

### PA3: Ideation and Paper Prototypes

Due: Wednesday, October 14, 3pm

Goal: Use divergent thinking to generate a huge body of design ideas for your project in a systematic way and convergent thinking to develop uses of your system. Try out and test different design scenarios.

#### Action:

1. Conduct 1 or more brainstorming sessions to support you in completing the other artifacts below. Document each brainstorming session with pictures, goals, and outcomes.
2. Create the following ideation artifacts: (a) one mood board; (b) two (or more) personas; (c) two (or more) use cases or task analyses (can be one of each or both can be one technique); (d) three (or more) scenarios; and (e) one (or more) storyboards illustrating one of your scenarios (the goal here is to allow you to directly compare different techniques for illustrating uses of your system). Recall scenarios and storyboards use personas as actors. Scenarios/storyboards can build on your use cases/task analyses.
3. "Implement" 4-5 low fidelity prototypes for uses of your system. You should have prototypes for each scenario and storyboard from step 2. At least one of your paper prototypes should be an alternative implementation of a scenario/storyboard from step 2 (i.e., you want to compare two different ways to accomplish the same task).
4. Conduct a small user study with at least 3 participants to evaluate your low fidelity prototypes (Note: The other ideation artifacts are not included in this user study). Be sure to plan your study in advance, and write a protocol – How will you recruit participants? How will you share prototypes for feedback? What tasks will you ask your participants to do, and what are the exact words you will say to give them their tasks? What questions will you ask to illicit feedback? Do you want to give a brief survey? Don't forget to prepare an informed consent form and have a way to thank your participants. Remember you cannot meet with your participants (or fellow group members) in person!
5. Create a write up that describes your ideation artifacts, paper prototypes, as well as methods, analysis, results, and discussion or your paper prototype evaluation. Be sure to include an **introduction** to your problem, and **background**, including the

main findings from your requirements analysis (“cite” your requirements analysis paper like any other reference). You should document your group brainstorm session(s) with pictures and narrative descriptions. Your write-up should **refer to your artifacts** (step 4). Don’t forget to include a conclusion. You should write no more than 6 pages in chicago-style format (in addition to artifacts).

6. Create a 10-minute presentation, as described in the syllabus.
7. Reminders: Don’t forget to submit your division of labor, schedule, and checkpoint (see below), and maintain your project journal (see syllabus for details).

Deliverables:

1. Division of labor, schedule, and checkpoints due Friday, 10/2, 11:59pm via Slack (in your group channel). Include a checkpoint you will complete by Wednesday, 10/7. **List this checkpoint separately.** Be sure your checkpoint is specific, quantifiable, and reasonable (i.e., you can accomplish it, but it will reflect progress, and I can clearly determine that it has been achieved).
2. Classroom presentation (10 min). Please be prepared for one member of the group to share their screen with Slides in Zoom. Include a .pdf or .ppt file with your Moodle submission.
3. Written report (max 6 pages, double-spaced). Submit a .docx or .pdf file with your Moodle submission on Moodle. All artifacts and paper prototypes should be included as figures in your written report, and referred to in the text. Images do not count towards page length.
4. Project journal entries (see syllabus for details; include with your submission on Moodle).

For items 2-4 submit separate files in the Moodle assignment submission.

5. Individual reflection (see syllabus for details) submitted individually on Moodle (separate assignment description from the project).
6. Consent forms should be collected on Qualtrics and shared with me. If you give any surveys, they should be collected on Qualtrics and shared with me. Use your project name in the name of any survey you create.
7. All data collected, including notes from your paper prototype evaluation should be in the shared project folder on Box.
8. Data sheets with participant IDs should be in the shared ID folder on Box.