# 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?*

* Purpose: Develop a software application enabling users to register for services aimed at assisting them in successfully clearing their Driver’s Tests with the DMV.
* Client: DriverPass

### 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 project should support online access with read/write capabilities, and also permit offline access for reading and retrieving data.
* Variable access should be provided for all account types.
* All levels of data entry/change should be tracked for users.
* Integration with DMV databases is necessary for receiving notifications about rule changes and updates to practice questions.
* Users should have access to training scheduling and the ability to manage their own training schedules.
* Flexibility should be allowed for modifying available purchase packages.

### 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?*

* We must outline each task to facilitate task assignment and priority, considering completion time and the interdependence of tasks.
* Prospective driving learners should have the capability to log into the platform, schedule their training sessions, or take practice exams. They should be able to monitor their progress and review completed modules.

## 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 DriverPass system needs to be web-based with its data hosted in the cloud.
* It should be accessible from any computer or mobile device.
* The backups and data security should be handled externally.
* The system should be fast and responsive so that users and DriverPass administrators can perform their individual tasks without having to wait for it to process.
* The system should be updated whenever the DMV issues new rules, policies, or sample test questions.

#### 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 DriverPass system should run on just about any platform with a web browser since it is web/cloud-based.
* MadOS, Windows, and Linux will be able to run the system, but the fact that it is web-based should make the application virtually platform-independent.
* Databases will be required to store user profile data, and DMV test material.

#### 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 handle error checking for user account creation including uniqueness, that password requirements are met.
* The system should automatically check for availability and conflicts when the user schedules services.
* Administrators should be notified immediately via their dashboard and email when there is a system problem, and the activity log should show where the fault was created.

#### 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 data should be accessible and modifiable with full access by the IT Officer, who will also maintain the system and make any modifications that are made client-side.
* Other DriverPass staff should be able to make limited modifications to user data, such as creating appointments or modifying appointments for specific users.
* Major modifications to the system, including future features, will need to be made by a system developer.
* The client should be able to enable or disable specific service packages that have been built by the developers.

#### 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?*

* A unique username and password will be required to log in for any user, established at the time of the creation of the individual account.
* Client/Server data security will be handled by ensuring that a proper security certificate is installed and using HTTPS-encrypted protocols are used for any interaction between client and server after user login.
* If there is a brute force hacking attempt, the user should be locked out after three attempts, the user and administrators should be notified via email, and a password reset should be required.
* If a user forgets their password, the system should allow for a password reset process, and alternately, the IT Officer should be able to reset a user 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.”*

### 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 shall have a user interface that is adaptable to any web/cloud-based platform and be responsive in design in order to be readable and navigable on any platform.
* The system shall validate user credentials when logging in. Appropriate access levels and roles should be set for the user at login.
* The system shall allow the IT Officer or users with equivalent role to have full access over accounts, including all user data and security information.
* The system shall allow DriverPass staff with appropriate security rights to download reports to be able to manipulate and analyze that data offline.
* The system shall allow DriverPass staff to schedule and modify driving lesson reservations for users who call the office.
* The system shall allow for user action tracking.
* The system shall allow customer users to register for an account, take online classes and practice tests, view and schedule driver’s training packages, modify scheduled training sessions, view completed and incomplete coursework, and view the status of their driver’s test.
* The system shall allow for contact between the students and staff via the web application.

### 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 assuming that student clients and staff have access to a reliable internet connection.
* We are assuming that student clients and staff have the appropriate technical knowledge to access and navigate the system.
* We are assuming that an account exists with a payment gateway provider for financial transactions and that all parties maintain compliance.
* We are assuming that a mechanism exists for automatic updates to be received from the DMV about any changes to their test questions or policies.

### 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?*

* One of the assumptions that we made is also a potential limitation. Internet access will be required for most of the feature access.
* If the client desires to add a product package that was not accounted for when the system was designed, further service by a developer will be required.
* There currently is no mention of a need to add or remove vehicle/driver assets and edit their availability for use when scheduling lessons.
* There was no mention of being able to modify the dates/times available for users to schedule lessons.
* No budget was mentioned in the client meeting. Their budget may not match the large amount of developer hours required to fully implement their design.

### 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 graph of a project

Description automatically generated with medium confidence