# Business Requirements Document

## 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 client is DriverPass. Our two points of contact with DriverPass is the owner, Liam, and his IT officer Ian.
* The main purpose of this project is to help teach people how to drive so that they can pass their driving test.
* Their desire with this project is to create a platform on which they can provide driving lessons and practice tests, as well as a way to practice their driving skills with a driving teacher, before they take their driving test.

### 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 problem they saw in society is that people are failing their driving tests because of a lack in better driver training.
* DriverPass’ goal with this new system is to fix this problem by providing lessons, tips and tricks, practice tests, and drivers who will spend time teaching and correcting clients so that they can learn to drive and pass their driving test.
* Some components we will need:
  + An admin or secretary who will take calls from customers, create appointments, and organize the schedules
  + The drivers who will drive with and train the customers
  + Teachers who will have classroom instructions
  + User accounts for admin (to manage schedules, appointments, and accounts), the drivers (to upload their driving notes and schedules), teachers (to upload lessons and schedules), and customers (to access lessons, tests, and make driving appointments)

### 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?*

* Create user accounts (users have different levels of rights and roles)
* Require users to login
* Have the ability to schedule driving sessions (using one of three driving packages), either by calling the secretary, visiting the office, or scheduling online.
* Customer accounts can access practice tests and lessons
* Admin and teachers can upload new tests and lessons
* Drivers can upload their driving notes
* A working connection with the DMV for updated rules and regulations
* Drivers and teachers can upload their schedules
* Track the customers’ and drivers’ status, as well as the cars in use and any changes made to the system, through an admin account

## Requirements

### Nonfunctional Requirements

*In this section, you will detail the different nonfunctional requirements for the DriverPass system. You will need to think about the different things that the system needs to function properly.*

#### 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?*

* Cloud-based application, accessible on both computer and phone
* System should only be updated when necessary, as updates could cause technical problems to the system

#### 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?*

* Outsource a database, this will hold personal account information and system backups from the cloud
* Run off the Windows cloud

#### 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?*

* Username and password should be case-sensitive
* Admin should be alerted after three failed attempts to login or if any change is made under customer accounts or scheduling
* Tests will not be case-sensitive unless a test update from the DMV says otherwise

#### 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?*

* IT admin will need full access to read/write/access/modify the system
* You will not be able to change a user’s role on the fly, however, admin can save the user’s profile, delete the account, and then create a new account with different roles using the old profile
* Upon updating the platform, the system should be shut down for one to two days to test and adjust the system to the new updated platform

#### 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?*

* We will use the cloud’s included security features
* After three attempts to login, the account will be locked, and admin will be notified
* Admin will then send an email to the address on file with steps to confirm identity to unlock the account
* If a password is forgotten, there will be a “forgot password?” button that will send steps to confirm identity and reset password to the email on file

### 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 be accessible anywhere
* The system shall allow reports to be downloaded
* The system shall have user accounts with different roles and responsibilities
* The system shall track who made changes in the system in a printable activity report
* The system shall allow customers and admin to make, modify and cancel driving appointments
* The system shall track the specific customer and driver, the car they will be using, and the time they will be out, within the appointment
* The system shall have three different packages to choose from
* The system shall allow IT admin to disable specific packages
* The system shall receive updates with new rules and policies from the DMV

### 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.)?*

* The interface should show online test progress with the test name, time taken, score, and status (in progress or completed)
* The driver’s notes should be presented with the driver’s comments and the times for the lesson
* Photos of the student and the driver
* An input form for the student’s information
* And a page for contacting the company
* The users will be the boss with complete access within the system
* The IT officer who will be just under the boss with accessibility, maintaining and modifying the system
* The secretary who will answer the phones and make appointments
* Drivers and teachers who will upload schedules and notes/lessons
* And customers who will schedule appointments and access study materials
* This application will be cloud based, useable on both mobile and browser

### 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?*

* I am assuming they have given us all the potential users they will have, and no new ones will pop up later.
* I am assuming they have considered a good estimate of the traffic their system will have to handle and have budgeted accordingly with respect to server size.
* I am assuming they have the proper internet infrastructure necessary for a cloud-based site.

### 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 biggest limitation I see in the use of the system after launch will be capacity and internet speed. Being cloud based, everyone accessing the site will need a good connection. Even if the internet connection isn’t what is causing the slow interaction, too many users trying to connect to the server could also cause the site to become slow and potentially unusable
* Time and budget are always a natural limitation. How much time can we get done in the amount of time allotted to us, as well as how much can we accomplish with our set budget

### Gantt Chart

*Please include a screenshot of the GANTT chart that you created with Lucidchart. Be sure to check that it meets the plan described by the characters in the interview.*

A screenshot of a computer

Description automatically generated with medium confidence