# 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?*

* Client: DriverPass
* Purpose: to design and implement a system that supports:
  + Online practice exams and DMV compliant training materials.
  + Scheduling and managing on the road driving lessons.
  + Secure data access, reporting, and administrative controls.
  + Flexible reporting tools for tracking and accountability.
  + Modular design to accommodate future expansions or updates.

Rationale: The purpose statement outlines the primary objectives of the system. DriverPass aims to address specific market gaps by improving driving test preparation and lesson scheduling.

### 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?*

* Problem: a lot of people fail DMV driving tests due to lack of preparation and training.
* Solution:
  + Provide a platform for customers to access online practice tests and other training materials.
  + Enable reservations and scheduling for driving lessons.
  + Provide a system that tracks user progress, and, test scores
  + Ensure flexibility to modify training packages and track user activity.

Rationale: Understanding the system background allows us to focus on addressing the clients primary points, such as the lack of preparation and lessons. This context informs the systems design and ensures it aligns with the DriverPass’s goals

### 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 will be able to:
  + Enable customers to schedule, cancel, or modify reservations for driving lessons online or on the phone.
  + Provide access to DMV compliant online tests and practice materials.
  + generate activity reports for tracking and accountability.
  + Securely manage user accounts and administrative roles
  + ensure integration with DMV updates to provide current and compliant training materials and tests.
  + Deliver modular functionality, enabling administrators to disable any packages easily.

Rationale: These objectives provide a measurable framework for the systems success, and it ensures it addresses both user needs and administrative requirements.

## 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 on a web based platform accessible through desktop and mobile devices.
* Requests should be processed within 5 seconds.
* The system should be updated regularly to maintain optimal performance and security.

Rationale: Performance requirements are important for ensuring the user is happy and minimizing frustration.

#### 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 Windows, macOS, and common web browsers.
* Requires a backend database to store user data, reservations, and test results.

Rationale: Ensuring compatibility with popular platforms makes the system accessible to more users.

#### 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?*

* User actions such as reservations and modifications must be logged with timestamps and identifiable user roles.
* The system should validate inputs to avoid any errors.
* Alerts will notify administrators of any issues.

Rationale: Accurate tracking ensures accountability and reduces mistakes in the system.

#### 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?*

* Administrators should be able to add, remove, or disable training packages without requiring significant coding changes
* The system will handle platform updates without disruptions.

Rationale: making the systems adaptable ensures it can grow and change with the business’s needs.

#### 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 securely, with options like two factor authentication.
* Data must be encrypted during exchanges.
* Accounts lock temporarily after five failed login attempts.
* A password reset option will validate user identity.

Rationale: Strong security protects sensitive user data and prevents unauthorized access.

### 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 let customers create accounts, log in, and reset passwords.
* The system shall allow customers to book, change, or cancel driving lessons.
* The system shall track and log all user actions.
* The system shall provide tools for administrators to manage accounts and packages.
* The system shall display progress and scores for online tests.
* The system shall notify administrators of DMV updates.

### 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.)?*

* Users:
  + Customers: Use the system to book lessons, access training materials, and check progress.
  + Administrators: Manage accounts, packages, and system operations.
* Interface Needs:
  + A mobile friendly design for easy access.
  + Clear menus for reservations, training materials, and reports.

Rationale: A simple and clear interface makes the system easier for everyone to use.

### 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?*

* Users will have internet access and compatible devices.
* The system will be hosted on a secure cloud platform.
* Administrators will receive training on how to use the system.

Rationale: these assumptions ensure the system works as planned and addressed expected user needs.

### 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?*

* Budget may prevent adding more features initially.
* The timeline might restrict non-essential features.
* DMV update delays could slow some system features.

Rationale: knowing the systems limits helps manage expectations and keeps the project realistic

### 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.*

