# CS 255 System Design Document Template

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## UML Diagrams

### UML Use Case Diagram

*This diagram displays several use cases for the Driver pass system. The actors are the student, the Driver, the Administrator, the DMV, and the Secretetary. I ran out of symbols on Ludic chart to add more detail, but this is a modification of the Use case diagram I made in Module 6. I was color coding the actions based on actor role.*

*A diagram of a company

AI-generated content may be incorrect.*

### UML Activity Diagrams

*The good news is that when we write Dry code we get to reuse it, I reused the login functionality just as it would be in real code, Here is a student trying to schedule an appointment, and a Driver loging in after an appointment to input notes. I tried to get the images to be side by side, but maybe its because I’m on a mac I just can’t get it to format correctly. I use markdown in the real world.*

*A diagram of a flowchart

AI-generated content may be incorrect.A diagram of a computer

AI-generated content may be incorrect.*

### UML Sequence Diagram

*Here is a sequence diagram of the Driver activity diagram from above the backend will do more than authenticate, and really the backend is integrated with the UI, the UI is just served to the client and API calls communicate so they could be thought of as one system, you can’t get to the UI without the backend. But I separated it to show authentication.*

*A diagram of a flowchart

AI-generated content may be incorrect.*

### UML Class Diagram

*There are a lot of classes to show, I tried to capture the big picture and OO paradigms, inheritance, relationships, aggregation etc.*

*A screenshot of a computer

AI-generated content may be incorrect.*

## Technical Requirements

This is an online application, probably written in Java hosted on a server, It will be available through browsers and so requires a browser to view the application. Although data will be cached, there will need to be an internet connection to do an API request to fetch data and user login. It will have Role based Access so each Actor will have a different level of permissions. There is an an API call to the DMV, there will need to be an API key to fetch that data. It will generate downloadable reports in the excel format (.xlsx) and will require a compatable reader to view the document.