# CS 255 Business Requirements Document

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 for Driver Pass to make better driving instruction
* The system needs to accommodate online courses, schedule in person training, and a reservation system.

### 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?*

* They believe that there is a void in the digital training market for drivers education, they will do so with online classes and practice tests.
* They also want to offer their prospective students the opportunity to take live training with them as well, all of this in order to reduce the amount of drivers who fail at their test.

### 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?*

* They need to be able to book reservations (full suite: Make, Edit, and Cancel these appts) with documents that show the vehicle, the instructor, and the time/place of the reservation.
* The owner has requested to be able to access his data from anywhere, online and offline.
* DriverPass will also have a username and password for users, and for security features available to an administrator. Need to have a log of changes to the system/dataset for another layer of security.

## 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 support different environments, like web while on pc, and apps on mobile phones.
* Easy to use, with an intuitive design.
* Everything is compliant with the DMV regulations for the state they operate in.
* Any identifiable information should be safeguarded with different types of encryption.
* Overall the system should be fast and reliable, with minimal downtime.

#### 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 run on the web when using any desktop/laptop, and an application for any mobile device.
* The program should use a database like SQL in order to store all of the data.
* Overall, any time a user registers, schedules a lesson, takes a test, etc. should call for the system to update that in the 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?*

* Every user regardless of their role will need to create a password that includes case-sensitive letters, numbers and symbols, in order to maximize security.
* In the backend, The admin will be able to manually adjust the roles of accounts that need specialized access.
* The system would inform the admin if there are too many incorrect login attempts, or if the user is logging in from multiple different countries, etc.

#### 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 admin needs administrative access that allows them to access things like passwords and usernames.
* Users should be able to create their own username and password. They would also be able to change their password whenever they would like.
* Users should be able to submit different forms of identification in order to streamline their process of enrolling in different lessons and tests.
* Users should be able to delete their account whenever they would like, with a note that details that account deletion is irreversible.

#### 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?*

* Https is crucial for security on web based applications, and that’s what we will implement here for DriverPass.
* Usernames and case sensitive passwords will be required for the users to access their account information
* Sensitive information such as IDs, addresses, and payment information should be encrypted using SHA-256, which is the most secure encryption available.
* Attempted hacking of accounts should be subverted by not allowing brute force methods to compromising accounts. Meaning that after 3 unsuccesful login attempts, the Admin team will email the user and help them regain access and unlock their account.

### 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 should validate user credentials when they login.
* The system should track user activity, so the user can track their progress in the curriculum.
* The system should allow the Admin to update packages and their availability, as well as remove them, and create new packages for customer to purchase.
* System should intake the users First name, last name, phone number, address, zip code, state, and payment methods when creating their account.

### 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.)?*

* Users will need to be able to access their course materials at any time they are online.
* The interface should be easy to use, and show relevant information like their next scheduled period of instruction, DMV materials, and previous test scores.
* Admins will need to be able to access specific pieces of information relating to accounts, and create reports based on user activity to show which packages are the most popular, and track things like what times the DriverPass systems are used in order to help plan for scheduled maintenance, with the least impact to the users.

### 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?*

* We are assuming the user will have an email address.
* We are assuming that clients have access to a medium capable of running the DriverPass systems.
* We are assuming that the DMV has an api that will give us the most up to date rules and regulations relating to drivers education training.
* We are assuming that users are willing to pay for the services rendered by DriverPass.
* We are assuming that vehicles and instructors will always be available for scheduling.

### 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?*

* We will need to accomplish the full build of the project in 15 weeks, which is a tight time constraint if we run into any issues in the long run.
* If there is an API from the DMV we can not control when it might go down.
* We cannot control if users try accessing the site/app on unsupported devices, because we can’t build it to encompass stuff 10-15 years+ old.

### 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

AI-generated content may be incorrect.