# CS 255 System Design Document

Noah Archibald

CS-255 - System Analysis and Design

Professor Habibi

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**Project Two:**

## UML Diagrams

### UML Use Case Diagram:

Diagram, schematic

Description automatically generated

USE Case Overview of DriverPass System.

### UML Activity Diagrams*:*

*Diagram

Description automatically generated*

Activity Diagram of User-Login Use Case.

Diagram

Description automatically generated

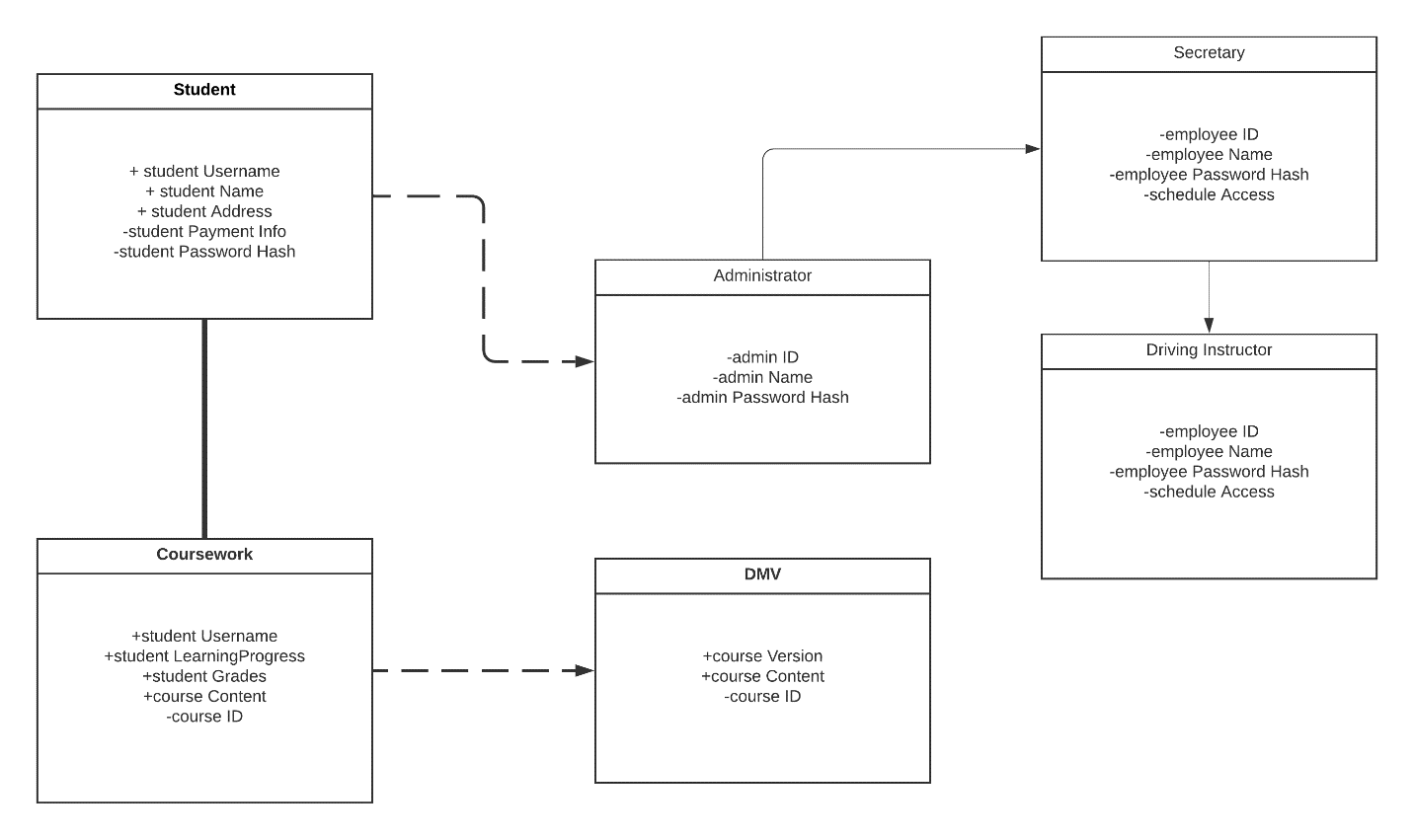
Activity Diagram of Student Scheduling Use Case.

*Diagram

Description automatically generated*

Sequence Diagram of User Log-in process.

### UML Class Diagram

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UML Class Diagram with relative attributes.

## Technical Requirements

Since this system is designed to be hosted via a third-party cloud hosting service, most of the hardware requirements will be handled externally. So, there should be few if any limitations for hardware running the servers that support the system. A crucial requirement, however, is a stable and reliable internet connection from the host to the user. This will ensure that the user’s experience on the website is responsive and efficient and guarantees that there will not be any wasted financial expenditures on unnecessary maintenance of hardware or other mitigating factors. The system should also be securely encrypted, ideally with some sort of cryptographic hash function like SHA-256, to ensure a secure connection between the server host and the system, as well as the user and the system. Incorporating two-factor authentication will also help secure the log-in credentials for all users and help when resetting passwords. It would also be useful for the admins of the system to use backend management tools to help facilitate the fast and efficient rollout of new updates to the website, as they are needed.