# CS 255 Business Requirements Document Template

## System Components and Design

### Purpose

* This project is for a new client of ours, DriverPass. The purpose of the system is to provide customers better driver training for the driving test at the local department of motor vehicles. Services are to include online classes, practice tests, and on-the-road training.

### System Background

* The client wishes to build a system that allows users to create, modify, and cancel appointments via online.
* The client asks that the system runs off the web, over the cloud, with minimal technical problems.
* Different employees will need to be provided with functions pertaining to their specific tasks.

### Objectives and Goals

* The system should provide the user the following functions:
  + Create, modify, and cancel appointments online.
  + Choose between the 3 different packages.
* The system should provide the secretary with the following functions:
  + Create, modify, cancel appointments.
  + Input personal information for user registration, as well as pick-up and drop-off location.
* The system should provide Ian, the IT officer, the following functions:
  + Full access over all accounts with the ability to reset them if a user forgets their password, and block access from anyone who no longer needs it.
* The system should provide Liam, the owner of DriverPass, with the following functions:
  + Access to system data online from any computer or mobile device.
  + Track all reservations, cancelations, and modifications made from each user’s account.
  + Print activity reports.
* To assure that the tests and practices the client is offering is current with what the DMV requires, the systems must be connected.

## Requirements

### Nonfunctional Requirements

#### Performance Requirements

* The system must be web-based.
* The system must be highly responsive with minimal load time.
* The system must be updated as necessary with minimal downtime.
* The system must be kept up to date to meet DMV system requirements, rules, and guidelines.

#### Platform Constraints

* The system must be accessible to users from most web browsers: Edge, Chrome, Safari, Firefox, Silk, Unix, etc.
* The system must be fully accessible from, and fully optimized, for mobile devices.
* Back end will require a database for storing user credentials and system logs.

#### Accuracy and Precision

* Each user will have a unique username and password that are case-sensitive.
* The system should alert the admin of any changes to user accounts and appointments.
* Admin users should have the ability to assign user types to grant different types of access.
* Daily error reporting to administrative users.

#### Adaptability

* The system must be adaptable, as the owner wishes to be able to add, remove, and modify the content that is available to the user.
* Administrative users need full access to database and web servers.
* The IT admin must be able to modify individual user accounts and also modify access to the services as needed.

#### Security

* To ensure that users accounts are protected, strong password enforcement, secure password recovery mechanisms, and multifactor authentication are all steps to a secure system.
* All data should be encrypted to help in the prevention of interference in data transit. Encryption can also help secure data that is stored in the database or other storage devices.
* If a user forgets their password, the IT admin should be able to assist in resetting.
* A temporary lock should be placed on an account after 3 unsuccessful sign-in attempts.
* 2-step verification should be available to users.
* To ensure that the user is the only individual who can request a password change, and have access to it, proper precautions should be taken. Security questions should be implemented, and for an extra layer of security, the user should receive a code via email to enter to change their password.
* Cloud management platforms, such as Sumo Logic, allow IT organizations to aggregate data from applications in the cloud and use it to achieve continuous monitoring of security threats and vulnerabilities.

### Functional Requirements

* The system shall validate user credentials when logging in.
* If 2-step verification is enabled, the system shall send users a code via SMS to enter prior to granting account access.
* The system shall block access to a user’s account after 3 consecutive failed sign-in attempts.
* The system shall send users a password reset link to their registered e-mail address, if they forget their password.
* The system shall alert the admin when there are changes made to DMV requirements.
* The system shall alert the admin of any changes made regarding user appointments.
* The system shall adapt to be fully functional via user’s browser or mobile device.

### User Interface

* The UI will be web-based and adapt to the browser and device that the user is accessing from.
* Users will need to be able to register to schedule, modify, and cancel appointments.
* Registered users will need to be able to access their account, available packages, previous registrations, tests that they anticipate taking, or have taken, complete with the results of said tests.
* Registered users shall have the ability to leave comments regarding the system and their driver.
* Administrative users will need access to all user accounts with the ability to add, modify, and restrict user access.
* Administrative users will be provided with access to each user’s package, the driver that they are matched with, their vehicle, and their time.

### Assumptions

* It is assumed that customers will have an email address to register for our services.
* It is assumed that our system can be somehow connected to DMV to stay current.
* It is assumed that customers have access to a modern web browser, desktop or mobile.
* Times to complete all tasks are assumed with a completion date.

### Limitations

* System must be web-based.
* System must be compatible with all modern web and mobile browsers.
* Approximately 17 weeks to complete all tasks.
* No way to anticipate any changes made to browsers.
* No way to anticipate any changes to DMV site and policies.

### Gantt Chart

Chart

Description automatically generated