# 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 purpose of DriverPass is to train customers on how to drive and reduce the number of people that are failing their driving tests.
* The client is the owner, Liam, and he would like the system to accessible to him wherever he has internet connection to run reports and see other business critical items.
* His customers should be able to access this system and set up reservations and choose packages that DriverPass offers.

### 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?*

* The system will be required to provide classes and tests, schedule on-the-road training (from three different packages – possibly more later) that can be modified or canceled, run reports and provide other business related information for administrators, have a RBAC system, have a backend in which content can be managed, and interface with DMV updates.
* Our system will need one database for storing classes and another for storing users. We will need a component that can access information in these databases and export reports in human readable form, such as an Excel spreadsheet. We will also need to create a way for certain users to edit content about the webpage which will be a component in and of itself. Finally, we’ll create a component that can interface with the DMV content and notify the necessary DriverPass employees.

### 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?*

* When this system is completed, we should have an application that accurately allows all customers to schedule appointments and select packages, allows select employees to schedule appointments over the phone, and allows administrators to run backend tasks such as reporting or changing content.
* The main requirements of the application should be set as a goal first. By priority: databases, then components, then RBAC, then user experience.

## 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 customer would like to be able to access this system from anywhere. A web-based application would be the best way to do this, ensuring that it can be reached from any desktop or mobile browser.
* The system should update immediately when something in the database changes. The system should be updated on demand when changes happen.

#### 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 system should run on any platform so long as it has internet access and an internet browser.
* The system will require two databases.

#### 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 be implementing a RBAC and different users will have different roles that are stored in our database. Different levels of access will be granted to users of the various roles.
* Inputs will be case-sensitive when dealing with security aspects of our system such as login passwords.
* The system will inform the admin of a problem whenever a backend issue happens, such as failure to write to a database. The admin will not be informed of a problem for issues that are customer-remedied, such as failure to meet password guidelines.

#### 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?*

* There will be a backend system that will allow for modifications by a non-programmer. Modifying classes themselves will not be available in this release but can be worked on in the future if needed.
* The IT admin will need access to read and write to the databases.

#### 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?*

* We are implementing a simple username/password approach for user login.
* Data will be sent over secure HTTP requests to the server.
* We will lock user accounts after 10 failed login attempts to curb brute-force attacks. The user can unlock their account using a link sent to the registered email.
* If a user forgets their password, they may reset it by using the “Forgot Password?” flow.

### 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 assist in resetting passwords and locking user accounts when needed
* The system shall read and write information to the databases (register users, sign up for classes, modify schedules) to the extent of which the user has access.
* The system shall log changes that are made to the database.
* The system shall notify admin when DMV information changes
* The system shall run reports when needed

### 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 needs to be easy to navigate. Users should be able to see information about themselves, their instructor, and their progress.
* The users will be: Students, IT, Employee, Admin

### 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 users have internet access
* We are assuming all users have equipment that can browse the web and display webpages

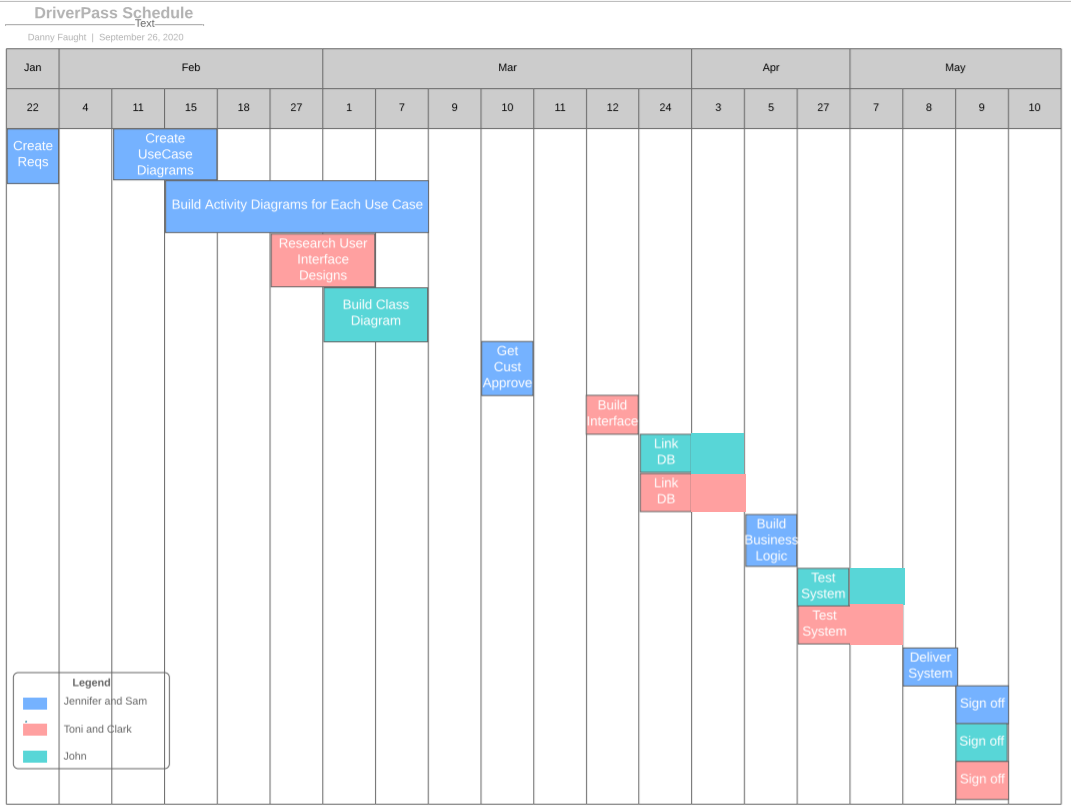
### Limitations

*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 will not immediately have a way to add more courses by a non-developer. Being that DriverPass does not have a team member with programming knowledge, they will not be able to modify the course list.

### 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.*

**