# 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 client DriverPass has seen an opportunity for training at their local DMV due to the amount of people who fail their driver test
* The client would like to have a system created that offers better driver training to anyone preparing for a driving test
* The client would like to do this with a system that offers on-the-road training, resources, and practice tests

### 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 wants a system to aid in the training and development of users preparing for their driving test
* The client has acknowledged a high rate of failing tests and wants to increase the passing rate by offering well developed training solutions
* This system should provide role-based access with unique identifiers allowing managerial tools to the boss, IT officer, and secretary roles as well as offering the user role an interface for scheduling lessons, reviewing materials, and practicing tests.

### 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 allow data to be downloaded for offline use through methods such as an excel spreadsheet
* The system should only allow data to be modified from a computer or mobile device when the user is online
* The system should have different access privileges based on the user roles such as boss, IT officer, secretary, or user
* The system must log and maintain activity allowing for a report to be generated specifying what activities users are performing within the system
* The system should also support reservations of two-hour sessions by setting it up through their personal account, calling, or coming into the office
  + This reservation should match the customer to a driver, timeslot, and a company car
* The system should have three packages:
  + One: six hours in a car with a trainer
  + Two: eight hours in car with a trainer and an in-person trainer for lessons on DMV rules and policies
  + Three: twelve hours in car with a trainer, an in-person trainer for lessons on DMV rules and policies, and an online class with access to all content, materials, and practice tests
* Future expansion to customize user sessions that are currently in two-hour increments
* The system needs to be modularized with the ability to disable packages as needed
* The registration process taken by phone should take first name, last name, address, phone number, state, their credit card number, expiration date, security code, and pickup/drop-off location (pickup/drop-off location is the same)
* The customer should be able to automatically reset their password
* The system needs to be able to connect with the DMV so that they can update it with new rules, policies, or sample questions
* The system needs to run off the web preferably from a cloud platform so that the backup and security of the system is handled by the cloud provider
* The systems look is based on the clients’ sketch provided
  + The online test progress section of the systems look should hold info such as test name, time taken, score, and status. The status could be not taken, in progress, failed, or passed
  + The driver notes section of the systems look should hold info such as any comments the driver left as well as the times for the lessons (start and end)
* There should be a page with an input form where the student (or secretary) fills in the student information, such as first name, last name, address, et cetera
* There also should be a page for contacting DriverPass and the student.

## 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 run in a web-based environment in the form of a website offered through the cloud.
* The system should be fast enough to allow users to access and navigate the website without latency impacting their ability to access and use the website
* The system should be connected to the DMV and be updated as the DMV updates their rules, policies, and training questions.

#### 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 platform should be able to run on all platform environments.
* The system will be implemented in a cloud environment so all the backend processes of the system will be maintained by the cloud provider.

#### 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?*

* Each user will be able to create a username and password for the system and use these credentials to access their accounts once created.
* The input for their usernames and passwords will need to be case sensitive.
* The system will also need multi-factor authentication to make it more secure.
* The system should inform the admin if any crashes or bugs occur within the website so those issues can be resolved promptly.

#### 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 the modification of all user’s information without changing the code.
* The system will be able to issue modular updates as needed for more/less features. When driverpass recognizes the need to add new features to the website, developers will be able to issue platform updates.
* The IT admin will have access to maintaining and modifying the system.

#### 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 user will be required to enter a username and password along with a multifactor authentication method to log in.
* The cloud will be responsible for securing the connection or data exchange between the client and server.
* The system should temporarily disable the account after a certain number of incorrect logins such as three attempts to prevent a brute force attack.
* If a user forgets their username or password, they will be able to enter the email address they used to set up their account and a reset link will be sent to that address.

### 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 validate user credentials and their role privilege when logging in.
* The system shall generate reports for offline use.
* The system shall update based on new DMV content
* The system shall verify online access before allowing modifications
* The system shall gather and log activity
* The system shall book reservations made by the user or the secretary.
* The system shall verify the package when providing resources, practice tests, and classes
* The system shall show the car, driver, and time slot the customer is paired with.
* The system shall show the progress of the 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.)?*

* The interface must provide the customer the option to make reservations, take online classes, and take practice tests.
* The boss role will have full access to the system.
* The IT role will be able to maintain and modify the system.
* The secretary role will be able to make appointments.
* The user role will be able to make, modify, and cancel appointments.
* The user will be able to interact with the interface from any device that is capable of internet connection.

### 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?*

* We are assuming that all our users have reliable access to the internet.
* We are also assuming that all the designs will fit into the budget as one has not been negotiated yet.
* Finally, we are assuming the driverPass clients have the necessary skills to maintain, modify, and work with the system after it is delivered.

### 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 must be built in five months.
* The budget has not yet been agreed upon.

### 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.*

Chart, timeline, waterfall chart

Description automatically generated