# CS 255 System Design Document Template

## UML Diagrams

### UML Use Case Diagram

*Diagram

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The UML Use Case Diagram is a representation of how the role of “Student” (user), IT Admin (this includes secretary, drive professor, and server), and Project Owner (Liam). The process of how the actors interact and connect to each other is demonstrated in the UML Use Case Diagram. The students are available to create an account, log in to their account, take a lecture, and set an appointment, also cancel, or change it. The IT Admins are available to help and support the student in case of any problem and the project owner (Liam) is available to check on the IT Admins.

### UML Activity Diagrams

First Activity Diagram

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The first Activity Diagram is a scenario of how the students will navigate through the platform, starting from sign up or if they have already an account, they will be available to log in. If the student logs in and fails they will be available to reset their password, but if the login is successful and access to the student portal. If the student decided to sign up, they will create an account by uploading their information and meeting the requirements. If both scenarios are successfully executed, they would end up on the Student Portal and they will be available access to the material to study and then take a practice test or schedule diving tests.

Diagram, schematic

Description automatically generatedSecond Activity Diagram

The second activity diagram is a representation of the process when logging in. If the login is successfully executed the student would be able to access the student portal. But if the student fails to log in, there would be the option to reset the password which will require you to either respond to the security questions or send an email to verify the authenticity of the student and be able to reset the password. If the student attempts many times with unsuccessful login passwords the account would be locked as well as either fail the security questions or verify the reset email linked with the account.

### Diagram Description automatically generatedUML Sequence Diagram

The UML Sequence Diagram is a representation of how the appointment for test driving is confirmed. The actor in our scenario is the student with their interface, the backend team, and the database. The students request an appointment, the dates and times are verified by the backend, and it will display to the student to select one. The students will select a date and time and the backend team will request a type of payment. Once the students select the type of payment, the type of payment will be verified by the database. The database will verify the payment method and the backend confirm the appointment. The student will be notifying the verifying the appointment.

### UML Class Diagram

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The UML Class Diagram is a visualization object-oriented of the system of how the students(users) are available to connect with the admin and the teacher by scheduled appointment. The classes, attributes, and methods are named easily for a developer to understand the interaction with each other.

## Technical Requirements

Based on the requirements of the project owner, the DriverPass system should be created web based. Since DriverPass will be developed on different types of platforms we will use different types of languages to satisfy the requirement for each platform. The application would be stored on the cloud for the safety of the customer’s information. For better interaction, is recommended to use at least 5-year-old hardware (phone, laptop, or computer) to prevent any problem of running slow or being unavailable to load the application. The system will be constantly updated to prevent any leaking of information and provide better interaction between the application and the students.