# CS 255 Business Requirements Document Template

**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?*

* Liam wants to build a system to handle DriverPass.
* DriverPass is his company that will offer training for drivers to help them pass the written and driving portion of the DMV driving test.

### 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?*

* Access data from anywhere (Cloud)
* Offer different employees with different rights
* Tracking to know who made, canceled, or modified a reservation.
* Customers need to be able to make reservations online, as well as in person or on the phone with the secretary.
* need to track which driver and which car is reserved.
* Also offer an online class and practice test

### 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?*

* Allow customer to make an account and online reservations
* Offer 3 packages and schedule Car/Driver in 2 hour apts
* Make the system flexible so the packages can be modified in the future and be disabled
* keep schedules for 10 cars/ drivers
* Collect customer information : first name, last name, address, phone

number, state, and their credit card number, expiration date, and security code.

* Customer needs to be able to reset password
* Connect to DMV to update new rules, policies, or sample questions
* Run over the cloud

## 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 system needs to run as a web-based application
* The system needs to support multiple users and update with no delay to avoid double booking
* The system needs to be updated regularly to stay in sync with DMV changes.

#### 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 needs to run on Windows, Mac, and all mobile applications
* The system needs to support the database for customer information, schedules, and testing materials
* The system will use cloud storage

#### 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?*

* All users will have a User ID and Password. User ID will not be case sensitive, but Passwords will.
* After 3 failed login attempts, the user should be required to reset the password using a security question or 2-part verification, a texted pin and emailed pin or link.
* The system should notify the admin for password issues, bugs, and system crashes.

#### 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 system must stay updated with any changes and updates to the user’s browsers.
* IT must be able to manage any updates for the system and to add or remove personnel from having access to certain permissions.
* IT needs to be able to update any to stay in compliance with the DMV

#### 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?*

* All users will have a User ID and Password. User ID will not be case sensitive, but Passwords will.
* Two-factor authenticator can be used also
* After 3 failed login attempts, the user should be required to reset the password using a security question or Two-factor authenticator, a texted pin and emailed pin or link.
* If a “brute force” hacking attempt were detected the account should be locked and contact with Admin will be needed to restore account

### 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 validate user credentials when logging in.
* The system shall lock the user’s account after multiple password attempts and alert the user of the need to contact customer support.
* The system shall let users log in and schedule appointments, modify appointments, and cancel appointments if needed.
* The system shall give administrators the ability to add, remove, and block users.
* The system shall allow users' schedules to be rescheduled, modified, or canceled.
* The system shall record the scores of users from their training
* The system shall let users register for online classes and driving lessons with one of the 10 drivers.
* The system shall allow users to buy one of the three packages that are available for purchase online.

### 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 user interface must be user-friendly.
* It should easily adapt to display based on a web browser or mobile device.
* Users will be able to log in and gain access to all their account information, including but not limited to their purchase history and past appointments.
* Administrators and users will have different access to the site based on permissions.
* Users should be able to see the results on their practice exams, their scores, and how many times they have taken the test.
* User Interface should be organized in a simple, accessible format setup.
* The secretary should be able to modify existing appointments.
* IT should be able to reset passwords for users who are locked out.
* Administrators should be able to see which driver and car have been booked for which sessions and how many bookings have been made.
* Administrators should be able to add, remove, and block users that should no longer have access.
* User profiles will contain all updated scores and progress on one page.

### 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?*

* Users will have access to a steady, strong internet connection.
* An eventual app that will be available through all major platform stores would help expand the usage of the site.
* Users who are using outdated electronics will have slower load times than newer electronics, resulting in higher data usage.
* The cloud-based server should be able to support any number of users online at one time without slowing down or jeopardizing product integrity.

### 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?*

* No budget has been discussed, which presents an issue when trying to develop a system since there are no specifications of the kind of resources that are available.
* Notifications of appointment reminders will be difficult since the site is web-based and doesn’t track inactivity. Mobile applications allow for notifications to come through regardless of activity status.
* The amount of space bought through the cloud-based server is dependent on user traffic. Issues of the system slowing down are possible if more users are on the site versus what is expected and supported.
* The system is going to run on all web browsers, but if the server itself is hacked, they will experience a major negative impact on their business until the issue is resolved.

### 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.*

