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CS-255

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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 main purpose for this project is to provide students with access to online exams for practice and on-the-road training to better prepare for driving tests.
* The client wants the system to take online classes, practice exams, schedule training, keep track of reservations, display the student’s information, and display driver notes from each training session.

### 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 their system to aid and help prepare students for there driving tests. Both the exam and on-road test.
* The problem that the client is facing currently is there are too many students failing their driving exams.
* The components needed are study materials, a progress bar, different enrollment packages available for the students, security measures, login functionality/ student details and DMV updates.

### 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 completed, it should be able to better prepare students for their exams and driving tests
* Some of the measurable tasks that are needed to be included in the system design is a progress bar, instructor notes, different positions for employees, scheduling appointments online, periodic updates from the DMV, a status bar and tracker for 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?*

* Android
* IOS
* Web Browser
* The system needs to be able to run fast enough for information to be updated efficiently on the web browser. It should also be seen on multiple applications as well.
* The system should receive updates if
  + New security measures
  + Crashing
  + Updates to the layout of the product
  + Updates on policy and regulations

#### 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?*

* Web Browser, preferably HTTPS
* Android
* IOS

#### 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?*

* Each user must enter their credentials (username and password) before they can access any information pertaining to the account.
* It will be case sensitive and require a symbol as well. This is because it is more secure this way.
* When too many attempts (I would say at least 3) have been made, the admins would be informed either do 1 of 3 things
  + Ask to reset password
  + Lock them out of the account for an x amount of time
  + Ask your security questions

#### 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?*

* Having the ability to change will be:
  + Adding in code
  + Removing code
  + Modifying code on the fly
* The updates would be handled by:
  + Rolling IOS updates frequently
  + Rolling Android updates frequently
  + Server maintenance on the main website.
* The IT admin would need:
  + Access to the source code
  + Ability to modify code
  + New regulations and laws passed from the DMV for updates on the different platforms

#### 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 login would be a secure function due to:
  + User will need to enter their username and password
  + Advise the user when network isn’t secure
  + Notify the user and admin that there account is at risk
* In the unlikely event a user forgets their password or username:
  + Have the option to reset their password
  + Contact support
  + Answer security questions

### 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 validate user information upon logging in.
* The system shall update documents and information between each individual platform.
* The system shall allow information to be changed on any platform.
* The system shall tell the progress of the classes and hours that are available.

### 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.)?*

* Depending on what platform the user uses the website
  + On desktop/laptop environments, the user will have a mouse and keyboard.
  + On mobile platforms will have touch controls.
  + The interface will have the following:
    - Test progression
    - Driver notes
    - Student information
    - Photo id (student/driver)

### 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?*

* My assumptions are based off
  + Most of the users would be tech savvy and know how to work a laptop/desktop, a phone with IOS built in and an android 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?*

* Some limitations could include:
  + Having a responsive website for both web and mobile devices
  + Phones having limited power comparatively to a desktop or laptop
* Limitations will account for any programming errors if the team receives a bug report.
* The budget should work within the means that we have now, unless if extra resources are need in case, they run into a security breach or a bug that persists.
* Technology limitations in my opinion do not exist, however when it comes to processing speed the desktop obviously outpaces a phone. So proper optimization needs to be considered for phones.

### 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, timeline

Description automatically generated