# 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?*

* Hoping to take advantage of a void in the market when it comes to training students for the driving test at their local DMV.
* DriverPass is the client.
* They would like to be able to provide a system that will help aid students learn how to drive more efficiently by allowing them to track their training as well as read notes on what they may need to improve on. This app will also be used from a DriverPass company standpoint by allowing them to administratively track user and their reservation. It will also be used to sign up customers, from both a customer and administrative standpoint.

### 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?*

* Problem: There is a void in the market when it comes to training students for the driving test at their local DMV. There is a need for better driver training.
* Solution: They want to build a web-based app that will enable students that are learning to drive to be able to take classes and practice tests. DriverPass will also provide them with on-the road training if they wish.

### 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?*

* Be able to access data from anywhere, online and offline, from any computer or mobile device.
  + Modify data can only be done while online.
* Be able to download data from app

**Security:** Different employees will have different rights and roles.

* Tracking: Be able to track who made a reservation, cancelled, or modified.
  + Be able to print an activity report.
* Reservations: Need to be able to make reservations for driving lessons.
  + Each lesson is two hours long.
  + Customers should be able to tell DriverPass the day and time when they want to take the lesson.
  + Should be able to make reservations online using their account.
  + Be able to identify the driver the customer is scheduled to go out with.
* Users of the system:
  + Big Boss
  + IT officer, responsible for maintaining the system, modifying, etc.
  + Secretary: Answers the phone and makes appointments
  + Customers: Will be able to make appointments, cancel, and modify appointments online if they wish.
* Driving appointments:
  + 10 Cars available
  + Each car has a driver
  + Customer picks one of 3 packages
    - Package 1: 6 hours
    - Package 2: 8 hours
    - Package 3: 12 hours
      * Ability to disable packages
  + Each driving session is two hours long
  + Package’s time will decrement 2 hours at a time until done.
* Sign Up:
  + Phone calls sign up
  + Internet sign up
  + Information required:
    - First Name
    - Last Name
    - Address
    - Phone Number
    - State
    - Credit Card
    - Security Code
  + Customers able to reset password online
* Compliance:
  + Able to be connected to the DMV so that they can update DriverPass with new rules, policies, or sample questions.
  + Receive notifications when changes are updated.
* Interface:
  + System runs on the web, preferably over the cloud.
  + Online test progress should show the tests the customer took.
  + Show what is in progress and what is completed.
    - EX: Would say:
      * Test Name:
      * Time Taken:
      * Score:
      * Status:
        + Taken, In Progress, Failed, or Passed
  + Driver Notes - Shows any comments the driver left as well as the times for the lessons
* Multiple Pages:
  + Input form where the students (or secretary) fill in the student information
  + Contact Page

## 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 DriverPass system needs to be created as a Web Application that runs through the cloud so that it can be accessible from any computer as well as mobile devices. This will also give users the ability to download the app on their phone so that they can access data offline as well.
* The web app should load each page within 3 seconds. This will encourage users to continue to use the application and not abandon it because the system runs too slow.
* Updates should happen when:
  + A member leaves the business
  + Packages need to be updated
  + To add or remove modules
  + DMV rules and policies change

#### 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 due to the cross-platform technology it now offers. It also is very user friendly when it comes usability.
* The web app will need to have a database to support the system to hold all the user data for their accounts and progress. This will also allow DriverPass to pull data when needed to see updates of what users have been doing within 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?*

* Distinguishing between users will be sorted out by their account login.
* Each specific user will have different rights depending on their role within the system:
  + Admin Rights
  + Customer Rights
  + Maintenance Rights
* Admin should be notified for tracking purposes; in the event something went wrong or a cancelation.

#### 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?*

* Liam (Big Boss) can make user changes if needed:
  + If an employee leaves the company, he can block their access to the system
  + Can reset user passwords if they forget it
* Updates will need a developer or a system analyst to add or remove modules
  + This will be a future update
  + As far as platform updates go, system will update with the platform unless Windows moves to a newer system.
    - In this event, migration of the system will have to be discusses further.
* IT Admin should have maintenance access.

#### 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?*

* Username and Password are needed to log in to the user respective accounts.
* We can use SSL to secure the connection or the data exchange between the client and the server.
* The account should lock after 3 failed passwords
  + This will give the user some leeway as well if they forget their password.
* If the user forgets their password, they can go to the contact us page for DriverPass 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 validate user credentials when logging in.
* The system shall be able to modify and download data.
* The system shall be able to print an activity report
* The system shall allow users to schedule reservations for driving lessons online using their account
* The system shall be able to update progress status for users
* The system shall be able to sign up users online
* The system shall create users accounts after signing up
* The system shall update DMV compliance when DMV sends updates
* The system shall be directly connected to the DMV
* The system shall send out notifications
* The system shall take in driver notes
* The system shall be able to disable and add driver packages
* The system shall be able to track when cancellations, modification to reservations or issues arise.
* The system shall be able to designate a driver to ride with the student
* The system shall display multiple driver packages
* The system shall be able to access data anywhere, whether online or offline, on a computer or mobile device
* The system shall store user data in a database
* The system shall have password security
* The system shall allow password resets
* The system shall be able to cancel and modify appointments online
* The system shall be able to add and remove modules
* The system shall take in user information from an input form and create an account

### 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.)?*

* Needs of the user interface are:
  + Main Page:
    - Logo on the top of the main page
    - Online Test Progress
    - Driver Notes
    - User Information
    - Special Needs
    - Driver Photo
    - Student Photo
  + Input Form Page
  + Contact Us Page (DriverPass)
  + Student Contact Page
* Users of the Interface:
  + Student
  + Driver
  + Admin
  + IT Officer
  + Secretary
* Admin:
  + Be able to give different access rights to different users
  + Reset Passwords
  + Block Access
  + Tracking
  + Print and Download Data
  + Identify Driver who is going with customer
  + Disable packages
* IT Officer:
  + Maintenance
  + Modifying
  + Support
* Secretary:
  + Take phone calls to create accounts
  + In person appointments
  + Input information into input forms to create accounts
* Student:
  + Make reservations for driving lessons
  + Online and over the phone reservation capabilities
  + Choose which driving package they want
  + Cancel and modify appointments
  + Inform pickup and drop off location
  + Reset password
* Driver:
  + Add Driver notes

### 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?*

* Password will be protected with a set amount of tries before account is locked.
* Student account will be terminated once the training is complete.
* All students have a computer or phone to access the web app.

### 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 students may need more time driving than what is given in the packages.
* Scalability may be an issue since the business is still new.

### 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.*

Graphical user interface, application

Description automatically generated