

## 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

Key:

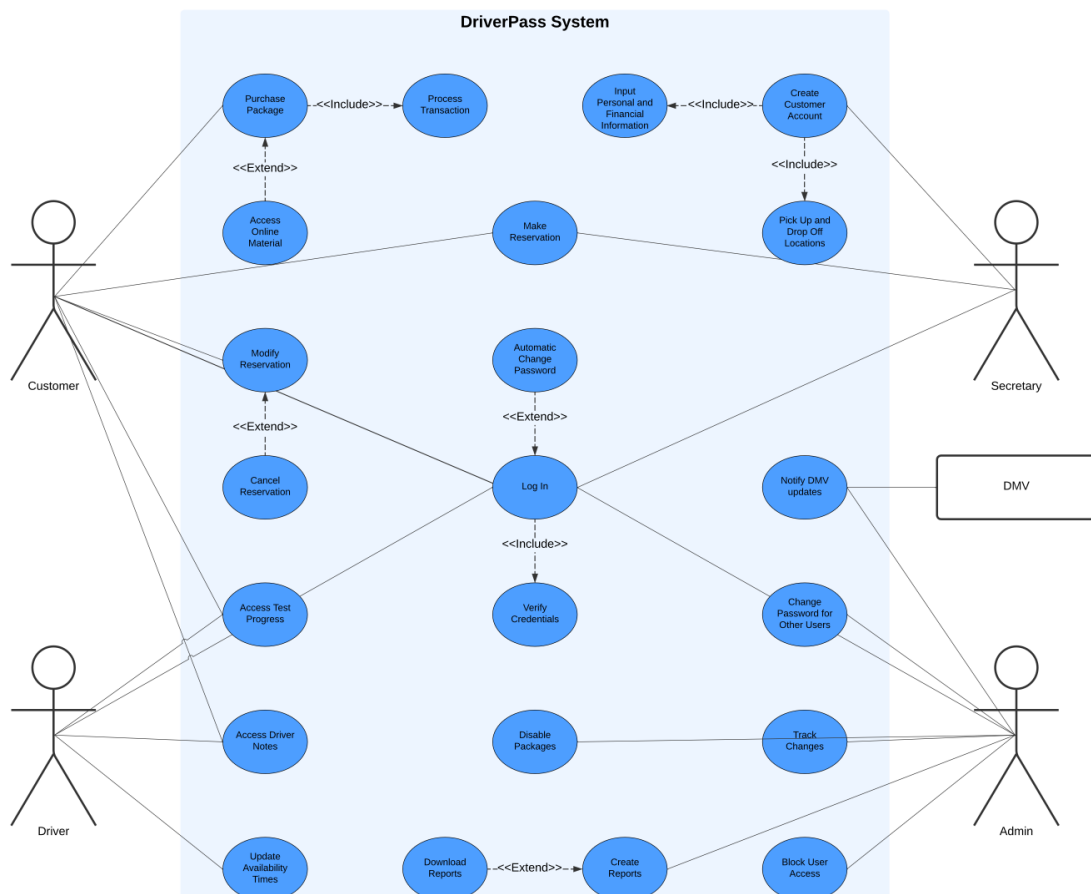
*Stick Figure = Actor*

*Blue Oval = Use Case*

*Line = Association*

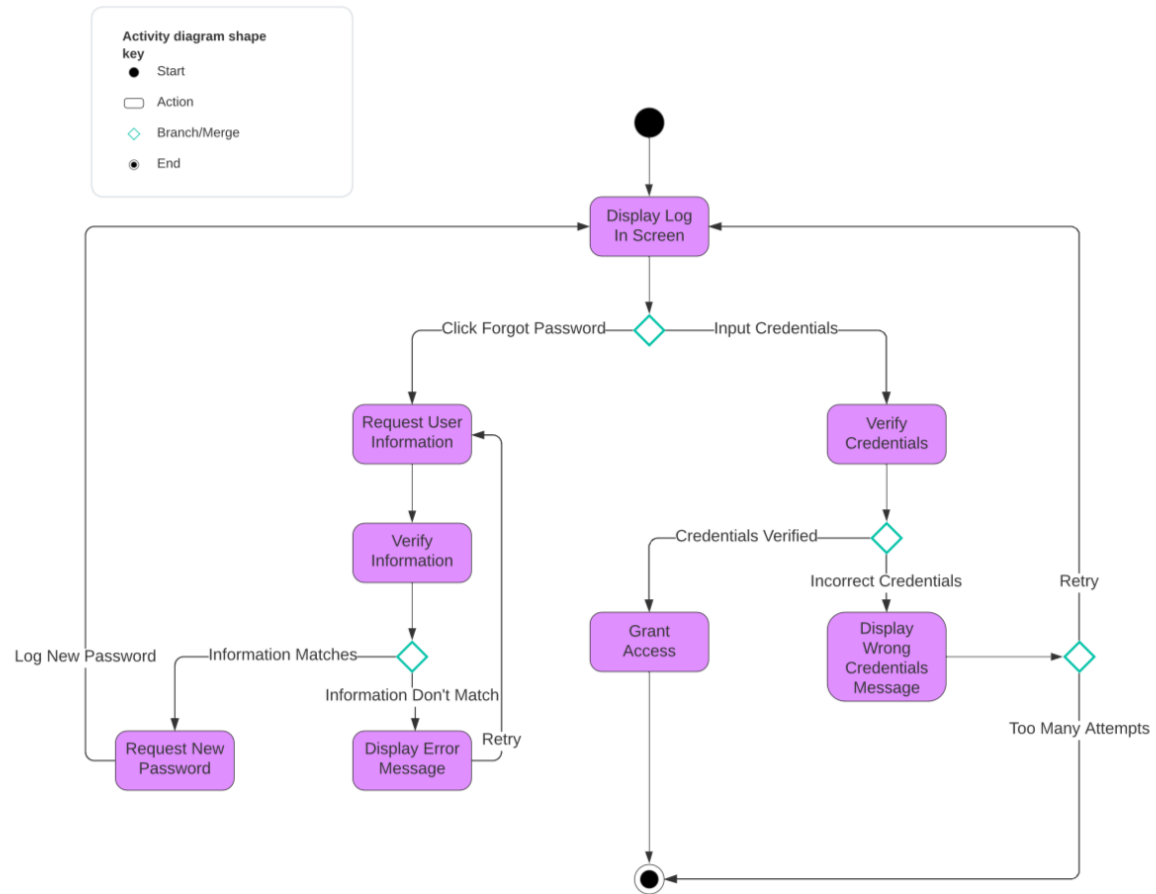
*Light Blue Box = System Boundary*

*White Box = External Actor*

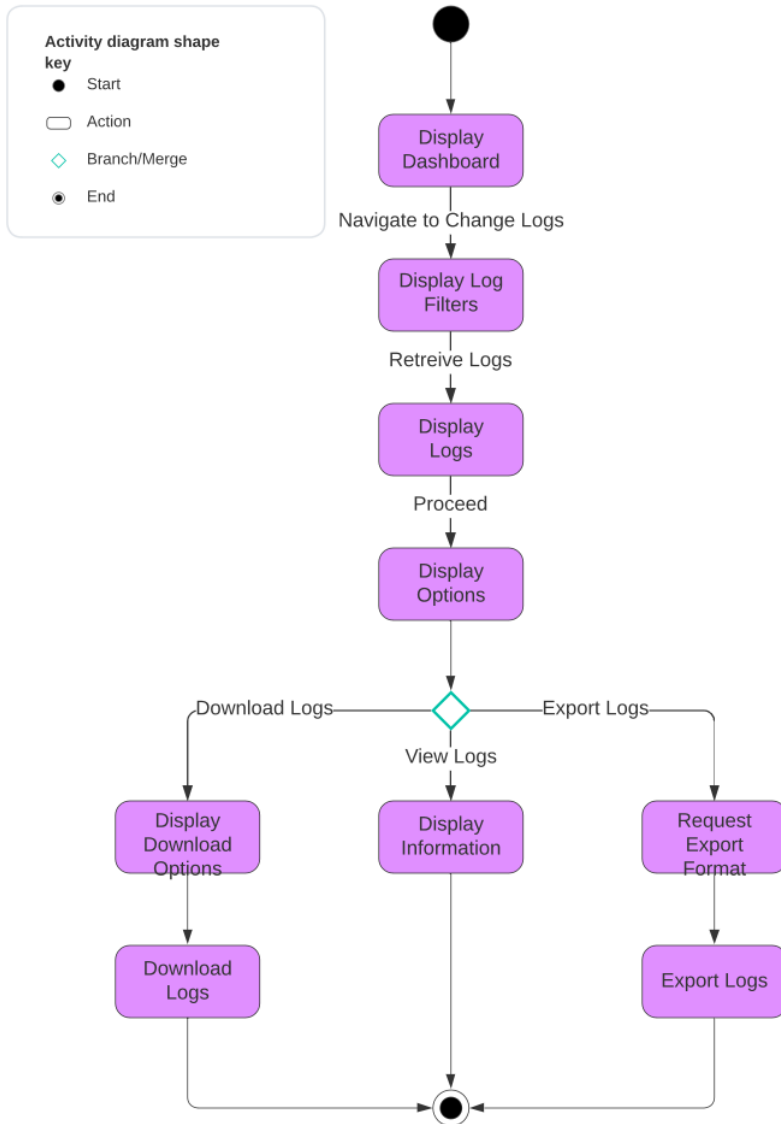


#### UML Activity Diagrams

## Activity diagram for logging in

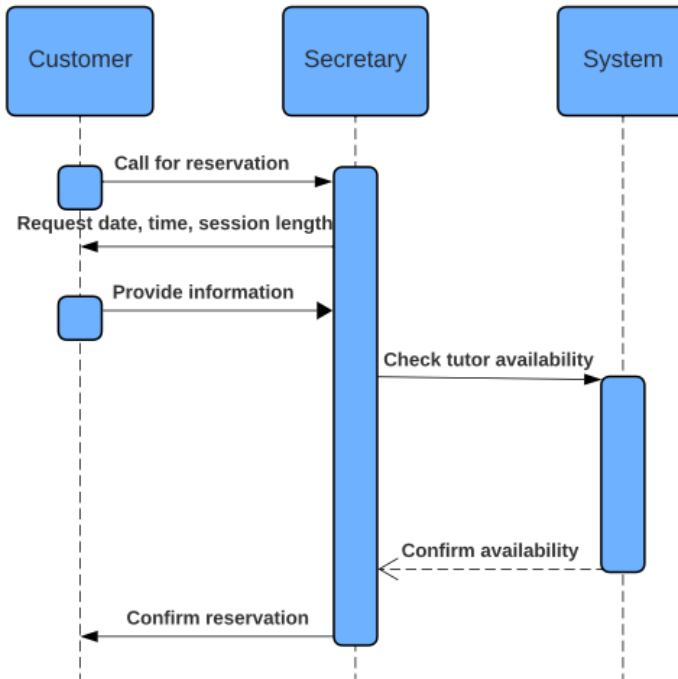


## Activity diagram for tracking changes after logging in

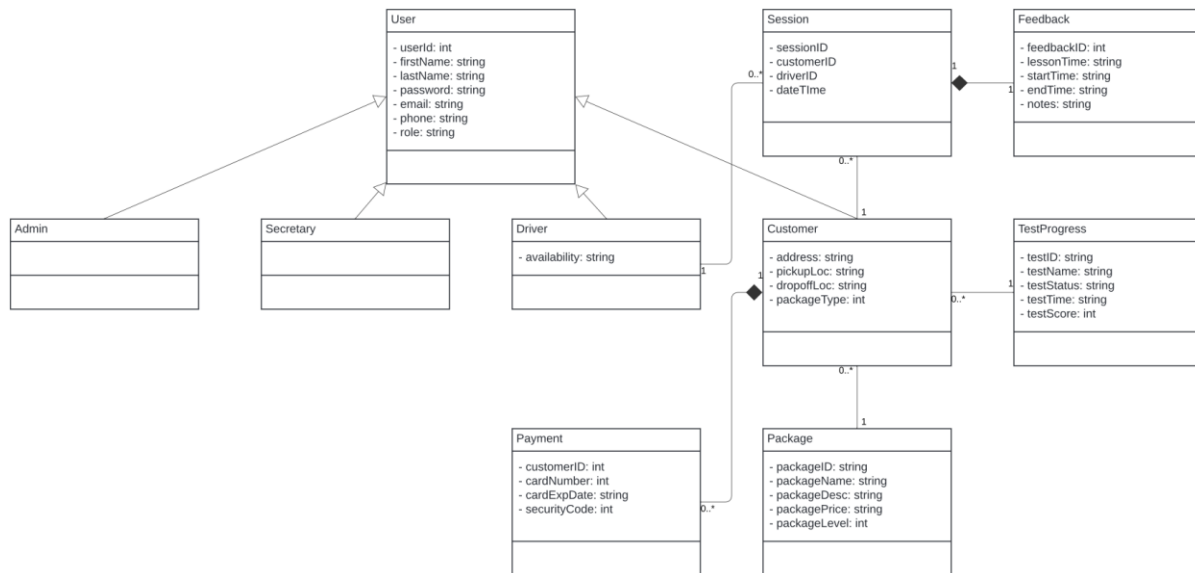


## UML Sequence Diagram

Sequence diagram for making a reservation



## UML Class Diagram



### Technical Requirements

1. The system needs to be able to be accessible on a variety of platforms and browsers. Customers who choose to interact with the system online could be using any one of many different types of platforms or browsers.
2. The system should follow industry standards and achieve 99.9% uptime. This is especially important since the system hosts online material that customers can access during different times of the day.
3. The system should employ role-based access control to grant permissions to different users. An admin should be able to restrict access to another user, but a driver should not have this privilege.
4. The system should have robust data security. This is paramount since the client wishes to store financial information, unless they decide to switch to using third-party services like Square.
5. The system should have log in security such as multi-factor authentication.
6. The system should be hosted on the cloud as per the client's wishes.
7. The system should be compatible with different devices such as mobile phones, desktops, or tablets.
8. The system should employ encryption techniques to protect sensitive information.
9. The system should have input validation to reduce the chance of mistakes and prevent customers from entering bad information.