# 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 clients are the owner of DriverPass, Liam and his Information Technology officer Ian. The purpose of this project is to design a system for DriverPass that helps the business perform key functionalities.
  + Functionalities Identified:
    - Cloud-based hosting to allow system access from any online computer.
    - Ability to download work from that cloud-based system for offline work.
    - Role-based Security
    - Tracking of user changes to any records in the system.
    - End-user and Employee ability to make, cancel and modify reservations.
    - Ability to print records of user and/or employee changes & scheduling of drivers and customers
    - End-users are allowed to select from Three different packages with customization of those packages
    - Ability to disable/enable packages
    - Registration workflow implementation based upon
      * Customer Phone call received -> Customer provided information -> Pickup/Drop-off Location
    - Auto-updating if compliance rules change from DMV
    - User Interface based upon the initial sketch provided by client, with Online Test Progress, Information, Driver Notes, Special Needs, Driver Photo and Student Photo displayed Diagram

      Description automatically generated
    - Display driver notes in table format in User Interface

|  |  |  |  |
| --- | --- | --- | --- |
| Lesson Time | Start Hour | End Hour | Driver Comments |
|  |  |  |  |

* + - Additional pages mentioned are Student Information form, Contact Us Form, and a way for Drivers to contact Students

### 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 the system to record Customer Information, Schedule Customer Driving Sessions, track status of driving sessions and tests and allow for reporting on customer and employee interactions with the system.
* The problem they want to fix is trackability and scheduling for their business.
* The components needed are going to be a Website, Database, and Role-based Accesses. Features of these components such as a UI, Input Forms and Reporting will all need to be acquired or built.

### 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?*

* When compled the system should aid a customer in selecting a package, scheduling driving sessions, taking tests and tracking their progress. The system should also allow employees to modify and record information about customers. Additionally it must report on changes from employees or customers in the system.
* Measurable tasks to be included are scheduling success, customer schedule editing, customer/employee data entry, user interface navigation, and accurate report generation.

## 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 needs to run on a web-based environment, accessible through a web browser.
* The system should have a fast response time, with page load times of no more than 3 seconds.
* The system should be updated on a regular basis, with updates scheduled at least once every 3 months.

#### 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 be capable of running on any operating system and any web browser.
* The back end requires a database to support the application, preferably a SQL-based 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?*

The system should be platform-agnostic, able to run on any operating system and any web browser.

* Different users should be distinguished by unique usernames and passwords.
* Input should be case-insensitive.
* The system should inform the admin of a problem immediately, with notifications sent via email or SMS.

#### 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?*

* Changes to the user should be possible without changing code, using a user management system with appropriate access controls.
* The system should be designed to handle platform updates, with backward compatibility ensured wherever possible.
* The IT admin should have full access to the system, including the ability to add, remove, and modify users, view system logs, and perform maintenance tasks.

#### 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 should be required to log in with a unique username and password.
* The connection and data exchange between the client and server should be secured using SSL encryption.
* After a certain number of failed login attempts, the account should be locked for a set period of time.
* If a user forgets their password, they should be able to reset it using a secure password reset mechanism, such as sending a password reset link to their registered email address.

### 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 users to register for a new account.
* The system shall validate user credentials when logging in.
* The system shall allow users to create, view, update, and delete their own personal profile information.
* The system shall allow users to search for and view products.
* The system shall allow users to add products to their cart.
* The system shall allow users to view their cart and update the quantity of items.
* The system shall allow users to checkout and make a purchase using a valid payment method.
* The system shall send email confirmations of orders to users.
* The system shall allow the admin to add, view, update, and delete products.
* The system shall allow the admin to view orders and update order status.

### 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 interface should be user-friendly and intuitive.
* There should be different interfaces for different users: one for customers and one for the admin.
* Customers should be able to search for products, view products, add products to their cart, and checkout.
* The admin should be able to view and manage products and orders.
* The interface should be accessible through a web browser.

### 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 have a basic understanding of how to use a web browser.
* Users have a valid email address to receive order confirmations.
* The system will be designed for desktop and laptop users, rather than mobile users.
* The admin is a trusted user with the necessary permissions to manage the system.

### 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 system design assumes a limited budget and timeframe for development.
* The system may not have the capacity to handle a large volume of traffic and orders at once.
* The system may not be compatible with all web browsers or operating systems.
* The system may have limited functionality compared to more complex e-commerce platforms.

### 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.*

Timeline

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