# 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 Client we are working with is DriverPass. The purpose of this project is to create a way for people to take online classes and practice tests to prepare users for their driver’s license tests. They want to have different levels of access for different types of users (Admins/Users/Potentially teachers). They want to be able to make and edit or cancel their reservations for in-person lessons also. This can be done online or via phone call with a receptionist. In-Person lessons are one of three available packages. They need to have a scheduling system available so that they can keep track of which cars and teachers are available. An important note is that the website should be receiving updates from the DMV regarding any changes in policy or testing.

### 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 wants the system to organize and manage the scheduling and online testing portions of their business. The problem they want to fix is ease of access for scheduling and testing students to prepare for their driver’s exam. The different components for this system are a website that the users interact with, an online test section for students to practice, and a scheduling system that can be done completely online, or with the help of their secretary.

### 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?*

* Users should be able to go online and take online tests, and schedule appointments. The company should have access to a full schedule showing which cars and teachers are available at what times. The secretary should also have access to edit and modify people’s schedules incase they call.

## 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 should be a web-based environment.
* The speed of the system should be moderately fast. Since most of the functionality is online scheduling and practice tests, these things are not very time sensitive. It should be fast enough that it feels responsive, but having to wait a minute or two for confirmation of appointments or results of tests is acceptable.
* The system should be kept up to date with the latest security software to prevent malware. It should also be updated any time the DMV changes requirements or rules for driving tests. These things should be checked daily, and updates will be needed accordingly.

#### 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 website should be accessible to all platforms and work on any operating system that can use a web-based browser.
* We will require databases for users of the site, as well as databases for practice test questions and answers. We will also need a database tracking the scheduled appointments that will be made for on-the-road training.

#### 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?*

* We will distinguish between different users by creating different user types. Like Administrators, instructors, and students.
* Usernames should not be case-sensitive, but passwords should be.
* Admins should be notified if any systems are down, or if instructors and students are unable to access their accounts or parts of the website.

#### 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 should be able to add, remove and modify users and their information without changing the code.
* Users should be able to edit their information.
* Admins should be able to add/remove users at will.
* Admins should be able to edit information for other users but should not have access to any personal or identifiable information.

#### 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 need a username and password to log in. The passwords should be unique and have a combination of letters and numbers, with a minimum length(to be determined later).
* The log-in information should be encrypted and stored using hash and salt.
* In case of a brute force hacking attempt, users should be prompted to wait after entering an incorrect password too many times. When this happens, we can send an email to the user informing them that someone has been trying to log into their account for additional safety.
* If a user forgets their password, they can go through a password reset or contact the IT Admin or support to help them get the password reset by answering security questions and providing identifiable information about the account.

### 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:
  + confirm correct log-in information.
  + offer and grade online practice tests.
  + allow users to make reservations for in-person test.
  + Track which customer is scheduled to go with each driver.
  + Ensure that instructors are not double booked (assigned two courses at the same time)
  + allow administrators to add/remove users.
  + be connected to the DMV and check for changes to rules/regulations.

### 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.)?*

* We have been given an interface from the customer. They have designed a rough sketch of what they want it to look like.
* It needs to have:
  + The logo at the top
  + Top left: Online test progress
  + Top right: Information (first/last name, address, email, etc....)
  + Bottom left: Driver notes
  + Bottom right: Special needs/driver photo/student photo
* Users should be able to interact with the UI like their information, the special needs and student photo and edit them so they are filled with the most up to date and correct information.
* The different users for this interface are the customers and driving instructors.
* Admins may require a different interface to manage the system.
  + This would include looking at all scheduled appointments, the ability to add/remove users, and more.
* This UI may look different on mobile and PC, but to our knowledge these are the only specifications given.

### 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?*

* Some assumptions we have made are:
  + The users will intuitively know what each aspect of the UI does.
  + The users will need both online tests and in-person lessons.
  + DriverPass already has enough instructors
  + Driverpass already owns the servers for the website or has plans for online hosting.
  + They already have scheduling software
  + They already have practice tests ready for users.

### 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?*

* Limitations include:
  + Having enough instructors for each student
  + Amount of expected traffic to the site
  + State-by-state laws
  + A budget has not been discussed; this could cause problems.

### 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 chart

Description automatically generated