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 purpose of this project is to assist DriverPass with developing an online Drivers Education program.
- The client wants direct access to all customer accounts, employee accounts, and reservation information in order to properly manage and maintain the data.
- The client wants the system to be an online system for customers to use in order to have access to driver lessons, in-person driving sessions, and in-person classes teaching rules and policies of 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?

- DriverPass has noticed that there is a void in the market when it comes to training students for their driver's test.
- DriverPass wants to take advantage of this void by providing customers with lessons, online tests, and online courses that will prepare the student for their exam.
- DriverPass is requesting a system that will help them provide easy to access training through an online service that will give customers access to driver lessons, in-person driving sessions, and in-person courses on DMV rules and policies.

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 client for this project is a company called DriverPass.
- Sam is the boss and Ian is the IT.

- The purpose of the project is to create a system that stores data about the following information for Sam and Ian to access and edit.
    - Customer accounts
    - Employee accounts
    - Customer reservations
    - Logs of who makes, modifies, and/or cancels reservations
    - Online access to data that can be downloaded and worked on offline
- The client would like the customer to be able to use the system to view their progress online.
- The customer should also be able to make, modify, and cancel their own personal reservations online.
    - When signing up the client will have access to three different tiered packages.
        - Package One: six hours in a car with a trainer
        - Package Two: Eight hours in a car with a trainer and an in-person lesson where DMV rules and policies are explained.
        - Package Three: Twelve hours in a car with a trainer, an in-person lesson where DMV rules and policies are explained, and access to the online class with all content and material, including practice tests.
- The information the customer will have access to is listed below
    - Test Progress (Lesson Time, Start Hour, End Hour, Driver Comments)
    - Information (first name, last name, address, city, state, zip, phone, email, etc...)
    - Driver notes
    - Special needs
    - Driver photo
    - Student photo
- Each of these features can be taken as a step in the process of completing the entire project.

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 will need to be able to run on a webpage. A webpage will allow wide access for all types of users. A companion application could be made that will have limited features but complement the webpage. For the best user experience the system should have quick load times. The system should be routinely updated every few weeks for routine maintenance and check-ups.

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?

- If the program is a webpage, then it should preferably be able to run on Safari, Chrome, and Internet Explorer. If the client would like an app then it should be able to run on Windows, MacOS, Android, and IOS. A backend database is required in order to store user information. There should be a database that stores reservations, user progress in courses, and user driving data.

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 can have a unique username, allowing the accounts to exist separately and distinctively from each other in the database. The input should not be case sensitive as this allows for easier usage and avoids usernames that are near identical. The system should inform the admin whenever an error occurs. If a user is attempting to use the page and experiences an error the program should report the issue to the admin.

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 users can be modified, added, and removed without changing the code. What would be changed is the database entries. However, there should be code that makes deleting, adding, and modifying easier. The system should be able to translate data to any new updates that may affect it. The IT admin should have full access in order to be able to manage and maintain the program, however, it is imperative to protect any user's personal information.

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?

- A user will need to use a username and password in order to log in. The passphrase should be case sensitive and require at least one capitol letter, a number, and a special character. Through the use of a cloud-based system we can take advantage of the secure connections that they already have built for online databases. A brute force hacking attempt should result in the account being locked. If a user's account is attempted to be logged into multiple times with differing wrong passwords, then the account should be locked. The account can be unlocked through email verification and changing the password. The user should have the option to select that they forgot their password, they should then be able to change it using email confirmation.

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 users when logging in
- The system shall store user information on a database
- The system shall allow admin access for maintenance
- The system shall securely process user payments when buying plans
- The system shall report errors when they occur
- The system shall allow users to update their account information
- The system shall have a webpage interface for users to use the program

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 should display to the user their information, their test progress, driver notes, special needs, driver photo, and student photo. The user should be able to access their account and make customizations or changes to their information. The user should be able to sign up for driving sessions and classes. The user should be able to select different payment plans for the tier they would like. The interface will be on a webpage and partial options will be available on an application.

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?

- The assumption is that the user has access to either a computer or a smart phone. The assumption is that the user will understand the interface and the program and be able to navigate it. The users should have an understanding of the driver's license earning process.

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 being fully online leads to limitations of users being able to track their schedule when offline. The system requires an internet connection to use. The system needs more support systems for users to contact support about errors or questions.

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.

Southern New Hampshire University

DriverPass Gantt Chart