# 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 client is DriverPass and they want the system to be able to provide online classes and practice tests for drivers who are going to take their test at the DMV. The system should be able to provide three different packages and also be able to be worked on while offline, tracking who made changes and what they were.

### 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 the system to house customer information, driver availability and scheduled sessions.
* The problem they want to fix is that too many people are failing their driver tests, so they want to help people prepare adequately for driving tests.
* Some components that are needed are a frontend ui for employees to be able to enter information and make appointments. Another component would be a website where customers can schedule and manage their appointments, as well as access the online study materials 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?*

* Be able to track changes made in the system
* Manage multiple user roles and permissions
* Allow customers to reset their password
* Allow customers to schedule appointments online and also manage their appointments
* Give customers access to online study material and practice tests
* Access data offline, but only be able to edit when online

## 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 should be web-based
* It needs to be a modern, responsive web-browser so it can be used on various device types
* It should run relatively fast, only a second or two needed for each page to load
* Maintenance should be done on the system monthly or as needed. Downtime should not exceed anything more than one or two hours

#### 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 be able to be ran on most platforms since it will be web-based
* Website should be tested for cross-browser compatibility when being developed (test main browsers such as google, internet edge, safari, firefox etc.)
* The backend will require a database so that it can store user information and system logs

#### 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?*

* Websites use cookies to differentiate between various users
* Only passwords will be case-sensitive input
* The system should compile a report of various errors and send it to the admin daily. Critical errors should be immediately sent 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?*

* User changes will be done in the backend without changing code
* The website will need to be kept up to date with breaking changes made to browsers
* The IT admin will need access to the database and also access to the server running the website

#### 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?*

* Password required for each login
* Enable two factor authentication which is confirmed via text message or email
* Lock account after five bad login attempts to add some protection against brute force hacking
* The user will be sent an email or message with a temporary password which will allow them to reset and change it

### 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 lock a user’s account after 5 consecutive failed login attempts
* The system shall send a verification text or email when two factor authentication is enabled
* The system shall validate user password when logging in
* The system shall notify the admin when DMV rules change
* The system shall store appointment information for both admins and users to view

### 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.)?*

* Users will access the UI through desktop or mobile browsers
* The UI will be web-based and will be a responsive site that is usable on both desktop and mobile
* Admins will be able to access the entire schedule and also be able to assign/cancel appointments to customer accounts
* Customers will be able to schedule appointments and be able to view the various packages they can purchase

### 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 am assuming that the DMV rule changes can be tracked through some sort of API or technology
* I am assuming that most customers have an email address or cellphone
* I am assuming that most customers have a desktop computer or mobile device which can access the web on a modern browser

### 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?*

* 15 weeks to complete project
* Cannot predict any changes that would be made to web browsers
* Cannot predict any rules the DMV may change in the future
* While the frontend of the website can be made mostly compatible with all major web browsers, there may still be some niche issues that arise.

### 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.*

