# CS 255 Business Requirements Document

## System Components and Design

### Purpose

DriverPass aims to give students a complete platform for learning how to drive that includes both online practice tests and training lessons at real-life traffic incidents. DriverPass wants a system that can be used on any device and let people book lessons, keep track of their progress, and get reports from the DMV. Giving kids enough training and practice will help lower the high rate of failure on driving tests.

### System Background

DriverPass knows that better driver training is needed because a lot of people fail their DMV tests because they aren't ready. Thus, DriverPass desires a system that provides both online and real-life training choices. Some of the things that are needed are online practice tests, a way to schedule driving lessons, and a way to keep track of students' progress and meetings. Additionally, the system should support different training programs and connect to the DMV so that rules and practice questions are always up to date.

### Objectives and Goals

The system should:

* Allow users to access their accounts based on their jobs (for example, Owner, IT Officer, Secretary, and Customer).
* Allow booking driving lessons online, with the option to change or cancel meetings.
* Give kids practice tests online and use state markers to keep track of their progress.
* DriverPass can turn on and off training packages as needed by managing packages.
* Connect to DMV tools to get new rules and questions, and let DriverPass know about any changes.
* Make action logs and reports to keep track of changes to bookings and changes to plans.
* Work as a cloud-based system to effectively handle backup and security needs.

## Requirements

### Nonfunctional Requirements

*In this section, you will detail the different nonfunctional requirements for the DriverPass system. You will need to think about the different things that the system needs to function properly.*

#### Performance Requirements

The system will be stored in the cloud and available from web browsers on both computers and phones. For all main features, like logging in, booking, and tracking, it should react within two seconds. Little updates should happen on a monthly basis, and big updates should happen every three months.

#### Platform Constraints

Any operating system (OS) with a browser should be able to connect to the system. This includes Windows, macOS, and wireless OSes. For managing user data, schedules, and activity logs, the back end will need a safe database housed in the cloud that is probably SQL-based.

#### Accuracy and Precision

Unique usernames and passwords will be used to identify people, so the system will need accurate role-based rights. Case will matter in input areas, especially when passwords are being used. Any login problems or data errors will be reported to the IT Officer automatically by the system.

#### Adaptability

The IT Officer should be able to change user rights and add or remove accounts without having to change the code. Through regular online maintenance, it will be able to adapt to changes to the platform. The IT administrator will be able to handle people and fix any problems with the system.

#### Security

To log in, each person will need a unique account and password. Encryption from end to end and HTTPS will keep the data transfer safe. Accounts will be briefly locked after five failed tries to log in, and the IT Officer will be informed. Email verification lets users change passwords that they have lost.

### Functional Requirements

* The system shall validate user credentials when logging in.
* The system shall allow role-based access for Owner, IT Officer, Secretary, and Customer roles.
* The system shall allow customers to book, modify, and cancel driving lessons online.
* The system shall track user activity for appointments and display appointment history.
* The system shall offer online practice exams and display test progress.
* The system shall integrate with the DMV for updates on rules and practice questions.
* The system shall enable DriverPass to disable certain packages.

### User Interface

The interface should be clean and responsive, suitable for both desktop and mobile browsers.

* Owner: View reports, track student progress, enable/disable packages.
* IT Officer: Manage users, permissions, and troubleshoot technical issues.
* Secretary: Schedule and manage appointments.
* Customer: Schedule, modify, and cancel lessons, take online exams, track progress.

### Assumptions

Assumptions include that all users can connect to the internet, that customers know how to use basic technology to book and take tests online, and that DriverPass will take care of any third-party interaction needs, like DMV changes.

### Limitations

Limitations include the fact that cloud hosting and DMV integration might not be within budget, and it can be hard to make sure that the design works on all devices due to technology issues. Insufficient time may stop advanced features, like non-developers customizing packages.

### Gantt Chart

