# 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 system

Description automatically generated

### UML Activity Diagrams

A diagram of a flowchart

Description automatically generated

A diagram of a flowchart

Description automatically generated

### UML Sequence Diagram

A screenshot of a computer screen

Description automatically generated

### UML Class Diagram

A diagram of a user

Description automatically generated

## Technical Requirements

The technical requirements of the DriverPass system are as follows:

* The application must be web-based.
* The web-based application will be developed using JavaScript or Python.
* It must include a cloud-based hosting service like AWS (Amazon Web Services).
* Data must be encrypted using SSL for high security.
* User authentication and authorization mechanisms must be put in place.
* Database systems like MySQL must be chosen to store data.
* A scheduling system must be created to manage lessons, driving practice bookings, and testing.
* A payment gateway should be integrated to allow payments to go through.
* Email and SMS notifications should be implemented to remind instructors and students of upcoming testing dates or booking reminders.
* A robust backup should be established to prevent the loss of data if the system fails.
* A scalable infrastructure must be set up to accommodate the increase in users and data.
* User Role must be implemented to give each user the limited or extended required access to the different features found within the system.