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 is DriverPass
- The purpose of this project is to design a cloud web based system that will provide students with better driver training so they are prepared for the DMV drivers test
- The client would like the system to be able to give students access to online classes, practice exams and book in person 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?

- DriverPass noticed the need for better driver training since so many people fail the DMV driving test.
- The solution to this is to have the system provide students with easy access to online training content, book/cancel/modify on-the-road sessions, and track their progress.
- The system should provide the client with a cloud based website that is secure with granting access to specific users and able to download tracking data and reporting such as reservations, cancellations, modifications, cars, students, etc anywhere with internet access.

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 complete, students should be able to:
    - Create an account and enter in first name, last name, address, phone number, state, and their credit card number, expiration date, and security code.
    - Have access to online classes and practice exams
    - Book on-the-road training sessions by choosing one of three packages, then choose a driver, pickup/drop off location & time. Grant ability to cancel & modify session
    - Track their progress and access driving notes from the instructor
    - If forgot password, able to automatically reset it
- When complete, the system (and client) should be able to:

- Run as as a cloud based system on the internet
- Access data online by computer or mobile device to download reports
- Provide security by giving grant access to specific users depending on their role
- Track all reservations, cancelations, modifications and see which user made the changes last via downloaded activity report.
- Track users matched up with certain car, driver & time
- Disable packages as need
- Receive notifications from DMV of any updates

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?

- DriverPass needs to run as a web based application over the cloud
- The system needs to be accessible anywhere with internet access
- The system should be updated immediately whenever changes by the administrator are made

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 be able to run on all major platforms, therefore it should be managed in linux for more functionality
- The back end will be managed by the cloud, however will require a database that stores users 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?

- Each user will be able to make a username and password, the system should recognize that there should only be 1 instance of each username made.
- The input will be case sensitive to assist with security
- The system should inform the admin of a problem when directed by the user, or if bugs/glitches occur.

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 system will allow the administrators to add/remove/modify users without changing code

- When more features become available they will be introduced one by one to ensure full capability of the system
- IT admin will need need full access over all accounts so they can be reset if a user forgets their password, or if an employee is let go and access needs to be blocked. The IT admin will need to be able to maintain and modify the system as well.

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 will be required to enter a username and password to log in. Users will also be required to complete two factor authentication.
- To ensure data exchange between the client and the server is secure, we will implement SSL which secures communication between entities over a network.
- To avoid brute force hacking attempts, the system should disable the users IP address from accessing the website for any further attempts.
- If a user forgets their password, the user should be prompted to enter the email address and username they signed up with to receive a reset password link. The system should recognized that the username and email addresses match for further security

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 allow users to create an account and log into an account
- The system shall provide online classes and practice tests to users
- The system shall allow users to book, modify or cancel on-the-road training reservations
- The system shall track who booked, cancelled or modified reservations
- The system shall track users to the car, driver and the time scheduled for on-the-road training
- The system shall provide feedback on completed tests, quizzes and drivers lessons
- The system shall allow access to users based on their privileges

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 user interface should be interactive on mobile, tablet, and web interfaces
- The user interface needs to show online test progress, the time taken, score and status
- The user interface needs to show special needs, drivers photo and student photo
- The user interface needs to should drivers notes with the lesson time, start hour, end hour and drivers comments
- The user interface needs to show the users information such as their first & last name, address, phone and email
- The user interface should allow employees to make any changes to the users account

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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 users operating system will be up to date
- The client has a sufficient budget to provide us on the system we are building
- Easy access to technology

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?

- A limitation would include that there is only 5 months to build the system
- Another limitation is the amount of employees, due to the short time frame we may need more to get the system build
- A limitation would include that there was not budget set for the system

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.

Table 1