# 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 from the client's perspective is to take advantage of the void in the market when it comes to effectively training users for the driving test. The client here is DriverPass, the person or a representative of the company DriverPass wants to build a system where their users, or future drivers, can take online classes and practice tests to better prepare for the actual Driving test. Additionally, they want their system to remain up-to-date and flexible enough to adjust to changes in policy and rules set by the DMV by integrating their website with DMVs for automatic updates and notifications.

### 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?*

*The things DriverPass wants the system to do are as follows:*

* DriverPass wants the system to be able to help them access their data from anywhere.
* DriverPass also wants the system to handle driving lesson reservations, enabling customers to book, modify, and cancel appointments online or by directly calling the front desk.
* DriverPass also wants the system to be able to manage their account securely.
* They want to fix the high failure rate of individuals taking their driving tests at the DMV due to insufficient preparation.
* The different components needed for the systems are a web-based user interface, User Account and authentication management system, online reservation system, training content and progress tracking system, reports of activity logs, security features, customer support, Database management, and cloud infrastructure.

### 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?*

*When the project is completed, the things that the system should be able to do are as follows:*

* The system should be able to provide online access to data from anywhere around the world. The measurable task needed to be included in the system to achieve this is to make the system hosted on a cloud-based platform.
* The system should also be able to assign role-based access control. For example, IT personnel, managers, admins, and users have different roles and should have different levels of access controls. The measurable task needed to be included in the system design to achieve the above objective is to include a role-based login feature with customizable permissions.
* The system should be able to track and manage the driving lessons of the users. For example, when the user takes the test, the system should show tests that are completed and the ones that are in progress. The measurable task needed to be included in the system design to achieve this is to design a tracking feature that monitors and updates the status of the driving lessons, such as not taken, in progress, failed, or passed.
* The system should allow the users to select different packages. Plus, the client should have the ability to disable packages that are fully booked and no longer available for service. The measurable task needed to be included in the system design to achieve this is to design a feature that lets the user select the different packages available but disable fully booked packages automatically.
* The system should be able to able to allow the driver to leave notes for the client to see regarding driving lessons provided to the users. The measurable task needed to be included in the system design to achieve this is to design a feature that lets the driver leave notes on the user's profile, which can be accessed by the client.
* The system should be able to track which driver is matched with a customer to effectively manage and organize the reservations for driving lessons. The measurable task needed to be included in the system design to achieve this is to design a reservation system that assigns a driver to a user by making sure that there is no conflict regarding the vehicle or driver availability.

## 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 DriverPass system needs to run in a web-based, cloud-infrastructure environment and should be accessible via computers and mobile devices.
* The system should run fast and efficiently for a smooth and seamless user experience.
* The system should be updated regularly because the client needs the system to comply with the DMV’s policies and rules. Additionally, the client also wants to track user progress, and display notes left by drivers on each user’s profile.

#### 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 across platforms, such as Windows, Unix, Mac OS, and Linux via the web browser.
* I think the backend will require a database to support this application because it needs to store data such as user information, driver notes, reservations, driver lesson schedules, etc.
* And given that the system should be accessible on mobile devices, the website should be very responsive and should adapt to the different screen sizes perfectly.

#### 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?*

* As mentioned above, the system will distinguish between different users based on their roles.
* Regarding input, Passwords are case-sensitive. It should be like that because it will prompt the user to make stronger passwords, which is good for their privacy and security.
* The system should inform the admin when there are Account issues, system errors and when user updates their profile information.

#### 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?*

* Yes, the system should be adaptable enough to allow the admin to make changes to the user(add/remove/modify) without changing the code through a graphical interface (user interface) without needing to access the system backend.
* The system will adapt to platform updates in this system via cloud infrastructure, which ensures automatic management and implementation of updates.
* The IT admin will need full access to the system to reset passwords, manage accounts, perform system maintenance and updates, and block user access after their subscription to the program is over.

#### 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 are required to have a valid Username and Password to Login into the system.
* To secure the connection or the data exchange between the client and the server, the use of encryption on the data exchanged is required.
* If there is a “brute force” hacking attempt, the account should be locked, and additional steps to verify the account should be initiated for that account.
* If the user forgets their passwords, they should be able to reset their password via an email link or by answering some security questions.

### 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 the users to create accounts and apply role-based access control.
* The system shall allow the users to automatically reset the password via email.
* The system shall allow the admin to add, remove, and modify user accounts without needing to access the backend.
* The system shall notify the admin of suspicious activity, such as several failed attempts to log in, changes to the profile information, and system failure due to unexpected errors.
* The system shall allow customers to **schedule, cancel, or modify in-person driving lessons**online.
* The system shall **offer three in-person training packages**, such as six hours, eight hours, or twelve hours with a feature to customize it later.
* The system shall track the lesson progress of users, such as not taken, in progress, failed, or passed.
* The system shall allow the driver to add comments on the user’s profile after each lesson.
* The system shall enable the admin to automatically disable packages that are fully booked.
* The system shall integrate with the DMV to receive updates on recent policy and rule changes, as well as for sample questions.

### 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 needs of the interface are responsive layout, meaning it should automatically adapt itself to different screen sizes, such as on computers and mobile devices.
* The different users for this interface are Owner (Admin), IT officer (Admin), secretary (front desk), user’s (customers), and the Drivers.
* The owner (Admin) has full access to the system and should be able to oversee all aspects of the system.
* IT officer (Admin) also has full access to the system but to update and maintain the system from unexpected errors and ensure smooth operation.
* The secretary has limited access and primarily manages the appointment.
* Customers(users) should be able to cancel, modify, and book driving lessons, have access to training courses, and be able to check the status of the online test.
* The driver also has limited access, should be able see his customers profile and eave notes on the customer’s profile after each driving lesson.
* The user will interact with the interface via web browser on computer and mobile devices.

### 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?*

* I believe all the things were addressed in my design above. The assumptions I am making in my design about the users or the technology they have are that they have access to the internet, a compatible device to use the system, the users of the system will have rudimentary knowledge about account creation and password management and the system will remain up to date with any changes in DMV policies and regulations.

### 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?*

* As far as resources, time, budget, or technology are concerned. I believe the budget could be a major limiting factor because it has not been discussed yet. The budget as far as I am concerned will determine the scope of the project. What I mean by that is that limited budget means, less features, and more budget means more features, which is essential for a better user experience.
* Regarding resources, Obvious limitations would be the internet connection. If the user does not have a stable and reliable internet connection then, it will be difficult to properly use all the features available in the system.
* Regarding technology, reliance on the DMV for updates is also a limiting factor because they may update their system slower than they should.
* Time can be a limiting factor as well because you never know, a feature or two might take more than expected time to get implemented, or a client might want to add more functions.

### 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 on a white sheet

AI-generated content may be incorrect.