# 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 is a driving school.
* They want a system that allows their customers to take online classes and practice tests as well as scheduling on-the-road training.

### 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 to reduce the amount of people that fail their driving test.
* In order to solve their problem, they want a system that people can access from anywhere online.
* Users can create an account, set/reset password.
* Users can schedule, modify, and cancel appointments.
* Employee activity is tracked.
* System is a web application, running preferably on the cloud.

### 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?*

* System administrator is able to:
  + Create customer and employee accounts
  + Reset customer and employee passwords
  + Track employee’s usage
  + Assign access-level for employees
  + Modify driving packages
* Customer is able to:
  + Create account
  + Set/Reset password
  + Set a pickup/drop-off address
  + Schedule, modify and cancel appointments
  + Take online classes
  + See their test status
  + Choose from three driving packages
* Employee is able to:
  + Leave notes on customers profiles
  + Create customer accounts

## 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?*

* System needs to be run on a web-based environment. It must be based on the cloud as the client does not want to worry about maintenance, scalability, infrastructure, etc.
* System should receive updates whenever the DMV publishes a new change or update.
* System should have a load time of 1-2 seconds.

#### 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?*

* Most clouds providers run on a modified version of Linux, meaning that the system must be designed for Linux.
* As the system is a web-based it will run on any platform through the web browser.
* System will require a database such as SQL or MongoDB to store and handle all the users and their 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?*

* Input is case-sensitive.
* Each user will be prompted to make a username, if it already exists, system will inform the user and provide username suggestions.
* System should log all errors and inform admin whenever a problem that could disrupt the system is found.

#### 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?*

* Changes to users will only modify the data present in the database, it will not change the code.
* In order to adapt to platform updates, depending on how major the update is, the changes will be reviewed, system will be tested, and published after the update. This will need the assistance of a software developer. If the updates are minor, system should work normally.
* IT admin must have full access to the system.

#### 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?*

* User will need username and password to log in.
* If user forgets password, a link to reset it will be sent to the email linked to their account.
* Website will be certified by a Certificate Authority and protected by HTTPS.
* If a user tries insert the wrong password five times in a row, the account will be locked, and the user will be prompted to call the company.

### 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 not allow users to have the same username.
* The system shall validate user credentials when logging in.
* The system shall lock a user account after password is inputted incorrectly 5 times.
* The system shall be responsive (run on computers and mobile devices).
* The system shall allow different levels of user access (customer, worker, admin).
* The system shall allow students to access lessons.
* The system shall allow students, and workers to make, change or cancel, reservations.
* The system shall track and log all changes made to reservations.
* The system shall assign, depending on availability, students to drivers.
* The system shall update when changes are implemented in the DMV.
* The system shall track student progress.
* The system shall allow drivers to input students’ notes.

### 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 interface needs to allow students and staff to see the student’s profile, with it having basic information, progress, pictures, driver notes and special needs.
* The users that will be using this interface are students, staff, and IT admin.
* The difference between how a student and the staff will be using the interface is that staff will have access to multiple student’s profiles. With staff having the ability to make changes on any student’s information or reservations.
* The interface must be responsive, changing the layout depending on the screen size of the device where it is being used.

### 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?*

* This design assumes:
  + Users have a stable internet access and connection.
  + Users have a high internet speed.
  + Company owners will pay cloud provider to scale system as the business grow.

### 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?*

* As there was not a budget provided, depending on the number of users and the cloud service selected, business owner would have to select the right plan, as user base could outgrow system capacity. Or it could be the opposite, making the business owner spend money unnecessarily.

### 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.*

Table

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