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CS 255

# CS 255 System Design Document

## UML Diagrams

### UML Use Case Diagram

A diagram of a system

Description automatically generated

### UML Activity Diagrams

### User Password Reset Diagram #1

**Order Processing Diagram #2**

A diagram of a work flow

Description automatically generatedA diagram of a process

Description automatically generated

### UML Sequence Diagram

**Password reset sequence diagram**

*A diagram of a user flow

Description automatically generated*

### UML Class Diagram

*A diagram of a computer

Description automatically generated*

## Technical Requirements

The system must support both web and mobile platforms, ensuring compatibility across various devices and screen sizes. It should include secure and scalable storage solutions for critical data such as login details, either cloud-based or through a physical data center. SSL encryption is essential for all data exchanges to maintain security. For quicker functionality updates like training schedules and user progress tracking, cloud platform integration is recommended. The system should incorporate role-specific access controls to manage different user roles, including the owner, IT officer, and secretary.

Additionally, the system requires databases to store and manage customer information, including course progress and other data, while complying with data privacy laws. The hardware and network infrastructure, whether for a cloud-based solution or a physical data center, should support the expected data load and offer high performance and reliability. The focus should be on scalability, data security, and user access management, following best practices in software development and system architecture.