# 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 is DriverPass
* They want to develop a program that will help student drivers pass their exams with online classes, practice tests and on the road training if needed.

### 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 sees a void in the system where there is a need for better driver training since so many people are failing their drivers tests at the DMV. DriverPass has come up with a solution to provide training for student drivers through online classes and practice tests as well as on-the-road training if requested.

### 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?*

* They wish for the data to be able to be accessed online and offline.
* For Security, there needs to be associated security levels for different roles and the full access to be able to delete, change or block accounts for the admin (owner of DriverPass)
* Tracking to account for any changes made in the system specifically changes to reservations.
* The ability for employees (secretary) and customers to be able to make reservations, cancel and modify existing appointments
* for driving lessons (date and time with a two-hour window to schedule)

## 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 on a web-based environment such as a website that can be accessible anywhere.
* The information should be stored in a cloud to make it easily accessible and downloadable so that Liam (the owner of DriverPass) can work on it at home.
* Multiple users will need to use the website simultaneously is it needs to be able to support that and not run slower the more people access the website.
* Since the system will be online and Liam wants to be able to download and work offline, the system needs to be able to handle frequent updates to make sure all the data available is up to date.

#### 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 will run on windows. It is widely accepted and easy to navigate as well as has a bunch of support if troubleshooting is needed.
* As far as the Database, we will be using a cloud to store all information that makes it easily accessible to all users on windows and mobile etc.

#### 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 should have a unique username and password that they create when creating an account for the first time. This also includes workers. It is a great idea that the passwords are case sensitive and that there is a password creating requirement that is met for each password before accepting it. For example, the password will have to have one uppercase letter, one lowercase letter, one number and one special character and be 5 characters long.
* The system should notify an admin of any issues that arise immediately in real-time. This will prevent the website from being inaccessible by other users for unnecessary prolonged periods of time. Issues that might take place is an obvious bug in the system, or even as far as a security breach.

#### 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 absolutely allow changes made to the user without the need of changing code. The program will be coded out so that the reusability is high, and the modification of accounts will not pose a permanent change in the code of the program.
* The system will adapt to platform updates on a necessary basis. If DriverPass wants changes made or added to their existing program to further enhance its usability or functionality, then the system will adapt at that time to each update.
* The IT admin needs access to all user accounts (both customer and employee accounts) to be able to reset them, modify, remove them, or add them.

#### 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?*

* As stated above, the user will have to log in with the username and specific password that they entered that met the acceptability criteria for the password.
* Since we are using the cloud, it has its own security features that will handle the secure connection between the client and the server and ensure that data exchange is safe.
* If there is a brute force attach the system should notify the admins immediately of this situation and the associated account(s). As an automatic way of securing the system, the user can only enter their password incorrectly 3 times before they must contact the IT admin department to verify their identity to that account to that an IT admin can reset the account and help them gain access again but creating a new password.

### 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 when logging in
* The system shall allow the customer to choose from three different packages
* The system shall be adaptive and reliable
* The system shall provide the appropriate access to each user depending on the credentials they provide
* The system shall keep all transactions and client information secure
* The system shall notify admins of any issues that arise within the system immediately in rea-time.
* The system shall share with the client which driver they are paired with for them in person driving experience.
* The system shall allow all users both client and employee to schedule reservations and make changes to existing reservations.

### 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 be inviting and easily navigable to every user both employee and client.
* The interface will allow every user to make, change or cancel reservations as well as classes and tests.
* The interface needs to have a format that provides the same and seamless experience on the website regardless of if it is being accessed from a desktop or a mobile phone.

### 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?*

* No information was given as far as the system that DriverPass uses. I selected Windows for its cheaper aspect of development and ease of use. The cloud was also presented, but again requires an upfront and recurrence cost for the built-in maintenance, security and backend work.
* I am also assuming that DriverPass employees understand and have a knowledge background with windows capability and functionality.

### 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?*

* We were never given a budget for this system design. Any of my recommendations might need to be changed to meet a budget that is given in the future.
* Time seems to be another limitation. While we are given a timeline as well as a deadline to deliver this program, it seems we may need more developers to help finish the project on time.
* We will need to choose a cloud that meets the needs of this program and provides a high level of security to keep the clients information secure. Again, the budget might play a role in deciding which cloud we choose.

### 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.*

* Again, as I stated in the discussion, I did not color coordinate anything specific as it wasn’t required.

Timeline

Description automatically generated