**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 develop an effective system for DriverPass, a company that provides training for driving tests. The client, Liam, who is the owner of DriverPass, seeks a system that enables better training for driving test students. He requires a platform that allows students to take online classes, practice tests, and schedule on-road training. The system also should support multiple user roles, have the ability to track user activity, and maintain up-to-date compliance with DMV rules and policies.]

**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 intends to address the need for better driver training, as many people fail their driving tests at the DMV. They require a system that handles online class provision, practice test administration, and driving lesson scheduling. The system must cater to different user roles, including the owner, IT officer, secretary, and customers, each with varying levels of access rights. It should support the handling of reservations, package management, customer registration, and password management. Additionally, it should maintain a link with the DMV for rule and policy updates. The system should run on the web, preferably over the cloud, ensuring the backup and security are appropriately handled.]

**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?*

* Allow customers to take online classes and practice tests.
* Enable customers to make, modify, and cancel reservations for driving lessons.
* Support multiple user roles with different access rights.
* Track changes made to records, such as reservations, and generate activity reports.
* Allow for flexible management of different lesson packages.
* Enable the collection of personal and payment details during customer registration.
* Provide a password reset feature for customers.
* Maintain currency with DMV rules and policies and notify relevant personnel of changes.
* Be capable of running on the web with robust security and backup mechanisms.
* Have an intuitive user interface that includes features such as an online test progress tracker and a driver notes section.

**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 operate in a cloud-based environment and be accessible via both desktop and mobile web browsers. The system should have a fast response time (ideally under 2 seconds) and should be updated with any new regulatory changes from the DMV promptly as they occur.

**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 platform-independent and should run smoothly on any operating system such as Windows, MacOS, or Unix. The back-end would require a relational database management system (RDBMS) such as MySQL to store and manage data.

**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 system will distinguish between different users based on their unique usernames. Inputs should not be case-sensitive to ensure user-friendliness. The system should alert the admin in the event of an issue such as multiple failed login attempts, a sudden spike in system usage, or if system health metrics exceed predefined thresholds.

**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 should allow for user roles to be modified without code changes through an admin interface. The system should be designed to be modular, allowing it to easily adapt to updates or changes in platform software. The IT admin should have full access to all system data and functions, including user account management, system configuration, and error reporting.

**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?*

* Users should be required to provide a unique username and a strong password to log in. The connection between the client and server should be secured using HTTPS. In case of multiple consecutive failed login attempts, the account should be temporarily locked. If a user forgets their password, they should be able to reset it via their registered email address.

**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 register and create a unique account.
* The system shall validate user credentials when logging in.
* The system shall provide an interface for booking driving lessons.
* The system shall send notifications for lesson reminders and DMV updates.
* The system shall generate reports for the admin.

**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 intuitive and user-friendly. Users include students, administrators, and instructors. Students need to book lessons, take online tests, and view their progress. Admins should be able to manage users, view reports, and manage lesson schedules. Users will interact with the interface through a web browser on both desktop and mobile devices.

**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?*

* We assume that users have access to stable internet connections and modern browsers. We also assume that DMV will provide the necessary updates in a digital format suitable for integration with our system.

**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?*

* One limitation of the system design is that it requires an internet connection for access. Offline features are limited to viewing downloaded reports. In terms of resources, we are constrained by budget and time, meaning we must prioritize key features in the initial rollout and potentially delay others.

**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.*

