

CMPT 381 Assignment 1: Design Basics

Due: Sunday, Sept. 24, 11:59pm

Overview

In this assignment you will design a user interface to demonstrate your skills with the iterative design process (including personas, task descriptions, sketch-based prototypes, screen design, and task walkthroughs).

Your job is to design a GUI for a student note-taking app (called Notary) for university students. The app will be used on a tablet device such as an iPad.

Part 1: Personas

Based on your own experience and discussions with other students, develop a persona for a representative user of Notary. An example persona is provided below. Your persona description should have the same headings as the example persona, but should be substantially different in terms of content (i.e., the persona you create should lead to different tasks and different interface design ideas than the example persona).

Your persona descriptions should include the following headings:

- Name
- Demographics and Background
- Goals and Needs
- Motivations
- Experience with Technology

All information in your persona descriptions should be relevant to the design problem.

Name: Lilian

Demographics and Background: Lilian is 25 and is a 3rd-year student in the Art & Art History program. She takes a full load of courses each term, and so has a busy schedule. Lilian is a good student and plans to apply to the Honours program next year. Lilian is going through her program with three of her best friends (Sanjeet, Dave, and Hector) and they are in several of the same classes. Lilian is active on social media and is an active participant in the Art & Art History student society. Lilian can be impatient when she is busy and thing slow her down.

Goals and Needs: Lilian wants to make comprehensive notes about her courses – she wants to get down as much as possible about what occurs in lectures. Some of Lilian's classes post lecture slides online, and Lilian wants to connect her notes to the slides. Some of Lilian's Art History classes are highly visual, and the prof often points out specific elements in drawings and paintings. Lilian reviews her notes each week, and uses them as a study aid before midterms. Lilian often compares notes with her friends, and takes part in group study sessions.

Motivations: Doing well in her courses, feeling like she is well organized and on top of her tasks, staying connected with her friends, being able to quickly find the notes she is looking for.

Experience with Technology: Lilian is very experienced with mobile touchscreen devices, and has owned an iPad for several years. She is a good touch typist, and is also good at sketching (often with the Apple Pencil stylus).

Following the format used for Lilian's persona, create a different persona who represents a different types of user for the Notary app. Your persona should be substantially different from Lilian, and should lead to different kinds of tasks and UI design ideas.

Product of part 1: a PDF document named <NSID>-persona.pdf with a written persona description (1 page maximum).

Part 2: Task Descriptions

Devise five task descriptions for the Notary interface – two for Lilian, and three for the persona you created. Refer to the lecture notes for information on what goes into a task description, and include the following headings:

- Task Name
- Persona
- Importance and frequency (including justification for your ratings of these two factors)
- Description (one paragraph)
- Specific data that will be used in the task
- Specific constraints and goals relevant to the task

Write five task descriptions (maximum one page each). The tasks should be substantively different.

Product of part 2: a PDF document named <NSID>-tasks.pdf with five written task descriptions.

Part 3: Interface Sketches

Based on the information in your personas and task descriptions, sketch interface ideas for Notary that correspond to your five task descriptions. You will hand in three sketches for each task (so, 15 sketches in total). The sketches should be complete enough that you can carry out task walkthroughs with your tasks, and should cover a wide range of approaches (that is, don't sketch three variations on a single idea). Refer to the lecture notes about what you should try to achieve in your sketches, and remember that your ideas don't all have to be good ones. Your artistic ability will not be evaluated.

Take pictures of your 15 sketches and put them in a document (one per page); below each sketch, write the name of the corresponding task. If any of the sketches have multiple parts, put all parts on the same page and clearly indicate how the pictures relate to the task.

Product of part 3: a PDF document named <NSID>-sketches.pdf with labelled images of your 15 sketches

Part 4: Task-based Walkthrough Results

For one of your sketches for each task (5 sketches in total), carry out a task-based walkthrough using the corresponding task description. Make detailed notes about what worked well and what caused problems. Create a one-page report for each walkthrough that gives a summary of the walkthrough results. Use the following headings:

- Task Name and Sketch Reference
- Steps that succeeded
- Problems encountered (and reason for the problem)
- Summary of strengths and weaknesses

Product of Part 4: a PDF document named <NSID>-walkthroughs.pdf with walkthrough results (1 page per walkthrough)

What to hand in (each student will hand in an assignment)

- Four PDF documents, one for each part of the assignment.
- This is an individual assignment – each student will hand in separately
- Review the material in the course syllabus regarding academic honesty, and follow all guidelines when completing this assignment. If you have any questions, contact your instructor.

Where to hand in

Hand in your files to the Assignment 1 link on the course Canvas site.

Evaluation

- *Part 1:* The created persona follows the required format, is substantially different from the example persona, and contains ample detail that could be used in the design process.
- *Part 2:* The task descriptions follow the required format, are clearly described, are important to the persona that they are for, and are well thought out in terms of required detail.
- *Part 3:* The interface sketches are clearly connected to the tasks, show a range of interface ideas, clearly convey different approaches to the task, and contain enough detail to run a task-centred walkthrough.
- *Part 4:* The walkthrough results follow the required format, demonstrate a thoughtful evaluation of the sketch, provide details about and reasons for problems encountered, and provide a meaningful summary of strengths and weaknesses.

In general, no late assignments will be allowed, and no extensions will be given, except for emergency or medical reasons. (If you wish to use your one-time free extension, you must send a message to the instructors at cmpt381@cs.usask.ca before the deadline; note that you may not receive any confirmation).