# CS 255 Business Requirements Document

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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?*

* This is a project for DriverPass. DriverPass is seeking to create a holistic cloud-based system for their DriversEd business.
* Liam – Owner – Needs to access reports anywhere, including off-line. Monitor activity and control content.
* Ian – IT Officer – Needs administrative privileges for user account management, track compliance, and manage security for the system.
* Secretary – Input customer data if a customer chooses to call and request an appointment or register. Also, needs to modify schedules, and track driver assignments and vehicle usage.
* Customer – Register, manage profile, book/modify/cancel appointments, track progress, and access online classes and 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?*

* Provide a better training experience to users, through updated training material, better access to course material through multiple devices, and a robust system for management, tracking, and access.
* Improve user experience through a robust profile management system, allowing booking and scheduling to the users. In addition to tracking progress and multi-platform access to training materials.

### 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?*

* Create/Manage user profiles both from a user and administrator role.
* Provide training and testing material to users
* Track progress and generate reports both online and downloadable (offline).
* Meet DMV requirement
* Have an intuitive user interface experience.
* Built in flexibility for future enhancements or additions to the services provided.

## 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 must be cloud based for accessibility and scalability.
* Response times of user iterations must be within industry standards
* Appointment scheduling should be synced within the system.
* Ability to handle at least 100 users at any time.

#### 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 accessible from all modern web browsers
* The system should at a minimum run on windows and iOS/Mac devices.
* A database system must be capable of handling data related to user information, scheduling, course information, and DMV requirements.
* Must integrate with a payment system for payment processing.

#### 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 permissions should be identified and managed through a username and password validation.
* User roles and permissions other than “student” must require IT permission before completing registration.
* User name and passwords must be case sensitive
* System integrity and notifications can be handled through cloud provider software to notify IT of system outages, errors, or attacks.
* System logs should be saved and archived while the system is running to assist in troubleshooting errors.

#### 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 be available to handle changes in course packages offered, price changes, adding/removing students/drivers/other users.
* The system should allow the adding/removing/modifying of course material.
* The system should allow IT users the ability to add/remove/modify other user’s role and permissions as needed.

#### 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 must have a valid username and password in addition to 2FA to complete registration.
* Role base access should manage user permissions
* Logs should be generated to capture

### 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 user-based role permissions, with username and password validation.
* The system shall handle scheduling; including booking, modifying, and canceling appointments.
* The system shall display catalogs of available trainings and track progress.
* The system shall handle new registrations and payment processing.
* The system shall generate business reports with the ability to download the reports in excel format.
* The system shall integrate with DMV requirements and allow permissioned users to update trainings as needed.

### 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.)?*

* Different users of the interface must have different layouts.
* The interface must be mobile friendly (touch screen) and run on a browser.
* For the students role, interface must show test/class progress, student information, driver notes, special needs, and display photos and images.
* Other users must be able to add or update a students information. IT role must be able to add/update/remove training material based on DMV requirements.

### 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?*

* Assumptions not covered in this document are users are familiar navigating web and mobile applications based on industry best practices.
* Hardware, including mobile phones, desktops, and tablets are capable of accessing the internet, and software versions are up to date.
* Cloud service provider has technicians available for assisting in cloud integration.
* Connection to DMV is allowed and secure.

### 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?*

* Limitations acknowledge by DriverPass are that available packages, initially, will be limited to only a few options.
* Potential scheduling issues with the current design, as student and receptionist can schedule appointments. Without a real-time, synced schedule, conflicts may arise.

### Gantt Chart

