# 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 client is DriverPass and the purpose of this project is to provide better driver training for customers in order to better prepare for their driving test. The system overview is to be able to schedule driving lessons as a customer.

### 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?*

* They want to be able to access their data both online and offline. They express the need to have full access over all accounts in order to reset passwords or block a user’s access if they are let go from the company. A notification system is needed in order to track changes that are recorded in the system such as reservations, cancellations, etc., as well as be able to print the activity reports. They also would like a schedule system in order to make reservations for driving lessons, as well as set up specific drivers, cars and times to specific customers. The customer will also have the ability to set appointments online as well as cancel and modify them. When setting up appointments, the customer has the choice of 3 different packages that include different criteria for their training but the users in charge would need the ability to add, remove or edit packages. The system needs connectivity to the DMV in order to ensure DriverPass meets requirements as well as getting notifications when changes in requirements are made.

### 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?*

* Overall, the system needs to allow the customers to set up, modify and cancel appointments by phone or online as well as pick a certain package out of the different packages offered by DriverPass. For the users in charge, they need capabilities for tracking changes, connectivity with the DMV, setting up and removing customer Packages, as well as security protocols for resetting passwords, granting and removing access of other users, a notification system, and database capabilities to store customer data.

## 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 needs to be web-based with the ability to work offline. It also needs the ability to work from mobile devices but it is not specified if the webpage should be optimized for mobile users as well or if a mobile application should be put in place. The system does not have any defined speeds or update regulations other than the need for the system to keep up to date with DMV regulation updates, though semi-frequent updates would be beneficial in order to avoid issues with appointment times.

#### 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?*

* There are not platform specifications that the client has expressed, though they do have a need for databases in order to track customer information, handle scheduling, 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?*

* Basic users will have different capabilities than the Administrators of the system. Adminstrators will have full access over all of the accounts including resetting passwords and blocking access of some users if they do not work for DriverPass anymore. Admins will have tracking ability to see reservations, cancellations and the employee that worked on each case as well as being able to see activity reports.

#### 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?*

* Changes to the user can be made but adding and removing modules/packages cannot be made by a nondeveloper. A developer/IT Admin would be needed to modify the modules. The IT Admin would also need administrator access in order to be able to modify the user data.

#### 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 client states that they do not want to deal with the backup and security and need it to be taken care of.. There is no specified requirements for logging in from the client, but having a username and password requirement is essential as well as locking the account after X number of failed attempts can help with account breaching. If the user forgets their password, implementing a system for resetting their password via their email/phone number would be beneficial.

### 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 access online and offline
* The system shall validate user’s username and password
* The system shall lock user account after X number of failed attempts
* The system shall allow users to schedule appointments
* The system shall allow administrators to modify/block access of some users
* The system shall track scheduled appointments
* The system shall show users various packages available to choose
* The system shall show the lesson start/end times as well as the drivers comments
* The system shall allow the user to pick which package they prefer

### 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 allow customers to login or register, see their progress and schedule appointments. Administrators will have access to see customer information, disable packages, and scheduled appointments.

### 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?*

* Assumptions I’ve made on the design that was not specified were the security procedures such as failed password attempts and password resetting protocol. I also made the assumption that for logging in and registering, the user would need a username and password compared to using an email and password, phone number and password or some other combination. Other than these, I also assume that he admins will have the necessary knowledge to handle user access modifications as well as the IT Officer to understand their protocols as well.

### 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?*

* One main limitation I see is security. The client stated they want nothing to do with handling security so they can focus on the business itself, but security is an important aspect of any software. As far as the security being held for them, I am unsure if they have a third party security entity they wish to implement some other plan. Other limitations for this model would be the number of vehicles available. There could be an issue between having too many appointments and not enough vehicles. With this being a concern, there could also be issues of customers requesting certain types of vehicles that they are most comfortable driving but with only 10 options, they may not get the vehicle they want.

### 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.*

