# 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?*

* Our client, DriverPass, wants us to develop a system that learners can use to look at training videos, schedule driving appointments, see their training reports and practice tests. As the market currently does not have a lot of online training courses for learners, our client would like to have a system that users can access online and offline in order to practice/study about driving tests.

### 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 must provide users with access to their training courses online, users will be able to view their data offline and modify them when they go online. The users should be able to use the system to book appointments based off packages the company offers, and from the company side, they can also create appointments for users who reach out via phone calls. The system must support roles based on the user, e.g. Admin, Employee, Driver and User. The system should also provide tracking capabilities for every user, their appointments and activity history. System should implement some sort of public DMV api in order to fetch/show the latest DMV rules and compliance 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?*

* Once completed, the system should allow users to view training videos, take practice tests, make appointments for in-person training, reset passwords, modify appointments and their profile data online. If offline, users should be able to view data only but not modify. The system will have different account privileges, account with highest clearance should be able to view other users’ actions and history, and even reset their account password for them. Employees should be able to track drivers and cars, so they can keep track of the appointments and availability. The UI should provide users with information on the exams they have taken, the scores, the exams in progress and the ones yet to be taken. The system will provide an input form for students’ info including credit card info and pick up/drop off locations that can be filled either by users online or by employees who assists users via phone. The system will also display users’ in-person driving history with our client and they will be able to view feedback left by trainers. The system will allow students to select packages provided and users with proper account privilege should be able to disable a package from being displayed/selected. The system will also display the most up-to-date information and compliance standards from DMV.

## 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 allow offline data viewing and be web based. It should respond fast, and updates should take place in real time and use AMV API for compliance. The website should also handle multiple concurrent users without lagging.

#### 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 run on every platform and all major browsers. A cloud system should handle data backups and security, and the system will require a database for storing and accessing data.

#### 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?*

* The system should have different roles for different users, such as employee, admin and user. Input forms such as email, password and credit cars should have validators to check for data accuracy. In the event of an issue, the system should notify IT admins for maintenance and troubleshooting.

#### 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?*

* Since it is a web-based system, it should not be affected by platform updates. Users with the admin role should be able to view more sensitive data and reset passwords for other users.

#### 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?*

* Email and password should be used for account authentication. Connections should use modern encryption techniques for secure communication. After numerous failed attempts, account should be locked and can only be recovered by admins. Unless locked, users should be ablet o reset password via a link sent to their account.

### 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.”*

* Allow scheduling and modifying driving lessons
* Track drivers and user activities.
* Allow admins to view drivers and users’ history
* Allow offline access to tests and videos.
* Allow Admins to reset user password and disable/enable driver packages
* Use DMV API to keep rules and regulations updated in real time.

### 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 front end should work in mobile devices and computers without any loss of features. It should allow users to view videos and schedule appointments. Employees should be able to view drivers’ locations and track/create appointments for customers.

### 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?*

* Assume all users will be fluent in using technology, and their devices will handle modern browsers. We also assume all users will be comfortable with English as the primary language for 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 does not allow our client to modify their packages, i.e. price, duration, amount, etc. by themselves.
* Budget is limited so support and update patches after release of the app may be limited.
* DMV API may not be reliable, and our system may appear outdate in case the DMV API is temporarily down.

### 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 computer

Description automatically generated