# 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

Diagram

Description automatically generated

### UML Activity Diagrams*Diagram Description automatically generated*

### Diagram Description automatically generated

### UML Sequence Diagram*Diagram Description automatically generated*

### UML Class Diagram*Diagram Description automatically generated*

## Technical Requirements

Based on the proposed system design, the following technical requirements are necessary to support the implementation:

Hardware Requirements:

* Server machines with sufficient processing power, memory, and storage to support the database and application server.
* Workstations for employees to access the system.

Software Requirements:

* Database Management System (DBMS) to manage the database.
* Web application framework to develop the user interface.
* Operating System to host the application server and database.

Tools:

* Integrated Development Environment (IDE) to develop the web application.
* Text Editor for writing code.
* Version Control System for tracking changes to code.
* Bug Tracking System for managing bugs and issues.

Infrastructure Requirements:

* Network infrastructure to connect workstations to the server and the internet.
* Firewall to secure the system from unauthorized access.
* Load Balancer to distribute traffic among multiple servers.
* Backup and Recovery System to ensure data availability in the event of system failure.