# 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 create a better platform that allows students to be trained to help other students with their driving tests. The client, Liam, has hopes of implementing online training and practice tests as well as having real life training assistance from the DriverPass staff.

### 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 the system to be available both offline and online with the concern that the program won’t be able to save any changes whilst offline. The team believes that the system should use the cloud for the interface, and with doing so, help the team save progress offline. Security is another factor as only a certain number of employees should have access to this information.

### 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?*

* Once completed, the system should be able to show:
  + Drivers notes and any comments that are left that the client should be able to see, and time taken of lessons.
  + The system should be accessible offline.
  + Client will be able to track what driver is matched with a customer, the time, and the car.
    - The tasks that will be included in the system. To achieve this, they will stay up to dates with tests, tracking, driving, schedules, and more.
  + The system will allow the customers to choose any of the provided packages. Depending on which package is picked, the client wants the ability to disable those packages once they are booked.
  + Students will take their tests online. It will show their progress, what’s in said progress, and the tests they have completed. The format for the progress will be the following:

1. Test Name
2. Time Taken
3. Score
4. Status

* The status can show as failed, passed, in progress, or not taken.

## 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 updated pretty frequently to make sure there are no bugs, security breaches, or any DMV guidelines that need to be updated. The DMV guideline changes should be a priority in future updates to ensure students are informed with the right information on DriverPass.
* The system will be running on a web base to be successful.
* The System would be needing a fast speed to run because it has requests that will go back and forth between servers. There will be multiple students online at once taking exams, requiring extreme speed to keep them moving.

#### 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 on a browser such as Microsoft Edge, Chrome, and Explorer.
* If the website were to be accessed on a mobile device, it should be able to resize itself to fit the screen of the device.
* The back end would need a database to store information.

#### 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 have a username, email, and a password to distinguish them.
* The inputs will be case sensitive to help with security.
* The System will have a set amount of times where if the user inputs information incorrectly a certain amount of times, 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 make changes without changing the code that’s needed for the platform. Within the code you would need to write in said code, POST requests and controllers.
* The system will adapt to platform updates easily by taking requests from the programmers.
* IT admins will need to access everything from user accounts to removing employees that no longer work with 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 would be required to use their emails and passwords.
* Using HTTP would be the way to secure connection or the date exchange between client and server.
* If there were to be a brute force hacking attempt, the admin would be notified after a certain amount of failed attempts. After 4 failed login attempts the log in will shut down and stop taking input from the user and the Admin will be notified.
* If a user forgot their password, they can choose to reset their password. The system will send password information to the user’s email address where the user can then reset it.

### 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 confirm login credentials from the user so the user can access information.
* The system shall confirm customer selection from 3 packages the clients want customers to see.
* The system shall make changes according to DMV updates or changes.
* The system shall confirm customer details such as their address, first and last name, credit card info, and phone number.
* The system shall show exam progress and scores for students.
* The system shall confirm the type of user, such as a student or admin.
* The system shall be available online where certain materials will be offered offline as study materials.
* The system shall display the disabled packages on the customer’s side.
* The system shall display 3 types of packages the client suggests.
* The system shall allow the client to disable packages if one of them is unavailable.
* The system shall allow a user to reset their password.

### 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 laptops, mobile devices, computers, or similar devices with an internet connection.
* Different users of the interface are the admins and developers of DriverPass. They both must be able to update the system as needed and/or to make changes.
* Users using the interface will need to be able to book driving appointment packages and take online lessons and tests.

### 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 everything has been addressed in the designs. Everything the users will need is there, including:
  + - Making Accounts
    - Logging in
    - Scheduling
    - Tracking progress
* The one thing I’ve noticed is that there is no budget for the system, having me assume the tools we are utilizing are also covered within the 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?*

* Users having an unstable or bad internet connection is a limitation.
* Time and the budget are limitations as we have a deadline and no set budget to stick to.
* DMV guidelines constantly changing can be a limitation if the system isn’t updated properly.

### 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.*

