# 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 design a comprehensive system for DriverPass that provides online practice exams and on-the-road training to help students pass their driving tests. The client, DriverPass, wants a system that not only offers practice exams but also tracks student progress and facilitates on-the-road training 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?*

* DriverPass wants the system to address the high failure rate of students in driving tests due to insufficient preparation.
* The system needs components for user management (students, instructors, administrators), online practice exams, progress tracking, and scheduling on-the-road training sessions.

### 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 provide comprehensive online practice exams.
* The system should allow students to schedule on-the-road training sessions.
* The system should track student progress and provide feedback.
* The system should enable instructors to manage their schedules and student assignments.

## 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?*

1. The system should be web-based to provide easy access from anywhere.
2. The system should load pages within 3 seconds.
3. The system should be updated quarterly to incorporate user feedback and new requirements.

#### 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 compatible with Windows, MacOS, Linux, iOS, and Android.
* The back end should use a robust database management system like MySQL or PostgreSQL.

#### 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 should distinguish between users by unique identifiers such as usernames or email addresses.
* User input should be case-insensitive for usernames but case-sensitive for passwords.
* The system should notify the admin of any issues through email alerts.

#### 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 user roles (student, instructor, admin) to be added, removed, or modified without changing the codebase.
* The system should adapt seamlessly to platform updates with minimal downtime.
* IT admins should have access to all system configurations and logs.

#### 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 should log in using secure credentials (username and password).
* Data exchange between client and server should be encrypted using SSL/TLS.
* The system should lock the account after 5 failed login attempts and notify the user via email.
* Users should be able to reset their passwords through a secure password recovery process.

### 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 when logging in.
* The system shall allow students to take practice exams online.
* The system shall track and display student progress and performance.
* The system shall enable students to schedule on-the-road training sessions with instructors.
* The system shall allow instructors to manage their schedules and student assignments.
* The system shall provide administrators with reporting tools to monitor overall usage and performance.

### 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 user interface should be intuitive and user-friendly.
* Different users (students, instructors, administrators) should have customized dashboards.
* Students should be able to access practice exams, track progress, and schedule training sessions through the interface.
* Instructors should be able to manage their schedules and student assignments through the interface.
* The interface should be accessible via mobile devices and web browsers.

### 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 basic internet access and computing devices.
* Instructors have flexible schedules to accommodate student training sessions.
* The system will initially support English language only.

### 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 constraints may limit the scope of initial development.
* Limited resources may extend the project timeline.
* The system may have limitations in handling a large number of concurrent users initially.

### Gantt Chart

