# 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 system for DriverPass to help students better prepare for their driving tests by providing online practice exams and on-the-road training.

### 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 identified a need for better driver training as a significant number of students fail their driving test due to inadequate preparation.
* The system should allow online access to lessons, scheduling, and performance tracking.
* It must support multiple stakeholders, including administrators, trainers, and students.

### 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?*

* Provide students with online study materials and practice exams.
* Enable students to schedule, modify, or cancel their driving lessons.
* Maintain an organized reservation system for trainers, students, and vehicles.
* Ensure secure access and role-based permissions for different users.
* Integrate with DMV systems to receive updated test material.
* Offer a user-friendly interface with web and mobile access.

## 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 should be web-based and hosted on the cloud.
* It must handle multiple concurrent users efficiently.
* Updates should be performed regularly to ensure system stability.

#### 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 all major operating systems (Windows, macOS, Linux).
* It should be compatible with major web browsers and mobile devices.
* The backend should include a database for user data, scheduling, and test tracking.

#### 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?*

* User authentication must differentiate between students, trainers, and administrators.
* Inputs such as usernames and passwords should be case-sensitive.
* The system should notify administrators of potential errors or conflicts in scheduling.

#### 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?*

* Users should be able to update profiles, schedules, and preferences without backend code changes.
* The system must be adaptable to platform updates and changes in business requirements.
* IT administrators should have access to all modules for maintenance.

#### 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 using secure credentials with role-based permissions.
* Data exchanged between the client and server must be encrypted.
* After multiple failed login attempts, accounts should be temporarily locked.
* Users must have a secure method for resetting forgotten 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 allow students to register and create accounts.
* The system shall enable students to schedule, modify, or cancel driving lessons.
* The system shall provide online practice exams and track student progress.
* The system shall allow trainers to manage their schedules and student assignments.
* The system shall notify users of upcoming lessons and test deadlines.
* The system shall support role-based access for different user types.
* The system shall generate reports on student performance and lesson bookings.
* The system shall integrate with DMV databases to ensure test material accuracy.
* The system shall log user activities for audit and security 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 must be web-based and mobile-friendly.
* Students should have access to a dashboard displaying lesson schedules, test results, and progress tracking.
* Trainers should be able to view and manage student assignments and schedules.
* Administrators should have a dedicated control panel for system oversight and reporting.

### 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 stable internet access and basic web navigation skills.
* Trainers will update their availability regularly.
* The system will be cloud-hosted with secure data backups.
* Users will adhere to scheduling policies and guidelines.

### 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 initial release does not allow new training packages to be created without developer intervention.
* System development is constrained by available budget and resources.
* Some DMV regulatory changes may require manual updates for compliance.
* The system requires internet connectivity for real-time updates and transactions.

### 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.*

