# 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 company is called DriverPass. Run by Liam, this company is a service that provides online driving training as well as in-person driving sessions with instructors.
* Linked to the DMV, they can keep their consumer training up to date with the DMV’s policies, rules, and expectations.
* The website will be a tool for the consumers to complete practice tests and lessons, view their scores and progress, update their personal information and photos, contact the secretary, utilize the uploaded driver notes to improve their skills, and set up appointments with a driving instructor using one of the three training packages provided.

### 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 their data to be available online and offline. They will only be able to modify or update data when online. This data must be available from any computer or mobile device. Liam should be able to download reports from home.
* DriverPass is looking towards the cloud to have the cloud provider take care of backup and security while they focus on running the business with minimal technical problems.
* The company has three users that should have access to the system and its data. DriverPass will be utilizing a roles and rights structure, meaning roles will be established that restrict what a user can read, write, or create. Liam is the CEO who will have complete access to everything. Ian the technical officer, will have access to maintain and modify the system. The secretary will have access to phone numbers and appointment creation.
* The system should have a way to track who makes a reservation, who cancels one, and who modifies one. This should link to an activity report that can be printed and reviewed to keep track of who is making these changes.
* There should be a way for users to create appointments online. Each session is in two-hour slots so depending on the package they chose they can choose their set of needed sessions. The options available to them include the day and time, their pickup location, and their drop off location. They can also set this up with the secretary over the phone.
* Three driving packages that come with this service. There must be a way to disable one of these packages to be available to the consumers at this time.
* There should be a way for a user to automatically reset their password if they forget it.

### 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?*

* Users should be able to make appointments through the website as well as over the phone. There needs to be a clear contact page for the user to reach out to the secretary as registrations themselves were mentioned to be done over the phone. The registration information includes first name, last name, address, phone number, state, credit card number, expiration date, and security code. Giving credit card information over the phone can be tricky and cause distrust in a customer, it would be better if we could discuss this functionality with Liam and perhaps propose for this to be an online functionality on the website as well. There also needs to be a page available for DriverPass to contact the students when additional information is needed or when they would like to provide an update to the consumer.
* There are three packages with a different set of hours for instruction and one that offers the online class as well. There needs to be an option for the user to set up their appointments for each two-hour slot they are allotted. For the users that receive access to the online course, their account should gain access to the tests and lessons, otherwise, they should be prohibited from accessing the material.
* DriverPass wants the website to be available on the cloud this means their expectations on budget, backup services, and maintenance should be considered when choosing the cloud service that works for them. Providing a set of examples, their prices, and the services they offer is a great way to receive feedback from DriverPass on what they would like to use.
* They should be directly connected with the DMV and receive notifications whenever there is an update to their rules or policies. You can either set up a notification that sends out an email to the employees whenever the DMV updates its website or see if the DMV has an existing newsletters/update process already available.
* There is personal information as well as photos available on the website for each account. The user will have to have access to edit their profile as well as guidelines put in place to regulate what images are being used, their sizes, and file type.
* The driver notes should also be an automated process that the ten drivers have access to at any point. They can either type in their notes or perhaps upload a document from a word or excel sheet that the student can access from the driver's notes section.
* To keep track of when and which user makes a change to a record, there can be functionality for “Created By” and “Created” that lists the names and times from when the change occurred. This information can also be available on the activity report by default. The printing functionality could provide the option to only print a certain set of records or print records from a specific time interval.
* When a user creates a reservation, they will need to provide a drop-off and pick-up location. This means either they or the secretary need to have a field linked to an address location type.
* The user should have an option to reset their password. Making their email an option in the reservation can be a great opportunity to simplify this process. This is something that can be brought up to Liam and the team.

## 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 will be a web-based application run off the cloud.
* Each web page should ideally load within two to three seconds as this is the standard for websites.
* The system should be updated anytime the client or user makes changes. This can include creating reservations, making progress in a test, or updating a profile.
* Data should only be available to update when a user is online.
* Data should be accessible online and offline.

#### 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 will likely run on a Linux OS since that is the most popular choice for cloud computing. Built on the cloud, the system will be available on most operating systems.
* The database, backups, and security will all be managed by the cloud provider leaving the team to focus on minimal technical problems.
* A database will be required to hold customer and website data.

#### 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 run on a roles and rights structure. Depending on what account the user’s login, their role will allow them to have different rights on the system.
* The input of the login will be case sensitive.
* Login should utilize multi-factor authentication
* Admin should be informed when there are incidents of shutdowns, glitches, or multiple complaints about the systems functionality.

#### 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 will have the ability to add, remove, or modify users without code by directly adding, removing, or updating the databases records.
* Platform updates should be made during the night in the time zone most users access the website from. This update should be notified to clients and employees beforehand and during.
* The IT administrator should have access to modify and maintain the systems records, as well as full access over all accounts.

#### 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?*

* The user must have their username and password to login. They might need their phone number for multi-factor authentication.
* The type of cloud provider has different security processes. They will be the ones to control the data exchange.
* After a set of failed attempts, the account will be locked. Users can contact the service desk to open their account after their identity is verified.
* If the user forgets their password, they can contact the service desk to reset it after their identity is verified through their profile information. An email was never mentioned as a part of the sign-up process, after deliberation with the team, this information can be used to allow the client to reset their password when needed.

### 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 rights according the logged in users role.
* The system shall allow users to reset their password when needed.
* The system shall be directly linked to the DMV for updates and notifications on new processes
* The system shall create automatic activity reports when a user creates, modifies, or removes a reservation.
* The system shall offer three different driving packages.
* The system shall allow the team to disable a driving package if they wouldn’t like anymore people registering for it.
* The system shall have tests and classes for users to utilize and learn from.
* The system shall display a customer’s progress in their tests and classes.

### 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 must display drivers notes, online test progress, special needs, customer information, student photo, and driver photo to the customer.
* The interface will have four users. Liam the CEO, Ian the technical officer, the secretary, and the customer.
* The CEO will have access to everything in the system.
* Ian should have access to modify and maintain the systems records, as well as full access over all accounts.
* The secretary should have access to customers contact information and appointment creation.
* The custom should have access to contact us information, appointment creation/modification, their profile, driver’s notes, and tests.
* The customer should be able to access the site from any device. The interface will differ from mobile to web, but the main elements will still be accessible.

### 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 has access to the internet.
* The user knows how to interact and access websites.
* The user has a phone number and can call to make updates or schedule their appointments.

### 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 team was allotted five months to complete this project.
* There are six people on the team to complete this development.
* There is no budget defined.
* The cloud provider needs to be decided on depending on the client’s standards on security, backups, and price.
* The mobile site format should differ from the websites. This needs to be established and developed.

### 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