# 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 build a digital platform for DriverPass, a company aiming to improve the driving test pass rates among students. The client wants the system to allow students to register, practice for exams, and schedule behind the wheel training, while giving instructors and management tools to track progress and system usage.

### 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* DriverPass identified that over 65% of students fail their driving test due to outdated preparation methods. The current process is also manual and disorganized, particularly for training schedules. To address this, the system must integrate:
* An online practice test module
* A scheduling platform for behind-the-wheel training
* User portals for students, instructors, IT staff, and managers
* Analytics dashboards for business insights

### 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?*

* Increase the pass rate for driving exams by providing a modern, effective training system
* Offer students the ability to register for both online and behind the wheel training sessions
* Provide instructors with access to student schedules and allow them to input training progress
* Enable the IT team to manage user accounts and data securely
* Allow management to track business analytics, scheduling, and system usage

## 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 web-based and mobile responsive, capable of handling hundreds of concurrent users with low latency.
* Updates should be rolled out monthly or as needed for bug fixes or new features.

#### 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 support Windows, macOS, Linux, and mobile operating systems via the browser.
* A SQL database will support persistent data storage.

#### 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 must authenticate users via unique credentials and use case-sensitive input for usernames and passwords.
* It should trigger alerts to IT or management in case of repeated login failures or failed database writes.

#### 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 permissions and content (e.g., exams or availability) should be editable through an admin interface without changing code.
* The system must support future updates via modular deployment.
* IT should have full admin control over roles, content, and infrastructure settings.

#### 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 will log in via username and password, secured with HTTPS/SSL encryption.
* After 5 failed login attempts, accounts should be temporarily locked, and the user/IT should be notified.
* A password reset process will be in place via 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 students to register, sign in, take practice exams, and schedule behind-the-wheel training.
* The system shall allow instructors to update their availability, view student schedules, and input training data.
* The system shall allow management to access business performance metrics, system usage analytics, and training data trends.
* The system shall allow IT users to manage accounts, troubleshoot errors, and enforce security policies.

### 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.)?*

* Students: Register, sign in, take exams, schedule training.
* Instructors: View schedule, enter progress notes, manage training logs.
* Management: View reports, metrics, and usage analytics.
* IT Admins: Access backend tools to manage accounts and monitor system health.
* Accessible via web browser and optimized for both desktop and mobile environments

### 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 a stable internet and a device with a modern browser.
* Users have basic digital literacy.
* No major changes will occur in DMV testing policies.
* Hosting and infrastructure are in-house unless otherwise noted.

### 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?*

* Limited budget may require third-party tools or outsourcing.
* Time constraints may restrict launching all features at once.
* Advanced features like mobile apps or notification systems may be delayed.

### 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.*

