# 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, and they want their system to be able to provide customers with online classes and tests that are geared towards driver’s education. DriverPass should also be able to provide on-the-road training as well.

### 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?*

* Data should be able to be accessed online from any computer or mobile service. Data should be able to be downloaded to be worked on at home on excel.
* IT needs to be able to have full access to every account, and account tracking should be available for when a customer changes information on their account.
* There should be a reservation system in place for customers to schedule lessons and training through their online account. Reservations should also be able to be updated by the secretary or faculty members. The reservation should match the customer with a time slot, driver, and car. There will be three different packages that the customers can make reservations under. Packages should be able to be disabled by faculty members.
* Notifications should happen when the DMV updates their driving requirements.
* The client wants it to be a cloud-based service.
* The UI should show past and future tests for the customer and basic information about user info and include test scores, test time take, test name, and test status. There should be a driver notes display for how the tests went. The user or secretary should be able to update info on this page. Another page should be for contacting DriverPass, and a way for DriverPass to contact the student.

### 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?*

This system should be able to provide a website where customers and faculty at DriverPass can schedule training and tests, manage user data, schedule appointments, record test and training records, and where customers and faculty at DriverPass can communicate with each other.

**Measurable Tasks**

* Collect Requirements
* Create Use Case Diagrams
* Build Activity Diagrams for Each Use Case
* Research User Interface Designs
* Build Class Diagram
* Get Customer Approval
* Build Interface
* Link DB to Interface
* Build Business Logic
* Test System
* Deliver System
* Sign-off Meeting

## 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 offer a web-based environment
* The systems website should be easily accessible on all modern devices
* The system should be fast, with no more than 2 seconds of wait time when loading up the website
* The system should be assessed for updates every 30 days, but updates are only necessary at the discretion’s of the client and developer

#### 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 all common browsers like chrome, safari, firefox, Microsoft edge, and the like.
* The system should be accessible on all common devices, such as pc, mac, and mobile devices.
* The user interface should be adapted to mobile browsers
* The backend of the system will require a database to store user data, as well as system data

#### 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?*

* Session cookies will be used to distinguish between different users
* The only input that is case-sensitive will be passwords
* The system should inform the admin of a problem immediately if the problem is critical to the functionality of the system. Otherwise, an aggregate report will be sent to the admin daily for all other error 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 will be able to be made in the backend to user profiles without changing code.
* System updates will be done in accordance with scheduled platform updates
* IT will have access to both the server, as well as the database.

#### 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?*

* Username and password are required for login.
* Data exchanges between the client and server will be encrypted.
* The account will lock after 5 failed attempts and an email will be sent to the user to create a new password via two factor authentication.
* If the user forgets their password, an email will be sent to them with a temporary password, and they will be prompted to create a new password upon their next login with the temporary 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 lock user’s account after 5 failed login attempts.
* The system shall send an email with a temporary password and prompt the user to create a new password upon user selecting “forgot password?”.
* The system shall update user data and information upon command from users and admin.
* The system shall track and store all data for availability schedule, appointments, and appointment changes.
* The system shall create new scheduling data upon command for users and admin.
* The system shall track DMV changes and notify admin when a change is made.
* The system shall send a daily aggregate report of all error reports to the admin.
* The system shall notify the admin immediately with all critical error reports.

### 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 needs to be intuitive and easy to navigate for users to schedule classes and training sessions
* The interface should have a standardized look, with all fonts, color schemes, and layouts being the same from page to page.
* The different users for the interface will be customers, employees, and IT/admins
* Customer users will have limited access to view the schedule availability and be able to make appointments. Customers will have the option to purchase packages, as well as view their appointment and order history.
* Admins will have full access to the schedule and have the ability to make all edits and schedule changes. Admins will also be able to gain spoof access to user accounts in order to schedule appointments for them and edit current appointment schedules and class reservations.
* User’s will be able to interact with the interface through all common devices, including mobile.

### 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 assume that users have access to moderate to high-speed internet
* I assume that users are running the latest versions of all required software on their devices
* I assume that users have an email address

### 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?*

* There is a time limitation with a 15-week deadline
* There is an information limitation because we do not know if/when the DMV will change their rules

### 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.*

Timeline

Description automatically generated