# 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 develop a system for DriverPass that provides students with access to online practice exams and on-the-road training to prepare them for their driving tests. DriverPass wants the system to be able to offer various comprehensive training tools, this includes practice exams, lesson scheduling, progress tracking, and administrative management.

### 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?*

* DrivePass wants the system to provide a better training tool for students applying for driving license exams. This is to address the issue of a high failure rate (65%) among students who only studied previous tests. The system components needed are user registration and authentication, online practice exams, scheduling system for on the road training, progress tracking and feedback, notification and reminders, and administrative management UI.

### 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 enable students to be able to register and log in securely, access to practice exams, schedule and manage on the road training sessions, track their progress and receive feedback, receive notifications about upcoming lessons and exams, and provide admins with tools to manage content, users, and schedules.

## 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?*

* They would need to be web-based and be accessible from any internet-connected device. The system should load pages and process transactions within 3-5 seconds. Updates should be pushed bi-weekly to ensure smooth operation and security.

#### 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 and the backend should utilize a database that uses MySQL to handle user data, exams and schedule 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?*

* The system will be able to distinguish users based on unique usernames and IDs. Inputs, such as usernames and passwords that will be case sensitive. The system should inform the admin of issues like failed logins after three attempts, scheduling conflicts, or any system errors that prevent normal operation.

#### 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?*

* User roles and permissions should be manageable through the admin interface without needing code changes. The system should be designed to adapt to platform updates, including web browser updates, without downtime. IT admins need full access to user management, content updates, and system maintenance features.

#### 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 will log in using a username and password, with optional two-factor authentication. Data exchange between the client and server will be secured using SSL encryption. If a brute force attempt is detected, the account should be locked after three failed attempts, and the user should retrieve their account through email verification or contacting support. A password reset option should be available 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: validate user credentials when logging in, allow users to register and create accounts, provide access to online practice exams, allow users to schedule on-the-road training sessions, track and display user progress and performance, send notifications and reminders to users, allow administrators to manage user accounts and content.

### 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 needs to be easy to manage, navigate, and responsive for all devices. Students need to register, log in, access exams, schedule lessons, and track progress. Administrators need to manage users, content, and schedules. IT staff need to perform maintenance and updates. Interaction will primarily be through a web browser interface.

### 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?*

* It is assumed that users will have reliable internet access and basic knowledge of using web-based applications. It is also assumed that DriverPass will provide the necessary content for practice exams and training 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?*

* Limitations include potential latency issues for users with slow internet connections, system's possible lack of multi-language support, and budget constraints that may limit the extent of feature development. The system will depend on regular content updates from DriverPass to remain up to date.

### 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 diagram

Description automatically generated*