Group Project (50%)

Welcome to the group project! This project will let you experience a full cycle of the user-centered design (UCD) process, including requirements gathering, prototyping, and evaluation.

There are three parts in this group project. In the first part (10%) you are going to conduct a Heuristic Evaluation on an interface and specify design requirements. In the second part (15%) you are going to create prototypes implementing the design requirements you came up with. In the third part (25%) you are going to evaluate your design, provide recommendations for improvement, and reflect on the process.

There are three submission deadlines: Part 1 – Jun 18, Part 2 – Jul 16, Part 3 – Aug 6. All will have until 11:59p on that day to submit (see the Submission section for more details).

Each group will have at most five members. When you have formed a group, go to Canvas and assign yourselves to a team. This should have been done by now. Groups with less than 5 might be assigned with someone without a group.

Overview

Your team is tasked to design the interface for an online calendar that facilitates different kinds of activities for university students.

This document describes Part 3 of the project.

Part 3: Analytical Evaluation & Reflection (25%)

Good job! You have reached the last part of the project! There are four components in this part. They have different submission formats, methods, and deadlines.

Component 1: Cognitive Walkthrough

Design a cognitive walkthrough activity to evaluate the V-MFP you made in Part 2 and find one person (not from your team) to evaluate it with you. Follow the steps listed below:

- Come up with the context and a scenario within which your application will be used.
- Determine who the potential/target users are based on the personas you developed in Part 1/2.
- Create a representative task supported by the V-MFP and describe the exact sequence of actions required to complete the task. Be careful not to “give away” what the evaluator is supposed to do (e.g., “click the button that says ‘add user’ at the top right corner” – Not OK, “click the correct button to add a user” or “tell the system to add a user” – OK). Put this sequence into Table 1.
- Find someone in your class (to simulate a UX expert) and conduct the cognitive walkthrough with them by informing them about the context and scenario, showing them the V-MFP, and having them to perform the task. Ask them questions at each action and fill out the rest of the table. Write notes on the side (as an extra column) if you notice anything interesting or if they provide any useful suggestions/comments. To do it remotely, the evaluator will share their screen using the V-MFP, while your team will walk them through the steps on the other end.
- Summarize your results by describing how the prototype supported the task. Highlight strengths about the design (supported by comments from the evaluator) and any weaknesses (evidenced by issues arose during the walkthrough). Provide suggestions on how to improve the design. Use screenshots/images to illustrate your points when appropriate.

Action Sequence	Does the user know what to do given the action?	Can the user find the right interface component to perform this action?	Can the user associate the feedback from the interface to the correct action they perform?	Does the user understand the feedback so that they know where they are in the task after performing the correct action?
Action 1:				
Action 2:				
Action 3:				
…				

Table 1. Action sequence and questions for Cognitive Walkthrough.

Your submission document must include all the steps listed above. For details of each step refer to Lecture Slides for Week 10. Keep this section to 4 pages. Again, assume the readers are developers who do not know about the details of this assignment (but are familiar with concepts such as UCD and design requirements) – your writing should thus be self-contained.

Component 2: Reflection

Reflect on the steps you have taken from Part 1 to completing the Cognitive Walkthrough. Discuss what you have learned by practising each step and how it brings your design closer to the final product. These steps include (but not exhaustive, you can add the activities you have done to facilitate these steps): Heuristic Evaluation, Requirements Gathering & Specification, Prototyping, and Cognitive Walkthrough.

You can use screenshots/images to illustrate your points. Limit this discussion to 3 pages.

Component 3: Demo Video (due on 1 Aug, 11:59p)

Create a short (3-5 minutes) video that walks us through your H-MFP and V-MFP. Show the key features of the prototypes (watch the demo video of FlexCase in Useful Resources for ideas, though you are not expected to have that level of polish). Besides the time limit, here are some extra requirements:

- Include information about your team. Keep it less than 10 seconds.
- Start with a brief overview of the project, what it is designing and for whom it is designing.
- Encoded as an MP4 using the H.264 codec.
- Resolution of at least 1280px x 720px.
- Use 16:9 aspect ratio.

Upload your video by 1 Aug, 11:59p to SFU Vault (https://vault.sfu.ca/) and email the shared link to the instructor (v_cheung@sfu.ca). It is a hard deadline (no late submission or extension) as we will be showcasing them during out lecture on 3 Aug. See link to MediaSite on Canvas for previous term's videos.

Component 4: Individual Team Contribution (due on 9 Aug, 11:59p)

This is an individual component. Each member needs to download the contribution form provided in the Canvas page and fill out the form on their own. This includes percentage of contribution to the overall project (the percentages should add up to 100%, not everyone contributed 100%), and justification (e.g., list what you have help creating/conducting). We will use this to adjust the final marks for each member.

Be honest. If there is a big discrepancy between your evaluation from yourself and from others, we will likely be using the majority evaluation plus additional deduction for dishonesty.

Submit this form to a separate Assignment entry on Canvas.

Submission

Submit a zip file including your report (submission document in a single PDF file, name it as Part3Documentation.pdf) and the prototype file you used for Cognitive Walkthrough (1 .fig file) to the corresponding folder on Canvas **by Aug 6**. Begin your document with a cover page. Only one person per team needs to submit the report. Name the file as (X being you team number on Canvas): **TeamX_GroupProject_Part3.zip**

Assignment late penalty: 10% per calendar day (each 0 to 24 hour period past due), max 2 days late.

Submit the **demo video** to SFU Vault (https://vault.sfu.ca/) and email the shared link to the instructor (v_cheung@sfu.ca) **by 1 Aug**, 11:59p. This is a hard deadline.

Submit the **contribution form** to a separate Assignment entry to Canvas by **9 Aug**, 11:59p. This must be done individually. This is a hard deadline.

Overall Layout and Format of the Submission Document

(1 page of cover page) Stating that it is Group Project Part 3, followed by your team number, information of all your team members (names, SFU emails, and student IDs. **(4 pages max)** Begin your report by stating the context, scenario, and potential/target users; followed by the representative task and the tablet of action sequence and questions (filled with answers from the Cognitive Walkthrough activity) and summary of your results. **(3 pages max)** Then present your reflection.

Your report should be using 12-pt Arial font, single spacing, with 1-inch margins. **It should have at most 8 pages** (including the cover page). Screenshots or sketches of your prototypes can be added in the appendix which will not be counted towards the 8-page limit. Only include those relevant to this Part.

Useful Resources

- How to conduct a Cognitive Walkthrough: https://www.interaction-design.org/literature/article/how-to-conduct-a-cognitive-walkthrough
- ID-Book Chapter 16 Section 2: Inspections: Heuristic Evaluation and Walk-Throughs
- Screen recorder: OBS: https://obsproject.com/
- Video editor: OpenShot: https://www.openshot.org/
- Sample demo video: FlexCase: https://www.youtube.com/watch?v=B3gp9CMiVf4

Notes on Cognitive Walkthrough

Under normal circumstances this part would have been conducted using a traditional Usability Testing methodology, where you will design a set of questionnaires and invite 3-5 representative users to use the interface in front of you and answer the questionnaires.

As the University has made the decision that most courses for the Summer 2021 term (including this course) have to be conducted remotely, this in-person interview process is not available. Hence the use of Cognitive Walkthrough. Please however familiarize yourself with the usability testing approach with the materials provided in the lectures as well as the reading materials.

Academic Honesty

It is expected that within this course, the highest standards of academic integrity will be maintained, in keeping with SFU's Policy S10.01, "Code of Academic Integrity and Good Conduct." In this class, collaboration is encouraged for in-class exercises and the team components of the assignments, as well as task preparation for group discussions. However, individual work should be completed by the person who submits it. Any work that is independent work of the submitter should be clearly cited to make its source clear. All referenced work in reports and presentations must be appropriately cited, to include websites, as well as figures and graphs in presentations. If there are any questions whatsoever, feel free to contact the course instructor about any possible grey areas.

Some examples of unacceptable behavior:

- Handing in assignments/exercises that are not 100% your own work (in design, implementation, wording, etc.), without a clear/visible citation of the source.
- Using another student's work as a template or reference for completing your own work.
- Using any unpermitted resources during an exam.
- Looking at, or attempting to look at, another student's answer during an exam.
- Submitting work that has been submitted before, for any course at any institution.

All instances of academic dishonesty will be dealt with severely and according to SFU policy. This means that Student Services will be notified, and they will record the dishonesty in the student's file. Students are strongly encouraged to review SFU's Code of Academic Integrity and Good Conduct (S10.01) available online at: http://www.sfu.ca/policies/gazette/student/s10-01.html.

