# Yakuba Conde

# CS 255 System Design Document

## UML Diagrams

### UML Use Case Diagram

Diagram

Description automatically generated

### UML Activity Diagrams

***Login Activity***

Diagram

Description automatically generated

***Purchase Package Activity***

Diagram

Description automatically generated

### UML Sequence Diagram

*A diagram of a customer service

Description automatically generated*

### UML Class Diagram

*A diagram of a company

Description automatically generated*

## Technical Requirements

*The DriverPass system will require specific hardware, software, tools, and infrastructure to run smoothly. On the hardware side, we'll need servers to host the platform, along with desktops, laptops, and mobile devices for users to access the system. Additionally, network equipment like routers, switches, and firewalls will ensure secure and reliable connections.*

*For software, the server should use a Linux-based operating system, and users will connect through devices running Windows, macOS, iOS, or Android. The backend will be built using a framework like Django or Spring, with MySQL or PostgreSQL managing the system’s data.*

*As for tools, we'll use Eclipse for development, and Lucidchart to design UML diagrams. Testing will be done with JUnit for unit testing and Selenium for integration tests. Git will handle version control to keep track of changes.*

*The infrastructure will rely on cloud services, such as AWS or Azure, to provide scalability. For security, we’ll use SSL to encrypt communications and firewalls to protect the network. This setup ensures the system runs efficiently and securely while meeting all of DriverPass's needs.*