ITCS371 Introduction to Software Engineering
Faculty of Information and Communication Technology

Project Phase 2, Semester 1/2023

Score: 8 points

Due date of submission:
Sunday, November 5, 2023 @ 23:59 via GitHub

Project description:

This second phase of the project emphasizes deep analysis and the creation of design diagrams. We primarily use Data Flow Diagrams (DFD) to illustrate the project details. Every level of DFD ensures that our analysis and design are accurate and consistent. Students should show their understanding on how to use software models for their project, as seen through the data flow diagrams.

The expected outputs and scores

Item	Minimum expectation	Score (%)
1. Revision of the deliverables presented in the 1st phase and the list of changes with an explanation	At least 1 change from your previous phase that improves your analysis and design	5
2. Functional decomposition diagram (Structure chart)	At least 7 processes at Level 1	15
3. Data Flow Diagram Level 0 (Context diagram)	The diagram is completed	5
4. Data Flow Diagram Level 1	All processes are required	30
5. Data Flow Diagram Level 2	All processes are required	30
6. List of data stores and attributes	It must align with the DFDs	15
Total		**100**

Detailed description

1. **Revision of the 1st phase deliverables accompanied by a list of modifications and their justifications.**

   Revise the work you submitted in the first phase based on the instructor's feedback. If you wish to enhance and align the analysis and design with the detailed design in the 2nd phase, make those revisions too. Subsequently, compile a list of the changes and their reasons in a text file titled “RevisionLog.md”. For example, you can provide the following text in the file if you add a new use case called “Check National ID Card”.

   Revision Log

   Added *Check National ID Card* use case: This use case has been added because it fulfills the registration process.

2. **Functional Decomposition Diagram**

   Your functional decomposition should include a minimum of 7 processes at Level 1. Ensure it encompasses all essential functional requirements, not just those from the first phase. The decomposition may extend beyond 2 levels.

3. **Data Flow Diagram Level 0 (Context diagram)**

   You need to provide a Data Flow Diagram Level 0 (Context diagram). You can either submit the one from the first phase OR adjust it to ensure alignment and consistency with the more detailed levels of DFD.

4. **Data Flow Diagram Level 1**

   You are required to submit a Level 1 Data Flow Diagram for all processes.

5. **Data Flow Diagram Level 2**

   You are required to submit a Level 2 Data Flow Diagram for all processes.

6. **List of data stores and attributes**

   For this deliverable, you are expected to submit a comprehensive list of data stores, ensuring alignment with the DFD. This list should detail:

   - The name of each data store.
   - Its corresponding attributes.

   It's essential to demonstrate that every data flow and data store has been accounted for.

The overall evaluation criteria

Your delivered outputs will be marked based on the following criteria.

1. **Completeness of your analysis**: For example, the detailed analysis represented in DFD.
2. **Correctness of the diagrams**: For example, the diagrams must conform to the rules and convey the correct meaning. Refer to the lecture slides for consistency rule checks.
3. **Consistency:** The analysis and diagrams must be consistent, for example, actors and processes should match with the business description and requirement specification, and both internal and hierarchical consistency of DFD must be maintained.
4. **The quality of deliverables:** for example, readability, spelling, and grammar.

Submission and presentation instructions

GitHub

1. We will use GitHub as our main medium to conduct the project as in the first phase.
2. You can use issues in GitHub to ask and communicate with the instructors. However, note that verbal feedback from the instructors can be delivered during office hours.

Submission on GitHub

1. The only work from commits **before** the deadline will be marked. For example, if a commit after the deadline has been found, the project will be rolled back to the eligible commit before the deadline for grading.
2. Files in your GitHub repository must be clearly identified which part of the project that the files are contributing to. For example, a file name should be meaningful e.g., project description, use case, and DFD Level 1.
3. All deliverables must be uploaded to your GitHub repository under a folder named **"phase-2"**. The work that is not contained in the repository will not be graded. For example, the work will not be graded if you add your correction to an issue.
4. All deliverables must be viewable via the GitHub website. Note that you can use any tools to draw diagrams but make sure that you upload a viewable version to your GitHub repository.

Your score will be deducted if you do as following:

1. *** Only the work that is submitted before the deadline is graded. Having no work submitted before that means a ZERO score ***
2. *** All required items must exist in the GitHub repository to be graded, otherwise your project phase 2 score will be ZERO ***
3. Failure to follow the instructions will make you lose points.
4. Any issues/problems/obstacles in progressing your project must be informed before each deadline.
5. Any issues/problems that happen outside the rules stated above will be considered by all instructors. The decision and the penalty from the instructors are final.
6. In the case of plagiarism, the project phase 2 score of the plagiarizing group will be ZERO.