# 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 diagram

Description automatically generated

### UML Activity Diagrams

A diagram of a system

Description automatically generated with medium confidenceA screenshot of a computer

Description automatically generated

### UML Sequence Diagram

*[You were asked to create a sequence diagram based on* ***one*** *of the use cases you chose. Please insert your sequence diagram here. Check to make sure that you included appropriate components and symbols and that your design meets the client’s needs.]*

### UML Class Diagram

A screenshot of a computer

Description automatically generated

## Technical Requirements

1. ***Hardware****:*
   * *Servers to host the web application and database.*
   * *Assumes Client has access to a device capable of connecting to the internet*
2. ***Software****:*
   * *Web application for user interaction and management.*
   * *Backend framework for server-side logic and database interactions.*
   * *Database management system (DBMS) for data storage.*
   * *Communication tools for client-admin and admin-instructor interactions.*
   * *Development tools for software development and maintenance.*
3. ***Tools and Libraries****:*
   * *Frontend frameworks for responsive interfaces.*
   * *UML modeling tools for system visualization.*
   * *Database management tools for administration.*
   * *Security tools and libraries for data protection.*
   * *Testing frameworks for quality assurance.*
4. ***Infrastructure****:*
   * *Cloud hosting for scalable deployment.*
   * *Load balancing for traffic distribution.*
   * *Backup and recovery mechanisms for data safety.*
   * *Scalability and redundancy for high availability.*
   * *Third-party connection for managing payment information*