# 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 sees a void in the market for preparing students for their driving exams. They want to provide full-service training that includes not only on-the-road training, but a platform that will make materials and resources more accessible for students and will provide them with a proper education that adequately prepares them. The system we are creating will provide an online platform that allows them to offer their e-materials, schedule appointments and give the clients a landing page for all of their information within a personal portal. The system will help bridge the gap between the company and the clients.

### 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 owner, Liam, is looking to build a system that allows for remote access to data- access from any computer, mobile device etc.
* Need varying levels of security and access to the system- need for different user roles- and the ability to perform admin functions remotely.
* Needs some form of system tracking for the reservation system in order to keep a log of what changes were made and by who, for accountability and correction if needed- ideally needs to be a printable format.
* Need an online scheduling system that allows clients to schedule appointments themselves through their accounts and is linked to the specific driver, time and vehicle (a fleet list?) they are scheduled to go out with in order to manage employee shifts and schedules as well. Scheduling system to allow the customer to pick one of three existing options- system needs to allocate resources appropriately based on the customer’s selection. Should also have capability for admin to schedule appointments for a customer should they call to schedule instead. Owner wants access to disabling packages depending on availability.

### 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?*

* Ideally this system should be implemented on a PaaS as the client does not want to handle security and backups in-house.
* Creating various user roles and giving admin privileges and access to the necessary people- the owner IT members etc.
* Research and set up general user interface layout of website from both an admin perspective as well as a client perspective. Client perspective can use the provided image as a guideline- needs links and pages for online testing, personal information, notes, accommodations and scheduling.
* Should include a scheduling system that accounts for availability of instructors and vehicles and can be cancels, updated etc on both the company end as well as the customer end.
* Needs a database set up that can connect/link the instructor schedule, fleet availability and customer information when scheduling appointments.

## 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 need to be designed as a web-based application on the customer’s end- they need to access their portal and associated courses and materials via the internet. Additionally, the system needs to be fast enough to where the students can access educational materials like videos without issue. The system will also need an off-line aspect for the administrative side of things- the owner expressed wanting to be able to work with materials and courses from anywhere regardless of whether or not there is internet connection. Regarding updates, the system should be updated as needed by the client when they feel the resources and classes are outdated.

#### 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?*

* Given that this system should be a cloud-managed PaaS in order to support remote access, there should be little to no need for backend tools. Additionally, the system should run on Windows and Apple OS in order to get the broadest market reach.

#### 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 student will need unique login credentials in order to keep their courses, materials and accomplishments secure. Additionally, their portals will house their personal information and it should be protected accordingly. Passwords should be changed regularly and if there are more than 5 attempts to log in to an account, admin should be notified. Likewise, there should be an email or number for customers to use if they think their account has been compromised.

#### 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 allow admin to make changes to users simply and without changing the code as means of managing their customer base and employees, ensuring no data is being housed that shouldn’t be for safety concerns and no one has access to the database after their employment terminated etc. In regard to platform updates, the system will adapt as needed, the general layout of the platform should allow for uniformity which will not only help navigation but help to create organization for when the system is updated in the future.

#### 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?*

* As previously stated, each customer and employee should have unique credentials for login in order to identify and define their roles and well as a set number of times someone should be able to attempt login in before the account is disabled. Prior to this point, should the user not remember their credentials, there should be a link for them to click that sends a link to their registered email to reset their password of identify their username. Credentials should not be shared amongst members and should be specific to the person in order to best tailor their access to certain features and functions. There should also be a multi-factor authentication for login. For security purposes, the cloud will handle the exchange between the client and 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 user credentials upon logging in.
* The system will allow configuration of user roles to limit access to features as needed.
* The system will allow for integration with other tools such as outlook or zoom.
* The system shall offer online booking system.
* The system will allow users to access and complete their courses online.
* The system will provide links for any external resources.
* The system will tracker user accomplishments and success.

### 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.)?*

* Allow for online reservation system and display the variety of options as well as available dates based on employee schedule.
* The interface should remain relatively the same between different user devices for ease of use and allow access to different kinds of devices so long as they can connect to the internet.
* Display will be based on user role

### 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?*

* There is no set budget, but a general timeline for completion. The assumption is that anything we need to make the system will be considered in budget.
* We are running with the assumption that the time limit given does not include any necessary training for the new system.
* We are assuming that all users will have access to the internet when they need to access the portal itself.

### 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?*

* Our system will not exceed standard bandwidth requirements for student access.
* We have a short period of time to complete the system which may cause an issue depending on how many employees we can dedicate to each task.

### 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.*

