# 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 owner of DriverPass, Liam, is seeking to increase the pass rate of drivers taking their exam by providing high-quality online practice exams and physical training that is flexible to the customer's schedule.

### 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 a cloud-based system where users can view and download assignments to work from any device.
* The system needs to be capable of scheduling reservations for driving lessons and the user should be able to modify, cancel, or make these online themselves if they wish. There will also be three packages to choose from and they should have the capability to be disabled when more customers aren’t needed.
* The system should be connected to the DMV for notifications on updated policies to keep customers informed.
* Registration needs to be available via phone, where the customer provides their information and it is stored in the database.

### 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?*

* DriverPass should allow users to select a reservation of their choosing through an online portal, a call, or an office visit.
* Users will also be able to cancel and modify these appointments and Liam will have the ability to disable any lesson package he sees fit.
* The system should also keep track of who made any reservation changes and an activity report should be printable.
* The system should be able to keep track of which user matches each driver, as well as the time and car.
* Registration will be accessible by phone and will contain their first name, last name, address, phone number, state, credit card information, and pickup and drop-off location.
* The system should be able to reset passwords if the user forgets theirs automatically.
* A connection to the DMV needs to be implemented to notify users of changes to DMV rules.

## 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 automatically updated whenever the DMV pushes new rule changes and content.
* The system should load webpages near-instantaneously with a maximum time of two seconds.
* The system should be web-based and operate based on the cloud.

#### 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 compatible with all major operating systems, such as Windows and MacOS, as well as mobile OSs such as iOS and Android.
* The system should contain a user database to keep track of account information and reservation scheduling.
* The system should be connected to the DMV database to receive updates.

#### 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 distinguish between users through a case-sensitive username and password.
* The system should be able to automatically inform IT of any problems and print an activity report for admins.

#### 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?*

* The system should have a built-in user management system that allows for updating user information without changing the base code.
* The system should allow IT admins to access the cloud infrastructure and databases.
* The system should adapt to platform updates when either the owner wishes to push new features or an update from the DMV is received.

#### 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 user should input a case-sensitive username and password.
* The account information will be secured by the built-in security features of the cloud provider.
* The system should lock the user account and request a password change after a certain amount of unsuccessful attempts.
* The user should have the ability to reset their password through an automatic system anytime they forget it.

### 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 have the ability to download data to be viewed offline.
* The system shall print an activity report at the request of the owner.
* The system shall allow users to reserve and maintain driving appointments online.
* The system shall track appointment information such as:
  + Time
  + Car
  + Driver
* The system shall allow the owner to disable packages as they see fit.
* The system shall provide a notification when DMV rules, policies, or sample questions are updated.
* The system shall provide users with practice tests and inform users of test information such as:
  + Test name
  + Time taken
  + Score
  + Test status
* The system shall allow users to update their password automatically and validate credentials when logging in.

### 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 UI will need to be responsive to mobile and desktop browsers.
* The UI should include pages for the students to contact the company, and the company to contact students.
* The UI should be based on the wireframe layout provided by the owner.
* The UI needs to show the test progress of what the student completed. They also need a table to view the driver’s notes on the driving sessions.
* The UI will need to change depending on your role as a user.
  + Customers should have the basic functionality of the website.
  + The secretary should have a portal to register accounts and schedule appointments.
  + The owner should have a portal to access account information and course information and be able to make changes as they see fit.

### 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?*

* The users have access to an internet connection.
* The users will use a mainstream OS.
* The users will be able to read and understand English.

### 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 needs to be built within a roughly five-month time frame.
* The exact budget is not given, but cost is still a limitation.
* The system needs to be easy enough for only one IT officer to maintain.
* The system needs to be within the developer's skill level.

### 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.*

