**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 client, DriverPass, wants a system that can provide driving test training as well as 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?*

* The system should be able to provide practice tests for DMV tests and training to help prepare for the test. The system should also be able to provde on the road assistance, providing tips as the customer is actively driving. The system should also be able to store data offline for 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?*

* The system should be able to record all who interacts with an appointment for driving lessons (ie. who cancelled it, who interacted with it when and how, etc.).
* The customer should be able to set appointments for driving lessons in a 2 hour block for a specific date and time.
* The system should be able to track who is driving for the lesson and what car as well as the customer and time, of course.
* Certain roles have certain permissions: Liam will be able to have access to all functions. Ian will be able to modify the system, no really a functional requirement. The secretary will be able to set appointments. And finally, the customer will be able to set, modify, and cancel appointments online.
* The system will have 10 slots for cars, each one with a specified driver. The customer can pick form 3 packages: 1. Six hours with a driver. 2. Eight hours with a driver and also an in-person lesson where the rules and policies of the DMV are explained. 3. Twelve houts with a driver, everything in package 2, and access to online class with content and material and practice tests.
* The sessions are two hours max so the customer will be able to spread their package hours over multiple days in sessions of two hours at a time.
* For now, be able to disable or remove packages at Liam's discretion. In the future, the system should be able to add or remove these packaged at Liam's discretion with a devs or system analysts assistance.
* System should be able to register customer's using first name, last name, address, phone number, state, credit card number, expiration date, and security code. Customer should specify a pickup and dropoff location that must be the same.
* Password reset
* Notification system whenever the DMV updates their rules, policies, or sample questions.
* System should run on web, preferably cloud
* Idea of what webpage should look like
* 
* Should show online test progress of what tests have been taken and what is being completed using the following information: test name, time taken, score, and status. Can be in the following statuses: not taken, in progress, failed, passed.
* Driver should have notes in a similar fashion:
* 
* Contact page for customer to contact us
* Some medium to contact the customer

**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 at the least run in a web-based environment. Unless the business is on a large scale the requirement for an application is minimal to have a more customized environemnt that would work across mutiple operating systems.

**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 shoud run on Windows and MacOS. Unless Hemp's Crafts plans to use a mobile device for the purpose of soemthi nglike taking inventory there should be no need for the system to run on anything else. For the customer's purposes the system should also work on mobile, but I was unsure if this prompt was referring to just the system managmenet or the system as a whole. A database will be required to run the system to hol dinformation lik eorders and user 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?*

* A user sign-in system whould be utilized that utilizes case sensitive passowrds but non-case sensititve usernames, meaning any specific username (uppercase or lower case) should only exist once across all users. Logins fo radmins and employees shoud be specially made so that their roles can do certain things a customer couldn't depending on their position. the admin should be informed of all problems to relay that information to IT if it's a technical problem or assist eht customer if it's a business related problem. So if the database stops responding, if the customer's appointment is canceled, etc. But not every problem, things like too many login attempts of a customer is something that can be handled without admin intereference. The best way to put it is if there's something that needs assistance from the company itself it shoudl be informed 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?*

* Yes, the database will hold all the user data and thus simply having the code to add, remove, and edit users will be necessary. for platform updates the system should be constantly adapting to work with the latest release of the operating system/platform. The IT admin should have direct acces to modifying users by adding or removing them but not vital information (like address or card numbers) as the system can change that automatically. With IT, admin, and maybe customer agreeance (depending on the circumastances) they can be allowed to edit the sensititve information if for some reason the customer is having problems or wants assurance their informatio is removed.

**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?*

* For the user to login they must have their password and username. If the system requires more security things like 2fA can be implemented as well as security questions if they're logging in from an unfamiliar IP address. To secure the data in transit we coudl use end-to-end encryption so that if the data is intercepted it would be hard to decode and give more time to identify the dta breach. Things like secured connectiosn with HTTPS would be helpful as well as some other methods. For brute force hacking attempts, there shoudl be limited amount of sigh-in attempts over an unlimited or relatively long time period before the account locks and requires the user to contact the admin, IT, or go through the 2FA or security questions. If the user forgets their passowrd, if they have 2fA enabled they should get through that first then be sent a reset password link via their number or email.

**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 user login information such as username and password
* Teh system shall show customers purchasing options and prices as well as what each package presents
* Teh system shall send infromation like customer cart, previous purchases, address input, payment options input, etc to the database for quick access
* The system shall take user payment and submit appoints to the system
* The system shall be able to update availalble products and prices at the admin's command

**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 communicate available products nad practice tests, descriptions of them, prices, and appointment dates for the customer. The different users are customers, admin, IT, and employees. Customer should be able to shop effortlessly, IT should be able to update system and fix any backend mishaps, admin should be able to add, remove, or edit users.

**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?*

* I'm not addressing the need to choose specific dates that the instructor has preset or the specifics of when an appointment gets canceled or the progress checking of practice tests, etc.

**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?*

* This system's limitation will be in the form of still requiring user input, things like the confirmin gorders are complete to be on track can never be bypassed as long as the business has people who complete the orders. The budget is determined by the buyer of the system as well as the time. The resources will be whatever our development team consists of and depends on what language and development platform we use.

**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.*

