# 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?*

* Our client DriverPass wants to create a system to provide training to people for their driving test.

### 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 system is meant to provide training for customers, and take online classes and tests, as well as on the road training.
* The system should be available online as well as offline. It should be accessible via any computer or mobile device.
* It should also generate reports that are downloadable.

### 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 program should allow access at different levels from full access to only making changes to a student’s profile.
* The student should be able access the program from anywhere on any device, and should be able to make changes to reservations and their student info themselves.
* With the reservations the student should need to input their pick up location, and dropoff location.
* A secretary role should exist with the same capabilities to schedule change or modify any students appointment.
* The interface should show student progress and info, as well as the contact info for the company.
* The student should be able to choose different packages available at that time, and also see any progress notes or comments on their instruction session report.

## 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 web based but also be able to function as an application.
* There should be a responsive UI to ensure usability with scheduling and training.
* It should be able to handle many users accessing the site at once without any bottle knecks.
* The system needs to be refreshed in real time to show modifications to appointments or also push updates as well.

#### 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?*

* Being a web-based system it should be supported on all platforms with the cloud.
* It should be accessible anywhere via different networks and using any mix of platform hardware
* There should be access to API’s and web services for using the scheduling or accessing other platforms such as the study material, or payment services.
* There needs to be a data management system to host the user information and a way to keep track of progress per user.

#### 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?*

* The system should be able to distinguish each user via roles.
* It needs to be accurate and track different levels of subscriptions
* There needs to be authentification on each user with proper passwords for each user.
* The password storage needs to be encrypted in order to ensure safety and security.

#### 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?*

* There should be room for growth and adaptability via using OOP principles.
* There needs to be little to no downtime when making changes or updating the system.
* IT support should be on hand for any issues not previously presented and for any security risks found.

#### 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?*

* Strong password management and requirements for each user to use a case sensitive and varied password.
* Something like 2FA could be implemented to ensure limited access and verification of user.
* Allowing user to send a request to forget their email, and completely deleting their previous password to limit potential risks.
* Limited amount of password attempts could lock the account and require calling the administrator for assistance to verify account.

### 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 needs to validate user credentials
* It should lock accounts after a certain number of password attempts
* There should be a reset procedure for the customer to be able to complete themselves.
* The admin should be able to assist in resetting passwords as well.
* The system needs to be able to update customer and subscription information automatically
* The system needs to be able to track appointments and update across the board for users and drivers to see.
* There needs to be a scheduling function to give proper appointment availability and info on what driver is available.

### 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.)?*

* UI would be web based and accessible using any number of different varieties in hardware and screen sizes wether be on desktop or mobile.
* Admin needs to have a usable UI to access schedules and account info and also have the ability to create appointments.
* Customers should be able to see account info, progress, study materials, appointments, past notes etc.

### 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 assume users have emails and access to the web via web browser.
* We assume that the user has relatively updated hardware able to load web pages.
* We assume there is an API to track any changes made from the DMV and to notify the admin of such changes.

### 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?*

* Timeframe set by client.
* Front end should be compatable with all current web browsers.
* DMV regulations or updated web browsers could change and cause issues with current programs/application.

### 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.*

