# 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?*

* To design a comprehensive DriverPass system providing online practice exams and on-the-road training for student drivers.
* To address gaps in current driver education and improve preparation for driving tests, enhancing confidence and readiness.

### 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 has identified a need for better driver preparation, aiming to increase pass rates and improve road safety.
* The system will integrate theoretical knowledge through online exams and practical skills through scheduled on-the-road training.
* A focus on a user-friendly experience is essential, ensuring accessibility and efficiency for all users, regardless of their technical skills.

### 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?*

* Develop an extensive database of practice exams, simulating potential questions from actual driving tests.
* Create an intuitive and accessible user interface, accommodating users of varying technical backgrounds.
* Implement a reliable and user-friendly scheduling system for on-the-road training sessions.
* Incorporate a feedback system for users to rate and review their practical training experiences.
* Uphold the highest standards of data security and user privacy, particularly concerning personal information and performance data.

## 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?*

* Ensure system accessibility through web browsers and a dedicated mobile application.
* Optimize load times for all system components to provide a seamless user experience.
* Conduct regular system updates for content accuracy, security enhancements, and performance improvements.

#### 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?*

* Ensure compatibility across major operating systems (Windows, macOS, Linux) and browsers (Chrome, Firefox, Safari).
* Utilize a robust backend database to manage and store exam content, user data, and training schedules.

#### 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?*

* Implement user role differentiation to ensure clear access levels for students, instructors, and administrators.
* Design all user input fields to be case-insensitive to minimize user errors.
* Set up automatic alerts for administrators to be notified of any system malfunctions or security breaches.

#### 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?*

* Allow for easy user account modifications (addition, removal, updates) without requiring system code alterations.
* Design the system to smoothly adapt to any updates in operating systems or browsers.
* Provide IT administrators with comprehensive access and control for system maintenance and updates.

#### 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?*

* Implement stringent password requirements and encrypted data exchanges to secure user logins and data.
* Develop security protocols to prevent and respond to brute force attacks effectively.
* Include a user-friendly “forgot password” feature to aid users in account recovery.

### 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 authenticate user credentials during the login process.
* The system shall offer a diverse range of practice exams for various driving test categories.
* The system shall facilitate the scheduling of on-the-road training sessions.
* The system shall provide a platform for students to leave feedback on their training experiences.
* The system shall prioritize data security, particularly concerning user personal information and exam results.

### 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.)?*

* Design an intuitive, user-friendly interface to accommodate students, instructors, and administrators.
* Enable students to easily access practice exams, schedule training, and review past results and feedback.
* Allow instructors to manage their training schedules and view student feedback.
* Provide administrators with full system access, including user account and content management capabilities.

### 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?*

* Assume that all users have a stable internet connection for accessing the system’s web-based components.
* Users are presumed to have basic technical skills necessary for navigating the system.
* Legal and privacy requirements related to driver education and data handling are presumed to be addressed and adhered to.

### 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’s efficacy is contingent on the completeness and accuracy of the practice exam database.
* Development may be constrained by time and budget limitations, possibly affecting the breadth of features available at launch.
* Potential challenges may arise in integrating the system with existing driver education infrastructures and licensing processes.

### 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.*

[Insert chart]

A screenshot of a graph

Description automatically generated