# 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?*

* DriverPass seeks to launch a web-based platform that helps students pass their driving exams by integrating online practice tests with real-world lesson scheduling, secure payments, and progress tracking—all in one streamlined system.
* DrivePass needs a web-based platform that permits students to book driving lessons, practice tests, monitor progress, and conduct payment processing on a secure basis.

### 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?*

Integrating user roles, scheduling tools, and a progress dashboard bridges the gap between theoretical knowledge and practical driving readiness.

* Issue: Practice exams alone won’t prepare you to pass a written knowledge test to get your driver's permit.
* Solution: A pairing of online exam prep + real-life driving practice.
* Core Components: Online test simulator, driving lesson scheduler, payment processing module, user authentication based on roles (students, coaches, admins), and progress tracking dashboard.

### 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?*

* Improve student pass rates by providing structured lesson tracking and targeted practice.
* Ensure at least 90% system uptime for consistent access.
* Deliver flexible training packages for beginner to advanced learners.
* Enable admin reporting on student performance metrics.

## 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 respond to user actions (e.g., scheduling, login) within 2 seconds under the typical load.
* Online platform available anywhere with internet
* The system must process real-time payments, bookings, and testing.
* Regular updates to support new training content and DMV regulations.

#### 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?*

* Must run on Windows, macOS, Linux, and mobile browsers.
* The backend must have a cloud-based database to store student details.

#### 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?*

* Student account to monitor training progression (as a unique code of a student’s account)
* Login credentials are case-sensitive to improve security
* Notifications for failed payments, reservation conflicts, and access problems.

#### 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?*

* The admins can add/delete packages for training without touching the code.
* There should be a unified system for updates.
* IT admins need unfettered access to manage accounts, disable users, and troubleshoot system errors.
* The platform shall support plugin modules for future service offerings (e.g., mock DMV tests or chat support)

#### 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?*

* The system shall automatically log out users after 15 minutes of inactivity.
* Two-step authentication for trainers and admins
* All data exchange shall use TLS 1.3 encryption
* Prevent ‘brute force’ attacks by locking accounts after several unsuccessful login attempts.
* Password retrieval using e-mail confirmation.

### 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 sign up and manage their profiles.
* The system shall track test scores and training progress.
* The system shall securely process payments for training sessions.
* The system shall allow admins to view and modify training packages.
* The system shall allow students to schedule driving lessons.
* The system shall validate user credentials when logging in.
* The system shall send automated email confirmations for bookings.
* The system shall notify coaches of upcoming lessons.

The system shall support secure password reset via email.

### 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.)?*

* Admins: manage packages, assign coaches, view system reports.
* Trainers: view lesson calendar, track student status
* IT Staff: manage accounts, run security diagnostics
* Students: register, log in, schedule lessons, view progress reports

Interaction Methods:

* Web-based interface
* Students can train while on-the-go with our mobile-optimized & responsive solution.

### 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?*

* The system is for students who can access it via the Internet.
* All the trainers will be listed on and checked with DriverPass.
* All payments will be made through secure third-party gateways.
* The system assumes users will access the platform via modern browsers (Chrome, Safari, Edge).
* All coaches will have completed onboarding and verification with DriverPass.

### 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 concerns could restrict powerful AI-driven exam prep features.
* If there’s a lot of traffic, the system may need to be adjusted for peak usage.
* Real-time features may be affected by a user’s internet quality.
* The MVP may not include multilingual support.

### 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.*

*Project Milestones*

A screen shot of a computer

AI-generated content may be incorrect.