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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 aims to improve the quality of driver training by providing an online system that offers practice exams, lesson reservations, and on-the-road training for students preparing for their driving tests. The system seeks to address the high failure rate of students in DMV driving tests by providing comprehensive training tools and resources.

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 purpose of this project is for DriverPass to have a system that provides online access to driving practice exams, scheduling capabilities for on-the-

road training lessons, user accounts for customers to manage their reservations and reporting functionalities.

The problem is the lack of training tools that lead to high failure rates among driving test candidates. This way they can create a system that ensures students will receive thorough preparation. To execute this, the components needed is a User management system (different roles: admin, IT, customers), scheduling/reservation team, an online practive test platform, and reporting tools for activity tracking and compliance. To solve this, the components needed is a management system, such as an admin, IT, and customers, a scheduling/reservation management team, online practice test platform and reporting tools for activity tracking and compliance 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 completed, the system will provide online access to driving practice exams and training materials, allow customers to schedule, modify, or cancel lessons. Track user activities and system changes accountability and ensure that training content remains compliant with DMV updates.
- The measurable tasks needed to achieve this system design is the ability to complete practice tests online, users should be able to make reservations for lessons within specified time slots, and the system should generate activity reports with user modifications.

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?

- In terms of performance requirements, the system should be web-based, accessible from computers and mobile devices, response times for actions (reservation notifications/logging in), and should not exceed 3 seconds under normal load.
- Updates to the content should occur at least monthly or as the DMV changes.

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 major web browsers such as chrome, firefox and safari. A cloud-based solution will be preferred for a data storage and management.

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?

- User accounts should have unique identifies; the system must be case-sensitive for usernames and passwords.
- Admins should receive alerts for unauthorized access attempts or data anomalies.

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 IT admin could manage user roles and permissions without code changes.
- The system should be designed to accommodate future updates and feature additions seamlessly.

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 requires user authentication to secure passwords and maybe a two factor authentication.
- To secure the connection or data exchange between clients and servers is data transmission which must be encrypted.
- If there is a brutal force hacking attempt, accounts will lock after 5 or less unsuccessful login attempts and require admin intervention for reactivation.

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 allow customers to register for driving lessons online.
- - The system shall enable customers to modify or cancel existing reservations.
- - The system shall track changes made by users to reservations or account details.
- - The system shall provide reporting features for management oversight.

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 needs of the interface include Admin/IT having full access to users and system configurations. The secretary should be able to assist customers with scheduling and reservation changes. Customers should have a user-friendly interface for making reservations, accessing practice tests and viewing their account details.
- The interface should be accessible via web browsers and mobile devices, ensuring responsive design for usability across platforms.

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 assumptions include:

- Users have basic computer literacy and access to the internet.
- The DMV will provide timely updates on rules and regulations.
- Users will engage primarily through a web interface.

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 include budget constraints…
- The time limitations that could be seen are testing phases before launch,
- The limited resources include just getting started and then balancing all the different elements – design, content, functionality, and maintenance.

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.