# 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 client, DriverPass, is hoping to take advantage of a void in the market when training students for their driving test at their local department of motor vehicles (DMV).
* Liam the owner of DriverPass is aiming to establish better driving training by having online

classes, practice test, and on the road training.

### 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 needs to access data from anywhere, online and offline. Online, he wishes to use any computer or mobile device to gain access to reports and any information he may need.
* Admin access for Ian, the IT officer, to have full control of accounts. This is for resetting passwords or locking out ex-employees.
* Tracking reservations made, modified or cancelled. Tracking access also given to owner and activity report available for him.
* Make reservations for two hour driving lessons through their account for a specific time and date. This includes showing the user matched up to which driver, time slot and car.
* Showing the three different packages available and having the ability to add or remove packages in the future if needed.
* The ability to make appointments, modifications or cancellations online.
* Users register through providing all relevant information: First and last name, address, phone number, state and payment information. Credit card number, expiration and security code.
* The ability for the user to reset their password if needed.
* Up to date with all changes made by the DMV, any new policies, rules and/or frequent Q and A’s.
* Web interface runs on cloud.

### 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 completed, DriverPass will allow customers to choose between three driving packages:
  + 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.
* Since each driving session is two hours long, sessions will be spread out into two-hour increments over time. Customers would also be able to change, modify or cancel appointments.
* DriverPass interface will show online progress of the customer this would include their name, time taken, score and status.
* Admin access includes owner Liam, IT Officer Ian, and secretary.
  + Owner has access to all data of DriverPass.
  + Ian has full access over accounts, maintaining and modifying system.
  + Secretary makes appointments.

## 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 main environment will be web-based (he prefers over the cloud if possible). Liam does want the ability to access the data from anywhere but mentioned nothing about an actual application. The system should run as seamlessly as possible with a maximum wait of 4-6 seconds to ensure efficiency and customer satisfaction. Maintaining regular updates is essential, performance and DMV standards wise. Liam would like to set up notifications from the DMV to ensure compliance and staying as up to date as possible.

#### 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?*

* Based on the system the customer is looking for; I would recommend Windows and MacOS as the bare minimum and Linux platforms to ensure most people will be able to use the system. I also feel a relational database should support all of the back-end features requested and efficient data management.

#### 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 should absolutely be case sensitive for identification purposes. Any technical issues or unusual behavior in the system should be sent over to the administrators immediately in the form of a notification.

#### 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 should be able handle small changes or modifications without having any changes made to the base code. Adapting to platform updates are critical and should be performed as seamlessly as possible. The IT admin should have full access for maintaining the system settings and any updates that may be 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?*

* Users will be prompted to create a unique username and password to ensure safety and to only have the account linked to them. Users should also get temporarily locked out of their account after a certain amount of login attempts (5 recommended), this should help with any type of hacking and overall safety of all information. Two factor authentication would be the best way to ensure safe data exchanges between the client and the server. The system will be equipped with a “Forgot Password” button to help with forgotten information.

### 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 access to any information in the system from anywhere online.
* The system shall validate users with a unique username and password when logging in.
* The system shall allow 5 login attempts before temporarily locking the account.
* The system shall notify the admin of any temporary locked accounts after user login after 5 failed attempts.
* The system shall reset any passwords after the “Forgot Password” button has been activated and an authentication process has been successfully completed.
* The system shall allow the modification of any account information after login is completed.
* The system shall create a user account with all relevant information collected.
* The system shall show all available time slots for all driving packages.
* The system shall display all driver notes.
* The system shall validate any credit cards being used for package purchases.
* The system shall track which driver is matched up with the specific user, time and car number that has been assigned.
* The system shall connect the user to all DMV updates based on the state mandates and regulations.
* The system shall display all testing progress.
* The system shall display the student photo and the matched driver’s photo.
* The system shall display any special needs of the user.
* The system shall display all user account information (first and last name, zip code, etc.).
* The system shall disable any packages deemed full by admin.
* The system shall allow all different package types to be displayed and chosen based on drivers’ choice.
* The system shall allow customizations to the users account.
* The system shall display pick up and drop off location of matched driver to user.
* The system shall display online class access to those who choose to select the package that includes it.
* The system shall display practice tests based on package purchase.
* The system shall be able to print an activity report by admin at any given date or time.

### 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.)?*

* Users will interact with the interface through any device with a web browser, including but not limited to, Computers, phones, laptops and tablets. The different users of the interface include customers, admin / employees. Each user will have different access based on the needs of the user, Admin will have full access while customers have certain accesses or permissions necessary for the customers needs.
* Customers should have access to things such as, lesson dates and times, packages for purchase, online classes, testing progress, DMV rules and regulations and their account information.
* Admin should have full access and will also be able to see things like, which packages are being bought, customer information, the drivers’ customers are matched with, reservations and the ability to reset any passwords.

### 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 things that aren’t specifically addressed are the site is availability is 24/7, the driver’s ability to be able to get to and from each lesson on time based on the chosen reservation time, users having the ability to navigate the interface, admin being able to navigate the interface and lastly that the drivers will be available for the reservations made. Users being able to access the interface at all is big assumption here. If they don’t have internet access or a way to get pull up the site, they won’t be able to reserve anything online, that also brings up if they have a way to call DriverPass. If they cannot call or get online to make a reservation, we assume they will have a way to get there instead.

### 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 main limitation I see is the number of cars, DriverPass has only 10 cars. That makes the number of reservations available limited.
* Customers level of experience with a certain type of car, someone may have only used an SUV or a Truck. That isn’t a huge one but still can trip people up, especially new drivers.
* Any internet connection or system maintenance could come up and cause delays for showing progress or have loading issues.
* Meeting the budget and time constraints the customer is asking for is super important as well.

### 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.*

A graph with colorful squares

Description automatically generated with medium confidence