# 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 purpose of this project is to help to better train drivers
* The client is DriverPass
* Provide training for their customers
* Take online tests and practice tests
* Provide on-the-road training

### 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?*

* + Make reservations online
  + Track which user is matched up with a certain driver, time, and car
  + Make/cancel/modify appointments online
  + Disable a package if they don’t want any more customers to register for it
  + Be able to automatically reset a user’s password
  + Run off the web, preferably over the cloud
  + Connect to the DMV so they can update new rules, policies, or sample questions
  + Input form to fill out student information
  + Contact page for student and for the school

### 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?*

* + Show tests the customer took, and the progress of ones completed
  + Show comments the driver left and times for the lessons
  + Print an activity report and figure out who is responsible for who made the reservation, who canceled it, or who modified it

## 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?*

* Right now, this system needs to run in a web-based environment and should be fast enough to handle multiple users at a time and to be able to update its content live. I would argue that the site would need to update once every other month depending on the traffic and bugs that arise. This frequency should be manageable and in budget so that way they can also ensure that the security of the site is maintained.

#### 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?*

* There will need to be a database for this application to store the user information for each user and customer. There will also need to be a place to store all the instructor and site information. The system should also run on a cloud-based server per the instructions from the wants of the site.

#### 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?*

* We can distinguish between different users by their username and email. When we create the schema for our backend, we will be able to label it as a unique identifier. This would ensure that no one can use the same email twice when registering. We can also control if we want to adjust the inputs to be all caps or take exactly what the user inputs. The system should inform the user whenever a form is not filled out correctly or if a username/email is taken.

#### 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?*

* We can put authentication in an IT admin account so that way they are a super user to all users. This would allow the IT admin to correct spellings, account info, and more. We don’t want to grant all this access to a general user because then it would be hard to keep track of all the information for one user. We can allow edit and update routes for user photos, schedule, contact info, etc.

#### 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 will need their email/username and a password to log in. We can hash the users’ passwords to protect that information. We can also utilize reCAPTCHA to prove there are no bots trying to sign up. If we can lock an account when there is suspicious activity, that would be great. We could freeze the account and have security questions the user must answer to reset the account. If the user forgets their password, we will be able to send them a link to rset their password and connect it to their account.

### 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 a password reset if user forgets password
* The system shall provide an updated calendar of available times for driving tests
* The system shall provide a blank practice test when the user selects to take a practice test
* The system shall store previous test scores and past appointments
* The system shall recognize if a specific email/username is already in use

### 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 will need to be user friendly across a wide range of ages. This is made for people who want to train for their drivers test or practice their driving and knowledge. The interface should be easy to use and have very accessible functionality to get to each respective piece to schedule, pay, read instructor bios, and login to their accounts. The user will be able to interact on a browser and mobile browser so each piece must be adaptable and mobile friendly. Scheduling, logging in, practice tests, and information forms should all be available on all interfaces.

### 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?*

* I can assume that the interface and design will have an educational theme with easy-to-use layout that allows for accessibility across the site. I will assume that we will be designing the site to account for multiple languages, disabilities, and family-friendly content/language. I would also assume that we will incorporate added security since we will be dealing with private/personal information and payment information. I would also assume that we will design the site to be friendly across multiple platforms such as mobile, tablet, laptop, desktop, etc.

### 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?*

* I would believe that some of the resources and technology could be a limitation when dealing with real time interactions and scheduling. For example, if a student or driver needs to cancel a lesson, will this be able to notify the students/teacher scheduled for that day automatically? Is there a budget to maintain the site for when updates need to happen with the DMV and maintain the database.

### 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.*

Chart, timeline

Description automatically generated