# CS 255 DriverPass Business Requirements Document

## System Components and Design

### Purpose

* This project is for our new client DriverPass. DriverPass wants to provide driving students with access to online practice exams and in person driving practice to better prepare them for their driving tests.

### System Background

* DriverPass has realized that many people fail driving tests, and they want to provide online classes, practice tests, and in person driving practice to driving students via their system.
* The system is to be hosted on the cloud to alleviate technical requirements/management and should provide the above services to users on the cloud.
* The system should allow for different types of users such as administrators, secretaries, drivers, and clients.
* The system within the cloud should allow the various users to control system access, take/manage appointments, take the classes, practice tests, schedule/manage driving practice with DriverPass tutors, and give feedback on tutor sessions as applicable to the user role.

### Objectives and Goals

* The system will provide the user with the following functions:
  + Take online driving classes.
  + Take practice driving exams.
  + Schedule/Manage in person driving practice.
  + View data from results of the above functions.

## Requirements

### Nonfunctional Requirements

#### Performance Requirements

* The system is to be web-based that is hosted via a cloud service to minimize technical knowledge to operate and maintain.
* The system being web-based means that it should be developed in a language that is compatible with as many web browsers as possible to be usable to as many clients as possible.
* The system’s performance in terms of speed should be adequate such that if any type of user interacts with the system, it should respond as soon as possible taking into account internet connectivity and speeds.

#### Platform Constraints

* The system is to be cloud hosted via Microsoft Azure therefore the client will be able to access the system and make changes to it via a Windows, Linux, iOS, or Android device via the Azure portal.
* The system being cloud based also assumes that the system and all information input into the system will be stored on the cloud and accessible from there as well.

#### Accuracy and Precision

* The system will have different types of users to meet the various needs from administrator down to customer all with different accesses and capabilities.
* The system will be accessed by users that will have login information they have to input for user verification purposes that will be case-sensitive.
* The system should inform the admin as soon as a problem occurs, whether it be scheduling related, system error related, or any other problem.

#### Adaptability

* The system will allow for users with the correct privileges, i.e. admin, to reset login information, add/remove accounts, and as of now remove offered packages for clients to choose. (Further capabilities to add packages or modify them will come in a later build)
* The system will allow those with admin privileges to also download data for use while not actively accessing the system.

#### Security

* The system will require that all users create a username and password that will link them to the system and will allow for selection of privileges via system admin.
* The system will lockout a user after 5 failed attempts to login and then will require a password reset via a trusted email or cell phone reset link.
* The password reset method will also be available for users to select such that they do not have to get locked out prior to resetting their password.

### Functional Requirements

* The system shall allow customers to register using basic information and payment method either online or via a secretary creating them and account.
* The system shall allow customers to login to the system online via a cloud hosted web service to take online driving classes and practice tests.
* The system shall allow customers to manage on-the-road driving training sessions in terms of date and time, manage who their driver is, and see the feedback from such sessions.
* The system shall allow customers to review their overall progress through the learning process.
* The system shall allow customers to choose from three different service packages that determine what level of intensity driving training they receive.
* The system shall allow for management to adjust scheduling of training sessions, control user levels of authorization and accounts, and update the system as they deem necessary.
* The system shall allow for tracking of appointments in terms of date and time, driver and trainee
* The system should provide notice that DMV regulations have changed to the system administrators such that the system provides the most up to date information.

### User Interface

* The system user interface shall be designed in accordance with the drawing provided by the client for them to see their progress, access to the services provided to them, and their information.
* The system user interface shall allow for each different type of user to access the information and functionalities as allowed to them by their type of account.
* The admin users will have access to data, account control interfaces, and system settings and change menus.
* The secretary users will have access to create users and to manage their information and training sessions.
* The customer users shall be able to see all of their information and see all of the functionalities listed above in the Functional Requirements.

### Assumptions

* All users, customer or staff, have access to the internet to utilize this system. This is important as since this is a cloud hosted web service, one would not be able to view or manipulate any part of the system without internet access.
* The staff of DriverPass have the necessary knowledge to take ownership of the system and maintain it following product deployment. It could cripple future improvement and development of the DriverPass system should their IT members not be familiar with the type of system and cloud service used for implementation.

### Limitations

* The staff will have to get trained and become familiar with the system developed for DriverPass. While it may seem easy enough to use, the staff may struggle figuring out how to use the system to its full functionality which would also mean it is not easy to use as a customer as well.
* The product lineup as selected has to work until a future update is implemented allowing for staff to change the training package arrangement as they wish. It was determined that initially setting up the system to allow staff to inherently be able to modify what the training packages are is too cumbersome for now. If their packages are not likable to customers, that could reduce the number of customers they may gain. Which would then require outside assistance to modify the packages available, until the new update is implemented.

### Gantt Chart

