# CS 255 Business Requirements Document Template

## System Components and Design

### Purpose

* The project's objective is to fill a gap within the field of driver education.
* The company behind this project is DriverPass.
* Their goal is to provide supplementary testing resources and practical experience to assist individuals in successfully passing their DMV driving exams.

### System Background

* DriverPass aims to implement a system that offers online courses, practice examinations, and real-world driving experience to enrolled students.
* They seek to enable students to register either by phone or through an online submission process.
* The issue they intend to address is the high rate of driver test failures at DMV centers.
* Their solution involves enhancing driver preparedness by providing comprehensive practice and training before the DMV exam.
* The system's key features should include:
  + Allowing students to schedule and adjust their appointments as necessary.
  + Providing three distinct packages for students to select from.
  + Notifying the owner when appointments are created, modified, or canceled.
  + Granting the owner access to the data from any computer or mobile device.

### Objectives and Goals

* Upon completion, the system should possess the following capabilities:
  + Registering appointments
  + Allowing appointment modifications when necessary
  + Enabling the owner to monitor appointment activity
  + Granting the Information Technology Officer the ability to reset passwords or block accounts as needed
  + Providing the owner with access to data from any computer or mobile device
  + Delivering online classes
  + Supporting practice tests
  + Offering on-the-road driving experiences
  + Tracking user progress in their training
* To ensure project progress and maintain focus, the team will employ measurable tasks. The approach involves initially designing the most basic functioning system and then incrementally adding features with each subsequent iteration.

## Requirements

### Nonfunctional Requirements

#### Performance Requirements

* The system should be entirely web-based to ensure universal access for all users and optimal functionality.
* The system should operate with maximum speed within the confines of the budget, given its focus on scheduling, where efficiency is paramount.
* Updates to the system should be seamlessly integrated, whether performed promptly or deferred until necessary to ensure ongoing maintenance.
* Since the system is web-based, updates should be conducted only when essential for sustaining support, as hardware limitations will be less of a concern.
* However, content should undergo continuous updates to ensure that all appointments and modifications occur in real-time.

#### Platform Constraints

* Given its web-based nature, the system will be compatible across various platforms.
* The system's backend infrastructure will necessitate multiple databases, including one for user accounts, another for storing all appointments, and a third for tracking transactions, enabling users to modify or cancel appointments as needed.
* To ensure broad browser compatibility, the system should refrain from relying on browser-specific features.

#### Accuracy and Precision

* Users will be identified through distinct accounts, each necessitating a unique username and password.
* User accounts will include the user's actual name and contact details to facilitate communication with DriverPass regarding their appointments if any concerns arise.
* Immediate notification to the system administrator is essential when an issue arises.
* Given the web-based nature of the system, ensuring uninterrupted system availability is of utmost significance, necessitating the swift resolution of any issues that may arise.

#### Adaptability

* A feature will be implemented that enables users to modify their account settings while logged into their accounts.
* The IT administrator will possess the authority to access and make alterations to any user account as required.
* Since the system is web-based, platform updates may not be as critical, but adaptations to browser updates will likely be necessary.

#### Security

* Either a username or an email address.
* A password that necessitates the following criteria:
  + Minimum length of eight characters
  + At least one uppercase letter
  + At least one lowercase letter
  + At least one number
  + At least one special character
* If there are three unsuccessful attempts to access the account, it will become locked, and only an email to the IT administrator will have the capability to unlock it subsequently.
* In the event that a user forgets their password, they will have the option to reset it. By entering the email associated with their account, they will receive a time-sensitive link enabling them to reset their password.

### Functional Requirements

* User credentials will undergo validation during the login process.
* Upon logging in, the system will grant users access to features specific to their roles:
  + Administrators will have the capability to manage appointments and user accounts.
  + Customers will be able to oversee their account settings, appointments, classes, and other features related to lesson packages.
* The system will monitor users' progress in classes and present this progress in a user-friendly format.
* Customers' purchases will be confirmed through email notifications.
* Upon request from an administrator, the system will generate reports detailing system issues and provide relevant information.
* The system will furnish transaction history upon request by an administrator.

### User Interface

* The interface should be compatible with both desktop and mobile devices, providing support for physical keyboards on desktops and simulated keyboards on mobile devices, as well as physical mice for desktops and touchpads for mobiles.
* Users, including both clients (end-users) and administrators, will access the interface via a web browser. The interface should adapt seamlessly to various devices, ensuring proper and intuitive display regardless of whether users are on desktop/laptop or mobile devices.

### Assumptions

* Familiarity with navigating and utilizing web-based services is expected.
* It is assumed that clients will have the requisite internet access to utilize the service.
* Another assumption is that the system will have the capacity to accommodate any quantity of clients.

### Limitations

* The system won't operate offline as it is designed as a cloud-based system.
* The system is dependent on a continuous power supply for functionality.
* Users might fail to receive notifications if they cannot access the internet.

### Gantt Chart

A screenshot of a calendar

Description automatically generated