# CS 255 Business Requirements Document

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 goal of this project is to create a system that will allow students to train themselves to help others pass their driving tests. One of the client's aims is to implement online training courses and practice tests. He also hopes to work with DriverPass to provide real-world assistance.

### 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 DriverPass team is looking into making the system available both offline and online. They are worried that it won't be able to save changes when it's not in use. The solution suggested by the team is to use the cloud to manage the interface, though this should be done with the security of the data protected.

### 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 driver’s notes should be made available to the client so that they can see the time taken and the comments that were left.
* The system should be offline.
* The client will be able to see the details of the car and the drivers that are matched with the consumers.
* The system should also be regularly updated with the latest driving schedules and test dates.
* Customers will be able to select packages through the system. The client will then be able to disable these packages once they have been booked.
* Students can take their tests online. The results will be displayed in a format that will allow them to see what's happening in their progress. The tests' names, time taken, score, and status will be shown.

## 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 regularly updated to prevent security breaches and ensure that the correct information is being provided to students. The updates should also include the necessary changes to the DMV guidelines so that they are up to date.
* The system will be hosted on a web base.
* The system needs fast speeds to function properly due to the number of requests sent and received by the servers. Multiple students will be taking exams at the same time, and the system should be able to keep them moving smoothly.

#### 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 in a browser such as Google Chrome, Edge, or Explorer.
* It should be able to resize and fit the screen of the device that it's being used on. The backend should also have a database to store data.
* The system should have a database for the back end.

#### 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 assigned a password and an email address to distinguish them.
* The inputs will be subject to security considerations.
* Users will be given a set number of times they can input information incorrectly. If they exceed this number, an admin will be notified.

#### 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. You should be able to modify the code without changing it. You would need to create controllers, POST requests, and code in order to perform the changes.
* The system will adapt to the changes brought about by the platform updates by taking advantage of the requests from the developers. IT administrators will also need to access various accounts to remove employees who are no longer part of the organization.
* The IT admin will need to access various accounts to remove employees who no longer work for the company.

#### 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 need to provide their unique password and username to log in.
* The connection will be secured using a web-based platform.
* If a user's account has been hacked, they will be sent an email with a link to update their information. The system will then be locked, and an alert sent to the admin and the IT department if the attempt is made on the actual database. Users can also reset their password by going to an authenticator app and entering their personal code.
* A user can reset their password by choosing a method that requires them to enter their own code using an authenticator app, such as Google authenticator.

### 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 verify the login details of the user to allow them to access the information.
* The system will analyze the customer's selection from three different packages.
* The system will make changes based on the latest updates from the Department of Motor Vehicles.
* The system will conform all the customers information:
* The customers first and last name
* The customers phone number
* The customers phone number
* The customer’s credit card information
* The goal of this system is to provide students with the necessary information about their examinations.
* The system will check the type of user who will be accessing it.
* The system will be made available online. In addition, certain materials will be made available offline.
* On the customer's side, the system will display disabled packages.
* The system will display the suggested packages according to the client's suggestions.
* The system will allow clients to disable specific packages if they are unavailable.
* Customers can reset their password with the help of the system.

### 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 needs to be able to work seamlessly on various devices, such as a computer, a mobile device, or a laptop.
* The developers and administrators of DriverPass use the interface to update the system and make changes.
* The interface should be able to allow users to book appointments, take tests, and learn more about driving.

### 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 design of the system is very clear, and I think that it will allow users to make their accounts and manage their schedules. There are also features that will allow them to track their progress. One of the most important things that I am assuming is that there is no budget for the system. Since there is no budget, we are assuming that all the things that will be used to build the system will be included in that budget.

### 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?*

* I assume that a user will experience limitations if they cannot connect to the internet.
* The time and budget constraints are usually caused by the client not setting a budget.
* The DMV guidelines may change if the system is not updated correctly.

### 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.*

Timeline

Description automatically generated