# 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?*

* DriverPass identified methods to assist motorists in passing the DMV driving examination.
* DriverPass requests our assistance in developing a website-based system that will allow student drivers to schedule on-the-road training and enroll in online courses and practice exams.

### 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 intends for the system to assist in resolving the issue of individuals failing the driving exam.
* DriverPass offers a potential resolution to this issue by furnishing students with online practice examinations, courses, and the capability to arrange practical training sessions via the platform.
* DriverPass desires offline and online access to the system's data, with exclusive modifications and updates restricted to the online environment.
* Security features that authorize user access to the system and the resources they are granted access to while utilizing the system should be implemented.
* All driving lesson reservations, modifications, and cancellations ought to be traceable by the system.

### 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?*

* Consider a fully operational website that integrates features that enable users to make reservations, make changes, and rescind appointments for on-the-road driver training.
* Permit online practice exams and courses for consumers.
* It is advisable to grant certain employees the authority to modify the system to enhance its functionality.
* To accomplish this, the system design shall comprise process models, UML diagrams for system visualization, and object models.
* The system will be developed using a specific operating system and a programming language of choice.

## 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 be cloud-based and web-based, like a website.
* Users should be able to visit the website without any issues if the system operates quickly enough.
* Every time the client adds new features, the system should be updated.

#### 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 operating system will be Linux.
* The system will use the cloud to handle security. Databases needed for the backend will also be taken care of by this.
* The user interface will adjust to the mobile browser.

#### 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?*

* Cookies must identify different users within sessions.
* When a user visits the website for the first time, they will be able to create a username and password. The input must take case sensibly.
* The system will include multi-factor authentication to strengthen security against account hacking.
* The system will notify the administrator immediately of any issues, hiccups, or defects on the website.
* Error reports will be sent out daily, and serious faults will result in instant alarms.

#### 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 web app will be upgraded going forward.
* The IT administrator must constantly have access to the server and database to make the required adjustments or remove previous workers who should not be able to use the system.
* The system must allow adding and removing users without requiring modifications to the code.

#### 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?*

* In addition to multifactor authentication, the user will need a username and password to log in to the system.
* SMS verification for multifactor authentication will be sent.
* The cloud will handle the data communication between the client and the server.
* To help stop brute force assaults, the system will terminate accounts after four unsuccessful login attempts.
* If the user forgets their password, they will be asked to enter the email address linked to their account to receive a link 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.”*

* When a user logs in, the system verifies their credentials.
* The system will send an SMS to the user's phone utilizing multifactor authentication to authenticate their identity.
* The system will manage appointment scheduling and tracking.
* The system will be rendered inoperable following four unsuccessful attempts to log in.
* The system will offer lectures and practice examinations.
* The system will provide information of the driver with whom the customer is interacting.
* The system will operate quickly and effectively.
* The system will grant personalized access according to the user and their rights.
* The system will provide information about the tests and work the user has finished.

### 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 allow users to schedule driving appointment packages, enroll in online courses, and take tests.
* Employees with driver pass access must be able to enter the interface, make changes, and update the system as necessary.
* Any device having an internet connection, including computers, laptops, and mobile phones, should be able to interact with the interface.

### 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?*

* A budget needs to be provided for the system.
* As a result, we are presuming that the entire budget will cover everything we need to construct the system.
* All of this technology is readily available to us.

### 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 were not given a budget and had approximately five months to develop this system.
* Having more personnel to create the website is one of our main limitations.
* We will require additional staff to finish building the website in five months. It will be advisable to take an agile strategy.

### 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

Description automatically generated