# 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?*

* Purpose: For the client, DriverPass, who wants to be able to give people better driving training.
* It will be provided to the DMV customers as an option to better prepare for their driving tests.

### 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 problem is that a lot of people are failing their driver’s tests repeatedly.
* DriverPass wants a system that offers comprehensive online classes and practice tests so that customers can have a better chance at passing first try.

### 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 will need to:
  + Create a user account
    - Username, email, address, phone number, age, and payment information
    - User pickup and drop off location
  + Allow password recovery
  + Schedule appointments
    - User can pick their training package
  + Track which user is matched with certain trainers, time slots, and vehicles
  + Connect with the DMV
  + Show user progress
  + Allow the user to type, save, and easily retrieve notes

## 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?*

* Web-based cloud environment
* Load time should be very short between 1 – 3 seconds
* System should be updated monthly to allow time to research user reported bugs and to come up with new ideas for training

#### 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?*

* This should run on Windows and Mac platforms as well as browsers
* The backend should have a database to store the user information and a web server to process and manage requests and responses

#### 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 distinguishes users based on their login information
* The username will not be case-sensitive, but the password will be.
* The admin should be informed if the user has attempted to and failed to login three times
* The admin should also be informed if scripts are put into the login fields

#### 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 user should be able to change their password, address, pickup location, drop off location, and payment information
* The system will use its backend to find that user and change whatever fields they changed.
* The IT admin will need administrative permissions to change a user’s information themselves, but the user just needs to login to their individual accounts.

#### 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 enter a username, their real name, date of birth, address, email address, and payment information to register to the system
* After registration, username and password will be all that’s required to login
* HTTPS, CORS, secure cookies & tokens, and input validation will be used to secure the connection
* Three attempts at login will be made before the account is locked
* User will need to contact the DMV to get the account reopened
* Forgot password link will email a reset password link to the provided account’s email address

### 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.”*

* This system shall validate user credentials when logging in
* This system shall track user progress with charts
* This system shall send reports to the user’s email address
* This system shall place a heavy emphasis on simplicity of design
* This system shall have a feedback system to rate and report learning materials and instructors

### 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.)?*

* Users will interact with the interface through online browsers both on desktop and mobile devices
* Customers and the admins running the system are the users
* Each customer will be able to access:
  + Register/Login/Logout
  + Homepage
  + Test Progress
  + Scheduling page
  + User information and the ability to update that information
  + Notes
  + Package information
  + Learning Tools
  + Contact information page
* Each Admin will be able to access all the same things the customers can, plus:
  + Information of the customers who are registered in the system
  + Who has selected which packages
  + Ability to add and remove packages
  + See all scheduling information
  + See which customer is assigned to which instructor
  + Ability to allow users to reset their passwords

### 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?*

* All users will require 24/7 online functionality
* Everyone will be able to understand and navigate the user interface
* Customers will have both outdated and brand new devices
* Customers and Instructors will be on time for any scheduled course

### 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?*

* DriverPass has 10 cars currently, so each car must be maintained for instructional use
* Internet connectivity issues, server issues and maintenance may cause delays
* Meeting the requirements of DriverPass within the timeframe and budget
* Since the number of cars is limited, only so many customers can purchase packages for any given scheduled time

### 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.*

A screenshot of a computer

Description automatically generated