# CS 255 Business Requirements Document Doss

Complete this template by replacing the bracketed text with the relevant information.

This template lays out all the different sections that you need to complete for Project One. Each section has guiding questions to prompt your thinking. These questions are meant to guide your initial responses to each area. You are encouraged to go beyond these questions using what you have learned in your readings. You will need to continually reference the interview transcript as you work to make sure that you are addressing your client’s needs. There is no required length for the final document. Instead, the goal is to complete each section based on your client’s needs.

**Tip:** You should respond in a bulleted list for each section. This will make your thoughts easier to reference when you move into the design phase for Project Two. One starter bullet has been provided for you in each section, but you will need to add more.

## System Components and Design

### Purpose

The purpose of this system design is to enable users to purchase predetermined driving lesson packages. These packages will include different levels of access to private lessons, online lessons, online practice exams, and feedback from the drivers. Levels of access will be determined by the requesting company DriverPass.

### System Background

The background of the proposed system is provided to discuss the issue DriverPass wants to address with this system. Below is a layout of the problem and proposed solution the system will be based around.

* Problem: People failing their drivers test during first attempt
* Solution: System for taking online classes, practice tests, and receiving in person lessons
* Database: stores information regarding customer info, lesson schedules, driver availability, etc…
* Frontend: Web interface for employees or users to enter user information. Enables users to make appointments for driving lessons and access online class materials and practice tests.
  + User Roles
    - Admin
      * Full access to system
    - Drivers
      * Partial access to system to allow for feedback to be provided back to users
    - Users
      * Limited access to system with primary interaction with the system being appointment making/canceling

### Objectives and Goals

The objectives in a system analysis offer short term targets to achieve during development that work towards the systems goal. Below are a list of objectives for the system.

* Access data online
* Download data for use offline
* Different roles with different permissions
* Ability to make appointments in person/online/phone call
* Receive notifications when DMV standards are updated
* Web interface:
  + Online test progress
  + Special needs
  + Driver photo
  + Drivers notes
* System should ideally run over the cloud to minimize technical difficulties.

These objectives ideally will result in the goal of increasing the amount of driving students who pass their driving exam first try.

## Requirements

### Nonfunctional Requirements

The Nonfunctional requirements for the system depict the systems operational capabilities and constraints. Below is a list of nonfunctional requirements for the DriverPass system.

#### Performance Requirements

* Web-based cloud environment
* System should provide feedback for load times over 3 seconds
* Once a month system updates
* Load times should average 1-2 seconds for users

#### Platform Constraints

* System should be available through desktop and mobile browsers
  + Microsoft Edge
  + Google Chrome
  + Firefox
  + Safari
* Database needed to store user and system information
* Webserver needed to manage requests from the user and send responses to the user

#### Accuracy and Precision

* System will utilize assigned roles to differentiate between customers and employees.
* Passwords will be case-sensitive
* System will alert the admin of any issues that occur

#### Adaptability

* Changes to user information can be done through the database interface without changing code
* System should adapt to platform updates without issue
* IT admins will need access to the database and webserver to make modifications to the system as deemed necessary

#### Security

* Usernames and passwords will be required during login process
* Utilizing HTTPS protocol will encrypt data being sent between the client and server
* After four incorrect login attempts, the users account will be locked and the admin will be notified
* “Forgot Password” option will be available below login options to enable users to reset their passwords using other identifying information such as email address or phone number associated with account

### Functional Requirements

The following functional requirements are necessary functions of the system. These requirements must be met for the system to operate as intended.

* The system shall let users access online learning tools
* The system shall display lesson start and end times
* The system shall display driver and student photos
* The system shall display customer test progress and status
* The system shall allow users to select packages to purchase
* The system shall allow the admin to disable packages
* The system shall track user and driver matchups
* The system shall allow users to download information for use offline
* The system shall display drivers notes
* The system will validate user login information
* The system shall allow users to create accounts
* The system will connect to the DMV to update information as DMV regulations change

### 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 user interface is a vital aspect of the system as it enables users to interact with the system. Ensuring this system is user-friendly and has consistent elements to it will ensure ease of use for users.

* System interface will be accessible through mobile and desktop browsing applications
* Depending on the role of the user(customer or administrator) the interface will have different options available to them
  + Customer View
    - Registration and login page
    - Home page
    - Test progress and scores
    - User information with options to update
    - Package options page
    - Drivers notes, lesson times and dates
    - Contact information page for DriverPass
  + Admin view
    - Customer registration information
    - Package modification page
    - Page for assigning customers to drivers
    - System notifications and alerts page

### Assumptions

The following assumptions are made regarding the system:

* Users will have 24/7 access to the system
* Admins will have the knowledge to utilize the tools within the system to maintain it
* Customers and drivers will arrive on time for their appointments
* Users will have access to smart device to access the system through web-browsers

### Limitations

The following limitations must be addressed in order to create an ideal system for DriverPass:

* DriverPass only has access to 10 cars which will limit total possible appointments able to be made at a given time
* Maintenance required on the 10 cars available may result in decreased amount available
* Internet connection issues may result in delayed information relaying from DriverPass to customers or vice-versa
* The system must meet DriverPass’s budget and their system requirements

### Gantt Chart

A close-up of a chart

Description automatically generated