Introduction to Human Computer Interaction & Design
Assignment #6: Interactive Medium-Fi Prototype (Group)
Due at the start of lecture on 11/28
[Assignment from Landay of Stanford CS]

Instructor: Hao-Hua Chu
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Overview

The goal of this assignment is to learn how to build medium-fidelity prototypes of user interface ideas using an interactive user interface design tool. We'd also like you to understand the tradeoffs that entails compared to low-fi prototyping or even creating a prototype by coding. You will revise your user interface ideas based on the insights from testing your low-fi prototype with potential users and feedback received from your studio peers. Then, you will use interactive tools to build a medium-fidelity prototype of the updated and improved design.

Interface Redesign

Use the results of your low-fi prototype tests, teaching staff feedback, and studio peer comments to design a revised interface. **Develop new and/or revised task flows** for your tasks by storyboarding (sketching) your ideas (this step should be started in studio after presenting your low-fi test results). The tasks that most of you used in the low-fi assignment should be sufficient for this, but some may have been *simple or partial tasks* that did not adequately cover your proposed functionality or your functionality may have changed based on testing or our feedback. Make sure to ***revise those tasks*** if necessary. If you are changing your tasks, email TA to present your new tasks, design ideas, and storyboarded task flows for discussion.

Prototyping

You will use a prototyping tool to create an interactive prototype of your application. For most applications, we would like you to use a design tool that targets mobile platforms. We have selected Marvel, InVision, proto.io, and Justinmind Prototyper. If there is another tool that you think would work better for your project due to capabilities or expertise on your team, please contact your TA to discuss it first.

Your prototype should "implement" the three or more task flows that you developed so far this semester. You should now be making your design work with the actual target constraints (e.g., size of screen, text size, and built-in controls/widgets) of a real mobile platform (e.g., iPhone, Android, iPad, smartwatch, or Google Glass). Many of the limitations and tradeoffs you made for the low-fidelity prototype should be addressed by this medium fidelity prototype.

The ***underlying functionality does not have to be fully implemented***. For example, applications requiring large databases of information can instead have a sufficient number of hard-coded data points for supporting the three tasks. You have a short period of time to complete this prototype, so you should focus on showing only what is essential. Focus on user experience and UI, not underlying implementation. You will likely have to make some difficult choices!

Deliverables

1. Prototype

Your prototype must be accessible and/or executable by everyone in the class from your team web site (**if your team web site still doesn't exist, now is the time to get it done!**). It must be accompanied by a README file that describes the tool that it runs with and operating instructions, including any limitations in the current implementation. **If this is not working on the due date, you will get a *zero* on this assignment.**

2. Presentation

One member of your team will present your project in class during a nine-minute presentation. See the grading guidelines for information on how to structure your talk. Practice in advance! You must **make the slides available for download on your web site**. Here is an example of clear medium-fi presentations from Stanford HCI course: Huddle and Wonderlust (Note: As you're looking at the examples, please keep in mind that we've updated the instructions. Last year we asked students to compare their low-fi prototype to their medium-fi prototype to show their revisions. This year, we are asking you to compare your low-fi prototype to your revised interface sketches).

Presentation Guidelines

The presentation should follow this outline with separate sections for the top-level items.

1. **Value Prop, Problem and Solution Overview (1 slide)**
    a. If these are already solid, reuse them. Otherwise make recommended revisions.
2. **Tasks (1-3 slides)**
    a. 3 representative tasks to test your interface (labeled simple, medium, complex)
    b. Note any changes you've made from the tasks on the low-fi prototype assignment.
3. **Revised Interface Design (~6 slides)**
    a. ***Major Design Changes*** - Present the 3 biggest changes between your low-fi sketches (from last week) and the new sketches of your updated interface. Show the ***before*** and ***after*** sketches and explain your ***rationale*** for making those changes.
    b. ***Medium-Fi Prototype Task Flows*** - Present your 3 tasks as a series of storyboards of task flows (annotated screenshots from your medium-fi prototype, arrows between screens, etc.)
4. **Prototype Overview (3 slides)**
    a. Prototyping Tools
        - What did you use?
        - How the tool helped
        - How the tool did not help
    b. Limitations/tradeoffs of the current prototype (What was left out and why)
    c. Any Wizard of Oz techniques required to make it work
    d. Hand-coded features and why required
5. **Any additional prototype screenshots (as many as needed)**

Prototype Grading Criteria (Group)

____Did the medium-fi prototype make ***appropriate interface revisions*** based off studio, and user testing feedback? (40 points)

____Quality of interface implementation of the medium-fi prototype - Is the prototype of proper fidelity and detail? Can the user to accomplish your 3 tasks? Is the prototype (appropriately) user-friendly, fit the constraints of the target platform, and aesthetically pleasing? (50 points)

____Does the README file summarize any limitations or any other details needed to run it? Does the README account for all Wizard of Oz techniques used? (10 points)

Presentation Grading Criteria

The presentation grading will be broken into two components: the individual grade of the presenter and a group grade for the presentation of the medium-fi prototype and design changes. Note that you should use images liberally and try to keep the text on the slides brief (and use large fonts – **no less than 20 pt anywhere**). The grades for each of these components are explained in more detail below.

Group grade (GROUP NAME:_____)

____Representative Tasks (20 points)
- Did they provide adequate coverage of the product functionality?
- Were the tasks real, complete tasks or fragmented?

____Revised Interface Design and Medium-fi Prototype (60 points)
- Were the sketched UI revisions clear? Did you compare your old and new interfaces, identifying problems and solutions (appropriately annotated or highlighted)?
- Did your UI revisions clearly address feedback from low-fi testing, studio?
- Do the medium-fi storyboard screenshots flow together well in accomplishing your tasks? Is it clear how an action on one screen would lead the user to the next to accomplish the task?
- Did the interface fit the target platform's constraints?

____Tools (20 points)
- Were appropriate tools used & explained?
- Were tradeoffs to using the tool discussed?
- If Wizard of Oz techniques used, were they clearly explained?

Presenter grades (NAME:_____)

____Use well-designed slides. Ensure that the presentation shows appropriate preparation, and that visual aids are aesthetic, effective, prepared, and properly employed. Make sure that people at the back of the room can read your slides (50 points)

____Cover the required scope within the **9 minute time period** (not including 4 minutes for questions/feedback). Practice and time your presentation in advance as we will cut you off if you go over. You will be unable to gain points for uncovered material (20 points)

____Ensure the presenter makes eye contact (10 points)

____Ensure the presenter projects their voice well (20 points)