# CS 255 System Design Document

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## UML Diagrams

### UML Use Case Diagram

A diagram of a diagram

AI-generated content may be incorrect.

### UML Activity Diagram 1

A diagram of a company

AI-generated content may be incorrect.

### UML Activity Diagram 2

A diagram of a flowchart

AI-generated content may be incorrect.

### UML Sequence DiagramA screenshot of a computer screen AI-generated content may be incorrect.

### UML Class Diagram

A diagram of a company

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## Technical Requirements

Technical requirements in system design are things a system needs to ensure that the system works as expected (Awati, 2025). In the DriverPass system, there are many technical requirements necessary for the system to function. One technical requirement that involves the hardware of the system would be a mobile device or computer. Without access to one of these devices, customers and employees cannot access the DriverPass system. Another technical requirement is having software capable of running the browser that the DriverPass system utilizes. If the software is not up to date and cannot run the latest browser, it may have issues accessing the system. DriverPass should be available on all major operating systems like MacOS, Windows, Android, and iOS, so that it has the best chance of reaching the most customers. Additionally, DriverPass should be supported on the following browsers: Google Chrome, Firefox, Microsoft Edge, and Safari. DriverPass want the website to be available at all times except when there are system updates that need to be made. To ensure this is possible, there needs to be a dedicated server for the website. This should be a cloud based server because that allows DriverPass more flexibility to scale the server as the business grows without having to physically expand their server infrastructure (SysGen, 2024). DriverPass also wants its rules and policies to be updated when the Department of Motor Vehicles updates its policies on its website. As a result, the DriverPass server will need access to a stable internet connection as well. Another technical requirement that this system needs is role-based access control, because different users will have different levels of access to the system. Using a role-based access control will allow the system to assign each user with a different role and with it access to different areas of the system (Lindemulder & Kosinski, n.d.).

**Citations:**

Awati, R. (2025, September 2). *What is technical requirements?.* TechTarget. https://www.techtarget.com/whatis/definition/technical-requirements

Lindemulder, G., & Kosinski, M. (n.d.). *What is role-based access control (RBAC)?*. IBM. https://www.ibm.com/think/topics/rbac

SysGen. (2024, July 26). *The pros and cons of cloud vs. in-house servers*. https://sysgen.ca/cloud-vs-in-house-servers/