# CS 255 Business Requirements Document

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 develop a system for DriverPass.
* DriverPass is the client. They want their system to provide a platform for managing driver information, scheduling, and dispatching tasks effectively.

### 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 automate and streamline their driver management, scheduling and dispatch process.
* The problem they want to fix is the manual and time-consuming nature of this process.
* The different components needed for this system include a user management module, scheduling module, dispatch module, reporting module, and integration into a database that stores driver information and task data.

### 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?*

* Manage driver profiles and information
* Schedule drivers for different tasks and assignments
* Assign tasks to drivers effectively
* Generate reports on driver performance and task completion
* Implement driver registration and profile management functionality
* Develop a scheduling algorithm for assigning drivers to tasks

## 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 able to run in a web-based environment that can be accessed through browsers and should also be accessible through mobile browsers.
* The system should have fast response times to ensure the best experience for the user.
* The system should be updated on a regular basis to iron out any bugs, security issues, and implement new features.

#### 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 able to be run on multiple platforms like Windows, Unix, Android, and macOS.
* The back end will require a database. We can use SQL to accomplish this.

#### 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 can be differentiated through usernames and passwords.
* Login should be case-sensitive to improve security.
* Administrators should be informed of any changes to user profiles for example passwords or email changes. System errors should also be logged to improve user experience.

#### 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 should allow for user management without changing code.
* Since the application is web-based, any updates should be forced and should reflect on user machines without issue.
* The IT admin should have full administrative access to the system. Limiting access to the IT admin would also limit their ability to improve the system.

#### 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 should be required to login with a username and password
* Implementation of two-factor user authentication
* To prevent brute force attacks a lockout failsafe will be implemented in the case of too many failed attempts to log in.

### 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 provide the ability for users to register and manage their profiles
* The system shall enable task assignment to drivers
* The system shall generate reports based on driver performance
* The system shall provide an easy-to-use interface for the best usability

### 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 intuitive, responsive, and user-friendly
* A different interface based on the user that is accessing the system. Drivers and administrators for example
* Driver access to assigned tasks and their own performance reports

### 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?*

* All users are assumed to have some basic computer skills
* All users are assumed to have access to internet when attempting to access
* Although we will try to maximize compatibility, we assume that users have a somewhat modern device to access the application through

### 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?*

* Although the application will be tested we can’t account for all possible cases
* The project will have to be completed by a certain deadline based on DriverPass’ budget
* Up-to-date performance reports and user access require an internet connection

### Gantt Chart