# CS 255 Business Requirements Document Template

## System Components and Design

### Purpose

* Liam, the owner of DrivingPass, would like to develop a new system to train new students for their driving test at their local department of motors vehicles (DMV). Liam would like to create an accessible way to learn without being in a physical classroom. The system required special features for their customers to show them the proper way to drive and be able to succeed on their driving exam. Liam wants the customer to be able to have access at any moment.

### System Background

* DrivingPass want to educate students in an online environment in which student are available to access their information at any given time. DrivingPass will have three different packages which provide access based on customers’ necessities. On DrivingPass, customers are going to be able to reserve their driving test either from the platform or by calling. If there is any problem with the customer or the server, the administrator should be able to cancel at any time. The number of failures must minimize for the students from them to pass the final driving test.

### Objectives and Goals

* Once the system is completed it will be able to:
  + Allow the student to access the online material and be available to download to study all the time.
  + Allow the students to reserve a driving lesson which will have a length of two hours.
  + DrivingPass administrators will receive an alert once a reservation is made, and they will be available to switch or cancel if needed.
  + Provides track to the customer so they will know their progress with their study plan.
  + Customers will be available to choose from their three main packages.
  + Based on their role, it’s the level of access to the information of the customers.
  + The system needs to be run in the cloud.
  + The system must look like the customer sketch.

**Requirements**

### Nonfunctional Requirements

#### Performance Requirements

* The system needs to be able to run on the main platform to be able to have easy, from any location, and fast access to the public.
  + IOS
  + Android
  + Web Browser
* The system needs to have the capability to run fast enough to update on the main platforms.
* The system needs to have high-quality security to prevent any data bridge or leak of information.
* The system should back up customer information in case of a server crash, and if there are crashes customers will notice that their information is saved securely.
* The system needs to keep up with the sped demand on the servers when is busier than usual like on exam days.
* The system needs to be able to follow new laws or regulation that comes out.

#### Platform Constraints

* The constraints that need to focus on are:
  + Web Browsers (Microsoft Edge, Chrome, Safari, Opera, etc.). Customers need to have high-quality materials when they access from any type of device. This includes fitting the video and text on any screen and high-quality audio.
* The Back-End team can set up a database to store information, so the information and progress can be accessed from the apps and the web browsers.

#### Accuracy and Precision

* Each customer will have a unique username and a password.
* The username cannot be the same as other users and the account can be also accessed using their email address (email address used to create the account) and their phone number.
* The password must require a certain number of characters including numbers and punctuation marks.
* The system will have a certain number of attempts on either password or username. Once the customers exceed the limit, customers will notify via email or text message to reset their password.

#### Adaptability

* The system will make changes without changing code which would be manipulated by requests and controllers.
* The system would update to the different platforms during the non-crucial time to prevent any crashes.
* IT Admin will access the source and modify code, regulations, and laws settled by the DMV.

#### Security

* Customers are required to have a unique username and password to secure their accounts.
  + The account can be also accessed via the email address or phone number.
  + In case the account is logged in from a different device, the admin will notify the user to make sure is our customer.
  + Latest phones have the capability of storing usernames and passwords, they are released via authentication like face ID, fingerprint, etc.
* The use of HTTP will secure the connection, preventing data exchange between the customer and the server.
* Aware customers when they are using suspicious networks to prevent a data leak.
* Customers will have a certain number of attempts to log in (4 attempts), after that, the customers will be notifying the issue and ask for authentication proof like Secured Questions, Phone Number Pin (send via text message), or email verification code (send via email address).
* If customers forget their password, their would-be options are to reset it via:
  + Customers can answer the secured question on the website.
  + Send reset information via their email address or phone number.
  + Contact support via phone number.

### Functional Requirements

* The system shall confirm the information to register:
  + Full Name
  + Address
  + Payment Information
  + Phone Number
  + Packages
* The system shall update any change from the DMV.
* The system shall confirm the login information and the password to log in.
* The system shall notify customers if their account is accessed from an unknown device.
* The system shall allow customers to reset their passwords.
* The system shall allow customers to pick between the three packages.
* The system shall update information between platforms.
* The system shall display customers’ progress in their classes.
* The system shall display customers’ scores.
* The system shall allow customers to download study material.
* The system shall allow customers to schedule driving classes.
* The system shall allow access to information based on their role in DrivinPass.

### User Interface

* The customer interface will depend on:
  + Operating System (Windows, Mac, Linux, etc.).
  + Device (laptop, computer, mobile device).
    - If customers decide to use the computer, the interface consists of a mouse and keyboard
    - If customers decide to use mobile devices, the interface consists of the touch of the fingers and the screen
    - If customers decide to use the laptop, the interface consists of a touchpad and keyboard
* There are two types of users for the interface the Administrator and the Developers, and both would be able to update and make changes if needed.
* Customers will be able to interface by appointing driving tests, selecting a type of package, downloading content, take lessons and tests online

### Assumptions

* There is no budget mentioned, I assume that the money will not be a limitation.
* There is a design for the website but not for the apps (Android and iPhone) and how they will work.
* I assume that newer and older smart devices are going to be able to download the app or navigate through the page.

### Limitations

* Customers will be limited if their hardware does not have enough capability to implement the app or website.
* The customers will need to have a certain amount of time each week and the required capital to purchase at least the cheapest package.
* The system would be limited capability if the internet connection is low.
* The project has a strict time limit.
* The project owner does not specify a budget to work around it.

### Timeline Description automatically generatedGantt Char