# 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

*[In Module Six, you were asked to complete a use case diagram based on your system design. If you would like to make any adjustments to your diagram, please do so. Please insert your use case diagram here. Check to make sure that you included appropriate components and symbols and that your design meets the client’s needs.]*

*A diagram of a driver pass system

Description automatically generated*

### 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 diagram of a software system

Description automatically generatedA diagram of a process

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.]*

*A diagram of a user flow

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 diagram of a class diagram

Description automatically generated*

## 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.]*

For the purposes of this system, we will need to develop the system using cloud computing in order from the owner to be able to access and modify the system as needed from wherever/remotely. Given that this company does not want to expend too many resources on maintenance, and IT I would recommend a PaaS version so that they can control their database, but not have to put too much energy or resources in to maintaining the database and keeping it secure and updated. Given the remote nature of this system, both for the owner as well as instructors and customers connecting to the system, we will need to utilize SSL encryption to protect the transferred data. From a security standpoint, this system should utilize a RESTful that is encrypted with AES-256 in conjunction with SHA-256 to set themselves up for success as their company grows. Lastly there needs to be user role-based authentication and privileges that can be set by the owner or the system admin. Each user, regardless of role will go through an authentication process upon login in which will help the system identify the user base don their unique ID and direct them to the appropriate account with the appropriate privileges.