# 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 driver pass

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### UML Activity Diagrams

*[You were asked to choose* ***two*** *use cases and create* ***two*** *activity diagrams, one for each use case. Please insert* ***both*** *of your activity diagrams here. Check to make sure that you included appropriate components and symbols and that your design meets the client’s needs.*

*A screenshot of a diagram

Description automatically generated*

*A diagram of a computer program

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### 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.]*

*A screenshot of a diagram

Description automatically generated*

### UML Class Diagram

*[You were asked to create a class diagram based on the different classes and attributes needed for your system design. You are* ***not*** *required to include methods, but you may if you wish. Please insert your class diagram here. Check to make sure that you included appropriate components and symbols and that your design meets the client’s requirements.*

*A screenshot of a computer

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## Technical Requirements

*[Based on the diagrams you have created, describe the technical requirements of your system. These requirements should address the required hardware, software, tools, and infrastructure necessary for your system design.]*

The technical requirements for the DriverPass system encompass an array of various access to tools, hardware, and infrastructure that enable the system to be compatible and seamless across a host of various systems. Some of the hardware components necessary for the DriverPass system include the ability for it to run on various web-based browsers like Chrome, Microsoft Edge, Safari, or Firefox. The operating systems that it should be compatible with include Windows and Unix. It should also be able to be accessed on Mobile applications like both Android and Apple. This will require the system to maintain consistent updates to keep up with performance and the increased number of users. The system also requires frequent updates from the DMV to maintain accuracy with policies, so the hardware should support the ability to integrate with updates from the system the DMV uses.

Since the system is storing multiple users’ information as well as providing real time updates to various info like customer registration, study material, and test progress, the system should utilize a relational database management system. An RDMS like MySQL will help to support the system with both data storage and retrieval, allowing different users of the system like the Administrator, developers, customers, or drivers to manage the information they access.

Some of the hardware that will be required to manage the software, tools and database management of the system will include server infrastructure, preferably the cloud based on the outlined requirements. The cloud-based infrastructure will need to be capable of handling copious amounts of user requests while also supporting the necessary database management. For the users, they will need to have access to hardware like mobile phones, desktops, laptops, etc. that have a dependable internet connection to maintain access to the system.

Various tools that DriverPass could benefit from include the ability to manage code through a version control system like GitHub. GitHub would improve the communication and management of code by developers for the system, especially since the system is primarily cloud-based and it relies on offsite technology.