# 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?*

* This project aims to enhance the driver training system for our client, DriverPass, with the goal of offering a more comprehensive and effective training experience to their customers.
* The enhanced training program will serve as an optional resource, specifically designed to provide individuals with the necessary skills and knowledge to better prepare for their upcoming driver's tests at the DMV.

### 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's objective is to reduce the number of people failing their initial driver's tests and increase first-time pass rates.
* They plan to achieve this goal by offering online classes and practice tests to equip customers with essential knowledge and assess their readiness for the DMV driver's test.
* In addition to online resources, DriverPass also intends to provide on-the-road training as an optional offering for their customers.

### 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 system will provide the user with the following functions:
  + Creation of an account
    - Customers name, address, phone number, and credit card information
    - Customers pick up and drop off location.
  + Scheduling appointments over internet
    - Choose a training package!
  + Access to reset password if forgotten.
* Other functions:
  + Allow access to specific employees.
  + Track which user is matched up with a certain driver, time, and car
  + Track reservations
  + Allow training packages to be removed
  + Connect with DMV to be updated with new information
    - Notification for new updates
  + Show tests customers took and their progress
    - Test name, time taken, score, and status
  + Show drivers notes
    - Lesson time, start hour, end hour, and driver comments

## 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?*

* Utilization of a web-based cloud environment.
* Aim for user load times averaging 1-2 seconds.
* Implementation of a feedback mechanism for load times exceeding 3 seconds.
* Scheduled system updates to occur monthly or as required.

#### 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?*

* Compatibility with computer and mobile browsers, including:
  + Internet Explorer
  + Google Chrome
  + Firefox
  + Safari
* Back-end necessitates a database for storing user and system information.
* Back-end requires a web server for processing and managing requests and responses.

#### 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 will provide daily notifications to the admin regarding any problems or issues.
* Distinct login sections will be implemented to differentiate between customers and employees.
* Passwords for each user will be case-sensitive to enhance 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?*

* User modifications will occur exclusively in the back end without requiring changes to the code.
* The system is designed to seamlessly adapt to platform updates.
* IT administrators will have access to both the database and web server for system maintenance and modifications.

#### 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 login necessitates a mandatory password.
* Two-factor authentication will be implemented as an additional security layer for connection and data exchange.
* After five consecutive incorrect login attempts, a user will be locked out.
* The inclusion of a "Forgot Password" button will notify the admin to facilitate the user's password reset process.

### 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’s username and password when logging in
* The system shall distinguish the type of user: customer or admin
* The system shall allow users to reset password if needed
* The system shall allow five login attempts before blocking user and notifying admin
* The system shall create user account with user information
* The system shall allow access from anywhere online
* The system shall display types of packages for customers to choose from
* The system shall allow customers to select a type of package to purchase
* The system shall allow admin to disable packages that are full
* The system shall track which user is matched up with a certain driver, time, and car
* The system shall connect with DMV to be updated with new information
* The system shall display customer information, test progress, and status
* The system shall display drivers notes
* The system shall display lesson time, start hour, end hour
* The system shall display driver and student photo’s
* The system shall allow 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.)?*

**For Customers:**

* Access to a login and registration page.
* Viewing and interaction with the home page.
* Tracking test progress and viewing test scores.
* Receiving pass or fail notifications for tests.
* Updating user information.
* Access to driver notes, lesson dates, and times.
* Retrieving package information.
* Utilizing online learning tools.
* Accessing a contact information page.

**For Admin/Employee Access:**

* Access to customer registration information.
* Monitoring selected packages and their respective users.
* Capability to remove entire packages.
* Viewing customer and driver matching, including dates and times.
* Enabling password reset for users as needed.

### 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?*

* All users have 24/7 online access
* All users will understand how to navigate website
* Admins have necessary skills to navigate and access all website functions
* Customers will be on time and show up for every lesson in their package chosen
* Drivers will be available and make it to every driving lesson

### 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?*

* DriverPass has 10 cars, each car needs to be maintained to be able to use
*  Issues with internet connection may arise and cause delays to information needing to be
* updated
*  Only so many customers can purchase packages with the limited number of cars
*  Users may not have updated technology on their end
*  Meeting all the requirements of DriverPass within their budget and time frame
*  Customers may only have experience with certain vehicles

### 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.*

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