# 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 purpose of this project is to take advantage of an empty market around driver training for the DMV driving test. Our client DriverPass wants to leverage technology with an aim to provide a comprehensive and easily accessible site for individuals to enhance their driving skills and to provide the customer with better chances at passing their 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?*

* DriverPass in efforts to reach their goals they want the system to provide online classes, offer practice tests and on the road training. They want to fix the current problem of high amounts of individuals failing their driving 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?*

* The systems objectives will be:
  + Allow the user to create an account that will store essential details like their personal information, payment details, address and a unique user ID.
  + Enable users to schedule behind the wheel training appointments online, to attend classes, and to pick training packages.
  + Provide functions such as:
    - Reset password
    - Implement RBAC
    - Connect with DMV and update test in sync with them
    - Provide grading

## 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?*

* Web-based, mobile applications, cloud environment
* System should have fast load times, no more than a few seconds for user interactions
* Should be updated multiple times throughout the year to keep it current and fast

#### 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 should be able to run on any browser access whether its computer or mobile
* Should cater to multiple platforms | windows, mac, ios, android, and linux
* Database will be required for storing user information and appointments

#### 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?*

* User identification needs to be secure, reliable and prevent any unauthorized access, use unique account identifiers(user ID) with two factor authentication including password
* The system should inform the admin any time there is a brute force attempt made or anytime a user fails their entry 3 times and needs to reset a password

#### 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?*

* System should allow for a seamless user management interactions such as adding, modifying or removing without any significant changes to the code
* Regularly scheduled updates and maintenance will ensure compatibility and will address the issue with platform updates
* IT admins should have access to manage and modify the system, giving them roles where they can manage users permissions as well

#### 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?*

* User log in will require login credentials, and multi-factored authentication
* Data exchange between client and server will be encrypted to protect the data
* Brute force hacking attemps will result an automated account lock and notification of an admin
* If the user forgets their password their will be a help option that will notify an admin to assist in resetting it

### 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 create user accounts with provided information
* The system shall be accessible online from anywhere
* The system shall display available package options for customers
* The system shall allow customers to select and purchase packages
* The system shall enable admin to disable full packages
* The system shall track user, driver, time, and car matching
* The system shall connect with DMV for updates
* The system shall display customer information, test progress, and status
* The system shall display driver notes
* The system shall validate user login credentials
* The system shall distinguish user type (customer or admin)
* The system shall provide reset password functionality
* The system shall limit login attempts to three before notifying admin
* The system shall display lesson time, start and end hour
* The system shall display driver and student photos
* The system shall provide customers access to online learning tools

### 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 user interface should be intuitive and user-friendly, catering to individuals of varying technological proficiency.
* Different user roles should have access to specific functionalities, ensuring a personalized experience, there will be a user(customer) role and an admin role.
  + Users will need access to classes, appointment scheduling, home page, testing, drivers, all learning tools, a personal account page with their information
  + Admins will need access to all the above and full ability for resetting password, managing packages, managing user accounts and any modification needs.
* Users should be able to interact with the interface through both web browsers and mobile applications for maximum accessibility.

### 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?*

* Users have enough technological experience to operate and navigate the system
* Users have access to the internet
* Users have compatible devices
* Customers and drivers will be on time and attend all lessons/appointments

### 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?*

* Users may have out of date technology
* Meeting every requirement exactly on budget and time frame
* Limit of cars for on the road training
* Poor internet connection may cause site to have delays

### 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.*

A screenshot of a computer

Description automatically generated