# CS 255 Business Requirements Document Template

## System Components and Design

### Purpose

* The client is DriverPass. They would like their system to train users for driving test with online classes, practice tests, and give the option for on-the-road training.
* Track who makes, deletes, or modifies a reservation
  + Who users are paired with, times, and cars used
* Gather information for registration and password reset ability
* System will need to access data from anywhere at any time, both on and offline.
  + Download some reports and information while online to take it offline
* Customers make reservations online or over-the-phone/in person
* Accurate and up-to-date DMV information and get notification for changes
* Run on the cloud

### System Background

* DriverPass has identified a void in the market relating to training students in preparation for their driving test at the local DMV
  + Want better driver training
  + Many students failing
* Their solution is to provide training to users in three different packages for their users to buy
  + These packages include driving lessons, in-person lectures, and access to the online courses with the different packages
* Users should be able to take online courses and practice tests along with appointments for on-the-road training

### Objectives and Goals

* Offline capabilities
  + Downloading reports and information for working at home
* Tracking
  + Ability to follow user’s status in the system
  + See who modifies or creates reservations
  + Print an activity report and display who would be responsible for the changes
    - All changes should be tracked through company logs
  + Follow what user is paired with which driver and vehicle
* Register users online or from a phone call
* Ability to reset password if needed
* Notification for new DMV notices or updates

## Requirements

### Nonfunctional Requirements

#### Performance Requirements

* DriverPass wants their system to run of the web, supported by the cloud
* Most browsers should be supported
* Scheduling should be near real-time to prevent conflicts
* Will need updated if DMV announces updates and changes to regulations
* Downloadable reports should be mobile friendly

#### Platform Constraints

* With the help of cloud computing, system should run on Windows
  + With what Ian has stated about not wanting to worry about backups and security, Windows seems like the best option with ease of use
* Cloud providers are desired for this system
  + Do not have to worry about security and backups as the cloud providers handle both

#### Accuracy and Precision

* Login should be with an email verified upon registration and a case-sensitive password
  + 2 Factor Authentication may also be implemented if sensitive information is used, like payment info
* Error reporting system
  + System should have the ability to automatically report any crashes of the system to a place in the company logs to be used for future improvement
  + Users should have the ability to report any bugs or issues with the system
* System should notify admin when latency becomes unbearably high or a ping is not returned at all for immediate action

#### Adaptability

* IT admin would require a large amount of access to the system, but I would likely not grant full access
  + Would likely not need access to user credentials, payments or much of their personal information the system may require, user can reset information themselves
* Changing user information should not require changing code, just updates to the servers
* System should be expected to go into scheduled downtime posted days in advance to ensure users are aware for any changes that cannot or should not be made live

#### Security

* Users should login with their verified email and case-sensitive password
  + Users should be able to request a password reset sent to their email
  + Two Factor Authentication may be used at this point as well such that it can be retrieved from multiple devices, like through the Google Authenticator App or code through email
* IP addresses should be blocked after many login attempts in a short period of time
* If login succeeds after multiple failed attempts, other methods may be used outside of the standard 2FA to ensure account security

### Functional Requirements

* The system shall verify user credentials on login
* The system shall allow users to purchase one of three different packages
* The system shall check user’s paid plan option and provide content based on that
* The system shall be able to schedule drives with instructors in near real-time to avoid scheduling conflicts
* The system shall be able to track the user’s progress as well as who makes changes to reservations in company logs
* The system shall be able to provide course material, practice tests, and DMV regulations to the user should they desire

### User Interface

* User should initially see home screen based on sketch from client
* Users need the ability to see material, progress, subscription plans, and registration for driving session on their home screen
* Drivers should be able to see what drives they have scheduled an when along with the ability to call, reschedule, or cancel if something were to come up
* Admin should be able to view and download reports and the IT specific members should be able to make changes to this interface
* Many roles will need access to adding, updating, or deleting reservations for people whether someone calls in or does it online
* Admins should also be able to view and track user progress and who makes changes to reservations in logs, but not a user’s personal information
* Users should be accessing the system through a browser source; with possibility of a mobile app should the client seek to go in this direction

### Assumptions

* Users will input valid contact information if the need for rescheduling, cancelations, or other updates that impact the user should come up
* Higher administration will be in communication and watching over lower administrative action
* Every user will have a stable internet connection, especially when booking drive slots, except for administration that has access to downloading and viewing reports that way

### Limitations

* System can only update when online and connected to the server
* Near real-time updating is required for reserving drive slots
* System should be ready and delivered May 9th with a wrap up meeting May 10th
* Workarounds have been made for team members on vacation and currently out

### Gantt Chart

A picture containing timeline

Description automatically generated