# CS 255 Business Requirements Document

Student: Magdiel Rosario

## System Components and Design

### Purpose

* The purpose of this project is to design a system for DriverPass. DriverPass aims to fill a market gap by providing structured training and testing preparation through online and in-person capabilities to increase successful driving tests at the DMV.

### System Background

* Liam, the owner of DriverPass, identified an increase in driving test failures where the addition of accessible training can increase the number of satisfactory tests.
* The system must support the ability to access online practice tests and resources regarding the DMV’s driving test. The system must be online, in the cloud, and accessible through both mobile and computer platforms. Additionally, it should allow data and documents to be downloaded by their respective users.

### Objectives and Goals

* The system must be accessible on computers and mobile devices with the ability to download documents and information to work remotely. The documents can be formatted to be used with programs like Excel.
* The system must support account creation and administration with various rights and roles.
* A customer must be able to make an online reservation on a date and time of their choice for driving lessons in time slots of 2 hours.
* User activities must be tracked to include reservation, cancellation, and modification with information of who made the changes.
* The system should be proactively updated with data from the DMV to ensure all training materials are current and accurate.
* User roles:
  + Liam: As the owner, I must be able to access data, control package offerings and receive updates from the DMV
  + Ian: As the IT Officer, I must require full access to manage accounts, reset passwords, and modify access rights
  + Secretary: As the secretary, I must be able to input information received over phone and input it alongside the online scheduling.
  + Customer: As the customer, I must be able to access and modify data, use my online practice tests and materials, as well as make and modify reservations.

## Requirements

### Nonfunctional Requirements

#### Performance Requirements

* The system must run in a responsive web-based environment with the capability to handle multiple users simultaneously without reducing performance. It should be accessible on both desktop and mobile platforms with monthly regular updates.

#### Platform Constraints

* The platform must run across various operating systems to be accessible through various platforms web browser’s such as Chrome or Safari. The back end requires a cloud-based database to ensure it remains scalable and reliable as the user base grows.

#### Accuracy and Precision

* Each user must have various levels of access to the system. All users must have access to the login and account information. The secretary must be able to input new appointments and handle customer information. The IT officer must have access to the backend to handle updates, manage user rights, and provide customer support. The owner must have access to the whole system. Most input should not be case-sensitive to enhance usability except for critical information such as passwords. The system must notify the admin of a problem immediately to ensure the system continues to be accessible.

#### Adaptability

* Making changes to the user should be done through an admin interface without changing code. The system must be designed to adapt future updates and features with minimal downtime, preferably during hours of least user traffic. The IT admin requires access to modify user rights, manage accounts and reset passwords.

#### Security

* Users are required to login with an email and password. The system should secure connections and data exchanges using Data Encryption Standard to protect all sensitive information. A brute force hacking attempt should lock the user account and notify them through email. The user must be able to recover their password with email and security question verification or alternatively contacting the admin.

### Functional Requirements

* The system shall allow users to register and login securely
* The system shall allow users to browse and register for different training packages
* The system shall allow customers to create, modify, or cancel their training reservation online
* The system shall allow the admin to update training, modify user roles, and user passwords
* The system shall generate an activity report to admins with a log with changes, time, and user

### User Interface

* The interface should allow users to login, input or modify information, modify appointments and input notes.
* The different users will be the customers, secretary, IT officer, and the owner.
  + Customer: Basic rights to create and modify profile, information, and online test
  + Secretary: Basic rights with access to create and view all customer profiles
  + IT officer: Elevated rights with access to view and modify training, user rights and user profiles
  + Owner: Elevated rights to the whole system with ability to download reports for offline work

### Assumptions

* Users have a major operating system, whether desktop or mobile, with access to a web browser.
* Users have a reliable internet connection to access the online platform
* Users have familiarity with web-based applications

### Limitations

* Delays in the DMV system could limit integration of updates to the training content
* Time limitations may limit the initial core functionalities with more other features planned to be integrated in the future.
* Budget may limit the operating system testing which could lead to compatibility issues.

### Gantt Chart

A diagram with red and blue squares

Description automatically generated with medium confidence