# 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?*

Develop an easy to use system for DriverPass that lets students take online practice exams, schedule on the road training, and improve their chances of passing the official driving test.

### 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?*

* Provide better driver training.
* DriverPass aims to reduce high test failure rates at the DMV.
* The system should have online classes, practice tests, on the road training, and data access anywhere. This would include user accounts, scheduling, tracking, and reporting functions.

### 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?*

* Create user accounts
* Take online practice exams
* Be able to schedule on the road training sessions
* Be able to access resources, and progress reports
* Should be able to manage accounts
* Should be able to track training progress and generate reports
* Should be compliant with DMV updates
* Should have secure data

## 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?*

* Needs to run as a web based application.
* Needs to be accessible for any device with an internet connection.
* Needs to be updated real time.
* Needs fast response times for various interactions with the web application.
* Needs to be updated regularly, through scheduled updates, to make sure system is secure, and functional.

#### 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 application should be compatible with the major operating systems, like Windows, MacOs, Linux, and mobile platforms such as IOS, and Android.
* We will need a big backend for storing User data securely. For this we need to use something like MySQL. For this we need to consider building a secure application to protect user 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?*

* Input validation should be case sensitive.
* System should recognize if a user already exists so duplicate accounts are not made.
* Use user identification.
* System admins should be notified of suspicious activity, or any significant problems.

#### 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?*

* Changes to users roles, and permissions should be possible without code changes.
* Should adapt seamlessly to platform updates.
* IT admins need full access to modify and maintain system configurations.

#### 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 needs a password to access accout. Two factor authentication.
* Data exchanges between the client and server must be encrypted using SSL/TLS protocols.
* Allows user to reset password through a secure link, and security questions that only the user will know.
* If user attempts to enter the wrong password too many times, or too quickly too many times, then the account should get locked out.
* System should notify the account owner of any attempts to login via email on file, and should notify the user if attempts are made to login.

### 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 upon login.
* The system shall allow for users to register for, schedule, and modify driving lessons.
* The system shall track user activity, and any changes that the system might undergo.
* The system shall create reports that the user can see and download. This is for progress of the user with the lessons, and also their overall training session details.
* The system shall give administrators power to manage user accounts and access to the system.
* The system shall integrate seamlessly to the DMV for updates in policies, rules, and procedures.

### 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 must be user friendly for every user.
* People that will most likely be using the system are driving students, administrators of the systems, and secretaries.
* Students should be able to create their own account, participate in training, take exams, and track their progress. They should also be able to schedule on the road training.
* Admins should be able to manage user accounts, view activity on the account, and also create reports.
* Secretaries should be able to schedule appointments, and manage the appointments.

### 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?*

* Some assumptions are that the user should be able to know how to connect to the internet, or have internet connections. Also that the user is competent enough to navigate basic tasks on a computer system. The system should be up to date enough to be able to connect on their browser, and if not know how to update their browser to have the best experience.

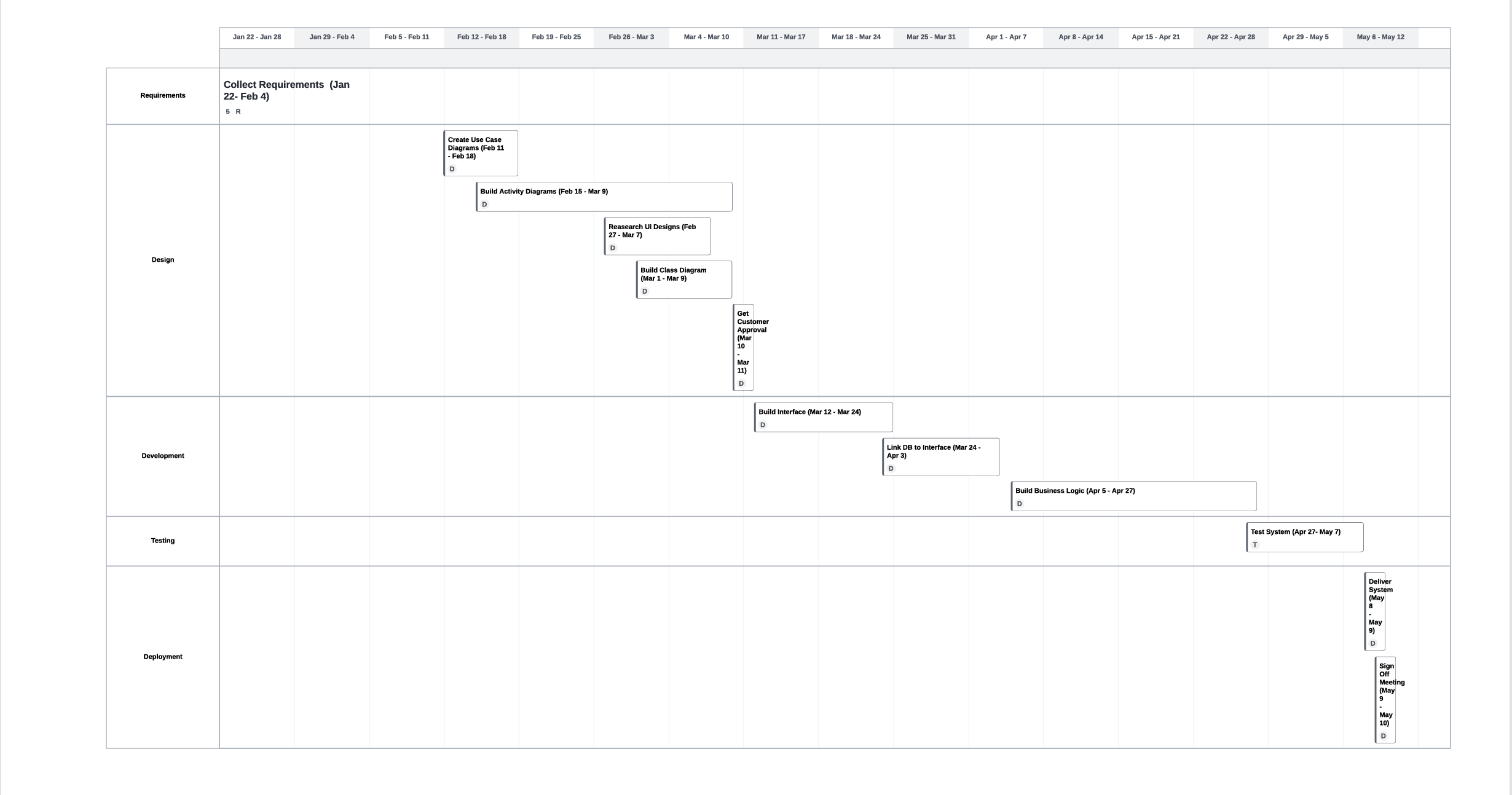
### Limitations

*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?*

* Overall budget could limit the system in terms of using the most advanced and best tools, and implementations to create the system.
* Time could be of the issue. Testing and development could take longer then expected. Testing should be done on different O/S systems to ensure that the system is running as asked. This can take time and resources.
* The platforms we are developing on could impact the specific tools that we will use for developing the system. This kind of ties into the budget and time listed above.

### 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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