**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 purpose of this project is to create an easy to read, update, and edit student driver web application that can be accessed anywhere online for a company called DriverPass.

**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?*

* **Problem:** There is currently a significant amount of students that are failing their first driver's test. Their is also a lack of quality in online student driving education *.*
* **Solution:**
* **Frontend**: Create an excitng online student driving web application that allows students to take quizes, tests, schedule physical driving appointments and their view feedback, and stay up-to-date with the latest driving regulations and laws. Application is functional for all staff and their specific needs.
* **Backend**: Seperation of user accounts (*Admin* - full control/access over acounts and logs [Admin should have two accounts to ensure security], *Student* - setup/cancel driving appointments and access to the content of their own page, *Secretary* - access to all student's accounts with ability to setup/cancel driving appointments, *IT Department* - Access logs and account maintenance, *Driver* - view appointment info and log notes). Establish a user logs for aduiting purposes and to ensure security.

**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?*

* As a **student**, one should be able to sign in to their account. This will give them access to notes on their previous driving experiences, take online quizes and tests complient with the most recent DMV criteria, update their current personal information, and schedule or cancel their next driving exprience.
* As an **Admin**, I should have access to all accounts, their information, as well as their log history.
* As an **Driver**, I should be able to view my current driving appointments, and give review notes of each session to each individual student I was assigned.
* As a **Secretary**, I should be able to set/cancel appointments for every student account as well as update student's personal information if need be.
* As an **IT technician**, I should be able to create, disable, and delete accounts and view logs to maintain security and preformance.

**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?*

* DrivePass would like a web based application that is secured completely through the cloud. Updates to features would be at a miniumum. However, test and quizes must be held to the most current standards of the DMV rulebook.

**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?*

* DrivePass would like their site to be accessed from anywhere online. Meaning that students should have access to their content no matter the platform. A secure cloud based network and database will be required to support DrivePass's application.

**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 rights as to what a user can and cannot access should distigush the difference between users. The client would like all major user actions to be logged (ex. scheduling a inperson driver test, cancelations, etc...). This way, if an issue arises the client is able to figure out what exactly is going on. Emphasis on client wanting minimal focus on the technical, and more focus on business end.

**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?*

* Client doesn't want to do any hardcoding what so ever. However they would like basic admin rights over their database(Create, Read, Update, and Delete accounts on the website). If the client wishes to add new major features, it will have to be handled externally. IT admin should have access to logs as well as access and control to the database itself.

**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?*

* Username and password would be the requirements for logging in. Suggest requiring a minimum and maximum character length, use of symbols, and numbers for both username and password. Also the site should track the amount of attempts a user should attempt to login. Once the threshold is reached, user should be timed out for a set period of time. If the user forgets their password, should call the DrivePass directly to verify account and request a change one time only password. All logins and outs should be logged in the case of a future audit. I also recommend Admin use two different accounts, one for basic work, and other for Admin controls. This will decrease the chances of an attacker taking over the true Admin account.

**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 credentials when logging in
* The system shall create a log for all logins, and changes made to the system.
* The system shall alert the client when the DMV updates their information.
* The system shall be able to be accessed from anywhere online.
* The system shall be able to have different types of accounts with different types of accesses for each.
* The system shall be handled through the cloud.

**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 be simple, clean, and adhere to the clients give specifications. Their should be a couple of different types of layouts depending on which user is login. For example, a student should only have access to their schedule, their personal information, online test progress, and notes from previous driving practices. While the secretary should have access to over all other users accounts, and is able to update their infromation like driver's notes, contact information, and schedule appointments. The client would like a web application, and should be able to be viewed on both phone and desktop application.

**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?*

* How is the data from the previous system going to be transfered over to the website application? Do they already have a database? Do they want the the new application to interact with the old database, and if so does the database need to be updated or adjust in order to be complient with the new system? How are previous users going to be informed about the new system updates and how are they going to get access to their old account information? Does the client include this transfer of data in the timeline of implementation of the database.

**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?*

* Updating packages will definitely be a limitation to the overall application. Since their is no built in way for the client to create different packages on their own, the client must have these packages be outsourced in order to be created. Therefore their will be a delay to these updates which may disrupt business practices.

**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.*

