# 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 that’s goal is to help individuals prepare for their driving tests.
* The purpose of this project is to build a comprehensive training system that fulfills DriverPass’s goal.
* They want a system that provides online and in-person training, allowing users to schedule driving lessons, access learning materials and track progress

### 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 fix the problem of inadequate driver training which results in driving test failures at the DMV.
* DriverPass wants a system that allows users to book, modify, or cancel driver lessons and provide access to DMV practice tests.
* Components that are needed are activity tracking and reporting, user management and security, DMV compliance updates, and scalable system based in 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 DriverPass system should provide users online lessons, real-time progress tracking, access to practice tests, allow booking of driver lessons, and ensure DMV compliance with regulation changes.
* Measurable tasks that need to be included in the system design are a scheduling module for booking appointments, ease of access user interface, activity logging, and deployment of a secure cloud-based system.
* DriverPass also requires role-based permissions for the owner, IT, secretary, and users to interact with the system.

## 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 run in web-based and cloud-hosted environment to allow access from any device with an internet connection.
* The system should load and process requests within 3 seconds under normal operating conditions.
* The system should automatically ping the DMV weekly for updates to policies and notify admins of changes.

#### 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 on all major browsers and support Windows and MacOS.
* The back end requires a cloud-based database for scalability and data 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?*

* Distinguishing between different users will be done by having role-based access. Roles such as Owner, IT, Secretary, and Customer will exist.
* Input will be case sensitive where applicable (such as passwords).
* Whenever there’s a failed login attempt of five or more consecutive tries, the system will inform the admin.

#### 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 utilize a graphical interface to make changes to users profiles without changing code.
* The system will adapt to platform updates by using periodic testing and updates.
* IT admins require full access to the system to perform actions such as managing accounts, adjusting training package availability, updating system settings, and monitoring/resolving security alerts.

#### 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 system requires a username and password for users to login.
* Securing the connections between the client and server can be done by using HTTPS encryption for secure data transmission.
* If there is a brute force hacking attempt, the account that is being targeted should be locked after five failed login attempts. After five failed login attempts, the admin will be notified.
* If a user forgets their password, a password reset feature will allow the user to reset their password based on set security questions.

### 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 customers to schedule, modify, and cancel driving lessons.
* The system shall track user activity such as who booked, modified, or canceled an appointment.
* The system shall integrate with DMV updates to ensure compliance with current regulations.
* The system shall generate and print activity reports for administrators.
* The system shall provide access to online classes, progress tracking, and practice tests.
* The system shall allow IT Admins to manage user accounts (add, remove, reset passwords, block access).

### 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 system interface shall be accessible via a web browser on desktop and mobile devices.
* Different users will have specific interfaces:
  + Owner: Full system access, reports, and user management.
  + IT: System maintenance, security management, and account modifications.
  + Secretary: Scheduling and managing driving lessons, as well as customer information input.
  + Customers: Booking, modifying, and canceling driving lessons; accessing training materials and progress tracking.

### 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?*

* All users have access to an internet-connected device.
* The DMV will provide timely updates via an accessible API.
* Customers will provide accurate information during booking.

### 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 is limited to web-based access and does not include offline capabilities.
* The project timeline is constrained to the Gantt chart schedule.
* Budget constraints may limit advanced customization.

### 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 diagram with a graph

Description automatically generated with medium confidence