# 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?*

Our consulting company aims to deliver a robust and tailored system for our client, DriverPass, that meets their specific needs and objectives. The client, DriverPass, seeks to revolutionize driver training services by offering a comprehensive platform that combines online classes, practice tests, and on-the-road training sessions. Their primary goal is to address the existing gap in the market by providing superior driver training that prepares individuals effectively for their driving tests at the Department of Motor Vehicles (DMV).

DriverPass envisions a system that allows seamless access to training materials and resources from anywhere, online or offline. They aim to streamline the reservation process for driving lessons, enabling customers to schedule appointments conveniently through various channels, including online and through their office secretary. Additionally, the system should facilitate compliance with DMV regulations by staying updated with the latest rules, policies, and sample questions.

Key features DriverPass desires include:

* Access and Data Management: Ability to access training materials and data online or offline, while ensuring data integrity and preventing redundancy.
* Reservation Management: Capability for customers to schedule, modify, or cancel driving lesson appointments through multiple channels, including online and office visits.
* User Interface Design: A user-friendly interface that provides clear navigation and functionality, as outlined in Liam's provided sketch, including progress tracking and driver notes.
* Security and Reliability: A cloud-based system with robust security measures to protect sensitive customer information and ensure minimal technical issues.

### 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 identified a significant problem in society related to the quality of driver training and the high failure rate of individuals taking their driving tests at the Department of Motor Vehicles (DMV). They observed that many people fail their driving tests due to inadequate preparation and training, which can lead to frustration, inconvenience, and potential safety risks on the roads.
* To address this problem, DriverPass aims to offer a comprehensive solution that revolutionizes driver training services. Their solution involves providing a platform that combines various components, including online classes, practice tests, and on-the-road training sessions, to equip individuals with the necessary knowledge and skills to pass their driving tests successfully.
* By offering a holistic approach to driver training, DriverPass seeks to bridge the gap in the market and provide individuals with a reliable and effective means of preparing for their driving tests. Their solution emphasizes accessibility, convenience, and compliance with DMV regulations to ensure that customers receive high-quality training that aligns with industry standards.
* In essence, DriverPass's solution to the problem involves leveraging technology and innovative methods to transform the way driver training is delivered, ultimately improving the success rate of individuals obtaining their driver's licenses and promoting safer driving practices on the roads.

### 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 comprehensive driver training services to prepare individuals effectively for their driving tests at the Department of Motor Vehicles (DMV).
* Ensure convenient and accessible access to training materials and resources for customers, both online and offline.
* Streamline the reservation process for driving lessons by offering multiple channels for customers to schedule appointments.
* Stay compliant with DMV regulations and requirements by integrating with DMV systems to receive updates on rules, policies, and sample questions.
* Enhance customer satisfaction and efficiency in managing appointments through a user-friendly reservation management system.
* Increase the success rate of individuals obtaining their driver's licenses by offering high-quality and up-to-date training materials and practices.
* Revolutionize the driver training industry by providing a comprehensive and accessible driver training platform that addresses the needs of individuals seeking to obtain their driver's licenses.

## 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 needs to be web-based to ensure accessibility from anywhere, using any device with internet access. It should perform efficiently, with load times not exceeding two seconds for any functionality. Regular updates should occur monthly to incorporate the latest security patches, feature upgrades, and compliance adjustments.

#### 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, running on both Windows and Unix systems, ensuring broad accessibility. The back end will require a relational database management system (RDBMS) for data storage and retrieval operations to support this application.

#### 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?*

* User roles will distinguish between different users with a role-based access control system. The input will not be case-sensitive to enhance user-friendliness. The system will inform the admin of critical problems, such as security breaches or system failures, immediately via automated alerts.

#### 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 administrative users to add, remove, or modify user profiles without the need for direct code changes through a dedicated admin panel. It will support platform updates without service interruption and provide IT admins with superuser access for critical system management tasks.

#### 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 will require a username and password to log in, with optional two-factor authentication for enhanced security. The system will use HTTPS to secure the connection and data exchange. After three unsuccessful login attempts, accounts will be temporarily locked to prevent brute force attacks. Users will have the ability to reset forgotten passwords via a secure email link.

### 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.
* The system shall allow users to schedule, modify, and cancel appointments through an online interface.
* The system shall provide real-time updates from the DMV regarding rules, policies, and sample questions.
* The system shall generate and download reports on user activities and system performance.

### 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 needs to be intuitive and responsive, accessible via mobile and web browsers. Different users, including administrators, staff, and clients, will use the interface. Clients should be able to book and manage appointments, administrators should manage user roles and system settings, and staff should handle customer queries and backend operations.

### 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?*

* It is assumed that all users will have basic internet literacy and access to a stable internet connection. The system assumes the availability of modern web browsers on user devices for optimal performance.

### Limitations

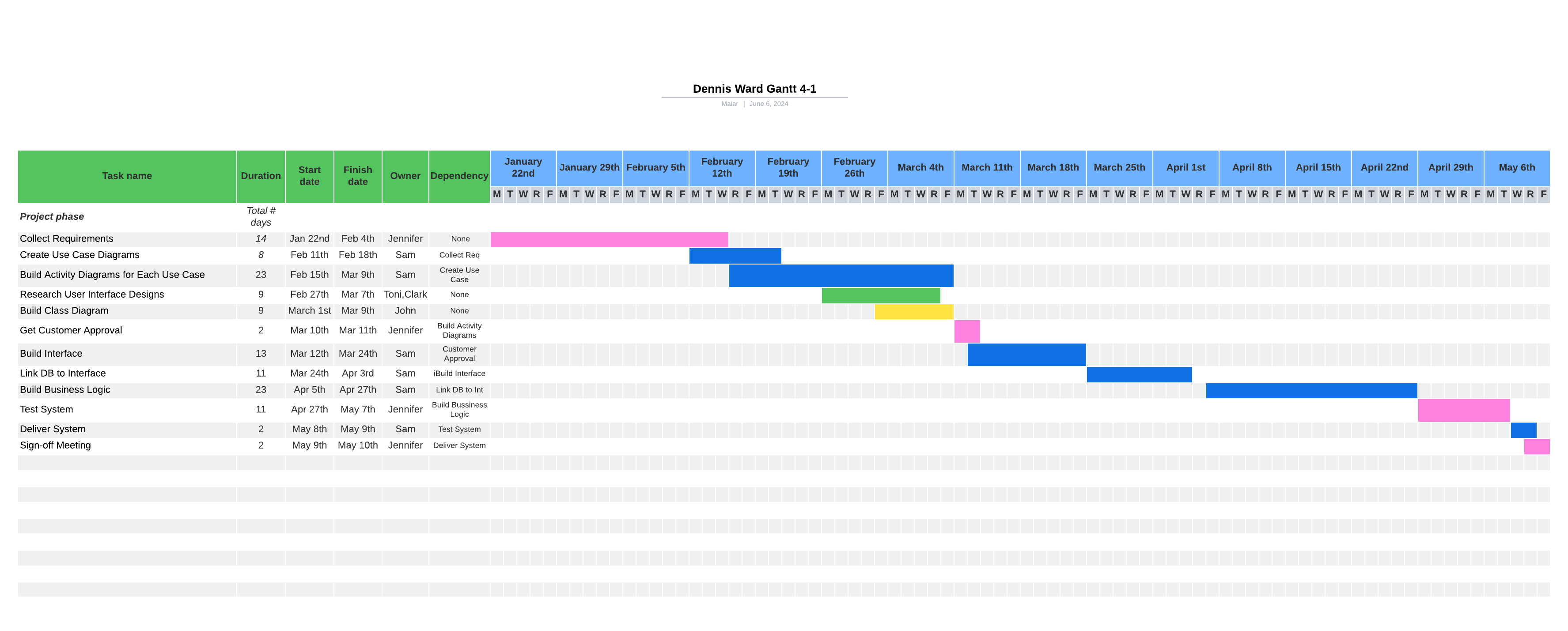
*Any system you build will naturally have limitations. What limitations do you see in your system design? What limitations do you have as far as resources, time, budget, or technology?*

* The primary limitations include budgetary constraints that may affect the choice of technology and the scope of initial features. Time constraints for development cycles may limit the number of features that can be implemented initially. The system's performance might also vary based on user device capabilities and internet speeds.

### 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.*

[Insert chart]

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