# CS 255 Business Requirements Document

## System Components and Design

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### 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, DriverPass is going to offer its users/ customers different study packages to help prepare them for their driving tests.
* This will help to solve the problem of a large number of people failing their driving tests.
* DriverPass users will need to be able to create a user profile, select from a variety of packages, schedule and modify appointments and make payments using the web or mobile applications from anywhere.

### 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 wants is users to be able to access the application from the web or mobile application. They will need to be able to modify their user information as well as schedule classes or appointments from anywhere. Depending on the package they have chosen they will also require access to driving tests.
* This will require server to house the application. (customer is requesting a cloud based platform)
* The system will require some kind of database.

### 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 system needs to provide Liam with access to company data from any location while online.
* Liam also needs to be able to download reports and information to work with while offline.
* Allow users to access and make changes to their profile and schedules as well as make reservations for driving lessons.
* Allow employees access to different aspects of the app depending on their permissions or rolls.
* Offer some kind of audit trail or tracking to see what and who made changes in the system.
* Identify the driver the customer is scheduled to have a lesson.
* Have the ability to track what user is matched up with what driver In what car.

## 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.*

* Users should be able to book alter and concel driving lessons through a website or mobile app from anywhere.
* Users should be able to take practice tests and classes online.
* Users should be able to modify their account or reservations using the web or mobile applications.

#### 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?*

* Needs to be able to run on a web or mobile platform for multiple OS’s.
* Needs to be dynamic. If a change is made i.e a reservation is made, the system should update other users that the reservation is no longer 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?*

* The system will require a database to hold user information, driver information, schedule information etc.
* Other constraints include considerations for each OS.
  + Mobile
    - IOS
    - Android
  + Web
    - Browser (Chrome, Edge, etc)
    - Protocols (https, tcp/ip, etc)

#### 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?*

* Users will require unique accounts and identifiers.
* Users will be required to meet user and password complexity requirements.
* Administration will be notified in the event that an employee gets locked out.
* Users need to be able to reset their password automatically from the application.

#### 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 will need the ability to modify user information without having to change the code.
* Driver pass will determine what and when new features will be available for the system.
* The IT Admin will need full assess to the system to perform any necessary changes.

#### 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?*

* Users will require unique user name a passwords to sign in.
* Will will require user authentication before allowing access.
* Accounts will be disable in the event of a hacking attempt.
* Users will be able to reset their passwords with necessary authentication.

### 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.”*

* Validate user credentials
* Book reservations
* Provide practice tests and online classes
* Show appointment information
* Display the driving packages being offered.
* Allow or deny access based on user privileges.
* Display information about past tests taken.

### 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.)?*

* Display information about past and current tests taken by users.
* Display drivers notes and comments the driver left
* Display times for lessons.
* There will be two kinds of users, employees and customers.
* Customers should be able to access the application with any device that has internet connection.

### 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?*

* A budget was not discussed. We will be working with the assumption that the requirements laid out by the client will be within the budget.
* Will be working under the assumption that cost will be a factor even though no budget has been provided.

### 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?*

* We have been given a very narrow window of time to develop this system.
* Given the tight window to finish the project we will be limited to meeting requirement only and not going outside of scope.
* We have not been given a budget at this point but still need to operate under the assumption that cost is a factor.

### Gantt Chart

Timeline

Description automatically generated with medium confidence