# 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 client is DriverPass, a company that provides driving lessons and training for driving tests.
* The system is intended to allow DriverPass to offer online classes, practice tests, and manage reservations for on-the-road driving lessons.
* It will also include tracking for customer appointments, driver schedules, and test 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 identified a gap in driver education. Students need better preparation for their driving tests.
* The system should allow users to take practice exams and schedule on-the-road lessons online.
* There are different components, including reservation management, appointment tracking, user roles, and access management.

### 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:

* Take online practice tests.
* Schedule driving lessons.
* Track their progress and performance.
* Reset their password automatically.

The system should allow DriverPass to:

* Monitor reservations.
* Track lesson completion.
* Print activity reports.
* Manage user roles and restrict access where necessary

## 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 web-based and should be accessible from mobile devices.
* The system must be fast enough to handle user requests and process them within seconds.
* Regular system updates should be performed to keep the system aligned with DMV changes and improve performance.

#### 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 a cloud-based platform to minimize technical management for DriverPass.
* It should be compatible with both Windows and mobile operating systems (Android and iOS).

#### 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 must distinguish between different user roles, including customers, trainers, the secretary, and the IT officer.
* User input should not be case-sensitive except for password fields.

#### 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 IT administrators to modify, add, or remove users without changing the code.
* The system must remain functional during platform updates or cloud maintenance.

#### 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 with a unique username and password.
* Data exchanged between the server and client must be encrypted (e.g., SSL).
* In the event of multiple failed login attempts, accounts will be temporarily locked to prevent brute-force attacks.
* If users forget their passwords, the system must provide a password reset feature.

### 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 make, modify, and cancel appointments online.
* The system shall allow users to take practice driving tests online.
* The system shall track which user made, modified, or canceled a reservation.
* The system shall allow the IT officer to manage user roles and access.
* The system shall validate user credentials when logging in.
* The system shall notify the administrator in case of suspicious activity, such as brute-force attacks.
* The system shall connect to the DMV to retrieve updated rules and policies.

### 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 will have a web-based interface accessible through browsers on both desktop and mobile devices.
* Different users (customers, IT staff, secretaries, and the owner) will have different levels of access.
* Customers will be able to schedule lessons, reset passwords, and track their test progress.
* Secretaries will manage customer appointments and input customer details.

### 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 will have internet access when using the system.
* All users will have basic knowledge of how to navigate web interfaces.

### 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 be modified by non-developers beyond simple configuration like disabling packages.
* The system's scalability is limited by the cloud provider's infrastructure.
* Budget constraints may limit the number of cloud servers available for system hosting.

### 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.*

