# 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

*In an effort to be more specific with my Use Case Diagram, I selected an Activity Tracking use case, the Owner of DriverPass requested that he could track activity in the system, to achieve this an include relationship was added to every process in the system.*

*A diagram of a person's activity tracking

AI-generated content may be incorrect.*

### UML Activity Diagrams

*A diagram of a software flowchart

AI-generated content may be incorrect.*

*For my Activity Diagrams, I choose the User Log in use case, this use case scenario is also use on the UML Sequence Diagram. Where the user ID and password are validated. The password validation gives three attempts then locks the account for security. The second case scenario is the making, editing or canceling a reservation with user validation.*

*A diagram of a software company

AI-generated content may be incorrect.*

### UML Sequence Diagram

*For my sequence diagram, I chose the log in use case, with a loop for trying a password a maximum number of three attempts. The diagram describes how the user interacts with the user portal or interface to log into their account. A loop was added to upgrade the security of the user portal, allowing the user to try a wrong password 3 times.*

*A diagram of a computer program

AI-generated content may be incorrect.*

### UML Class Diagram

## Technical Requirements

*Based on the diagrams included, we will require a secure log in system with secure password storage, user role management with distinct user roles with corresponding privileges and access control. Data storage capabilities are needed that handles large volumes of data and has scalability a NoSQL database is recommended. The reservation system should be base on the driver availability to provide the best information for the customer. The package management should associate resources, pricing and the system should include a secure payment gateway for credit transactions as well as generate invoices and manage payments, since a cash payment option is needed.*