# 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 client DriverPass would like to create an online resource for prospective drivers to use in order to help them prepare for a driving test. The resource will provide the perspective driver with online testing materials to study from, online practice written tests, as well as an in person driving lesson appointment scheduling feature.

### 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 would like a system that is user friendly bot only for their clients, but for administrators like IT and customer service representatives as well. DriverPass clients should be able to sign up and pay for a DriverPass package deal on the system as well as access training materials, practice tests, and be able to schedule and pay for an in person driving lesson within the system.
* Administrators should also be able to access user data with proper authentication and authorization. Many student drivers fail their first driving lesson because of a lack of training/studying resources available, this is the niche market that we are trying to appeal to.

### 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 DriverPass system should be able to let users select, pay for, and sign up for a certain DriverPass package, view student progress as well as instructor notes on their unique profile, schedule and pay for an in person driving lesson, cancel unperson driving training, have access to training materials including study materials and practice tests.
* Administrators who were properly authenticated and are authorized to access client information should have access to user data and user data should be able to be extracted to a CSV file for administrators to keep track of business trends within the system.

## 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?*

* This system should be available in an application style compatible with both iOS and Android operating systems. The system should also be accessible online via web browser with internet access.
* System should take no longer than 10 seconds to respond.
* System should be updated whenever a new feature is added or any bugs are fixed and will notify users 24 hours before any site maintenance or updates take place that require the site to be off line. Any system maintenance will take place during overnight hours when the site is least active.

#### 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 platform our system will run on will be linux.
* This system will require a database to support the application. We plan on using a cloud based database.

#### 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?*

* Every user including administrators will hav a unique case sensitive username and password. Administrator users and client users will have different levels of what data they are authorized to view and/or change. We will implement a two-factor user authentication to ensure that users are only able to view/change data that they are explicitly authorized to view/manipulate.
* Any internal errors or bugs that the system comes across will immediately notify administrators. At this point the administrator can either decide to perform site maintenance and/or track, respond to, and fix any specific user issue.

#### 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?*

* Administrators will have the ability to make changes to individual users the same way a user can make changes to their own information without having to change any actual programming code within the system.
* We will adapt to platform updates the same way we will adapt to any changes in the market. When the market dictates a change within the system is needed site maintenance will be scheduled once all requirements for the update are finalized. Updates are scheduled ahead of time in order to give users notice of a possible site shut down for maintenance.
* IT admin need full access to each users authorization level and have the ability to change what data each user is authorized to view and manipulate.

#### 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?*

* We will require a two factor user authentication possibly using either google, Facebook, or apple as well as a unique case-sensitive username and password to authenticate users and ensure no one is accessing and/or a users private data that should not be.
* Cloud technologies will also add a security layer of security when it comes to data exchange between user and server.
* After three incorrect logins our user will locked out of their account for one hour, this can be overridden if the user contacts customer service and answers a security question correctly that they provided at the time of registration and someone with administrator authorization overrides the locked account.
* Once the account is unlocked after an hour and the user provides three more unsuccessful attempts to log in the account will be locked for good until the user contacts customer support and successfully provides an answer to the security question.
* This should not affect users who have forgotten their password. These users could simply select the “forgot my password” button at the time of log in instead of guessing for a password. The “forgot my password” button will as the user for an email and if this email is associated with a registered account a secure link to reset the users password will be sent to that email account. Assuming that user is the only person with access to that account, this will allow the user to securely access their data on DriverPass.

### 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 will use two-factor authentication at the time of log in, so that the system will give users proper data authorization based off of who they are authorized as.
* The system will provide a unique user profile displaying their progress, opportunities to improve, instructor comments, links to online study material as well as tests and quizzes.
* The system will provide the user with the ability to select and pay for packages that provide DriverPass services at value, as well as the ability to schedule and pay for an in person driving lesson.
* The system should allow for users to add a pickup/dropoff point for in person driving lessons as well as provide the user with information about the specific car and a photo of the instructor they will be working with.
* System must have special admin. accessibility and be able to authenticate administrators during time of login.
* System will notify users about any upcoming in person appointments, progress updates, and comments posted by their selected instructor, and notify instructors about any upcoming appointments or feedback that is due.
* System will allow for the upload/ download of files by users and administrators.
* The system will access and display accurate and current progress information based on user/instructor login information.

### 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 our interface are the ability to display a unique profile that includes unique user data and matches unique log in credentials.
* Provide the option to schedule and pay for in person driving lessons and/or a DriverPass discount package of services.
* Administrative users and client users will have access to different data and capabilities and the administrative user should be allowed to make changes to others users data and the type of information users are allowed to access.
* The interface should be able to operate from an application or web browser environment as long as there is internet access.

### 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?*

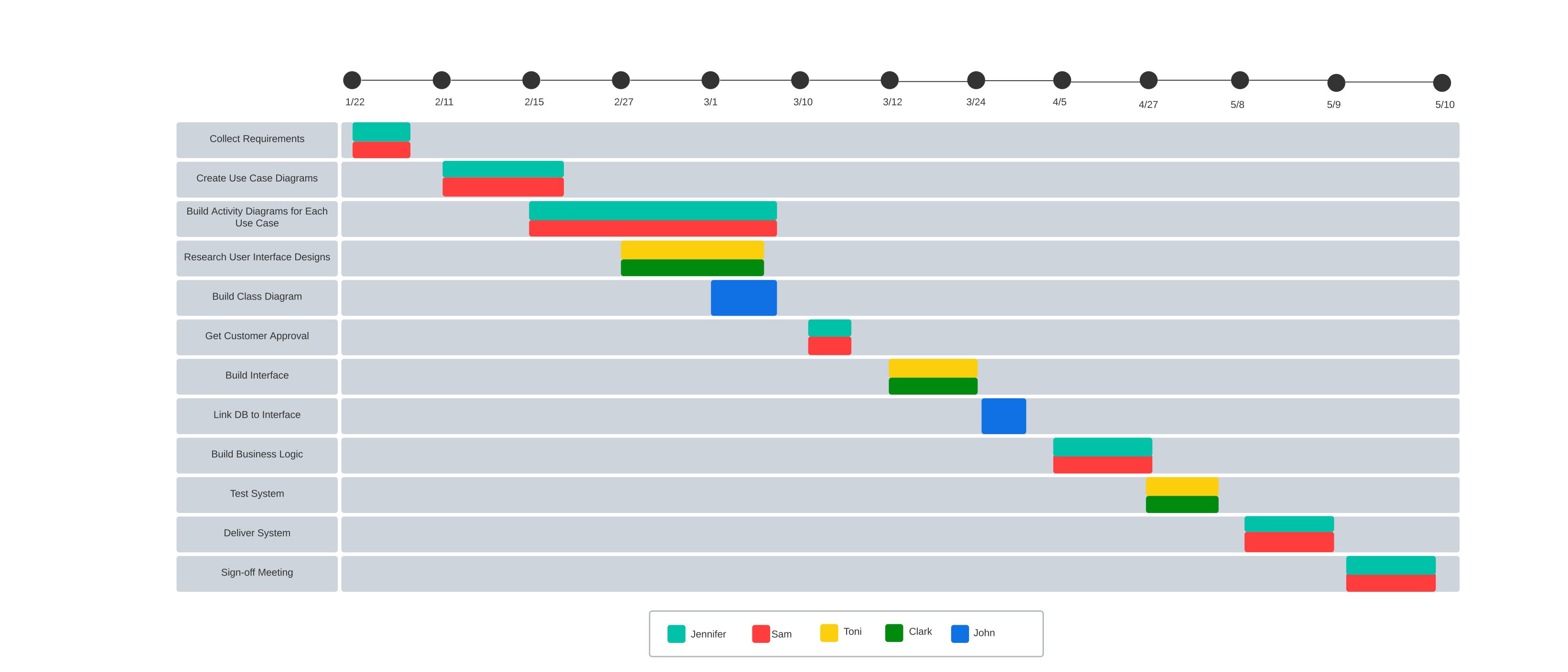
* User has internet access via mobile browser or mobile phone.
* User has either fully registered and has chosen unique log in credentials with DriverPass or is employed by DriverPass and has been granted administrator access.
* User has active email address.

### 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?*

* *System is not accessible without internet access.*
* *System is not accessible unless user provides active email address*
* *System is not accessible without unique username and password.*

### 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.*