# CS 255 Business Requirements Document

## System Components and Design

### Purpose

The purpose of this system design is to prepare students for training for their driving test. The product will be a combination of practice tests and behind the wheel training.

The client wants the system to access data either online or offline. Realistically offline is not an option and the client has settled for online only, but they still want to be able to access the system anywhere and at any time.

The client also wants the system to show the user their progress throughout the driving courses, offer different packages that require reservations with options of different time frames with driving instructors, and report any interaction with any users or employees of DriverPass to ensure everything and everyone is held accountable in case an error occurs.

### System Background

The background of the proposed system is provided to give access to users to purchase different packages that give the users ample time with driving instructors as well as unique access to material only accessible to users who choose the specific package that offers this. For instance, the difference between package one and package three is the allotted time that users get with driver instructors, and the third package offers additional material that prepares the user with useful tests and important content. The proposed system runs from the web with access to the cloud and the system needs to implement a solid connection with the DMV so that any changes to any driving laws are known and the instructors can be updated. DriverPass also wants the system to be accessible anywhere online so that the system is portable and convenient to the client. DriverPass also wants to provide practice to students so that they can be successful in their driving test. The client recognizes that the process for the driver test leaves the students unprepared and the client wants to be able to take advantage of this opportunity so that DriverPass makes a profit, and the users feel more comfortable taking the driver test. There would have to be a database that keeps track of the information about what is being modified with the system so that the administrator would be able to see who changed something. The users would need to be able to provide personal information, and there would have to be assigned roles and authorities for the workers so that they can manage the system accordingly.

### Objectives and Goals

The goal in a system analysis is to ensure users are prepared for upcoming driving tests and the objectives related to this goal are to offer packages to users, schedule users with reservations with driving instructors, and set up users with personal profiles that have access to progress reports. These objectives encourage healthy habits of improving driving skills and grant the users experience to ready them for the driving test. The system will also be able to store information about the user and about the progress and notes that instructors store after sessions.

## Requirements

### Nonfunctional Requirements

#### Performance Requirements

* DriverPass should be web-based such as excel or cloud and be accessible to mobile applications.
* This system should be a fast-running system that can be accessed online anywhere at anytime and there should not be any lag so that users of DriverPass do not run into any problems, especially if they are studying the material or taking a practice test.
* This system should be updated frequently and should receive updated information from the DMV so that rules and regulations are renewed. The owner of DriverPass also wants updates of any activity made by users and the official staff of DriverPass.

#### Platform Constraints

* DriverPass system should be flexible and able to run on different platforms such as apple iOS, android, windows, the cloud, and mac products.
* DriverPass should have compatibility with different databases so that users have no limitations if they want to use this system.
* Due to data redundancy the DriverPass system cannot be accessed offline.

#### Accuracy and Precision

* Each user will have their own unique and personal username and password to access their own content.
* Each input for the username and password will have to be accurate and case-specific to ensure that no one other than that user can access the vulnerable data.
* With any technical problems the system can inform the IT officer when a user is unable to access their profile due to the username or password being forgotten. The user can also reach out to fix any problems that might be from a system malfunction such as the DriverPass system not being able to access online status preventing the user from accessing their content.

#### Adaptability

* The user should be able to add, remove, modify reservations or login information without changing code through the assistance from the secretary or by doing it themselves.
* The IT officer should be responsible for updating the DriverPass system daily and should have more access than DriverPass employees and users, but less access than the owner of DriverPass. This access would allow the Its admin to modify or maintain the system along with any behind the scenes IT maintenance needed such as implementing security protocols to prevent data leaks.

#### Security

* The user is required to provide their personal information, a unique username, along with a secure password. Personal information can be tied to an account and be useful for the DriverPass services, for example assigning a driver to a specific location close to the user’s address.
* By utilizing the usage of the cloud for the DriverPass system there should be secure connections for data exchanges between the client and the server. The It Admin will be able to monitor these secure connections and modify the system in case any additional security measures are needed to be added.
* The system should be able to notify the IT admin in case there is a continuous attempt to login an alarming number of times and the IT admin should have the ability to shut down these hackers by not allowing them to access the DriverPass system. For example, the DriverPass system can lock out the user trying to login and the only way to recover access would be to contact the IT admin and verify personal information associated with the account.
* If the user forgets their password, they can notify the Its admin to reset their password after verifying information, or they can access a secure link that forces the user to verify their account through an additional method such as a text message or email.

### Functional Requirements

* The system shall allow users to create their user credentials and validate when logging in.
* The system shall show the user a page that presents their updating progress from driving lessons, driver notes, or by labeling completed courses.
* The system shall keep track of modifications or updates made to the system and be transformed into a report.
* The system shall show the user options to create reservations, modify their personal information for their profile, contact IT admin, or cancel scheduled appointments.

### User Interface

* The DriverPass system needs to run off the web with access to the cloud.
* The look of the DriverPass interface needs to match the illustration provided in the DriverPass interview that the owner has created.
* The different users for this interface include the IT admin and the user.
* The IT admin needs to be able to modify the interface and make any updates needed and the user needs to be able to navigate the interface with ease.
* The user can interact with the interface through the browser or mobile applications.

### Assumptions

* The user needs to have working devices such as a phone or a computer along with access to an online connection.
* The user needs to have a valid driver’s license.

### Limitations

* The DriverPass system would be accessible when the preferred device of the user is online.
* If the user cannot remember their login information, the system would limit their access, and the user would have to take additional steps to regain access.
* DriverPass would have to consider the budget for paying their employees, even the employees who are giving driving instructions.
* Time would be a limitation in terms of making sure there are enough drivers who are available to give lessons to the users.

### Gantt Chart

