# 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 of this project is to help the company owner Liam, by building a system that can manage the functions of his driving lesson company. Liam wants to fill a market void of driving education. The system should be able to allow users to easily and effectively become better drivers through the use of practice tests or driving lessons.

### 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 system needs to allow users to make an account and then have access to practice driving test as well as the ability to schedule driving practice appointments. The system will need ways to manage user accounts as well as databases for users, driver, cars, and appointments.

### 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?*

* This system should allow people to take practice driving exams and schedule on the road driving lessons. The end goal is to have less people failing driving tests at the DMV. The system should have metrics such as number or user accounts, number of practice tests taken, average test scores, number of on the road appointments, and at the users’ discretion, a number of users who passed their driving tests after utilizing a DriverPass product.

## 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. It could be in its own application, but it still needs to connect to the internet. The system should run fast enough for ease of use and moderate productivity. The system should only need to update when changes are desired by the customer or there is change in DMV processes.

#### 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 at least run on windows and Macintosh. Apps for iPhone and Android would increase user-base and portability. The back end will relay on at least one data base that takes care of all the information input of the system, as well as a server to handle activity done across the network.

#### 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?*

* Users should require a unique username and email address pair, this way we can ensure there are no two of the same users and the user can safely recover their account. The system needs to inform the admin when duplicates of either of these are attempting to be created. Case sensitivity should probably be ignored as this creates convolution of what’s duplicate and what isn’t and prevents users from having almost identical usernames.

#### 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?*

* The system will utilize classes to hold its attributes. The IT admin will be able to make changes to the users and that will be a feature built into the system, so no code changes necessary. The IT admin will have an account with certain privileges that other users do not have, in order to make these changes.

#### 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?*

* Users need an authentic verification over the network in order to log in. The connection can be secured by scanning for other outgoing connections running on the users operating system. If a user has an incorrect password attempt 3 times in a row, the account should be locked and there should be a recovery process via the email the user used to create the account. In the case of a forgotten password, there will be an option for the user to recover in the same manner listed above.

### 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 create accounts and log into the system.
* The system shall give different users different levels of access depending on what they need to do.
* The system shall allow customer users to make reservations for on the road driving training.
* The system shall allow customer users to take online practice exams.
* The system shall allow secretary users to make, modify, and cancel reservations.
* The system shall track all changes made to reservations as well as who made those changes and provide reports to the user of highest level of privilege (the boss)
* The system shall match available drivers with available cars to appropriate reservations and keep track as to not overlap.
* The system shall allow IT level users to reset passwords and remove accounts from the system.

### 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 user interface needs to show a few elements as outlined by the company owner. This includes panels that contain information such as the user’s personal information, online test progress, notes from the driver, and photos of the driver and user, etc.

### 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?*

* There were not many fine details addressed as far as the design goes. The best assumptions to make are probably that users will be using hardware of decent specifications, if they are on a computer, they will be using a mouse and keyboard, and if they are on mobile, they will be using a touch screen. We also will assume the users will know how to navigate to what they want based on the written descriptions of the buttons in the user interface.

### 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?*

* The system is going to have to sync across the network in real time in order to not duplicate any data. This will just need some extra attention on the coding side of the project. This should be a relatively short project and not very expensive either since we just need to make an app that runs on the web. There are also no limitations on technology since we have access to computers to create this system.

### 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.*

Timeline

Description automatically generated