# 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 provide a platform for students to study more adequately and prepare for their driving tests. To meet this end, Driver Pass includes online classes, practice tests and on-road training. This platform aims to enhance the accessibility of training and learning resources.

### 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 is owned by Liam, and the goal of this system is to address the high failure rates of driving tests at the DMV. This company is aiming to offer more comprehensive training through a combination of online and in-person methods. The DriverPass system is envisioned as an efficient UI and core of the service housing many different quality of life services to further the goal of offering an intuitive learning experience. The components required are the UI, lesson management, customer interactions and internal services.

### 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?*

* The system should be able to allow for easy access to data both online and offline.
* Allow the system to support varied user roles with appropriate access to services and functionality.
* Facilitate booking, modification and cancellation of driving lessons.
* Track data for record keeping and scores.
* Maintain compliance with DMV requirements to ensure a consistent experience between DMV materials and DriverPass.

## 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?*

* Environments that this system would need to run in is ideally both web-based and mobile applications. The system should be optimized for speed, and updated regularly as DMV regulations change constantly.

#### 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 mainly web-based, cloud-hosted and mitigating the technical requirements and maintenance by the client. The database is a requirement for holding test scores and personal information.

#### 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?*

* There would be different user roles for both admins, students and instructors. Data stored should be case-sensitive to ensure accuracy of the data provided, and inform the admins of problems if the user commits too many password guesses and is locked out of their account for some reason, or if there are inconsistencies with the data provided.

#### 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?*

* Yes, there should be an implemented front-end interface for users to manipulate their own data, so long as it is verified by the system and ensured of its accuracy. The system’s database would constantly be adaptable to platform updated whether it’s in regards to a user changing their information, or updates regarding the DMV regulations. The IT admin would require access to the platform data, save for user information as the systems should be able to manage this itself in regards to verification.

#### 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?*

* The requirements for a user to log in would be a username/email, password and a photo. We would secure the data exchange and information by encrypting any data being passed between peripherals of the system. If there is a brute force hacking attempt, the account should be locked out and the password reset after 5 unsuccessful attempts. If the user forgets their password, they can have an email sent to them to click a link and create a new password.

### 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
* The system shall allow different levels of access based on the user’s role.
* The system shall enable customers to make, modify and cancel reservations for driving lessons online.
* The system shall provide a platform for the IT Officer to reset passwords and block user accounts as needed.
* The system shall track and record all user actions regarding reservations, modifications, and cancellations.
* The system shall generate reports on user activity, including details on reservations made, modified or cancelled.
* The system shall support the creation, modification and disabling of training packages by the system administrator.
* The system shall securely process and store personal payment information for customers.
* The system shall automatically update training information in cooperation with updates to DMV requirements.
* The system shall be accessible via web browsers for any device.
* The system shall offer offline support for viewing downloaded reports and information, except for data modification.

### 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 needs of the interface are that it needs to include many different sections for user information, such as photos, results of online tests, driver notes, special needs and personal information. The different users are Owners, IT Officers, Secretaries and Customers.
  + Owners will have access to reports and dashboards for business oversight, including user activity, financial reports and package data/performance.
  + IT Officers will have the ability to verify users and black users as necessary, security management and system configuration.
  + Secretaries will be able to schedule and manage appointments, customer information and regular logistics.
  + Customers should be able to register with a friendly user interface, schedule lessons, access training materials and view their progress.
* The users will interact with the service through web browsers through mobile and desktop devices. This ensures ease of use and accessibility across many different types of devices.

### 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 users have access to the internet for online functionalities as well as accessing the platform in general.
* We also assume that the DMV will issue updates in a standardized format and with regular timing so it may be easily integrated into the training content.
* We assume that users have basic technological literacy in regards to computers and web browsers, allowing them to use the system without extensive training.
* Finally, we assume that the cloud platforms in which we host our services are capable of providing the necessary security and performance capabilities required for the system’s operation.

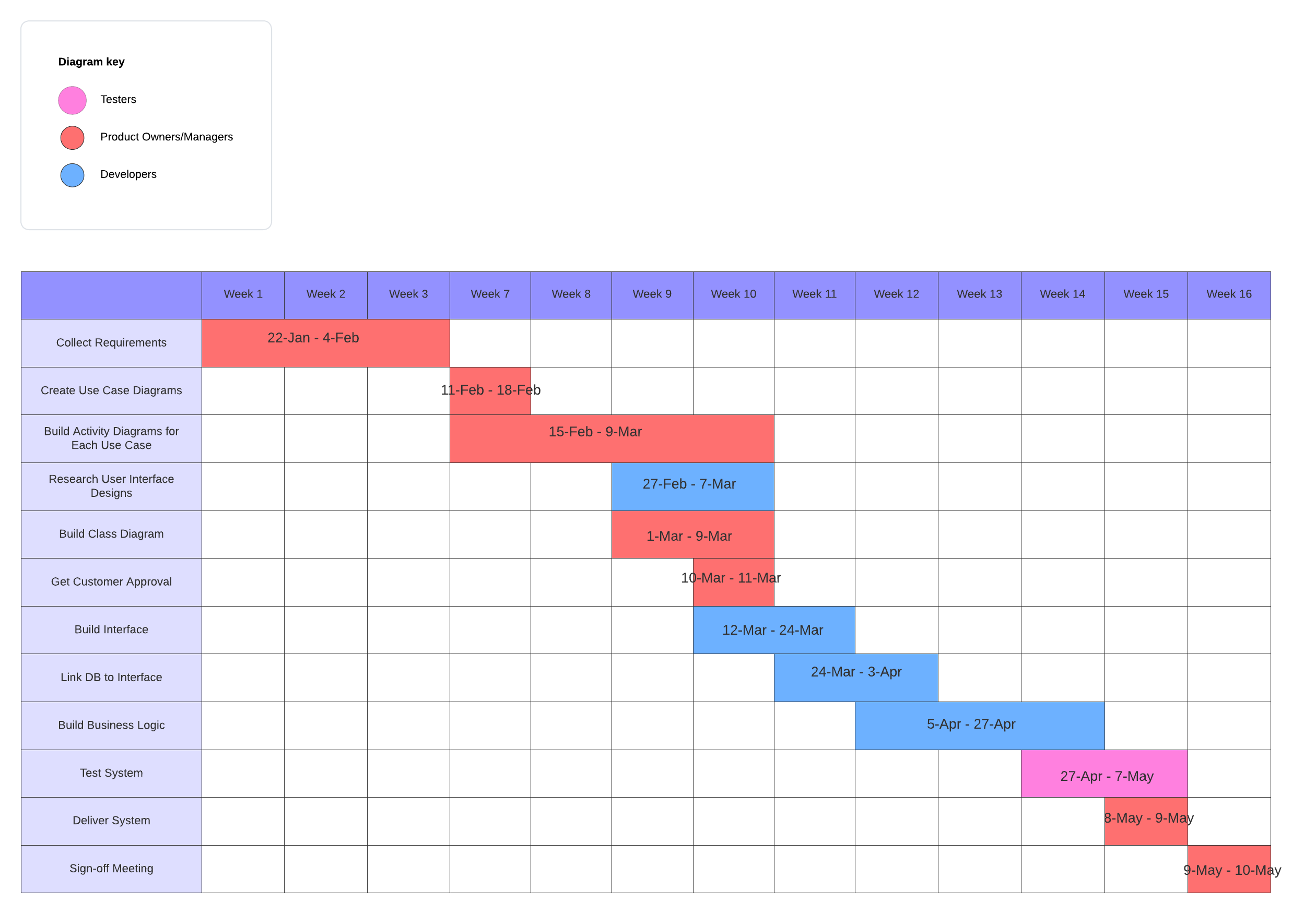
### Limitations

*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?*

* Offline functionality is limited, only allowing for the viewing of downloaded materials.
* System customization in the future could be costly in both time and resources.
* The initial system design may be very limited due to the resource limitations at the beginning.
* Technology limitations affect the system’s adaptability to all potential devices or browsers, especially older ones.

### 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.*

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