# CS 255 System Design Document Template

A screen shot of a diagram

Description automatically generated

### UML Activity Diagrams

### UML Sequence Diagram

A diagram of a customer service

Description automatically generated

### UML Class Diagram

A diagram of a diagram

Description automatically generated

## Technical Requirements

Specific technical specifications for the DriverPass system include both hardware and software elements, along with necessary tools and infratructure to guarantee the system’s reliability, scalability, and security. For hardware, robust servers are essential. Web servers are responsible for hosting the web application, managing user requests, and delivering web pages to users, requiring reliability and scalability to handle varying loads. Database servers store and manage application data, such as user information, lesson schedules, and test results, optimized for swift data retrieval and transaction processing. Backup servers are crucial for storing backups of all critical data to ensure recovery in case of failure or data loss. Client devices include PCs and laptops for administrators, secretaries, and IT officers to manage the system, schedule lessons, and perform administrative tasks, while tablets and smartphones will be used by customers to access the system for scheduling lessons, taking online classes, and taking practice tests. Development tools include integrated development environments (IDEs) like Visual Studio Code, IntelliJ IDEA, or PyCharm for code development and debugging, and version control systems like Git, with repositories hosted on platforms like GitHub for source code management and collaboration. Security measures that can address a variety of threats are needed including SSL certificates for secure data transmission over the internet, firewalls to protect the servers from unauthorized access and potential cyber threats, and regular security audits to identify and mitigate any vulnerabilities in the system.