# 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?*

* DriverPass believes that individuals taking the driving tests are not properly trained and prepared on average, so they look to create a website that provides online courses, testing, and ways to check out cars and schedule in person driving tests. They believe that these offerings can ease the test taking process for many drivers and increase the rate of success.

### 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?*

* Since the system is meant to be convenient, consistent and easy to use there must be a way to access the system from any platform with online capabilities.
* The system should be able to register users into the archive and track and output their progress.
* System should be able to offer relevant training options and tests upon user requests.
* System should provide personalized feedback to ensure users have the best chance of passing exam.

### 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?*

* DriverPass looks to create a secure online space where customers can log in with their personal information from anywhere and have access to the multitude of courses and tests with progress saved and accessible online across all major platforms.
* The system should be able to interface with customers and provide a personalized experience, with an automated system that can update their options and relevant material according to their progress through the system.
* Driver pass should act as a tool that actively teaches, encourages, and critiques users.
* System should be able to offer tests, courses, and materials that directly relate to the user and the requirements of their DMV.
* System should allow users to sign up for in person driving lessons if they desire to do so.

## 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 client requests online web capabilities using cloud system, as well as offline ability.
* The system is meant to be used seamlessly from anywhere, so the system should work fast and efficiently enough on all platforms to not be considered a hindrance.
* Since the system is meant to be personalized to the customer’s progress/requirements as well as the requirements of their Dmv, the system will need to be able to update quickly and easily across all platforms for increased convenience.
* System should update customer progress after every task they complete, and perform system wide updates and self-maintenance once a month.

#### 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?*

* System needs a user database that stores and compares all relevant user progress and information.
* The system needs a Course and test database that stores and records the frequency of interactions and user success rates.
* The system needs to be able to run seamlessly across all major platforms with the option of online functionality, as the client requests access from anywhere at any time.
* A different approach must be taken when dealing with mobile and desktop system ports, adhering to the personal strengths, weaknesses, and functionality of both approaches.

#### 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 be required to provide a username and password when initially signing up for the website, which will be archived in the secure encrypted database and be personalized to them.
* Usernames cannot be repeated to ensure safety and avoid confusion, but there can be slight variations on usernames to distinguish between users (ie bob, Bob and Bob1).
* Usernames and passwords will be case sensitive, with the user’s email being archived along with their usernames and passwords, where the email will be used for initial confirmation, further communication, as well as a means to update usernames and passwords.
* The system should inform the admin of a problem if an account has too many failed attempts and locks or if the profile is being accessed by too many sources at once and looks suspicious.

#### 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?*

* We will have an online based memory management system that allows for aspects that will consistently be updated like user information, courses, profiles etc to be changed from anywhere at any time without hassle or issue. Having an extensive and secure online memory management system will allow for both automated and manual updates without having to change the code, because the system will be put in place already anticipating these changes.
* The IT admin will have back-door access to relevant user personal and profile information, so that they can ensure that no suspicious activity takes place as well as providing customers with assistance when there is an issue with the website.

#### 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?*

* As previously established, there will be usernames and passwords for each user that will be archived in the secure encrypted memory management system.
* All of the data located in the system will be encrypted and hidden from anyone who may wish to access it without clearance or permission.
* There system will regularly sweep and detect for any possible violations using criteria predetermined by the developers as being red flags.
* If a user forgets their password, since the system has all of their information archived with their email, an email will be sent to the email provided by the user when they signed up. We may also employ security questions for verification as well as having IT admins available to communicate directly with the users and ensure that they are who they claim to be.

### 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 archive user personal and profile information in secure encrypted location.
* The system shall inquire upon and be able to recognize username and password upon users attempting to gain personal access.
* System should be able to recognize errors and inconsistencies in attempts to access user accounts, and respond accordingly.
* The system shall contain information on local DMV requirements and offer courses and tests accordingly.
* The system shall allow users to sign up for and attend online classes and tests that they believe will most benefit them.
* System shall be able to archive users personal progress and provide relevant feedback and updates.
* System shall archive and offer option to reserve timeslot and desired vehicle, then update website with the new information.

### 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 users interacting with the interface will be the driving students who signed up for the website.
* The interface will deal with the personalized preferences of the customers such as inquiring for local DMV requirements, allowing users to choose desired relevant courses and tests, and allowing customers to choose whether they want and in person driving lesson and what time and car they would like to use if they do.
* When they sign up for the website users will be given a short questionnaire that will determine what type of license they wish to achieve and the specifications of their DMV.
* From here they will be able to choose from a list of relevant tests and courses, and will be offered the extra option of signing up for in person driving tests at any point that is convenient to them.
* The interface will be accessible across all platforms, and there will be a strong attempt to keep it as uniform in look, feel, and functionality as possible, with the only major difference being mobile’s touch screen and compact nature slightly altering the look and feel of the website.

### 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 must assume that DriverPass can do as they promised and provide the personal requirements for every DMV across the designated jurisdiction.
* We must assume that the website and its functions which are by definition consistently online will be able to be made to function properly without online access.
* We must assume that the market for online driving courses is open, and the high failure rate isn’t in spite of the many options already available.
* We must assume that DriverPass had adequate tests and courses that have been properly categorized for each individualized scenario for our systems to input, sort and delegate.
* We must assume that DriverPass has a solid prediction for how many users will be accessing the website and our servers are adequate enough to support them.

### 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 project must be completed in a reasonable timeframe, meaning that there is not much room for error and tribulations.
* The need for cross platform functionality and extensive interface with personalized options means that multiple teams must be delegated accordingly and there must also be a team that monitors and updates the website regularly when it is finally running, which will cost a lot of time, money, and resources. If we ever find that any of these necessities is ever in short supply, then the project will be in jeopardy of not reaching its full potential in a timely manner.

- If the technology is not up to the task of multi-platform adaptable interfaces, then the program will be inconsistent and unreliable.

- If the budget cannot allow for enough employees to work effectively with the proper resources that they need, then they will either need to use up more time, or cut corners, both of which will end up upsetting the client.

-If we do not give ourselves a sufficient window in which to complete the project, then our employees will be stressed and disheartened and our client will be displeased at our inability to keep our end of the bargain.

### 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 calendar with multiple colored boxes

Description automatically generated with medium confidence