# 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?*

* DriverPass has requested us to create a system to create appointments that the user initiates and selects the date and time that works for them, as well as pick up and drop off location for the program. DriverPass is using their system to create appointments for student drivers to get necessary lessons to pass their driving tests, as such they need the system to be able to receive notifications from the DMV whenever there is a change to their guidelines or testing modules to keep curriculum up to date.

### 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 main portion of the system is to allow the user to create a profile for appointments, and to track their progress through lessons as well as any accidents that may occur for insurance purposes. The system should store first and last name, address, phone number, credit card number, security code, and their preferred pick up/drop off location.
* They are attempting to give students some time behind the wheel with an instructor, so each student should be linked to a specific instructor to maintain familiarity with the relationship between the instructor and student.
* Security will be taken from the customer as to who has access to what portions of the system

### 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 client wants cloud-based storage of data, so we need to determine the amount of data they will be storing and potential growth
* The interface based off customer made template for the design of the program
* Driver and instructor notes should be visible by the client and instructor to see what is said about the lesson and their progress (areas of strength and weakness)
* Appointments should be able to be input by either the customer or secretary for each customer
  + As well as a contact page for the customer to reach the instructor and vice versa

## 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 be accessed online or offline
* Access from a computer or mobile device
* Ability to download reports and generate into spreadsheet formats
* Bandwidth for the application should be approximately 5GB
* The system should run daily updates when it is used the least

#### 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 application should be accessible on any major platform, Mac OS and Windows OS
* Data should be stored on a cloud system for database backup

#### 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?*

* Different users will be distinguished based off individual logins, usernames and passwords
* Passwords should be case sensitive
* System administrators should be notified immediately by the system when an error occurs, however log-in lockouts should be requested and automated by the system and the user can navigate the password process with authentication from system administrator

#### 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?*

* Changes to the system shall not be able to be made without access to the code
* The system should be constructed to be self-adaptive for platform updates
* IT administrators need access to maintain and update the system as well as modifications 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?*

* Users log in should be done with standard username and password, followed up by 2 factor authentication
* Connection from the data exchange between client and server will be secured with SSL
* If a user forgets their password, they will request a password reset and will be sent a link to reset their password to their account
* The system should be built under the following guidelines,
  + Utilizing or requiring strong passwords
  + Allowing a limited number of login attempts
  + Employing the use of CAPTCHAs
  + Setting time delays between attempts
  + Asking security questions
  + Enabling or requiring two-factor authentication
  + Using multiple login URLs
  + Tricking the attack software

### 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 an appointment module to select the date, time, vehicle type, pick up and drop off location, instructor, cancellations, and modifications.
  + Appointments should be able to be made online by the customer, or an employee after receiving a phone call from a customer
* The system shall have three different instruction package options
  + Package One: Six hours in a car with a trainer
  + Package Two: Eight hours in a car with a trainer and an in-person lesson where we explain the DMV rules and policies
  + Package Three: Twelve hours in a car with a trainer, an in-person lesson where we explain the DMV rules and policies—plus access to our online class with all the content and material. The online class also includes practice tests.
* The system shall have customer profiles should be able to pay for lessons online or over the phone via credit card
* The system shall have a module for instructors and students to add comments and track progress per lesson

### 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 shall run as a web application
* The system shall store data on a cloud-based system
* The different users of the system will be the customer, employees, IT personnel, and management
* The customer should see their profile within the application
* Employees and management should see appointment schedules, who has what packages, and the ability to read and modify instructor comments with the ability to respond to customer comments
* IT and management personnel should be able to see site traffic and sue analytics

### 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?*

* DriverPass has not specified how they will process transactions and personal information they want their customers to use or save within their profile.
* My assumptions about the users and their technology is they want a simple interface to track appointments and instructor schedules, their technology will vary on the hardware and operating systems they will use. DriverPass seems to be a small business and will most likely start with the best technology they can afford.

### 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 customer is unsure of their own potential growth; therefore, their initial system will not be built with their growth in mind and will need to be open to updates and hardware upgrades

### 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.*

*Table

Description automatically generated*