# CS 255 System Design Document

## UML Diagrams

### UML Use Case Diagram

A diagram of a driver pass system

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### UML Activity Diagrams

A diagram of a diagram

AI-generated content may be incorrect.

A screenshot of a computer

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### UML Sequence Diagram

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### UML Class Diagram

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## Technical Requirements

The DriverPass system will be a web-based program that can be used on any device with internet access, including computers, tablets, or smartphones. It's function will manage lessons, schedules, and test details, and require a robust server infrastructure capable of handling a significant volume of traffic at any given time. A server with approximately 16 GB of RAM, a multi-chip processor, and at least 500 GB of storage space should be enough to ensure smooth operation. The system can run on either Windows Server or Linux, depending on the company's preference or existing infrastructure.

On the software side, the system will likely employ a web framework such as ASP.NET or Django to build the home site, and a database like MySQL or PostgreSQL to store user accounts, lessons, payments, and reports. To maintain secure communication with the DMV and payment gateway, the system will use encrypted HTTPS connections to protect personal and financial information.

There will also require some in-built utilities to make the day-to-day running of the system easier; such as a login facility with security authentication, automatic email notifications for lesson bookings or reminders, and an easy-to-use admin panel for instructors, and managers to manage schedules and user accounts. Utilizing the system on a cloud platform (such as AWS or Azure) will ensure easy scaling and maintenance without messing with online services. Regular data backups and encryption will ensure that all data remains safe in the unlikely event of a system failure.