# 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?*

* The purpose of this project is to build a system that will help drivers pass their driving tests. The client is Liam, the owner of DriverPass. They want their system to help organize and manage their business transactions. Liam wants to help students pass their drivers’ test by having online practice tests and classes. Additionally, he wants to allow the students to be able to select a package option that will provide them with in-person driving practice with an instructor.

### 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 the system to be able to operate online as well as offline. They want to be able to access data online from their computer or cellular device and also be able to download reports to work on at home. Sam stated that the issue with offline is that the data cannot be modified or updated offline or the system will be overloaded with duplicate data. Additionally, security concerns were addressed. Ian stated the roles different users will have to be able to modify accounts/information. The system will need store and update reservation time made/modified by users. The system will need to be able to support appointments scheduled by phone, online, or in-person visits. The system will need to be secured and have regularly performed backups of data through the cloud.

### 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 completed system will be able to:

1. Operate offline and online
2. Allow students to take driving tests online
3. Allow students to schedule in person driving tests
4. Display the students progress
5. Allow the student to select different package options to purchase
6. Keep up-to-date with current DMV changes
7. Be secured and perform data backups regularly
8. Accounts with different roles
9. Allow for modification of appointments/packages
10. Be able to track reservations

## 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?*

* The system will be a web-based application.
* The system will need to run at an optimal speed to ensure students have no issues taking tests or viewing progress.
* The system will need to be updated pretty regularly. The system will need to ensure it is up to date with the new reservations and the DMV guidelines.

#### 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 should be capable of running on all platforms but prioritize Windows due to most users having a Windows OS.
* The system will also need to be able to be used on a mobile device. It is important to ensure the system will dynamically scale to the platform the user is using.
* The backend will require a database to access/modify information regarding the users and business.

#### 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?*

* The system will be able to distinguish between different users due to priority roles having set email addresses that will be used to make their account.
* The input is case-sensitive to ensure the security of the users.
* The system should inform the admin of a problem once multiple failed attempts have been made with the same email address.

#### 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 IT admin will need access to majority of the roles to allow them to modify user information.
* The system will update to platform changes by having developers who are alerted to these updates and can modify any code to accommodate for these changes.
* To ensure the system will be able to add/remove/modify users without changing the code, the system will need to utilize POST requests so modifications of user is accessible.

#### 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?*

* The user will be required to provide a username and password to login to the site.
* To ensure the data exchanged between the client and the server is secure, the site will need to use HTTPS. HTTPS domain will ensure the site has an SSL certificate.
* If a “brute force” hacking attempt is made to an account, the account will be flagged and blocked from accessing the site until the contact an admin.
* If the user forgets their password they will be able to send a verification to the email address listed on the account in order to recover access. They will be able to reset their password following a valid verification is entered

### 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 allow the user to modify account information.
* The system shall allow the user to view their progress.
* The system shall allow the user to select different packages.
* The system shall allow the user to select available reservations.
* The system shall update to the new DMV guidelines.
* The system shall accommodate for different forms of scheduling.
* The system shall allow modifications of appointments.
* The system shall validate users credentials
* The system shall differentiate between the email address to determine their role.

### 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 two different users for this interface are the user and the admin. The user will be able to operate the website normally and have no permission to change other account information. The admin will see everything the user sees and more. The admin will be able to modify the user’s account information. The user should be able to operate the interface using a mobile device or through a 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 assume the DMV has an API to allow for requests to ensure that the system is up to date with the current guidelines.
* I assume the system will be only available in one country.
* I assume the website will be accessible 24/7.
* I assume the user will want to access the site using a mobile device.

### 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?*

* A limiting factor is the time and budget DriverPass has set.
* DriverPass is currently limited to ten vehicles.
* A limiting factor is that the system will need to be online in order to update information.
* The system will need to update with the DMV guidelines.

### 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 calendar

Description automatically generated with low confidence]()