# Shimin Chan

CS 255  
Professor Lewis

# Project Two: System Design Document

## UML Diagrams

### UML Use Case Diagram

A diagram of a software system

AI-generated content may be incorrect.

### UML Activity Diagrams

A diagram of a driving class

AI-generated content may be incorrect.

A diagram of a computer program

AI-generated content may be incorrect.

### UML Sequence Diagram

A screenshot of a computer screen

AI-generated content may be incorrect.

### UML Class Diagram

A diagram of a customer service

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## Technical Requirements

1. Hardware Requirement

Computers for secretary, Liam, and Ian

Printer for Liam to print out activity reports

Internet connection supplies to provide a stable internet service

Storage for data backup

1. Software Requirement  
   Operating Systems (such as Windows or macOS, Android, and iOS)

Web browsers (such as Chrome, Safari, Microsoft Edge, Firefox)

Relational database system

Security Software

Implement authentication and authorization frameworks

Report generation engine for activity reports

Excel export library

Front-end and Back-end Development Tool

SSL/TLS certificates for encryption while transferring data

1. Tools

Continuous Integration/ Continuous Deployment pipeline

Github

Payment Gateway (such as Square, Venmo, and PayPal)

DMV API to keep online material updated

Email service API for password resets and confirmation of each reservation

Testing frameworks to ensure the quality of the system and the quality of the code

1. Infrastructure Requirements

Cloud service provider (such as AWS, Azure, Google Cloud)

Network load balancers

Auto-scaling capabilities

Role-based access control

Multi-factor authentication system

Cloud-based database storage