# CS 255 Business Requirements Document Template

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CS-255 (Professor: Matt McCann)

## 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?*

* Design and build a system for DriverPass to improve driver training
* Offer comprehensive training solutions including online classes, practice tests, and on-the-road training

### 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 to address the high failure rate of driving tests due to inadequate training
* They aim to fill a market void by providing a system that educates, organizes, and tracks customer progress
* The system will manage reservations for driving lessons, and ensure data accessibility and security

### 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?*

* Ability to schedule, modify, and cancel reservations for driving lessons (in person, online)
* Ensure Liam can work offline if necessary, with the understanding that sync will only happen online
* Implement access rights and roles for employees for specific functions
* Be able to audit user activities and generate activity reports
* Offer tiered training packages, with the ability to enable or disable them as needed
* Keep training materials updated with DMV requirements and notifications
* Design an intuitive web interface according to Liam's requirements

## 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 a cloud system, should be accessible across all devices/platforms
* Real-time data processing
* As minimal latency as possible, to reserve/cancel requests

#### 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 be a cross platform application, accessible via a web client that works on desktop and mobile
* Backend support through a scalable cloud DB solution for data storage, management, etc.

#### 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?*

* User roles/rights must be distinct to prevent unauthorized data access/modifications
* Data validation for all user inputs
* System alerts for administrators on unusual activities or data inconsistency

#### 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 ability to update user roles and permissions easily by DriverPass employees that have permission
* System updates and maintenance should not disrupt operations (to the extent that is realistically possible)

#### 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?*

* MFA for users and admins
* End-to-end encrypted data transfer
* Secure storage for customer information

### 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 users to schedule/modify/cancel their lessons online
* The system shall provide different access rights and functions for admins, instructors, and students
* The system shall offer customizable driving lesson packages and let DriverPass update/disable these packages as needed
* The system shall automatically reset user passwords upon request to comply with security requirements
* The system shall maintain a detailed record of user activities, including reservations/cancellations/modifications, to comply with auditing requirements

### 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.)?*

* Intuitive user-friendly interface for different user roles (admin, instructors, users)
* Responsive design for accessibility on both desktop and mobile devices
* Secure and quick processing of payment information

### 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 need to have basic technical ability to get online and use the client
* Users will need to have a reliable and consistent internet connection in order to access the client reliably

### 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?*

* Dependency on third-party services for hosting, cloud services, payment processing
* Users are always the most difficult part of a system to work with, they may be resistant to learning a new tool or environment (they usually are)

### 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 computer screen

Description automatically generated