A1: Formative Studies

The purpose of this assignment is to give students experience in understanding a set of users & their needs and documenting this understanding in a thorough report.

> **DUE DATE**:   submit on MarkUs, by October 22, at 12:00pm (noon).
> **GRADE**:   10% of your final mark

What to do

The key goal of this part of the project is to deeply understand the problem that you are addressing, its set of pertinent users, and the issues & constraints that are involved in the problem. To accomplish this, you will need to conduct field studies (using the different techniques that we discussed in class) and perform an analysis on the gathered data to acquire this kind of information. Begin by creating a field study protocol (start with these templates for the study protocol and consent form) and designing your study instruments.

Additionally, you should include an assessment of the existing ways of accomplishing the task that has been designated as this term's project topic. By the end of this phase, you will need to have identified important characteristics about the **task**, the **users**, and other relevant **context** as well as **requirements** that will influence your subsequent design.

What to submit

The output from your work is a *User Needs & Analysis Report*, which will likely be about 20 pages double-spaced (excluding the appendices). It should include the following:

1. **General Problem** (10/100 points)
   The general problem for your design project sets the context for all your activities, analysis, and the requirements. Include:

   - a short description about the general problem that your group is attempting to address
   - any relevant background materials or research motivating why this problem is interesting
   - an overview of your stakeholders (including users)

2. **Field studies** (30/100 points)
   This section should include summaries of what field studies you carried out and the data gathering techniques, a description of your study protocol(s), and a brief summary of the data you collected. Explain what you did, why you did it, how you did it, and what kind of data you found. Your field studies must include at least 2 different data gathering techniques out of the following:

   - interview with a stakeholder group (could be your users)
   - questionnaire administered to a stakeholder group (could be your users)
   - natural observation of your primary user group (should include an investigation of users' environments, and artifacts they may use).

Submit the actual study instruments you used in the appendix (this includes the observation plan(s), the interview protocol and questionnaire(s) that you used, and the study protocol and consent form). Include your instruments before and after piloting them. But don't forget to summarize and describe these in the main body of the report!

3. **Experience map** (20/100 points)
   Develop an experience map to guide the next phase of your research. Piece together, and map out your findings into a big picture of how and why your target population complete a task, how they feel and what they think. Identify research opportunities: develop key takeaways that highlight both the bright spots as well as breakdowns and issues.

4. **Job stories** (20/100 points)
   Formulate the general job your target users hire your system for, and develop a set of 5 job stories that define the user motivations, behaviors and desired / expected outcomes in different situations (note that a similar situation may lead to different desired outcomes).

5. **Design requirements** (20/100 points)
   Based on what you have learned in your field studies and your analysis, summarize what your design must achieve as a set of 5 functional requirements.

6. **Appendices**
   These should include the following:

   - Field study protocol (from [template](#))
   - the questionnaire(s)
   - interview protocol
   - natural observation protocol
   - consent form (from [template](#); submit a blank copy, keep completed confidential forms on file until the end of the term)
   - useful raw data (don't worry about typing this up if handwritten; this can be scanned in)
   - group meeting notes (don't worry about typing this up if handwritten; this can be scanned in)

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 one paragraph executive summary of the document on the second page
- 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 (1 per group) as a single PDF document on [MarkUs](#).

How will it be graded?

The criteria for this assignment are as follows:

General Problem (10 pts)
- The general problem is well articulated and well described (1 pts)
- The general problem falls under the theme, is relevant and original (3 pts)
- The general problem is well motivated (3 pts)
- All of the stakeholders are described, and descriptions are well articulated (3 pts)

Field studies (30 pts)
The two field studies that you chose will be graded using the same criteria:

- The details of the data gathering technique are described and well articulated (2 pts)
- The data gathering technique is appropriately chosen: the choice is well discussed and motivated (2 pts)
- The study protocol and consent form explains what the study involves (including the risks) in clear terms (2 pts)
- The study instruments have been piloted and improved (1 pts)
- The final study instruments (i.e. observation plan, interview script, or questionnaire) are well prepared and of good quality (4 pts)
- The discussion of the results is well articulated and insightful (4 pts)

Experience map (20 pts)
- The experience map is well organized and clearly presents information (3 pts)
- The different stakeholders and contexts are identified (2 pts)
- The phases of the journey are relevant (2 pts)
- Completeness of quantitative and qualitative insights mapping (5 pts)
- Quantitative and qualitative insights are appropriately mapped out (3 pts)
- Touchpoint(s) and interaction(s) with touchpoint(s) are identified (2 pts)
- Bright spots, where the experience is working well, as well as the breakdowns and issues (gaps and seams) are identified and insightful (5 pts)

Job stories (20 pts)
Each of the ten job stories will be graded using the same criteria:

- The job story is well formulated (2 pts)
- The job story is relevant and well supported (2 pts)

Design requirements (20 pts)
Each of the five functional requirements will be graded using the same criteria:

- The functional requirement is well described and motivated (2 pts)
- The functional requirement is a relevant and important one (2 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.