# 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?*

* Driver pass wants a system that people can use to study for a drivers test.

### 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?*

* The system will be an easy-to-use web application that is accessible anywhere with a connection to the internet.
* The system will require the following components:
  + CSP IAAS solution
  + Database table configuration
  + Server-Side API configuration
  + GUI/UX design with multiple pages
  + User Auth and TLS security & encryption

### 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?*

* Host practice test
* Schedule driving appointments based on package.
* Connect users with resources for studying.
* Collect payments and adjust access rights based on role.
* Display and allow users and IT to modify information.
* Allow packages to be modified and deleted as needed.

## 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.*

* Users must be allowed to reset password using multi-factor-auth.
* Users should be able to create a new account.
* All Data is secure and encrypted.
* CSP solution should be easy to scale and reliable.
* Data should be backed up and easy to recover.

#### 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?*

* This system will be a web based application that will be accessible via smartphones, laptops, and traditional private computer endpoints.
* The architecture will mostly use a client-server model that will make sure all queries are consistent.

#### 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 will be run a Linux server provided by the cloud service provider. API configuration and endpoint request will need to be configured to fit the needs of the application.

#### 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?*

* User will be distinguished in the database via a UUID number associated with the account. This UUID will be a one time unique identifier that will be used to locate queries despite changes in information.
* There will be 3 different types of users initially customers, teachers, and administrators with respective authorities and responsibilities.

#### 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 will need to be able to update pages with important information. Add, delete, and modify packages as required by management. And the IT admin will need to be able to update the system as needed without having access to server side configuration.

#### 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 will require a username, password and pin to view/change sensitive information.
* Users will be forced to choose a form of multi factor authentication upon the creation of a new account and this will be used to recover passwords after which a new password will be created and attached to the users UUID/Account
* Passwords will have a minimum length and complexity to deter and restrict brute force attacks.

### 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 validate users based on role.
* The system shall allow user to view and edit personal information in the system
* The system shall allow users to schedule and reschedule appointments
* The system shall have an interface for allowing users to take practice test
* The system shall alert management of changes to test requirements
* The system shall adjust accessibility based on user role

### 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.)?*

* Host practice test
* Schedule driving appointments based on package.
* Connect users with resources for studying.
* Collect payments and adjust access rights based on role.
* Display and allow users and IT to modify information.
* Allow packages to be modified and deleted as needed.

### 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 access to the internet
* CSP provides security based on the shared responsibility model

### 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?*

* System cannot be used offline.
* System requires up to date browsers.
* System requires load balancing and depends on availability of drivers.

### 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 calendar

Description automatically generated*