# 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 an online system for DriverPass that will help individuals prepare for their driver’s license exams. The client, DriverPass, aims to improve the process of learning driving skills and theoretical knowledge by providing an accessible and efficient platform for users.

### 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 seeks to create a system that offers practice exams, instructional videos, and hands-on driving lessons to better prepare users for their driving test. The current problem is that many individuals fail their driving tests due to inadequate preparation and limited practice resources. The system will consist of a web-based platform where users can enroll in courses, schedule driving lessons, and access study materials.

### 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 users to sign up for practice tests, book driving lessons, and track their progress. Specifically, it should:

* Provide an intuitive online platform for registering and accessing materials.
* Allow users to schedule and manage driving lessons.
* Offer interactive and video-based learning content.
* Generate performance reports to help users identify areas for improvement.
* Ensure secure transactions and user data protection.

## 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 DriverPass system will be a web-based application that must run efficiently across different devices and browsers. Page loading times should not exceed three seconds, and video streaming should be smooth without buffering under standard internet conditions. System updates should be deployed on a monthly basis to introduce new features and fix potential issues.

#### 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 will be accessible through a web application, ensuring cross-platform compatibility with Windows, macOS, and mobile devices. It will require integration with a cloud-based database to store user information and progress records securely.

#### 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 must differentiate between students, instructors, and administrators, granting appropriate permissions to each user type. Input fields should be case-sensitive where applicable, such as usernames and passwords. In case of repeated failed login attempts, the system should notify the administrator of potential unauthorized access.

#### 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 administrators to add, remove, or modify users without altering the underlying code. It must adapt seamlessly to platform updates and maintain compatibility with evolving web technologies. IT administrators should have full access to system settings and user management tools.

#### 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?*

To ensure data security, user authentication will require a valid email and password. The system will employ SSL encryption for secure data exchange between clients and the server. In case of a brute-force hacking attempt, the account should be temporarily locked after five unsuccessful login attempts. Users who forget their passwords can reset them through a secure, email-based 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:

* Allow users to create and manage their accounts.
* Provide access to practice tests and study materials.
* Enable users to schedule and modify driving lessons with instructors.
* Track user progress and generate performance reports.
* Permit administrators to manage user accounts and system content.
* Support secure online payment for lesson packages.

### 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 should be user-friendly, providing a responsive design that adapts to different screen sizes. It will include a dashboard for students to view their progress and upcoming lessons, as well as a scheduling system for booking sessions with instructors. The interface will be accessible via both mobile and desktop browsers to ensure maximum usability.

Based on Liam’s sketch, the user interface will be structured with key sections to enhance usability and efficiency. At the top, a logo will provide branding consistency. The main area of the interface will include a section dedicated to displaying a student's online test progress, allowing them to track their learning journey in real-time. Adjacent to this, there will be a detailed information section containing personal details such as first name, last name, address, city, state, zip code, phone number, and email.

Below these sections, additional functionalities will be available. A dedicated space for driver notes will allow instructors to document important observations regarding a student's performance. Next to this, a “Special Needs” section will ensure that any accommodations required by students are properly recorded. Lastly, the interface will feature designated areas for both driver and student photos, helping to personalize and authenticate interactions within the system.

### 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?*

The system assumes that users have access to an internet connection and a compatible device. It also assumes that instructors and students will follow scheduling guidelines and that users will enter accurate personal information during registration.

### 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 will not provide real-time driving assistance, as it is limited to scheduling and theoretical preparation. The project must also work within budgetary constraints, ensuring cost-effective hosting and maintenance solutions. Additionally, the system’s availability is dependent on external factors such as server uptime and internet connectivity.

### 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.*

