# 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, a company that is looking to build a cloud-based system that allows users to schedule, modify, and practice driving tests.
* This project will require various roles and security for users, admin, and maintenance individuals.
* Users will be able to schedule, modify and cancel their appointments. They will also be able to view their appointments and practice test questions if needed.
* Admin will be able to achieve all of the users functions, but also gather records of changes, reset passwords, and view historical change info.

### 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 schedule training sessions and be able to host training material for their clients.
* The system will need an API endpoint to the DMV site to have the latest rules, regulations, and info.
* The system will also need to process transactions for users to sign up for classes.
* The system will need to save and host user info to the correct user when they log in.
* The system will need to schedule and maintain a schedule of users to not over schedule classes.

### 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 need to allow users to create a profile or log in, then sign up for classes and read training materials. The system will also allow the admin and elevated access users to review changes and reports about the classes.

## 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 needs to operate on a web-based interface. The system should be available to people both online and offline. If the system is to be available offline, they will need to download the material or offer an application as well that will host the offline documents. The system should run in real-time or near real-time to have the most up to date information. The system shouldn’t have a set update schedule outside of when the general information and rules are updated from the DMV.

#### 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?*

* Windows, Mac, and mobile applications should be supported. The number of users that run Unix without access to Windows or Mac is limited. We shouldn’t need to cater to such a small percentage of users. This system will require a database that accessed via the cloud or locally with cached data. Users will need to be able to log in to their accounts to access their training materials and other content.

#### 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 will have unique user log in IDs that will allow the system to differentiate between users. The input will need to be case-sensitive and character specific too. Each user ID will require a password as well to access the accounts. The passwords should require one lower case, an upper case, and one special character. If there is an issue with the system such as slow response times, errors in connecting to the database or the database going offline then the admin should receive an email or phone notification depending on what they have enabled.

#### 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?*

* You should not be able to make changes to users without being in a change position such as IT or admins. If a user needs to reset their password, they should be able to follow the steps to complete this. IT and admins should be able to make deeper changes to accounts if required or requested. When platform updates are made, this shouldn’t affect the users in a dramatic way. If an update impacts the IT team, then the impact should be minimal and during non-critical hours.

#### 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?*

* In order for the user to log in, they will need to provide accurate log-in and password credentials that match an existing account. To secure the connection between the data exchange and client, we could employ a few different encryption strategies on the database to secure the data. We could also scrub the user inputs to not allow SQL injection attacks. If someone tries to brute force, the account could become locked and not allow anymore actions against the account. Once the account has been reset and is safe, it can become unlocked again. If a user does legitimately forget their password, then they can go through a safe protocol to reset 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 validate the user credentials when logging in. The system shall connect to the database to provide updated information when a user is logged in correctly. The system needs to offer both online and offline content. The system needs to provide information that users have paid for correctly.

### 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 must offer a section for people to login, create an existing account or recover their password. Once they are successfully logged in, the UI should displaying their online test progress, driver notes, special needs, driver photo and student photo. There logo must also be at the top of the page. The different users for this interface are the registered users, unregistered users (prospects), and the admin team as well. The registered users must be able to access their content and the unregistered users need to be able to view potential future information. The admin team needs to be able to pull reports about the system and assist users with log in troubles as well. The user will interact with the system over mobile devices and the browser as well.

### 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 the user owns a compatible device or has access. Another assumption is that the IT admin team will understand and know how to use the system to assist users with their needs.

### 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?*

* I think time and money is going to be a limitation in the design. I think also the general misunderstanding of the system from the owner as well. They did elude to not being able to update things without a technical background.

### 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.*

*Chart, timeline

Description automatically generated*