# 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?*

* This project is for one of our clients, an education provider named DriverPass. The purpose is to provide a web-based education portal and course scheduling system for clients.

### 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?*

* Many people fail their driving tests. This system aims to change that through education and practice.
* The client asked us to build a system that enables customers to access course materials, practice testing, and course scheduling software.
* The system will be cloud based with a web interface. It will be able to provide service to customers through their web browser.
* The system will consist of a server for storage of course materials, schedule database, and front-end web application. An API will be necessary to update course materials from the DMV.

### 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?*

* The system will provide the user with the following functions:
* Sign in/out
* Reset password
* Edit profile
* View course data
* View course progression and notes
* Schedule/edit appointments
* Allow for administrative tasks, updates, and edits.

## 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 be a web-based system.
* The website/app should have optimized load times comparable to modern standards.
* The system should be updated as needed, especially when DMV updates are available.

#### 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 support the use of modern browsers (IE, Safari, Chromium, etc.) regardless of OS.
* A database to store user data and course information will be necessary.

#### 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?*

* Non-case-sensitive usernames will differentiate between users. Case-sensitive passwords will ensure access security for users.
* The system will alert administrators of problems through a daily error report.

#### 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 profiles can be changed via the web application by users, or through the server by administrators. Code will not be changed in this process.
* The web application will need to be updated in concert with major platform changes.
* IT admin needs access to the server hosting the application and course information.

#### 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?*

* Login requires username and case sensitive password. Two factor authentication is possible.
* HTTPS technology can be used to secure the client-server connection.
* Account will lock after a predetermined amount of incorrect password attempts.
* Users can email admin to reset password.

### 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 login credentials.
* The system shall lock an account after a predetermined amount of incorrect password attempts.
* The system shall prompt users to send an email in the case of a forgotten password.
* The system shall display course information according to user profile.
* The system shall allow for the scheduling and changing of appointments.
* The system shall allow administrators to update and edit the system through the server.

### 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 UI will be web based and available on popular browsers for desktop and mobile platforms.
* The two user types will be customer and admin.
* Customers will access course materials and scheduling for their profile through the web portal.
* Admin users will have access and editing rights to customer profiles through the server or web portal.

### 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 clients have web access via desktop or mobile platforms.
* I assume HTTPS and 2FA will provide adequate security.
* I assume admin tools will be available to implement necessary APIs for updates and security.

### 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?*

* Performance could be an issue based on user equipment/internet capabilities.
* Availability of course materials and scheduling capabilities offline.
* Systems like this are popular and well established. Resources, time, budget, and technology should not be limitations if correctly planned for.

### 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.*

