# 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?*

* DriverPass is wanting to create a system that will provide training for drivers using both online practice and tests, as well as on the road training. The client outlines how the process will work with users or their secretary scheduling driving appointments and being able to manage appointments, feedback, and online practice from their site.
* The client shares a drawn picture of their website interface plan, showing the information that should be shown, such as test results, driver notes, and user information. They also want a page for contacting the company and for the company to contact the students.

### 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 client identified that many people fail their DMV driving tests due to lack of training. DriverPass wants to provide training, testing, and driving practice to users to aid them in where the DMV is lacking in training.
* The client wants a web-based site that will allow users to purchase packages, schedule/cancel appointments, complete assignments, and view feedback from the site.
* The current system is limited to 10 cars/drivers, 1 secretary, 1 IT Officer, and 1 Owner.
  + Drivers will pick up and drop off customers from specified locations.
  + The secretary can modify user information and schedule appointments.
  + Owner and IT Officer can access and manage system data.
  + Other employees are not mentioned so it is assumed that drivers will provide in-person lessons on DMV policies as well.

### 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 client wants to be able to access data from any device, on or offline.
* The client wants different security roles established within the program for Liam, the boss, Ian, the IT lead, and for their secretary and users.
* The Client lays out how they want their registration system to work, laying out multiple user packages and a need to be able to view this data on the client's end.
* The client wants to ensure the site is up to date with DMV rules by providing notifications of changes to the company.

## 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 should be Web-based, specifically through a cloud service provider.
* The system should be updated in real time to allow users to schedule and cancel appointments and view their feedback from assessments.
* The system should run frequent DMV compliance checks to ensure that all tools and resources are up to date.

#### 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 be cloud based with the backups and security handled by the cloud provider.
* With the system being web based there are no platform constraints, the system should run well on all major OSs and browsers.
* Information and reports should be available for admins to download and view offline. This information will need to be stored on a database.

#### 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?*

* Accounts are password protected.
* The system should verify the package type to update how many driving sessions they can schedule and what parts of the site they can access.
  + Package One: Six hours in a car with a trainer
  + Package Two: Eight hours in a car with a trainer and an in-person lesson where we explain the DMV rules and policies
  + Package Three: Twelve hours in a car with a trainer, an in-person lesson where we explain the DMV rules and policies—plus access to our online class with all the content and material. The online class also includes practice tests.
* If a package is disables by administration this should not affect those that have already purchased that package.
* With limited drivers the system should inform the admin if customers vastly exceed driver capacity. This will allow users to be informed of potential wait times.

#### 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?*

* Users should be able to schedule and cancel appointments, as well as update their own information.
* intermediate users should have access to schedule/cancel appointments and update information for basic users.
* Admin users should have the abilities of an intermediate user, while also having full access to the systems backend.
* Admin users should be able to disable packages 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?*

* System should implement roles for security to limit unauthorized usage.
  + roles should include Full access for IT and CEO, Intermediate access for employees, and basic access for users.
* System users should be able to reset their passwords online or through the IT administrator. A password reset should require users to provide information to verify their identity using their private profile information for online resets or other forms of identification if in person.
* Users should be able to use phone number or email address as a username.

### 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 verify users through credential authentication.
* The system shall track reservations and who creates/deletes/modifies them.
* The system shall update feedback in real time.
* The system shall provide reports that can be downloaded for offline use.
* The system shall allow users or Admins to reset passwords.
* The system shall allow customers to purchase one of three packages and track what these packages provide.
* The system shall allow intermediate level users to create/delete/modify reservations for basic users.
* The system shall allow basic users to create/delete/modify reservations for themselves.
* The system shall allow users to update their personal information:
  + Name
  + Address
  + Credit card information
  + Phone number
  + email address
* The system shall allow intermediate users to update user information.
* The system shall provide materials that are compliant with current DMV guidelines.
* The system shall be modifiable by Admins.

### 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 basic user home page should show a user their test progress, such as completed tests, date taken, and score as well as in progress tests.
* The basic user home page should show user information and allow users to update as needed. This includes any special needs of the user.
* The basic user home page should show driving feedback from instructors.
* Driving instructors should have a home page that allows them to input driver feedback for users and view their driving schedules.
* Driving instructors should be able to access their students contact information from their home page.
* intermediate and admin level users should have access to a page with a database of all user contact information.
* The basic user home page should show information about their scheduled driver, such as a photo and contact information.
* There should be a user registration page that allows users to create an account using their personal information.
* There should be a login page allowing users to login using their email/phone number and a password.

### 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 the project will be cloud based and will have minimal down time
* We are assuming the internet will always be available and that server updates will happen in real time.
* We are assuming that the DMV openly releases their latest guidelines to the public and the system can automatically update to include them.
* With the application being web based we are assuming that most users have access to the internet and a device to utilize it.
* We are assuming both students and employees are familiar with using websites to input data.

### 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 are only 10 drivers currently, If student counts vastly outnumber driver counts there could be delays in scheduling or potential overbooking. These drivers will end up needing days off as well, so there will not always be 10 drivers on any given day.
* Being Web based and cloud based the sites up time is dependent on the service provider's reliability.
* Time could be a limitation if any setbacks, changes, or delays occur. This should be talked about with the DriverPass team to plan ahead for any potential delays.
* Coursework usability is based on DMV compliance. If the DMV does not update their changes to the public, then there could be discrepancies in what DriverPass teaches and what the DMV expects.
* There may need to be training on how to utilize the system depending on how familiar employees are with using web-based systems.

### 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.*

