# CS 255 System Design Document Template

## UML Diagrams

### UML Use Case Diagram

Diagram

Description automatically generated

### UML Activity Diagrams

### *Diagram, schematic Description automatically generated*

### UML Sequence Diagram

*Chart, diagram

Description automatically generated*

### UML Class Diagram

Chart, diagram

Description automatically generated

## Technical Requirements

Some technical requirements that involve required hardware, software, tools, and infrastructure necessary for your system design are:

Hardware:

* Mobile phone
* Computer
* Laptop

Software, tools, and infrastructure necessary for your system design:

* This system will be designed to run in a web-based environment so it can be accessible by mobile devices and computers from anywhere.
* Our client mentioned he would like the system to run with little to no technical errors which means he would like the software to run very quickly.
* The system should be updated constantly since there will be multiple accounts accessing information. The calendar needs to be updated daily as well.
* This system should be accessed by any type of platform. However, Windows is the most popular. Making sure it looks good on Windows platforms is essential. The client specifically mentioned as well that he would like the program to run in mobile devices.
* For mobile devices, the back end requires different tools for design to be able to look mobile friendly when it is being accessed.
* We will distinguish between different users based on who is accessing the application with their personal log in information. When a regular user accesses it, the design will be quite different from when an instructor accesses the account.
* The system is case sensitive due to many people accessing it at once to either book a reservation, buy the package, or complete the drivers’ course.
* An admin problem should be reported immediately. This would lower the chances of a potential security attack.
* The only person who would be able to have this access would be Liam. By making a separate code cheat just for him, we would not have to change the code every time he would like to add, remove, or modify an account.
* The system will adapt to platform updates based on what platform it is being accessed from. Mobile platforms have different requirements than the computer platforms.
* IT would need access to all the accounts including Liam’s account. In case something goes wrong with the account, the IT technician will be able to assist in the situation.
* For the user log in a username and password is required.
* Security can be added to the client and server by accessing the internet through a private trusted Wi-Fi. Avoid public Wi-Fi.
* If there is a brute force hacking attempt, the account should be frozen until an IT professional makes it secure. No information will be lost.
* If the user forgets their password, we will add a verification method by asking the user personal questions to update their new password.