# CS 255 Business Requirements Document Template

## System Components and Design

### Purpose

* The client, DriverPass, is looking to have a system developed for training students to pass their driving test at their local department of motor vehicles (DMV). Including online classes, practice tests, and the ability to make reservations for in-person on-the-road training.

### System Background

* Our client has noticed a void in available training for students wanting to take a driver's test at their local DMV. The client looks to fill that void by providing a system that gives students access to in-person instructions and on-the-road training. The client would also like to make available online resources for studying and practice tests.

### Objectives and Goals

* The system should allow students to select from 3 different DriverPass packages, including driving lessons of various hours.
* The system should allow students (dependent on package selection) to take online tests, view resources, view scheduled driving lessons, and view driver notes.
* The system should allow students to make reservations for lessons, update reservations, and make cancelations.
* The system should allow the IT Admin to add or remove available packages.
* The system should allow the Manager to reset passwords.
* The system should allow the Manager to track changes to the schedule and who made the changes.
* The system should allow the Secretary to add, update, and delete registrations in the Student's place.

## Requirements

### Nonfunctional Requirements

#### Performance Requirements

* Web-based
* Live-updates for reservations
* Regular updates for DMV data

#### Platform Constraints

* Cloud-based platform
* API for connect to DMV
* Database for storing various information.
  + Student reservations, test, login information
  + Admin logs for users use of the system
  + Driver Schedule tables
  + File system for images
    - driver/student photos
    - WebSite Images

#### Accuracy and Precision

* Distinguish users based on user rights and roles.
* Logs should allow for the Manager to see who made, canceled, modified a reservation with a printable activity report
* The system should add or remove visible options on the student interface based on the purchased package.

#### Adaptability

* IT Admin should have access to perform minimal system maintenance.
* The chosen cloud server should handle server updates.
* IT Admin should have access to add or remove packages based on availability.
* Students should have access to create, modify, and delete their accounts when purchasing packages or making reservations.

#### Security

* Admin should be able to reset passwords.
* The cloud provider will handle general security.
* User accounts should have a number of attempts for access before a lockout.
* Users should be able to request and change the password as well automatically.
* Encryption techniques should be used for all personal user information. Credit cards/phone/email/etc…

### Functional Requirements

* General Functions – All Users – Allow user login and validation of user
* The system shall validate user credentials when logging in.
* (Potential) Students shall have the ability to create user accounts on the DriverPass website.
* Student Users shall have the ability to view, select, and order the different packages offered by Driver Pass.
* Student Users shall be able to submit user information. The first/last name, address, phone number, state, credit card number, expiration date, and security code.
* Students shall be able to make reservations for hands-on driving lessons, selecting dates, and available time.
* Students shall also have the ability to make updates/changes to their reservations up-to canceling.
* Students shall be able to view their online test progress.
* Students shall be able to view driver notes from lessons.
* Secretary User shall be able to submit student user information in place of the Student.
* Secretary User Shall be able to make reservations and changes to reservations in place of the Student.
* A driver assigned to a student process shall be initiated. More details are needed on how that works.
* Admin User shall have the ability to reset user passwords.
* Admin User shal have the ability to view and print transaction-based reports in the system. (EX: Student making a reservation, or Secretary modifying a reservation.)
* IT Admin User shall have the ability to perform system maintenance.
* IT Admin User shall have the ability to add, remove Driver Packages.
  + Reasoning based on Clients' desire to diable a package if no more customers should register for an individual package.

### User Interface

* The system is requested to be a web-based application using a cloud-based client-server.
* All Interface pages should include a navigation bar.
  + Option on Bar should Include links to a Home page, Packages, User Account
* The student interface can be divided into four quadrants.
  + Top-Left: Test Progress Module
  + Bottom-Left: Driver note table with a record of Hands-On lessons.
    - Columns: Lesson Time, Start Hour, End Hour, Driver Comments.
  + Top-Right: Student Information Module.
  + Bottom-Right: Any Special Needs Notes. Photo of Driver. Photo of Student.
* Secretary interface was not given visual representation.
  + Secretary should have options to select Student accounts
  + Secretary should have options to view driver schedules.
  + Secretary should have options to create accounts for students.
* IT Admin
  + More details are needed of what Front-End functions the IT Admin needs access to do.
  + An option to enable, disable, add packages.
* Admin interface
  + Options to search for user accounts and reset passwords.
  + Option to download reports,
  + Driver schedule view.

Reasoning: Minimal data on how users other than Student were to preform functions were provided. Options that should be available based on role were given. These options should be included in the interface.

### Assumptions

* Students have access to the internet via a PC or Mobile device.
* Students have access to a debit/credit card
* Students have supporting technology to view any downloadable content.
* Drivers will have some sort of external notification of lessons they are over.

### Limitations

* Updates through API are an unknown factor. How often does the DMV update policy's, example questions, etc. Update request can be automated, but without knowledge of when updates occur, systems resources (which equate to time and money in a cloud environment) could be wasted making calls that get not response of new values.

### Gantt Chart

