# Summary

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. 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. The goal is to complete each section based on your client's needs.

# 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 is DriverPass
* They want their system to be a resource for new drivers that want extra training for driving tests that the DMV doesn’t provide.
* Their system includes online courses, practice tests, and appointment reservation systems for in person training.
* Their purpose is to help people preparing to take the driving test at the DMV.

### 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 to fix the lack of preparation resources for DMV driving tests.
* Components include online tests, online quizzes, and packages for online purchase that include in person driving and training.
* They would like their user profile to show test scores and instructor notes.
* The system should stay connected to the DMV system on the backend to get updates of new information.
* Backups should be made automatically by the system so that they don’t have to spend the time making those backups.
* The system will need different roles on the backend to help manage reservations, manage user accounts, and manage packages.

### 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 website should have a progress page with test scores and driver notes, a fill-in form page to enter their information, a contact page, and a page for the company to contact the student.
* The application should have a full payment system to handle payment from the users.
* The app should be autonomous in management tasks like backups for minimal technical work on the company’s end, like password resets and data backups.

## 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?*

* DriverPass should run as a web-based system.
* Web pages should load within a few seconds and functionality like modifying reservations should also complete quickly.
* System information relating to DMV test information should update any time the DMV updates their test information.
* Information for online classes and quizzes should also be updated often for classes and quizzes to stay up to date.

#### 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?*

* Since this application is a web based application, it will run on any client system that can run a web browser.
* The back end will require a database to store reservations, account information, DMV information, and purchasable packages.

#### 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 application should differentiate between different users by using the user’s email address, and authenticating with a password.
* Email address input should not be case sensitive, but password input should be case sensitive.
* There should be an alert sent to the admin with critical back end errors, consistent errors on client end, and any time the application has crashed.

#### 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?*

* If the user accounts are stored in a database on the server, they can be changed without changing any application code.
* The system will have little to no affect from these changes in the database since it pulls the information when the user requests it so once a change is made it’s ready for the next user request.
* The IT Admin will need full access to this database and the class and quiz information database.
* He will need access to modify any of the information in the databases to make changes that he will inevitably need to make.

#### 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 application must use HTTPS to ensure password communication is secure and encrypted.
* A password is required for any user to log into the system.
* Brute force hacking attempts should be prevented by tracking bulk login requests from similar IP address locations, blocking email addresses and even locking the account until an IT admin can unlock it.
* If the user forgets their password, they should be able to use the automatic password reset feature from the main login page that sends a secure password reset link to their email.

### 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 provide test scores, quiz scores, and instructor notes on the user’s profile page.
* The system shall allow users to reset their passwords if they can’t log in.
* The system shall provide a payment system to purchase online driving packages.
* The system shall allow the system admin to unlock accounts and reset account passwords.
* The system shall allow the secretary to make and modify reservations.

### 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.)?*

* We will need a user profile page to show the user all their information.
* There needs to be an interface to take quizzes.
* There needs to be an interface to navigate online class material.
* There needs to be a log in page for users to log in with.
* There needs to be an account settings page to reset passwords or change user information.
* There needs to be a package purchase page.
* There needs to be a checkout and purchase complete page.
* There needs to be an admin page to modify accounts and reset account passwords.
* There needs to be a password reset page.
* There needs to be a reservation page where users can make and modify their own reservations.
* There needs to be a administration reservation page where DriverPass staff can modify and make reservations for users.
* The interface should be computer and mobile friendly so it can be accessed by both.

### 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 are assuming that the users have an email address they can log into the website with.
* We’re also assuming that they are computer savvy enough to navigate the online class material and quizzes.
* We are assuming that users will access the webpage with a computer or with a mobile device and not with other platforms of web browsing like video game consoles or smart fridges.
* We assume that users will have a consistent active network connection to access the application with and that they will always use the application online.

### 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?*

* Because DriverPass will be a web application, the boss will not be able to work through the system when he’s offline.
* Additionally, users will also have to be online to work on their online classes, quizzes, and to access profile data.
* All management tools that DriverPass is expecting needs to be usable without too much technical knowledge like programming or database modification.
* A budget was not discussed in the meetings we had with DriverPass thus far, but we should make sure we communicate with them what their budget is so that we are aware of what that financial limitation would be.

### 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.*

