# 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.

## 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?*

* This project aims to allow people to be able to get training and lessons in order to pass their drivers tests with ease.

### 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?*

* Problem: Lack of driver training in Liam’s area.
* Needs: Cloud, Website, Database, Security (roles)

### 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?*

* Make it easy for people to access data from anywhere
* Set up a role-based security system
* Track user’s actions (making reservations, cancelling, etc.)
* Let customers choose when reservations are and who they’re with
* Package system for different payments that are disableable
* Allow direct or over the internet reservations
* DMV update notifications
* Cloud-based
* Web-based interface

**For specifics about each item on the list use transcript.**

## 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?*

* Web-based Application
  + Works on PC or Mobile on any OS
* Should run smoothly and efficiently
* Updated whenever a user changes data/whenever the DMV pushes out a new 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?*

* Any system should be able to run the application, but it should be tested on:
  + Windows/Unix
  + Mobile browsers
* Should require a database in the background to store user data and upcoming appointments

#### 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 should be distinguishable by ID (most likely SSN)
* Input should only be case sensitive if required (passwords, etc.)
* System should log any changes a user makes and notify an admin if an error occurs

#### 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?*

* Ability to update user information by both user and admins
* Ability to update the webpage without modifying the code (unless it’s a major change)
* Ability for the webpage to try to adapt to new window dimensions

#### 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?*

* A username, password, and a second form of authentication should be required
  + 2FA requirement possibilities: phone, email, SSN, 3 security questions
* Using SSL you can secure the connection, and hash the password with salt before it’s sent to check with the database in order to prevent a MITM attack
* If a brute force attempt is started then lock out the account after 5 failed attempts within a certain time period.
* If a user forgets their password for their account they will contact support who will fix it for them.

### 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 log user actions
* The system shall notify admins of new DMV updates
* The system shall notify admins of errors

### 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 should show upcoming appointments, user info, progress, and notes
* If an admin is logged in they should be able to update user info from their own interface
* Users should be able to make appointments and update their own info in the interface
* The interface will consist of buttons that the user can click/tap and text boxes to enter info

### 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 interface should be reliable and easy to use
* The interface should show the user what driver they have and give contact info to the driver
* The system will use cookies to check if a user has logged in previously, and automatically log them in if they have

### 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?*

* The system should remain in the budget
* The system should clear out old data as it needs, making some very old data irrecoverable

### 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.*

