# CS 255 DriverPass Business Requirements

## System Components and Design

### Purpose

*What is the purpose of this project? Who is the client and what do they want their system to be able to do?*

* The purpose is to design a system to our new client DriverPass, they want to take advantage of the void in the market when it comes to training students for driving tests at their local DMV.

### System Background

*What does DriverPass want the system to do? What is the problem they want to fix? What are the different components needed for this system?*

* The customer wants there to be better driver training due to the amount of people failing their driving tests at the DMV. He intends to fix this problem by starting DriverPass to provide driver training for his customers. These project will require a cloud based system that can keep the most up to date files from the DMV, and user will have to be able to download copies of documents.

### Objectives and Goals

*What should this system be able to do when it is completed? What measurable tasks need to be included in the system design to achieve this?*

* The customers will have an online account that they sign into, if the customer by chance forgets his password DriverPass needs to be able to reset their password. Once the customer logins they can get 3 different main packages (currently) which need to be a selectable for the customer. These packages need to have the ability to be disabled if desired. One of these packages will need to provide the user a means to access the online class with the content and material. When a customer orders a package the following information needs to be recorded: first name, last name, address, phone number, state, and their credit card number, expiration date, and security code. The website needs to be able to book reservations for classes/instructors on the website, they also need to be able to cancel reservation within a certain amount of time of the appointment. Once booked the website needs to provide drivers name, vehicle description, and confirmation time/date. This database will be rather small due to the small amount of employees and cars (10). For the online class the progress for the assignments and tests needs to be record and the users will have to be able to download files that can be viewed offline for example into Excel.

## Requirements

### Nonfunctional Requirements

#### Performance Requirements

*What environments (web-based, application, etc.) does this system need to run in? How fast should the system run? How often should the system be updated?*

* Tests and practices from the DMV need to be synced with DriverPass website along with new rules or polices
* The system needs to be web based
* The system needs to be have a quick enough response time so students can answer questions and do the quizzes/tests smoothly

#### Platform Constraints

*What platforms (Windows, Unix, etc.) should the system run on? Does the back end require any tools, such as a database, to support this application?*

* The DriverPass software will run on a browser like Chrome, Safari, Microsoft Edge, Etc.
* The DriverPass software will need to run on mobile devices as well
* The DriverPass software will require a database to store the store information along with DMV info

#### Accuracy and Precision

*How will you distinguish between different users?* *Is the input case-sensitive? When should the system inform the admin of a problem?*

* The system needs to be able to recognize case sensitivity info like passwords
* The DriverPass needs to distinguish customers who purchase package 3 vs package 1 or 2 so they can be granted access to online class with all the content and material along with practice tests.

#### Adaptability

*Can you make changes to the user (add/remove/modify) without changing code? How will the system adapt to platform updates? What type of access does the IT admin need?*

* The system needs to be able to add and remove appointments with driver/car and take a time slot when being added to the driver’s schedule (stop driver from being double booked).
* IT admin access with complete information visibility for special cases like enabling/disabling packages in future updates

#### Security

*What is required for the user to log in? How can you secure the connection or the data exchange between the client and the server? What should happen to the account if there is a “brute force” hacking attempt? What happens if the user forgets their password?*

* Customer will create username/password when sighing up and provide user info including name, date of birth, and registration email.
* DriverPass allows the user to login with their password 3-5 times, if user fails login, email is sent to customer stating their password is expired and they need to setup a new one.
* Customer will have to access email and setup new password (12+ characters, One capital, one symbol)

### Functional Requirements

*Using the information from the scenario, think about the different functions the system needs to provide. Each of your bullets should start with “The system shall . . .” For example, one functional requirement might be, “The system shall validate user credentials when logging in.”*

* The system shall determine customer ID/information from username/password upon login
* The system must give them the option to purchase packages 1 – 3
* The system must be able recognize valid credit cards and push charges to card company
* The system must allow customer to book X amount of classes with instructor based off package purchased
* The system must grant customer access to online resources if package 3 is purchased
* The system must allow password resets for locked accounts
* The system must display exam progress
* The system must display calendar with driver’s schedule
* The system must update to any DMV changes/updates
* Ability to download information from Online classroom and accessed offline

### User Interface

*What are the needs of the interface? Who are the different users for this interface? What will each user need to be able to do through the interface? How will the user interact with the interface (mobile, browser, etc.)?*

* User will access Driverpass website through windows web browser
* First time users will be able to register with range of packages
* Once logged in, they will be presented with page that contains: Online test progress, student info, driver notes, special needs and photo for driver & student
* Online test progress will say something like not taken, in progress, failed, or passed
* Driver notes will be broken down per lesson along with start/end hour

### Assumptions

*What things were not specifically addressed in your design above? What assumptions are you making in your design about the users or the technology they have?*

* Customer has access to computer/mobile device with internet access
* Customer has valid credit card to purchase package
* Online system will be accessible 24/7

### Limitations

*Any system you build will naturally have limitations. What limitations do you see in your system design? What limitations do you have as far as resources, time, budget, or technology?*

* The system requires a good internet connection to purchase package
* The system requires a good internet connection to access online class
* The client only has 10 cars/drivers

### Gantt Chart

