# 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?*

* This project aims to design and develop a system for DriverPass, a company that provides training to help prospective drivers pass their driving tests at the Department of Motor Vehicles (DMV). The client wants a system with an intuitive interface that offers online classes, practice tests, and scheduling for on-the-road training.

### 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 a system that centralizes training resources and scheduling. The problem that this system addresses is that many people fail their driving tests due to inadequate preparation. The components needed for this system are as follows:
  + Online classes and practice tests that satisfy DMV standards
  + A scheduling system that allows users to book and manage lessons
  + Role-based access control that gives different permissions for different account types
  + Cloud-based infrastructure to increase data accessibility and reduce technical maintenance
  + Integration with DMV systems to receive updates concerning changing regulations to ensure tests and practices remain compliant

### 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?*

* When completed, the system should support the following:
  + Enable customers to take online classes with practice tests
  + Schedule and manage on-the-road training sessions
  + Allow users to schedule, update, cancel, and modify appointments
  + Allow the resetting of forgotten passwords automatically
  + Track and log changes to reservations
  + Match customers with drivers, cars, and session times
  + Allow data to be exported for offline use
  + Provide role-based access control for different employees
  + Notify DriverPass when DMV requirements are updated
* Measurable tasks to help achieve this includes:
  + Developing use case diagrams, activity diagrams, and class diagrams
  + Creating a user-friendly interface for customers and staff
  + Designing and implementing a secure database connected to the interface
  + Adding business logic for security, role management, and notifications
  + Ensuring the system is tested thoroughly and delivered on schedule

## 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 compatible with mobile devices
* Page load times shall not exceed 2 seconds
* The system shall be able to handle at least 1000 concurrent users
* Updates shall be made regularly

#### 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 be accessible on Windows, macOS, Linux, and mobile devices
* The backend shall use a cloud-based database
* The application shall be hosted on a cloud platform that is readily scalable

#### 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?*

* Users shall be distinguished using unique email addresses and IDs
* The system shall be case sensitive for some input like passwords, but insensitive for some others like email addresses
* The system shall alert admins of failed login attempts and payments and downed systems

#### 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?*

* User roles shall be managed through an admin terminal without modifying code
* The system shall be designed with modularity in mind to adapt to changing requirements
* Admins shall be given access to logs, user management, and system configuration

#### 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 an email and password, preferably with two-factor authorization
* All data exchange shall be encrypted such as via HTTPS and SSL/TLS
* User accounts shall be locked after consecutive failed login attempts
* Users shall be able to reset their passwords through email verification

### 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 register, reset passwords, and manage their profiles
* The system shall allow users to enroll in online classes and take practice tests
* The system shall allow users to book driving lessons
* The system shall track progress and generate reports
* The system shall allow administrators to manage user accounts and schedules
* The system shall log all activity for auditing

### 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.)?*

* Customers should be able to register, log in, enroll in classes, take practice tests, schedule lessons, and modify bookings
* Instructors should be able to view their schedules and student progress
* Admins should have a dashboard for managing users, class content, and system settings

### 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?*

* Users will have basic digital literacy
* The system will be accessible through modern browsers
* The system will be able to integrate with existing DMV databases

### 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?*

* Budget constraints may restrict advanced features
* The initial version may not have support for multiple languages
* System responsiveness may decrease under heavy loads

### 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 gantt chart with multiple colored squares

AI-generated content may be incorrect.