# 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?*

* To design a comprehensive system for DriverPass aimed at improving driving test pass rates through online practice exams and 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 aims to fill a market gap by providing structured driver training online and in-person, addressing the high failure rate at DMV tests. The system needs to support lesson reservations, data access online and offline, and customizable training packages.

### 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 system that enables online and on-the-road driver training to reduce DMV test failure rates.
* Allow users (students) to schedule driving lessons and access online training materials and practice tests through the system.
* Ensure the system supports various user roles with appropriate access and security measures, including the owner, IT officer, and secretary.
* Implement tracking and reporting functionalities for user activities, reservations, and modifications to ensure accountability and transparency.
* Design the system to be flexible, allowing for the addition, removal, or disabling of training packages as required by the business.

## 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 should be web-based, accessible on both desktop and mobile platforms.
* Response time for user interactions should not exceed 2 seconds.
* System updates should occur during off-peak hours, at least bi-weekly, to implement new features or security patches.

#### 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, running efficiently on Windows, MacOS, and Linux.
* Requires a cloud-based database for backend support, ensuring data availability and scalability

#### 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?*

* Utilize user roles and permissions to differentiate between user types.
* Inputs should not be case-sensitive to ensure user accessibility.
* Admins should be notified immediately of any critical errors or security breaches.

#### 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?*

* Allow modification of user roles (add/remove/modify) via an admin dashboard without direct code changes.
* Must automatically adapt to platform updates without service disruption.
* IT admins need full access for system maintenance and user support.

#### 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?*

* Secure login with multi-factor authentication.
* Encrypt data exchange between client and server using SSL/TLS.
* After three failed login attempts, lock the account and require admin reset.
* Implement an automated password reset feature with email verification for users who forget their passwords.

### 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 register and log in to access online classes and practice tests.
* The system shall enable users to schedule, cancel, and modify driving lesson appointments.
* The system shall provide different access levels for administrators, instructors, and students.
* The system shall track user activity, including reservations made, canceled, or modified.
* The system shall offer a variety of training packages for users to choose from.

### 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 needs to be intuitive and user-friendly, accessible via web and mobile.
* Different users include students, instructors, administrators, and the secretary.
* Students should be able to access training materials, book lessons, and take tests.
* Instructors and administrators need to manage lessons, students, and course materials.
* Interaction will be primarily through browsers on PCs and mobile devices.

### 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 have access to reliable internet connections.
* Users possess basic computer or smartphone operational skills.

### 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's scalability may be limited by budget constraints.
* Time constraints may affect the development of some advanced features.
* The technology used must be compatible with widely used platforms and devices, possibly limiting cutting-edge technology integration.

### 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 calendar

Description automatically generated