# CS 255 System Design Document

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 user account

Description automatically generated

A screenshot of a computer screen

Description automatically generated

### UML Sequence Diagram

A diagram of a product

Description automatically generated

### A screenshot of a computer Description automatically generatedUML Class Diagram

## Technical Requirements

The technical requirements for the DriverPass project encompass a range of hardware, software, tools, and infrastructure components to ensure robust functionality and performance:

1. **Hardware Requirements**:
   * High-performance servers capable of handling concurrent user requests efficiently.
   * Sufficient storage capacity to accommodate database and website data.
   * Reliable networking infrastructure to facilitate data transfer between servers and users.
2. **Software Requirements**:
   * and secure operating systems such as Linux or Windows Server for server deployment.
   * Robust DBMS software like MySQL, PostgreSQL, or MongoDB to manage the database efficiently.
   * Web server software such as Apache HTTP Server or Nginx to serve web content securely.
3. **Tools:**
   * Tools like IntelliJ IDEA, Eclipse, or Visual Studio Code for efficient code development and debugging.
   * Implementation of a version control system such as Git for collaborative development and code management.
   * Utilization of issue tracking systems for tracking and managing software issues and feature requests.
4. **Infrastructure**:
   * Consideration of cloud infrastructure for scalable and flexible infrastructure.
   * Implementation of security measures such as firewalls, encryption, and access controls to protect against unauthorized access and data breaches.
   * Integration with monitoring and logging tools to monitor system health, performance, and troubleshoot issues effectively.