# 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?*

* According to DriverPass, there is a void in the market which provides training for students looking to take their driver’s test. The client associated with this project is DriverPass. DriverPass owner Liam and IT officer, Ian are delivering requirements for there new system which will allow customers to better prepare for there driving tests. DriverPass is looking for assistance in creating a system that will allow students to take online classes, practice tests, and have the ability to reserve on-the-road training if so desired.

### 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 provide a service that will assist students in preparing for their driving test due to the high rate of people failing.
* In order to provide the appropriate assistance for their clients, DriverPass needs to able to provide them with online classes and practice exams, as well as the ability to reserve on-the-road training.
* Access to the system needs to be available as long as there is an internet connection.
* Security clearances for information need to be so that appropriate roles within the company have access but not beyond their scope.
* DriverPass requires that the system is able to track any reservations, cancellations, or modifications, and the person/s responsible for each action.
* DriverPass requires that the system be able to offer their 3 different types of on-the-road training.
* DriverPass requires that the system allows customers to register by providing first and last name, address, phone number, state, c.c. number with expiration date, and security code. It should also allow imputation of pick up and drop off location for the customer.
* DriverPass requires that system notifies them of any DMV updates, so tests and classes remain current.

### 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?*

* Upon completion, the system should be fully functional, incorporating all requirements presented by DriverPass. The customer should be able to access the site and be able to take online classes, practice tests, and if so desired, book, change, or cancel on-the-road training.
* Object and Process models should be used to quantify and qualify information and actions. Process models and Object models can be used in relation to UML diagrams so that the layout can be seen.

## 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?*

* An appropriate environment for this system would be web-based. This way no additional software will need to be installed by the user and there will not be a need to facilitate multiple versions of the application in order to accommodate the various different operating systems. Access will be limited however, as it will require internet access.
* The system needs to be fast enough to allow the user to engage without lag. Ease of use and timely facilitation are key in order to keep the user from leaving.
* System updates will be continuous as they are required to keep the system up-to-date. Any changes within the system or added features will require an update.

#### 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?*

* Licensing limitations for Windows allows Linux to be the frontrunner for the system to run on. It is open source and provides better defense/protection in the form of security.
* The back end will require a database either external or cloud based to be instantaneously accessed.

#### 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?*

* Usernames and passwords will be used in order to distinguish between different users. Yes, the input should be case-sensitive in order to provide further protection. Two-step verification should also be incorporated.
* The administrator should be informed of any issues that arise when they occur. This way the issues can be addressed immediately and system downtime can be limited or mitigated altogether.

#### 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?*

* No code changes should be necessary in order to add, remove, or modify users.
* Platform updates will be integrated as needed. The client (DriverPass) has the option to modify the system or incorporate new functionality or features. This will require system and platform updating.
* The IT administrator will require access in full. This will be required in order to modify the existing system parameters, provide necessary updates, and to regulate access amongst others.

#### 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 order for a user to log in, they will need to provide a username and password. Additionally, a two-step authentication as a minimum will be required in order to add and extra layer of security.
* Trust site certificates can be used to provide secure connections between the client and the server. Access tokens can also be used to secure the connection.
* A “brute force” attack implies that multiple attempts are being perpetrated in an effort to access an individual’s account. If after three attempts, the account isn’t accessed due to incorrect username or password, the account should be de-activated.
* If a user forgets their password, they can either answer security questions associated with their account or be provided with a link through e-mail in which they can change/reset their password. Answers to the security questions need to be unique to the user and must be provided upon account setup.

### 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 allow for admin access from anywhere as long as there is an established internet connection.
* The system shall allow for tracking of user activity.
* The system shall allow users to make reservations.
* The system shall identify the driver, car, and time a customer will be associated with.
* The system shall provide the user with the selection of 3 different packages
* The system shall allow the user to access up-to-date practice and tests.
* The system shall provide progress status reports of users.
* The system shall be web-based through the cloud.

### 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 different needs of the interface based on the user/s interacting with it.
* Customer interaction with the interface will require that they be able to book reservations, engage in online classes/training, and take exams.
* Associates of DriverPass will have interaction with the interface by modifying and updating schedules and enhancement features if required or needed.
* Since the system will be web-based, an internet connection will need to be accessible in order for users to engage with the features available to them. The system should be fully functional on all devices capable of connecting to the internet.

### 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?*

* The details and functionality expectations seem to have been covered in great detail, however, there was no discussion about cost of development. Without knowing client budget, it will be difficult to proceed due to contract terms not being approved.
* It is assumed that all users will have a device which is capable of connecting the internet in which they can access all system content and features.

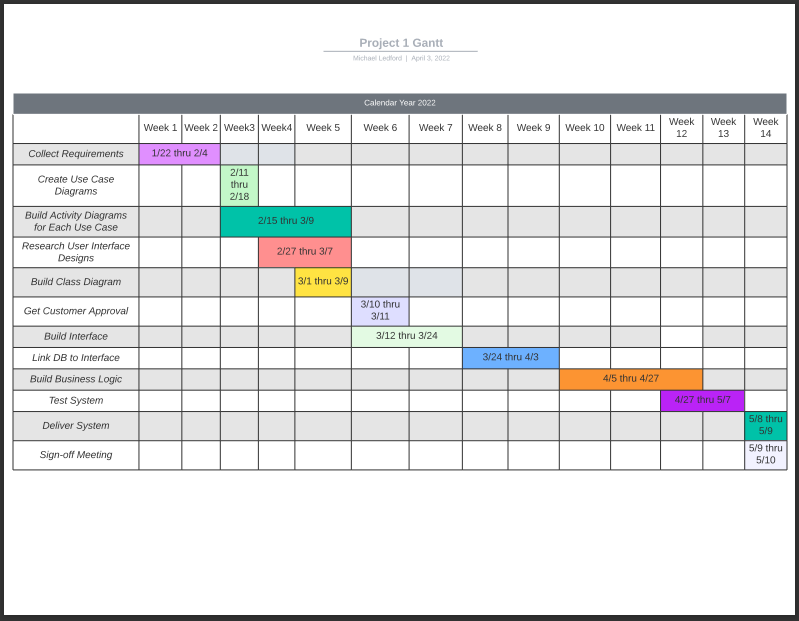
### Limitations

*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?*

* There is a timeline provided and such, it should be adhered to as closely as possible. However, this cannot always be achieved due to potential roadblocks that may arise.
* Being provided with no budget from the client, if would be nearly impossible to proceed with development. The time-line and technological features associated with the system may not be achievable if not budget is provided. Even if a budget is set forth, an amendment to both time-line and feature functionality may be needed to facilitate monetary constraints.

### 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.*

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