# 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 and develop a comprehensive system for DriverPass that provides students with access to online practice exams, scheduling, and on-the-road training. The goal is to create a system that helps students better prepare for driving tests by offering interactive, user-friendly tools that meet their learning needs. DriverPass, the client, wants the system to include online class options, practice tests, and appointment management capabilities for driving lessons.

### 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 solve the problem of high failure rates for driving tests due to inadequate preparation. They want to offer a robust solution that includes online practice exams, scheduling tools for on-the-road training sessions, and tracking functionalities for user progress. This will help students build the knowledge and confidence needed to pass their DMV tests successfully.

### 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 register and access online practice exams. The system should facilitate scheduling and managing on-the-road training sessions. The system should provide instructors and administrators with tools to monitor student progress and performance. The system should ensure user data security and privacy. The system should offer user-friendly navigation and an intuitive interface for different user types. The system should generate reports that display exam results and training feedback.

## 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 be web-based and accessible via modern browsers. The system should load within 3 seconds for standard operations. The system should be updated at least once every quarter to include 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 compatible with Windows, macOS, and major mobile platforms (iOS and Android). The back end should utilize a robust database such as MySQL or PostgreSQL to support data storage and retrieval.

#### 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 users through unique IDs and roles (student, instructor, admin). • Input shall be case-sensitive where necessary (e.g., passwords). • The system shall notify the admin of any technical issues or failed login attempts.

#### 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 students to register and access online practice exams.

• The system should enable customers to schedule, modify, and cancel on-the-road training sessions online.

• The system should allow administrators and instructors to track and monitor student progress.

• The system should have secure role-based access for users, including full administrative control for IT officers.

• The system should generate detailed reports showing student activity, exam results, and driver notes.

• The system should allow data access from any computer or mobile device, ensuring flexibility and convenience.

• The system should provide notifications for DMV updates on new rules, policies, or sample questions.

#### 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 shall log in with a secure, unique username and password. The system shall use SSL/TLS protocols to secure data exchanges. The system shall lock accounts after five failed login attempts and send a notification to the user. Users shall have a secure password recovery option involving multi-factor authentication.

### 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 login. The system shall allow students to take practice exams and receive feedback. The system shall enable students to schedule on-the-road training sessions. The system shall allow instructors to input training results and notes. The system shall generate reports summarizing student progress.

### 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 accessible via web browsers and mobile apps. Students shall be able to register, log in, take practice exams, and schedule training sessions. Instructors shall be able to log in, view student progress, and update training session results. Admins shall be able to manage user accounts, view reports, and oversee system operations.

### 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 basic computer literacy and access to the internet. Students and instructors will primarily use modern browsers and devices. The system will not need to support legacy browsers or outdated operating systems.

### 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 project may be constrained by budget limitations, affecting the scope of advanced features. Resource availability may limit the frequency of major updates. Time constraints could impact extensive user testing phases.

### 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.*

