# DriverPass 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?*

* DriverPass needs a system that can track their customers reservations and driver education progress.
* DriverPass offers online lessons, Online Practice Tests, and on the road instruction.

### 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?*

DriverPass has identified an opportunity in the Driver Education space with online training. By adding a robust online training platform, combined with in-person/in-car training packages, DriverPass can reduce the number of student who fail their driving test. The system they want should:

* Allow customers can make their own reservations online, on the phone or in person
* Each reservation consists of 2 hours in car with Driver
* Multi-session packages are available.
* Access to the system must be available Online, Offline and Remote via computer or mobile device so that reports can be downloaded.
* DriverPass employees can look at a customer record on a “Dashboard” screen and see their information, Progress, and comments from their driving instructors.

### 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?*

* Customers must be able to make their own reservations and purchase packages online.
* Management must be able to access the system remotely
* Application must be cloud based to avoid dealing with Server Hardware, Backup, Security and Maintenance.
* Packages offered to the customers should be editable.
* Security should vary based on user level.
* Customers should be able to reset their passwords themselves.
* Connected with DMV to ensure the latest updates in requirements are being met.
* Front End system will consist of various forms including:
  + Customer Information Form
  + Order form for purchasing reservations and packages.
  + Reservation form (for making a reservation from a purchase)
  + Instructor assessment form
  + Online lessons and Tests
  + Dashboard – Shows all customer information, progress, and instructor comments.
* Back End Database will store data and query reports.

## 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?*

* DriverPass application will be web-based eliminating the need for in-house server management and offering broad end user access.
* System performance should be very fast and page response time should be in the 2-3 second timeframe.
* User transactions contain relatively simple data
* System maintenance and updates should be done regularly to ensure that the most current DMV requirements and information is available.

#### 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?*

* Users accessing the system on a desktop or laptop computer should have the same experience on Windows, Mac and Linux operating systems.
* System should support all major browsers such as Chrome, Firefox, Safari and Edge.
* Users on Mobile devices should experience a slightly modified interface making the experience easy to navigate on smaller screens.
* Administrative functions should also be easily accessible by owners and DriverPass employees on a variety of platforms.

#### 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?*

* User authentication will be handled by a unique UserName, Email and password combination.
* Users are strongly encouraged to set up dual factor authentication.
* User passwords are case sensitive and have minimum character, number and special character requirements.
* After 5 failed attempts the user account is locked and DriverPass IT is notified.

#### 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?*

* General IT admin will have access to the back end data so that corrupt data can be removed, modified, or repaired.
* Customer Service Representatives will have access to the customer and transaction data so that they can assist customers with order entry errors.
* Select IT individuals will have access to the source code to fix bugs or add/modify features.
* Being web-based, the service provider should handle changes in platform / browser requirements automatically.

#### 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?*

* All users will be required to set up a unique username and password. An email address is also required for verification before a user account is set up.
* Password will have specific Character, Number and special charter requirements.
* User accounts that are not accessed within 90 days will need to be reverified and a new password established.
* In the event that a user forgets their password, they can receive a temporary password and a link to update their password.
* The email address associated with the account will receive an email notification confirming the new password or notifying IT of unauthorized access.
* Each user session will be via SSL, and any credit card transactions will be encrypted by the processing merchant.
* In the event of a Brute Force hack, the user account is immediately suspended and access to the database is suspended. IT receives an immediate notification of the attack.

### 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 authenticate a user’s credentials before establishing a connection to the system.
* The system shall allow users to update and modify their personal information including name, address, phone number, payment information, pickup location, another information.
* The system shall allow users to browse packages, purchase packages and schedule in person training.
* The system shall provide a library of online classes and instructional materials
* The system shall allow instructors to provide feedback to the customer as well as internal assessment.
* The system shall allow customers to view feedback from their instructors.
* The system shall allow customers to view their performance on tests and track their progress.
* The system shall allow DriverPass Customer Service representatives to process reservations for customers over the phone or in person.

### 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.)?*

* Users of the system consist of Customers, Instructors, Administration, Customer Service and IT staff
* The customer facing pages need to display cleanly on standard desktop and laptop screen resolutions.
* Customers accessing via mobile devices will see a modified layout that fits within the constraints of a mobile device and be touch screen friendly.
* Customers should be able to navigate complex data entry forms using the tab key.
* IT administrators will need specific screens to maintain the back-end database.
* All customers will interface with the system via a browser. No download or app required.

### 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?*

* Users will access the system on a desktop, laptop, or mobile device.
* Users will have a valid email address
* Users will have a computer / mobile device capable of accessing web with a reliable internet connection.

### 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?*

* Budget – DriverPass has not provided us with their budget for this project.
* Time – The initial timeline placed on the Gantt chart, while reasonable, the second half of the project requires the client’s approval which may cause some delays if changes to the initial plan are requested.
* Staff – The current team of developers, testers, and UX/UI designers should be sufficient to handle the project scope as we have it now and with the timeline we have identified. However, client changes to scope, time, or budget may require adding or reducing our current staff for this project.

### 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