# uCS 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?*

* Liam and Ian from DriverPass, they want to create a software that helps people study and pass their driving test. They want to do this with online classes and practice 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?*

* Liam wants the system to help him access data from anywhere offline or online, one problem that arose is that with updating the system offline might cause a duplication of data that might cause data redundancy.

### 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?*

* When the system is done it should allow Liam to be able to access the needed data offline and online.
* It should allow a customer to enter their names, address, phone number, state, credit card number, expiration date, and security code.
* It should also allow Liam to track when a user changes a record in the system.
* It should also allow a user to enter a pickup location and allow them to pick a package out of the given 3 and set up a date to do their lessons with DriverPass.
* They also want to be able to connect to the DMV to be able to update any new laws in their system.

## 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?*

* Looking at the needs of not only the user, but the owner as well the system should be web-based and with the ability to be accessed on mobile. This will give a user the freedom to schedule lessons while on the go if needed, and the owner can access files whenever they need to.
* The website should have a relatively fast time for load ups around the 1.5-2 second range on both web and mobile to make the process feel fast and smooth to the user.
* On terms of system updates, the system should be updated at least once a month to keep up with possible heavy traffic while keeping the system clean and running.

#### 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 able to run on the two most used platforms, those being Windows and Apple systems. Both the Operating Systems would require a database to store the needed data for them to properly run and support the application.

#### 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?*

* One way to distinguish the types of users would be to use separate login locations. Meaning that the user will choose if they are a customer or employee.
* If the user is a customer, they will be taken to a log in screen that requires a username and case-sensitive password. If the customer does not have an account, they may sign up for one.
* This will require the user to make a user picked name that does not match another customer’s name in the system. After this they will need to make a case-sensitive password that will be assigned to that account until changed.
* When a problem occurs in the system, an admin should be notified of this problem immediately that way it can be handled and taken care of as soon as possible.

#### 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?*

* Yes, users should be able to be added/removed/modified in the system without changing the code in the system.
* The system should be able to adapt to platform updates in the since that the system will keep the same style that the user will be accustomed to but will be able to function smoothly with the new platform update.
* The IT admin will need the ability to go into the system and make necessary updates and changes needed. They will also need to be able to access needed files in the system as well as have the ability to add and remove users that work for DriverPass but not customer 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 should have to enter an Email as well as a Case-Sensitive password.
* One way to secure the connection between the client and server would be to use an SSL (Secure Socket Layer). This is a protocol that will give a secure communication channel between the Client and Server though authentication and encryption. If the user accounts experience a brute force attempt, then the account should lock and the user as well as the IT admin should be notified of the attack.
* The user should be asked if they were trying to access their account, if they answer no, then they should be prompted to check their accounts. If the user forgets the password to their accounts, they should be asked to enter an email or phone number that is linked to the account and that the user can access, then a code or password change request can be sent to the chosen device to allow the user to change the password or access the 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 be able to be accessed by the Owner from any computer or mobile device.
* The System shall notify DriverPass when someone makes reservations, cancels, or modifies a lesson.
* The System shall allow customer to reserve lessons and choose between the different options available to them.
* The System shall be able to identify what driver the customer is scheduled to go out with for the lesson and track the car they use.
* The System shall connect to the DMV to be able to keep rules up to date as well as policies.
* The System shall notify DriverPass when the DMV updates.

### 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 system will need to run from the cloud.
* The different users will be the customers, the owner, the IT officer, and the company secretary.
* The owner should be able to access the site and download/check files.
* The IT officer will need to be able to do maintenance on the system, update the system, and modify the system.
* The Secretary will need to be able to make appointments for customers who call.
* The Customers will need to be able to access the system to set up appointments for lessons and choose the desired package that they wish to learn with as well as pick the car and driver for the lessons.

### 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 main assumption is that the other employees of DriverPass will need to be able to access the site and sign in and keep track of work and reservations.
* Secondly, we assume that the user is on a mobile device or computer.
* Next, we need to assume that the customer may have special needs that need to be worked around.

### 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?*

* We will be limited to the number of reservations we can have at a time.
* The system will be limited to the how often the DMV updates and how quickly the system will update with it.
* The system will need to be done May 7th meaning that testing will need to be done thoroughly by this time.
* The system may be overwhelmed by the number of users depending on how the business takes off. Meaning that the system may be limited to the number of users of the site at a time to contend with a possible upsurge in users.

### 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, waterfall chart

Description automatically generated