# 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 an online system for DriverPass that will provide comprehensive driver training services to its customers.
* DriverPass is a company that wants to help students pass their DMV driving tests by offering:
  + Online practice tests and classes
  + In-person instructional sessions on DMV rules and policies
  + On-the-road driving training with certified trainers
* The system should allow DriverPass to manage scheduling, user accounts, packages, and training data efficiently, enabling them to serve customers both online and in person.

### 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?*

* Problem: Many people fail their driving tests due to inadequate preparation and lack of confidence.
* DriverPass Solution: Provide an integrated platform offering:
  + Online access to practice tests and learning materials
  + Scheduling of on-the-road driving lessons
  + Various packages combining lessons and online classes to fit different student needs
* Key Components Needed:
  + User Management Module: for creating and managing customer, employee, and admin accounts with appropriate roles and permissions.
  + Scheduling Module: to reserve driving lessons with date, time, driver, and car assignments.
  + Package Management Module: for managing and disabling training packages.
  + Online Practice Test Module: to track test progress, scores, and statuses.
  + Reporting Module: to generate downloadable activity and reservation reports.
  + Integration Module: to receive updates from the DMV regarding rules, policies, and sample questions.

### 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 shall allow students to:
  + Create accounts and log in securely.
  + Schedule, modify, and cancel driving lessons online.
  + View and complete online practice tests with tracked progress and scores.
* The system shall allow the secretary to:
  + Register students over the phone or in person, entering their personal and payment information.
  + Schedule lessons on behalf of students.
* The system shall allow admins and IT officers to:
  + Manage user accounts (reset passwords, disable accounts, update roles).
  + Disable packages to prevent new registrations.
  + Track and print activity logs for accountability (who reserved, canceled, modified records).
* The system shall:
  + Notify DriverPass when DMV updates occur.
  + Run as a secure, web-based, cloud-hosted application accessible from any computer or mobile device.
* Measurable goals include:
  + 100% of user accounts created with role-based access control.
  + Online scheduling available 24/7 with confirmation notifications.
  + Practice test module displaying real-time statuses (not taken, in progress, failed, passed) and detailed results.
  + Ability to generate and download Excel reports without data redundancy.

## 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 run as a secure, cloud-hosted web application accessible 24/7
* Page loads and transactions (e.g., booking lessons, retrieving reports) shall occur within 2 seconds under normal load
* The system shall automatically update when new DMV rule changes or test content are provided

#### 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 shall support modern web browsers on Windows and macOS platforms
* The backend shall be developed using a database (e.g., SQL) hosted on a cloud platform
* The system shall integrate with external DMV data sources for rule and policy updates

#### 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 shall enforce role-based access to ensure users only access permitted functions
* All user input shall be validated (e.g., case sensitivity for usernames, required fields)
* The system shall log and display which user performed each action for tracking and reporting accuracy

#### 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 shall be able to enable or disable training packages without changing system code
* The system shall allow easy role modifications (e.g., upgrading a secretary to admin) via the admin interface
* The application shall remain compatible with future browser and OS 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?*

* Users shall log in with unique credentials, with passwords stored securely using encryption
* All client-server communication shall use HTTPS protocols
* The system shall lock an account after five consecutive failed login attempts
* A secure password reset mechanism shall be available via email

### 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 students to create accounts and securely log in
* The system shall allow students to schedule, modify, and cancel driving lessons online
* The system shall allow secretaries to register students, enter payment information, and schedule lessons
* The system shall manage different packages (enable/disable) available for new students
* The system shall display students’ online test statuses (not taken, in progress, failed, passed)
* The system shall allow instructors to add driver comments and lesson details
* The system shall log all actions (reservations, cancellations, modifications) for reporting
* The system shall generate downloadable Excel reports for activity and reservations
* The system shall integrate with DMV systems to receive notifications of rule and policy updates
* The system shall provide password recovery and automatic account resets

### 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: Students, Secretary, Admin/Owner, IT Officer
* Student Needs: Book/cancel lessons, view test progress, view driver comments
* Secretary Needs: Register students, schedule appointments, manage payments
* Admin/IT Needs: Manage accounts, disable packages, view system activity logs
* Interface Type: Web-based, mobile-friendly, with forms and tables for data entry and report viewing
* Interactions: Accessible via any browser; supports desktop and mobile use

### 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 will have internet access when using the online platform
* DMV will provide an API or method to send rule and test updates
* Training packages will remain fixed except for enabling/disabling availability
* Secretaries will handle phone/in-person bookings while the online system handles self-service bookings

### 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 initially only support English language content
* Custom package creation or removal of modules will require developer intervention
* The project’s timeline and budget may limit advanced reporting or analytics features in the first release
* Offline access will be limited to downloaded reports; real-time updates require an internet connection

### 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 of a project

AI-generated content may be incorrect.*