

Assignment-3

Monday 15-1-2024 @ 23:59 pm

Architecture and Design

Overview

- The goal of this assignment is to develop the architecture and design of your product.
- In this deliverable, you are required to produce a detailed design of the GRADS system. The design must be an object-oriented (OO) design and refined down to detailed descriptions of each operation and attribute, with documentation to explain and justify your design.

Deliverables

1. Software architecture 20%

- Provide an overview of your system. Specifically:
 - Identify and describe the major software ****components**** and their functionality at a conceptual level.
 - Describe in detail what ****data**** your system stores, and how. If it uses a database, give the high level database schema. If not, describe how you are storing the data and its organization.
 - A written explanation of and justification for the design you chose, including specific rationale for the decisions made in the design (for example, why your design may be better than another or why you chose to implement a specific design pattern in one of your system/subsystems).

2. Software design (Class + Sequence Diagrams) 80%

- **A static model** (UML class diagrams and class descriptions). This section must contain a complete class model (possibly broken down into sub diagrams to simplify the figures), a high-level English description of the model, and detailed description of each class (class description, attribute descriptions, and method descriptions).
- **Dynamic models** (UML sequence diagrams). This section should contain sequence diagrams illustrating **four of the major use cases** of the system. You may include more than three diagrams if you choose.

Deliverables

You are required to turn in the requirements document, your use-cases, and a use-case diagram. You can put your use-cases and diagram as a chapter in your requirements document.

Submission instructions:

Canvas – at least one member of the team should actually submit.

1. **ProjectName_LastName1_LastName2-ArchitectureDesign.pdf**