# 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 this project is to create a secure, web-based platform for DriverPass that allows students to prepare for driving tests through online learning, scheduling lessons, and purchasing lesson packages.
* The client, DriverPass (owned by Liam), wants the system to improve student pass rates by providing both online and in-person learning tools, managed through an integrated scheduling and tracking system.

### 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 the system to allow students to register, log in, take practice driving tests, schedule lessons, and purchase packages.
* The current challenge is that students are not receiving enough structured preparation for their driving tests.
* Components needed include: user authentication, role-based access control, online test delivery, scheduling system, reporting tools, and a secure database for storing all information.

### 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 students to purchase and schedule lessons with real-time availability.
* The system should deliver online practice tests with immediate scoring and feedback.
* The system should allow administrators to monitor activity, generate reports, and export data.
* The system should be secure, responsive, and accessible on both desktop and mobile devices.

## 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 through major browsers.
* System responses should be under three seconds under normal load.
* Updates should be applied at least quarterly, with urgent security patches applied as needed.

#### 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 shall run on both Windows and Mac OS via a browser.
* The backend shall use a secure relational database to store user and scheduling data.
* The system shall integrate with DriverPass’s existing scheduling infrastructure.

#### 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 shall distinguish between different users by unique login credentials.
* All login and account management inputs shall be case-sensitive where applicable (e.g., passwords).
* The system shall notify administrators of repeated failed login attempts or data errors.

#### 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 adding, removing, or modifying users without requiring code changes.
* The system shall remain compatible with standard browser updates.
* IT administrators shall have full access to manage accounts, schedules, and configurations through an admin interface.

#### 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 valid username and password.
* All client-server communication shall be encrypted using HTTPS.
* Accounts shall be locked after five consecutive failed login attempts.
* Password reset functionality shall be available through secure identity verification.

### 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 upon login.
* The system shall provide role-based access for students, instructors, and administrators.
* The system shall allow students to schedule, modify, and cancel lessons.
* The system shall provide online practice tests with immediate scoring.
* The system shall allow administrators to view, filter, and export reports.
* The system shall track and log significant user actions for auditing purposes.

### 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 shall be browser-based and mobile-friendly.
* Students shall be able to register, log in, schedule lessons, and take practice tests.
* Instructors shall be able to view and update their schedules.
* Administrators shall be able to manage users, schedules, and generate reports.

### 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?*

* All users will have internet access and a modern web browser.
* Students will have basic computer literacy.
* DriverPass will provide all lesson content and testing materials.

### 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?*

* System development and deployment must be completed before the next student enrollment period.
* Limited instructor availability during holidays must be accounted for in scheduling.
* Budget and timeline are fixed per client agreement, limiting scope changes during development.

### 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 graph of a project gantt chart

AI-generated content may be incorrect.*