

Assignment 4

Grading: Score out of 100 (Question 1: 25 points, 2: 50 points, 3: 20 points, 4: 5 points)

Due date: Wednesday, November 16 at 11:59 pm on Brightspace

Lectures covered: 11, 12, 14

Format: Please use Times New Roman size 12 font and normal margins

Submission: Submit *two PDFs* with the following naming conventions:

“Lastname_Firstname_A4” and “Lastname_Firstname_Wireframe”

Plagiarism warning: this assignment is to be done individually (although you may recruit other students in class for feedback)

Preface

In this assignment, you will be able to take everything you have learned from the previous assignments to suggest improved designs for your interface. If, for whatever reason, you want to work on a different interface for this assignment, that is fine, but you will have to fill in any gaps you need from previous assignments (although there is no need to report here on any new work that you did).

Note that for gathering feedback, you have the option of doing it in person or online. While the latter can be tricky with sketches, go for whatever option you are most comfortable with for this assignment. You can always send any storyboard sketches as images and then discuss them online, or do a video call where you show your storyboards while you discuss. Remember to always get the user’s informed consent before you get started.

Software needed

We have been issued a license from Balsamiq for the purposes of this course. *Please note that you cannot share this license with anyone outside of this class.* The Balsamiq website also has some great resources and tutorials to get you started. Take a look [here](#) as a first step, and you can always refer to [their full documentation](#) and check out some [samples](#).

License Key:

COMP30082022|67egeJxzCncxiQ+pcfb3DVAwNjCwUDAyMDKqMTQzs7Q0MrEwAAEAo0gIWg==

Download link: <https://balsamiq.com/wireframes/desktop/>

Question 1

25 points / 5 points unless indicated / Lecture 11

- a) Indicate what **interface** and **task** you have selected, provide a picture/screenshot, and indicate whether they are the same as the ones you picked in Assignment 3. If one or both are not the same, explain why you made that change.
- b) Are there any **Gestalt principles** that are violated in your interface? Go through *each of the four* that we covered and explain whether you think it was met or not using an example and a screenshot. If a principle is not applicable, explain why (10 points).
- c) Give a clear example of an **adaptable** function in your interface and another of an **adaptive** function, and for each one explain whether you think that selection works well in your context. If there are no adaptable or adaptive aspects, come up with possible examples for your interface that you think might help usability.
- d) Based on everything you have done so far across assignments, including this question, identify 2-4 **design problems** that you think are the most significant barriers to usability in your interface (focusing mainly on your selected task); use design concepts/principles and cognition concepts, as appropriate.

Question 2

50 points / Lecture 12

- a) Focusing on your selected task and guided by your primary persona from Assignment 3:
 - i. Create *two* different **storyboard sketches** (with annotations) for how your updated interface could be like. Include clear pictures of your storyboards in the submission and indicate your starting assumptions (10 points).
 - ii. Explain how each of the design problems you highlighted in Question 1d have been addressed in one or both of your updated designs (5 points).
 - iii. Gather informal feedback on your two designs from any friend or family member. Report on what their main feedback was, which version they preferred, and which design you selected (no need to provide any questions or transcript; 10 points).
- b) Following from your selection, create *one* **wireframe prototype** for the new version of your interface and save it as a PDF. As part of your submission, you need to create at least four pages in Balsamiq, all of which are properly linked through buttons/links in your design (do not use the Go Back option). Your grader needs to be able to navigate through everything and complete your selected task, so test it out yourself before submitting. Provide notes at each step to help guide the grader (make sure to check the "Include wireframe notes" when you export). Provide enough detail on your wireframe so that the interface is clear, recognizable, and visually appealing and so that your design improvements are clear (25 points).

Question 3

20 points / 10 points each / Lecture 14

- a) Carry out a **cognitive walkthrough** by yourself using your completed wireframe. Provide the questions and clear yes/no answers to each question, together with explanation and any notes.
- b) Compare your updated design to the original design using **KLM-GOMS**. You can use the cognitive task analysis that you did in Assignment 3 to help you with this (if your interface includes a touchscreen or anything else that is not included in KLM-GOMS, substitute the missing action with a mouse click). Which option takes the shortest time, based on this model? Explain whether you think the result is logical.

Question 4

5 points; Lectures 11-14

Reflect on what you have done in this assignment. To help you think, consider the questions provided below. Your answer should be one or two insightful paragraphs and you need to elaborate on at least *two* of these questions.

- What would you have done differently if you were doing a full study in real life and had more time and options?
- Looking across Assignments 2 to 4, which tools, techniques, methods, or design concepts were most useful for you in developing your updated designs? These could be data gathering approaches, design principles, personas, task analysis, etc.
- What can you say about sketching/storyboarding versus wireframing? Was it helpful to go through a storyboard first or would you have gone straight to wireframes?
- Do you think paper prototyping would have helped you here, either as a replacement for storyboards or as a middle step? Explain.
- What other personas would be relevant for your interface, and how would you have included their input?
- Would a pluralistic walkthrough have been more helpful instead of a cognitive walkthrough? Or following from a cognitive walkthrough?