# 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 wants a system for the purpose of better training students for the driving test at their local department of motor vehicles. The system will allow them to take online classes, practice tests, and reservations for 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?*

* They want the system to support online classes, provide practice tests, and allow students to make reservations for on-the-road training. Additionally, DriverPass wants the ability to access system data from any location. DriverPass wishes to increase pass rates among students taking the drivers test. DriverPass thinks they have a solution to this problem by providing better driver training to students through online classes, practice tests, and on-the-road training.

### 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 DriverPass wants the system to help access the company’s data from anywhere, allowing them to download the data make changes and upload the data.
* The system needs to allow for reservations for driving lessons each lesson is two hours long and the customer should be able to choose what day and time they wish to make the reservation. The customer should be able to make the reservation using their online account.
* The system will also need a printout of the drivers, their vehicles, the customer they will be give the lesson to, and the time of the lesson.
* The system should track who made the reservations, who canceled it, and who modified it last, this all needs to be put in an activity report that can be printed out.
* Driving appointment will need to be chosen from three different packages.
  + 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.
* DriverPass would like to be able to disable a package.
* Registration for access should include first name, last name, address, phone number, state, credit card number, expiration date, security code, and location for pick-up and drop-off of the customer (pick-up and drop-off should be the same).
* If the customer forgets their password for their account, they should be able to reset it.
* The system needs to notify DriverPass of any updates or changes the DMV requirements.
* The system needs to run on the internet preferably the cloud with low maintenance.
* (DriverPass has proved a layout they want for their system found on page 4 of the DriverPass Interview) In the DriverPass layout for online test progress they want it to show what the progress for the customer is what test they have taken, in progress, failed, or passed.
* In the DriverPass layout for driver notes they want it to tell lesson time, start hour, end hour, and driver comments.
* Another page should be made for students to fill out their information first name, last name, address, et cetera.
* A page should also be made with their contact information and a way to contact the student.
* Accounts:
  + The owner needs to have full access over all accounts to reset passwords and deactivate accounts when needed also be able to print out an activity report.
  + The information technology officer needs to have full access of all accounts along with the ability to reset passwords and deactivate accounts, maintaining the system, and access to modifying the system.
  + The secretary needs to be able to make appointments, cancel appointments, and modify appointments for anyone online.
  + The client accounts need to be able to make appointments, cancel appointments, and modify appointments for only themselves all online.

## 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 needs to be a web-based system.
* The system should be fast enough that the owner can download the Microsoft Excel sheets from the site from his phone within seconds.
* The system should update every time a new entry is entered.

#### 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 Microsoft Windows to support Microsoft Excel documents.
* The system will need a database to hold tables and link it to the interface.

#### 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?*

* To distinguish between the different user’s accounts will be given types such as user, worker, owner, and information technology officer.
* Input will be case-sensitive to increase the security of the system.
* When there is a problem with the system the owner and information technology officer will be told as soon as it happens.

#### 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 information officer will be able to add, remove, or modify an account with out having to change the code. To do this the officer will enter their information to access their account find the user in question and click what they want to do to the account.
* The system will adapt to the platform updates by getting updates from this company.
* Information technology officer will be given full access to the system and be able to add and remove any account. The IT officer will also be able to reset the password of any account using the username.

#### 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?*

* Username and password are needed to enter account.
* To secure the connection of the server a 16-digit password will be required with numbers, letters, and symbols for all accounts.
* If there is a brute force attack to the server, the server will shut down all access to the server and alert the information technology officer through their email that there was attack on the system.
* If a user forgets their password and enters the wrong password twice the account will lock, and the information technology officer will have to unlock the account and reset the password for the user.
* A tracker will need to be placed in the system that documents what was changed and by who.
* Account Types:
  + The owner needs to have full access over all accounts to reset passwords and deactivate accounts when needed also be able to print out an activity report.
  + The information technology officer needs to have full access of all accounts along with the ability to reset passwords and deactivate accounts, maintaining the system, and access to modifying the system.
  + The secretary needs to be able to make appointments, cancel appointments, and modify appointments for anyone online.
  + The client accounts need to be able to make appointments, cancel appointments, and modify appointments for only themselves all online.

### 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 be able to be accessed from any device connected to the internet.
* The system shall use the username and password of the user to access their account.
* The system shall validate user credentials when logging in.
* The system shall give the administration a printout of the data and reports that can be download changed offline and then updated when the user goes online.
* The system shall have different accounts for information technology officers, users, owner, and the secretary.
* The system shall track what user changes on their account and document those changes with their username.
* The system shall be able to make reservations for driving lessons using the user’s account and the secretary’s account.
* The system shall be able to make a schedule with the student’s name and drivers name attached to the time and date of the reservation with the location of the appointment.
* The system shall show appointments with three packages to the student to choose from.
* The system shall keep up to date with the changes made by the DMV.
* The system shall have an interface showing the company’s logo, online test progress, user’s information, driver notes, special needs, driver photo, and student photo.
* The system shall lock the account of a user after two wrong passwords and only be able to be unlocked by the information technology officer.
* The system shall have security that protects the accounts and data of the site.
* The system shall allow the user to change their account information.

### 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 needs to have links to the online test progress, the user’s information, driver notes, special needs, driver photo, and student photo.
* The interface needs to be in a layout with (from left to right):
  + The online test progress then user’s information.
  + The next line should be driver notes to special needs.
  + Under special needs driver photo and student photo.
* The user should be able to do in the interface
  + See their online test progress.
  + Check and change their information.
  + See driver notes.
  + Get special needs help.
  + See driver photo.
  + See student photo.

### 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 design above does not specify how the accounts can be added, deleted, or modified.
* The design also doesn’t tell how the user can change their account information.
* The design does not give what type of security will be used to protect the system.
* The assumptions I’m making about the users is that they live in America, they can read English, and the user wants to take lessons on driving.
* The assumptions I’m make about the technology is that any website will work with any system and the system will be made using Java.

### 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 limitations I see in my design of the program:
  + How much data the database can hold.
  + The system can only be accessed from the internet.
  + To make changes to the data, the data most be download, then changed, and uploaded.
  + If the user forgets their password, they must wait for the IT officer to change it.

### 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.*

