# Albert Waterman

CS255

Project 2

# CS 255 System

## UML Diagrams

### UML Use Case Diagram

*A screenshot of a computer screen

AI-generated content may be incorrect.*

### UML Activity Diagrams

A diagram with purple squares and black circles

AI-generated content may be incorrect.

A diagram of a schedule

AI-generated content may be incorrect.

### UML Sequence Diagram

*A diagram of a log in

AI-generated content may be incorrect.*

### UML Class Diagram

*A diagram of a software application

AI-generated content may be incorrect.*

## Technical Requirements

The DriverPass system needs to be built as a secure, cloud-based platform that works on both web and mobile devices. Users only need a computer, laptop, tablet, or smartphone with a modern browser. This makes it easy for students to schedule driving lessons, take practice exams, and access learning materials from anywhere. The system uses a cloud-hosted database to store user accounts, reservations, and test results. This helps keep data secure and easy to back up. The cloud also handles automatic updates, scalability, and recovery in case of data loss or system errors.

Performance is a key requirement for DriverPass. Page loads, logins, and scheduling should be completed within seconds to give users a snappy experience. The system also connects to DMV services and updates rules, policies, and practice exams within twenty-four hours to make sure everything stays current and correct. Security is another main technical requirement. DriverPass will use HTTPS encryption, role-based access control, and login protection. Accounts lock after three failed login attempts, sessions time out after sixty minutes of inactivity, and users can recover passwords through their usernames. Administrators and IT staff are notified right away if there’s a failed login, system error, and scheduling issue. This allows for a faster response time to issues that occur. Server maintenance, backups, and updates are handled through the cloud, which reduces the workload on IT staff and keeps up time around 99%. This setup allows the platform to stay fast, reliable, and easy to access for students, instructors, and staff.