# 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.]*

*Diagram

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.]*

*Diagram

Description automatically generated*

*Diagram

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.]*

*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.]*

*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.]*

Based on the diagrams shown above for this project, a stable computer environment would be necessary to ensure all functionalities are performed at the optimal state. Since the overall system is designed to be a web-based interface that allows driving students to choose packages, access online courses, and schedule in-person classes, any platforms that can smoothly operate browsers to load webpages would be acceptable (e.g. Windows, Mac. Linux would not be a preferred environment in this case because it is mainly an environment for development instead of production). The most important software that must exist on the acceptable hardware is a stable web browser that can open up webpages. As these are the basic running environment for the system from the customer’s side, there are also tools and infrastructures necessary from the developer’s side. Since this system is designed to be object-oriented, an IDE would be necessary for any computer language developers choose to use (e.g. Eclipse for Java, PyCharm for Python, etc.). A backend database, preferably a cloud relational database, would be important to save and secure user’s information and data should also be readily retrievable on-demand.