# 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 develop a system for DriverPass, a company that is seeking to improve driving test preparation by offering online courses to help customers train for their driving tests at the Department of Motor Vehicles (DMV).

### 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 offer several key features. Some of the basic features include online courses, practice exams, and on-the-road training. Some of the components that needed for this system are a user-friendly interface that makes it easy for students to navigate, a database to store reserved time slots for the on-the-road training, and strong security features for payment options and user data.

### 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?*

* Once completed, the system should have a user-friendly interface that is able to provide users with online classes and practice tests that are up to date with current DMV tests, users should be able to book on-the-road training sessions, users should be able to modify driving lesson reservations with options to reschedule or cancel, customers should be able to make payments online securely, the system should be accessible from any device that has an internet connection.
* Some of the measurable tasks that need to be included to achieve the desired system design are user interface research. This would help to find what works best in terms of a user-friendly interface. To provide users with the most up to date courses and training tests updates should be made regularly. Systems should be tested thoroughly to ensure all features work as intended before the official application is rolled out.

## 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?*

* DriverPass wants the system to be web-based and to run over the cloud. The system should run efficiently. The system should be updated regularly in order to keep all study materials up to date with the most current DMV standards.

#### 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?*

* Being that the system is going to be cloud based, the system should be compatible with nearly any kind of device or operating system. Users on Windows, Unix, Mac, iOS, and Android should all be able to access the services. One tool the back end requires is a database. The database can be used to store driving test appointments and user information.

#### 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 different usernames, email addresses, passwords that are all unique to their account. This will make it easy to distinguish between different users. Having the input be case sensitive promotes security and allows users to make stronger passwords. If any bug is detected within the system an admin should be notified of the problem immediately. This will allow issues to be resolved in a timely manner.

#### 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?*

* Changes cannot be made to users without changing the code. The system will adapt to platform updates through regular system updates and maintenance. IT admins need access over all user accounts to manage them appropriately when necessary.

#### 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?*

* To log in, users must enter the email or username associated with their account along with their password. To provide a layer of security for the connection or data exchange between the client and the server, Transport Layer Security (TLS) should be used. If there is a “brute force” hacking attempt, the account should be locked after a certain amount of login attempts. If a user forgets their password, the password may be reset automatically by the user. Users may answer the security questions linked to their account or have an email sent with a password reset link.

### 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 allow users to register an account.
* The system shall validate user credentials when logging in.
* The system shall allow users to reset their password.
* The system shall allow users to schedule driving lesson appointments.
* The system shall offer up-to-date learning materials.
* The system shall offer practice exams that are similar to those at the DMV.
* The system shall allow administrators to manage user accounts.
* The system shall lock user accounts after numerous failed login attempts.
* The system shall provide a user-friendly interface that is easy to navigate.

### 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 owner (Liam) needs to access data from any computer or mobile device and download reports.
* The IT officer (Ian) needs to have full access over the system because he is responsible for maintaining it. This includes all accounts, allowing him to manually reset passwords or revoke privileges of former employees if they are let go.
* The secretary needs to be able to assist users in scheduling driving lessons.
* The customers/students need to be able to register and log in. view available packages, access learning materials and practice tests, and to schedule driving lesson appointments. Customers should be able to cancel or modify appointments if needed.

### 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 all users have access to internet and possess a compatible device. We are also assuming that users have a basic understanding of how to operate a computer.

### 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?*

* Resources, time, budget, and technology could all be limiting factors. Our resource limitation is that the team is quite small so scalability may be hard to achieve. The time limitation is that there is a tight deadline that must be finished by a small team. The deadline doesn’t consider any bugs that may be present and does not give enough time for thorough testing. Budget limitations include the cost of the project. We are not given an exact amount for the budget but after totaling all the costs of the project, DriverPass may want to cut or modify certain features to make the cost more affordable. Technology limitations are that we must consider technologies that are compatible with one another.

### 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 calendar

Description automatically generatedA diagram of a diagram

Description automatically generated with medium confidence