# 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 Client’s primary concern is to supply online classes and driving courses to take advantage of a void in the market.

### 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 be functional online and offline, support data downloads, have role-based security for the system, allow users to register for courses and driving instruction time slots, provide course information to the students, and give real-time notifications when DMV policy changes.

### 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, once completed, should provide notifications when the DMV updates their policy, allow for students to access their online courses, allow for students and the secretary to edit reservations, and include the ability to edit or disable course packages.

## 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, preferably on the cloud. The system does not need to be exceptionally fast, however the system should be updated at least once every time a notification is received from the DMV.

#### 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 be functional on all platforms. This may require a database as well as a translation tool, possibly an API, to communicate between different platforms.

#### 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?*

* Usernames and passwords will be used to distinguish users, which should be case sensitive for security purposes. The system should inform the admin of a problem when a user’s password has been mis-inputted several times, which may be an indicator to a malicious attempt to access the user’s account.

#### 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 should be able to make changes to user profiles without changing the code, which may be done using methods to edit the data. The system should be flexible when it comes to platform updates, since the client is not wanting a highly-technical system to worry about. The IT admin needs to have access to most aspects of data manipulation within the system, but should not be able impact the function of the system itself.

#### 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?*

* The user should be prompted for a username and password to log in. A VPN can be used to secure the connection between the client and server. Should a brute force hacking attempt occur, the system should recognize multiple faulty attempts to login and lock the user from logging in for the time being. If the user forgets their password, they should have an automatic function within the system to recover or change their password.

### 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 hold a database of student information
* The system shall have a page for contacting students and the DriverPass company
* The system shall allow students to register for time slots and courses online
* The system shall allow the secretary to register students for time slots and courses online
* The system shall track who makes reservation edits and be able to provide activity reports
* The system shall notify the company when the DMV updates their policy
* The system shall have offline functionality, excluding the ability to edit data
* The system shall allow the download of reports and information on several devices

### 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 should include a logo, online test progress, information about the user, driver notes, special needs, a driver photo, and a student photo
* The users of this interface will be the students and the company, with additional pages for the student or secretary to input student information, as well as a page for holding contact information for both students and the company
* The user interface should be functional in both browser and mobile form

### 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?*

* The initial login page was not specified in the interview, it is assumed that there will be one due to the requirement of having passwords and usernames
* It is assumed that users will have access to a PC, laptop, or mobile device to access the system

### 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 will need to function as a web-based service, which will be a limiting factor considering the technology used for the service
* Budget was not addressed within the interview
* The delivery of the system should occur in just over 2 months
* There are some time restraints regarding developer vacations towards the start of the project, however this was worked around in the timetable for the project milestones

### 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 graph

Description automatically generated

System Design Diagrams:

Class Diagram:

A computer screen shot of a computer

Description automatically generated

Activity Diagrams:

A screenshot of a computer

Description automatically generated

A diagram of a user login

Description automatically generated

Sequence Diagram:

A diagram of a course

Description automatically generated

Use Case Diagram:

A diagram of a driver pass

Description automatically generated