# CS 255 Business Requirements Document

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CS 255 Project One

## System Components and Design

### Purpose

* This project is for our new Client, DriverPass, a driving school company. The DriverPass’s owner, Liam, noticed many people failing their driving test at the DMV. Therefore, this project aims to provide a better driver training system for their customer (students).

### System Background

* The client asked us to build a system to allow their customers to take online classes, practice tests, and make a reservation for driving lessons.
* The system will help the owner to access his data from anywhere online as well offline– online access to download the reports and information to work offline using Excel
* The users are the DriverPass owner, the IT officer, the Secretary, and the students.
* The system will consist of a web-based cross-platform system using a serverless cloud.

### Objectives and Goals

* The system will provide the user with the following functions:
  + Access to online class
  + Practice tests
  + Show online test progress
  + Driver’s notes
  + Schedule / Cancel / modify appointments
  + Personal information
  + Package Option choice
  + Download Data
  + Activities Tracker
  + Print activity report
  + Password reset
  + Assign Student and driver

## Requirements

### Nonfunctional Requirements

* The system must lock the user account after three failed attempts to enter the password
* Users should be able to access their account and the material majority of the time
* The system should be usable and easy to navigate
* The users, employees, and the boss should be able to access the system on any device
* The system should be able to work on any web browser
* The system should perform the same when adding more feature

#### Performance Requirements

* The system needs to run in a web-based serverless environment
* The serverless provider will take care of the backup and security
* Website load time should be slow for users
* The system should remain fast and respond to all users regardless of workload

#### Platform Constraints

* The system will run a windows operating system
* We will need a database to store customers’ information, material, practice test, and schedule.

#### Accuracy and Precision

* The Secretary and Users (Customers) can make, cancel, and modify appointments online. The system should identify the boss, the IT officer, Secretary, and the users. The boss should have the authorization to access everything. IT officers should be able to maintain and modify the system.
* The system should be able to distinguish different package users. Package-one users should have six hours in a car with a trainer. Package-two users should have 2 hrs more than Package-one users, plus in-person lessons. Package three users should have 4 hrs more than Package two users in a car with a trainer and have access to online classes with all the content, material, and practice test.
* The system should be able to identify each lesson is 2 hours long. Therefore, Package-one users should have three lessons, Package two users should have four lessons, and Package three users should have six lessons.

#### Adaptability

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* The system should adapt to updates received from the DMV. The system should have no problems sending a notification whenever new rules, policies, or sample questions release from the DMV
* A developer or a system analyst to add or remove modules for future release.

#### Security

* The system should allow the user to try their password three times. If a user fails for the third time, the system will LOCK the user’s account. The user must contact the office to reset if the account is locked.
* The system should validate the user with their contact information if they forget the password. The system should reset the password automatically after validation.
* Hide the password field with asterisks
* The system should be able to track activities to prevent intentional or unintentional errors.
* Each user should have different authorization

### Functional Requirements

* The system shall validate user credentials when logging in
* The system should send notifications/alerts to developers when DMV releases new updates
* The system shall send a reminder to users and trainers for the upcoming appointment
* The system shall match the Student and Trainer based on time, and vehicle
* The system shall display online test progress and print reports
* The system shall show the schedule of events.

### User Interface

* The user’s device consists of a display screen (phone, tablet, or PC), keyboard, and mouse (physical )
* All user interfaces should include the following:
  + User’s picture
  + User’s information
* The Student and Secretary’s interface should consist of the following:
* Enter Information:
  + First name
  + Last name
  + Address
  + Email
* The Student and Trainer’s interface should consist of the following:
* Display online test progress and the tests that were completed. Show status: not taken, in progress, failed, or passed.
* Driver’s feedback according to a specific lesson.
  + Lesson time
  + Start hour
  + End-hour
  + driver comments
* Driver/Trainer’s picture

### Assumptions

* The user has high-speed internet
* Internet access is available for all users
* The user has new modern devices
* High level of security provided by the serverless providers

### Limitations

* The system can not work offline
* The system will stop functioning during downtime
* The system will experience common cloud issue
* The system will have no control over the server
* The system can not update modules automatically or by a non-developer

### Gantt Chart

