# CS 255 System Design Document

## UML Diagrams

### UML Use Case Diagram

*A diagram of a person's network

Description automatically generated*

### UML Activity Diagrams

The following activity diagrams depict two scenarios, the first is from a customer's perspective of scheduling an appointment. The second is from an appropriate staff role (IT or admin) providing customer support assistance in resetting a password, in the event a customer cannot verify the necessary information this use case will end, this diagram does not handle the security concern of someone trying to access an account that does not belong to them. An additional note should include that the new password set by an admin will be a generated string of numbers and letters that meet the password requirements, and the customer will be prompted to change it when they use it to log in.

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| --- | --- |
| A diagram of a process  Description automatically generated | A diagram of a company  Description automatically generated |

### UML Sequence Diagram

A screenshot of a computer screen

Description automatically generated

### UML Class Diagram

The following UML class diagram represents the primary classes of the DriverPass system the methods are not included, but would essentially consist of public getters and setters for the provided attributes, most of which are flagged as private.

A screenshot of a computer

Description automatically generated

## Technical Requirements

This system has various technical requirements, easier to display in a list:

* Various databases, including a backup for the server, and database management.
* Cloud computing service of choice for the server, such as AWS.
* Internet access and a web browser is a requirement to use the site.
* A solid network connection between the site and the server is also necessary.
* Programming language(s) will need to be determined.
* LucidChart would be helpful for system design.
* A code editor with a debugger.
* GitHub is useful for multiple programmers as well as version control.
* The website should be constantly available, with warnings for downtime.
* The website should be both secure and scalable.
* The DriverPass site should also handle many different users performing actions at the same time.