# 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 client is DriverPass, a company that provides training to new drivers to help them pass driving tests. The purpose of the system is to provide online training and scheduling services and to allow users to access their accounts.

### 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 so many people fail driving tests, and the solution is to give people access to different resources that will help them prepare for their test and give a better chance at passing.
* DriverPass has asked us to build a system that provides people with driving training by giving the ability to schedule in-person training appointments online and offering online exams
* The system will give students access to online exams and show exam progress, list personal information, special needs, and driver notes, and show a personal photo and driver photo.
* The system will differentiate between employees and limit access based on roles.
* The system will consist of a scalable cloud-based application with backup and security taken care of.
* The system will have different accounts for administration, secretaries, drivers, and users so that each can only access the functionalities that they need.

### 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 owner should have access to data from anywhere (mobile or computer) and the ability to download information and reports in a format such as Excel.
* Employees should have their own roles, access rights, and levels of control over data. For example, only certain users can:
  + Reset an account
  + Block access to an account
  + Disable package options
* A record should be kept of which employee made or modified a reservation, and an activity report of this information will be able to be printed.
* A record should be kept of which driver is scheduled to go out with which student, the time of the appointment, and the car being used.
* A connection should be established with the DMV and DriverPass will receive a notification if there are any new rules, policies, or sample questions.
* The secretary should be able to enter user information including first name, last name, address, phone number, state, credit card number, expiration date, and security code.
* There should be a contact page for contacting DriverPass and a way for DriverPass to contact the student.
* The system should be cloud-based, and backup and security will be taken care of.
* The user should be provided with the following functions:
  + Go online to schedule, cancel, or modify behind-the-wheel training
  + Choose from a list of package options
  + Set the desired pickup and drop-off location (which should be the same)
  + Reset password if it is forgotten
  + See online test progress that shows test name, time taken score, and completion status
  + Check driver notes and lesson times
  + Check personal information, special needs, driver photo and personal photo
  + Enter personal information such as first name, last name, address, email, etc.

## 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?*

* Data should only be modified or updated while connected to the internet.
* Data should be able to be accessed from anywhere on a computer or mobile device.
* The system should be a cloud-based web application.
* The system should be automatically backed up every 24 hours, handled by a third party.
* Server requests should have a maximum response time of one second.
* The system should be compatible with Mac, Windows, or Linux operating systems.
* The system should run on the latest versions of popular web browsers.

#### 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 run on a Windows platform.
* The system should be connected to the DMV so new rules and policies can be updated.
* There should be a database of users.

#### 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 should be able to recognize an IT user for system maintenance.
* The system should distinguish between customers and employees, as well as different ranks of employees, based on their assigned roles.
* Usernames, passwords, and other personal information should be case sensitive.
* Admins should be informed immediately of problems.

#### 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 system should download, install, and adapt to weekly Microsoft updates.
* The IT admin should have special access to allow system maintenance.
* Users can be added, removed, or modified without changing code.

#### 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?*

* Each user should have their own account with a unique username and password to log in.
* Different roles of users should have their own levels of data control and access rights.
* Access should be able to be blocked by admin for employees no longer with the company.
* An account should be temporarily locked in the case of a hacking attempt.
* Password reset permission and instructions should only be sent to the user’s personal email.
* A third party should take care of secure connections and data exchange.

### 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 offer users online classes and practice tests.
* The system shall allow customers to make reservations for driving lessons on their account by choosing a date and time.
* When making a reservation, the system shall show the customer three options: Package One, Package Two, and Package Three.
* The system shall allow customers to modify or cancel appointments online.
* The system shall allow secretaries to enter customer information to schedule appointments.
* The system shall allow the admin to disable driving packages.
* The system shall allow the user or admin to reset an account password if forgotten.
* The system shall send a notification to admin when there are changes in DMV rules and policies.
* The system shall show the customer their driver’s notes and test progress.
* The system shall generate downloadable Excel reports of system data.
* The system shall update an activity report when there are changes to a reservation.
* The system shall keep a log of which customer is matched with which driver, car, and time.

### 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 UI/UX design should be optimized for computer and mobile use.
* Interface should be responsive to fit to different screen and window sizes.
* The main page shows online test progress, driver’s notes, personal information, special needs, driver photo, and student photo.
* Online test progress shows what is currently in progress and what has already been completed. The following test details should be included:
  + Test name
  + Time taken
  + Score
  + Status (not taken, in progress, failed, passed)
* Driver’s notes should show the following information:
  + Lesson time
  + Start hour and end hour
  + Driver comments
* An input form should be included where the student or secretary can enter student information.
* A contact page should be included so that students can contact the company.

### 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 clients and servers both have a working internet connection.
* Electricity is available for both the clients and servers.
* The user is using a mainstream operating system and web browser.
* The user has a valid account.
* The customer is of legal driving age.

### 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 system will not function without electricity.
* The system will not function without an internet connection.
* Some information may not be up to date if connection to DMV is lost.

### 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.*

