# CS 255 Business Requirements Document Template

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## 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 that helps students pass driving tests through online practice exams and on-the-road training. The client wants the system to track student progress, schedule lessons, and provide secure, user-friendly access for students and staff.

### 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 a system that provides online practice exams, schedules on-the-road lessons, and tracks student progress. It aims to fix high failure rates and needs components like a student portal, exam engine, scheduling module, management dashboard, and admin tools.

### 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?*

* When completed, the system should let students take graded practice exams, schedule driving lessons, and track progress while giving management access to reports. Measurable tasks include exam creation, automated grading, lesson scheduling, progress tracking, and report generation.

## 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 run in a web-based environment accessible on desktops and mobile devices. It should load pages quickly, support 500+ users simultaneously, and be updated regularly to fix issues and add new practice exams or 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 should run on all major platforms, including Windows, macOS, and Linux, via a web browser. The back end requires a database to store student accounts, exam data, schedules, and progress, along with server-side tools to manage logic and reports.

#### 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 will distinguish users with role-based accounts for students, instructors, and admins, using unique logins. Input like passwords will be case-sensitive, and the system should alert admins immediately when errors, failed logins, or scheduling conflicts occur.

#### 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?*

* Yes, the system will allow admins to add, remove, or modify users through the interface without changing code. It will adapt to platform updates automatically, and IT admins need full access to manage users, system settings, and troubleshoot issues.

#### 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 must log in with a unique username and password, and data exchanges should be secured with encryption like HTTPS. Accounts should lock temporarily after multiple failed attempts, and users can reset forgotten passwords via a secure recovery process.

### 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 take graded practice exams, schedule driving lessons, and track their progress. The system shall provide management and instructors with dashboards, generate reports, validate logins, and secure all data exchanges.

### 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 shall be user-friendly, responsive, and accessible via web browsers on desktops and mobile devices. Students can take exams and schedule lessons, instructors can manage sessions, and admins can monitor users and reports through role-based access.

### 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 design does not specify third-party integrations, detailed exam content, or offline access. It assumes users have reliable internet, modern devices, and basic tech skills, and that the system can handle updates and scale as needed.

### 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?*

* The system may be limited by internet dependency, device compatibility, and the scope of exam content and training features. Resource limitations include budget, development time, and available technology for scaling, security, and ongoing maintenance.

### 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 diagram of a project

AI-generated content may be incorrect.