# CS 255 Business Requirements Document Template

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

*What is the purpose of this project? Who is the client and what do they want their system to be able to do?*

* Client is DriverPass
* Provide online classes and practice tests for driving tests
* Provide on-the-road training

### 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?*

* Want to fix failing rate of driving tests
* Provide offline and online drivers training to students
* Allow for users to make reservations for in person driving lessons
* Purchase different training packages
* Run off “the cloud”; does not want to deal with backup and security
* Admin registers clients over the phone
* Student progress tracking

### 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?*

* All User types are made and have their appropriate privileges
* Able to track User changes to system records
* Able to pair students with teachers on appointments and reservations (two hour session limit)
* Allow customers to choose between three training packages (each with specified requirements)
* Identify drop-off and pick-up locations
* Track and notify admins of DMV changes of rules, policies, or sample questions
* Needs to run off the web, but be accessible to admins on or offline
* Track student progress by (lesson time, start hour, end hour, and driver comments)

## 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?*

* Environment should be web-based
* They system should update any time a User makes a change to any data
* The system should run fairly quickly to allow for ease of access and user friendliness

#### 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?*

* Client wants the system to be able to be used on all platforms
* Will need a de-centralized cloud-based database platform to support client needs (does not want to worry about database management or security)

#### 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 be distinguished by their role and ability to alter system data
* Type of input should not matter to the individual user. We can have the backend change the case of the input based on “method” requirements.
* The Tech admin should be informed of an any issue with the system. Besides that the system should be mostly self-correcting (IE change casing of user input, etc.)

#### 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?*

* System should be very adaptable to change
* Users should be able to change all personal and business data based on role
* It admin needs to have access to all backend data to be able to maintain and modify system

#### 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?*

* User login should be (username: email password: security code)
* Using a third party decentralized cloud-based server will allow for secure data exchange through API’s between the client and server
* Dynamic password requirements should protect against brute force hacking (8 characters, one uppercase, 1 lowercase, 1 special character, 1 number minimum). If brute force hacking is attempted the IT admin should be notified of any multi login attempt failed consecutively in a short time
* If the user forgets their password, they should be able to change it by entering their email and receiving a password reset link sent to their email. Alternatively, they may call the Secretary admin to have her change it after verifying their personal information

### 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 validate user credentials when logging in
* The system shall validate system client credentials when accessing data
* The system shall be able to assign different rights and roles to users
* The system shall be able to assign users to each other based on customer package and student driver assignment (for in person training reservations)
* The system shall be able to track and manage customer names, address, phone number, state, credit and debit card number, expiration date, security code, and password
* The system shall be able to send notifications based on role and rights of user
* The system shall update DMV information daily by connecting to DMV API’s
* The system shall allow for password updates by admin or through email verification
* They system shall allow customers to take tests and track progress
* They system shall be able to update cloud based database

### 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 needs to run off the web (with a cloud-based database) on any platform
* User Role and Rights
  + Customer
    - View and edit access to individual customer data
    - Ability to make and cancel reservations and appointments
    - View business information
  + Secretary
    - View and edit access to customer data
    - View and edit access to reservation and appointment data
    - View business information
  + IT Officer
    - View and edit access to system that allow for maintenance
    - View and edit access to system backend
    - View business information
  + Manager
    - Able to download user progress and information
    - Able to view user progress and information
    - Able to view and edit reservations and sales packages
    - View and edit business informaiton

### 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?*

* User will have internet access
* Customer will know how to find and use platform
* Customer will have credit or debit card

### 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?*

* High volume in customer traffic may limit system speed
* If DriverPass does not want to use third party cloud database then there will be a time and budget issue that needs to be addressed quickly

### 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.*

Chart, timeline

Description automatically generated