(Note that the first three tasks are to be done in pairs, while the fourth is individual.)

Objectives:

- Evaluate interaction designs using best practice principles.
- Recognize interaction design patterns.
- Use Scenarios as a means to express the context of typical interactions in a system.
- Construct an interactive prototype.

Tools:

- Pencil
- URL: http://pencil.evolus.vn/
- Pencil is an open source tool for creating GUI prototypes. We will be using Pencil in this class since it is free, supports the features we need, and it runs on Windows, Linux, and Mac.
- For the group project, you may choose another tool to create your prototypes. If so, please let your instructor know.

Task 1 (pair): IxD Principles for Evaluation

In the text and slides, you should have read a description of six IxD principles:

- 1. User Familiarity
- 2. Consistency
- 3. <u>Minimal Surprise</u>
- 4. <u>Recoverability</u>
- 5. <u>User Guidance</u>
- 6. <u>User Diversity</u>

For **each** of these six principles:

- a) find a user interface (website, mobile, or desktop) that is a good example of the principle (does it well), and
- b) a user interface that is a bad example (does not do it so well).

Provide URLs and/or screen captures that you can refer to when explaining why it is a good/bad example of the principle. You may use the same UI more than once but the explanation should be distinct for each principle.

Task 2 (pair): Identify Interaction Patterns

Find websites that are examples of:

- 1. A hub task flow.
- 2. A wizard task flow.
- 3. A guide task flow.
- 4. Progressive disclosure.

NOTE: You may not use any website that already appears in your notes, is your own website, is that of someone in the class, or is from the same domain more than once. You must use distinct websites for each of the four.

You must describe each site with:

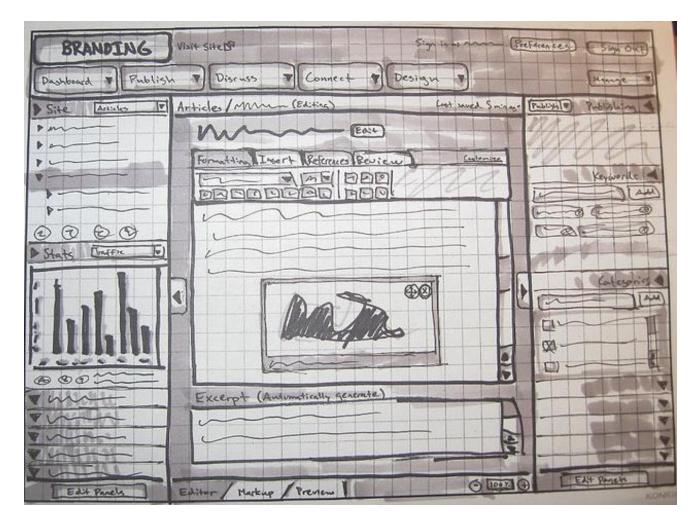
- a) A URL to the start of the flow, and the number of screens in the flow.
- b) A description of the interaction pattern used.
- c) User goal(s) accomplished by the interaction pattern.
- d) A critical analysis of whether you think the flow is appropriate for the user goal(s).
- e) Suggest improvement to the flow.

Task 3 (pair): Scenarios

Below is an image taken from Flickr (License All rights reserved by <u>dirtyalpacas</u>). It is a wireframe of some kind of application. A wireframe is a sketch of an UI emphasizing function and layout. With this sketch, do the following:

- 1. Reverse engineer a scenario description from this wireframe.
- 2. Have your partner also reverse engineer a scenario description (e.g. each of you do it separately).
- 3. When both are finished, compare and contrast what you came up with:
 - a. What is the same? Did you assume the same type of user? Similar function? Similar interaction?
 - b. What was different? Did you envision different functions, users, and interactions?

Mostly likely you and your partner will come up with different scenarios - this is expected. For more guidance on scenarios, see the slides and Chapter 29 of Sommerville, section 3. Some additional links that might help: https://pidoco.com/en/help/ux/user-scenario and https://infodesign.com.au/usabilityresources/scenarios/ (these are both brief, and the latter one includes a short example at the end.)



Task 4 (individual): Click-through Prototyping in Pencil

Background: We have used the terms "sketch", "low-fidelity prototype", "high-fidelity prototype" and "simulation" at various times in the readings and slides. Think of these terms as a continuum; from early-stage with less detail, to late-stage with more detail. Sketches include the drawings you did for the grocery cart example, and for the last lab. Lower-fidelity prototypes are non-interactive prototypes that bring sketches into a design tool (think Visio, or in Pencil using the "sketch" stencils). As you move toward higher-fidelity prototypes, you start to add support for interactions that the user may do in the envisioned application. The first such interactions you typically add are based on your storyboard – your flow. These interactions take you from screen-to-screen and explore the paths through the application, and are called "click-through" prototypes. You often use more polished stencils and artwork as well to give the customer the impression that you are moving toward a higher-fidelity prototype. Several tools support interaction up to the click-through level, including Pencil.

Task: you will individually create a click-through prototype in Pencil. On the pages attached to this lab are 5 screens taken from a former capstone project done for a local entrepreneur. You are to reproduce these screens and the click-throughs in Pencil. The transitions should be obvious enough, plus you should add an extra "home" transition on the last 3 pages to allow the end user to return home. The screens do not have to be super high-fidelity - you do not have to copy/paste all of the graphics, just block them out and include all of the text. When you are done you can export to HTML, which will produce a directory structure of linked files for your interactive prototype. ZIP UP THIS DIRECTORY FOR YOUR SUBMISSION.

Submission:

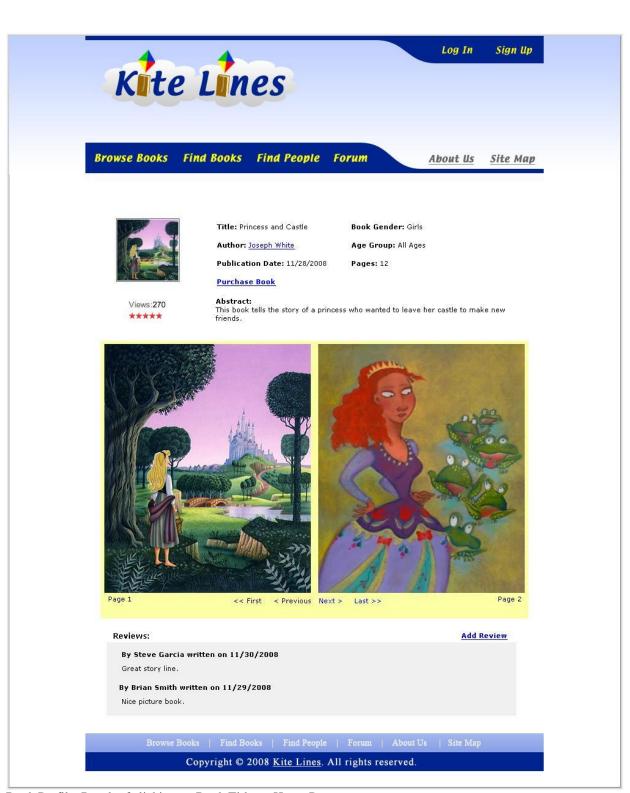
- Tasks 1-3 should be combined into a document and submitted on BlackBoard. Only one submission is required for you and your partner. Clearly label the parts of your solution, and include your and your partner's name.
- When you submit your Tasks 1-3 document to Blackboard, name it <asurite>_<asurite>_InteractiveDesign.docx, where the filename includes the asurites for both contributors.
- For Task 4, you should submit a zip file containing your prototype. This will be an individual submission.
- As always, make your work presentable. Follow the instructions here carefully, ensure your images are readable, use
 proper grammar, spelling, and punctuation, and express your opinions in a clear, articulate style.



General login page:



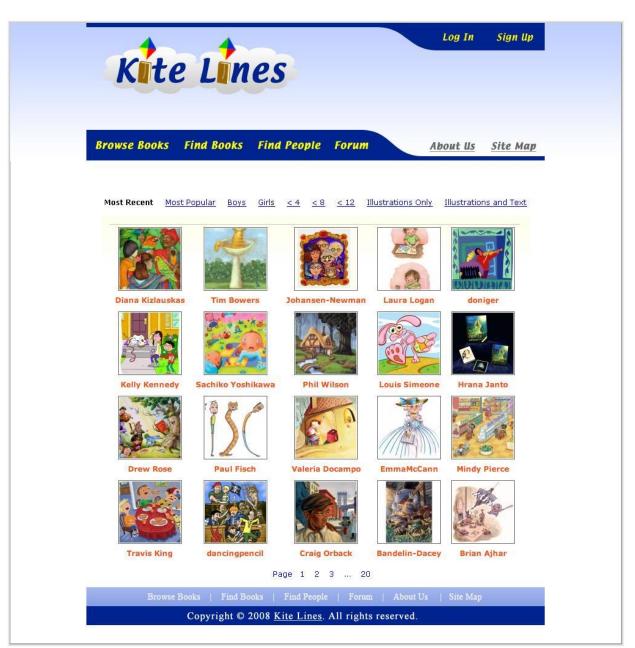




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