# CS 255 System Design Document Template

This template lays out all the different sections that you need to complete for Project Two. Each section has guidance to prompt your thinking. You will need to continually reference the interview transcript as you work to make sure that you are addressing your client’s needs. There is no required length for the final document. Instead the goal is to complete each section based on what your client’s needs are. Remove this note when you are finished, and replace all bracketed text with the relevant information.

## UML Diagrams

### UML Use Case Diagram

*A diagram of a software system

AI-generated content may be incorrect.*

### UML Activity Diagram

*A flowchart of a program

AI-generated content may be incorrect.*

A flowchart of a program

AI-generated content may be incorrect.

### UML Sequence Diagram

*A diagram of a lesson schedule

AI-generated content may be incorrect.*

### UML Class Diagram

A diagram of a user

AI-generated content may be incorrect.

## Technical Requirements

1. Hardware

* Cloud-based server with enough processing power, memory, and storage to handle multiple users at once
* Desktop/laptop computers for staff with reliable internet and modern web browsers
* Mobile devices (phones, tablets) for students to access the system online

2. Software

* Web-based application running on a secure cloud platform
* Relational database for storing student, appointment, and training data
* Web browser support for Chrome, Firefox, Edge, and Safari
* Tools for generating and downloading reports

3. Tools

* Development tools for coding, testing, and version control
* Diagramming tools for system and process design
* Project management tools for scheduling and tracking tasks

4. Infrastructure

* Secure cloud hosting with backups and disaster recovery
* HTTPS encryption for all data transfers
* Role-based access control for different users (admin, IT, secretary, student)
* Logging and tracking of user actions (reservations, cancellations, modifications)
* Integration with DMV systems for updates on rules, policies, and test questions