# CS 255 Business Requirements Document Template

## System Components and Design

### Purpose

The purpose of this system design is to allow DriverPass to start an online driving business, on and off the road. This will compose of an online component where they can take classes and practice tests, and a in person component where a user will schedule appointments with real drivers for in-person practice.

### System Background

* They need online and offline access to the system
* The owner wants the ability to download reports and modify them on excel later when owner is at home.
* IT Administrator needs full access to all accounts for customer password resets, keep record of when a user makes a change to the system in case an employee makes a mistake.
* Need the ability to maintain a database of all customer info
* Be able to schedule a 2-hour long driving lesson both online and in-person with the secretary, logging day/time.
* Must be able to maintain a database of current cars owned by DriverPass, and the vehicles VIN #, Make, Model, Color, and License Plate #. And the ability to add and remove cars. Current number owned is 10.
* Needs the ability to identify which driver is using which car with what customer.
* Must be able to support multiple, currently 3 customer packages and have everything communicated correctly per package.
* Must be able to have customer packages be removable and have the ability to add new ones.

### Objectives and Goals

The objectives of the system are to:

* Be able to handle a customer buying a package, giving the system an input of their information (phone number, name, address, etc.) and then store what package they purchased.
* Must also be able to purchase packages in-person and have secretary input information.

The goals are achieved if we are able to provide the following functionality:

* Must be able to maintain an Online Learning Management System, to coordinate tests, quizzes, and online learning modules.
* Must also maintain a clean usable U.I., the Owners’ I.T manager sketched a suggestion check interview transcripts for picture.
* Users will include Main Boss, IT, secretary, and potentially the customer:
  + IT Administrator will have full access to the system to make any necessary changes.
  + Secretary will have access to modify, schedule, or cancel appointments.
  + Customers will have the same access and the ability to create new user accounts.

## Requirements

### Nonfunctional Requirements

To start the system shall have sufficient network bandwidth, as the testing takes place online, bandwidth is very important. The project must also have accessibility and adaptability, accessibility because there are going to be many different people from all types of backgrounds using this service, so it must be easy to use by most people. Adaptability because the Main Boss at some point wishes to make changes to the existing system. The system must also be easy to maintain as you don’t want to put the website down for too long or people can’t use their practice material or any in person driving cannot take place.

#### Performance Requirements

* The system is going to run on a web-based server, it should be able to run on the web browsers of most operating systems.
* The system is only going to require moderate speeds as they are only servicing their local area and their current business model doesn’t support anything else.
* The system will need an update when the DMV gets new policies and rules

#### Platform Constraints

* The system should be designed to run on any web-based operating system and should be compatible with all three major operating systems: Windows, Mac OS X, and Linux.
* An online database for customer information, as well as the data storage of all DriverPass’ cars, scheduled appointment times, and handle their LMS.

#### Accuracy and Precision

* Every user is anticipated to create a username and a password, when accessing the website for the first time. The inputs should be taken as case sensitive
* Systems should have a multi-factor authenticator to make it harder to brute force user accounts. While we don’t think this will be probable, it could be very problematic if the issue was not addressed now.
* The system should be capable of informing an admin on an immediate basis of any bugs or issues with the system to be corrected quickly. A report a bug button somewhere is usually a big help.

#### Adaptability

* Without altering source code, users may be added, updated, and removed.
* When new functionality is necessary, the technology will be gradually integrated into platform upgrades.
* Before making any platform changes, it will be up to DriverPass to determine whether to offer more website functionality, however they can come to us for recommendations.
* The IT Administrator will have full access to the system, allowing him to make any necessary changes to the system or delete any employees who no longer work for DriverPass.

#### Security

* The user will require a username and password to login, along with multifactor authentication.
* The cloud will be solely responsible for the data exchange between the client and the server
* The system should disable any users account after 5 incorrect login attempts in order to prevent brute force attacks.
* If a user forgets their password, they will be prompted to enter the email they used to set up their account, and a password reset link will be sent to that E-mail address.

### Functional Requirements

* The system shall validate user credentials when logging in.
* The system shall book reservations when made by the user.
* The system shall provide practice tests, quizzes and classes.
* The system shall keep track of which driver is paired with which car and with which customer
* The system shall currently offer three different driving packages with the ability to add more later
* The system shall run moderately fast and efficiently
* The system shall provide custom access based on the user and their privileges.
* The system shall show the test and work the user has already completed.

### User Interface

* The interface must provide the customer the ability to make appointments for in-person driving practice and take online tests and classes if they purchased the correct package.
* The interface must allow IT Administrator to make changes, and update the system as needed.
* The user should be able to interact with the interface from a phone, laptop, or desktop. Any device capable of accessing the internet.

### Assumptions

* For the system we were not provided a budget, thus we are assuming that everything we will need to develop this system to its fullest will be in the budget. This involves working in a Linux environment as well as utilizing the cloud.
* We are also assuming that we have easy access to this technology.

### Limitations

* We have about five months to create and complete this website without having been allocated a budget.
* We are most certainly going to need more personnel to create this website in a five-month timespan
* As a result, I suggest using an agile approach to this project

### Timeline Description automatically generatedGantt Chart