Deliverable: #1 - Project Proposal
Title: SE2: Software Design and Architecture (CS 446, ECE 452, CS 646).

Description:

This term's project will focus on building mobile apps. The app should be implemented as a Native Android app (i.e., not built using an app builder or a framework like React/Node.js or HTML5). The app must be useful, it must take advantage of being on a mobile platform (e.g., utilize and integrate with _several_ services offered by the device), and it must run on a mobile phone (tablet support is fine, but it must be demoed on a phone). Apps cannot require crowd buy-in (e.g., it must be useful even if the app has only one user), they cannot simply replicate the functionality of a website, and they must not be simple CRUD apps. Finally the app should use at least 2 architectural styles and 2 design patterns (other than Singleton) that have been discussed in class.

The project proposal is a description of what you intend to accomplish over the rest of the term for this project. It should describe your system and what you intend it to do. Emphasis on projects that are interesting / useful is preferred; use this project to build something that excites your team! A scaling factor will be applied to the final project grade to account for its difficulty and your individual effort as part of the team; we will provide feedback on this aspect of your proposal so you can have an approximate idea of what this factor will be if your team completes the proposed work in a completed app. If this is going to be below a certain threshold, then we will give out an idea for you to implement. The scope of the project should assume at least 6h / week development time (e.g., 6 team members * 6h / week * 12.5 weeks = approximately 450 hours in total). This should be enough time to complete an interesting project.

Document Requirements:

1. Page 1:
   - Metadata: Project title, team member names, team member Quest IDs, Private Github repository link.
   - Note all metadata should only be in page 1. Any meta-data in other pages will result in a zero in this deliverable.

2. Page 2:
   - What is your project?
   - Why is it interesting?
   - Describe and justify your project selection.
   - Why does this project make sense in a mobile form factor?

3. Page 3-5:
   - What are the functional properties of your system. Numbered point form is fine (e.g., 1, 1.1, 1.2).
   - Provide at least two user scenarios to describe how a user would interact with your system and what the benefit to them would be. These should each be 1-2 paragraphs and can refer back to your numbered functional requirements.
   - Choose an appropriate architectural view like sequence diagrams to represent your scenarios.
   - A description of the non-functional properties your system needs to support. There should be at least two of these. Justify why these properties are important for your system.
   - A description of the human values addressed in your system. There needs to be at least 1 of these.
   - Who are the stakeholders of the system? At least 2.
   - Which population of users will use this system? At least 1.
   - NOTE: We will compare your architecture and final demo against these functional and non-functional properties.

4. Page 6:
   - A set of low-fidelity mockups. Sometimes a set of simulated screenshots / hand drawings can make describing the system easier. You can forward reference these from the functional properties / user scenarios as required.

5. Only one team member needs upload this document to Learn. PDF only.
   File naming scheme: `cs446-d1_<project-name>.pdf` (use − instead of space in file names)

Note: If you are choosing to build a proposal for the idea that we share, then the questions in page 2 will not be graded as we share this information. Those points will be reassigned to the questions in pages 3-6. There is no penalty for using our idea.

Assessment:

This deliverable accounts for 5% of your final grade.