# 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?*

* Create a system for DriverPass that allows its users to schedule in person driving lessons.
* The client is DriverPass, a company that provides driving lessons for users.
* They want their system to do several things:
  + Users should be able to schedule driving lessons two hours at a time.
  + They should be able to reserve a car at a specific time with one of ten instructors.
  + Users have three packages to choose from so some users will access to systems others do not.
  + The system should be able to access the cloud and save a backup online. Reports and other information should be downloadable for offline viewing.
  + Users should also be able to access practice tests that are updated when the DMV updates rules.
* We want to create a system that can handle all of this for the client. It should also be open to new features that the client will want in the future.

### 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 create a better system for training new drivers.
* They see a lack of good driver training in our current society
* New drivers fail their driving tests all of the time and sometimes aren’t sure what they’re doing wrong.
* DriverPass wants users to be able to take online classes and practice tests before they take the real thing at the DMV.

### 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?*

* The system should allow a user to select a date and time for their in person lessons. It should also make record of the user’s name in case of cancellation.
* Customers can also call and make an appointment which means that whether online or over the phone the records of the lesssons should be stored in a single place.
* The system should be accessible online from anywhere. Certain reports and information should be downloadable for offline use.
* Certain users should have more access than other users. DriverPass employees should be able to access more sensitive areas of the system than customers.
* The system should also track when a change is made. It should record the user that made the change.
* Customers who purchase higher packages will have access to other systems like practice tests and online lessons.
* The lessons and practice tests should update whenever the DMV makes changes.

## 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 system should be web-based.
* Load times should be limited to no more than 3 seconds.
* Ideally, we would want the system updated monthly.
* Updates should occur in slow times and with notice.

**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?*

* As a web based application, the system to run on Windows, MacOS, Linux, Android, and iOS.
* System will require database for user and driver information.
* Will also require database for tests and test scores.

**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?*

* System will use session cookies to distinguish betweeen users.
* Inputs should be case sensitive for passwords only.
* System to have a daily error report compiled at EOD.
* Critical errors will immediately go to Admin.

#### 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?*

* User changes can happen without changing code in the backend.
* IT should have access to databases and servers.

#### 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?*

* Password and user name for log in.
* Optional two factor authentication.
* After 3 failed login attempts, account will lock.
* Ability to change password if forgotten with security question and email address.

### 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 require user name and password for login.
* System shall send SMS for two factor authentication.
* System shall lock user after 3 failures.
* System shall send an email when password is forgotten.
* System shall schedule driving lessons and match them with a driver.
* System shall notify admin when laws or DMV regulations change.
* System shall update user information without code changes.
* System shall use cookies to distinguish users.

### 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 should be mobile and desktop friendly
* Different users of the interface are customers, drivers, and admins.
* Customers should be able to schedule lessons, take exams, and view packages.
* Admins should be able to make updates and changes to interface.
* Drivers should be able to see schedules.
* Users will interact with interface through desktop and mobile browsers.

### 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?*

* We assume that users will have reliable internet access
* We assume that users will have email.
* We assume that DMV changes can easily be tracked.

### 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?*

* DriverPass’ budget will be a limitation.
* Front end must be broadly accessible.
* Time limit of 15 weeks.

### 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.*

