# Justin Charles - 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 and implement a system for DriverPass, a company that helps people prepare for their DMV exams.
*  The client wants a system that improves how students access study materials, schedule lessons, and track progress so they are better prepared to pass their driving tests.
*  The goal is to create a system that is both easy to use and reliable for students, instructors, and administrators.

### 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 noticed that many students fail their driving exams because they don’t get enough preparation or structured practice.

 They want a system that allows students to access study guides, take practice tests, and schedule lessons with instructors online.

 Major components include:

* A student portal for registration, scheduling, and progress tracking
* An instructor portal for managing lessons and student progress

### 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?*

 Provide instructors with scheduling tools and progress reports.

 Give administrators full control over managing users, content, and schedules.

 Measure success by the number of successful logins, scheduled lessons, and completed exams without system errors.

## 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 be web-based and mobile-friendly, accessible through all major browsers.

 It should load pages within 2–3 seconds for a smooth user experience.

 Updates should be applied quarterly or as needed for security patches and improvements.

#### 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 work on Windows, macOS, iOS, and Android devices.

 The back end should be supported by a secure relational database (e.g., MySQL or PostgreSQL).

 Hosting should support cloud scalability to handle different numbers of users.

#### 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 must correctly identify different user roles (student, instructor, admin).

 Input should not be case-sensitive for login credentials, but passwords should remain case-sensitive.

 Admins should receive alerts if repeated login failures or data inconsistencies are detected.

#### 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?*

* User accounts should be easily added, modified, or removed through the admin panel without needing code changes.
* The system should be compatible with new browser and OS updates.
* IT admins should have full backend access for troubleshooting 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?*

 All users should log in with a secure username and password.

 Connections between clients and servers should use SSL/TLS encryption.

 Accounts should lock temporarily after multiple failed log-in attempts to prevent brute force attacks.

 A secure password reset process should be available for users who forget their credentials.

### 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 let students schedule, modify, or cancel driving lessons.
* The system shall allow students to take practice exams and view results.
* The system shall provide instructors with scheduling and reporting tools.
* The system shall give administrators the ability to manage users, lessons, and study materials.
* The system shall generate reports for audits and performance reviews.

### 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 need access to registration, lesson scheduling, practice exams, and progress tracking.

 Instructors need tools for managing schedules, viewing student progress, and confirming completed lessons.

 Admins need full control over all accounts, content, and schedules.

 The system should be accessible via desktop browsers and mobile devices for convenience.

### 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.

 Students, instructors, and admins will have at least basic technical knowledge.

 The system will integrate with standard email systems for notifications and password resets.

### 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 and time constraints may limit advanced features like AI-driven exam recommendations at first release.

 Performance may depend on internet speed and server load.

 Instructor availability may still affect scheduling flexibility.

 Mobile app development may come later, after the web system is stable.