# 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?*

* DriverPass is a company trying to develop an online platform to enhance driver training in preparation for DMV tests.
  + The system should allow the scheduling of lessons, manage customer accounts, and offer online educational resources.
* The client is the company DriverPass.
  + Liam (Owner)
  + Ian (IT Officer)
* The client’s requirements are as follows:
  + Users can make, modify, and cancel driving lesson appointments online.
  + Ability to monitor changes to reservations and user activities.
  + Role-based access control for different employees.
  + Integration and updates with DMV to ensure compliance with regulations.
  + Ability to download reports and work offline with data.

### 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 System Goals:**

* Provide customers with online classes and practice tests in preparation for their driving exams.
* Enable customers to schedule driving lessons.
* Facilitate administrative tasks for employees.

**Problems to Address:**

* High failure rates on driving tests.
* Lack of a centralized system for managing appointments and educational resources.
* Need for a centralized system for managing customer data and lesson scheduling to minimize errors.

**System Components Needed:**

* User accounts for customers, staff, and IT.
* A reservation system for scheduling.
* A tracking module to manage user activity and data.
* A storage feature that holds lessons, tests, and videos.
* A website interface that allows users to navigate features.

### 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?*

**Expected System Capabilities:**

* User Management based on roles.
* Appointment Scheduling.
* System logs.
* Downloadable reports.
* DMV Compliance.

**Measurable Tasks:**

* Development of user interface.
* Implementation of database functionalities.
* Integration of security measures.
* Testing to ensure system functionality.

## 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 needs to be accessed on both web-based platforms and mobile devices. It needs to ensure smooth performance on different devices. The system should load pages and process user requests in less than 5 seconds to provide a good user experience. Updates to the system should be done at least monthly to maintain proper functionality and security.

#### 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 compatible with commonly used operating systems, including Windows, Unix, and Mac. The backend will require a strong database, such as MySQL, to store user information, reservations, and transaction data. A cloud-based infrastructure should be used to ensure scalability, reliability, and low maintenance.

#### 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?*

* We will utilize user authentication to distinguish different roles such as administrators, employees, and customers. The input should be case-insensitive to minimize errors. If the system detects any discrepancies the system should notify the admin immediately to prevent fraud or errors.

#### 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 should allow the admin to easily add, remove, or modify user roles and permissions without requiring code changes. It should be adaptable to future platform updates, and the IT admin will need full access to the system to perform administrative tasks such as modifying user accounts, managing data, and ensuring system updates are properly implemented.

#### 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?*

* To log in, all users must provide a username and password. A two-factor authentication method will also be used to add an extra layer of security. The connection between the client and the server will be secured using HTTPS encryption. If a brute-force attack is detected, the system will automatically lock the account after a set number of failed login attempts and notify the admin. When users forget their password, they will be able to reset their password via email or SMS verification.

### 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 register, log in, and manage their accounts.
* The system shall allow customers to make, modify, and cancel appointments.
* The system shall allow administrators access to all customer appointments and data.
* The system shall track and log all system activities.
* The system shall notify administrators of suspicious activity or system errors.
* The system shall integrate with the DMV to receive updates about rules, policies, and test content.
* The system shall be user-friendly for all users.

### 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 shall be accessible by web browsers and mobile devices.
* The design is based on the sketch provided by the client.
* **Customer**: Can log in, make, modify, and cancel reservations. They should also be able to track training progress and complete online tests.
* **Secretary**: Can input customer details and manage reservations/appointments.
* **Admin (IT Officer)**: Has full access to all user data and system settings.

### 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?*

* There is the assumption that customers will have internet access to use the online features.
* There is the assumption that DMV policies will not change during the first phase of the project.

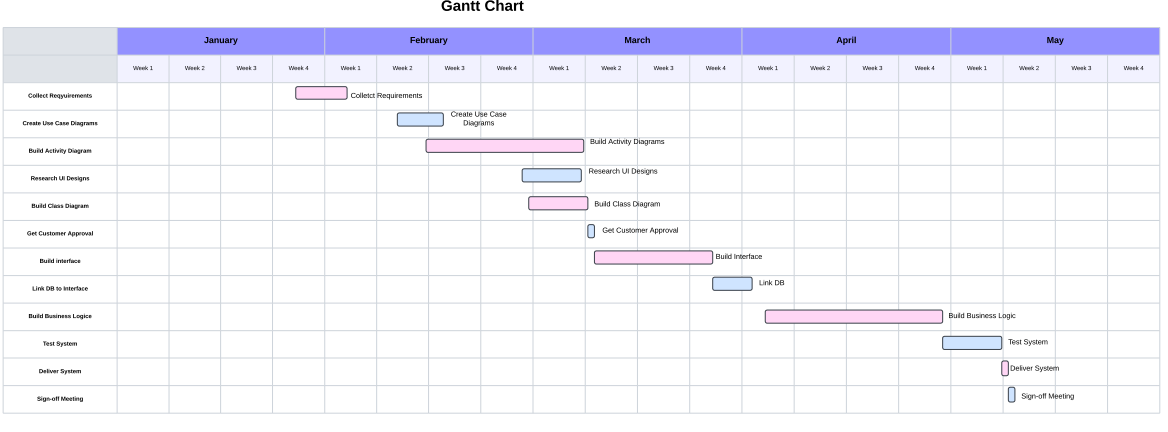
### Limitations

*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?*

* Resource limitations may affect the speed of development and can lead to phased implementations.
* There might be limited flexibility in customizing future features without involving developers and changing the budget.

### 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.*

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