# CS 255 System Design Document Template

This template lays out all the different sections that you need to complete for Project Two. Each section has guidance to prompt your thinking. You will need to continually reference the interview transcript as you work to make sure that you are addressing your client’s needs. There is no required length for the final document. Instead the goal is to complete each section based on what your client’s needs are. Remove this note when you are finished, and replace all bracketed text with the relevant information.

## UML Diagrams

### UML Use Case Diagram

A diagram of a driver pass system

Description automatically generated

### UML Activity Diagrams

A diagram of a flowchart

Description automatically generated

### UML Sequence Diagram

A diagram of a user flow

Description automatically generated

### UML Class Diagram

*A diagram of a computer flowchart

Description automatically generated*

## Technical Requirements

To build the DriverPass system, we need several key pieces of technology. First, we need servers to host the website, store data, and keep backups, along with computers and mobile devices for users to access the system. The software requirements include a server operating system like Linux or Windows Server and compatible client software. We’ll use a web server like Apache or Nginx, a database system such as MySQL or PostgreSQL, and programming languages and frameworks for the application's backend and frontend. Security tools for encrypting data and SSL/TLS certificates will also be important to keep information safe.

For the infrastructure, we’ll use cloud services like AWS, Azure, or Google Cloud to host and back up data. Reliable internet and load balancing will help keep the system running smoothly. We’ll need tools for designing databases, creating diagrams, managing projects, and testing the software. It’s also crucial to follow data protection rules and manage user access carefully. DriverPass will have a strong, secure system for managing driving lessons and reservations by meeting these technical needs.