# 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?*

* Liam, and Ian at DriverPass are hoping to take advantage of a gap in the driver training market by offering virtual driving classes with options for in person road training. DriverPass has enlisted our help in building a system that can handle this program. This software will need to allow DriverPass to access data and reports regardless of internet connection status. This software will allow full delineated company roles with appropriate security clearances, as well as administrative functions. DriverPass will have full access to schedules and changes of customer appointments. The end user must be able to make/change reservations within this software. This software will offer a choice of three different reservation packages which must be dynamic in order for DriverPass to add/remove packages.

### 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 the system to handle scheduling, reservations, dynamic reservation package input. They want the software to be cloud based, and available on both web and mobile. DriverPass also wants to be able to download data/reports and access it both online and offline. DriverPass is going to need a Systems Analyst for adding and removing modules. In the meantime, DriverPass will be able to disable packages as needed.

### 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 needs to be able to dynamically interface with RMV information so that the program can exchange driver training information. This system will have a full operational scheduling system which will allow end-users to select a choice of three packages. End-users will be able to change and cancel reservations as needed. The cloud-based system will allow DriverPass users to download data and reports for offline availability. This software will be accessible on web and mobile. Security clearances will be applied to different employees of DriverPass, as well as an administrative user interface with the ability to modify user accesses.

## 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?*

* This system will require access to a database that holds the reservation information both online and off. Using cloud technology, the application will download the latest reports and data for viewing offline. To eliminate data redundancy, no changes to the data will be allowed when in offline mode. The system should be updated on regular intervals while online.

#### 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?*

* This system should run on both Windows and Android phone so that DriverPass can access this information in the office, and while on the road. As I mentioned, there needs to be a database which will hold reservation information. Should a user be offline, they will have the latest version of the data prior to going offline.

#### 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?*

* This application will have testers creating relevant automated regression testing which will ensure that the system is constantly functioning properly. The system will allow one user per e-mail address registration, as to distinguish between users. Input is indeed case sensitive.

#### 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 IT admin will require full access to making changes to users. If a user leaves the company, the IT admin will be able to remove them. If a user forgets their password, they will reach out to the IT admin for password retrieval. All user changes and user access changes will happen through this IT admin.

#### 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?*

* This system will have different employees at various company levels who will all require various degrees of access depending on their role. There will be a central administrative role, so if an employee forgets their password, the admin can handle it. This admin will also oversee adding/removing user access and users. To prevent brute force attacks, the system should allow three log-in attempts before getting locked out of their account. This application will use secure communications via FTP.

### 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.”*

* This system will allow end users to make/update/change driving reservations through both mobile and web-browser interface.
* This system will allow DriverPass employees to review the latest reservation data. If the employee is offline, the latest version of their data will still be available.
* The system will be structured to allow a single Admin to oversee and structure internal security clearances.
* The system should lock out the user after three unsuccessful log-in attempts.
* The system should have all password reset issues handled by a central IT admin.
* The system will not allow data to be modified in offline mode to prevent data redundancies.

### 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 and DriverPass workers will be able to log-in through a mobile app, or through a web-browser on a PC. The mobile app will have a touch screen interface. The end user will be able to make/cancel/change driving reservations once logged in. The employees will be able to log-in and access the reservation data. Even while offline, the system will display the most recently downloaded data.

### 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?*

* A good example from this document would be the use of log-in attempt lockouts to remove any brute-force hacking attempts. While in the interview, these mitigations are not explicitly mentioned, sometimes the developers should use their tried-and-true assumptions for handling things under the hood of the system. Some more obvious assumptions are that the user will have access to the internet (at some point during their app usage), and users will have a power source for either their mobile phone, or their PC.

### 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 mentioned the desire to add/remove/change reservation packages on the fly. Given that this would be impossible to do without DriverPass having a developer or systems analyst on staff, this would be considered a big limitation. For the time being, DriverPass will just be able to disable packages. Some resource limitations would be the availability of cell phones and decent internet access in rural areas. Given off-line data will be limited to the latest downloaded dataset, a big limitation is the inability to see last-minute reservation changes if they are in an area with limited cell phone coverage.

### 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.*

Chart, timeline

Description automatically generated