Project Assignment 0 (PA0)

Total scores: **30 points**

Duration: 1 week.

This is a teamwork assignment.

Group registration

You are asked to form groups of 3-5 students each and to register your group by filling in the registration form using the provided Google Sheet.

You need to specify your group name and group leader. The first person on the form is supposed to be the group leader.

You need to specify the student id, full name, and email address of each member in your group.

Link of Google Sheet: To be announced
Deadline: To be determined

Project proposal

Discuss within your group to propose a software project that your group will be working on. It is highly recommended that the project be focused on developing mobile apps (preferable) and Web applications (less preferable). Your apps should not be too large (more than 20 screens or functions) or too small (less than 4 screens or functions). You apps should have at least 2 actors (2 types of users).

Write a description of your project in ½ to 1 page, which includes the following information:
- Introduction: briefly describe your idea and reason why it is worthy to do.
- Target users and environments: who are your app's users, what environments they will use (devices, OS, Web, etc.)
- Key features: list the key features for the app.

You may talk to the TAs so that they can provide you suggestions or feedback on your proposed project. After submitting, TAs will review your proposal and approve or suggest changing it.

Team Contract

Before starting projects, groups are asked to search and build their own team contract documents.

Here is a set of requirements for the team contract documents that groups should follow:

Team Roles and Responsibilities:

Define each team member's role (e.g., Project Manager, Developer, Tester, etc.).

Clearly specify each member's primary responsibilities and tasks.

Communication Plan:

- Outline communication tools (e.g., Slack, email, Zoom) and the frequency of meetings.
- Establish protocols for decision-making and conflict resolution.
- Set expectations for response times to messages and deliverables.

Work Schedule and Deadlines:

- Agree on project milestones and deadlines.
- Specify availability of team members for meetings and work sessions.
- Include contingency plans for missed deadlines or unexpected delays.

Code and Documentation Standards:

- Define coding conventions and tools (e.g., version control via Git).
- Outline expectations for code reviews and testing procedures.
- Include guidelines for project documentation.

Accountability and Performance:

- Set criteria for measuring contribution and quality of work.
- Establish a process for handling underperformance or lack of participation.
- Include consequences for not adhering to the team contract.

Decision-Making Process:

- Define how decisions will be made (e.g., majority vote, consensus).
- Outline who has the final say in case of disagreements.

Conflict Resolution:

- Set a framework for resolving disputes between team members.
- Identify steps to escalate issues if necessary (e.g., involving a supervisor).

Review and Update Process:

- Specify how and when the contract will be reviewed and updated.
- Ensure flexibility to make adjustments as the project progresses.

This contract will help set clear expectations and foster collaboration within the group.

Development Tools

Deadline: To be determined

One of the main goals of this project assignment is to help you practice teamwork for professional software development. We will assess and evaluate your effectiveness in team collaboration. Everyone is required to work closely with others on the group to deliver results. And we will use tools to monitor and assess each group's teamwork performance.

You are required to use the following tools:

- **Moodle**: used for posting and submitting assignments.
- **Facebook group**: used for general notifications, class discussions, and questions/answers. This group includes everyone from both classes. Please join the group. If you are NOT using Facebook, please let us know so that we can have an alternative way of notifying you.
- **Google Drive or other similar tools (One Drive, Dropbox…):** used for document storage and collaboation.
- **Slack or other similar tools (Discord, Telegram, Messenger, Zalo, Viber, Skype…):** used for discussions and interactions among group members in the project. Each member should check the communication app frequently.
- **Jira or other similar tools (Trello, Assana, Google Sheets…):** used for task management. We will apply the Scrum model in the projects. All tasks, including documenting tasks, self-training tasks, coding tasks must be logged on these tools with their working times. Groups must paste the screenshots of all tasks on weekly reports.
- **Github/Bitbucket/Gitlab**: used to store source code and documentation. Each group will be belonging to a team/repository on Github/Bitbucket/Gitlab and should have the following folders (your repos should be in private mode):
  - /src: used to store source code
  - /docs: used to store documentations, which has the following folders
    - management: storing planning documents, reports (weekly report, project status report, etc.)

- requirements: storing all requirements, including vision document and use cases
- analysis and design: storing all analysis and design related documents, including software architecture document, UML models, UI design
- test: storing all test documents such as test plan, test cases, test reports
  - /pa: including subfolders to store submissions. Each subfolder contains one PA submission.