# CS 255 System Design Document

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## UML Diagrams

UML Use Case Diagram

A diagram of a driver pass

Description automatically generated

### UML Activity Diagrams

A screenshot of a diagram

Description automatically generated

### UML Sequence Diagram:

### Lesson Scheduling

A diagram of a process

Description automatically generated

### UML Class Diagram

A diagram of a software company

Description automatically generated with medium confidence

## Technical Requirements

Based on the diagrams I have created; the technical requirements of the system include:

* **Hardware:**
  + A cloud server instance to host the application and database
  + Workstations for staff and administrators to access the system.
  + Mobile devices for drivers to access their schedules and lessons.
  + Printers to print schedules, reports, and other documents.
  + Networking equipment such as router and firewall to connect the server and workstations.
  + Credit card processing machine
* **Software:**
  + A web application that is optimized for different web browsers (Edge, Safari, Chrome, Firefox) on desktop/laptops and mobile devices.
  + A web server to host the application.
  + A database to store data about customers, drivers, schedules, lessons, tests, and payments.
  + Web browsers for users to access the application.
  + Payment Processor gateway software
  + DMV client application
* **Tools:**
  + A testing tool to test the application.
  + A deployment tool to deploy the application to the server.
* **Infrastructure:**
  + Security infrastructure to protect the system from unauthorized access.
  + Backup and restore infrastructure to protect data from loss.
  + Monitoring infrastructure to monitor the performance of the system.