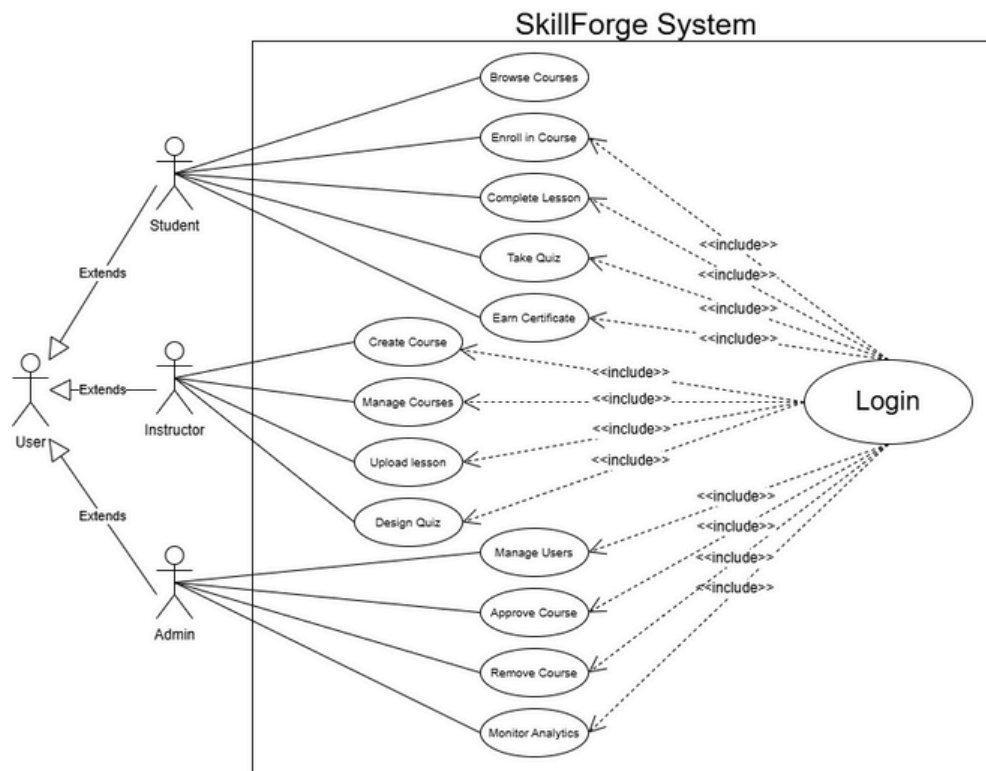
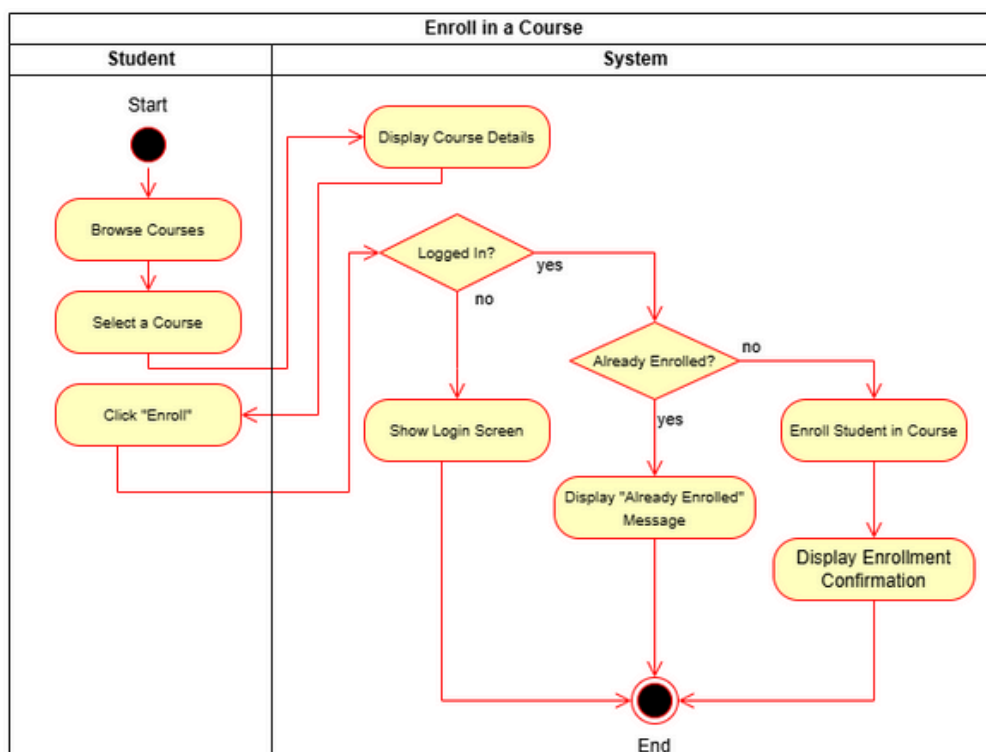


CC272
Programming 2

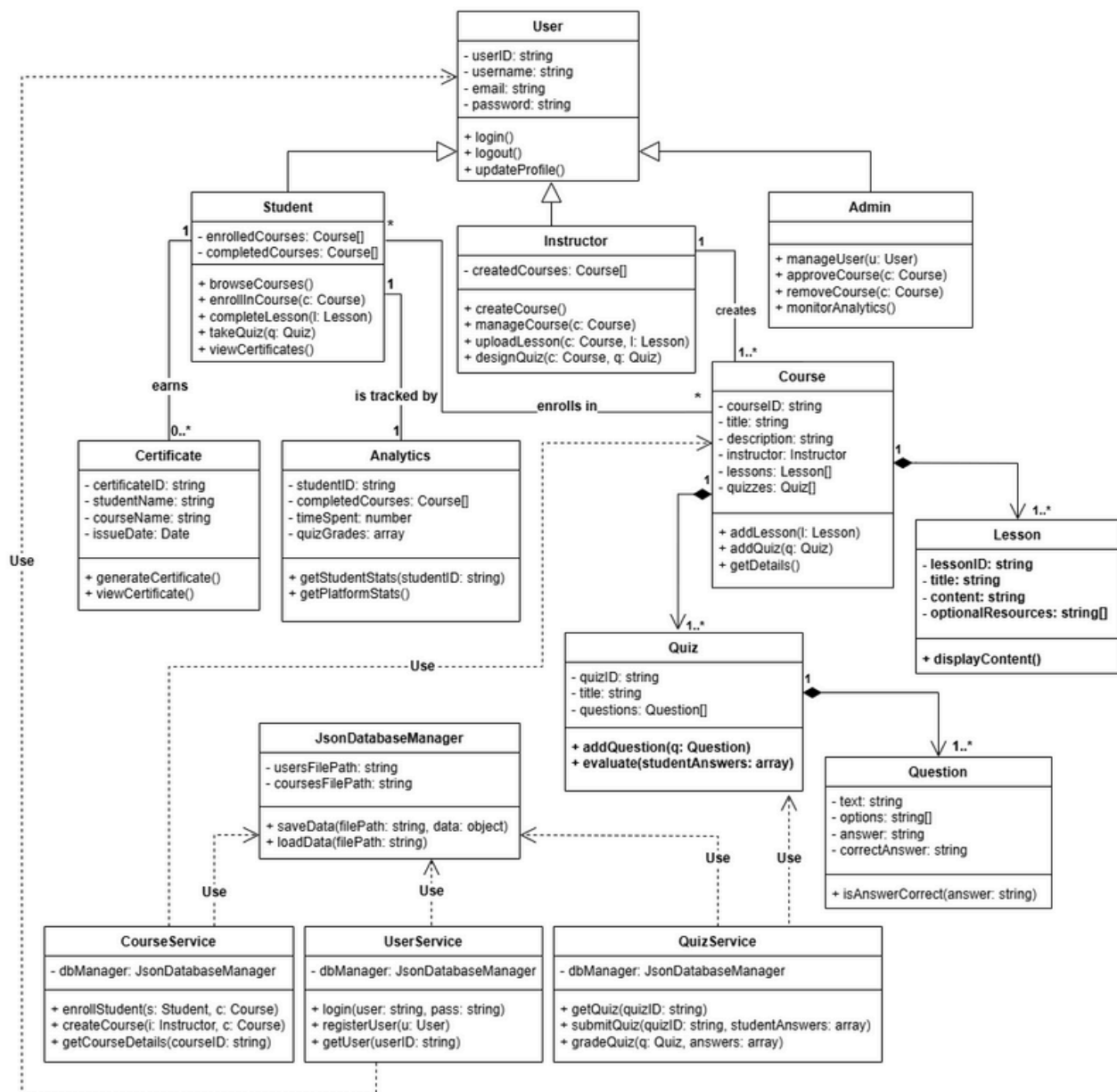
Lab 6 – Report



- **This Use Case** Diagram illustrates the high-level functional requirements of the SkillForge platform. It identifies the primary actors—Student, Instructor, and Admin—and the key use cases each can perform, such as Enroll in Course or Create Course. This diagram is crucial for defining the overall scope of the system and visualizing who interacts with it and what they can do.

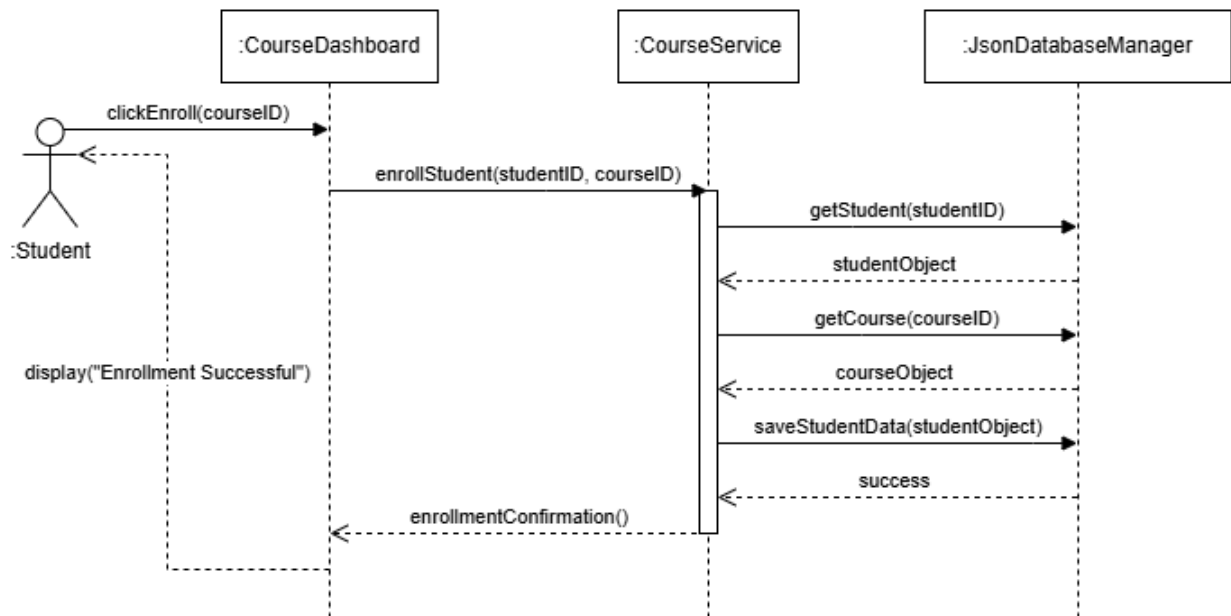


- **This Activity Diagram** models the step-by-step workflow for the "Enroll in a Course" use case. It shows the sequence of activities, decision points (like checking if a user is logged in), and the flow of control between the Student and the System. This is important for understanding the business logic and user journey for this specific feature.



This Class Diagram:

- represents the static structure of the SkillForge system's code. It details the key classes, such as User, Course, and JsonDatabaseManager, including their attributes, methods, and the relationships between them. This blueprint is essential for developers as it shows how the system is built, using relationships like inheritance (e.g., Student is-a User) and composition (e.g., a Course has Lessons).



This Sequence Diagram:

- illustrates the dynamic interactions between objects over time for the "Enroll in a Course" use case. It shows the exact sequence of messages passed between lifelines, such as the **:Student**, **:CourseService**, and **:JsonDatabaseManager**, to complete the enrollment process. This diagram is vital for understanding the order of operations and how different components collaborate to execute a function.