# 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?*

* Our client, "DriverPass", seeks to improve the driving training system to assist students in passing their driving tests. They have commissioned our team to create a website that offers various options, such as practice tests, online classes, and driving lessons, to aid students in their driving test preparation.

### 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 aims to support students in preparing for their driving tests by offering online practice tests, online lessons, and in-person driving lessons. The system should be accessible online via computer or mobile device, with options to download reports and for employees to adjust security and access settings. They also want the system to include Customer registration through their online accounts or calling and billing information, including names, addresses, phone numbers, states, and payment details. There should also be a tracking system for reservations, modifications, and cancellations of driving lessons. The platform should provide different customer packages and allow employees to disable them. Keeping up with DMV compliance updates is crucial, and the system should run through the Cloud.

### 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?*

* Once completed, the website should run on Cloud, allowing users/customers to book, modify, and cancel their driving lessons easily. In addition, customers will have access to online practice tests and classes. To ensure the system's security and efficiency, only designated workers will have access to modify or enhance the system. The development process will involve object models, process models, and UML diagrams. We still need to determine the operating system and programming languages we will use to build the website.

## 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 client desires a web-based program that can run on various operating systems and devices and be fast and robust enough so that users can easily access content and employees and administrators can change things when need be (access, appointments, and package changes). The program should have regular updates for DMV regulation changes, bug fixes, and any new features.

#### 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?*

* To ensure optimal functionality, the system must operate seamlessly across various platforms, including Windows, Mac OS, Android, and Linux. To further enhance accessibility and convenience, it is paramount that the system has access to an online database, specifically the Cloud, to enable users to access it from anywhere and at any time. Additionally, the use of an online database serves the purpose of improving the system's security measures.

#### 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?*

* To ensure security and differentiate between customers and administrators/employees, users will have unique usernames, passwords, and access capabilities. The system will be case sensitive and will require multi-factor authentication options like text message, reCAPTCHA, or an authenticator for added protection.

#### 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 will allow for user modifications without needing to change the code, as administrators can modify user and employee accounts. The IT admin should have full access to the system so that when updates/platform changes are needed, they can put the system offline or online and apply those changes.

#### 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?*

* For security purposes, every user must have a unique username and password and multi-factor authentication. The data exchange between users and the server will be done through the Cloud to improve the security of user and system data. In the event that a user attempts to log in multiple times without success, their account will be locked, and the administrator will be notified. If users forget their login details, they can input the email address linked to their account and a secure reset email will be sent. If the reset process does not work, authorized personnel will be able to reset 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 incorporate a case-sensitive login system with multi-factor authentication and validate user information upon login.
* The system shall be accessible through various operating systems such as Windows, Mac, Linux, and mobile devices.
* The system shall allow users to schedule reservations for driving lessons and packages and modify them if need be.
* The system shall contain up-to-date material, practice tests, and quizzes for users to study for their driving test.
* The system shall keep updated on DMV policies and regulations and notify proper staff to make necessary changes.
* The system shall allow administrators/IT to add, delete, and update user accounts.
* The system shall allow IT to make changes to employee and user access.
* The system shall provide users with online test progress, driver notes, special needs, info on the driver and student, and general information.
* The system shall stay current with the platform and security updates.

### 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.)?*

* DriverPass is used by customers, administrators, and IT admins. The interface should have an easy-to-understand layout that contains a data structure with each user's personal information, such as email address, physical address, and payment details. Users should be able to update their contact information and view their account details. Administrators should be able to assist users in updating their accounts and make changes to reservations and data, like tests and materials, to comply with updated DMV policies and regulations. The system should be accessible through various web browsers on multiple platforms and OS, including desktop and mobile.

### 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 users have access to and are proficient in using the necessary technology to access the system and have a stable internet connection.

### 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?*

* Some limitation of the system is that the team has approximately four months to complete the project with no budget mentioned. The program is also primarily focused on computers; therefore, mobile accessibility will be a challenge.

### 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 screenshot of a computer

Description automatically generatedA screenshot of a calendar

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