# 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 client’s name is DriverPass, the purpose of their project is to improve the quality of driving instruction for their clients.
* Their system should be able to improve the user’s experience and their results when preparing for their driver’s tests. The system will provide the ability to create and manage their reservations for live instruction online, allow the user to pay for their class package, provide them access to up-to-date DMV information, as well as keep track of their progress in test exams and notes from their in person driving lessons.

### 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 owner wants their system to provide online driving classes and practice driving tests.
* The system needs to be accessible online and offline with data redundancy protection.
* The system needs different access rights for different roles.
  + Admin for all access.
  + IT Officer for system modification, updating and maintenance.
  + Instructor for updating notes.
  + User for accounts, payments, reservation system interactions and progress reporting.
* The system needs to run off the web.
* The system needs a user interface.

### 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?*

## The system should be able to handle online reservations from the users and with payment on package options and progress reports with instructor notes on their user page.

* On the Admin side the system should allow for different levels of access, online and offline access with reports access and printing and different levels of security access.
* Deliverables for this system design will include, requirement collection report, use case diagrams, activity diagrams, user interface design, class diagrams, database tables, the business logic layer which includes security, role and right layers and testing reports.

## 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?*

* This system’s environment will be web-based.
* The systems should be updated whenever DMV databases are updated.
* The system should update it’s database with updates to reservations, practice exams interactions, and instructor notes.

#### 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?*

* For ease of maintenance a Windows platform is recommended, however client input may be needed for this decision.
* A database will most certainly be needed to support this application.

#### 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?*

* Different users will be distinguished by system role, and password.
* For increased security all passwords will be case sensitive.
* The admin will be informed of a problem when a max number of log in tries has failed.

#### 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 to the users without changing the code should be available for this system.
* Version control will be implemented to adapt platform updates alongside Code Refactoring whenever possible.
* The IT admin will need complete access to the system, to maintain smaller updates, pull reporting materials, manage user level access on the client side, and manage password problems on the user side.

#### 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?*

* User log in will require a case sensitive unique username, and password.
* For a secure connection HTTPS will be used all data transfer “transactions”.
* For a “brute force” attempt the system should lock the user account affected and alert the admin. Once investigated the admin may close the affected account or reset it, the corresponding user may be notified.

### 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 the Users to create an account.
* The system shall allow users to create, cancel and edit reservations for in person lessons.
* The system shall allow users to make package purchases.
* The system shall allow users to take practice tests.
* The system shall allow employees to create accounts for new clients.
* The system shall allow employees to create, cancel and edit reservations for in person lessons for users.
* The system shall allow instructors to add in notes to user profiles.
* The system shall keep track of user progress and latest practice test results.
* The system shall update it data base based on updates for DMV policies.

### 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 adapt to the device is being used on.
* The interface should allow the user to register as a new user.
* The interface should allow the user to log in.
* The interface should allow the employee to create user accounts.
* The interface should allow the employee to update user in person lesson notes.
* The interface should allow the ADMIN to download reports and reset accounts.
* The interface should follow client specification diagram.

### 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?*

* The user will have internet access.
* The user will have contact with a DriverPass employee.
* The user will have a credit card for payments.

### 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?*

* System limitations include no offline functionality for the system.
* Time limitations include vacations and unscheduled time-off from the developing team.
* No budget has been agreed on.

### 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.*

