# 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 has noticed a lack of training tools for students to utilize to pass their driving test. Their goal is a system which offers online classes and practice tests, and in person 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?*

* DriverPass aims to train learning drivers more proficiently which will increase the passing rate of the DMV tests.
* For their system, read-only data needs to be accessible from anywhere, and can only update it when you’re online to reduce data redundancy.
* Reservation management functionality for customers to customize their experience based on their needs.

### 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?*

* With the completed system customers will be able to schedule in person driving appointments for driving proficiency with the option of selecting one of three packages depending on individual needs, and the ability to edit or cancel existing appointments.
* Includes feature to identify the driver assigned with each customer appointment, along with the vehicle, time, and drop off/pick up locations.
* The third package will offer the online portion of the training with courses and practice tests to up their overall knowledge.
* Role-based access implementation for access to user password security features and logs for user activity tracking for added security and accountability.

## 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 run in a web-based cloud environment.
* Fast load times of no more than 2 seconds, with feedback provided for longer load times.
* Frequent system updates for any bug fixes or security measures, can be at least once a month and/or as needed.

#### 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 at least be compatible with the Microsoft Edge, Google Chrome, and Internet Explorer mobile and desktop browsers.
* The back end would require a database for storage and a web server to process requests.

#### 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?*

* Each user will have a unique username and/or email address for registration and login.
* All login information will be case sensitive including their password.
* The system will have a set number of incorrect login attempts which will automatically flag the user’s account once the threshold is exceeded.

#### 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 user accounts should be made in the back end, without changing the code.
* By taking requests from the admin/programmers, the system will adapt to platform updates.
* The admin will need access to everything within the system to update user accounts and ensure the system’s functionality.

#### 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?*

* An email and password are required for registration, with the option for a username once the account has been verified and registered.
* Two factor authentication will be offered for any user for extra protection.
* By using HTTP, the connection or data exchange between client and server can be secured.
* For brute force attempts the user account will be flagged and locked once the threshold of failed login attempts is reached.
* If the user forgets their password, there will be an option in the login page to select which will allow them to change their password once the user is verified.

### 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 login credentials each log in attempt.
  + Allow users to reset their password.
  + Distinguish between student, instructor, and admin user accounts.
  + Confirm the student selection of one of the three offered packages.
  + Allow disabling of packages once they become unavailable.
  + Make changes based on any DMV requirement updates.
  + Be available online and accessed from anywhere.
  + Allow the students to view instructor profiles.
  + Track student progress based on their selected package.
  + Allow the instructors access to view student progress.

### 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 needs of the interface include tablet, pc, and mobile devices.
* Different users include students, instructors, and then admins and programmers for DriverPass.
* The admins and programmers will have to update and troubleshoot the system as needed.
* Students and instructors will have access to their account information, appointments, and the classes they are taking/teaching.

### 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?*

* Some assumptions are being made and are as follows:
  + Users will have online access.
  + Users will be able to navigate the website with relative ease.
  + Admins are trained and have the necessary knowledge.
  + A reasonable budget is given for the system’s completion since there was no mention of a budget cap.

### 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?*

* User internet capabilities.
* User device security features.
* Vehicle maintenance.
* Student’s experience with different vehicles.
* DMV guidelines.

### 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 white calendar with colorful sticky notes

Description automatically generated