# CS 255 Business Requirements Document Template

## System Components and Design

### Purpose

* This project is for our client DriverPass. DriverPass wants to make driver training more accessible, so more people pass their DMV test the first time. The goal is to create a system where customers and employees can create and edit user accounts, as well as schedule services.

### System Background

* The client would like a system where users can create profiles, schedule driving lessons, and take practice tests.
* The system will also need to allow DriverPass employees to manage user accounts and schedule driver lessons for them.
* The system should have modules for each package that DriverPass is offering customers.
* The system should notify DriverPass when the DMV changes any policies or rules.
* The client would like the system to operate over the cloud.

### Objectives and Goals

* The system will provide the user with the following functions:
  + Create user accounts
  + Track changes made to user accounts
  + Customer or employee reservation creation
  + Track which driver is assigned to which client
  + DMV policy tracking
  + Downloadable databases

## Requirements

### Nonfunctional Requirements

#### Performance Requirements

* The system will be accessible on any web platform via the cloud.
* The system materials can be downloaded offline.
* The system will update and backup automatically via the cloud.

Rationale: Performance requirements encompass resources, performance time, and accessibility. These were made clear to be important by DriverPass. It is important to the client that their system will be accessible anywhere. The client also wants to be able to download files and work on them offline. This makes it important that the system have the ability for materials to be downloadable. The client does not want to worry about maintenance, so updates and backups should be handled by the cloud service to limit disruptions for the client.

#### Platform Constraints

* The system will be accessible on all operating systems (Windows, Unix, Mac, Mobile).
* The system will communicate with the DMV database.
* The system will store user information on a cloud-based database.

Rationale: Platform constraints summarize the physical constraints of the system, including how data will be accessed and stored. The client wants the system to be able to run on any platform, including mobile. The system will load data directly from the cloud, so it will not be stored locally with the client. Additionally, it is important that the system can download information from the DMV database, as all important policies come directly from the DMV.

#### Accuracy and Precision

* The system will recognize an admin and their level of access when an admin logs into the system using specified credentials. Admins will be able to modify accounts and add or modify information in all accounts, customers will only be able to schedule and modify appointments.
* The system will recognize users based on their login credentials. Users will only be able to modify information about themselves as well as request appointments.

Rationale: Accuracy and precision describe different user types and how they will be recognized. It is paramount that the system be able to tell the difference between different admin and user levels. The owner admin should be the only user will total control, while users need only to be able to access their accounts. Creating accuracy and precision in the DriverPass system will assist with security measures.

#### Adaptability

* The system will receive alerts when the DMV updates any requirements. These alerts will be sent to the business admins.
* The system will allow users to update and change their personal information.
* The system will allow the admin to disable a package DriverPass has decided to discontinue.
* The system will allow for addition of modules by developers in the future.

Rationale: Adaptability will cover the system’s ability to change and be modified. The DriverPass system will have minimal adaptability. Users need to be able to change personal information, such as payment methods. The main need is to update tests and study materials when the DMV changes a requirement. Packages that are being sold will need the ability to be disabled if DriverPass decides to discontinue a product. Otherwise, any changes to the system will be made in future releases of the system

#### Security

* The system will allow users only access to their own accounts.
* The system will provide the owner admin with access to all accounts. The owner admin will have the ability to disable necessary accounts.
* The system will not have built in security, the cloud will manage data breaches. All data security considerations will be outsourced to the cloud platform company.

Rationale: Security is a key requirement for any system. The DriverPass security is mostly important to protect the privacy and payment information of users. By only allowing admin access to user accounts security will be as strong as integrity within the company. Allowing the owner admin to disable accounts will ensure any old employees will lose access to user information. Outsourcing data security to the cloud will help keep user information secure as the cloud company should have enhanced security measures in place.

### Functional Requirements

* The system shall create and print an activity report at the request of the owner admin.
* The system shall allow a DriverPass employee to create a user account, as well as add and modify information on that account.
* The system shall allow users to create a reservation at a specified date and time, and then modify or cancel the same reservation.
* The system shall allow a DriverPass secretary to make appointments for a user.
* The system shall track which user is scheduled to which car and driving instructor.
* The system shall allow users to take online tests and show results to the user.

Rationale: The majority of the functional requirements of the DriverPass system will focus on user account and reservation creation and modification. The system the client is envisioning will allow for easy creation of user accounts where all important information will be stored. They also want a reservation system where either the user or an employee can create appointments. In addition to accounts and reservations, the client wants an online testing area where users can check their knowledge online before taking their real-life drivers test.

### User Interface

* The system will be accessible through the DriverPass website and will first load a login screen.
* The user will interact with the system using their keyboard and mouse or mobile device screen.
* The basic logon screen will include:
  + A place to type in a username
  + A place to type in a password
  + A button for resetting a lost password
* If the user is an admin, the system will open an admin control window with the following:
  + An area to create new customer
  + An area to book reservations
  + An area to access customer information
* If the user is a customer, the system will open a customer window with the following:
  + An area displaying online test progress
  + An area displaying driver notes
  + An are showing customer information
  + An area to submit special needs
  + A photo of the customer and their assigned driving instructor

Rationale: The user interface is important as it is how the customer will engage with DriverPass. It is also important that it be streamlined for ease of use by the DriverPass employees. The system will be accessible on a variety of platforms, so the interface should be standardized across each. The customer will need the ability to interact with the interface either via their computer or their mobile device. Additionally, the interface must conform to the status of the user, whether they are an employee or a customer.

### Assumptions

* The user will access the system using an up-to-date web browser or mobile device.
* The cloud system holding user account information will not fail.
* DriverPass employees will create and modify user accounts and reservations in a timely manner.

Rationale: For the DriverPass system to work as designed, we must assume certain conditions. Firstly, we assume that both user types, employees and customers, will have the correct technology to engage with the system. If a user tries to access the system on an out-of-date machine it may fail. We are also assuming the cloud company we are contracting through will maintain their system in functional order. If the cloud crashes, we will not be able to access user information and book appointments. We also assume that DriverPass employees will enter information as it is received. If the employees fail to engage with the system, information will be lost.

### Limitations

* Requested reservation times will not always be available.
* If the DMV does not update their requirements online, the system may be out of date.
* The system will not be as nimble as possible, as the company has no developers on its team.

Rationale: All systems have limitations. For the DriverPass system one of these will be the availability of driving instructors. A client may request an appointment but may have trouble finding a time that works well for them. Another limitation is relaying on the DMV to stay up to date about requirements. If the government changes a requirement, but the DMV does not release the change digitally, our system will not be able to update. Additionally, DriverPass does not have someone capable of updating and modifying the system on staff. Once features are implemented, they will be unchangeable until a new release.

### Gantt Chart

Timeline

Description automatically generated