# CS 255 Business Requirements Document Template – Ethan Mayberry

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?*

* **What is the purpose of this project?**Provide training for drivers through online courses and instructional videos.
* **Who is the client?**DriverPass is the client we will be working with.
* **what do they want their system to be able to do?**They want their users to be able to participate in online courses and practice tests/exams. They also wish to provide users with on-the-road training and help if asked for and will require a way to do this through their software.

### 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?*

* **What does DriverPass want the system to do?**They want their website to be able to offer appointments for in-person training and lessons, as well as offer courses with practice tests for their students to take.
* **What is the problem they want to fix?**They wish to reduce the percentage of drivers who end up failing their driver’s test. They need their system to fill in gaps of knowledge that students seem to be struggling with in the existing materials.
* **What are the different components needed for this system?**10 drivers/cars, live instructors on-hand, online reservation system, reservation reporting methods, and appointment scheduling for lessons

### 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?*

* **What should this system be able to do when it is completed?**-- Create their accounts  
  -- Create and set their Passwords  
  -- Select the instructional package they wish to purchase  
  -- Make, cancel and edit reservations for driving lessons  
  -- Take practice exams online for learning
* **What measurable tasks need to be included in the system design to achieve this?**-- Track users practice exam results for the purpose of seeing growth  
  -- Allow the storage of users contact information for reservations or requesting meetings

## 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 environment that this system needs to run in is a Web-Based Cloud Environment
* The system should run with average load times of around 1-2 seconds, or at least somewhere in between.
* The system should be updated roughly every month, or just over a month period, or, for newer rollouts and updates, as often as needed to ensure all works properly.

#### 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?*

* With the system being web-based, it will function and run on Windows, MAC, and Linux OS’.
* The backend will require a database for both user and system information. It will require a web server to be able to process and handle all incoming responses/requests.

#### 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?*

* We will distinguish between different users through password protected accounts for each individual user. They will require both a username and password to be allowed access.
* This input will be case sensitive, as it always should be. This provides users with heightened security as it keeps even simpler passwords from being too guessable if cased properly.
* The system should inform the Admin of an issue with a user’s login after a predetermined amount of attempts to log in have been failed.

#### 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?*

* Users will be allowed to make the above-mentioned changes to their accounts without directly changing the code. This can be done through specific user level accessed settings to their accounts.
* The system will only adapt to platform updates as the user base grows and the need for more features arises.
* The internal IT Admin will require access to make any small adjustments or changes that are required. They will also be able to remove or add employee’s access as needed or requested.

#### 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?*

* For users to login, we will require a unique username and a password combination.
* To secure the exchanges between client and server, all network requests shall be done through HTTPS. This will help maintain security between any back-end applications and the end-users devices.
* To keep safe from brute force attacks, the accounts will temporarily disable after a predetermined number of incorrect attempts. Once disabled, the IT admin will be notified and be able to contact the end user to provide them steps on regaining access to their accounts.
* If a user forgets their password, they can select the “forgot password” option, where they will be prompted to provide the email address associated with their account. If an email is found matching their submission, a link will be sent to them prompting them for the submission of their new 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 require users to authenticate their identity. Access is then determined by the type of account when logged in.
* The system shall provide a detailed user activity report
* The system shall allow the option to reset passwords for existing accounts
* The system shall provide instructor feedback for a deeper understanding of lessons
* The system shall allow materials to be modified
* The system shall Track user activity, such as online reservations and exam scores.
* The system shall allow users to be reached out to by Admins and Instructors.

### 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 will need the following:**

Home Page.  
Registration Page.  
Account Setup Page.  
Reservations Page.  
Student Info Page.  
Courses and Instructional Page.

* **The user will need access to the following:**

Create Accounts.  
Read materials provided.  
Practice exam opportunities.  
Reservation scheduling ability.  
Feedback reception from instructors.

* **IT Admin will need access to thew following:**

Ability to view all registered accounts.  
Ability to reset passwords.  
Ability to modify materials in the system as new materials become available, or old material is phased out.

### 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?*

* I have assumed that all users will maintain a stable internet connection to access all available material.
* I have assumed that the audience that this system is marketed towards are young adults and teenagers, and that this implementation will garner more young traffic than in-office visits.

### 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 system is reliant on a stable and constant network connection from the user. This limits the user’s ability to make appointments, or even creating/deleting an account.
* The skills of current employees will need to be evaluated, as web-based developers will be needed for its creation and maintenance. Staff may need to be trained/hired to work on the project.

### 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 software application

Description automatically generated*