

[CS304] Team Project - Proposal (10 points)

Presentation: week 5 lab session (no rearrangement)

Report submission: Before presentation. 40% penalty for late submission.

Part I. Project Proposal (4 points)

Your team should provide a written report that propose your team project. The report should include the following information.

Project Overview

You should briefly describe the proposed project. In particular, you will describe:

- Who are the target users or clients of the proposed system?
- What are the functionalities of the proposed system?
- What is the expected outcome or overall goal of the proposed system?

Preliminary Requirement Analysis

You should provide a preliminary requirement analysis of the proposed system, which includes:

- Functional requirements: list the features of the proposed system (see below).
- Non-functional requirements: e.g., usability, safety, security, performance, etc.
- Data requirements: e.g., which data is required? How to get the data?
- Technical requirements: e.g., the operating environment and tech stack that you'll use for developing and executing the deliverables.

The proposed system should have at least 5 distinct, notable features. Below is a list of 5 [features for WeChat](#), for your reference. You may also check the feature description for popular mobile Apps on App store for inspiration.

WeChat Features

1. Find your friends more easily

Search and add friends directly via WeChat ID or mobile number. Start chatting once your friend request has been accepted.

2. Start a free chat anytime and anywhere

Whether you want to send messages or share photos and videos, you can chat freely through WeChat. Wherever you go, you can immediately get in touch with the people you care about using WeChat.

3. Share on Moments

On Moments, you can share your life's favorite experiences using photos or videos with your friends, and also see your friends' Moments at any time. Let's share on Moments!

4. Free video and voice calls

Get face-to-face with your friends and family instantly via WeChat. WeChat allows you make free video and voice calls no matter where you are with one friend or a group of friends.

5. Hilarious and cute stickers

If you're unable to express your feelings in words, then send a sticker to make your chats more fun. Designed by talented artists around the globe, WeChat's Sticker Gallery offers users free downloads sending of countless fun stickers. Come and select your favorite stickers to chat with your friends!

Please note that the granularity of "features" should be as high level as the above example, while different features should have different scope (i.e., orthogonal). Take the "Intelligent IDE" project for example. "Smart code editor" and "version control integration" are two distinct features for having different scope, but "smart code editor" and "auto-indentation" are not, since "auto-indentation" is in fact part of the "smart code editor". In addition, while "smart code editor" can be considered as 1 feature, "auto-indentation" might only be considered as ~0.3 features.

Part II. Task Decomposition & Planning (5 points)

You'll use the **Github Projects** board for project planning (see lab 2 for using Github Projects).

First, break the high-level general features into a set of user stories:

- In the "Board" view, add a "Product Backlog" column to GitHub Project board.
- Add users stories to this column. For each user story, provide a brief description in the form of "As a *type-of-user*, I want to *some-goal* so that *some-reason*." as we introduced in the lecture.
- Set priority or labels for each user story

Then, break each user story into a set of actionable issues (tasks) that will be tackled in the first sprint:

- In the same view, add a "Sprint Backlog" or "Todo" column to GitHub Project board.
- Add issues (tasks) to this column. For each issue, provide a brief description (e.g., "implement user registration").
- Assign issues to group members

Finally, set up dates and durations for each issue. The ending date for the current planning should be week 9 (i.e., the first sprint).

- In the "Roadmap" view, set start date and duration for each issue.

Your team should use this board to track the progress as we described in the lecture. In addition to the "Product Backlog" (user stories) and "Sprint Backlog" (tasks for this sprint) columns described above, you should also have "In progress" and "Done" columns on the board once the first sprint starts.

Part III. AI Usage (1 point)

You may leverage AI (e.g., ChatGPT、文心一言、通义千问, etc.) to assist the above processes. Please provide a report that describes the details of how you use AI. The report should answer the following questions.

- Have you used AI to propose features for the project?

- Have you used AI to conduct the preliminary requirement analysis (e.g., identify functional and non-functional requirements)?
- Have you used AI to generate user stories?
- Have you used AI to generate issues or tasks?

For each question, if your answer is "yes", please briefly describe your usage of AI. For example, if you've used ChatGPT, provide your prompts and the responses from ChatGPT. Do you use AI-generated responses directly, or are you primarily inspired by AI responses but didn't directly reuse them? Please also briefly explain.

For each question, if your answer is "no", please use AI to generate the content for Part I and Part II, and compare them with your manual answers. Which are better? Do you think that AI can assist the requirement analysis? Or do you think that human are better at this task? Please describe your observation.

Submissions

Submissions should all be made on GitHub Classroom instead of Blackboard.

You should write a report that includes part I, II, and III.

For part II, you only need to include snapshots of your GitHub Projects board. The snapshots should show the "Product Backlog" (user stories), "Sprint Backlog" (todo tasks for the first sprint), and the roadmap view. Meanwhile, we'll also check the GitHub Projects board of your team repository.

The report should be submitted by each team to your team repo that was set up in lab 1 (see lab 1 notes for details).

- Upload the report with the name `report1-teamID.md` to the team repo. You can find your teamID [here](#).
- The file format of report should be `.md` markdown files. Other file format such as `.pdf`, `.docx`, `.txt` will NOT be accepted.

Team Presentation

Basic requirements (up to 50% points will be deducted if failing these requirements):

- Each team will give a 10-minute presentation **in the lab session of week 5**.
- Every team member needs to show up during the presentation and describe his/her individual contribution.

What to present:

- Proposal of the project.
- Plan for the first sprint.
- Tasks assigned to each group member.

You may prepare slides, which are, however, not required.