# 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 purpose is to develop a system for our client DriverPass who is aiming to take advantage of the current void in the market when it comes to future driver training to be able to reliably pass DMV exams.
* Have a setup that enables a user to take as many online practice tests as possible
* Have access to online scheduled class sessions
* Able to schedule road driving practices

### 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: Many people are failing the DMV tests several times over. DriverPass aims to take advantage of this and provide teaching so more can pass on the first try.
* This system must offer online classes that can be scheduled, on the road driving practices with licensed instructors, and offer practice written exams to ho better prepare a user for the real test.

### 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 Abilities:

* Account Creation: Name, address, phone #, state, payment information.
* Session Registration: Select package version, time, date, location for pickup, and drop-off. Must be scheduled day before either online or over the phone.
* Provide option to request for a password reset from administrators.
* Link with nearest DMV of user to adjust any tests and rules based on state. Give users notifications if any changes do occur.

Admin Functions:

* Ability to track what students are with what driver at any given time and what car was taken.
* See which student made a reservation
* Add or remove packages from choice listing as needs change.

Other User-End Functions:

* Show user progress:
  + Previously taken exam names and score of said exams
  + Exam score history
  + Completion status of all available practice exams
* Driver Notes:
  + Tips for improvement
  + Scheduled session time, date, status, vehicle, 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?*

* Use a web-based application that is cloud hosted
* Updated at minimum weekly to ensure as little issues as possible
* Fast enough to access on any device with little issue
* Send out notifications detailing update fixes or new features added

#### 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?*

* Run on all forms of mobile operating systems, Linux setups, Windows (logically 7 and up), and MacOS with little to no issues
* Run a cloud-based setup as it will take out the back end for us to deal with as the cloud has it set up
* Run through every web browser available

#### 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?*

* Case sensitive usernames, email, and password
* Send administrator notifications if a user is soft locked out of account due to multiple failed login attempts
* Send notifications in events of database connection loss
* Have some form of twin factor authentication on all accounts (email, text, or phone call verifications)

#### 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?*

* Allow admins to add, remove, and adjust package values or availability as needed
* Base users can edit profile information, pictures, etc. at any time
* Have a backup version of the live version for internal testing of features to ensure no conflicts
* Admins need full database access for removing former employees and users (as well for inactive accounts after a certain time)
* Base users should be allowed to delete their account at any moment

#### 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?*

* Ask for username, email, and password at login
* Send out a form of twin authentication after confirming login details (email, text, or phone call verifications)
* FOUR failed login attempts will throw the login system into a soft lock and the user will have to contact customer support to reset details or follow and email reset link (users choice)
* Password resets will require proof of ID

### 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.”*

* System shall always allow user account creation and deletion
* System shall require user authentication constantly
* System shall track exam progress
* System shall show a dashboard of all exams either completed or not
* System shall provide instructor feedback from previous training
* System shall send notifications about new exams being added
* System shall allow users to be contacted by anyone other than another user

### 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.)?*

* Simple yet functional
* View all available packages
* View all exams that can be taken
* Show profile picture and full name
* Contact page for DriverPass company
* Full user information page
* Scheduling page
* Show exam progress
* Show upcoming training sessions with instructor name, time frame, instructor name

### 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?*

* Servers have a constant internet connection
* Active payment methods
* Updated DMV guidelines constantly being updated and published
* Users have a constant internet connection

### 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?*

* No budget was stated which could potentially cause headaches down the line for hiring and development timeline
* The time for development based on the requested features is a bit lower than potentially needed.
* Constant internet connection is required
* DMV guidelines need to be constantly updated to ensure exam accuracy and that correct information is being taught during training

### 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.*

