Faculty of Engineering, Alexandria University
Computer & Communications Program

CSE226
Programming-II

Lab 6 Assignment

SkillForge UML Design

Authors

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Please note all diagrams are in **vector format**, which means you can zoom-in infinitely without pixelation. Please use that feature if a certain diagram is unclear at first.

1. Use Case Diagram

1.1. Outline

Use case diagram is a diagram that shows the relation between actors and use cases. The actors (users that use the system) are students, instructors and admins. The use cases (functions provided) include: enroll in courses, creating courses and approve courses.

1.2. Diagram

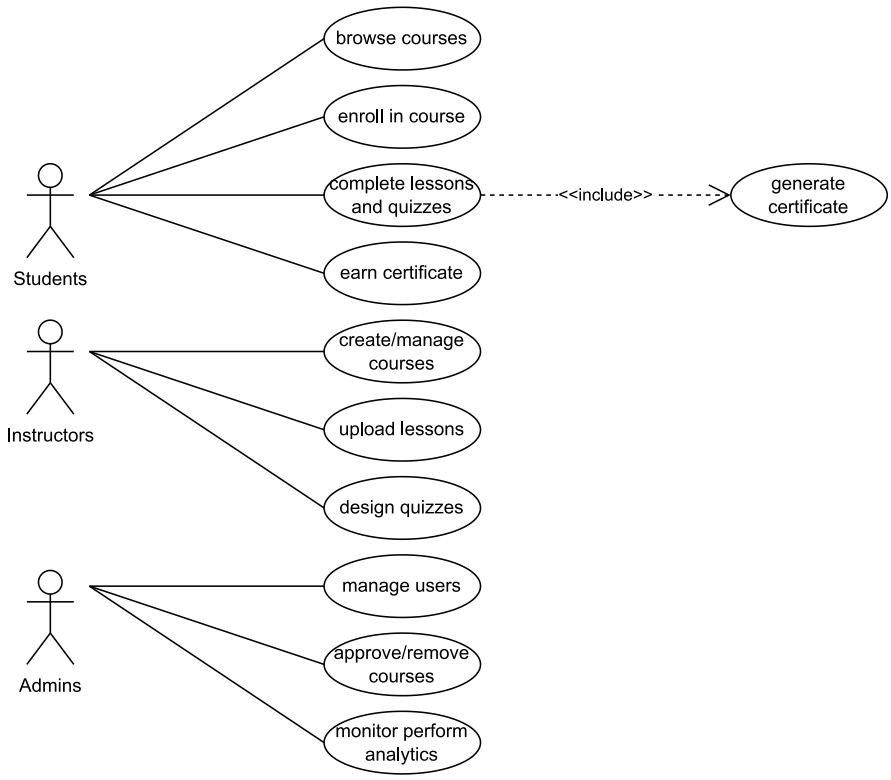

Figure 1: Use Case Diagram

2. Activity Diagram

2.1. Outline

This is the activity diagram for the “Enroll in Course” use-case. It shows the detailed workflow that the actor (student) goes through in order to achieve the use case. It provides an abstract, flowchart-like overview of the use-case.

2.2. Diagram

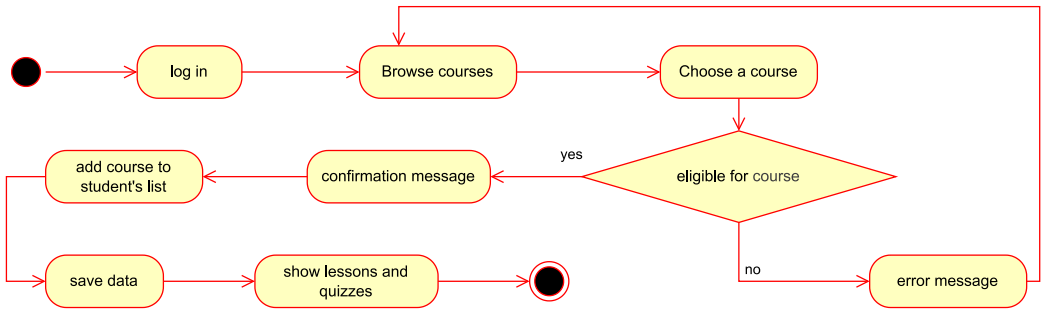

Figure 2: Activity Diagram

3. Class Diagram

3.1. Outline

The class diagram is the closest specification level to the underlying program code. It specifies the hierarchy and structure of the classes and the relationships between them. It can be used as a reference when designing a sequence diagram.

3.2. Diagram

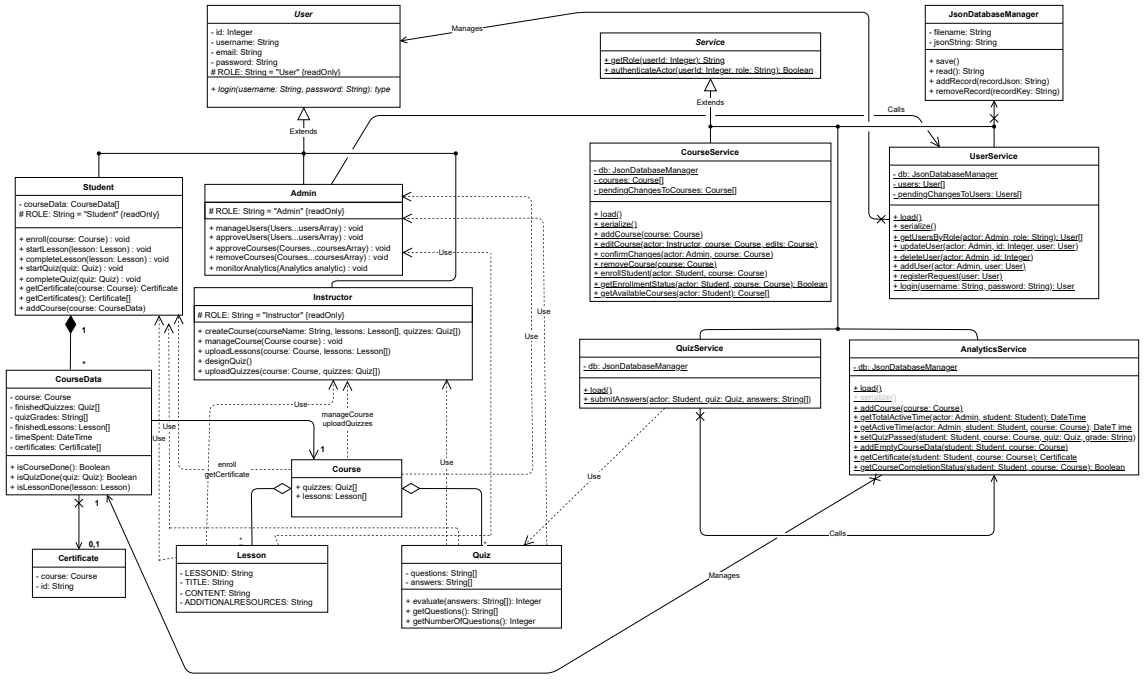

Figure 3: Class Diagram

4. Sequence Diagram

4.1. Outline

This is the sequence diagram for the “Enroll in Course” use-case, which is a *temporal specification* of the messages (method calls and return values) between objects and classes of the program while this use-case is performed. It outlines the *sequence* of the flow of control and information internally from the viewpoint of each object or class rather than the workflow of the actor. It also showcases the lifetimes of objects as well as duration and level of message processing (method calls).

4.2. Diagram

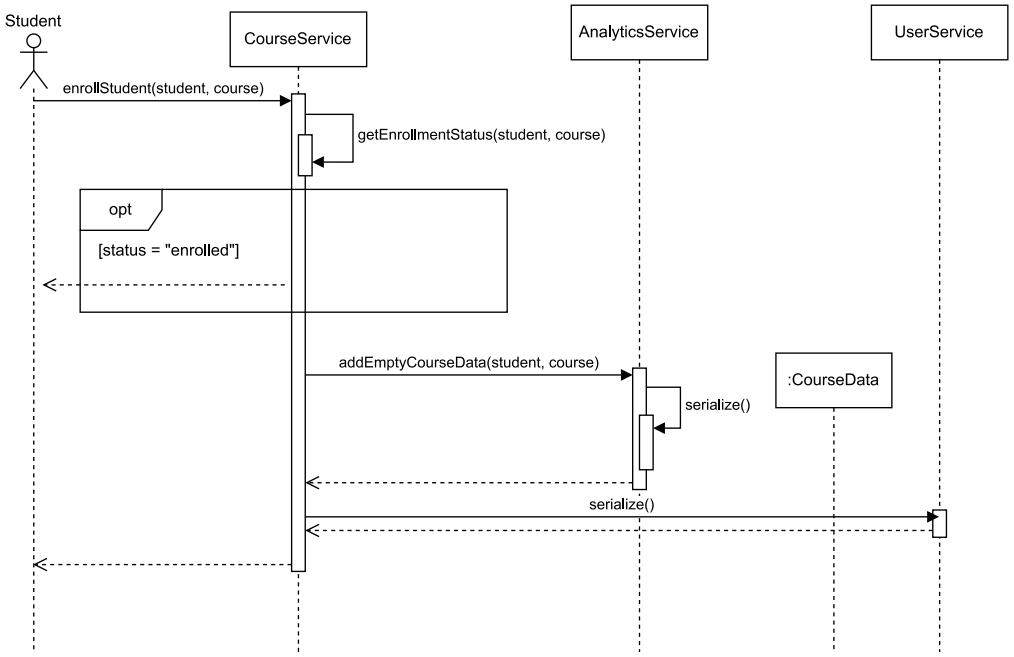

Figure 4: Sequence Diagram