# 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 a system for DriverPass to provide online practice exams and on-the-road training to better prepare students for their driving tests.
* DriverPass aims to fill a market gap by providing better training methods than simply studying past exams.
* The system will allow students to register, schedule appointments, take practice exams, and receive training progress updates.

### 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 an online and mobile-accessible system to manage student registrations, reservations, and training progress.
* The system needs to provide scheduling for on-the-road training sessions with instructors.
* Different users will have varying levels of access, such as administrators, instructors, and students.
* Security and tracking of user actions are necessary to maintain data integrity and transparency.

### 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?*

* Enable students to register, book driving sessions, and take online practice exams.
* Allow instructors to manage student progress and scheduling.
* Provide administrators with full access to manage users, reset passwords, and generate reports.
* Ensure security, tracking, and real-time system updates.

## 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 accessible from any device.
* Data should be updated in real-time to avoid duplication issues.
* The system should support multiple concurrent users without performance degradation.

#### 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 be cloud-based to ensure minimal maintenance for DriverPass.
* It should be compatible with Windows, Mac, and mobile platforms.
* Requires database integration for storing user and scheduling information.

#### 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?*

* Unique user credentials will be required for access.
* The system will log all changes to records for accountability.
* Data integrity measures will be implemented to prevent errors.

#### 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?*

* Admin users should be able to enable/disable training packages without requiring code modifications.
* The system should support future updates to DMV policies and requirements.

#### 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?*

* User authentication via email and password.
* Secure connections using HTTPS.
* Account lockout mechanisms for brute-force attack protection.
* Users can reset forgotten passwords 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.”*

* Users will be able to securely register and log into the system.
* Students will have the ability to schedule, reschedule, or cancel their driving lessons.
* The system will maintain a detailed record of all user interactions for auditing purposes.
* Instructors will be able to update and track student progress within the system.
* Administrators will have the capability to oversee user activity, manage accounts, and generate reports.
* The system will provide a feature for students to take online practice exams, receive immediate feedback, and track their progress over time.

### 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: Book appointments, take practice exams, view progress.
* Instructors: Manage student progress, update lesson records.
* Administrators: Manage accounts, monitor user activities, generate reports.
* The interface should be user-friendly, responsive, and accessible via browsers and mobile devices.

### 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 access to stable internet connections.
* Instructors will manually update lesson progress within the system.
* Training vehicles and schedules will be managed outside the system.

### 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?*

* System updates for DMV compliance will require periodic manual reviews.
* Future customization of training packages may require developer assistance.

### 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.*

