# 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.]*

### 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.]*

### UML Sequence Diagram

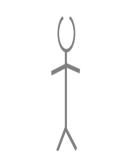
*[You were asked to create a sequence diagram based on* ***one*** *of the use cases you chose. Please insert your sequence diagram here. Check to make sure that you included appropriate components and symbols and that your design meets the client’s needs.]*

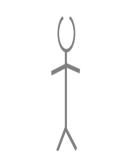
### UML Class Diagram

*[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.]*

## Technical Requirements

The system requires a dedicated server with a reliable internet connection. It also needs adequate storage for the database and website data. Users will need a computer or mobile device to access the website. A firewall should be implemented to safeguard the website ports.  
  
The system should utilize Windows Server for its stability and deploy SQL Server for the database. Backup software should be integrated for both the website and database. Apache should be implemented as the web server. Security software should be included to prevent malware threats.  
  
The website should be accessible in America. The website and database server should be secured in a data center. The server should be placed in a central location for optimized performance and accessibility.

 IT Officer/Owner



A black stick figure with a white background

Description automatically generated A black background with a black square

Description automatically generated with medium confidence

**User**

**DriverPass Non-Admin Staff**

Does the user have an account?

Submits Username and Password

User goes to DriverPass

Show Login Page

Yes No

Show Register Page

Authentication

Invalid

Enters Required info

**Authentication**

Valid

Input Validation

Invalid

Send email confirmation

Valid

Valid

User is Signed in

Adds package to shopping cart

User is authenticated

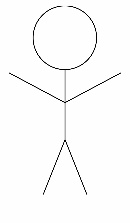
Goes to checkout

Enters Payment & Shipping information

**Authenticate Payment & Shipping Invalid Valid Fail to Process Process Payment Payment Processed**

Order has been placed and payment details has been sent to processor

Notified of successful purchase & Confirmation email has been sent

**USER**

Processed Successfully

Payment Info Sent

Error Processing

Receipt & Confirmation Sent

Validation of Information

Proceeds to checkout & Enters Payment/Shipping Information

Added Confirmation

Package added to cart

Select a package

**DriverPass**

**Payment Processor**

**Package**

0

1

1

1

0

0

0

0

1

1

1

0

1

**Packages:**

* packageID: int
* packageName: String
* packaagePrice: float

**Admin:**

* authLevel: 0

**Package Processor:**

* paymentID: int

**Cart:**

* cartID: int
* package: vector<int>
* total: float

**Test:**

* testID: int
* totalScore: int

**DMV Guide:**

* guideID: int

**Appointment**:

* appoint: int
* notes: String

**Schedule:**

* ScheduleID: int
* apts: vector<Appointmenet>

**Employee:**

* authLevel: 1

**Customer:**

* authLevel: 3
* - street: String
* City: String
* State: String
* Zip: int

**Driver:**

* authLevel: 2
* vehicleID: int

**Owner/Manager:**

* authLevel: 0

**Report:**

* Content: String
* reportID: int

User:

* **userID: String**
* **email: String**
* **username: String**
* **password: String**