# CS 255 System Design Document Template

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## UML Diagrams

### UML Use Case Diagram

*A diagram of a person's schedule

AI-generated content may be incorrect.*

### UML Activity Diagrams

*A diagram of a schedule

AI-generated content may be incorrect.*A diagram of a test

AI-generated content may be incorrect.

### UML Sequence Diagram

*A diagram of a process

AI-generated content may be incorrect.*

### UML Class Diagram

A computer screen shot of a computer

AI-generated content may be incorrect.

## Technical Requirements

**Hardware Requirements**

* Web server to host the DriverPass application (cloud-based preferred, e.g., AWS or Azure).
* Client devices: Computers, tablets, and smartphones for access by students, instructors, and staff.
* Backup server or cloud-based backup solution for data redundancy.

**Software Requirements**

* Web-based user interface built using HTML5, CSS, and JavaScript for accessibility across devices.
* Backend server using a reliable framework (e.g., Node.js, Python Django, or Java Spring Boot).
* Database system like MySQL or PostgreSQL to store student data, appointments, packages, etc.
* Integration with Excel or CSV export for downloadable reports.

**Tools & Infrastructure**

* Lucidchart or equivalent CASE tool for maintaining and updating UML diagrams.
* Cloud hosting (e.g., AWS, Azure, or Google Cloud) for high availability and accessibility.
* Authentication system to manage secure logins, password resets, and role-based access.
* Logging and auditing tools to track user actions (e.g., who modified or canceled an appointment).

**Network & Access Requirements**

* Secure internet connection using HTTPS for data transmission.
* Remote access support so users (especially admins) can securely manage accounts offsite.
* Mobile compatibility to allow students to access lessons and practice tests on their phones.