# 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 project aims to create a better system for students to pass their driver's tests. The client is DriverPass Liam the owner hopes to implement online training and practice test. Combined with scheduled in-person driving lessons and assistance from the DriverPass staff will help students pass their driving test at a much higher rate. The

### 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 be able to use a computer or a mobile device to access the system's data while online and off. The Team is worried that while the application is offline, they won't be able to download reports or other information. The group believes that the system's user interface should be hosted in the cloud. This should aid in saving progress while offline. But security ought to be taken into consideration when deciding which staff should have authority to access what data.

### 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?*

1. The system should be able to be accessed offline.
2. The client can track what driver is matched with a customer, the time, and the car.
3. The client will be notified when changes are made to a record in the system.
4. Driver comments or notes should be accessible to the client and the number of lessons taken.
5. All tasks, such as dates, tracking, driving, schedule etc., will stay updated.
6. The system will allow the customer to choose packages and make reservations.
7. The client will have the ability to modify or remove packages
8. The program should stay up to date with DMV compliance, new rules, policies, or sample question and tests.
9. The system will be run over the cloud
10. Customers will be able to take the test online. It will show their progress and the test they have completed. The format for the progress will be:

1. Test Name

2. Time Taken

3. Score

4. Status

## 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?*

* To ensure that there are no bugs, security holes, or outdated DMV regulations, the system should be updated frequently. Updates should prioritize the DMV guidelines revisions to guarantee that students have access to the correct DriverPass information.
* Because the system comprises requests that move back and forth between servers, it would require a rapid speed to function. Also, due to the potential amount of students taking exams online. The system must operate at maximum efficiency. The system will be web-based and run from the cloud to avoid maintaining the hardware.

#### 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?*

* If the website were to be accessed on a mobile device, such as a smartphone or an iPad, it should be able to fit the screen and scale itself to the screen being used. The system should function on a browser such as Microsoft Edge, Chrome, or Safari.
* A database would be required on the back end to store data.

#### 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 be differentiated from one another by means of a user email address and a password.
* In order to improve the level of security, the inputs will be case sensitive and will have to use at least one special character.
* When a user has exceeded the allotted number of times that they have entered inaccurate information into the system, the administrator will be notified. The system will have a fixed amount of times that the user can enter incorrect information.

#### 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 is expected that you will be able to make adjustments without modifying the code. POST requests and controllers are both things that need to be written into the code.Upon receiving requests from the programmers, the system will modify itself so that it is compatible with platform changes.The IT administrator will require access to everything, including user accounts and the ability to delete former employees who are no longer associated with the organization.

#### 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?*

* It would be necessary for the user to provide both their user email addresses and their passwords.
* If the client and the server want to protect their connection and the data they pass back and forth, HTTP is the protocol they should use.
* If someone tried to break into the system using brute force, the administrator would be alerted after a specified number of unsuccessful attempts to log in. This number of unsuccessful attempts is determined by the administrator. There are two things that will happen after a total of four unsuccessful attempts to log in to the system:
* Admin will be informed about this.
* The user will no longer be able to log in, and they will not be able to enter any of their information. This option will no longer be available to them.
* In the event that a user cannot remember their password, they have the option to get it reset. The user's email address will receive an email from the system containing their password information. The user is able to change their password from that location.

### 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 user's login information needs to be confirmed by the system before the user is granted access to the information.
* The system is going to verify the customer's decision from among the three different packages that the customer wants the customers to view.
* The system is going to be updated to reflect any modifications or upgrades that the DMV has made, and this will be done as soon as possible.
* The system is required to validate the customer's identity and the following personal information about them: The Customer's Address, First Name, and Last Name the Customer's Credit Card Information the Customer's Phone Number the Customer's.
* The system will provide students with information regarding their exam progress as well as their exam scores.
* Before continuing, the system must determine the type of user, such as an administrator or a student.
* It is required that the system be accessible online. Offline access will be provided for particular materials, such as academic resources.
* The client may suggest up to three different packages, and the system will display those.
* If a client wants to disable packages because one of them is no longer available, the system should make that option available to them.
* It is required that the system be capable of resetting a user's password.

### 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.)?*

* A laptop, desktop computer, mobile device, or any other device capable of connecting to the internet is required in order to use the interface.
* The Administrators and Developers of DriverPass are not the same people, however they are both users of this interface. They must both be able to make adjustments to the system as well as perform system updates when necessary.
* Using the interface, users will be required to have the ability to schedule driving appointment packages, as well as take online lessons and exams.

### 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?*

* In the design, everything that may possibly be required has been taken into consideration, as far as I can tell. There is not a single thing lacking that the users could require in any way, shape, or form. That is the only presumption that I am making here. Because there was no mention of a budget, we are to make the assumption that the cost of everything that will be utilized in the construction of the system will be paid by that budget. This is the correct assumption because there was no mention of a 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?*

* Those individuals who do not have access to dependable internet connections will likely be subject to additional restrictions, in my opinion. Both time and money are constraints for us, as we are working under a strict time constraint and the client has not provided a financial limit for us to work within during this project. The constantly shifting requirements of the DMV can be a burden for users in the event that the system is not kept up to date effectively.

### 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.*

Timeline

Description automatically generated