# 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 driver pass

Description automatically generated

### UML Activity Diagrams

A diagram of a computer

Description automatically generatedA computer screen shot of a diagram

Description automatically generated

### UML Sequence Diagram

Practice Test

A diagram of a software test

Description automatically generated with medium confidence

### UML Class Diagram

A computer screen shot of a computer screen

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.]*

* Cloud computing w/Cloud Storage – Meets DriverPass’s hands-off requirements for hosting and scaling.
* Java – Provides ample backend support for robust and portable server side programming. Includes all aspects of Object Oriented Programming to allow for a microservices architecture.
* React/ React Native – Integrates with Java through Node.JS and JavaScript with built in features to produce an interactive web or mobile application meeting DriverPass’s requirements.
* MySQL – Provides Relational Database for storing objects and tracking progress with ample integration for Java with optimized querying.
* Microservices Architecture – allows for continuing integration and promotes scalability. Isolates independent services ensuring a robust system mitigating errors and failures to maintain site integrity during failures.
* Role Based Access Control – Ensures each user maintains appropriate access to data and actions ensuring the security of the system and users.