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CS-255-T6598

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# CS 255 System Design Document Template

## UML Diagrams

### UML Use Case Diagram

*Diagram

Description automatically generated*

### UML Activity Diagrams

*Diagram

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Diagram

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### UML Sequence Diagram

A picture containing diagram

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### UML Class Diagram

Diagram

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## Technical Requirements

Per DriverPass’ request, there are specific nonfunctional requirements for the system. To begin with, the system must be hosted through a cloud service provider. The provider must provide security for the system using encryption, as well as the ability to back up the system on a nightly basis. The system itself must have a database storing user accounts, lessons, cars, a calendar with bookings, and activity reports. The cloud service must be hosted using a stable internet connection, with a response time of five seconds maximum after a user request is received. Updates to the system should be done over-the-air, with a backup of the system prior to the update being pushed. The system should be accessible to users through a web browser using HTTPS.

System users will need to have a stable high-speed internet connection, personal computers or smart phones, and an up-to-date web browser to access the system. The majority of system processes should take place server-side using an API. Users should be able to reset their password, update their profile, purchase packages (for student users), and access / update their calendars, with actions updating the related database components once changes are submitted by the user.