# CS 255 Business Requirements Document

## System Components and Design

### Purpose

* The primary purpose of this project is to allow DriverPass a platform in which to offer resources which can help driving students better prepare for their driving tests.
* The clientele of driving students are the object of focus and DriverPass wants a system in which driving students can sign-up to access their resources.

### System Background

* This project will be a system which can allow users to create an account in a system and be provided online classes, practice tests, and scheduled on-the-road training in order to increase passing odds on official driving tests.
* They wish to fix the problem of too many students failing their first driving test.

### Objectives and Goals

* The system will be required to offer users the following functions:
  + Create an account/profile
  + Register for online classes
  + Sign up for practice tests
  + Schedule road training
  + Provide role based access to system operations
  + Compile downloadable data reports

## Requirements

### Nonfunctional Requirements

#### Performance Requirements

* The system should be able hosted online and accessible from every major browser available on mobile devices and personal computers
* The amount of time required to access data should be reasonable and information should be updated as it is changed, with system updates being released in tandem with any official updates provided by the DMV regarding new rules, policies, or sample tests.
* The system admin should be alerted to any change in DMV guidelines

#### Platform Constraints

* The program should be available on the most popular operating systems (Windows, Mac, Linux) via web browsers.
* A cloud database will be necessary to ensure account data and services are stored and accessible.

#### Accuracy and Precision

* The system should be able to distinguish between the type of user who is logging in. Customers should have visibility and access to documents, while maintenance and administrators receive the highest overall authority level to the system.
* Changes made to appointments (creation, modification, deletion) should be logged and tracked to prevent any unwanted tampering, and the system should be able to provide an activity report.

#### Adaptability

* The DriverPass system should be designed modularly or with future modules in mind. Company CEO should be given the ability to disable customer packages upon system creation, with the option to allow for future packages to be changed.
* The system should be compatible with the latest OS version and adaptable to DMV updates. IT admin granted access to maintenance and modifications to ensure the system is up to date.

#### Security

* All users should be required to provide a username and password with at least a capital letter and a symbol. Account lockout after a certain amount of attempts should also be implemented in conjunction to help prevent brute force attempts at access. Account lockouts should be flagged to the IT administrator for surveillance. Users should also have the ability to reset their password if they forget by prompting them via email.
* The system will be run on a cloud server to allow security and backup to be managed by the hosting company, allowing DriverPass to focus on the business end.

### Functional Requirements

* The system shall validate user credentials when logging in
* The system shall allow customers to create an account as well as an appointment at a desired time and pickup location
* The system shall offer online lessons, practice tests, and three distinct packages for on the road training that differ by time allotment, level of depth, and bonus materials.
* The system shall record activity logs and changelogs, with reports to be downloadable by an administrator.
* The system shall alert administrators to updates in DMV guidelines and prompt updates

### User Interface

* The website should be adaptable to both mobile and monitor screens.
* Students and secretaries should have access to input form via website to create an account by providing first name, last name, address, etc.
* Website should provide a link to a contact page for student to company, and for company to student.
* Account home page should display the logo at the head, with windows that display fields such as online test progress, driver notes, basic information, special needs, driver photo, and student photo. Test progress should include name, time taken, score, and status (not available, in progress, failed, passed). Driver notes should include lesson time, start hour, end hour, and driver comments.
* The website should offer a page to purchase one of the available training packages, and a hidden ability to disable packages to the company CEO (until modifications are supported).

### Assumptions

* The user has access to the internet to either create an account or search contact information.
* The system will be run continuously from the cloud server with as little down time as possible.
* The system will manage driver assignment and prevent overlaps in appointment times.

### Limitations

* The system will require the internet to be accessible.
* The system will not support non-IT accounts from creating and modifying packages at launch.
* The system will only be supported on popular browser services on computers and mobile devices.
* The system will be compromised in the event that the cloud hosting company’s security is compromised.

### Gantt Chart

(I have tried unsuccessfully to create it in LucidChart).







