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 sections 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 hopes to bring to market a system to train students for the driving test at their local department of motor vehicles (DMV). It should be able to provide online classes and practice tests to enrolled students. It should also facilitate the scheduling of on-the-road driving instruction.

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 wishes to fill a void in the market, providing online - and in-person - instruction to students preparing for their driver's test with the DMV with the following components:
    - Provide tools to students to enroll and take online classes and practice tests
    - Provide tools to students and staff to schedule on-the-road instruction.
    - Provide administrative tools and reports to DriverPass management.

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?

- Administrative data can be accessed by DriverPass employees from any computer or mobile device.
- Different employees at the company will have different privileges and roles.
- Tracks who makes/changes/cancels a reservation or enrollment.
- Provide administrative activity reports.
- Enrollment can be accomplished online by students or by DriverPass employees over the phone.
- Enrolled students can access online classes and available practice tests from any computer or mobile device.

- The online test progress should show the tests taken and overall progress. It should indicate name, time taken, score, and status (not taken, in progress, failed, or passed).
- Support for several different on-the-road training packages with a different number of training hours and support options.
- On-the-road driving instruction can be reserved by the student online or by DriverPass employees over the phone. Reservations can be created, modified, or canceled.
- Internally, the system must be able to assign road instructions to available drivers.
- Driver needs to be able to log each lesson, its start and end time, and make comments.

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 should be a web-based system that has the following parameters:
    - Maximum uptime. The Services should be available as close to 24 hours a day, 365 days a year
    - Web pages should be responsive, i.e., look good on all types of devices with differing screen sizes and processor speeds
    - Web pages should load in under 5 seconds (Portent, 2019)
    - Payments need to be handled securely using industry-standard encryption and secure Https protocols.
    - The system should be able to be upgraded with hot-fixes for urgent issues such as security vulnerabilities, or significant bug fixes.
    - The system should have a regularly scheduled maintenance to ensure maximum up-time and to add or modify features.

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 any web-browser enable device with internet access, with support for the following Operating Systems, at a minimum:
    - Windows
    - Mac OS
    - Linux
    - Apple iOS
    - Android
- The backend will run on the Cloud with the following services:
    - Database Server

- Web Server
- Web Analytics services
- Secure payment transactions

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?

- Usernames will be the same as the email address provided during user setup, and therefore case-insensitive
- Admins should be immediately informed of potential security breaches with special attention to possible breaches of sensitive information stored within the system
- Admins should be immediately alerted to any system problems that threaten to shut down the system
- Admins should receive daily analytics reports describe the performance of the system

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?

- To use the system, a user need only register as a new user and provide a valid e-mail address or cell phone number, with their contact information - and a valid credit card.
- User information can be modified by the user, or administrators at the user's request.
- Users can be removed by an administrator. More often, the user account will just be disabled to maintain history within the system
- The technical IT Administrators need access to the Cloud resources and services and any analytical or debugging information available.
- Other administrative users may need access only to change content, assign drivers, and other strictly administrative tasks.
- The system's hotfixes and scheduled updates will run scripts that will replace system components and update Cloud resources as required for the issue being fixed

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?

- Multifactor Authentication will be required to access the system. A user must create a strong password and provide an e-mail address or cell phone number for authentication purposes.
- After multiple failed attempts, the account will be disabled and further action by the user and/or administrators to restore
- A user may reset the password by using a security question answer provided during account setup
- Users should be alerted if there is a strong suspicion that their account has been compromised

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."

- [Insert text]

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.)?

- [Insert text]

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?

- [Insert text]

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?

- [Insert text]

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.

[Insert chart]

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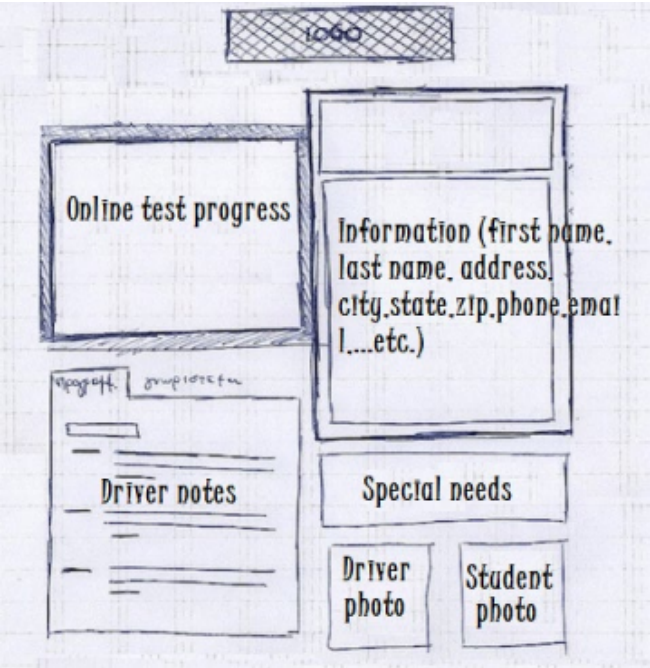
Addenda

Sample Student Landing Page



Sample Packages

Name	# Hours	Other Services
Package One	**6**	
Package Two	**8**	an in-person lesson where we explain the DMV rules and policies
Package Three	**12**	*plus* access to our online class with all the content and material. The online class also includes practice tests.

Sample Driver Log

Lesson Time	Start Hour	End Hour	Driver Comments

REFERENCES

Portent. (2019, August 20). Portent. https://www.portent.com/blog/analytics/research-site-speed-hurting-everyones-revenue.htm#:~:text=The%20first%205%20seconds%20of