5-2 Project One Submission

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# 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 aims to develop a system for DriverPass, a company that aims to provide better driver training for customers preparing for their driving tests at the DMV. The client wants the system to handle online classes, practice tests, and on-the-road training reservations. The system should allow customers to make, modify, and cancel appointments online while tracking user activity and offering various packages for driving lessons. Additionally, the system must be accessible online, support multiple user roles, and ensure up-to-date compliance with DMV requirements.

### 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 wants the system to improve driver training by offering online classes, practice tests, and on-the-road training for those preparing for their DMV driving tests. They want to fix the high failure rate at driving tests. The system should allow appointment scheduling, package selection, and progress tracking for customers while also providing user management, activity monitoring, and DMV compliance updates for the company. These components aim to create an efficient, user-friendly, and up-to-date training experience for the customers and the company.

### 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?*

* When completed, the system should enable customers to easily access online classes, practice tests, and schedule on-the-road training sessions. Measurable tasks to be included in the system design include appointment scheduling, modification, and cancellation, package selection and management, user activity tracking, and progress monitoring. Additionally, the system should ensure user management for various roles, secure data access, and maintain up-to-date compliance with DMV requirements. These tasks will help achieve an efficient, user-friendly, and well-rounded driver training experience.

## 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 run in web-based and mobile application environments, ensuring accessibility for a wide range of users. It should be designed for fast performance, providing quick response times to user interactions and efficient content loading. Regular updates should be implemented to maintain system security, improve performance, and add new features or training materials, with updates occurring at least every quarter or more frequently if necessary.

#### 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 run on popular platforms like Windows and Unix, ensuring compatibility with most users' devices. It will require a robust database to support the application, enabling efficient storage and retrieval of user data, training materials, and progress reports.

#### 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 users by using unique usernames. Input will not be case-sensitive to minimize user errors during data entry. The system will promptly inform the admin of any problem, such as data discrepancies or unauthorized access attempts, ensuring timely resolution.

#### 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 will allow user management (add/remove/modify) without changing the code, making it easy to maintain and update. It will be designed to adapt to platform updates seamlessly and ensure compatibility with future technological advancements. IT admins will have different access levels, enabling them to manage users and content without compromising security.

#### 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 must log in using a secure username and password combination. The connection between the client and the server will be encrypted, ensuring the data exchange remains secure. If a brute force hacking attempt is detected, the account will be locked, preventing unauthorized access. In case a user forgets their password, they will have the option to reset it through a secure, multi-step process.

### 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, provide access to the appropriate training content based on user roles, and track user progress to help them achieve their learning goals. It will also facilitate communication between users and trainers, enabling support and feedback throughout the training 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 interface should cater to the needs of various users, such as learners, trainers, and admins. Each user role will have specific functions and capabilities, ensuring a tailored experience. The interface will be accessible and responsive, allowing users to interact through multiple devices like mobile phones, tablets, and web browsers.

### 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 basic technical skills and are familiar with modern devices' standard navigation and interaction methods. Additionally, users can access reliable internet connections and up-to-date devices, ensuring a smooth and efficient learning experience.

### 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?*

* Some design limitations include resource, time, budget, and technology constraints, which may impact the system's efficiency and effectiveness. These limitations could lead to trade-offs in feature development or slower response times. Balancing these constraints while delivering a high-quality, user-friendly system will be a crucial challenge in design and development.

### 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.*

Gráfico

Descrição gerada automaticamente com confiança baixa