# 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?*

* DriverPass with Liam and Ian.
* Design system for their business providing driver training for students.
* System should present a meaningful improvement over current models for driver training, both for quality and convenience.
* DriverPass seeks to provide access to driver training online.
  + Sign up online.
  + Select packages for length and features.
  + Be picked up and dropped off to a location.
  + Train with a matched driver in 2-hour lessons.
  + In person lesson/online training depending on package selected.

### 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 identifies that there is a void in driver training.
* Too many drivers failing their driving test due to poor preparation.
* DriverPass seeks to provide a better system for driver training.
* DriverPass wants customers to be able to access their product online, over the phone, or in person.
* System design should trivialize the effort of signing up and receiving drivers training.
* DriverPass offers this in three packages, 6-hour training, 8-hour with an in-person lesson, 12-hour with in-person lesson and online training.
* Packages should cover a wide range of customer needs to maximize the accessibility based on the students’ needs.

### 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?*

* System should be accessible through the web via cloud.
* Input form to track student and driver contact and information.
* Allow users to request appointments, adjust, or cancel.
* Provide package selections via modules for 6 hours, 8 hours, and 12 hours.
* Allow driver to make comments on training.
* Contact page for DriverPass.
* Access to DMV updates for compliance with training.
* Test progress sheet for students taking online training.
* Varying user access.
  + IT to be able to reset passwords and block access as needed.
  + Secretary and users to be able to enter customer information.
  + Customers able to access their training, records, and learning materials.

## 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 run in a web-based environment to allow registrations to be made online.
* The system does not have high performance needs and would run at a moderate speed.
* System will need to be updated following changes to DMV standards whenever they occur.
  + System may have future updates to packages, features, etc.

#### 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?*

* System should run on standard computer operating systems such as Windows, Mac, etc.
* Back end will need to store user accounts for both employees and customers separately to set permissions, reset passwords, or remove access as needed.
* DMV data for current compliance will be used to ensure the system lines up with their standards.

#### 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?*

* Customer and employee users stored separately to avoid misapplication of permissions, etc, with employee user names containing “Emp.” To further distinguish
* System should track changes made such as appointment creation, cancellation, changes to user accounts, and failed logins to track the source of any problems.

#### 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?*

* Package offerings cannot currently be changed by users without backend development.
* Users can manage their own passwords; permissions must be managed by admins.
* IT admin needs access to all user accounts for both customers and employees to manage account issues and password resets.

#### 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?*

* User login requires standard password procedures, Capital letter, number, special character, at least 8 characters.
* Two-factor authentication when initially creating account and when updating user information such as password.
* Upon 4 failed login attempts, system will lock the account and prompt a manual password recovery and change.
* User way use Two-factor authentication at any time to recover their forgotten 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 perform two-factor authentication during registration.
* The system shall validate user credentials when logging in.
* The system shall lock user access after 4 failed logins and require reset.
* The system shall provide and limit user access based on assigned permissions.
* The system shall enable customer users to register an account online and for employees to register on behalf of the customer.
* The system shall allow customers to access their learning materials, appointments, and other account details online.
* The system shall allow admin user to create, remove, and modify other existing users for the purposes of password resets, disabling or enabling permissions, etc.

### 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.)?*

* Users will be either admin user, customers users, or other employees such as secretary and drivers.
  + Admin will need access to existing user accounts.
  + Secretary will need access to create user accounts on behalf of registering customers.
  + Drivers will need to access to customer appointments they are assigned to.
  + Customers will need access to their packages, learning materials, appointments, account details, and modules.
* All users will interact with the interface via a browser.

### 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?*

* Customers and all employees will have consistent internet access for the system.
* Training will be provided for employees and later customers to use the system appropriately.
* DMV updates will be timely and updates to the system will be able to be made shortly following.
* Client will not need any changes to the system during development.
* We have the needed budget to fulfill this project.

### 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?*

* System is limited to browser-based interface accessed via the internet.
* Module updates cannot be made at-will and must be developed as needed.
* John currently on vacation until 3/1, so their work cannot begin until then.
* Several items on the Gantt Chart need to be assigned to owners.

### Gantt Chart

Table

Description automatically generated with medium confidence