

EECS 3461: Assignment 3 (Assignment 2, continued)

Due: Thursday, July 25/29, 2019

(10 % of the final grade)

Motivation

This assignment will allow you to practice the final stages of User-Centred Design methodology: creating a working prototype and usability testing.

Introduction

The assignment is the continuation of Assignment 2.

The goal of this assignment is to build an image-editing application based on the requirements you determined in Assignment 2, taking you through one complete iteration of the full development lifecycle for an interactive product. The application you build should aim to meet the requirements you have determined to be appropriate, based on the results of applying the chosen usability methods.

Description

Implementation

The implementation can be done for an environment of your choice. For a desktop application, it could be Java Swing or JavaFX; for Android it could be Java through Android Studio; for the Web – HTML/CSS/JS, and so on. It's possible that you encounter challenges along the way; consider replacing non-working functionality with stubs imitating it (similar to the Wizard of Oz approach; see further in this document).

You may use any image processing libraries available; just make sure you cite them properly. Describe your design approaches briefly in the first part of the report document (e.g. frameworks and tools used, IDEs, third party libraries). A suggested length of this part is one page or less.

Testing

Use one or more of the testing methods of the UCD methodology to evaluate the usability of your application. In particular, consider how it supports the use case(s) you determined at the earlier stage.

Document and summarize your findings in the second part of the report. The suggested length is about two pages. You may attach video clips (not more than 30 s), illustrating your arguments.

Demo Video

Produce a short video (under 2 minutes) illustrating the functionality of your application. It may either be a screen capture, or a recoding of a user using the application made with an external camera. The content of the video is more important than its technical merits.

Overall Plan:

- high(er)-fidelity prototype, with some interactivity and some partial interactivity should be demoed in class on July 25 (aim for 3 to 5 minutes)
- complete project is due on the last day of Summer term classes, July 29

Grading

The assignment is worth 10 % of the final grade.

The success criteria for the assignment is the degree to which you communicate the conceptual model. There should be evidence of revision to your conceptual model, as a result of reflection during the design process moving from low to higher fidelity prototyping.

It is also possible that some of the functionality you mentioned in Assignment 2 will not be fully implemented. Nevertheless, try to communicate your conceptual design and interaction flows through the use of stubs, placeholders, and graphical elements, creating a quasi-interactive experience.

Your work will be evaluated based on the following:

Implementation (~65 %)

- degree to which the functional and non-functional requirements have been addressed
- calibre of the prototype: graphics/visuals
- calibre of the prototype: interaction
- input device considerations
- consideration of design revisions/elaboration between design and implementation stages

Presentation (~35 %)

- Quality of the video demo
- Quality of writing and quality of the presentation
- Quality of the in-class presentation

Other (no specific weight value; to be added depending on the assignment)

- ways in which assignment may have gone beyond the bare minimum requirements

Submission

By July 29th submit the following:

- a complete set of files of the programming project, zipped, named **project.zip**
- a written report as a PDF document, named **Assignment_3.pdf** and submit it electronically via Moodle. Insert any screenshots, or other illustrations into your main report.
- (optionally) testing video clips, named **Testing_NUM_Description.mp4**, e.g., **Testing_01_editing_failure.mp4**, **Testing_02_crop_very_quick.mp4**
- Demo video, named **demo.mp4**

The deadline is firm. Contact the instructor *in advance* if you cannot meet the deadline explaining your circumstances.

Academic Honesty

Direct collaboration (e.g., sharing your work) is not allowed (plagiarism detection software will be employed). However, you're allowed to discuss the assignment requirements, approaches you take, etc. Also, make sure to state any sources you use (online sources, books, third party libraries, etc.)