# **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?*

* The purpose of this project is to build an online system for DriverPass, a company focused on helping customers pass their DMV driving tests.
* DriverPass wants a system that provides:
  + Online classes and practice tests
  + On-the-road driving lesson scheduling
  + Package selection and registration
* The system should be web-based, accessible from any device, support different user roles with specific permissions, and allow downloading to access info offline.

### **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 sees a gap in driver training where too many people are failing their driving tests.
* Their solution is to offer:
  + Structured driving lesson packages (6, 8, or 12 hours)
  + Optional in-person lessons and online practice tests
  + Flexible scheduling for driving sessions
* They want the system to:
  + Allow users to book, modify, or cancel driving appointments online or by phone
  + Match students with available drivers and cars
  + Record and track lesson details, driver notes, and test results
  + Be accessible online and allow report to be downloaded
  + Automatically handle user password resets
  + Include audit trails to track who made changes to records
  + Be flexible enough to enable/disable training packages as needed
  + Stay updated with DMV rule changes via notifications or integrations
* It should also reduce technical headaches by being hosted in the cloud with built-in security and backups.

### **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?*

* Users should be able to:
  + Create and manage their own accounts
  + Register for one of the training packages
  + Schedule, reschedule, or cancel lessons online or by contacting the office
  + View their online test history with status, scores, and progress
* Staff should be able to:
  + Enter and manage customer info, lesson appointments, and test data
  + Assign drivers and vehicles to appointments
  + View and print activity reports for audit purposes
  + Manage user roles and permissions
  + Reset or block accounts as needed
* The system should:
  + Track changes and show who did what and when
  + Allow Excel-compatible report downloads
  + Support role-based access
  + Include a contact form for customer support
  + Run securely on the web with cloud backup and minimal downtime

## **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 shall be web-based and accessible from any modern browser and device.
* The system should load pages and complete basic actions (login, booking, etc.) in under 2 seconds.
* System updates should occur seamlessly, with DMV test and policy updates integrated as soon as they are available.
* Cloud hosting should ensure high uptime and automatic backups.

#### **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 must run on all major operating systems via web browsers.
* The backend will require a secure cloud-based database.
* No installation should be required for end users; everything must run in the browser.

#### **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?*

* Each user will have a unique username and role.
* User input will be case-sensitive where appropriate.
* The system should notify the admin/IT officer of unusual activity or repeated 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?*

* Admins should be able to enable or disable packages, reset passwords, block/unblock the users without any code changes.
* The system should allow for user role changes and future expansion.
* IT admin must have access to all accounts and system management features.
* The system should be designed for compatibility with future browser and platform updates.

#### **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?*

* Login will require a secure username and password.
* All data transmissions must be encrypted.
* After several login attempts, the system should lock the account, alert the admin, and email the user.
* Password reset should be available to users who forget their password.
* Only admins/IT can unlock or disable accounts.

### **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:
  + Allow users to create and manage their accounts.
  + Let students select and register for training packages.
  + Enable users to schedule, modify, or cancel driving lessons online or by phone.
  + Assign drivers and cars based on availability.
  + Track lesson progress, store driver notes, and record test results.
  + Keep an activity log showing who made reservations, changes, or cancellations.
  + Support password resets for users who forget their password.
  + Enable admins and IT to manage user roles, reset passwords, and block/unblock accounts.
  + Allow reports and data to be downloaded for offline use and compatible with Excel.
  + Update test content and DMV rules as new info is provided.
  + Include a contact form for customer support or feedback.

### **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 simple, intuitive, and accessible on both browsers and mobile devices.
* Different user roles see different dashboard options:
  + Students can register, schedule lessons, take tests, and view progress.
  + Secretaries can schedule lessons and manage customer data.
  + Admins/IT can manage users, reset passwords, run reports, and configure system settings.
* The interface must support forms for registration, lesson booking, cancellations, and feedback.
* Users interact through a web browser; mobile optimization is required.

### **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?*

* All users have access to the internet and a device with a modern web browser.
* DMV will continue to provide electronic updates that can then be integrated into the system.
* Staff will receive the necessary training to use the admin and reporting features.

### **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 cannot be modified by non-developers to add new features or packages; only enabling/disabling is user friendly.
* Offline access is limited to viewing downloaded reports; no changes can be made offline.
* Project timeline and budget may limit the number of features in the initial launch.
* Reliance on external DMV updates means there may be delays in new rule integration.

### **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.*

