# 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?*

* Client: DriverPass
* Owner: Liam
* Purpose: Better train new drivers
  + Online lessons
  + Practice tests
  + Potential on the road training as well
* Target: New drivers (Possibly drivers who want to improve their driving).
  + Personal idea: This could also be used to fulfil defensive driving classes mandated by the court.
* Other Users (Employees): Call center, instructors, and IT
  + Call center: Be able to set appointments over the phone
  + Instructor: Be able to view the profile and notes of each student.
  + IT: Test the system and determine fixes.

### 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?*

* Save information online
* Ability to download information from online
* Track the users progress and actions taken on the account.
* Make reservations for driving instructions.
* The system must also be able to recognize the accounts that have booked a reservation.
* Reservations must be managed with the limited amount of cars and/or number of instructors.
* Password recovery options.
* Alert the owners of any changes made by the DMV.
* Run online from the cloud.
* Track progress and receive updates on said progress.

### 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 system, when completed, should allow customers to create a profile that keeps track of driving lessons and progress.
* If profile password is lost or forgotten a reset should be available.
* The drivers progress should be readily available, updated frequently, and be able to be downloaded by the user.
* The user should be able to schedule lesson reservations via the system.
* The system should then be able to access reservations to ensure that each student has an instructor and a vehicle.
* The user should be able to determine a time and place to be picked up and subsequently dropped off after the lesson.
* Employees should be able to access the system to view customers’ profiles and edit reservations.
* The system should update the proper employees of changes in driving requirements made by the DMV.
* The system should operate from a cloud server.

## 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 built using Java as it allows for one system to run on most computers via their compilers.
* Because the system keeps track of lessons and assignments and not running simulations or any task that requires a high level of speed, we can afford to use a system that is moderate in speed.
* Especially when the system is first launched, continual monitoring will be necessary with updates being rolled out as needed. Eventually, a more moderate approach can be taken with users reporting issues and those issues being addressed as needed along with occasional monitoring.
* The client has expressed the desire to host the site on a cloud platform reducing commitment needed for servers.

#### 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 best platform, in my opinion, is Windows. While windows will require a fee to use its software, its platform is the most widely used and has the most third-party support.
* Windows doesn’t require the use of any tool specifically. However, tools can be utilized to enhance the user experience as well as creating a well-designed system.

#### 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?*

* To address whether the user is an admin or customer, I’d offer the client two options.
  + Option 1: Set up a separate login site. This separate login would require the user to navigate to the appropriate location and use their credentials to access the system
  + Option 2: Use the same login site as customers but require unique credentials that distinguish the client from customers.
* Both options would require unique credentials as well as a 4 -6 digit pin for added security.

#### 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?*

* Making changes to the user without modifying, adding, or removing code is not as difficult as it sounds. It would require the developer to design a system that requires outside input to create new profiles.
* A change to the information section would need to be implemented as well to allow for changing customer profiles.
* The IT admin would need backend access as well as frontend to ensure the system runs properly.

#### 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 login would require a username or email address along with a password. For added security I would recommend a 4-6 digit pin for admin users.
* For users who forget password a recover password feature will be available. Customers could send a password change email to the email on file, it may also include a security question previously established.
* For admin who forget their password or pin, a verification of credentials would be required and an notification to the IT administrator would be sent to ensure the access is authenticated.
* The client wants their system to be hosted on the cloud. It would be the cloud’s responsibility to ensure security.
* To prevent brute force hacking all passwords would be required to be at least 10 characters long and have at least one special character.

### 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 authenticate user credentials while logging in.
* The system shall recover the users’ profile.
* The system shall update the user profile as progress or updates are made.
* The system shall allow users to schedule driving lessons.
* The system shall verify the availability of driving instructors and vehicles before confirming reservations.
* The system shall allow admin to update information as needed.

### 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.)?*

* There are two different types of users a customer, and an admin.
* While all customers will have equal access, admin will have varied access due to position (a secretary has no need for code access).
* Customers will interact with a personalized profile with all relevant information presented and window access for more in-depth analysis and scheduling.
* Depending on the position of the admin, they will have access to customer lists, driver schedules, and system settings.

### 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?*

* Customers will know how to navigate a login and profile.
* Customers will know English.
* Customers will have access to computer or cell phone.

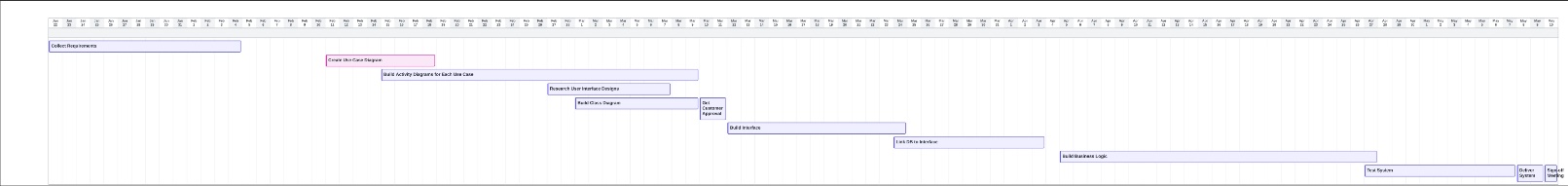
### Limitations

*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 customer didn’t specify an phone app version. Meaning that the system might not functions nicely on smartphones.
* Depending on the size of each aspect the time might not allow for major changes, or extra features.
* Funding will need to cover time and resources used to build the system.
* Quality assurance will take time as there is a need to test on two different fronts.
* Making sure the system complies with DMV requirements.

### 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.*



\*I realize that its small, enlarging the picture makes it grainy and hard to read. I’ll include the pdf version along with this document.