# 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?*

* The client, DriverPass, is wanting a new web page application to help manage their schedule and track their driving students.
* The application should allow the customers to create an account and schedule appointments with DriverPass, with the 3 given packages.
* The application should be web-based and cloud-based so they can access the information in and out of the office.

### 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 requires an application that will be used by both employees and customers to be able to schedule appointments, keep student information updated, and to document the driving tests that the students take.
* The app will require a login so that users can create and login to their account, and to also update their information and change passwords if needed.
* The app needs a tracking/logging component to maintain all the changes being made.
* The app should have the ability to be hosted by the cloud as well as being web based.
* Their will need to be multiple roles, such as owner, administrator, editor, user, tester, 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?*

* Customers should be able to login and update their information as needed.
* Ability to purchase the package they wish from the app.
* Customers should be able to schedule, cancel, and change appointments within the system.
* Employees should also be able to schedule, cancel, and change appointments within the system.
* Employees need to be able to see which driver, vehicle, and time is needed for appointments and to be able to change if necessary.
* Drivers should be able to leave notes on any of the lessons, like Lesson Time, Start Hour, End Hour, and Driver comments.
* The app should require the name, address, phone number, email, etc. that should be filled in by the student needing the lesson or by the secretary.
* If on a specific day or time that there are no appointments available, it should notify the student in the application process.

## 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 app will be making database inquiries and should be able to retrieve that information relatively quickly when returning the information to the users.
* DriverPass will be a web-based app, which should be hosted by a cloud-based server.
* The application will need storage for the database as well as uploaded photos by the users.

#### 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?*

* I would recommend hosting this application, to use a Windows or Linux server.
* Will need to connect the application to a database that will allow user data to be saved and accessed faster.
* Windows server comes with tools to host web applications which would help to save cost.

#### 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?*

* Usernames will more than likely be based off either their email address or a username. This will require the password for the logins to be case-sensitive. If the user happens to forget the password, and link will be emailed to them to be able to change it.
* Admins should have the option to receive notifications when the application and/or the database loses connectivity.
* Admins should receive notifications when a user’s account is locked out due to too many login attempts with wrong password.

#### 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 customer should be able to edit/update the information on their account. Also, employees with the proper roles should also be able to update the customer’s information from the web application.
* The web application and database should be backed up, and any updates should not affect it.
* IT administrators should have the ability to access customer information, create employee accounts, manage the roles of employees, and disable any employee.

444

#### 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 will need a password to be able to login to their account.
* The developer should use HTTPS as the protocol to send and receive data. This needs to happen to ensure that data transfers are encrypted and safe from outside attacks, to ensure the customer’s information is intact.
* Developers should add a safety protocol for too many failed login attempts, which should help to mitigate any brute force hacks on the system.
* Send authentication email to the customer to ensure that they are the ones creating the account and not bots.
* In the case of the user forgetting their passwords, they should be sent a link to their email to be able to reset it.

### 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 register users when the necessary data is given, and the password passes minimum requirements. Meaning one capital letter, one number, etc.
* The system shall validate the user credentials when they are logging in.
* The system shall display the home page containing information about DriverPass and the services they offer. There should be a navigation bar that will have links to other pages and have a “register” and “login” option.
* The system shall all customers and employees that are aiding customers to reserve driving lessons, including the ability to schedule specific date and times.
* The system shall allow the customers and employees that are aiding customers the ability to purchase the desired package that they want.
* The system shall be connected to the DMV and display the latest rules, policies, and sample questions for the customers to practice on.
* The system shall allow the customer to be able to take practice tests and display those results for the driver to be able to view.
* The system shall have a page that shows the online test progress, their information, the Driver and student photo, and the driver’s notes.
* The system shall query the database and generate reports for employees that have the proper credentials to be able to view.

### 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 interface should be simple to use for new and existing users of the system.
* Users will be role based. They can be either customer, employee, administrator, or owner.
* All users should have the ability to register, login, and change passwords.
* Customers should be able to view and purchase the available DriverPass packages, study and take online tests, schedule driving lessons, and input their information.
* Employees should have the ability to create customer accounts, input their information, choose the package the customer wants, and be able to manger the customer and driver schedules.
* The administrators should have the ability to create employees and assign roles to them, get notifications for application issues, and be able to manage the application.
* The owner should have the ability to create and access reports, view driver schedules, and view all active users.
* The user interface will need to be dynamic so that the size and functionality will adjust automatically depending on what machine the person is using, either cellphones, tablets, or computers.

### 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?*

* That users have either a computer or electronic device that has a web browser.
* That users will have access to the internet.
* That users have an email address to be able to create an account.

### 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?*

* Clients in certain areas may have less access to the internet.
* The client doesn’t have a develop on the staff to help debug or create modules.
* Not all clients may have the proper devices to gain access to the website.

### 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 close-up of a computer screen

Description automatically generated