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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?*

* DriverPass wants a system built to better train students for their driving tests. The company wants to provide on-the-road training and to give the students the chance to take online classes and practice tests to help them get ready for their driving tests at the DMV.

### 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?*

* The system needs to be accessible from anywhere; online, and offline. (Company owner, Liam, clarifies that he wants to be able to download reports and certain information to Exel).
* The system needs to be able to have reservations made for driving lessons by the customers. It should have the time needed (two hours) and time and day for the reservation. Also, the name of the customer, the driver assigned to them, and the car is needed as well.
* System needs to have different levels of access; the “big boss” Liam, IT officer, Ian, and the secretary. Each person needs access to different levels of the system.
* Modification of the different packages available
* System needs to be run off the web, preferably over the cloud for better backup and security.

### 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 should be able to handle multiple users.
* The system should give the customer the ability to pick from the selected packages, set reservations with the time, day, location, assigned driver, and the car, and the ability to cancel or modify the reservation.
* The system should show the different levels of completion of the customer. (Including the driver notes, different tests taken, the score, and the status.)

## 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 needs to run off the web, over the cloud
* The system should be updated constantly so there are “minimal technical problems”.
* The system should also be updated when new requirements are known from the DMV regarding new rules, policies, or sample questions.
* The speed the system should run at should be fairly quick due to the different types of information and requests that might be being sent.

#### 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 system should run on different browsers on computers and mobile devices. These consist of Google Chrome, Safari, Bing, etc....
* The back end does require a database to store information gathered from the user and the system itself.

#### 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 will distinguish between different users by their usernames, passwords, and contact information.
* The input should be case-sensitive
* The system should inform the admin of a problem as soon as it is discovered, and what type of problem it is, with possible fixes.

#### 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 code does not necessarily have to change in order for changes to be made to the user’s profile or information.
* As long as the system is regularly updated to be up to date with these platforms, there should be no issue with the adaptability of the system.
* Depending on what the IT admin wishes to do, they would need access to user management tools and any administrative tool the system has.

#### 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 the user to log in, they need an account with an email and a password.
* The connection or data exchange between the client and the server can be secured by having different means of verification such as two factor authentication and/or a phone number or email linked to the account.
* If there is a “brute force” hacking attempt, the user and administrator should be notified and prompted to change the password for the account and to set up another method of authentication if not done already.
* If the user forgets their password, they should be able to use their email to recover it.
  + Ian wants to have full access to all accounts to reset them if a password is forgotten.

### 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 credentials when logging in.
* The system shall keep track of available times for appointments and already made appointments.
* The system shall keep note of what driver is assigned to what user.
* The system shall have customizable packages.
* The system shall receive notifications from the DMV regarding any changes in rules, polices, or sample questions.
* The system shall run off the web.

### 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 be seen and interacted with by the user.
* The different users for this interface are the customers and administrators.
* The customer should be able to:
  + Login
  + Access/update their information
  + See their progress and score
  + Schedule, cancel or modify appointments
  + View notes from the driver
  + View information on changed aspects such as DMV updates, appointment updates, and their upcoming lessons
  + Take the practice tests
* The Administrator should be able to:
  + Have access to all accounts
  + Block access to unauthorized users
  + View who made, canceled, or modified reservations
  + Print activity reports
  + Add or remove modules
  + Reset forgotten 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?*

* Some things that were not specifically addressed are:
  + The user might not know how to use the website
  + What happens if the user is late or absent
  + Whether the user has internet access or not
  + What happens if one of the cars is out of order
* Assumptions that were made in the design are
  + The interface will be easily navigated
  + The user will understand the different packages
  + The user has access to the internet
  + The user is using a compatible web browser

### 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 limitations that I see appearing would be:
  + Internet speeds and/or connection
    - Without stable internet, updates cannot be made, and information cannot be viewed.
  + The number of cars
    - Only a set number of clients can be tended to at a time due to only having the 10 cars

### 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 colorful rectangular object with black text

Description automatically generated with medium confidence