# 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 is DriverPass, the system should be capable of accepting orders of various driving lesson packages. It should also have a web interface with online quizzes. It should allow the employees to access the data offline and it should track changes that are made by each employee. Data changes should be made online exclusively.

### 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?*

* Issue – an excess of children do not pass driving tests.
* Database – stores customer data, driver readiness, planned sessions
* Frontend – a platform for employees to input details and handle bookings during customer calls, a web portal for customers to book reservations online, in addition to access for online assessments.

### 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?*

* Retrieve data offline, modify data online
* Monitor modifications to data and oversee various user roles and access rights.
* Enable employees to book reservations for clients or clients to reserve online.
* Manage various types of packages
* Enable customers to change their own passwords
* Get alerted when the DMV alters regulations.
* Online platform for users to complete tests and check upcoming classes, along with the option to book new appointments.

## 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?*

• DriverPass will be a cloud-hosted, web-based application.

• The application will perform database queries and must be fairly fast when providing information to users.

• The application will require storage for both the database and images uploaded by 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?*

• For hosting the web application, I suggest using a Windows or Linux server.

• Windows server includes tools for hosting web applications, but alternatively, the app could be hosted using an Apache server.

• We will have to link the application to a database for storing and retrieving user information.

• A variety of languages and frameworks, such as ASP.NET, can be used to build the website.

#### 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?*

• Users will probably be identified through email or a distinct username. A password that is case-sensitive will be needed for login. If a user cannot remember their password, a new one will be sent to their email.

• An administrator might get an alert when a user's account is locked after reaching the maximum number of login attempts.

• Administrators may get alerts when the application and/or database experiences a disconnection.

#### 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?*

• Users must be able to modify/update their account details. Staff members assigned appropriate roles should also have the capability to modify customer information via the web application.

• IT administrators must be able to access customer data, create staff accounts, manage staff roles, and deactivate employees.

• The database and web application must be backed up, and updates to the platform shouldn't impact it. Perhaps a testing environment ought to be set up for QA to examine how platform updates influence the web application.

#### 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?*

• A password should be required for the user to access their account.

• We might consider sending an authentication email to avoid problems with bot accounts.

• The developers ought to utilize HTTPS as the protocol for transmitting and receiving data. This is crucial since the data transmission will be encrypted, providing enhanced security for transmitting passwords or other confidential information.

• Developers ought to implement a “maximum attempts” limit for login attempts, which will help reduce brute force attacks. In this scenario, user accounts might be locked for a specific duration, or an administrator needs to unlock it.

• Should a user forget their password, they ought to be able to reset it through email.

### 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 will show the home page featuring details about DriverPass and its services, along with a navigation bar that connects to different pages. Importantly, the navigation bar must display a “register” and “login” option.

• The system will enroll users when the required data is provided and the password meets the minimum criteria.

• The system will verify user credentials during the login process.

• The system will enable customers/employees (for customers) to book driving lessons, allowing them to choose from a list of available dates and times.

• The system will enable customers/employees (for customers) to buy an education package.

• The system must be linked to the DMV and show the most recent rules, policies, and example questions for customers to review.

• Customers will be permitted by the system to undertake online practice tests, which will also be visible on their profile for Drivers to access.

• The system must include a page displaying the customer’s online test status, their details, the photos of both the Driver and student, along with the Driver’s notes.

### 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 must be easy for both new and current users to comprehend.

• Users will be assigned roles and can be classified as a customer, employee, administrator, or owner/manager.

• All users must have the ability to register, log in, and reset their passwords.

• Customers ought to have the ability to access and buy DriverPass packages, enter their details, learn and complete online tests, and arrange driving lessons.

• Staff members must have the ability to establish customer accounts, enter their details, select their package type, and coordinate customer/driver schedules.

• Administrators must be capable of creating employees and assigning their roles, receiving alerts for application issues, and overseeing the application (such as backups).

• The owner must have the ability to generate and access reports, check driver schedules, and monitor active users.

• The user interface must be adaptive to ensure that its dimensions and features change according to the size of the monitor or device.

### 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 possess a computer or device equipped with a browser.

• Users are connected to the internet.

• Users require an email address 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?*

• Users in specific areas might experience delayed access to the website.

• The client lacks an in-house developer who can assist with debugging or module creation.

• Not all client devices might be capable of accessing 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 screenshot of a computer

AI-generated content may be incorrect.*