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?

Purpose:

- The purpose of this app is to fill a void in preparing students for their drivers test through various means such as online courses, practice exams, and on road driving experience. The app records users information, practice test progress, and lesson driving notes to provide the help that students need to pass their test.

Client Info:

- The client is DrivePass. They're a small company led by owner Liam and tech lead Ian. They also have ten drivers that will provide on road services to students and a secretary that helps log lessons and manage online reservations..

System Capabilities:

- The system will be able to provide drivers test courses and practice exams then give feedback on the attempts. The users can have the option to buy one of three driving packages for on road experience. Users can make reservations and edit them all online. Lessons are tracked by the app and recorded by the student or secretary.

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?

System Expectations:

- The system admin will be granted access to reset user accounts when necessary and restrict account access from certain users. The data from the app will be accessible from anywhere as long as the user is online. The system will also get updates from the DMV to maintain updated

practices. The system will need to validate user authenticity for making or editing lesson reservations. The system will also be a cloud based web app.

Problem to Fix:

- The problem that DriverPass is trying to account for is students failing their drivers test. Liam seems to believe or have seen stats that show drivers ed schools aren't efficient and therefore is taking it upon himself to help students prepare for the DMV writing and driving exams.

Necessary Components:

- There are multiple components needed for this application. We need a user interface similar to how liam depicted. The business logic will be implemented into the system. We need a cloud service provider which can run the servers, host databases and make the majority of the backend with something such as firebase.

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?

End Goal:

- The end goal is to have the cloud based web app fully functioning. Providing support to multiple students across the country with test courses and exams. While all ten drivers are providing real world driving experience to local students. The application is fully functional on the web and assumingly across all platforms with the interface Liam depicted.

Measurable Tasks:

- The measurable tasks start with the gantt chart. Then the use cases, user interface designs and class diagrams. After receiving client approval we can build the UI and implement the business logic and backed cloud services. Then after rigorous testing we can ship the system and meet with the clients one last time. Despite the phase of development the product is in, it's ideal to have a functioning iteration of some sort to show progress after a few weeks of work.

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 driverpass needs us to create a web based application. Every time the DMV updates their regulations driverpass gets an update then they will update the site accordingly. The system needs to run smoothly and fast to prioritize the user's time.

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 needs to be accessible anywhere 24/7. In order to avoid having to run our servers constantly, we can buy what we need and use cloud based serverless development to create this system. This also makes the backend easily accessible to the database. The database is necessary to store users' driving logs, contact information, and security information.

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 users will have unique usernames and passwords. Their account will have their contact information and driving log. Passwords are encrypted in the system and case sensitive. The driver pass admin has privileges to reset the users passwords.

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 admin such as secretary or driving instructors will be able to enter information to the users logs without manipulating any code. The admin can also modify appointments with ease. You will not be able to add modules without accessing the code but you'll be able to disable them without touching code.

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 can login to the system from any computer browser as long as they have internet access. If a user fails to enter the correct password three times in a row a request to reset the password will begin and will be necessary to regain access to the account. Being a cloud based system the connection to the database and backend allows the server to be at rest until a client requests something.

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 accept valid username and passwords when authenticating login.

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 display the users online test progress, driver notes, user information, special needs, drivers photo, student photo and the company's logo. Online test progress will show a percentage of completion.

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 webapp will have a simple login interface to accept password and email or rest the password. Then after login this user interface previously mentioned will appear to act as a personalized main page. The user needs to have internet access to run the website.

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?

- Since the service is a web app there will be no ability to download the system. It’s cloud based; the platform's performance will depend on the chosen provider and the package selected. Therefore cost will directly correlate to performance and scope.

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.