

# CS 3205, Section 002 (Horton) - HCI in Software Development

## Project Part 3: Low-Fidelity Prototyping

(version 1.0, 3/12/17, 10am)

**Submission:** Submit your write-up as a .pdf file on Collab.

*Important:* Put your team ID letter prominently at the top of the document!

**Deadline:** Tuesday, March 28, 11:30pm

You can submit this up to 24 hours after the normal deadline for a 10% penalty.

**Note:** You WILL lose 10% if your submission is not a PDF file.

### Overview:

For this assignment, you will be building three or four prototypes for your system. This number of prototypes might change depending on the fidelity of the prototypes (I would expect one prototype per team member if they are all paper / low-fidelity, but fewer if you are using a method that requires more work.)

These prototypes can be similar to one another, but must represent competing and distinct designs. Additionally, the prototypes must be “executable” or “functional”, in the sense that a user can interact with your design (even if the interaction is simulated to some degree).

In an upcoming assignment, you will be performing some kind of evaluation, and a common choice will be to compare the quality of a subset of your prototypes. Thus, they must be distinct enough to warrant a useful and interesting comparison when given to users. If you think you might want to compare a subset of your prototypes in the next assignment, your choices in this assignment must be “comparable” in some sensible way. For example, a subset of the prototypes might implement the same user task but in different ways or with different interaction styles. Or, a subset of your prototypes could reflect different conceptual models. (In either case, don’t forget that they must be “executable” or “functional” in some way.)

### REQUIREMENTS / DELIVERABLES

You will be required to build the prototypes in question AND turn in a short write-up describing each. Your write-up should contain a description of your prototypes along with photographs, scanned images, etc. of each. You should highlight the differences and potential advantages / disadvantages of each. You may use any prototyping strategy discussed in class (paper, video, etc). You do not need to turn in the actual prototypes (e.g. the paper pieces if you do paper prototyping), but you will need them for later assignments.

Your write-up may contain the following sections:

- **Abstract:** As always, provide an overview of the document. Describe the

prototypes you built and the differences between them.

- **Usability Requirements of Interest:** You don't necessarily need this in its own separate section, but for each prototype please clarify which usability requirements could be evaluated later with this prototype. In the last part of the project, you discussed possible usability goals and requirements, this should influence your design decisions. And your experiment for the next homework will be used to investigate which prototypes best achieve some usability goals.
- **Description of Prototypes:** For each prototype, there should be a write-up explaining what we're looking at, as well as screenshots, images, etc. that allows us to understand your prototype design.
- **Design Rationale for Each Prototype:** Why did you choose that design? Why did you choose the prototyping strategy that you did? Relate these choices back to your user analysis. What aspects of your user base motivated these design decisions? How did you account for the variety of users? Is there a conceptual model you have adopted for your design? What design principles from class did you apply?
- **Comparison and analysis of the different designs:** In a separate section, highlight the differences in your prototypes. Why are these differences important? What design questions are you trying to answer by making these prototypes? If you give these prototypes to different users, how what might you learn by comparing how each prototype is used? Essentially, I want you to convince me that the differences between your prototypes are interesting (meaning that you are unsure which prototype users are going to prefer).
- **Conclusions:** Wrap up the document by briefly summarizing the information presented.

## **GRADING:**

An ideal submission will exhibit these qualities:

Paper is well thought out and robust. The prototypes are substantial enough to obtain useful information from users if given to users. Group has provided images or other relevant media to show the prototypes. The differences between the prototypes are discussed in detail, and the content of these differences is substantial and interesting.

For grading, a numeric score from 0 to 10 will be assigned to each of the following "components." Each component has the weight indicated, and your overall score will be the weighted average.

- 10% - Abstract and conclusion
- 20% - Usability requirements
- 20% - Description of prototypes
- 20% - Design rationale for prototypes
- 20% - Comparison and analysis of the different designs
- 6% - Designs presented are sufficient for your team size and problem
- 4% - Presentation and formatting

Each component will get a grade from 0-10 according to this rubric:

- **10:** For the given component, the paper clearly demonstrates excellent work. This corresponds to a clear 'A' grade.
- **9:** Paper fulfills the qualifications outlined for a score of 10 but contains one or a few minor, but noticeable flaws. This might correspond to an A- or B+ grade. This component is not quite as good as a submission that earned a 10.
- **8:** Paper fulfills the qualifications in the assignment but has more than a few noticeable flaws. The group did not go above and beyond the basic assignment requirements for this component.
- **7:** Paper has at least one MAJOR flaw. The paper makes a strong effort at fulfilling the requirements but demonstrates a major misunderstanding of at least one concept for this component.
- **6:** Paper demonstrates more than one major misunderstanding of the concepts and/or displays a lack of effort in understanding and applying the concepts from the course. Paper still contains a modicum of useful content.
- **5 or below:** Paper seriously fails in describing what's needed for this component, demonstrates multiple misunderstandings of the material, or displays a lack of effort on the part of the group.

### **Collaboration rules:**

This is a group assignment, but your group is not allowed to submit work that was created by anyone outside your group. When you submit, you will pledge that you have followed these collaboration rules.