# 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 the project is to build a system that helps DriverPass provide online and on-the-road driver training to customers.
* The client is DriverPass.
* The system should allow customers to take online driving classes.
* The system should allow customers to schedule driving lessons.
* The system should track student progress.
* DriverPass staff should be able to manage appointments, drivers, and cars.
* The system must ensure security and accessibility.

### 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 offer a comprehensive driver training solution, both online and in person.
* The problem is the high failure rate of driving tests.
* The system needs to allow scheduling of driving lessons.
* The system needs to track student progress on tests and lessons.
* The system needs user roles for administrators, IT staff, secretaries, and customers.

### 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 customers to register, schedule, modify, and cancel appointments online.
* The system should track customer progress through online tests and driving lessons.
* The system should manage driver availability, car assignments, and lesson scheduling.
* The system should allow administrators to manage user access and system security.
* The system should provide report generation and activity tracking.
* The system should enable secure communication with the DMV for 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 run as a web-based application hosted on the cloud.
* The system should perform with minimal latency (less than 3 seconds for database operations).
* System updates should occur monthly or when DMV policies change.

#### 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 platform-independent and accessible via modern browsers on Windows, macOS, Linux, iOS, and Android.
* The back end requires a cloud-based database, such as MySQL or PostgreSQL.

#### 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 distinguish users based on roles: Admin, IT Officer, Secretary, and Customer.
* User input, such as usernames and passwords, will be case-sensitive.
* The system should notify the admin immediately in case of errors or failed login attempts.

#### 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 administrators to add, remove, or modify user accounts without code changes.
* The platform must adapt to updates with minimal manual intervention.
* The IT admin will have full access to user management, system logs, and security configurations.

#### 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 must log in using a username and password.
* All communication between the client and server should be encrypted using SSL/TLS.
* After multiple failed login attempts, the account will be locked, and an alert will be sent to the admin.
* The system should provide a secure password recovery feature via email.

### 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 allow users to schedule appointments.
* The system shall allow users to modify and cancel appointments.
* The system shall track and display online test progress for students.
* The system shall assign customers to drivers and cars for on-the-road lessons.
* The system shall record and display driver notes for each lesson.
* The system shall allow administrators to manage user accounts and roles.
* The system shall generate reports of reservations, lesson tracking, and test results.
* The system shall notify customers of changes to DMV rules or updates to test content.

### 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 must be intuitive and easy to use on desktop and mobile browsers.
* Customers: Should be able to schedule, modify, or cancel appointments.
* Customers: Should be able to track test progress.
* Customers: Should be able to view their lesson history.
* Drivers: Should be able to view their appointments and leave notes after each lesson.
* Secretaries: Should manage customer appointments and input customer data.
* Secretaries: Should match drivers with appointments.
* Administrators/IT Officers: Should have access to user management, system configuration, and security 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?*

* It is assumed that users have access to a reliable internet connection.
* It is assumed that DriverPass will provide and update training content according to DMV standards.
* It is assumed that the system will be used primarily within the United States.

### 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 will not support offline access for data modification.
* Customizing training packages requires developer intervention, so Liam cannot make complex changes.
* Budget constraints may limit advanced features like automated DMV policy updates.
* Resource constraints could limit scalability if DriverPass expands significantly.

### 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 of a project

Description automatically generated