# 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 company

Description automatically generated*

### UML Activity Diagrams

A diagram of a software development process

Description automatically generated

A diagram of a software application

Description automatically generated

A diagram of a software process

Description automatically generated

A diagram of a software process

Description automatically generated

A diagram of a software application

Description automatically generated with medium confidence

### UML Sequence Diagram

*A diagram of a system

Description automatically generated*

### UML Class Diagram

*A diagram of a computer

Description automatically generated*

## Technical Requirements

User Devices:

1. Owner/IT Admin/Secretary/Driver workstations
2. Support for mobile devices
3. Office printer for in-person reservation confirmations

Network Equipment:

1. Router for internal office traffic and external traffic to internal servers
2. Firewall to protect internal network
3. Switch(es) to support connecting multiple endpoints to network
4. VLAN(s) to support control and containment of internal and external network traffic

Application Server:

1. Windows Server 2022
   1. Supporting CPU(Xeon)
   2. 64GB DDR5 Ram
   3. 4TB NVME
   4. Fiber Connection to Database/NAS Server

Database/NAS Server:

1. Epyc or Xeon CPU
2. 128GB DDR5 Ram
3. Start with 100TB NAS storage
4. Fiber connection to Application Server
5. VM 1: SQL Server
   1. Resolving Queries and Hosting Database
6. VM 2: Windows Server 2022
   1. Hosting NAS
   2. Creating Log Files
   3. Generate Reports
      1. Download reports by requesting log files from Server

\*Designed with scalability in mind.