did you like this interface (1 = did not like, 7 = liked a lot)?



mean = 4, median = 4, std dev = 1.83

G.4.8 Design 7: TotalMusic (Designer 17, no patterns or layers)

1. What is the confirmation number?

❶ 937758

❷ 937758

❸ 937758

❹ 937758

2. What is the total?

❶ $20.99

❷ $20.99

❸ $20.99

❹ $20.99

3. What did you like about this interface?

   ❶ Summarization of order before final submit of order.

   ❷ It was fast and easy to use.

   ❸ I liked that it asked to confirm some info. Also explicitly gave me a choice on format (CD or cassette), which in real life, I might be more concerned about

   ❹ I trust it more than others, because of repetition

4. What did you not like about this interface?

   ❶ That after selecting the album, it said "you selected Gordon by Warner" where Warner is the producer, not the artist. I was expecting the artist. This interface is confusing. No "goodbye". No summing of order+shipping. Using account info on file (address/payment) and confirming it before going ahead.

   ❷ It didn't give me a full total, but a partial one for the cd and then another for s&h. I had to add them up separately.

   ❸ Did not completely let me know when the transaction was completely finished (ended on repeat or start over, but I wanted to end)

   Also, did not give calculated total, had to infer it from total + shipping amounts

   Asked me to confirm a number that I typed in (rather than spoke), which I find irritatingly inefficient and slow (that's why I type in numbers)

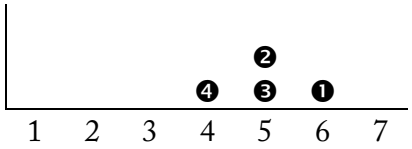
   ❹ during the product info, it didn't say Barenaked Ladies, it just said Warner Bros

   after the product info, I heard an option for Listen, but not for order. I just said order and it happened to work.

   Repeated acct #. Prefer my name

   Repeated 100 main in summary, no ambiguity

5. How much did you like this interface (1 = did not like, 7 = liked a lot)?



mean = 5, median = 5, std dev = 0.82

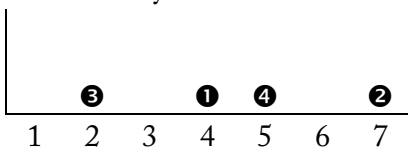
G.4.9 Design 8: TotalBooks (Designer 17, with patterns and layers)

1. What is the confirmation number?
   - ❶ 473522
   - ❷ 473522
   - ❸ 473522
   - ❹ 473522
2. What is the total?
   - ❶ $18.50
   - ❷ $18.50
   - ❸ $18.50
   - ❹ got confused, went by too fast, forgot to write down: $15 + $1.50 + something = ~$18
3. What did you like about this interface?
   - ❶ Liked that it asked for the name of book first (so I felt freer to say the name as soon as possible). Liked that it would send email confirmation. Liked that it gave info about number of days for each shipping option
   - ❷ It was the fastest one to use.
   - ❸ I was aware of all possible options (address, shipping method, credit card), but had to sit through a lot of vocalization to wade through it
   - ❹ Very fast – didn't have to wait while it repeated what I said.
     But after acct #, should have told me my name
     shipping method "budget": I said that without listening to list and it worked.
4. What did you not like about this interface?
   - ❶ Didn't like that it wanted to read through every single address. Would prefer it picked the most likely then confirm w/ me or give me the option to change it. Didn't say "goodbye".
   - ❷ The confirmation number came too quickly after the prompt. I almost wasn't ready for it. Since the machine generated 'four' came quickly after the machine generated 'for', I had a momentary bit of confusion.

❸ "Too inefficient, the ordering of presenting commands didn't put the "Default" (in my opinion) first. Also, it seemed rather late in the process to hear how much it cost (sort of after I bought it, not when I was first selecting it, which is where it should be).
Also, did not appear to pause to listen before going through the whole list of choices, and I wasn't able to easily interrupt.
no closure at the end, voice prompt was ambiguous about "Place Your order" command"

❹ Told me catch22 again, after shipping info
Too fast: I said shipping address, when giving list of 5 – it didn't give me the list.

5. How much did you like this interface (1 = did not like, 7 = liked a lot)?



mean = 4.5, median = 4.5, std dev = 2.08