# CS 255 Business Requirements Document

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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 client is DriverPass, and the owner of the company is Liam
* They are looking for a system that provides students preparing to take their driver’s test at the DMV with online classes and practice tests, as well as the ability to make reservations for in-person driving lessons with their driver’s.

### 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?*

* The client wants the system to fix the difficulty that exists for students looking to prepare for their driver’s test easily
* The system should be a one-stop place for students to comfortably take classes to learn the required information, as well as take practice tests that help them get ready for the written test at the DMV
* The system should also provide students with an easy way to schedule in-person driving lessons to get hands-on training from professionals

### 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 needs to be capable of:
  + Being accessed from a computer or mobile device
  + Provide separate roles for users (admin, user, etc.)
    - Liam (owner/admin)
    - Ian (IT/admin)
    - Secretary (admin)
    - Users
  + Allow users to request, cancel, and modify reservations for driving lessons:
    - Users can request a date and time for a lesson
    - Make a reservation online or by calling the client’s secretary
  + Track user changes to keep client informed and print an activity report
    - User’s information
    - Driver’s information
    - Lesson time
    - Vehicle used
* The system needs to be connected to the DMV so it can be alerted when new rules, policies, and sample test questions come out
* Run off the web, preferably over the cloud
* The client doesn’t want to be responsible for backups and security
* There are three packages for users to request driving lessons, but the client wants to ability to remove packages without developer support
* The interface should have multiple pages:
  + Page that tracks user’s progress through online classes and practice tests
  + A page for users to sign up and request driving lessons
  + A page for users to enter personal information
  + A page for users to contact the client for questions

## 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 should be able to run as a web-based application and as a mobile app, or in the browser of a mobile device
* Speed isn’t the highest priority, but the system needs to be able to receive updates from the DMV so that changes can be made if policies change
* The system should be updated daily to account for new policies and rules from the DMV

#### 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 needs to be capable of running on the web as well as on a mobile device
* The backend will need a database that keeps track of important information regarding the activity, such as the client’s information, the driving instructor’s information, and the driving lesson’s details

#### 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 system will require users to make an account with some sort of username that should be unique to identify them. This information will need to be case-sensitive because the requirement of it being unique will likely result in complex usernames

#### 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?*

* System needs to be capable of accessing user data to add, remove, and modify incorrect information or reset a password for a user
* This access should only be available to users that have the admin role
* This type of modification shouldn’t require changing code, however if the driving lesson packages are to be changed then code will need to be modified, unless the change is simply to remove one of the packages

#### 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 need to create a username and password to access their account since there will be sensitive information saved
* There will also be security roles attached to each account that allow permissions. Students and drivers will have basic permissions, and administrators will have more permissions to do things like update and destroy information

### 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 allow users to request a session for driving lessons
* The system shall keep the user’s sensitive information secure
* The system shall be accessible via desktop or with a mobile device
* The system shall allow users to create an account and store their personal information, including their vehicle information, if they are a driver
* The system shall showcase the different packages available to the users and allow them to sign up for them
* The system shall be connected to the DMV to keep its rules and regulations updated as well as receive new test questions when they are released
* The system shall allow users to take practice tests online to prepare for the written test at the DMV
* The system shall allow users to take classes that provide information that will help them in their driver’s test
* The system shall track the progress of the user’s finished practice tests and classes

### 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 system needs to provide the user with an error message if they enter an invalid input, and allow them to enter a new value
* There will be two types of users: the default user, which will apply to students looking for training and drivers who are providing in-person instruction, and the admin user, who will have access to the default user’s information and permission to update information when needed.
* There will need to be a page where a user can enter their personal information, and it will be saved and assigned to their profile. If they are a driver, they will be able to put their vehicle’s information here
* There will be a page where the progress of online classes and practice tests is displayed to the user so they can see how much they have accomplished and how much is left to do
* There will be a page where the student’s driving lesson information will be displayed, such as the start hour, end hour, lesson time, and driver’s comments
* There will also be a page displaying the different packages available to receive in-person driving training
* There will also need to be a page with contact information so that people can reach out to the company if they have any questions

### 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?*

* Users have access to the internet
* Drivers have already received their driver’s license
* Users enter accurate information into their profiles
* The information from the DMV is accessible via something like an API

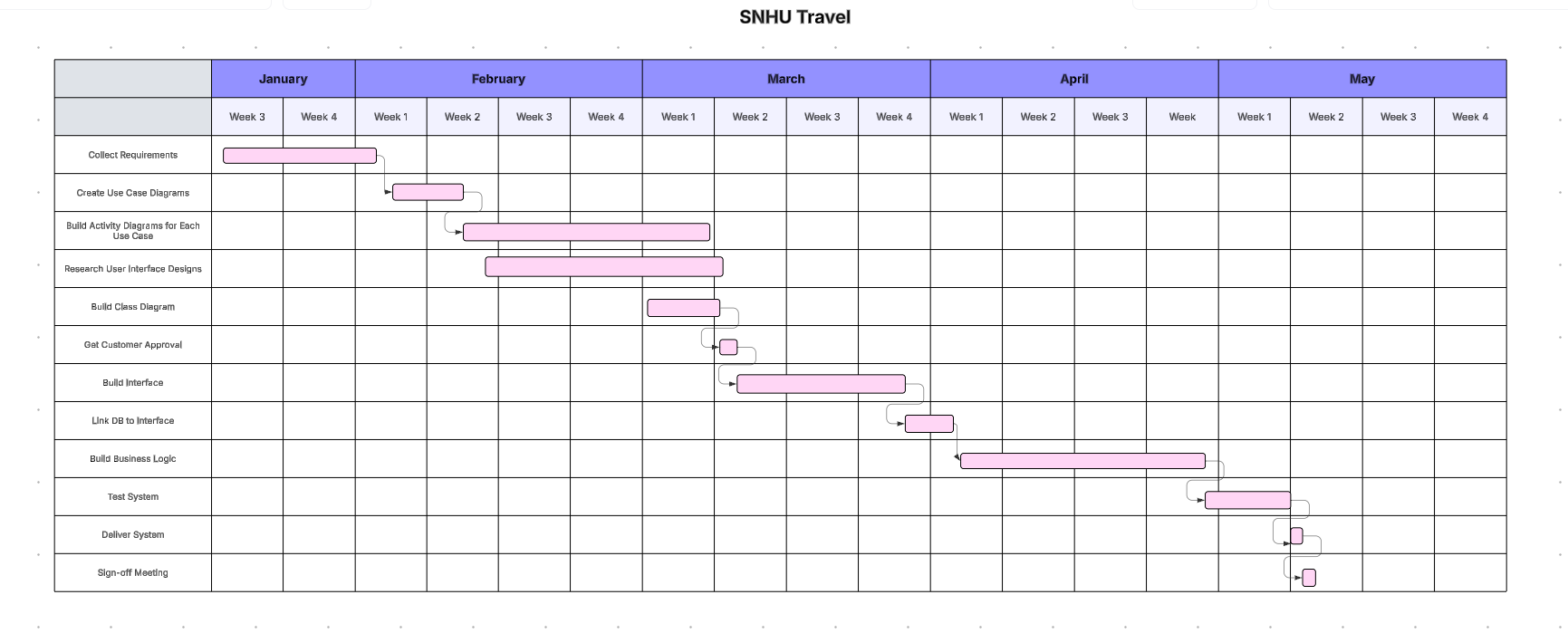
### Limitations

*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 system will only be available for desktop and mobile
* The packages will only be able to be removed if more are needed than code changes are required
* Internet will be required to access the system

### 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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