**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 design a system for DriverPass to provide online driving test preparation, including practice exams and on-the-road training scheduling. The system will enable students to register, schedule lessons, and take online practice exams while allowing administrative staff to manage appointments and monitor progress.

**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 aims to address the gap in driver education by offering online and in-person training options. The system must support online class registrations, reservations for driving sessions, student progress tracking, and secure access for different user roles. The key components of the system include:
* Online class and test platform
* Scheduling and reservation system
* User role management (Admin, IT, Secretary, Customer)
* Reporting and tracking functionalities
* Integration with DMV updates

**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?*

* Provide an accessible online platform for students to take practice driving tests.
* Enable students to schedule on-the-road driving lessons with instructors.
* Allow administrative staff to manage lesson schedules and track student progress.
* Implement security and role-based access control for different users.
* Ensure the system is web-based and cloud-hosted for accessibility and scalability.

**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 must be web-based and run efficiently on desktops, tablets, and mobile devices.
* The platform should handle multiple concurrent users without performance degradation.
* Data updates should occur in real-time.

**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 will be cloud-hosted to reduce local IT maintenance.
* It must support major browsers (Chrome, Firefox, Edge, Safari).
* The backend should use a database to store student records, schedules, and test results.

**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 must accurately track and log user activities, including appointments and test scores.
* It must prevent duplicate scheduling or data inconsistencies.

**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 modification of available training packages.
* IT Admins should have access to adjust user roles and permissions.
* The system should be able to accommodate future DMV policy changes.

**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?*

* User authentication with multi-factor authentication (MFA) for administrators.
* Secure encrypted data transmission.
* Automatic account lockout after multiple failed login attempts.
* Self-service password reset functionality.

**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 students to create and manage their accounts.
* The system shall enable students to schedule, modify, or cancel driving lessons.
* The system shall assign students to a trainer and vehicle based on availability.
* The system shall provide an interface for practice exams and track student scores.
* The system shall allow secretaries to book appointments on behalf of students.
* The system shall generate activity reports detailing reservations and changes.
* The system shall receive DMV updates and notify administrators of changes.

**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.)?*

* Customers should be able to access the system through a web-based portal.
* The interface should include dashboards for different user roles.
* The appointment system should allow users to filter by date, instructor, and package.

**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?*

* Users have access to the internet and a compatible web browser.
* DMV updates will be provided in a structured format that can be integrated into the system.
* Students will be responsible for remembering their login credentials or using the password reset feature.

**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?*

* Initial system development will not allow for user-modifiable training packages (future updates required for this feature).
* Only predefined lesson durations (two-hour sessions) will be available.
* System updates and maintenance will require scheduled downtime.

**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.*

