# 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 build a system for our client, DriverPass, that will provide better driver training to their customers both on the road and with classes and practice tests that can be accessed online; these types of services are in demand.

### 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?*

* Below is a bulleted list of what the DriverPass system should do and the components that are needed for the system:
  + DriverPass wants the system to allow customers to make reservations for driving lessons online using an account, this would enable the customer to choose the day and time they want to take a lesson, the customer should also have access to modifying the appointment as well.
  + In the interview, Liam (the owner of DriverPass), mentioned he would like the system to be able to identify the driver the customer is going to have a lesson with, and be able to track which user is matched up with a certain driver, time, and car.
  + The system should contain packages with different lengths of driving sessions.
  + The owner of DriverPass should also be able to access data online from any computer or mobile device, this data should include reports and information that he can work on at home.
  + The security features that would need to be included in the system would only give certain employees access to account information, and the ability to block employees that no longer work for DriverPass.
  + A tracking feature will need to be included that allows Liam to see who made modifications to the reservations.
  + The system needs to be flexible to accommodate any changes that may need to be made in the future.
  + Registration should happen by the customer giving us their information, this info would include their full name, address, phone number, state , and credit card number, expiration date, and security code as well as pickup and drop off locations.
  + The ability to easily reset their password if it is forgotten.
  + Be connected with the DMV to be updated on new rules, policies or sample questions, with notifications whenever there is an update.
* In the interview, our client Liam depicted what he’d like the user interface to look like for the homepage, it should include online test progress, customers information, driver notes, driver and student photo, a special needs section, and there should also be other pages for input forms and for contacting DriverPass customer support.
* The problem DriverPass wants to fix is giving access to people who need help in obtaining their license, as there are not many other companies that offer what DriverPass does.

### 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?*

* Overall, the main thing that the system should do is simply allow customers to book and modify driving practice appointments, have access to online courses, and keep track of their online test progress.
* After the interview, Sam and Jennifer sat down to discuss how to go about beginning the project. The measurable tasks that need to be included in the system design to achieve this is by firstly deciding what are the most important tasks that need to be completed, then ordering the tasks based on that. After certain tasks are completed, we will need to check back in with Liam to get his approval on the working software, and make any modifications based on his feedback. Using a table we can get an idea of the time period we will need for each task and an estimated completion date as well, which is May 10th.

## 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 run in a web-based environment, users should be able to access the website from any computer or mobile device.
* The system should be quite fast as to allow students to take practice testes online and receive results of their tests within seconds. They should also be able to manage driving lessons fairly quickly as well.
* The system should be updated periodically to add or remove packages from the website, and also to be updated to any changes that the DMV might make.

#### 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 able to run on all Windows, mac, Linux, Apple and Android devices.
* The back end does require a database to support this application, this should contain data that can be easily downloaded when online for the client, and for the user of the system, they should be able to access test progress, their information, and upcoming driving lessons.

#### 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?*

* Students using the system will be able to create their own username and password, which both inputs will be case-sensitive.
* The Employees of DriverPass as well as the owner will all have their own set of usernames and passwords, with the owner having access to all usernames and passwords, again, all inputs are case-sensitive.
* The system should inform the admin of a problem after 3 sign-in attempts. After the first attempt, the system should automatically include a “Forgot Username?” and “Forgot Password?” button options, from there, the user can either pick one of those to recover username or password, or they can continue trying. After the second attempt, a note should appear warning the user of the last sign-in attempt available.

#### 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?*

* Some changes cannot be made without changing the code, such as adding or removing modules, however, changes such as disabling a package can be done without changing the code.
* The system will adapt to platform updates rather quickly as it should happen seamlessly, even when users are using the system.
* The IT admin needs access to everything as they will need to configure the system, the server and the security of data, and makes sure everything is up to date.

#### 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?*

* For the user to log in, a username and password is required.
* We can secure the connection or the data exchange between the client and the server we can use a web server.
* If there is a “brute force” hacking attempt, the DriverPass system should immediately send an email to the email address on file for the user, notifying them of the situation, and including a link to change their password immediately, the account will also be locked and not allow a reattempt of sign-in unless the link is used in the email.
* Again, if a user forgets their password, there should be a “Forgot Password?” button underneath username and password. If user clicks that, they will be asked to include the username, if that username exists an email will be sent to the email on file with a link to reset the password.

### 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 allow students to take online classes and practice tests
* The system shall give different users certain access over the system
* The system shall notify the owner of changes made in the system
* The system shall allow customers to make reservations and modifications of those reservations
* The system shall track what customer is matched up with what driver
* The system shall display three packages that the customer can choose from
* The system shall allow the owner to disable packages when needed
* The system shall include pickup and drop off locations
* The system shall allow users to automatically reset password if they forget it
* The system shall update to changes made by the DMV
* The system shall run over the cloud

### 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 display online test progress, driver notes, users information (name, address, phone, email, etc.), a special needs section, student, and drivers photo, driver notes, and appointments. There should also be another page for an input form and another for contacting us and a way to contact the student.
* The different users of the interface are the customer, the secretary, and the driver.
* The customer should be able to see their test progress, their information, and appointment information. The secretary should fill in students’ information in input form, and the driver should be able to add their notes for the student to see.
* The users will interact with the interface through any browser and any mobile device with internet.

### 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 things that were not specifically addressed in my design above is how much access the driver has to each student’s account and what they see on their end.
* The assumptions that I am making in my design about the users or the technology that they have is that they all have access to Windows, mac, Linux, Android or iPhone devices.

### 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 system design are not being able to provide this system on other operating systems that were not listed above, perhaps as the company grows, including other OS’s can be worked on.
* I do not see any limitations as far as resources and time goes, we have already laid out a plan for that. Budget was not discussed with the customer, but can be introduced during the middle of the development process, and lastly, technology could be a limitation as it is not accessible to everyone.

### 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.*

Chart, waterfall chart

Description automatically generated