CPT202 Software Engineering Group Project

Assignment 2 – Group Report and Presentation

Start date	24th Feb 2025
Due date	27th April 2025
Assignment type	Group assignment
Percentage in final marks	Group Report 20% + Presentation 10% = 30%
Late submission policy	5% of the awarded marks shall be deducted for each working day after the submission date, up to a maximum of five working days. Late submissions for more than five working days will not be accepted.
Important notes	• Plagiarism results in the award of a ZERO mark; all submissions will be checked by Turnitin. • The formal procedure for submitting coursework at XJTLU is strictly followed. Submission link on Learning Mall will be provided in due course. The submission timestamp on Learning Mall will be used to check late submissions.

Learning Outcome
- A. Work as part of a development team demonstrating effective communication and interpersonal skills to design and develop a software system.
- B. Demonstrate an understanding of the software development process including the principal methods and issues involved in deploying systems to meet business goals.
- D. Understand the role of properly written documentation in the process of software development.
- E. Recognize the legal, social, ethical and professional issues involved in the development and deployment of a software system.

General instruction

By week 10, your team should have already implemented 3 software increments. Therefore, you are required to make the first release of the software. It is expected that you have already completed the major system architecture, system-level software design, some main features, and various testing for 3 increments.

In this assignment, your team is required to write a group report and deliver a presentation.

- The group report must be in the format given in the Group Report Template, which is provided in the Assignment Package. It is important to note that the report must be <u>at most</u> 12 pages, excluding appendixes.
- The presentation is expected to be recorded in a 10-minute video. In the presentation, provide the summary of the work conducted to arrive at the first release of the software. The software used in the software demonstration must be accessed from the URL pre-allocated to your team. The URL must be made clear at the beginning of the software demonstration. For verification purposes,

the software from the URL must remain unchanged for 1 week after the submission of the presentation.

The marking criteria and the weighting are based on the following factors: -
A. Group Report
1. Report quality (15%):
The report should be well presented. The language used in the report must be clear and concise. Whenever appropriate, use images or drawings to aid understanding.
2. Introduction (15%):
The introduction presented in the report must sufficiently show your understanding of the project background and initial requirements.
The project background should be described from general to specific. It must include a problem statement, project aims, user characteristics, project scope, assumptions and dependencies, and project risks that are clearly outlined.
A use case diagram should be presented to help describe the project scope. It must be written within the scope of the requirements at the same time to avoid obvious omissions.
3. Architectural Design (25%):
The overview of the architectural design should be clearly stated and justified.
The system architecture details should be provided, and an overall architectural diagram should be presented to represent the system's structure.
An ERD of the structure of your database should be provided with a sufficient explanation of the structure.
4. Software Design (25%):
Show a high-level process flow for each essential function, illustrating how the software is modularized. It is better to add diagrams and code fragments to clearly describe these services.
Describe the supporting services your software may have used, i.e., Git, Docker, maven, etc., and explain how these services help you during the development.
Explain the coding standards, structure, and conventions followed in your project, ensuring they are logical, easy to understand, easy to follow, and efficient.
Describe the production environment clearly.
5. Software Testing (10%):
How the software testing is conducted should be described in terms of unit testing, integration testing, and acceptance testing. The testing process, testing data, and results (screenshots) also should be included. Make sure to show sufficient test data and test results.
6. Conclusion and Future work (10%):
A conclusion should be given regarding what your group has done, what your group has achieved, and what problems are in your software for now. Future work should be given as well in terms of what work your group will do and related timeline if possible.

B. Presentation

1. Understanding of the project (40%):
   The presentation should show a good understanding of the project in terms of the project background, architectural design, software design, and database.
2. Software Demonstration (40%):
   The software demonstration should cover all the aspects of the software, including front-end and back-end processes, as well as database access. The demonstration should proceed in a use case with close-to-real data and emphasize the core use case.
3. Presentation Skills (20%):
   The presentation should demonstrate effective communication at an appropriate pace. Any slides used should have a clear layout and proper use of visual effects. Figures are well presented, and the presentation is well timed.

Individual contribution

We recognize that each member of the team may contribute differently to the group report and the presentation. Therefore, you are required to fill out, sign, and submit an Individual Contribution Form, which is provided as part of the Assignment Package. The contribution (%) in the form indicates the overall contribution of an individual on this assignment. The team leader should arrange a meeting to discuss and complete the form in the presence of all members. The contribution percentage for everyone must be agreed upon by all other members. In the case where a contribution cannot come to an agreement, the team could seek help from the module leader. Please note that only works that can be assigned with the due date can be considered as contributions to the assignment, for example: -

- Writing the report or presentation slide
- Presenting or demonstrating in the presentation
- Editing the report or video

The following works are not to be considered contributions: -

- Participating in the discussion
- Providing ideas and comments.
- Providing financial support.

Submission and markings notes:

- Your team is expected to submit the following documents: -
  o Group report (PDF format; 12 pages max with a font size 10)
  o Presentation slide (PDF format)
  o Presentation video (10 minutes max, 100MB max)
  o Source code in a **<u>single</u>** Zip file
  o Individual contribution form (PDF format)
- Name your documents accordingly: -
  o Group report: CPT202-A2-Report-*GroupXXX*.pdf
  o Presentation slide: CPT202-A2-Slide-*GroupXXX*.pdf
  o Presentation video: CPT202-A2-Video-*GroupXXX*.mp4
  o Source code: CPT202-A2-Code-*GroupXXX*.zip
  o Individual contribution form: CPT202-A2-Contribution-*GroupXXX*.pdf
- Each team must submit ONLY one copy of the above documents by the team leader via Learning Mall

- When preparing your source code, take note that: -
  - Files in proprietary or non-standard file formats may not be readable and so are likely to be ignored.
  - Do not submit the compiled binary, which will cause your zip file to be overly large.