# 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, DriverPass, needs a system to book/modify driving reservations from any device, manage user profiles and information, and track any changes. In addition, DriverPass also needs a system that can connect to DMV databases and be accessible on any device.

### 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 to help new drivers pass their driving test by providing them with driving lessons and online tests/practice
* Pass rates on driving tests are low and there are few resources out there that can help a new driver study
* A secretary, students, instructors, and administrators are the users of their system and uses a website for their system

### 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?*

* Make and modify reservations online or on the phone
* Track data and notate changes with user identification
* Integrate with DMV information
* Have a website with pages for user/driver info, access to tests/practice, contact info

## 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 needs to run on a web API with a connected reservation system.
* The system needs to be fast enough to handle several (less than 100) users accessing profile data, lesson reservations, practice exams, and administrative work at one time.

#### 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 system should run on any platform including mobile platforms.
* A cloud-based server will be used to make maintenance easy and allow for system expansion as the platform grows.
* The back end will connect with the DMV database to stay up to date on 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?*

* The system will distinguish between users through account sign in where the user account is associated with a specific type of account (driver, student, admin).
* IT officer should be informed if there are any problems with signing in or accessing links. This can be done through data tracking.

#### 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?*

* The IT officer will have the ability to change and set up user permissions. They should have full access to user permissions but won’t have full access to business reports that the CEO administers.
* User modifications will be an implemented function of the program which will allow IT to change permissions at any notice.
* Since the system is cloud based, platform updates will be pushed through the cloud.

#### 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 user ID and password will be created for each user and associated to specific permissions based on their role for log in.
* Using a VPN or password protected Wi-Fi can be used to help with securing a user’s connection.
* A reliable and well-know cloud service will be used to secure the connection between the client and server.
* If a “brute force” hacking attempt occurs, the IT officer should be notified, and the account should be locked until access is granted by the IT officer.
* If a user forgets their password, the IT officer will have access to manually reset the 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.”*

* The system shall track who, when, and what changes were made and print a report on this information.
* The system shall allow users to make and modify reservations whether it was booked online or over the phone.
* The system shall validate sign in.
* The system shall keep up with which students are assigned to each vehicle and driver.
* The system shall maintain business rules.
* The system shall allow users to purchase packages and keep up with what has been used in a package.
* The system shall provide downloadable reports.

### 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 different users of this interface include students, drivers, and administrators.
* The UI contains multiple pages that revolve around driver/student information.
  + Main Page: displays the company logo, online test progress, personal information, driver notes, special needs, driver photo, and a student photo for the main page.
    - Driver notes should include lesson time, start hour, end hour, and driver comments.
  + Input Form for student information which can be filled out by the secretary or student.
  + Contact page with both contact information for the student and company.
* Users will need different access to functions based on their status.
  + Students need to see all three pages and should have access to their test, personal, and driver note information. They should not be able to add any notes to where the driver notes are and shouldn’t change the company information
  + Administrators should full access with permissions varying on company role.
    - For example, the secretary should have access to fill out an input form but shouldn’t have full access to delete or edit accounts.
  + Drivers need to add comments and fill out forms regarding student lessons. They should not have full access to a student account nor the company information
* The user will interact with the interface either on mobile or desktop browsers.

### 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 company can purchase and maintain a cloud service.
* Users have access to Wi-Fi and computer devices.
* DriverPass will be given access to DMV updates.

### 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?*

* There is a strict development schedule in place based on the productivity of a few developers.
* The differing company roles requires the administrator user to be permission based. This can make it difficult determining which person has access to what.

### 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.*

*Chart

Description automatically generated*