**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**



**UML Activity Diagrams**





**UML Sequence Diagram**



**UML Class Diagram**



**Technical Requirements**

***Hardware Requirements:***

*Server Infrastructure:*

*The system should be hosted on a reliable and scalable server infrastructure to handle user requests efficiently.*

*Adequate storage space for storing user data, practice test information, and system logs.*

*Database Server:*

*A database server to store user information, appointment details, practice test data, and system logs.*

*Regular backups to ensure data integrity and recovery in case of system failures.*

*Network Infrastructure:*

*High-speed and secure internet connection to ensure fast data transfer between the client and server.*

*Firewalls and security measures to protect against unauthorized access.*

***Software Requirements:***

*Operating System:*

*The system should be compatible with both Windows and MacOS for customer-facing interactions. Mobile not recommended due to the use of this system not being very compatable with a mobile platform.*

*Web Server:*

*A web server to host the web-based application.*

*Support for HTTPS to ensure secure data transmission between the client and server.*

*Security Measures:*

*Implement encryption protocols (SHA for example) to secure data in transit.*

*Regular security audits to identify and address vulnerabilities.*

*User authentication and authorization mechanisms to control access based on roles (like certificates).*

*Notification System:*

*Integration with a notification system to alert admin of DMV updates to plicies to then allow them to update tests and driving requirements.*