# 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 that can process purchases of different driving lesson packages. The system will also need to include a web interface to provide online tests. DriverPass would like the system to be able to be access offline by employees and be able to track changes made by individual employees.

### 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 problem DriverPass intends to fix is too many kids failing driving tests.
* The system will require a **Database**, to hold customer information, driving package information, driver/car availability, and scheduled driving sessions
* The system will require an **Interface**, to allow employees to update/input information/schedule driving sessions, and a **web interface** to allow customers to access their account information, purchase driving packages, schedule lessons, and take online tests

### 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?*

* Allow employees to create reservations for customers & allow customers to create reservations online.
* Handle multiple driving lesson package types
* Allow employees to access data offline, and edit data while online
* Track edits made by employees
* Manage different user roles/permissions
* Provide a web interface for customers to schedule/view lessons & take online tests
* Give customers the ability to reset their account password if needed
* Notify DriverPass when the DMV makes a change to regulations

## 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?*

* System will be web-based
* Website should be responsive and work on all current web applications
* System should be updated as needed with downtime scheduled in advance

#### 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?*

* System UI should adapt for mobile users/browsers
* Web frontend will run on current popular browsers (Chrome, Firefox, Safari)
* Backend would require a database to store system logs and required user 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?*

* System will use session cookies in order to differentiate between users
* User passwords must be case sensitive
* System will send a daily report consisting of all errors and send immediate notification to Admin users if a critical error occurs

#### 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?*

* Web application must remain up to date with updates/changes made to available browsers
* IT Admin will need access to the database and server running the web application

#### 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?*

* Case-sensitive password required for user/admin login
* System could implement 2FA via email or Text
* Users must have option to reset their passwords via the email linked to their account
* To block “brute force” attempt accounts will be locked after 3 incorrect password attempts

### 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 process 2FA logins based on the users selected device type if 2FA is turned on.
* The system shall lock customer accounts after 3 incorrect password attempts and require a password reset
* The system shall update customer & order information on the backend based on user input/commands
* The system shall track available appointments with scheduled appointments to avoid conflicts.
* The system shall schedule customer appointments in response to orders placed

### 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.)?*

* Interface needs to be web-based and work/adapt depending on is the user is on a desktop or mobile device
* Admin users will require access to scheduling, and appointment making
* Customer users should have access to their account information, orders, and package information

### 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 access to email and a web browser
* We assume an API can be used to track changes made from the DMV

### 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, 15 weeks
* Frontend design must be compatible with ALL major web browsers
* Changes to DMV regulations or web browsers could occur at any point

### 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.*

Chart, timeline

Description automatically generated