# 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?*

* Our client, DriverPass, needs a system to handle their Student Driver Training Business.

### 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 sees that there is a market that isn’t being taken advantage of: Student Driver Training.
* Student Drivers often fail their driving tests due to not enough practice, or being uninformed of driving rules/regulations/BMV practices.
* DriverPass wants to offer training for these student drivers by selling different training packages. This will involve an online system for scheduling and tracking these lessons that are performed by one of their 10 (current) drivers.
* Some of these packages will also include in person informational teaching sessions as well as access to online teaching material and practice tests.

### 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?*

* A customer can create a user account at a DriverPass website by providing their first/last name, address, phone number, and credit card information.
* A customer should be able to reset their own password automatically.
* A customer should be able to make reservations by choosing a date and time for their appointment, as well as providing a pickup/dropoff location (which should match). They should be able to do this either through the website or by calling the DriverPass office (this would be handled by their secretary)
* A customer should be able to cancel or modify their appointments
* Ian (DriverPass CEO) should have full access to employee accounts in order to reset passwords or block access
* Ian should be able to disable any of the Driving Lessons packages at any time
* Ian should be able to access business data at any time using any device
* There should be a record of what Driver/Car was assigned to each lesson as well as the ability to track this by driver, time, or car
* All changes to records in the system should be tracked, and Ian should be able to print an activity report in case something goes wrong
* There should be different roles for employees of DriverPass in the system, and these roles should be afforded different rights
* The DriverPass website should be cloud-based using a provider that handles backup and security
* The System should provide a notification whenever the DMV updates a rule or regulation

## 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?*

* This will run on a web-based environment
* The server needs to be cloud-based
* The system should run with no delay for all users
* The CEO wants to be able to update the system at will

#### 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?*

* There needs to be a database linked to the interface which will contain user, schedule, and history informational
* As this will be a website, it should be able to be accessed by any platform, Windows, Unix, and Mac.

#### 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?*

* Different users will have different login credentials, and will be represented by different objects that both derive from a User superclass. They will also have different permissions on the site
* The input for username/password information should be case sensitive, and the passwords should require a strong combination (such as combination of uppercase, lowercase, numbers and symbols)
* The system should automatically flag errors and problems and create logs of them to be sent automatically to the admin

#### 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?*

* Yes, the admin should be able to add/remove/modify users without changing code. As in any application, this shouldn’t be a matter of hardcoding each change into the system, which would be poor programming. Instead, this functionality should be built into the administrator’s tools in the website.
* The system will adapt to platform updates by sending notifications about potential updates to the IT administrator
* The IT admin needs access to the code base and server, as well as built-in administrator tools

#### 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?*

* The user needs proper credentials, i.e., username and password combination to log in
* We can secure the data exchange between client and server by using security tokens to validate users without sending their sensitive information over the connection
* There should be a measure in place to lock a user out after so many log in attempts, should they be legitimate attempts, they will have to contact the IT admin or support team to regain access to their account only by passing a rigorous verification process. If the attempt is not legitimate and is part of a brute force entry attempt, the user should be locked out and will not be able to regain access because they will not be able to prove their identity.
* If a user forgets their password they should be able to reset it by clicking a link and receiving an email to their registered email address.

### 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 listen for updates to BMV guidelines and notify Admin for any
* The system shall keep logs of all user activity and changes made in the system
* The system shall properly update user and appointment information when changed
* The system shall update user’s profile with appointment information and past lesson information
* The system shall track lessons by driver, time, and car

### 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 three types of users: students, drivers, and admins
* Student drivers should be able to make reservations through the web ui
* All users should be able to reset password through UI
* Drivers should be able to write comments for each lesson they provided
* Admins should be able to change and modify all users

### 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?*

* I assume that whatever browser a user is accessing the site with will be compatible, since this is web-based, this could present problems if a user is not using a properly updated browser or an obscure one.
* Additionally, we assume that a user is using recent platforms, and not something like windows 98, which could also present compatability issues

### 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?*

* Must be web-based
* Must be cloud-based
* We have ~5 months to present final work to customer
* We have a team of 5 available to work on this
* (We weren’t given budget or technology information, though any project would be limited by the budget they are given and the tech they have or are restricted to using)

### 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.*

**(see next page)**

