# CS 255 System Design Document

## UML Diagrams

### UML Use Case Diagram

A diagram of a driver pass system

AI-generated content may be incorrect.

### UML Activity Diagrams

A diagram of a process

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

AI-generated content may be incorrect.

### UML Sequence Diagram

A diagram of a process

AI-generated content may be incorrect.

### UML Class Diagram

A diagram of a computer

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## Technical Requirements

For Hardware, students and instructors can use any device like a desktop, laptop, tablet, or smartphone as long as its something with internet access. On system side a reliable cloud service is recommended so the system can be hosted on it and allow 24/7 availability. Cloud services also provide data storage and backup options for system growth.

Software requirements need a system that’s built as a web application. The UI should be developed with modern web technologies to have a responsive and intuitive user experience. The backend will use python or java to handle operations like user login, booking appointments, practice tests, and grading results. A relational database can be used to securely store key data like user information, appointments, test questions, and test results. Having the system connect the frontend and backend can help make a better user experience.

For tools and development environment we would need to use tools like visual studio or Git to be able to develop and maintain the system.

For infrastructure, reliability and accessibility are important nonfunctional requirements, the system needs to be deployed on a secure cloud server that has sufficient support for regular updates and backups. By combining cloud infrastructure, development tools, and software solutions the system will support the functional goals while making sure it is secure, accessible and easy to use for everyone.