# CS 255 Business Requirements Document Template

## 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 goal of this project is to design a system for DriverPass that helps students prepare for their upcoming driving tests.
* The client, DriverPass, wants to provide a training platform that includes both online practice exams and the ability to book live lessons.
* The system should help improve student pass rates by providing additional and effective including hands-on resources to learn.
* It needs to support account registration, lesson scheduling, payment processing, and student progress monitoring.
* The system should also be easy to manage by trained staff and accessible to students at any time.

### 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 the system to help students prepare for and pass their driving tests with more than just practice questions
* The main issue they are trying to solve is that most students fail because there is not adequate hands-on training or realistic testing preparations.
* The system should allow students to register, log in, take practice tests, view scores, and book lessons with instructors.
* DriverPass should also allow staff to manage student data, assign instructors, and review schedules.
* The system will include a web-based student portal, an instructor dashboard, administrative access, secure payment processing, and an effective method to track student progress.
* Notifications and reminders should be implemented to improve communication between students, instructors, and staff.

### 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?*

* Allow students to register, log in, and manage their accounts.
* Provide students with access to hands-on online practice exams.
* Let students schedule driving lessons with certified instructors.
* Allow instructors to manage their schedules and assigned students.
* Enable DriverPass staff to manage student records and monitor progress.
* Support secure online payments for lessons and materials.
* Send automatic notifications for lesson reminders and schedule changes.
* Track student progress and exam readiness from registration to final test.
* Allow IT to maintain, update, and support the system infrastructure.

## 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 on a web-based platform.
* It should support concurrent use by multiple students, instructors, and admins.
* System should respond to user input without delay and perform key actions instantly, like saving progress or submitting test answers.
* It should be accessible and operational 24/7.

#### 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 be accessible via major web browsers.
* It must support access from desktops, laptops, tablets, and mobile phones.
* It should include database support to track users, test results, and lesson schedules.

#### 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 should properly identify users based on login credentials.
* It must correctly associate student accounts with their test data and scheduled lessons.
* Notification messages and test feedback must match student activity and performance.

#### 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 system should allow DriverPass staff to add or remove users and update data without changing core code.
* It must be able to accommodate updates to exam content or scheduling logic as needed.
* IT staff should have full access to perform updates and technical support tasks.

#### 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?*

* All users must log in with secure credentials.
* The system must protect student and payment data using secure protocols.
* Brute force login attempts should be limited and flagged.
* Users must have the ability to reset forgotten passwords securely.

### 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 create an account and log in to their personal profile.
* The system shall let students take practice exams online and view their scores.
* The system shall allow students to view their lesson schedule and track progress.
* The system shall enable students to reschedule or cancel lessons if needed.
* The system shall provide instructors with access to student progress and test results.
* The system shall allow instructors to update completed lessons.
* The system shall allow the secretary to assign students to instructors.
* The system shall let the secretary update student records and adjust lesson schedules.
* The system shall notify the admin of any technical issues reported by users.
* The system shall allow the admin and IT to maintain the platform and address system issues.
* The system shall send confirmation emails or messages when users complete a test or schedule a lesson.
* The system shall store and track user interactions and data for future access.

### 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 should be clean, easy to navigate, and accessible from a browser.
* The system will support multiple users including students, instructors, secretary, admin, and IT.
* Students will need to log in, take practice tests, view lesson progress, and schedule or reschedule lessons.
* Instructors will need access to student data, test results, and tools to update lesson completion.
* The secretary will need access to manage student profiles, assign instructors, and adjust schedules.
* Admin will need tools for basic user management and system monitoring.
* IT will need access to all areas for troubleshooting and backend maintenance.
* All users should receive relevant alerts or confirmations via the system.

### 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 access the system from modern browsers on desktop or mobile devices.
* Students will already have basic computer literacy to log in, complete tests, and schedule lessons.
* Instructors and staff will be trained on how to use the system once it is launched.
* DriverPass already has a list of instructors and an internal scheduling process in place.
* Practice exams and lesson plans will be created and provided by DriverPass before launch.
* IT will be available to handle any configuration or back-end integration 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 budget and timeline are limited to eight weeks as requested by Liam.
* Customization beyond the initial rollout may not be possible within this phase.
* The system requires an online connection, so users without access may have difficulties accessing.
* Support staff and instructors may require additional time and training to fully learn how to navigate the system.
* The system may not include advanced mobile features until later development.
* Integration with payment processors and scheduling tools will rely on third-party reliability.

### 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 screenshot of a calendar

AI-generated content may be incorrect.