# 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 the DriverPass system is to provide students with online practice exams and on-the-road driving lessons to better prepare for their driving tests at the DMV. The client, DriverPass, aims to address a gap in the market where students are not adequately prepared for their driving tests, resulting in a high failure rate. DriverPass wants a system that allows students to book driving lessons, access online learning materials, and track their progress.

### 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 is building a platform to help students pass their driving tests by offering comprehensive preparation tools, including online exams, study materials, and in-person lessons. The system will allow for lesson scheduling, practice exam tracking, and reporting. DriverPass aims to provide access to these services through a cloud-based platform accessible via web and mobile devices.

### 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?*

Allow customers to register for online classes and schedule driving lessons.

* Provide three learning packages that include various combinations of in-car training and online lessons.
* Enable administrators and employees to track lesson schedules, manage user accounts, and monitor activity.
* Ensure data security and role-based access for different types of users.
* Provide real-time tracking of reservations and system changes to prevent any discrepancies or misunderstandings.

## 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 must be accessible 24/7 via web browsers on desktop and mobile devices.
* System responsiveness should be within two seconds for most operations.
* Regular updates to ensure compliance with DMV regulations should be possible with minimal downtime.

#### 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 operate on cloud infrastructure to minimize the need for local server maintenance.

* It should run on both Windows and macOS environments and be optimized for mobile browsers.

#### 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?*

* Role-based access control will be implemented to distinguish between different user roles (Admin, IT Officer, Secretary, and Customer).
* Users’ data inputs will undergo validation to ensure accuracy, especially in areas like scheduling and payments.

#### 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?*

* Admins should have the ability to disable specific packages or modules without requiring code changes.
* The system will need to be easily adaptable to future updates, including DMV policy changes and service modifications.

#### 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?*

* User login will require password protection, with three failed login attempts leading to account blocking.
* Data transmission must be encrypted using SSL/TLS protocols.
* If a user forgets their password, they should be able to reset it via an email link.

### 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.”*

* Validate user credentials when logging in.
* Allow customers to book, modify, or cancel driving lessons online.
* Enable tracking and reporting of lesson schedules and customer interactions.
* Generate reports for admin review detailing lesson reservations, cancellations, and system modifications.
* Maintain records of practice exam results and lesson progress for each user.

### 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.)?*

* Admin: Should be able to manage user accounts, update lesson packages, and generate reports.
* IT Officer: Should have full access to troubleshoot issues, reset passwords, and manage system-wide settings.
* Secretary: Will schedule and modify lessons on behalf of students and track upcoming appointments.
* Customer: Should be able to register, schedule lessons, view test progress, and reset their password if necessary.

### 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?*

* It is assumed that all customers will have a valid internet connection to access the platform.
* Security updates and platform maintenance will be managed by the cloud provider.
* Future expansion will involve adding or modifying learning packages, requiring admin intervention.

### 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 functionality is dependent on internet connectivity, which can affect user access.
* Customization of the packages is limited to disabling or enabling pre-built modules.

Security and data integrity are subject to the cloud provider’s protocols and 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.*

A graph with blue squares

Description automatically generated