# 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 cloud website for end clients to schedule appointments and take online courses.

### 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 clients to have individual accounts where they can take online courses and create/modify appointments with driving instructors. Liam, Ian, the secretary, drivers, and end users need to be able to access the system.
* Components:
  + Cloud website
  + Downloadable content
  + Login page
  + Create and modify accesses

### 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 website should have 6 sections: Online test progress, client information, driver notes (including date driven), special needs, driver photo, and student photo. While that will be the main page DriverPass also wants a login page. The measurable tasks are as follows:
  + create use case diagrams
  + build activity diagrams
  + build class diagram, get approval
  + design interface
  + link DB to interface
  + build business logic
  + test the system
  + then deliver the system.

## 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 client, DriverPass, would like the system to run on a web-based platform. This system should be set up on the cloud to minimize the need to manually backup and increase consistent security. Within this platform DriverPass’s clients need to be able to download reports and such to their personal computer. The system needs to run as fast as within reason for a web-based application. The client’s goal is to provide driver learning services, the system will need to get regular updates from the DMV to obtain the most up to date information.

#### 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 platform that I recommend would be to utilize Windows Azure to host the web application. This would leave back-end updates and security to the cloud system. The application will need a database to store customer information.

#### 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?*

* Each user should have their own profile that they can login to and have access based on their security level. This will require a username and password. It is better to make the password case-sensitive to increase security. The system should inform the admin if there are any attacks, including injection attacks or an unauthorized user attempting to use a customer’s account. After 3 failed attempts it would be a good idea to lock the account.

#### 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?*

* It should be possible to make changes to the user without changing any code. This should only be done by administrators. The system should be flexible to updates. These updates will be based on notifications of updates to the DMV rules. Updates to the web sites interface can be done by administrators without the need for code. To do so administrators should be able to create their own text box with information and change the user interface accordingly.

#### 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 be required to enter a username and password to access their individual account. The best ways to secure the connection for data exchange would be to use authentication, data encryption (HTTPS and TLS protocols), and input validation. Good ways to stop brute force hacking are to require multi-factor authentication and strong passwords. Limiting the number of password attempts would also be beneficial. If they reach that limit or forget their password, they should be able to reset their password through an email or other option.

### 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 show a home page with different options
* The system shall have a profile page to change personal information
* The system shall have a place to input driver photo and student photos.
* The system shall have online tests available to take
* The system should enable students/admins to download reports.
* The system shall have a place to create and display notes
* The system shall have information about the courses such as the packages.
* The system shall allow students to create driving reservations
* The system shall keep track of updates

### 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.)?*

* Based on the information and picture provided the user interface will have different boxes with information presented. Each box on the home page is as follows: online test progress, personal information, driver notes, special needs, driver photo, and student photo. The interface should be able to provide users with services. Some services include access to online tests, the ability to create reservations, update user information, etc.
* The different users are the customers, the employees, and the owner. The owner needs to be able to have full access over all accounts, such as the ability to block access if an employee gets fired. The employees need access to customer accounts to create reservations for them if the customer prefers to make a reservation over the phone. Drivers need access to the customer accounts to create driving notes. IT must be able to update the website as needed. The customers should only be able to access their own account, take tests, and create reservations. Each user should be able to access the interface through any web browser.

### 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?*

* I am assuming that the company and users have the ability to access the internet. I am also assuming that the client has enough money to afford access to a cloud-based platform. I will assume that the web site can withstand many users. I am assuming it is possible to find all the rules through the DMV.

### 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?*

* I am not given the clients’ budget, but I will assume they have one, so that will limit what we can implement. The client wants this out in a timely manner. We are limited to the technology available. Microsoft Azure can only do so much.

### 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.*

*A screenshot of a calendar

Description automatically generated*