# 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 is a small organization that needs a website to help students prepare for the examination and on-the-road training. The client also wants to tap into this program from multiple devices so that work on this site can be done remotely. The idea is to improve scheduling and reservations and have a traceable edit to follow who is making the edits when issues arise.

### 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?*

* There is a considerable number of students who fail their driving tests as a result of poor preparedness or lack of training. Thus, DriverPass aims to offer learners the proper training to equip them with the skills needed to succeed in their driving examinations.
* The system should be designed to give learners practice tests as a strategy for preparing for on-the-road training.
* The system should have a more robust scheduling system top include online accounts to book appointments as well as call in. This would require all appointments to be kept updated in the system.
* The company would like to accommodate real time updates with the DMV and push information to them so assist customers and staff who are verifying compliance and Law amendments.
* Require ability to download reports to work offline in excel.
* Would like to have the ability to add pick-up and drop-off locations for on-the-road training.

### 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?*

* System
* It should be able to run on the web in the cloud.
* It needs to be accessible using smartphones and computers.
* It should be linked to DMV, which will help send update notifications such as practice questions.
* Security

It should have a role-based security strategy. - The Owner and employee in charge of IT should have complete access to the system. Then, the secretary should be in a position to access the complete schedule of the program and profile of the users.

* User Profiles
* It should be possible to change or update passwords.
* It needs to allow users to upload and save student pictures.
* It should allow users to key in their account information, such as names, addresses, contact persons, security codes, pick-up locations, and phone numbers.
* Scheduling driving appointments
* The secretary and users should be able to book, amend, or cancel driving lessons.
* The system should allow printing reports such as driving schedules and updated or scheduled appointments.
* The three available packages should be well outlined in the system.
* Online tests
* The ability of students to take exams.
* The system should show the learner their progress and results.

## 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 can be accessed through a web-based system, making it easy for users to access using various devices. Thus, it must be run using the Linux system to allow accessibility.
* The system should be run at a moderate speed, although it requires a speed allowing users to take the exams without frustration.
* It should be updated per database level for any timely update of aspects such as tests in progress, user information, and completed tests.

#### 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?*

* Considering that it is a web-based system, there is no need to put much emphasis on the operating system. The developers can view major browsers like Chrome, Edge, and Firefox.
* A NoSQL-based database should be used because it helps in saving time because the data types are not defined.

#### 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 will be used to allow the system to distinguish between different users.
* The passwords for accessing the system need to be case-sensitive.
* System will lock account if attempts are exceeded without the correct password.
* Any error should be addressed immediately.

#### 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?*

* Any user account modification should be done without necessarily changing the code.
* The IT administrator should have access to account information, the server which runs the system, and the database to enable him to block access to the former users.
* Updating of the system should be done at off-peak times. This will ensure the users are satisfied with the system.

#### 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?*

* To log into the system, users need to input their correct account name and password.
* Using HTTP network requests will enable the system to offer safe exchange between the server and the client.
* If a user inputs a wrong password five times, their system will lock, and IT Admin will get notified. He will then help the user to change their password. This will help in avoiding brute force attacks.
* If a user forgets their password, the user can notify the system to send a one-time code to their phone number or email. They can use it to change their passwords.

### 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 be accessed using mobile phones and computers.
* The system shall only allow users to access the information they have the right to.
* The system shall allow users to change their passwords.
* The system will allow the secretary to access all the schedules of the training and exams.
* The system shall allow admins to check a driver paired with a given student.
* The system shall allow users to access one of the three driving lesson packages.
* The system shall allow users to of their exams and check their results.
* The system will allow administrators to check the student’s contact information.

### 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.)?*

* There are several pages that the user interface needs including the home page, information on their account, a page with notes by the drivers, a contact page for the driver pass, and the profile of the student.
* Interface should have current status and steps remaining to complete current program.
* There are four user types including Owner, IT administrator, secretary, and the users. The owner can access the whole system and change the contact information. The Administrator can access the entire system and adjust appointment packages. The secretary can modify appointments and student accounts. The users can access their accounts, change personal information, take exams, and adjust appointments.

### 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?*

* All the users will always have stable internet connectivity.
* The system will not have any downtime.
* All the users have email addresses.
* The DMV makes timely updates to its information.
* That all of the requirements will fit in the budget.

### 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?*

* Considering that this is a web-based system, it can only be accessed when the user is connected to the internet. Although users can download some information, such as practice papers, and administrators can download reports, all other things require users to be online.
* The system needs to be developed within a fixed time.
* The cost should have been discussed in the meeting.

### 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*