Southern New Hampshire University

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?

Our client DriverPass offers a tutoring service to access a niche market in servicing customers who are preparing for the driving test at their local DMV. They seek to improve the success rate of the driving test by offering online classes, practice tests, and on-the-road training.

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?

- To offer a tutoring service to help customers pass their driving test, our client requires a system that:
- Allows customers to manage their accounts.
- Offers a way for customers to connect with their drivers to obtain feedback.
- Utilizes a database to store customer information.
- Complies with the DMV.
- Provides role-based access control.
- Will be hosted over the Cloud.
- Offers a scheduling system.

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?

- Customers should be able to make, modify, and cancel appointments, view their progress, access session feedback, and contact the company.
- The system should be accessible online and offline.

- IT users should have access to all accounts, with the ability to reset and block accounts.
- The owner should have full access, including full transparency and access to activity reports.
- The secretary should have access to accounts to create new accounts, edit customer information, and make appointments.
- Drivers should be able to at least provide feedback.
- The system should have a connection to the DMV via the internet to send notifications for any updates.
- The database should allow for the inclusion of the first name, last name, address, phone number, email, state, city, zip code, credit card number, expiration date, security code, pick-up location, and drop-off location for customers.
- Packages offers should be modifiable.
- The scheduling system should schedule in two-hour session blocks.

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 client requests that the system be run over the cloud. As performance requirements were not explicitly discussed, we will start with industry standards.
- The system shall achieve 99.9% uptime.
- The system shall have a response time of under 2 seconds under normal load conditions, and a latency under 200 ms.
- The system shall have weekly scheduled updates.

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?

- Since the system will be run over the cloud, the platform will be decided by the cloud provider.
- The system does require a database to store information about the customer, driver, car, online class, appointments, etc.
- The system will require an API to connect with the DMV to comply and give notifications for new updates to the DMV.

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 must validate user credentials to prevent unauthorized access.
- Input data must be validated in real-time.
- Input must be case-sensitive.
- Admins should be notified of a problem immediately.

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 can make changes to their accounts without changing code.
- Secretaries and Admins can make changes to other accounts without changing code.
- Admins can make changes to packages and access permissions without changing code.
- The system shall be adaptable to platform updates.

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 needs to input their credentials to log in.
- The system shall enact role-based access to prevent unauthorized access.
- The system shall encrypt data sent and received.
- The system shall enact a temporary lockout for repeated log-in attempts.
- The system shall offer a reset password mechanism.

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 have offline access.
- The system shall have downloadable reports.
- The system shall have role-based access.
- The system shall have record tracking.
- The system shall offer online reservations.
- The system shall pair and track users and drivers.
- The system shall allow users to make, cancel, and modify appointments online.
- The system shall have 3 packages with the ability to disable them.
- The system shall allow for the creation of new accounts.

- The system shall store customer account information, including address and financial information.
- The system shall have a notification system.
- The system shall have a progress tracker.
- The system shall display driver notes.
- The system shall have a contact page.
- The system shall have an input form.

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.)?

- Customers should be able to make, modify, and cancel reservations.
- The system should display online test progress to customers.
- The system should display driver notes to customers.
- Customers should be able to purchase packages.
- Secretaries should be able to register new customers.
- Secretaries should be able to make, modify, and cancel reservations for other customers.
- Admins should be able to reset passwords and restrict account access.
- Customers should be able to contact admins and secretaries, and admins and secretaries to contact customers.
- Customers can automatically reset their 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?

- It is assumed that users will be able to access the site.
- It is assumed that users will be able to navigate the site.
- It is assumed that users will input correct information into their account.
- It is assumed that the current system will continue to be improved upon.
- It is assumed that the current system will receive feedback.
- It is assumed that drivers can physically get to the customer.
- It is assumed that customers understand the packages.
- It is assumed that customers will be granted different access privileges based on the package they bought.
- It is assumed that there won't be any car issues.
- It is assumed that the system will encrypt data.
- It is assumed that the system will have a temporary lockout mechanism.
- It is assumed that the system can handle the user load.

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?

- There will be three teams working on the project.
- The project must be completed and deployed by May 10th.
- The system must offer three packages and allow them to be disabled.
- Admins must be able to restrict account access and reset password for other users.
- Testing must be completed by May 7th.
- Development must be completed by April 27th.
- Design must be completed by March 9th.
- The system must comply with the DMV.
- The system must be able to be accessed offline.
- The system must run over the cloud.

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.