# 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?*

* Client and Vision: DriverPass, led by Liam and IT officer Ian, is seeking to enhance driver education.
* Project Purpose: The initiative is to design an application facilitating both test prep and practical aspects of driver’s education.
* System Capabilities: The system will enable users to study and prepare for written exams as well as gain practical driving experience with certified instructors.

### 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?*

* Identified Void in Driver Training: DriverPass recognized a significant gap in the training of new drivers, leading to high failure rates in driver's tests.
* Application Development Goal: To fill this void, DriverPass aims to develop an application that enhances driver education.
* Key Features of the System:
  + Online test preparation to help learners study for the written portion of the driver's test.
  + A variety of in-car training options with certified instructors to improve practical driving 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?*

* Security and Cloud-Based System: Ensure the system is secure and operates on a cloud-based platform for reliability and accessibility.
* Owner's Dashboard for Reservations: Develop a feature for owners to view, manage, and modify reservations, and handle password resets.
* User Scheduling and Reservation: Allow users to easily schedule and reserve driving lessons.
* Display of Packages: Clearly present three different driving lesson packages for users to choose from.
* Progress Tracking and Instructor Notes: Include functionalities for users to view their test progress, completed tests, and receive notes from instructors.
* Module Management for Administrators: Implement a feature for administrators like Liam to hide or display different modules, providing flexibility in content management.

## 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?*

* Web and mobile operation.
* Sub-2-second response times.
* Biannual system updates.
* Load balancing during peak usage.

#### 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?*

* Cross-platform (Windows, Unix) compatibility.
* SQL database for data storage.
* Cloud-based infrastructure for scalability.

#### 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?*

* Distinct user ID for each user to ensure individual recognition.
* Inputs to be non-case-sensitive to ease user experience.
* System to notify admins of discrepancies or system failures immediately.

#### 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?*

* Admin UI allows user account edits.
* Auto-updates with platform changes.
* Full access for IT administrators
* API support for third party integrations

#### 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?*

* Two-factor authentication for user login.
* TLS encryption for data in transit.
* Account lock after 5 failed logins.
* Automated password reset with email verification.
* Regular security audits and compliance checks.

### 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.”*

* Multilingual support for global audience interaction.
* Tools for assessing learner progress and engagement.
* Support for blended learning: combining online and traditional methods.
* Course management for up-to-date educational content.
* Interactive forums for collaborative learning.
* Adaptive learning paths for personalized content and assessments

### User Interface

*What are the needs of the interface? Who are the dfferent 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.)?*

* Responsive design for web and mobile access.
* Simple navigation for various user roles.
* Accessibility options for users with disabilities.
* Clear display of lesson packages and scheduling options.
* Real-time updates and notifications for DMV compliance.
* Secure login and data management for all use

### 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 are assumed to have a basic level of digital literacy and can navigate standard web interfaces without extensive training​​.
* All users are assumed to have stable internet access, which is necessary for the full functionality of the system, especially for real-time features​​.
* It's assumed that the majority of users will access the system using updated browsers on modern devices.
* The system assumes that administrative users will have an intermediate level of technical understanding for system setup and configuration.

### 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 have limited customization options for individual users, potentially affecting adaptability to personal preferences or unique learning styles​​.
* There will be a reliance on third-party platforms for certain integrations, which could present challenges with compatibility, stability, and security​​.
* While the system will support mobile and web access, there may be limitations in performance on older devices or browsers.
* Customization and updates may require administrative intervention, possibly limiting the immediacy of certain changes for users.

### 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 diagram of a project

Description automatically generated