# 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 is to assist our client, DriverPass, in enhancing their system to offer improved driver training. This training will be available to their customers as an option to better prepare them before taking their driving tests at the DMV.

### 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 address the issue of individuals frequently failing their driver's tests before eventually passing. Their goal is to help people be better prepared to pass their driving tests on the first attempt. To achieve this, DriverPass plans to offer online classes and practice tests to provide essential information and assess their customers' knowledge before they take their DMV driving tests. Additionally, DriverPass intends to offer on-the-road training as an optional service for their customers.

### 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?*

The system will offer the following features to users:

- Account creation, including:

- Customer's name, address, phone number, and credit card information

- Pick-up and drop-off locations

- Online appointment scheduling, allowing users to:

- Select a training package

- Password reset functionality for forgotten passwords

Additional functions include:

- Grant access to specific employees

- Track user assignments to drivers, including time and car

- Monitor reservations

- Enable removal of training packages

- Connect with the DMV for updates, including notifications for new information

- Display test details and progress, including:

- Test name, duration, score, and status

- Show driver notes, including:

- Lesson duration, start and end times, and driver comments

## 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-based cloud environment
* - User load times should average 1-2 seconds
* - The system should provide feedback if load times exceed 3 seconds
* - System updates should occur monthly or as needed

#### 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 be compatible with both computer and mobile browsers, including:
* - Internet Explorer
* - Google Chrome
* - Firefox
* - Safari
* - The back end needs a database to store user and system information
* - The back end requires a web server to handle and manage requests and responses

#### 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?*

* - The system will differentiate between users by having separate login sections for customers and employees.
* - Each user's password will be case-sensitive.
* - The system will notify the admin of any issues on a daily basis.

#### 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?*

* - User modifications will be handled in the back end without altering the code.
* - The system should seamlessly adapt to platform updates.
* - The IT admin requires access to both the database and web server for system maintenance and 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?*

* - Users must have a password to log in.
* - Two-factor authentication will be used as an additional security measure to protect connections and data exchanges.
* - Users will be locked out after five unsuccessful login attempts.
* - A “Forgot Password” button will alert the admin to enable users to reset their 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 will validate users' usernames and passwords during login.
* - It will identify whether the user is a customer or an admin.
* - The system will enable users to reset their passwords if necessary.
* - Users will be allowed up to five login attempts before being blocked and the admin will be notified.
* - User accounts will be created with relevant information.
* - The system will support access from any online location.
* - It will display available package options for customers.
* - Customers will be able to select and purchase a package.
* - Admins will have the ability to disable packages that are fully booked.
* - The system will track user assignments, including the driver, time, and car.
* - It will connect with the DMV to receive updates on new information.
* - The system will show customer information, test progress, and status.
* - Driver notes will be displayed.
* - Lesson details, including start and end times, will be shown.
* - Photos of both drivers and students will be displayed.
* - Customers will have access to online learning tools.

### 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.)?*

- Users will access the interface through web browsers on computers or other devices.

- There are different types of users, including customers and employees/administrators.

For customers, the interface should include:

- Login/register page

- Home page

- Test progress and scores

- Results indicating pass or fail

- User information with the option to update

- Driver notes, lesson dates, and times

- Package information

- Online learning tools

- Contact information page

For admins, the interface should provide access to:

- Information about registered customers

- Details of selected packages and their users

- The ability to remove fully booked packages

- Customer and driver assignments, including dates and times

- The option to enable users to reset their passwords

### 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?*

* - All users will have 24/7 online access.
* - Users will be familiar with navigating the website.
* - Admins will possess the skills needed to access and use all website functions.
* - Customers are expected to be punctual and attend all lessons included in their chosen package.
* - Drivers will be available and attend every scheduled driving lesson.

### 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?*

* - DriverPass operates 10 cars, each of which requires regular maintenance to remain in service.
* - Internet connection issues may occur, potentially causing delays in updating information.
* - The limited number of cars restricts the number of packages that can be purchased by customers.
* - Users might not have the latest technology on their devices.
* - Ensuring all requirements of DriverPass are met within the budget and timeline can be challenging.
* - Customers might have experience with only specific types of vehicles.

### 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.*

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