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 complete training and scheduling system for DriverPass.
- DriverPass wants a web-based platform where students can schedule driving lessons, access practice tests, and complete online lessons.
- The client is DriverPass, represented by Liam (Owner) and Ian (IT Officer)
- The goal is to provide students with flexible tools to increase pass rates on DMV driving tests.

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 noticed many students are failing DMV exams because they rely only on test memorization.
- The system needs to support: online classes, practice tests, driving lesson scheduling, and package management.
- It must be flexible for administrators and secure for all users.
- Role-based access is required to manage data integrity and privacy.

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 schedule, modify, and cancel driving lesson reservations online.
- Allow secretaries to manage lesson scheduling manually for phone or in-person bookings.
- Support different driving packages with multiple session options.
- Provide customers access to online training content and practice tests.
- Track user activities and changes made to the system.
- Offer downloadable reports for administrative review.
- Ensure secure login and password reset functionality.

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?

- Web-based application accessible from any browser or mobile device.
- The system should have minimal latency and quick load times.
- Regular updates should be easy to deploy from the cloud.

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 must be compatible with Windows, macOS, Android, and iOS.
- It must be hosted in the cloud to eliminate backup and security overhead.
- A secure database is required to manage user and scheduling 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 must distinguish users by role and login credentials.
- Input fields should validate data types and be case-insensitive where applicable.

- Admins should be alerted on unexpected input errors or system breaches.

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?

- Admins should be able to enable/disable packages without code changes.
- Role management should be editable by the IT Officer.
- The system should allow for future scalability and feature expansion.

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?

- Secure login with encrypted credentials.
- Account lockout after repeated failed login attempts.
- Password reset functionality through the web interface.
- Role-based access control for system functions and data.

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Functional Requirements

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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 log in.
- The system shall allow users to schedule, cancel, and modify appointments.
- The system shall store and display lesson times, instructors, and driver notes.
- The system shall track changes made by each user.
- The system shall allow administrative users to disable specific packages.
- The system shall allow report download in Excel format.
- The system shall notify the company when the DMV updates policies.

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User Interface

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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.)?

- Users: Owner, IT Officer, Secretary, and Customers.
- Customers need to schedule appointments, view lesson history, access online classes and tests.
- Admins require access to all records, reports, and account controls.
- Secretaries need to manage schedules and update user profiles.
- Interface should be browser and mobile-friendly.

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 internet access.
- Cloud hosting will be used.
- The DMV will cooperate in sending updates
- Secretaries are trained to use the interface properly.

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?

- Cannot add new modules without developer involvement.
- Project timelines are limited by team availability.
- System only supports English for now.
- Users must reset passwords online only (no phone support).

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.