# 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?*

* Design a system to support DriverPass, a client focused on enhancing driver education.
* Provide students with online practice exams and on-the-road driving lessons.
* Enable DriverPass to manage training resources effectively.
* Support secure access to the system, allowing students and staff to use it online and offline.
* Meet DriverPass’s goal to improve DMV test preparation for students.

### 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 identified a gap in driver training; many individuals fail DMV tests due to lack of preparation.
* Solution includes a combination of online practice tests and hands-on driving lessons.
* System will support:
  + Access to online classes and practice exams.
  + Scheduling and management of on-the-road lessons.
  + Customizable training packages to fit different student needs.

### 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?*

* **Online Access for Students**
  + Allow students to access practice tests and track their progress.
  + Display test history with scores and status (e.g., passed, failed).
* **Lesson Scheduling**
  + Enable students to schedule, modify, and cancel on-the-road lessons.
  + Ensure flexible scheduling to accommodate students and driver availability.
* **Staff Management Tools**
  + Support DriverPass staff in managing reservations.
  + Match students with available drivers and cars.
* **Data Accessibility and Security**
  + Allow secure access to data from any location.
  + Enable offline report generation when needed.
* **User Roles and Access Levels**
  + Provide tiered access for different users (e.g., administrators, secretaries).
  + Ensure administrators have full access, while other roles have limited permissions.
* **DMV Integration**
  + Seamlessly incorporate DMV updates to keep training materials current.
  + Notify DriverPass of any changes to DMV requirements.

## 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.**
* **System updates should occur biweekly.**
* **The interface should load within 3 seconds for most pages.**

#### 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 run on Windows, Unix, and cloud-based platforms.**
* **Requires integration with databases to store user data and progress.**

#### 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?*

* **User roles are clearly distinguished (admin, secretary, students).**
* **Inputs are case-insensitive but validate formats like emails.**
* **Admins receive immediate alerts for failed system processes.**

#### 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 and permissions can be modified without major code changes.**
* **The system must adapt to platform updates with minimal downtime.**

#### 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?*

* **Multi-factor authentication for users.**
* **Encryption for all data exchanges.**
* **Lock accounts after 5 failed login attempts; notify the admin of suspicious activity.**
* **Password recovery 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.”*

* **Allow users to register, schedule, and manage training sessions.**
* **Validate login credentials.**
* **Track and display user progress on tests and lessons.**
* **Notify users of DMV updates affecting test content.**
* **Generate detailed activity logs and reports**.

### 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.)?*

* **User roles: Administrator, IT Officer, Secretary, Students.**
* **Admin and IT officer will use advanced controls for system management.**
* **Students interact with practice tests, lesson scheduling, and progress tracking.**
* **Accessible through browsers on mobile and desktop platforms.**

### 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 basic internet access and computing skills.**
* **All users will comply with training and scheduling guidelines.**
* **The DMV will provide timely updates.**

### 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 limit advanced features.**
* **Limited initial IT staff to manage the system post-deployment.**

### 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.*

[Insert chart]