# 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 create a maintainable and scalable website for the startup DriverPass that will allow the client to offer driver’s education services and classes to their customers. The website will provide clear and concise information on the courses the client offers, as well as account creation, payment, progress tracking, and identity verification.

### 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?*

* + Client Side:
    - Accessibility
      * Online from anywhere (with approved credentials and internet connection)

(Preferred over the Cloud)

* + - * + Ability to modify or update information
        + Ability to download reports or information
        + Enable or disable services offered
      * Offline
        + Can modify or update downloaded information
    - Staff/Customer Account
      * Create, modify, or delete accounts
      * Modify access and permissions for staff
      * Change or reset passwords for staff or customer
    - Track:
      * Creation or modification of reservations
      * Date, time, and type of lesson requested
      * Which staff member is paired with which customer
    - Payment
      * Ability to take and store payment options for customer
    - Verification of identity
      * Allows for input of customer and staff identification and credentials
      * Store photos of customers and staff
      * Information about vehicles (DriverPass vehicle information)
  + Customer Side:
    - See services offered
    - Create an account
    - Choose from services offered
    - Book, change, or cancel reservations
    - Track progress
    - Verify their identity
    - Pay for course(s)
    - Verify the identity of the instructor and vehicle prior to meeting with the staff

### 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?*

* Client Side:
  + Be accessible online with the ability to modify or update information and download reports for offline accessibility.
  + Ability for client to enable or disable offered services
  + Control staff and customer accounts
  + Track reservations (creation/ modification, date, time, etc.)
  + Able to take and store payment options for customers
  + Verify the identity of staff and customers
* Customer Side:
  + See services offered
  + Create account
  + Track progress of course
  + Create or modify reservations
  + Verify the identity of the vehicle and the staff member prior to the appointment
  + Pay for services

## 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
  + All popular web-browsers (Google Chrome, Safari, Edge, etc.)
* System updates should be real-time (appointments made, altered, canceled, etc.)
* Loading of pages should be under 3 seconds

#### 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?*

* Any platform that supports the supported web browsers.
* The database needs to:
  + Store client information
  + Store customer information
  + Scheduling
  + Billing
* Tools:
  + Gather and process updates from the DMV

#### 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?*

* Users need distinguished accounts via password-protected accounts
* Usernames and passwords for authentication
* All input will be case-sensitive for security
* The number of incorrect log-in attempts will result in the admin being notified or the account being locked

#### 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?*

* Client users can create/ add/ delete/ suspend any account
  + Customers can add/ delete their accounts
* Client and Customer users can modify their account information

#### 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?*

* All users require the correct username and password to gain access
* Too many incorrect login attempts (5) will lock the account in an effort to prevent brute-force hacking attacks. All locked accounts will automatically notify the IT admin.
* All users can request a password reset. This should involve matching identifying information of the user’s account information and having the password reset link being sent to their pre-established email account.
* HTTPS will handle all network requests to ensure secure communications between systems.
* Encryption of all sensitive data across networks

### 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.”*

* Require user authentication and authorization (validate user’s credentials)
* The system is web-based. The material should have the capability to be downloaded for offline access. Data can only be updated/ altered once material has established a connection to the system’s severs.
* Activity reports generated.
* System must display course packages with the ability to disable or enable as needed
* All users to reset passwords
* Include up to date material in compliance with the DMV
* Account Registration for Customers to include:
  + First and Last Name
  + Photo
  + Photo Identification
  + Address
  + Phone Number(s)
  + Payment Information (credit/ debit cards, paypal, cashapp, etc.)
* Class Information:
  + Grades
  + Exam progress
  + Upcoming Appointments
  + Driver Instructor Information
* Driver Instructor Information:
  + First and Last Name
  + Vehicle Information
  + Photo
* User Contact:
  + Instructors
  + Admin
  + Front Desk

### 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.)?*

* Customer Interface:
  + Home Page
  + Account Registration
  + Account Access Page
    - Sections:
      * Test Progress
      * Contact Information
      * Driver Notes
  + Course Material Page
  + Driving Lesson Appointment Page
  + Contact Us Page
* Client and System Access Users Interface:
  + Client- full access to accounts
* System is web-based

### 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?*

* User (client and customer) will have access to internet connection
* DMV material are kept up-to-date and freely available to access
* User (client and customer) are tech savvy

### 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?*

* Being a web-based system it requires internet access.
* Servers are kept online and running
* Budget Constraints
* Instructional material is up-to-date

### Gantt Chart

