# 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, DriverPass, aims to develop a comprehensive system to enhance driver training and increase the pass rate for driving license exams.
* The system should provide online classes, practice tests, and options for on-the-road training.

### 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 has identified a significant gap in effective driver training tools, leading to a high failure rate among driving license applicants.
* The desired system should:
* Allow users to access data both online and offline.
* Enable administrators to manage user accounts, including password resets and access control.
* Track user activities, such as reservations and modifications, to ensure accountability.
* Facilitate scheduling of driving appointments, including assigning specific drivers and vehicles.

### 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?*

 Develop a user-friendly platform that offers:

* Online classes and practice tests.
* Scheduling and management of on-the-road training sessions.
* Administrative tools for account management and activity tracking.

 Ensure the system is accessible from various devices and platforms.

*  Implement robust security measures to protect user data.

## 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 shall operate as a web-based application, accessible via standard web browsers.
* It should provide quick response times, with page loads and interactions occurring within 2 seconds under normal conditions.
* Regular updates should be scheduled quarterly to introduce new features and address any issues.

#### 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 must be compatible with major operating systems, including Windows, macOS, Linux, iOS, and Android.
* A robust relational database management system (RDBMS) is required to handle user data, course materials, and scheduling information.

#### 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?*

* Unique identifiers will be assigned to each user to ensure accurate tracking of activities.
* Input fields, such as usernames and passwords, will be case-sensitive to enhance security.
* The system will generate alerts for administrators in cases of suspicious activities or data inconsistencies.

#### 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 shall allow administrators to add, remove, or modify user accounts through an intuitive interface without the need for code changes.
* It should be designed to accommodate platform updates with minimal disruptions.
* IT administrators will have elevated access to perform system maintenance and updates.

#### 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?*

* User authentication will require a valid email address and a strong password.
* Data exchanges between the client and server will be encrypted using SSL/TLS protocols.
* The system will lock an account after five consecutive failed login attempts to prevent brute force attacks.
* A secure password recovery process will be in place, involving email verification and 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 validate user credentials during the login process.
* It shall provide access to online classes and practice tests for registered users.
* Users shall be able to schedule, modify, and cancel driving appointments through the system.
* Administrators shall have the ability to manage user accounts, including password resets and access restrictions.
* The system shall track and log user activities, such as reservations and modifications, for accountability.
* It shall assign drivers and vehicles to scheduled appointments based on availability.

### 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 will cater to different user roles: students, instructors, administrators, and IT personnel.
* Students will access online classes, practice tests, and manage their driving appointments.
* Instructors will view their schedules, assigned students, and access relevant training materials.
* Administrators will manage user accounts, oversee scheduling, and monitor system activities.
* IT personnel will have access to system settings, maintenance tools, and security features.
* The interface will be web-based, ensuring accessibility across various devices and screen sizes.

### 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 access to devices with internet connectivity to utilize the system's online features.
* Administrators and IT personnel possess the necessary technical expertise to manage their respective system functions.
* The system will be hosted on reliable servers to ensure high availability and performance.

### 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?*

* Offline access will be limited to data viewing; modifications will require an active internet connection to prevent data inconsistencies.
* The project is constrained by a fixed budget and timeline, which may limit the implementation of certain advanced features.
* System performance may vary based on the user's internet connection quality and device capabilities.

### 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 screenshot of a computer

AI-generated content may be incorrect.

 Here is the full PDF version if the one included is not clear enough to read.