# 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 develop a system for DriverPass that allows students to access online practice exams and book on-the-road driving lessons. The system will help students better prepare for their driving tests, addressing the issue of high failure rates at the DMV, which DriverPass attributes to inadequate preparation tools.

### 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 to provide a comprehensive platform that enables students to access practice exams, make appointments for driving lessons, and track their progress. The key system components include:

* Online access for customers to practice tests and driving lesson bookings.
* Role-based access control for the owner (Liam), IT officer (Ian), secretary, and customers.
* Integration with DMV systems for up-to-date regulations and practice content.
* The ability to track user activities, such as reservations and modifications.

### 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 should:

* Allow users to schedule driving lessons online.
* Provide practice exams and track user progress.
* Ensure role-based access, with different permissions for IT staff, secretaries, and customers.
* Allow IT to manage users, reset passwords, and block accounts.
* Generate reports that track activity (e.g., reservations, cancellations).
* Stay up-to-date with DMV standards by integrating updates.

## 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 must be accessible online and offline. It should provide real-time access and updates when online, with a fast response time for loading pages and user actions.

#### 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 run as a cloud-based web application, accessible on multiple platforms (Windows, Unix, mobile devices). It requires integration with database systems for managing user and appointment data.

#### 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?*

Different users (admin, customers, IT) must be distinguished with role-based access. Case-sensitivity and detailed error tracking for user inputs are required to avoid data inconsistencies.

#### 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?*

User roles and access permissions must be modifiable without significant code changes. The system must adapt to platform updates, ensuring compatibility over time.

#### 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 should log in with a secure authentication process, and the system must implement protections against brute force attacks. IT must have full access to reset passwords and block users.

### 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 users to create accounts, schedule driving lessons, and access practice exams.
* The system shall allow IT staff to manage user accounts, reset passwords, and monitor activities.
* The system shall track reservations, modifications, and cancellations by users.
* The system shall integrate with DMV databases to receive updates on rules, policies, and test formats.

### 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 must be web-based, accessible via computers and mobile devices. Different users will have different interface needs:

* **Admin/IT**: Manage user accounts, reset passwords, monitor system performance.
* **Secretary**: Manage appointments, enter customer data, and interact with the customer database.
* **Customers**: Schedule lessons, take practice exams, and track progress.

### 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?*

* The system assumes that users will have internet access to use the online features, and offline capabilities are limited to viewing downloaded content.
* It assumes DMV updates will be provided in a standardized format for integration.

### 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?*

* The system cannot allow non-developers to modify core system modules. Future customization requires a developer or system analyst.
* Limited resources might restrict future expansion, such as adding more features or increasing the system's scalability beyond current plans.

### 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 graph with different colored squares

Description automatically generated