# 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?*

* Our client, DriverPass is looking to create a system that will interface with their customers, students of a local DMV, to provide them with the opportunity to purchase additional driving lessons within packages that will provide them with the experience necessary to pass their future driving tests within the DMV

### 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?*

* DriverPass is looking for a stable web-based system to host their online driver training, and to schedule future driving tests with customers who purchase different levels of packages based on the Customers needs.
* It is through this system that the client expects their customers to be more ready for their driving assessments through the DMV by providing them the necessary scheduled 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?*

* From the interview, we gleamed that our client wishes the following features to be present within the system:
* Allow Customer to register their account, provide information regarding their driving experience and their payment credentials.
* Allow Customer to be able to schedule their own driving lessons thru the online interface, with the option of allowing certain admins to modify these reservations.
* Provide driving tests in an online quiz format that adheres to the regulations of the DMV
* Displays currents results and progress of overall training exercises to the Customer

## 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?*

* This system will be run through a web-based server that interfaces through an internet browser and should also have a site that is mobile friendly.
* The system itself should be able to retrieve info from the server within one second of requesting and display it back to the user.
* The system should update every second so that there are accurate reports generated and so that the schedule of the drivers does not overlap with longer query times.

#### 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?*

* For this system we believe that it would run optimally on a Unix system that will host a database, password verification, and a secure way to handle the transactions with the Customers

#### 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?*

* There will be a separate login page for the employees of DriverPass to access the administrative suite page where they will have access to Student Info, Scheduled driving times and be able to download necessary reports to check on the system.
* For security reasons the login credentials of the users should be case-sensitive.
* If there was an attempt to hack the server there should be a notification to the IT Admin
* If there was an overbooking and the schedule of a driver has 2 students reserved, there should be a notification to the secretary to reach out to the Customers and Drivers and resolve the schedule conflict.

#### 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?*

* We believe that the system that we are designing for DriverPass will be able to edit and Modify the user info as well as the schedule time for driving lessons
* On the Admin side we will be incorporating a way for the Master admin to be able to change the passwords and user rights for the other admins as well as the studentswhich was mentioned in the interview

#### 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?*

* The user must use their email address and a password to login to the website.
* There are security suites that we can integrate into the design that will mitigate a brute force attack by blocking the user after 5 failed attempts of a password with a verified user email, after that they will need to contact an IT Admin in order to reset their password.
* We can also integrate a verification server with an encryption that will test to see if the customer is a human or a bot trying to hack the server.

### 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 the user while logging in.
* The system shall display all relevant information to the user pertaining to their online quizzes and their driving tests.
* System needs to keep track of all of the necessary employees and vehicles to avoid overbooking instructors for a driving test.
* The system shall keep track of all reservations, modifications, and cancellations of the users driving tests and have the information compiled when requested into a report for the Admin
* The system shall provide a smooth interface to the user and display all necessary info in the home page.
* The system shall be operable and maintained online through the cloud.
* The system shall have a suite of operations for the Admin, IT, and Employees to add or remove student information, and edit reservations for the driving tests of the students.
* The system shall collect payment from the customer in a secure fashion.

### 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 different users of this are the customer, the IT Admin, the Secretary, and the Owner.
* The interface needs to display information pertaining to the Users online test progress, their personal information, their pickup and dropoff point, Driver Notes from their previous driving test, any special needs they might have, a photo of the student and a photo of the driving instructor.
* The customer will need to be able to reset their password, change their personal info, change their payment credentials, take their online tests and setup or edit/cancel their driving test reservations.
* The user will interact with the system through an internet browser.
* There will be a separate interface for the admins/secretary that will allow them to print reports access/edit student data and access/edit Driving test schedules.

### 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?*

* It is assumed that the users of the app are within a certain distance to the DMV as they only have 10 cars for their design scope.
* It is assumed that the user will have the appropriate permits to drive the vehicles alongside the instructor.
* It is assumed that there will be a schedule listing all the instructors and their times and dates of availability where the customer will set their reservation for the driving tests.
* It is assumed that there will not be more than 100 concurrent users of the website at any given time

### 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?*

* With the current system design there is definitely a limitation to the overall system resources, it is our understanding that with the limitations of the vehicles for the client that there will not be many concurrent users of the site which will cut down on the resource draw needed to maintain the databases

### 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.*

