# 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 aims to lower the failed driving test rate at the DMV by providing online classes, practice tests and on-the-road training for users who are yearning for their driver’s license.

### 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 consulting company would like access of all accounts.
  + Can reset password if user forgets.
  + Can block users access if no longer part of DriverPass.
* Access to data online and offline on multiple devices
  + Offline data will have to be downloaded using Excel.
* Updated tracking system
  + Reservations
    - Can be made online through user’s account.
  + Cancelations
  + Modifications
* Driver / user / car tracking
* Printable activity report with user tracking

### 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 will be able to:
  + Create accounts.
  + Enroll in online classes.
  + Take practice tests.
  + Schedule on-the-rode training
  + Cancel future appointments.
  + Reset their password.
* Consulting company will be able to:
  + Access all users accounts.
  + Reset user passwords.
  + Block user access
  + Access data on multiple devices both online and offline
  + Print activity report
  + View user reservations and cancelations
  + View employee modifications
  + Track what users are paired to what drivers and cars

## 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?*

* DriverPass will be web-based and run on the cloud
* The system will be fast enough to run seamlessly on all devices (mobile, laptop, desktop, tablet)
* The system should only be updated when the site is outdates, or new features needed to be added. Other than that, the system will be maintained

#### 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 as windows has a smaller learning curve for developers than something like linux or apple does
* Windows comes with many tools to help host your system
* The backend database can be built using SQL as it is very well known which will, again, help the developers

#### 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?*

* All users have a unique username
* There is one email address allowed per account
* All users will have to verify their account through email upon signup
* All passwords are case-sensitive, and can request a new one if forgotten
* Admin will be informed when the max attempt of sign-ins is used

#### 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?*

* All users have the ability to edit and update their personal information whenever they please
* All users have the ability to delete their account
* IT admin needs access to all user accounts in order to find user passwords, block user access, etc
* Platform updates will not affect the system as the backend code will only be changed when security needs updating or to fix bugs

#### 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?*

* Every user has a unique username and password
* HTTPS is used to send and receive all data, which will encrypted anything being sent and received
* User will have 5 attempts to log into their account. After 5 attempts they will be forced to change their password. An email will be sent to them. If it wasn’t the user that was trying to log in, they can inform IT via a link in the reset password email. Next steps to be followed will be sent to the user when IT gets into contact with them
* If the user forgets their password, they can easily request a new one on the log in screen. A temporary password will be sent and once they’re logged in, they can create a new one.

### 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 users to take practice tests
* The system shall allow users to review tests taken
* The system shall allow users to schedule driving lessons
* The system shall allow users to cancel driving lessons
* The system shall allow users to view notes from driving instructors
* The system shall keep a record of past test results
* The system shall allow users to change their passwords
* The system shall allow users choose a new password
* The system shall allow users to update their personal information
* The system shall allow IT to remove users if necessary
* The system shall stay up to date with local DMV requirements
* The system shall allow users to view DriverPass contact 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.)?*

* Everyone will start off at the home screen from there they can log in or sign up
* Log in page will lead to a forgot password page if needed
* Signed-up users will have a profile page. Here they can see their personal information like home address, email and name.
  + Signed up users will also be able to see their progress on the their profile. Here they can see test results, notes from driver instructors, and any notes they have left for themselves
  + When viewing their test results they can review the test, their wrong answers, and time spent on each question
* Users can also schedule drives
  + When scheduling, they will be brought to a calendar that shows them availability
    - Here they are able to block a spot for driving practice
* A contact page will be linked at the bottom of every screen for any user that has a question comment or concern
* For the IT team and owner, they will be able to see everything a user can see with the ability to delete account when needed
* The interaction between different interfaces will be seamless and scaled to the 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?*

* Users have access to a device at all times
* User devices have internet at all times
* DMV rules and regulations are current and correct for each region
* Users know how to navigate a website or mobile app
* Developers will keep information current

### 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?*

* Meeting deadlines depends on the number of developers on the team
* There was a deadline given, but no budget. Could build something over what client is willing to spend and will have to rework the system which will take even more time, delaying the final product
* Not all driving rules are the same in every state. Constant upkeep is needed for DriverPass to stay relevant

### 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 calendar

Description automatically generated*