# 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?*

* Liam, the owner of DriverPass, would like to provide better driver training that enables students to take online classes and practice tests.
* DriverPass wants to create a website that allows students to take online practice tests, take online classes, and can book on the road training sessions.

### 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 to help those who have failed driving tests and make it easier for others to pass them using their resources.
* To do this they want students to be able to take online practice exams, classes, and book on the road training sessions.
* Liam would like to be able to access data from anywhere with an internet connection.
* The system should have robust security features that allows for different levels of access from various users and allow Liam to have control over all accounts to monitor and reset passwords.
* DriverPass needs to be able to monitor all creation, modification, and cancelation of reservations while offering three different packages for the on the road training sessions.

### 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?*

* The system needs to allow online account creation and access to online practice exams and classes.
* The website needs to be fully functioning and allow for the creation, modification, and cancelation of on the road driver training appointments.
* The system needs to allow certain access to certain employees to modify appointments.
* Liam should have access to all other user accounts.
* Liam needs to always have access to data when he has an internet connection.

## 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 website should be responsive enough for users to access it without any issues. Ideally each page should take a maximum of three seconds to load. Hopefully less.
* The system should be updated anytime any errors or bugs are found. We also would want to update as soon as the client decides on any new features and we can implement them, or there are new security protocols we need to implement.

#### 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 platform should run on Linux.
* We will be using a serverless system to not have to manage with or focus on the back end or security of the server. This will also allow us ensure scalability.

#### 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?*

* We will distinguish between different users by having each user create their own account and allowing administrators to give or take access away based on their roles.
* The input will be case-sensitive.
* We will require two factor authentication.
* The system should inform the admin of a problem anytime there are repetitive login fails for security purposes, or any crashes or errors occur.

#### 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?*

* We will be able to modify, add, or remove users without changing code. This will be possible through our coding of the user list.
* The system will adapt to platform updates when there are critical security issues that have been addressed, or when the client wants to add new features.
* We will give the IT admin full access to make any changes of user accounts.

#### 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 username and unique password will be required to login, in addition to the two-factor authentication using a authenticator application.
* The cloud will handle the data exchange from the client and the server, we must choose a reputable company to host the cloud.
* If a password fails login three times, it should be locked until an administrator can verify the right person is trying to login.
* If a user forgets their password, we will have them request a link be sent to their email on file where they will be able to create a new one.

### 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 user credentials when logging in.
* The system shall book reservations when requested by the user.
* The system shall offer three driving packages.
* The system will be fast and responsive.
* The system will allow users to take practice tests.
* The system will allow users to take classes.
* The system shall all different levels of access based on the account privileges.

### 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 has to allow users to create reservations for driving appointments, enroll and take online classes, and enable users to take practice tests.
* The interface should allow the DriverPass employees to make changes to the system such as booking reservations, who is enrolled in the classes, and any other updates or modifications.
* The interface should allow the IT department to create and modify user accounts and passwords.
* The interface should allow the owner to collect and download data for use in Excel.
* The user will interact with the interface on mobile via a touch screen and it will allow cursor usage on a desktop environment.

### 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?*

* We are assuming all features, Linux platform, serverless architectures, can be implemented with the assumed budget.
* We are assuming users will have a good internet connection.
* We are assuming that users will be using a modern web browser or device.

### 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?*

* Our budget may not be high enough to create all the necessary features and ensure the system is fast and responsive.
* We may not have enough time for the design, implementation, and full testing of all the features. May need to higher more team members which will depend on the budget again.
* It’s possible not all team members will be familiar with Linux.

### Gantt Chart

Chart, waterfall chart

Description automatically generated