# CS 255 Business Requirements Document Template

## System Components and Design

### Purpose

Client wants to provide a system to provide additional training, lessons and practice tests for students. Many people are failing their driving test at the DMV, with additional assistance of DrivePass rate of failure can be reduced. There is currently a void in this type of training.

### System Background

* Many people fail their driving test at the DMV, DriverPass will provide additional driver training.
* Creating a new system to train students for their driving test at their local DMV.
* DriverPass will provide **online classes and** **practice tests**.
* Can also provide **on-the-road training** for their clients.

### Objectives and Goals

* Access data from PC or mobile device and download reports and some information
* Admin rights to all accounts, change passwords or block accounts
* Tracking - Reservations, cancelations, last to modify. Printable activity report of tracking parameters
* Two hour reservation blocks with day and time of lesson online with the customers account.
* Offline modification to allow call or visit to create reservation with secretary.
* Able to identify which user is matched with a certain driver, time and car.
* Users of the system  
  - IT officer: maintaining system, modifying, ect.  
  - Secretary: Make,cancel or modify appointments.  
  - Customers: Make,cancel or modify appointments online.
* Three packages for customers  
  - Package one: six hours with a trainer  
  - Package two: eight hours with trainer and in-person lesson  
  - Package three: twelve hours with trainer, in-person lesson, Online classes and practice tests.
* (Future development) Flexible system to customize packages without developer.
* Ability to disable package.
* Registration order  
  - Phone call or API call  
  - Customer information: First name, Last name, Address, Phone Number, State, Credit Card Number, Expiration Date and Security Code  
  - Pickup location and Drop-off location should be the same.
* Automatic Password reset option for customer.
* Connect to DMV to update rules, policies or sample questions with notifications.
* Run off the cloud for minimal technical issues

## Requirements

### Nonfunctional Requirements

#### Performance Requirements

* Needs to run off the web, or preferably the cloud.
* Limited issues with backup and security, needs to focus on business not technical problems
* Applicable with mobile device
* Daily checks for DMV updates, Monthly updates to allow time for creating practice tests and update lectures.

#### Platform Constraints

* Web based will need to be compatible with most commonly used browsers. (Google Chrome, Bing, Safari)
* Will need a database to hold clients information, catalog and orders.
* Need to be able to update from the DMVs database to keep all rules and regulations up-to-dat

#### Accuracy and Precision

* Independent logins for clients and the system administrator, system administrator can be required to use two-factor authentication to provide additional protection.
* Critical issues should be immediate, warnings saved in a log to address later
* Need to distinguish what is critical and what is a warning.

#### Adaptability

* Constant cycling of users only needing the service until they have there license, will need to quickly update users.
* System will need to be updated when the DMV updates any rules,policies and implement the sample questions.
* IT admin will need to provide customer’s account to provide support.

#### Security

* IT admin needs access to have full access over all accounts, ability to reset passwords or remove accounts.
* AES128/256 encryption
* Min and Max password character length
* Implement CAPTCHA or two-factor authentication
* Send user notification when forgot password function is used, send time-limited security code to their desired communication type Email or text.
* Implement server load balancing for DDOS attacks.
* Properly encapsulate and protect attributes.
* Case sensitive and disabling certain special characters to prevent code injection

### Functional Requirements

* The system shall provide online classes and practice tests.
* The system shall allow the IT admin to download the reports.
* The system shall provide access for computer and mobile devices.
* The system shall provide tracking for reservations of who made, canceled or modified it last.
* The system shall schedule reservations for driving lessons
* The system shall have multiple accounts with different privileges'. Admin, IT officer, secretary and users.
* The system shall limit the number of appointment dependent to the number of cars and instructors available for that day.
* The system shall inform the client of three packages, ability to disable packages when needed.
* The system shall collect the clients information
* The system shall provide the client a pickup/drop-off location choice
* The system shall provide the user a password reset function
* The system shall get a notification of any DMV updates.

### User Interface

* Browser based application from a computer or mobile device.
* The client will have a forum to input information, then a scheduling forum for the desired package.
* The IT admin shall have the ability to search and modify accounts on the database.

### Assumptions

* Clients current system can handle the additional bandwidth
* Proper documentation to inform the employees of the new system and how to navigate
* 24/7 access

### Limitations

* Limited manpower, small issues can cause delay in development
* Estimated bandwidth needed
* Updates from DMV
* Updating database to schedule/ free up day for appointments

### Gantt Chart

