# CS 255 Business Requirements Document Template

Michael Kinful

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 an online platform for DriverPass to help students pass their driving tests by providing access to online practice exams and on-the-road training scheduling.
* The client, DriverPass, wants their system to be able to improve the success rate of students passing the driving test by offering comprehensive and effective training tools.

### 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 offer practice exams that accurately reflect the content and format of actual driving tests and provide a scheduling system for on-the-road training sessions.
* The problem they want to fix is the high failure rate among students taking the driving license exam, which they attribute to inadequate preparation.
* The different components needed for this system include user registration and authentication, practice exam module, training session scheduling, and administrative management 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 be able to:**

* Allow students to register, log in, and access practice exams.
* Enable scheduling and management of on-the-road training sessions.
* Provide administrators with tools to manage content and schedules.
* Ensure instructors can view and manage their training schedules.

**Tasks to achieve these goals include:**

* Development of a user registration and login system.
* Creation of a practice exam module that mimics real driving tests.
* Implementation of a scheduling system for training sessions.
* Development of administrative tools for content and schedule management.

## 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 as a web-based platform accessible via desktop and mobile browsers.
* The system should handle up to 10,000 concurrent users with a response time of less than 2 seconds for user actions.
* The system should be updated bi-monthly for maintenance and feature enhancements.

#### 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 major operating systems including Windows, macOS, and Linux.
* The back end requires a database to support user data, practice exams, and scheduling information, preferably using SQL.

#### 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 between different users using unique usernames and secure passwords.
* Input will be case-sensitive to ensure accuracy.
* The system should inform the admin of any critical issues or errors in real-time via email or dashboard alerts.

#### 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?*

* Changes to user roles (add/remove/modify) should be manageable through the admin interface without needing to change the code.
* The system should be able to adapt to platform updates without major overhauls.
* IT admin needs full access to the system for maintenance and updates.

#### 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 using secure, unique credentials.
* The connection between client and server should be secured using HTTPS.
* In case of a “brute force” hacking attempt, the account should be locked after three unsuccessful login attempts.
* If a user forgets their password, they should be able to reset it through a secure password 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 validate user credentials when logging in.
* The system shall allow users to register for an account.
* The system shall provide practice exams that mimic actual driving tests.
* The system shall enable users to schedule on-the-road training sessions.
* The system shall allow administrators to manage exam content and training schedules.
* The system shall allow instructors to view and manage their training schedules.

### 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 user interface must be user-friendly and accessible via web browsers on both desktop and mobile devices.
* Different users include students, administrators, and instructors.
* Students need to register, log in, access practice exams, and schedule training sessions.
* Administrators need to manage user accounts, exam content, and training schedules.
* Instructors need to view and manage their training schedules

### 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 basic computer literacy and internet access.
* The system will primarily be used in English.
* Content for practice exams is initially limited to the provided database by 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?*

* Initial content is limited to the current database provided by DriverPass.
* The system is dependent on instructor availability for scheduling training sessions.
* Budget constraints may limit the extent of initial feature development.
* Time constraints require a phased implementation approach.

### 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

Description automatically generated