# CS 255 Business Requirements Document Template

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 design and implement a system for DriverPass that allows the company to provide effective driver training services to customers.
* DriverPass wants the system to offer online classes, practice tests, and scheduling for on-the-road training.
* The client also wants to access business data from multiple devices and locations and maintain flexibility to support business operations.

### 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 provide a modern, flexible way to train students for DMV driving tests.
* The system needs to address the problem that many students fail the DMV test due to poor preparation and lack of practical training.
* DriverPass will offer three training packages that combine online and in-person training, which must be supported by the system.
* The system must allow online class access, online practice tests, and scheduling and tracking of in-person driving lessons.
* The system must also handle customer information management, payment processing, scheduling, tracking of training progress, and integration with DMV updates.
* System components will include a web-based user interface, scheduling and tracking functions, reporting functions, security and access control, and an activity tracking log.

### 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?*

* The system should allow customers to register for driving training services online or through phone or in-person contact.
* The system should allow customers to schedule, modify, and cancel driving lesson appointments.
* The system should track which driver, car, and time each customer is scheduled for.
* The system should allow DriverPass staff to manage reservations and customer data.
* The system should track and report activity, such as who made, changed, or canceled reservations.
* The system should allow the IT officer to manage user accounts and security settings.
* The system should allow DriverPass to maintain up-to-date training materials and receive DMV updates.
* The system should allow for exporting selected reports for offline access.
* The system should allow the company to enable or disable training packages without requiring code changes.
* The system should run as a web-based application with cloud hosting.

## 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 run as a web-based application.
* The system must be accessible via standard web browsers on desktop and mobile devices.
* The system must allow access from any internet-connected device.
* The system must support data download for offline use of selected reports.
* The system should provide timely responses to user actions, with page loads and updates occurring within two seconds under normal conditions.
* The system should be maintained with regular updates as required by business needs or regulatory changes.

#### 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 will be web-based and hosted on a cloud platform to minimize the need for on-premises IT support.
* The system must not require DriverPass to manage backups or security manually.
* The system back end must include a database to store customer data, reservations, user accounts, driver notes, and DMV-provided training materials and test updates.
* The system must be compatible with modern Windows and Mac operating systems via supported web browsers.

#### 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 must distinguish users by unique usernames and secure passwords.
* User input will be case-sensitive where applicable, such as for usernames and passwords.
* The system must track all changes to reservation data and identify which user performed each change.
* The system must notify the IT officer if unusual activity is detected or if a user account experiences multiple failed login attempts.

#### 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 allow IT administrators to add, remove, or modify user accounts through the administrative interface without requiring code changes.
* The system must allow the company to enable or disable training packages without requiring code changes.
* The system must adapt to platform updates from the cloud provider automatically, minimizing manual intervention.
* The IT officer must have full access to configure security settings, reset passwords, and block accounts 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 log in with secure, unique credentials.
* The system must secure all client-server communications using encryption.
* The system must track all login attempts and lock user accounts after repeated failed login attempts to prevent brute force attacks.
* Users must be able to reset forgotten passwords through an automated process.
* The IT officer must be able to disable user accounts when required.

### 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 validate user credentials when logging in.
* The system shall allow customers to create and manage personal accounts.
* The system shall allow customers to schedule, modify, and cancel driving lesson reservations online.
* The system shall allow secretaries to schedule, modify, and cancel driving lesson reservations on behalf of customers.
* The system shall assign drivers and cars to each scheduled lesson and track this information.
* The system shall track and report which user made, modified, or canceled reservations.
* The system shall allow exporting of selected reports for offline access.
* The system shall track driver notes for each customer, including lesson times and comments.
* The system shall allow the IT officer to manage user accounts and security settings.
* The system shall display customer progress on practice tests, including test names, scores, and status (not taken, in progress, failed, passed).
* The system shall receive DMV updates and notify the company of new rules or practice questions.
* The system shall allow online payment processing for customer reservations.

### 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 must be web-based and accessible through modern web browsers on both desktop and mobile devices.
* The customer interface must allow customers to register for accounts, log in, schedule and manage appointments, purchase training packages, and track their progress on practice tests.
* The interface must display practice test progress, including test name, time taken, score, and status (not taken, in progress, failed, or passed).
* The driver notes section must display lesson times and driver comments in a clear, tabular format.
* The administrative interface must allow the IT officer to manage user accounts, reset passwords, and block or disable accounts.
* The secretary must have an interface to enter and manage customer information and schedule appointments on behalf of customers.
* The owner and IT officer must have access to activity reports that track which user made or modified reservations or other system records.
* The interface must allow notifications when DMV updates are received and must display the updated practice questions or rules.

### 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?*

* The customer will have basic computer or mobile device literacy to access the web interface.
* Users will have stable internet access to use the system’s full functionality.
* The cloud hosting provider will handle backups and platform-level security.
* DMV will provide a suitable mechanism (such as API or secure portal) for delivering updates to DriverPass.
* Online payments will be processed through a third-party payment processor.

**Limitations**

### 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 will not allow DriverPass to add or remove training modules entirely without developer support; it will only support enabling or disabling packages through configuration.
* The initial version of the system will not include a mobile app; all access will be through a mobile-friendly web interface.
* The system depends on the DMV to provide timely updates; it cannot guarantee the accuracy of DMV content if DMV updates are delayed.
* Budget and time constraints may limit the depth of analytics and reporting features in the first release.

### 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 diagram with a few rows of squares

AI-generated content may be incorrect.*