# CS 255 Business Requirements Document Template

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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 website system/program for the client. The client is DriverPass. And basically, from understanding the interview, the client wants the program to be able to allow the clients they get to be able to register and sign up for courses (different packages) that they offer. While also, showing dates/times/drivers that each individual would be paired up with when preparing for the DMV exam.

### 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?*

* To be able to track reservations, lessons, and allow customers to be able to register online with ease. The problem that they want to fix is that they want to be able to assist drivers with being able to pass the DMV exams. Since there is a need for better driver training. The different components needed are running off of the web (preferably cloud as stated by client), backup and security, being able to pull reports offline for the boss(Liam) and set up location pick up and drop offs.

### 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?*

* Essential the system should be able to come up with an account creation page, a main page, and registration page with the UI/UX design of the system. Based on everything that the client wants, while also ensuring that there are no bugs and that the system is fully operational coming completion date. The measurable tasks needed to be included in the system design would be any missing parts that the client may have not stated. But also, testing throughout the development phase. Essentially, when looking at the table shown testing is at the end. If there are sprints that are implemented. There should be a tester to ensure that the interface is working and when it is linked to the database. Because, then we would be able to address concerns and issues throughout the process and be able to mitigate any backtracking with would cause “lost time”. Which essentially, could cause us to miss any deadlines or prolong the project if bugs or errors do occur.

## 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 environments are web-based as stated by the client, while also being on the cloud. The system should run fluidly, making sure that the development has no redundancy on the programming end. Focusing on space-time complexity when working on the project. To ensure there is no delay when running the system. The system should be updated when there is a new policy or procedure per DMV. Which then would get sent to the client to ensure that their information is accurate.

#### 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 platforms should be Windows, Apple, and any phone based platforms. As they are the most common used platforms that most individuals use on a day to day basis. If any other platforms are needed, a secondary meeting should be held with the client to ensure that is what they want or need. The backend will need MySQL or another database language/platform for this application. As stated there will be a database linked to the interface that will need to be automatically updated when user information is changed.

#### 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?*

* Distinguishing between different users could be done through the database, as in MySQL there could be a unique key to each individual to ensure that no duplicates are created. But another measure could be having a user input their middle name to differentiate users with the same first/last name. I do not think the input should be case sensitive as many programs in todays age tend to not implement it. And the system should inform the admin of a problem, when an account has failed log-in after 5 attempts, or if the system is unable to update due to high traffic/database is down. Which a backup plan would need to be in place, such as having a procedure to have the website state “at the moment we are only able to take in person reservations, I am sorry for the inconvenience”.

#### 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?*

* If an employee that works at DriverPass were to gain full rights, like the boss they would be able to make changes. But with the code itself, when using MySQL you are able to remove individuals with the DELETE function. Which if it is web-based we could implement a button that a user could click or the boss to remove the account. The system should be able to adapt to the platform updates by being able to maintain the master file and implementing updates through pulls (ex. GitHub). Where the master file should still have all of the components that it originally has, while a pull should only implement what changes were made. And if the changes cause a crash, having a backup file to reboot the system to its original state to ensure we maintain integrity of the product. And the type of access the IT admin needs would be rights to be able to maintain the system, having access to the master file if anything goes wrong. Modifying it, if necessary to make beneficial changes to it to benefit the company and access to the database.

#### 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?*

* Requirements for user login, should be email/password that the user chooses. Or first initial and last name for username. By creating secured/encrypted channel servers within the system to ensure that the data exchange is secure. And if there is a “brute force” being attempted on the system, we would delete the account while also creating a csv file of the information stored for the account. Have the client notify the user/individual to ensure that their account has been fully removed/deleted and that no information was taken. Then work on updates based on the approach that was taken for the “brute force”. If a user forgets their password, they would be able to click on a “forgot password” link on the log in page. Which in terms of security we should add a 2 factor authentication, such as receiving a text or call from the associated number on the account. And if that fails as the boss/client stated he wanted rights to the system to be able to assist his client.

### 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 display online test progress
* The system shall display user information
* The system shall display any driver notes / times and dates for future lessons
* The system shall display any special needs
* The system shall display a photo of the driver and student.

### 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 needs for the interface, are to be able to navigate through what is needed to pass the DMV exam. Such as notes, practice test progress/pass fail, user information and any other requests by company or student. Along with a photo to ensure no confusion is made when a lesson is to occur. The different users for this interface would be the student and driver. The driver will need to type up any notes that are necessary from the lesson and test results. And the student would need to type in their information and special needs. The user will interact with the interface through browser.

### 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?*

* [Insert text]

### 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?*

* When looking at limitations, I would believe that a limitation would be the amount of storage or memory used for the database. As well as, the server becoming slow due to a high volume mass of users using the system.

### 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.*

A screenshot of a computer

Description automatically generated