# 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 purpose of this project is to create a way for user looking to learn how to drive to study, train and test for their driver’s test.
* This is done through a few different methods such as, online classes, study material and driving practice all to help the student pass their driving course.

### 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?*

* The Driverpass system will allow the user to access course material to study the DMV test and rules they regulate in an updateable system.
* The components need to include, user accounts, personal data such as name and address, access to course work and the ability to make and change driving practice reservations, admins control accounts, pay data and audit logs for events over the page.

### 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?*

* When the system is complete it needs to be a functional website for both the users, staff and admin. It should have the ability to look at study information with the staff being able to make changes and allow them to create new material when information or laws change.
* It should only grant access to admin roles at the lowest level necessary to prevent unauthorized users making changes and accessing pay information.
* We should have a continuous cycle while building and designing to work with Driverpass to make sure portions of the website work and are the design the client wishes to prevent re-work. Using client cases and user cases to get the most out of our time when designing the program will allow us to sip ahead and start the object and process model early to ensure all needed functions are included.

## 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 will best operate on a web-based platform that can then receive get, post and pull requests from the client side.
* This will reduce the need for creating a program for each OS and allow us to focus on a single system that can be reduced to a lower bandwidth if needed and then invest into security heavily to protect the HTML system along with user information.

#### 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?*

* Unix would work best to ensure capabilities and performance across the system. The system will need cloud hosting to perform a backend and allow for a database construction when users are added to the system, this will also allow the company to grow and shrink when needed.
* Using unix will also allow for compatibility across all other OS to reduce time constraints when designing and creating for each OS.

#### 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?*

* The system should save any vital information such as username, passwords and other data securely. This can be done easily by using a hash conversion or a hex conversion, this will reduce the chance of someone accessing the system with different inputs, while ensuring that the information is stored safely if someone were to access.
* The system should be able to get an event log or access log when someone have multiple failed entries it should block them out and request either them contact an admin or reset their passwords.

#### 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?*

* This can be done a few ways, simply adding the code to look for a key value pair that’s stored in a database would not require you to hard code anything beyond the search for a key. This can be done by have the system set a user name to a password key such that when the system looks for the user name to match then it will already have the pathing. This can be done from any system and any OS through a post request to the system to change this pairing.
* The admins will also be able to make modifications without the need for the user access as they will have access to the system as a whole and can change it by simple searching through the system and modifying the password just like you can do in Active Directory.

#### 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 will need a username, password and sometimes a two-factor authentication.
* This system should disable and require the user to reset the password after a few attempts to reduce the chance of brute force attacks.
* This system should also only allow access while the system is online and talking to the database as the username and password should not be store for any reason in the session to prevent hackers from going offline to attempt a brute force with limitless attempts.

### 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 they logon or when they attempt to change the password through a two-factor authentication.
* The system shall store and organize study materials or the user to access.
* The system shall store the information the user inputs as confidential, both for the pay information as well as passwords, address and other confidential information.
* The system shall store a database of available driving practice dates for the user to access and book.
* The system shall update the study information with accordance with the DMV and local laws.

### 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 needs to be accessible from any system and any OS to have the widest reach of customers and users.
* The interface should be easy to understand and see what is happening, while being enjoyable to use.
* The interface should be consistent with all other pages and design.

### 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?*

* We are not given a review process for guidance, not are we given the team size or budget being devoted to this.

### 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 scope of this build doesn’t seem to much as long as we have a decently sized team, the time is more than enough to fit the desired outcome with the Driverpass wishes. While the budget and design changes may slow us down as that will determine the man power placed for this project.

### 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.*

*Timeline

Description automatically generated with low confidence*