# CS 255 Business Requirements Document Template

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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, the latest client, plans to provide a platform where users can attend online classes and take practice tests to get ready for their driving exams. Along with these online tools, users will also have the chance to book in-person driving lessons with DriverPass staff for practical, on-the-road experience.

### 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 owner aims for DriverPass to address the need in the market for a more efficient and effective driver training solution. The system is designed to help student drivers pass their exams by providing online classes, practice tests, and the option to schedule practical driving sessions.
* Moreover, DriverPass needs to let users schedule in-person training, use online learning resources, and complete practice tests. Simultaneously, the system should allow the owner and IT team to oversee appointments, provide 24/7 access to user information, and guarantee adherence to current DMV rules.

### 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?*

* DriverPass should allow users to schedule appointments straight from their accounts, providing them the freedom to choose their desired date and time.
* Users should have the option to change or cancel their appointments directly from their personal profiles.
* The system will provide three different on-the-road training packages for users to select from, addressing various learning needs.
* DriverPass needs to set up role-based access control, which means giving different permission levels based on user types—like full access for admin and IT staff, while student users get limited access.

## 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 operate in a web-based setting that users can reach from any computer or mobile device. This will offer flexibility and convenience to the platform's users.
* The system needs to be hosted in the cloud to minimize technical problems and facilitate future expansion.
* The system needs to operate efficiently, providing fast response times for scheduling and report generation.
* The system must accommodate several users simultaneously without experiencing any slowdown.
* The system needs regular updates to remain compliant with DMV regulations. It should implement new features and ensure lesson packages are up to date, while also focusing on timely security patches and bug fixes

#### 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 operates on the web and is compatible with Linux, Mac, and Windows. Development will focus on major browsers like Chrome, Edge, Firefox, and Safari.
* A database is necessary for the backend. You can opt for either an SQL or a non-SQL solution; this choice depends on the application's requirements.
* Mobile device friendly resizing to fit screens.

#### 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?*

* User roles, including customers, administrators, and trainers, will be utilized to distinguish between users.
* To enhance user experience, inputs must be case-insensitive.
* Any significant issues, like unsuccessful login attempts or system errors, must be communicated to the administrator.

#### 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 must enable user modifications (adding, removing, or changing) via an admin interface or dashboard.
* Leveraging cloud-based technologies will make the design modular and adaptable. This facilitates easy adjustments to platform updates. Regular maintenance and updates will keep the system compatible and operating smoothly with minimal interruptions.
* The IT administrator must possess exclusive access rights. They should be capable of adding, removing, and modifying user accounts and permissions. They require the ability to change system settings whenever needed. Additionally, they should have access to logs, reports, and analytics to monitor system performance and security. Finally, they need the capability to back up and restore data to guarantee smooth operation.

#### 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 will need to log in with a valid username and password. For extra security, the system will

also support two-factor authentication.

* The connection between users and the server will be protected using encryption,

making sure that sensitive data is not exposed during transmission.

* If an individual attempts to access an account by repeatedly guessing the password too many times, the system will temporarily lock that account after a specified number of unsuccessful attempts.
* If a user forgets their password, they can click on the link labeled "forgot password". The system will then send a reset link to their email. After confirming their identity, the user will have the ability to set a new 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 authenticates user credentials at login.
* The system should allow IT administrators to reset user passwords and manage account access.
* The system should generate activity reports showing user actions for accountability.
* The system uses encryption to protect the data exchange between the client and server
* If multiple login attempts fail, the system temporarily locks the user account to prevent brute-

force attacks.

* If the user forgets the password, the system will allow the user to reset the password

automatically.

* The system should record and track changes to the reservation, including who makes, modifies

or cancels the reservation.

* The system shall provide the option for drivers to leave comments on the driving lessons for the
* associated customers to see.
* The system should notify users from the DMV about updates to new rules, policies, or test information.
* The system should enable the owner to disable specific training packages as needed.
* The system shall have an option for customers, drivers, and secretaries to cancel or reschedule

on-the-road driving lessons

* These specifications delineate the essential functionalities necessary to address a range of user requirements while maintaining security and accountability.

### 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 can interact with the interface via an online browser on a computer or other devices.
* The different Users of this interface includes the customers and employees/administration
* The administration must have access to view customer information on the interface, such as
  + Customers registration
  + Ability to allow the user to reset their account password
  + Which customers and drivers are matched up, dates, and times
  + Which packages have been selected by who
  + Ability to remove full packages
* The customers also must have access to view information on the interface, such as
  + Login/register page
  + Home page
  + Test progress and score
  + The pass/fail status of tests
  + User information and ability to update
  + Driver notes, lesson dates, and times
  + Package information
  + Online learning tools
  + Contact information page

### 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?*

* That all customers will have either a computer or mobile device with internet access using common operating systems.
* The administrators of DriverPass will have the required skills to access and navigate all the

functions of the website

* Each customer will be tech savvy enough to navigate the system website and learn

effectively.

* The customers will show up for every lesson and will also be on time for every lesson in their

chosen package

* There will be an available driver for every lesson and that driver will make it to every lesson.

### 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 DriverPass team's technical expertise allows us to create a system that meets their needs within their budget and timeline.
* The exact count of each employee category is unclear, and no other administrators were mentioned apart from the company's boss.
* Vehicles that DriverPass own should have regular maintenance and be available
* Some clients may not be skilled enough to drive every type of vehicle available
* Budget and time frame to hit on all requirements
* Customers will have to make sure that they have updated technology on their own
* devices

### 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 project schedule with multiple colored squares

AI-generated content may be incorrect.