# 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

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### UML Class Diagram

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Description automatically generated

## Technical Requirements

### Nonfunctional Requirements

* The system shall create an activity report when information is changed in the system.
* The system shall ensure that user data is secure.

#### Performance Requirements

* The system shall run in a cloud-based server
* The system shall operate with minimal connection speeds
* The system shall be updated whenever a change or update happens

#### Platform Constraints

* The system shall run on a Windows system
* The system shall be maintained by the host service
* The system shall contain a database with account, student, instructor, and test data

#### Accuracy and Precision

* The system shall distinguish users based on login credentials
* The system shall have case-sensitive user ID and password
* The system shall inform admin as soon as a problem is discovered

#### Adaptability

* The system shall allow master admin account to add/modify/remove users without changing code
* The system shall inform users of scheduled maintenance
* The system shall perform platform updates during scheduled maintenance
* The system shall allow IT access to connection and problem data

#### Security

* The system shall only allow users with a registered account and password access
* The system shall use encryption system to secure data between sources and sinks
* The system shall block and lockout any hacking attempt immediately upon discovery
* The system shall allow master admin account to reset user passwords

## Functional Requirements

* The system shall determine user access based on login credentials
* The system shall collect and display data from the database based on user credentials
* The system shall allow users to schedule appointments
* The system shall users to take online tests

#### **User Interface**

* The system shall allow access by administration
* The system shall allow access by student
* The system shall display company logo
* The system shall display online test progress
* The system shall display user information
* The system shall display driver notes
* The system shall display special needs
* The system shall display driver photo
* The system shall display student photo

## Assumptions

* Drivers, students, and administration have access to the internet.
* Drivers, students, and administration will have different access levels based on login credentials.

## Limitations

* Cannot be accessed without login credentials.
* Access unavailable without internet connection.