# 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 create a web-based platform that allows users to sign up to take online classes and practice driving in preparation for their driver’s test at the DMV.
* Our client is the company DriverPass, and they want to create a platform that allows users to sign-up and purchase different packages that the company offers so that they can practice for their driving test.
* The different users on the system will be the company owner, the IT officer, the secretary, and the customers.
* The company owner would need to be able to access any information on the site, as well as be able to see which users make changes in the system. The IT officer will need full access to all the accounts so that they can reset the accounts or block access to different individuals. The secretary would need to be able to create customer accounts and schedule appointments for customers as well. Finally, the customers will need to be able to select which package they wish to purchase, be able to schedule or modify driving appointments, and be able to enter information such as drop-off and pick-up locations.

### 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 has recognized the problem that there is little to no training available for those wishing to pass their driving test.
* Their hope is to provide a system that allows their customers to practice important skills as well as take an online course to prepare them for their driver’s test at the DMV.
* They wish to do this by creating a web-based platform where users can sign up and purchase one of their packages. These packages include an array of options that allow users to pick the option they think will best suit their needs.
* This online platform would create a system for their customers to set up and reserve driving appointments, as well as host an online class.
* To make this platform, they will need a program designed that can give varying levels access to DriverPass employees, hold customer information, allow customers to make reservations, as well as display the necessary information involved with their business.

### 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?*

* Create a web-based program for the DriverPass Company.
* The created website can hold customer information.
* The information is able to be accessed by the company owner both offline and online.
* The website allows the owner to access and print an activity report.
* The website can grant different levels of access to various employees based off of role.
* The website allows the secretary to create user accounts during a phone call.
* The website allows customers to reserve driving lesson appointments online or allows the secretary to do so based off phone conversations.
* The website allocates a driver to the driving lesson and is able to have that information accessed.
* The website allows customers to reset their passwords if they forget it.
* The website allows the customer to modify or cancel driving lesson appointments.
* The website allows the customers to pick from 3 different packages that DriverPass offers.
* The company owner is able to disable a package if they do not like it.
* The website allows the IT officer to reset or block accounts.
* The website displays the interface that the company owner created.
* The website interface displays information such as online test progress, customer information, driver notes, special needs, driver photo, and student photo as addressed in the interview.
* The system needs to run off of the cloud, so the company does not have to deal with backup and security.

## 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 program is expected to be web-based. This means that it should have its own website at the very least to run on.
* The system should run fast enough that the intended users of the website can all use it at reasonable volumes for its intended purpose in an efficient manner.
* The system needs to be able to be updated to meet current DMV guidelines, so an update would be needed whenever the DMV had certain changes that would need to be shown on the website. Liam also mentions being able to change certain packages or offers, meaning that manual updates may be implemented as needed as well.

#### 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?*

* Because the system is web-based, it should be created to run on all platforms, including mobile platforms as well. This provides the most accessibility to their customers by not limiting what they access the website on.
* A database would be needed for the application to store information about its users and reservations.

#### 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 assigned different roles as mentioned in the interview. The different users will be distinguished from one another through user identification, likely in the form of logging into the website.
* The input for usernames and passwords should be case-sensitive. This increases the number of usable passwords, which can help increase account security.
* Anytime that there is an error with creating accounts, creating a reservation, or any security concern, the admin should be notified so that they can handle it.

#### 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?*

* To change much about the website, the code for the website would likely need to be changed as well. The exception to this would be if certain changes or options were coded in right away so that they could be added or changed later without changing the overall code.
* The IT team would need full access so that they would be able to change the user’s roles, as well as have access to usernames and passwords so that accounts could be recovered when needed.

#### 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?*

* Both a username and password should be required for users to log onto the website.
* There are several ways to encrypt data for web-based applications that should be implemented into the final product.
* If a “brute force” hacking attempt is occurring, there should be detection methods to warn the IT and admin team. An account should also be locked after failing to login multiple times.
* In the interview, Ian mentions that if the customer forgets their password, they should be able to automatically reset it. This means that a method to do that would need to be included.

### 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 will provide varying access to users with different roles assigned to them by the IT team.
* The system will allow users to create an account with a username and password.
* The system will allow users to make and alter reservations for driving tests.
* The system will allow users to access online tests to study for their driver’s exam.
* The system will allow users to select and purchase driving packages as specified by DriverPass.
* The system will allow users to reset their passwords when needed.
* The system will coordinate with the DMV to stay up to date on the latest requirements of the DMV.
* The system shall store user information.
* The system will match drivers with customers in a way that only available drivers will be assigned.

### 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 be set up in a similar fashion to what Liam had drawn out during the interview. Each of the different portions of the interface displays different information and can lead to different parts of the website.
* The different users for this interface include the customers, the secretaries, the business owner, and the IT team. All users should see an interface that is useful for their particular role.
* The secretaries will need to be able to see and create reservations, as well as access certain information for customers that is important for the reservation and pickup process.
* The customer needs to be able to interact with the different parts of the website so that they can enter information, access the reservation system, and access the other main functions of the website, such as online tests.
* The business owner should be able to see reports on the website including the reservations made, accounts created, and other key details.
* The IT team will need access to the usernames and passwords of individual accounts, as well as any other tools needed to make changes to the website.
* The user will interact with the interface through both mobile and computer 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?*

* We are assuming that customers will have the technology and internet to use the system.
* We assume that this system is in compliance with all state laws regarding driving tests and practice.

### 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?*

* The budget of the application will be a limitation in the design process.
* The timeline of the company is also a limitation in the design process.
* Limitations also include the third parties that will likely be needed for cloud-based systems. Any limitations that the company has, or further limitations from the budget of the company and what they are willing to pay for.

### 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.*

