# 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 is DriverPass
* The purpose is to offer better driving training through their local DMV
* They want their system to be able to handle registering for driving lessons, and also provide online lessons.

### 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 the system to help people better learn how to drive by allowing easy registration for driving lessons and online courses.
* There is a void in the market for driving training with their local DMV, and this system will help better train potential drivers.
* Components of system:
  + Online portal to register for lessons
  + Online courses that can be accessed through the web browser
  + Select from different packages, as each have different driving hours with a trainer and online course access
  + Contact page
  + Be able to change or remove the different packages once they go live

### 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 complete, it should be able to:
  + Allow users to register for in-person driving lessons and have them provide the necessary information through the website
  + Allow users who chose the proper package to take some lessons online
  + Have a contact page if users need to contact the company about any issues or questions
  + Allow users to select a package plan that best suits their needs, with the time spent with a driving trainer differing between each package, and one package allowing for online courses.
  + Track users’ activity so they can see what each users’ interactions and usage patterns while using the system
  + Will be a cloud based system
* Measurable tasks:
  + Setup page for lesson registration where user’s can put in the required data and have an appointment made
  + Setup contact page
  + Create the different packages
  + Ensure the system gets live updates straight from the DMV for compliance or any other necessary changes
  + Need to find a host for the cloud service
  + Implement a rough UI design for testing
  + Make sure Liam and Ian have the highest roles for security, allowing them to be able to reset passwords and other duties when needed. The secretary also needs a user to be able to input the user data in case they call over the phone or come in person to register for a lesson.

## 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 run fast enough that the user doesn’t notice any hiccups or slowdowns.
* It should allow for any number of users to currently be logged on and using the system without any system degradation.
* The system needs to be web-based, so the users can just go to any web browser, go to the url, and use the system.

#### 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?*

* If the client already has an existing platform we can integrate with, then we should use that. Will be much easier to integrate into a platform they are familiar with instead of having them learn a brand new platform. If that is not possible or they don’t have a pre-existing platform, Windows is my recommendation as that is the most user friendly as most people know roughly how Windows works and the support would be vast with online tutorials if they need to quickly fix something if they don’t want to call support.
* The backend does require a database to house all the different students and course packages there are. If you don’t have a database to store all of that information, as soon as a student logs off their data isn’t saved, and they might have to start the process all over again.

#### 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?*

* You can have the user create a username that they use to login. Or the username can just be the user’s email address, as that will be unique with each user.
* The input should be case sensitive, especially when creating a password.
* The system should inform the admin of a problem as soon as it happens, so they can start working on a fix right away and has a little downtime 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?*

* The interface should allow for changing properties of the user, without needing to adjust code. Either the user themselves can modify their properties, or admin can do it from their end.
* The system should integrate seamlessly with 3rd party software and any future updates that are implemented to the system itself.
* If the IT admin is properly trained, he should have proper access for the tasks they want to accomplish. If the admin has any issues with stuff really under the hood, like coding aspects, he will need to contact the system provider for assistance.

#### 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 be required to provide their username and the password they created when creating their account.
* We can secure the connection between the client and the server by encrypting the data exchange, and making the connection is secure by utilizing security certificates.
* If there is a “brute force” hacking attempt, the system should automatically lock that user’s account, notify the user by email, and offer a link to unlock the account and change the password.
* If the user forgets their password, there should be an option to provide their email address and a link will be sent to them to allow them to change their password.

### 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 provide new user registration
* The system shall validate user credentials when logging in
* The system shall allow users and the secretary the ability to schedule appointments
* The system shall allow users to see driver notes
* The system shall allow admin to generate activity reports
* The system shall allow users and admin to edit existing appointments
* The system shall allow users to contact admin for customer support
* The system shall allow integration with 3rd party systems

### 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 should offer a clean and easy to use website that the user can navigate without confusion.
* The users for the interface are the student drivers, the secretary, and the admin. Each user can have slightly different options to choose from depending on what they have access to. Admin will have more options than say the student driver.
* The student driver will need to be able to make a reservation, see the status of the reservation, see driver notes, and make changes to their account and existing reservations. The secretary will need to be able to see all the current reservations in the system regardless of user and be able to modify or add any if someone calls to schedule one. The admin will be able to see all the current reservations, make changes to user accounts and the course packages, generate reports, and offer customer support.
* The user can interact with the interface through a browser either on their computer, tablet, or phone, as it should scale to the corresponding device and offer the same easy to use interface regardless of platform the user is using.

### 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 assume the user has internet access and a device to which they can browse the web on
* We assume the user knows how to operate said device
* We assume the user will provide accurate information in regard to personal information and package they want
* We assume having the system on the cloud that everything will work in terms of scalability and being always available

### 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?*

* Customer support will be limited to just the admin and possibly secretary
* Any features that want to be added that aren’t on the initial launch will take time to implement
* With having only one IT admin, if an issue arises it might not get corrected as fast as if there were more IT admins.

### 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 screenshot of a computer screen

Description automatically generated