# 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 is for one of our clients, DriverPass. The purpose of this project is to create an online platform that can provide better driver training according to local DMV standards. The platform will be interactive, giving the customer a great user-experience and real-life feedback from scheduled lessons with trained drivers.

### 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 wants a cloud-based system where company employees and external users can register customer profiles including the following data: first name, last name, address, phone number, state, and their credit card number, expiration date, and security code.
* After registering the customer could pick from three packages and schedule their reservations in two-hour blocks with 10 available drivers and cars. The owner would also like to be able to disable packages and have detailed reporting based on reservations.
* Customers could track their progress through the application with driver feedback given through driver notes.
* If a customer chooses package three, they will have access to online classes, and practice tests.
* Drivers need a feedback form for when a student has used one of their reservations. Information tracked will be lesson time, start hour, end hour, driver comments.

### 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 platform created will have the following features:
  + Register customer accounts
  + Purchase 3 different level packages
  + Track progress
  + Update based on local changes at DMV
  + Allow owner/super user to deactivate employee profiles, disable packages, and download reports to be used offline

## 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 will run in a web-based environment as these are easier to setup, maintain, and access. This would also be more accessible forgoing OS requirements.
* The system should run relatively fast. This will partially depend on the user’s internet connection.
* The system should update instantaneously. Any updates from customers, drivers, admin, or the DMV should push instantly to the program.

#### 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 make the system as accessible as possible, the program should run on any browsers that are HTML5 compatible. This would include the most popular browsers like Chrome, Safari, Edge, etc.
* To support this application, the back end would need a database.

#### 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?*

* Different users will be distinguished by having unique usernames and passwords.
* Input must be case-sensitive.
* The system should inform the admin of a problem through email and as a notification upon login.

#### 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?*

* The system should allow changes that are made to the users without changing code. This could be done through users that have a high enough access level to the system.
* The system will adapt to updates by having a planned downtime. This could be at a time when there are little or no users on the program.
* IT admin would need the super user level as a backup to the owner, Ian. This would be in case Ian is locked out of his profile, the IT admin could assist him.

#### 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?*

* The user must give their username and password to login.
* The user access level will be set based on their role assigned. Ian, the super user, will have the most access and from there each role will have varying access.
* To secure the connection or data exchange between client and server, HTTPS protocol would be necessary.
* If a brute force hacking attempt happens, the profile will be locked after three incorrect password attempts. The account will have to be unlocked by a user with a high enough profile clearance.
* If a user forgets their password, they will have to use the “forgot password” feature, which will ask them a security question they setup when creating their profile. If they successfully supply this data, they will be emailed a 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 allow customers to register for user profiles requiring the following details:
  + First Name
  + Last Name
  + Address
  + Phone Number
  + State
  + Credit Card Number
  + Credit Card Expiration Date
  + Credit Card Security Code
  + Security questions
* The system should allow the user to reset their password based on their security questions.
* The system shall validate user credentials.
* The system shall allow the customer to purchase one of the three packages currently available.
* The system shall allow the owner to create new or disable packages
* The system shall update in real time with changing DMV regulations.
* The system shall allow students to do the following:
  + Take tests, if applicable.
  + Access online training, if applicable.
  + Track progress.
  + Update information.
* The system shall allow drivers to update feedback and scoring of customer’s progress based on their reservation time. This will cite the following:
  + Lesson time
  + Start hour
  + End hour
  + Driver comments

### 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 will need a device to interact with the system. The device could be a computer, smartphone, or tablet, capable of accessing the internet through a browser capable of HTML5.
* The different users of the interface are:
  + Superusers (Ian, IT)
  + Company Admin
  + Drivers
  + Customers
* Superusers will need to be able to make any reasonable change to the program, like administering users, packages, adding or deleting users, and reporting. Admin level employees will need to be able to create customer profiles. Drivers will need to be able to leave feedback and score customers. Customers will need to be able to add information, pay for packages, testing, access lessons, schedule sessions, and review feedback.
* Users will need a device capable of a browser to access the system.

### 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 will have a basic understanding of computers and using a web-based program.
* Ian, the owner, will have the necessary tools and training to be able to properly administer the program with the help of the IT admin.

### 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?*

* The web browser will be a limitation for a few of the users. They will need to have a somewhat current device capable of using an HTML5 browser.
* The system will likely have a learning curb for the owner, drivers, and possibly customers.
* No foreseen limitations on resources, time, or technology. Budget has not been discussed so I am not assuming this is currently a limitation.

### 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 colorful rectangular grid with a rectangular pattern

Description automatically generated with medium confidence