# 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 aims to capitalize on a gap in the market for driving instruction tools. In addition to providing users with the opportunity to schedule an in-person session with DriverPass staff for on-the-road instruction, the business wants users to be able to use the system to complete online lessons and practice exams in order to get ready for the actual driving 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?*

* The DriverPass system must be accessible online from any place. The client wishes to provide online courses and practice exams to students in addition to in-person driving lessons.
* Also a reservation system that would let them and the company personnel book the three packages or the available in-person driving lessons. This method needs to allow for modifications as well.
* The owner needs to be able to manage each account, including changing passwords, blocking accounts, limiting access, etc

### 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 features that should be available to the user through the system include:
  + Account creation: Customer information, name, address, phone number, and payment details
  + Customer location for pick-up and drop-off
  + Online appointment scheduling: Selecting a training program
  + Password reset
  + Monitoring user information and reservations
  + Connecting with the DMV to receive updates; Getting notifications for new developments
  + Displaying tests that users have taken and their progress;

## 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?*

* To improve user information security, the system should run on a web-based platform that is hosted in the cloud.
* It should operate swiftly and efficiently so that users may access all of the features and receive a speedy program.
* The system should be able to be updated on a regular basis to guarantee that it is giving correct information that complies with the most recent DMV rules and regulations and also provide feedback for load times

#### 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?*

* To guarantee optimal compatibility and availability, the system should run on a variety of platforms
  + Windows, Linux, Mac, mobile devices, etc.
  + Mobile browsers: Internet explorer, google chrome, firefox, safari, etc
* Back end requires a database to store user and system information
* Back end requires a web server to process and manage 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?*

* To facilitate user differentiation, each user should have a unique username, email address, and password.
  + Case sensitivity should be used to both login elements to provide maximum protection.
* When a user logs in more than once with the correct information, admin and IT should be alerted right away to the possible security risk.

#### 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?*

* IT administrator should always have complete access to all programs and code to make sure everything is working properly and there are no bugs that need to be fixed.
* IT administrator must have the ability to add, remove, and modify users at any time to make sure no users have access that they shouldn't.
* It is imperative that the system immediately adjusts to any potential platform updates to guarantee it is operating on the most recent version of the platform.

#### 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?*

* Users must have a password in order to log in.
* Two factor authentication adds an additional layer of security to the connection or data exchange.
* If a user enters their login incorrectly five times, they will be locked out.
* The "Forgot Password" button notifies the administrator and allows the user to reset their 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’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

### 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.)?*

* On PCs or other devices, users will engage with the interface via web browsers.
  + Needs include a mobile device, laptop, computer, tablet, etc
* Users could include
  + IT, Admin, Consumers/Customers,
* IT and admin will need full access to the program to ensure they are able to make any edits or upgrades as needed
* Consumers/customers will need limited access to ensure they are unable to change aspects of the program and are only given access to the functions they need

### 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?*

* Every user has round-the-clock access to the internet.
* Every user will be able to explore the website.
* Every administrator has the skills needed to access and navigate every feature of the website.
* Clients will be on time and attend each lesson in the selected package
* Drivers will be available and attend each 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?*

* There are ten cars in DriverPass, and each one needs to be maintained in order to be used.
* There may also be internet connection problems, which could delay the updating of information.
* Finally, there is a cap on the number of clients who can purchase packages with the limited number of cars.
* It's possible that users do not have the most recent technology.
* Completing DriverPass requirements in a timely and cost-effective manner
* Clients could only have knowledge of specific makes and models of cars.

### 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