Interactive Medium-Fi Prototype (Group)

Due: **Monday Feb. 14 @ 5 PM PST**

**Note that this assignment is due on a Monday, not during studio.**

Overview

The goal of this assignment is to learn how to build medium-fidelity, interactive prototypes of user interface ideas using an interactive user interface design tool. We'd also like you to understand the tradeoffs compared to low-fi prototyping or even creating a prototype through coding. You will revise your user interface ideas based on the insights from your low-fi prototype user testing and feedback from your studio peers and CA. 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. Sketch new and/or revised designs for your tasks by creating new task-flows for your ideas. Make sure you take photos/scan-in these sketches and include them in your deliverable. 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 your CA to present your new tasks, design ideas, and task-flows for discussion.

Prototyping

You will use a design tool (e.g., Figma or Sketch) and optionally, a separate prototyping tool (e.g., Marvel or Invision) to create an interactive prototype of your application. For most applications, we would like you to first use a design tool such as Figma or Sketch that targets mobile platforms. For prototyping, you can create an interactive prototype directly in Figma from your basic design, or you can use a more special purpose prototyping tool (together with Figma/Sketch) that has more features such as Marvel, InVision, or Justinmind Prototyper (note that Sketch is currently not as good for adding the interaction using its built-in features -- it is best used with InVision). If there is another tool that you think would work better for your project due to capabilities (e.g., for AR teams) or expertise on your team, please contact your CA to discuss it first and get their approval before proceeding.

Your prototype should “implement” the three or more task flows that you developed so far this quarter. You should now be making your design work with the actual target constraints (e.g., size of device, text size, and built-in controls/widgets) of a real platform (e.g., iPhone, Android phone, iPad, smartwatch, AR/VR headset, etc.). You should also start working on getting the visual design aspects (e.g., color, grids, and whitespace) correct. 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 or social networks 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, UI, and visual design not the underlying implementation.** You will likely have to make some difficult decisions!

**Deliverables**

1. **Prototype**
   Your prototype must be accessible and/or executable by everyone in the class from your team website. 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.

2. **Presentation Slides**
   Your revised interface designs and medium-fi prototype will be submitted for review using presentation slides. However, **there is no presentation during the studio for this assignment.** See the grading guidelines for information on how to structure the content. You must make the slides available for download on your website.

Here are examples of good medium-fi prototypes and presentations:

**Spice**
- Medium-Fi Prototype
- Slides
- README

**Sprout**
- Medium-Fi Prototype
- Slides
- README

**Off**
- Medium-Fi Prototype
- Slides
- README

**Envio**
- Medium-Fi Prototype
- Slides
- README

**Sex Academy**
- Medium-Fi Prototype (very strong – slides less so)
- README

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https://hci.stanford.edu/courses/cs147/2022/wi/
Presentation Slides Guidelines

The presentation should follow this outline with separate sections for the top-level items. Note that the slide numbers are just suggestions, so feel free to use more slides as needed or change the order.

1. **Value Prop, Problem and Solution Overview (1 slide)**
   a. If these are already solid, reuse them. Otherwise, make recommended revisions.

2. **Values encoded (1 slide)**
   a. What values (see lecture 6-design exploration slides 46-67) do you intend to encode in your product? (make your definition as precise as possible)
   b. What design features of your product (or combination thereof) express these values?
   c. Do you foresee any conflicts between values (either explicit or collateral) arising as a consequence of your design decisions?

3. **Tasks (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.

4. **Usability Goals & Key Measurements (1 slide)**
   a. Reiterate the 2 usability goals and 2 key measurements identified in A5.
   b. How is your product progressing towards hitting these goals? What changes do you need to make in the medium-fi prototype to continue progressing towards the goals?

5. **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. These changes should be based on low-fi testing, studio feedback, and assessment of your usability goals.
   b. **Medium-Fi Prototype Task Flows** - Present your 3 tasks as a series of task-flows (annotated screenshots from your medium-fi prototype, arrows between screens, etc.)

6. **Prototype Overview (3 slides)**
   a. Design/Prototyping Tools
      - What tools did you use?
      - How did the tools help? (what was easy)
      - How did the tools not help? (what was hard)
   b. Limitations/tradeoffs of the current prototype (what was left out of the prototype & why)
   c. Any Wizard of Oz techniques required to make it work
   d. Hard-coded features and why required

7. **Any additional prototype screenshots (as many as needed)**

* Since CAs will be grading the slides without you speaking to them directly, please include as much clarification as you need in the slide notes to make it easy for your CA to understand what you did and why. You can also create an “appendix” of extra slides at the end containing any other information you want your CA to see.

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Prototype Grading Criteria (Group)

___ Quality of interface implementation of the medium-fi prototype (85 points total)
   ❑ Is the prototype of proper fidelity and detail? (20 points)
   ❑ Can the user accomplish your 3 tasks easily? (30 points)
   ❑ Does the prototype fit the constraints of the target platform (15 points)
   ❑ Is the prototype aesthetically pleasing? (20 points)

___ README file (15 points total)
   ❑ Does the README file summarize any limitations or any other details needed to run your prototype?
   ❑ Does the README account for all Wizard of Oz techniques used and hard-coded items?

Presentation Slides Grading Criteria (Group)

The slides will be graded as 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 (but take full advantage of explaining things in more detail in the slide notes). Reminder: these slides are for documentation purposes only and will not be presented in studio.

___ Representative Tasks (20 points)
   ❑ Did tasks provide adequate coverage of the entire product functionality?
   ❑ Were the tasks real, complete tasks, or were they fragmented? Were any changes from low-fi tasks described adequately?

___ Revised Interface Design and Medium-fi Prototype (50 points total)
   ❑ Were the sketched UI revisions clear? Did you compare your old and new interfaces, identifying problems and solutions (appropriately annotated or highlighted)? Did you assess how well your project is hitting your 2 key goals and 2 key measurements, and identify what changes need to be made to help hit these goals? (20 points)
   ❑ Did your UI revisions clearly address feedback from low-fi testing, studio, and your CA and give rationale for the changes? (15 points)
   ❑ Do the medium-fi task-flows work well in accomplishing your tasks? Is it clear how an action on one screen leads the user to the next to accomplish each task? (15 points)

___ Values Encoded (10 points)
   ❑ Did you precisely define which values are encoded?
   ❑ Did you clearly identify the design features of your product that express these values?
   ❑ Did you clearly explain any conflicts that may arise between these values?

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