A3: High-Fidelity Prototype & Summative Evaluation

The purpose of this assignment is for you to develop and conduct a summative evaluation of a high-fidelity prototype, and provide a summary of whether your prototype meets its design goals.

DUE DATE: submit on MarkUs, by November 26, at 12:00pm (noon).
GRADE: 10% of your final mark

What to do

In this part of the project, you will build a high-fidelity prototype based on the results of A2, and conduct an evaluation of your high-fidelity prototype. No prototype will be perfect, so we will be looking for insights that you gain in this stage that would feed into an improved design. More specifically, your team must:

- Implement a functional prototype of the system based on the results of A2. The prototype must be one that can be installed and used.
- Execute a user study testing the system.
- Collect and analyze the results of your evaluations
- Provide an overall assessment of your prototype, identifying aspects of the prototype that were designed well and those that need to be improved
- Determine what changes to the new system are suggested by your evaluation

We will then have final presentations by each project group during class on November 29.

What to submit

The output from your work is an *Summative Evaluation Report* which will likely be about 20 pages double-spaced. It should include the following:

1. A link to your **high-fidelity prototype**, with instructions for how to install and launch your prototype. Test your instructions to make sure that they are clear and correct. Test your software to make sure that the prototype you submit works. Include a description/storyboard of how your prototype supports the functional requirements and job stories from previous assignments. (30/100 pts)
2. Your **evaluation protocol**, including a description of the **tasks** and **participants** involved in your study. You should also provide the **rationale** for the evaluation tasks and materials you employed (20/100 pts)
3. A report of the **results of the study** (data presentation). Include all of the raw data in an appendix of the report (20/100 pts)
4. A **discussion of the results** and **implications** (of how your prototype succeeded and how it can be further improved) with respect to your design criteria (20/100 pts)
5. A **critique of your evaluation plan**. Reflect on your experience conducting your evaluation: what would you have done differently knowing what you know now. Given more resources, what could you have done that would have produced significantly more insightful evaluation results. (10/100 pts)

You are encouraged to make your report as usable and engaging as possible for your audience. Use your design and presentation skills to communicate your message in the most optimal way, including images, charts and tables. Your report must include user quotes, to support your observations. You should also include links to (3 to 5) brief video clips (or audio clips, if video is not possible) of users interacting with and reacting to your system where relevant (e.g. as a complement of quotes for instance). Each of these video/audio segments, should be carefully clipped, and must not exceed 1 min in length.

In addition to the sections described above, your report should include:

- title page with a meaningful title, your names, your emails, your tutor's name, the course name and
- number, and the date
- a table of contents
- a statement of "who did what" on the assignment (include the estimated amount of time each of the members spent on each of the listed parts).

Your report must be typed. Submit your report as a single PDF document on MarkUs (1 per group).

How will it be graded?

The criteria for this assignment are as follows:

High-fidelity prototype (30 pts)
- Overall quality of the high-fidelity prototype (10 pts)
- The high-fidelity prototype supports the functional requirements and job stories (10 pts)
- The high-fidelity prototype addresses all of the issues identified in A2 (10 pts)

Evaluation protocol (20 pts)
- The study materials includes a clear and well articulated description of the research protocol, with the appropriate level of details for the participants to be fully informed when giving consent (4 pts)
- The tasks and participants involved are well described/explained and well motivated (4 pts)
- The data collection methods are well described/explained (4 pts)
- The evaluation criteria are well described/explained and well motivated (4 pts)
- The evaluation instruments are of good quality (4 pts)

Results of the study (20 pts)
- Basic statistics about the participants and the data collected are appropriately reported (5 pts)
- Results of the study are appropriately discussed with regard to the evaluation criteria (5 pts)
- Report of results is complete and well organized (5 pts)
- Findings of what worked well are clearly discussed and well documented (5 pts)
- Findings of what did not work well are clearly discussed and well documented (5 pts)

Discussion and implications (20 pts)
- Interpretations of the bright spots (what works well) are insightful and well supported (5 pts)
- Interpretations of the limitations and issues are insightful and well supported (5 pts)
- Proposed changes are relevant, well described and well thought out (10 pts)

Critique (10 pts)
- The critique of the current evaluation is reflective and insightful (5 pts)
- Suggestions for improvements or future works are appropriate and relevant (5 pts)

All of the criteria will be graded using the same following scale:

100% - Outstanding. The criterion was satisfied perfectly or nearly perfectly.
75% - Good. The criterion was satisfied well.
50% - Satisfactory. The criterion was satisfied.
25% - Weak. The criterion was partially satisfied..
0% - Very poor. The criterion was not satisfied.

Further, penalties will apply for late submission, violation of submission instructions, poor presentation, and spelling & grammar issues:

Late submission
Late submissions incur a penalty: see the Course Policy.

Violation of submission instructions
Failure to comply to submission instructions will incur a penalty up to 10% of your grade.

Poor presentation
The report must present information in a well structured and organized manner. The content must be relevant, but concise. The presentation style of the report (e.g. formatting, layout) must be consistent and conscientious. Poor presentation will incur a penalty up to 10% of your grade.

Spelling & Grammar
Word processors offer spelling and grammar checking. Major spelling and grammatical errors will incur a penalty up to 10% of your grade. Note that documents submitted with less than University-level writing quality will be returned unmarked.