Milestone #1: Problem statement, formative study, and personas
CSC4700/7700 – Spring 2026

This document describes the process of preparing and submitting the first deliverable of your team's projects.

Deadline:
1. Report – February 22, 2026 11:59 P.M. EDT.

Platform: One member of each team needs to submit this report on Gradescope. **Make sure you add all group members during submission.**

Text Format: PDF in Arial font 11 size with single column and single spacing.

Page Format: Maximum 5 pages. You do not have to fill up all 5 pages with content. **Your goal for deliverables should be to clearly convey your ideas, methods, and results.** If you can manage that using fewer pages, it's perfectly fine.

Structure:

1. **[20 points] Problem Statement (About 1 page):** The problem statement is where you should clearly provide answers to the following questions:
   a. What is the problem that your team is trying to solve?
   b. Why do you think this problem needs solving?
   c. What solutions exist currently, and why are they not sufficient?
      i. Check both commercial products and research projects (https://scholar.google.com/)
   d. Why do you, as a group, want to solve this problem?

2. **[35 points] Formative Study (About 2 pages):** In this section, you have to identify target users and learn from their experiences to identify the problem and ideate potential solutions. You have to provide information on the following:
   a. **Instrument:** Survey/Questionnaire or Interviews (Lectures 4 and 5).
   b. **Participants:** Perform surveys with at least 25 participants or perform observations or interviews with at least 5 participants. You must document who the participants are. To that end, collect their demographic information (e.g., age, gender, education, financial status, etc.), practice and usage information (e.g., exposure to technology, usage statistics, etc.), challenges they face, and ideate solutions that could overcome them.
   c. **Procedure:** Provide information about which instrument you chose and how you applied it. Clearly explain the data collection protocol. How did the data collection take place? What did the participant do during the data collection process? Add

information on how long the process took, and if they were compensated for their participation. **Provide as many details as possible.**

d. **Data Collection and Analysis:** Clearly explain what data you collected, how you documented it, and how you analyzed the data. Regardless of your choice of analysis process (Affinity Diagram or Thematic Analysis (Lectures 7 and 8)), provide explanations of the analysis process. Feel free to add figures and screenshots wherever appropriate.

e. **Results:** What did you find from your analysis? Explain the findings clearly.

3. **[35 points] Personas & Tasks (About 2 pages):** In this section, you have to provide specifics about personas and tasks that will help you design solutions:

a. **Personas (10 points): Create 2 user personas for your specific problem**. To learn more about personas and how to create them, refer to Lecture 9. To create your personas, you can use a tool like Microsoft PowerPoint or Adobe Illustrator. You can also use one of the several free online persona generators. Of those, we recommend using Uxpressia (https://uxpressia.com/personas-online-tool) or Xtenso (https://xtensio.com/user-persona/). However, these free sites will let you create a limited number of personas for free. **Provide your personas in the report as pictures and describe each of them to explain them.**

b. **Task examples (10 points): Provide at least 2 different task examples** based on the user personas you have created in the previous question. A task example is a complete task that one of your personas performs or wants to perform that your system should support. **Remember, task examples are system-independent, meaning the tasks should not depend on the solution you will create** (which does not exist at this point)**.** To learn more about task examples, refer to Lecture 9 AND Lecture 10. Clearly explain the tasks separately from each other. The tasks should be significantly different from each other.

4. **[10 points] Participation (0.5 pages):** In this section, you have to provide the list of team members who worked on the project and specify who did what.

This part should be filled out by each participant themselves and then vetted by the rest of the team members.