# 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 system

Description automatically generated

### UML Activity Diagrams

A diagram of a user login

Description automatically generated

A diagram of a payment process

Description automatically generated

### UML Sequence Diagram

A diagram of a diagram

Description automatically generated

### UML Class Diagram

A diagram of a class

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.]*

**Technical Requirements:**

For the user to access the website, they will be required to have an internet connection and a computer or mobile device. This is due to the website being hosted on the internet and having implementations that require an internet connection to ensure the data displayed is valid and up to date. The website will require a web server or dedicated server to host the application. I would recommend a dedicated server for better performance and to be better prepared for increased traffic in the future. Additionally, the website will need storage for the website and the data stored in the databases. I would recommend an SQL server for the databases because of its proven reliability, and it is cost-free. To ensure the system’s data isn’t lost, software that performs routine backups for both the database and the website will be required. To ensure the customer’s data is protected and not accessible to unknown sources, the use of antimalware software and an Https domain will be advised. Antimalware software will help prevent malicious attacks and data breaches through various means throughout the system. An Https domain comes with an SSL certificate. This allows for the browser to encrypt the sensitive data being exchanged between the user and the system. Finally, a payment processing service will be needed to accept payment transactions. I would recommend the use of PayPal as it has been a staple in the industry for years.

* Internet connection
* Storage for database and website
* Web server
* Antimalware software
* Software to perform routine backups for database and website data
* SQL server to store data in a database
* Payment processing service
* Computer or mobile device to access website
* Dedicated server