# CS 255 Business Requirements Document Template

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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 main purpose of DriverPass will be to create a means for better driver training so people that are going to take their driving tests will be able to pass with flying colors. DriverPass will provide online classes and practice tests as well as on the road training if the client decides they need that.

### 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?*

* We want the system to allow for seamless data access from anywhere while having the ability to view it while mobile like on a phone etc.
* The ability to download reports and other resources so we can edit it with excel and other applications.
* Reservation system for driving lesson slots. The ability to create reservation slots online or via calling the office.
* Reservation confirmation system to ensure the driver is going to the correct customer for the lesson.
* Users need to be authenticated for different permissions i.e the owner has unlimited access while users have minimal access to only things that pertain to them.
* Owner and other managers need permissions to cancel or stop lessons if need be\
* Ensure that the dmv is connected and updating any new rules regulations and other information pertinent to the success of the students.
* Cloud operation because no one wants to have physical servers taking up space as well as backing up and security is much more seamless online

### 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?*

* This system should be able to allow the user to access the reservation from wherever they are and book in person road training. There are three packages that are offered but each lesson is usually only in two-hour time span portions. The users will be able to change or cancel the dates and times of the classes if they need.
* Employees and admins will be able to schedule time for students if they call instead of booking it on their owns, they also will be able to remove or alter any packages offered. The ability to view the student and instructor pair as well as allowing new users certain access to things like instructor feedback student info 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?*

* The system that we are currently working on needs to be able to run on a cloud server in a web based environment that is able to load extremely fast. We need to be able to run fast because there may be multiple users scheduling appointments and need the server to update in real time as to avoid over booking a class. The data also needs to update very fast because if someone needs to change prices it needs to be immediate as to not lose the business any money. Another value that needs to rely on fast speeds is test scores, homework scores, and other values that the student needs to see as soon as they finish whatever they were working on.

#### 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 windows and be hosted on whichever web host the client can afford. We will need a database for all information for both users (students) and the staff that will be interacting with the system.

#### 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 in this system will have their roles assigned to them by the system administrator. Some of the roles will include student,driver,staff,admin,owner. When the user signs up they will automatically be given a role. For example if I sign up for the website saying I am a student it should automatically detect I am a student and give me the limited roles that students will have. Any time any problem or error is encountered the admin needs to be notified immediately both via email and notification system on the platform. The inputs are case sensitive to avoid duplication.

#### 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 will ensure that we never need to hard code any changes for the users when it comes to roles. Admins should be able to switch around roles and modify students’ roles. The only person that should have access to the hard code is the system administrator. The only thing the system administrator might need to fix is any bugs or errors that may come over time.

#### 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?*

* Users will have case sensitive usernames and passwords that are fairly common amongst many systems online now adays. We will use 2 factor authentication via their phone as to avoid any brute force attempts because not only will they need the password and username, but somehow, they will need access to a text sent only to the users phone. Brute force also gets defeated via locking the account after 3 attempts or more, as well as after 2 failed attempts we can add a captcha system which will slow down any attempts. If a user forgets their password just like on any other site we will have a forgot password tab where they will input their email that they used to signup as well as their phone number. They will receive an email with a link to follow to reset their 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 create an account
* The system shall automatically assign the student as a student role upon signup
* The system shall allow students to see supplemental educational information
* The system shall allow the students to take a driving knowledge test
* The system shall allow students to make appointments with an instructor for road practice.
* The system shall allow the staff to schedule appointments for the students
* The system shall allow the staff and students to cancel appointments
* The system shall allow the admin to add and remove teachers and other employees
* The system shall students to see their grades as well as any tests they have already completed and their scores
* The system shall allow the driving instructor to leave feedback for the student
* The system shall show accurate and updated pricing information

### 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 user interface will be a visually pleasing setup that will allow ease of operation. Some basic needs for the interface include online test progress tracking, personal info, instructor feedback, photos of both the student and instructor. We also need all links easy to access and to navigate such as supplemental info, scheduling tab, test taking tabs, profile editing tabs etc. Each user will have different needs. Students can access the information, schedule road test, schedule written test, edit their profiles, and review their previous scores on tests. Drivers or instructors can see their appointments per day, add feedback for the students, and edit their own profiles. Staff should be able to see all the student names, add or cancel appointments and edit their profiles as needed, as well as all previously mentioned abilities. All this will be accessed via a web browser on either a computer or mobile device.

### 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?*

* Basic assumptions that I have are that the users’ browsers are up to date and capable of handling/loading our system. Also, we need to assume that users know they need an active internet connection for any of this. Lastly the ability to have a phone with working text messaging to accept the 2FA text.

### 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?*

* Some limitations we will deal with include miscommunication, user error and technical skills not being up to par at the beginning for admins and instructors. As far as resources are concerned we only will be as strong as we are capable of explaining our system to the day to day users.

### 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 project schedule

Description automatically generated