# 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 client for this project is the company DriverPass.
* The purpose of this project is to create an online driver training system that addresses the high failure rate of students taking driving tests
* The system will provide customers with online practice exams, learning materials access, and the ability to schedule training sessions

### 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 client noticed there were a lot of failures on the driving tests, and want to take that opportunity to provide better training to prepare for the tests.
* They want to be able to provide online classes and practice tests, and even provide on-the-road training if the aspiring test-takers wish to.
* They want a practice test platform that tracks user progress
* They want users to be able to schedule appointments for driving lessons
* They want a user management system that has different levels of access depending on the user’s role
* They want payment processing for the different training packages
* The system should be compliant with the current DMV rul

### 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?*

* Access to data from anywhere (online capable)
* Downloadable reports
* Role and permission-based security
* User activity tracking and printable reports
* Online and phone call reservations
* Multiple training packages
* User account registration
* Password reset functionality
* Notifications for DMV updates
* Web based, preferably cloud-based
* Automated backup and security
* Meet specified UI desires

## 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 should be cloud-based and be accessible through web browsers from any device
* The system should require online connectivity for any data modification to avoid redundancy and keep data synced between the server and client
* System updates should be implemented regularly to stay up to date with DMV requirements
* The system should be optimized for handling multiple users accessing training materials and scheduling appointments, ensuring that each user experiences a fast response time

#### 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 should be cross-platform, being cloud-based and running on web browsers
* A database backend is required to store user information and credentials, appointment scheduling and history, training materials, test results, vehicle assignments, and driver assignments
* The infrastructure of the system should be able to handle security requirements
* The system should have the ability to execute backups of data

#### 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 should have unique user profiles for customers and admins.
* Input should be case-sensitive
* The system should prevent drivers and vehicles being double booked, keeping real time track of what has been assigned, and to who.
* All modifications to any records should be logged with user id and a timestamp
* The system should track system and connectivity errors and inform administration immediately

#### 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 management should be highly editable, as user information and status changes, by having the ability to add, remove, and modify users and their profiles.
* Admins should be able to enable and disable specific packages for users at any time
* IT admins should have full system access for user management and system maintenance
* The system should be able to handle varying numbers of customers and their data, especially as the userbase grows. It should have more than enough server capacity at any given time

#### 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?*

* System access should be role-based, with each role having its own set of permissions
* Two-factor authentication should be implemented, using the user email or phone number
* The system should use data encryption when transferring data to and from the server and the client
* The system should have password reset functionality. It should be automated and carried out through the two-factor authentication system
* Administration should be notified after three consecutive unsuccessful login attempts. User lockout after five
* All system modifications should be logged with a timestamp and user id

### 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 their accounts
* The system shall enable online scheduling of driving lessons
* The system shall manage drivers and vehicles, and track their availability in real time
* The system shall process and store customer payment information
* The system shall provide users with access to online training materials
* The system shall provide users with access to practice tests
* The system shall track test progress and scores
* The system shall allow admins to manage user accounts, roles, and permissions
* The system shall create user activity reports
* The system shall enable DMV updates
* The system shall generate logs of data modifications

### 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 should have a consistent theme across web pages
* The interface should have mobile friendly design to accommodate all devices
* Admins should have full access, with the ability to manage users, packages, generate reports, download logs, and monitor the system, etc.
* Customers should have a clean interface for account creation and management, appointment scheduling, online class access, practice tests, progress tracking, and access to test results

### 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 have access to modern web browsers
* Users have internet access
* Users have basic computer skills
* DMV will provide regular updates to rules and requirements
* Staff will have training to use the system
* Vehicle status and availability will be reported by drivers

### 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?*

* Internet connection required for most or all operations
* Driver capacity
* Vehicle capacity
* Must stay within budget
* Must meet deadlines

### 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 chart with a number of blocks

AI-generated content may be incorrect.*