# 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?*

* DriverPass is a company with a goal to help improve drivers training before they go to the DMV. DriverPass is hoping to take advantage of a void in the market when it comes to training students for the driving test at their local department of motor vehicles (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?*

* The client wants to be able to access their data online and be able to download the data to use at home.
* They want a hierarchy security system in place so the client can revoke access or help with password resetting.
* The client wants the ability to track who made a reservation and who canceled along with who modified it and also be able to print out a report.
* The client wants users to be able to make reservations online or by going to the office to make a reservation with the secretary. The reservation should have the specified driver, the car they will be using, and the time they will be there attached.
* To start with the client has three packages but would like the ability to disable a package if the owner wishes.
* The reservation system should be able to get users information such as first name, last name, address, phone number, state, and their credit card number, expiration date, and security code.
* The client wants to connect to the DMV so they can have an update with new rules, policies, or sample questions.
* The system needs to be cloud based so the owner has minimal technical problems.

### 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 should be a cloud-based application with users having the ability to make reservations online or by speaking with a receptionist. The reservation system should be able to get the users information that the client requires such as first name, last name, address, phone number, state, and their credit card number, expiration date, and security code, the car they will be using, and the time they will be there. The system should have three packages to choose from with the owner's ability to disable them if need be. Lastly the owner wants a hierarchy security system in place so the owner or trusted employees can revoke access or help with password resetting.

## 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 should be accessible online, allowing users to access data from any computer or mobile device.
* The system should be scalable to accommodate a growing user base and increased data volume.
* Users should be able to download reports and information for offline use, with changes synced upon reconnection.
* The system should be updated regularly to stay up to date with DMV guidelines.

#### 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 accessible online, allowing users to access data from any computer or mobile device.
* The system should be resized to fit the screen of mobile devices.
* The system operating on the cloud wouldn’t require a database.

#### 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 has a hierarchical login system that allows users to create accounts with email and passwords to distinguish between users.
* Case-sensitive input is essential for security purposes.
* The system should report to an admin if any unusual activity happens such as multiple failed login attempts.

#### 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 code should include processes to modify user information without adjusting the code using POST requests and controllers
* The IT admin would need access to user's accounts and passwords along with the ability to remove an employee from the system
* The system should request updates from the programming team.

#### 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?*

* The system should support role-based access control, allowing different levels of access for various employees, including the owner, IT officer, and secretary.
* Sensitive customer data, including credit card information, should be securely encrypted.
* The system should notify the IT officer of any suspicious activities or security breaches.
* Users should have the ability to reset their passwords automatically if forgotten.

### 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 users to be able to register online by providing their first name, last name, address, phone number, state, and credit card information
* The system shall allow users to be able to schedule driving lessons online, specifying the date, time, and pickup location.
* The system shall allow users to be able to choose from three driving lesson packages: Package One (6 hours), Package Two (8 hours), and Package Three (12 hours).
* The system shall integrate with the DMV to receive updates on rules, policies, and 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 interface will need to be able to scale to any device.
* The interface should show appropriate information based on if it is a user, administrator, or IT.
* Users should be able to: Select and purchase driving lesson packages. Schedule, modify, or cancel driving lesson appointments. User Registration.
* Administration should be able to: View and manage user accounts. Monitor system activities and generate reports. Make updates or deletions.
* IT should be able to: Manage user accounts, including password resets. Monitor system security and address potential breaches.
* Users can access the system by visiting the DriverPass website using a standard web browser on desktop computers, laptops, and tablets.

### 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?*

* The system will be developed as a web-based application hosted on a cloud platform that will be available 100% of the time.
* The system will be for DMV students
* The DMV will provide a secure API for integration and updates.
* The clients have the budget to implement all the needs and wants of the system

### 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?*

* Customization of packages (adding/removing) may require developer intervention.
* The system has a timeline without a budget so there is a timeline limitation but the assumption is there is no financial limitation
* The systems are based on the DMV guidelines.

### 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.*

