**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?*

* This project's goal is to create a system for DriverPass, a business that wants to increase the percentage of students who pass their driving tests. They want the system to offer online practice exams on numerous subjects, as well as scheduling, monitoring, and payment integration for on-the-go 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?*

* To help students better prepare for their driving examinations, DriverPass wants the system to include online practice tests and on-the-road instruction. They seek to solve the issue of the high failure rate among students who just review past exams. User management, practice examinations, exam analysis and progress monitoring, scheduling of on-the-road training, payment integration, and user assistance are among the various elements required for this system.

**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?*

* Students should be able to schedule on-the-go training sessions, book online practice exams, and have access to the system's ability to monitor their progress and conduct secure financial transactions. Measurable tasks that could be incorporated into the system design include a user registration procedure, a database of sample exam questions, progress tracking and analytics capabilities, scheduling system integration, setting up a secure payment gateway, and user assistance interface design.

**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?*

* To ensure that students can easily access it, the system must operate in a web-based environment. To offer quick response times and a seamless user experience, the system's performance needs to be enhanced. The frequency of system updates will vary depending on a number of variables, but regular updates should be planned to add new practice test questions, uphold security precautions, and improve system operation based on user feedback.

**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 designed to run on multiple platforms to ensure compatibility and accessibility for a wide range of users. This could include platforms such as Windows, Unix, and others commonly used in web-based environments. The back end of the system would require a database to support storing and retrieving practice exam questions, user profiles, progress tracking data, and scheduling information for on-the-road training sessions.

**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?*

* During the registration process, the system may assign distinct user IDs or usernames to distinguish between various users. Depending on the system architecture and requirements, case may or may not be taken into consideration when entering usernames or IDs. Critical issues, such as technical failures, security breaches, or severe disruptions in the user experience that may affect the system's functionality or usability, should be immediately reported to the admin by 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?*

* In order to alter user profiles (add, remove, or amend), the system should not need to change the underlying code. A user management module that offers administrative features for managing user accounts can be implemented to do this. The system should be created utilizing a modular and scalable architecture, adhering to best practices and standards, to be able to react to platform modifications. This will make it simpler to integrate platform updates and lessen how much changes will affect the system as a whole. In order to maintain system configurations, carry out maintenance procedures, check system performance, and guarantee system security, the IT administrator often needs administrative access.

**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 normally need to enter a password and a legitimate username or email in order to log in. Secure socket layer (SSL) or transport layer security (TLS) protocols, which encrypt the communication, can be used to secure the connection and data transmission between the client and server. The system should implement safeguards like account lockouts or brief suspensions following a predetermined number of unsuccessful login attempts in order to prevent "brute force" hacking attempts. When a user forgets their password, the system should offer choices for password recovery, such as sending a password reset link to their registered email address or letting them respond to security questions to confirm their identity and reset their password securely.

**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.”*

* Offer user registration tools so that students can open new accounts.
* To provide secure access to the system, verify user credentials during the login process.

**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 must be simple to use and intuitive in order to meet the requirements of many users, including administrators, teachers, and students. Access to practice examinations, progress reviews, on-the-road training appointments, and payment processing should all be available to students. Administrators would need access to system administration tools, whilst instructors could need to view and control their availability for training sessions. To ensure cross-platform compatibility, the interface should be accessed using web browsers. It may also include a mobile-friendly version or a separate mobile app for convenience.

**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 system's technical infrastructure, including the hosting environment, server requirements, and database management system, is not particularly addressed in the above architecture. In order to interact with the system effectively, users must also have access to dependable internet connectivity and have the fundamental computer or mobile device literacy abilities.

**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?*

* In terms of system design, some limitations may include the lack of real-time feedback during practice exams, the potential challenge of accurately simulating the exact conditions of a driving test, and the reliance on user self-reporting for on-the-road training progress. As for resources, time, budget, and technology, limitations may exist in terms of the availability of skilled developers, the timeframe for development and deployment, the budget allocated for the project, and the need to adapt to evolving technology standards and compatibility requirements.

**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.*

