PROJECT DESIGN PHASE

Proposed Solution

Date	01 November 2025
Team ID	NM2025TMID08021
Project Name	Garage Management System – Digitalization of Garage Operations

Proposed Solution Template

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Garage operations often rely on manual or disconnected systems, causing delays in customer service, billing errors, and lack of visibility in service progress. There is no centralized platform to manage customer information, service records, and payments efficiently.
2.	Idea / Solution Description	A Salesforce-based Garage Management System is developed to centralize and automate all garage operations. The system manages customer details, appointments, service records, billing, and feedback under one integrated platform. It includes custom objects, validation rules, flows, and Apex triggers to ensure accurate data handling, automation, and reporting.
3.	Novelty / Uniqueness	The solution uniquely combines Salesforce declarative tools and Apex automation to simulate a real-world garage

		workflow without requiring external applications or APIs. It integrates end-to-end operations — from appointment booking to service completion and payment confirmation — within a single environment.
4.	Social Impact / Customer Satisfaction	The system improves customer satisfaction by providing accurate service updates, transparent billing, and timely communication. It also enhances employee efficiency by reducing manual data entry and errors, resulting in faster turnaround times and improved accountability.
5.	Business Model (Revenue Model)	The solution can be offered as a cloud-based garage management product to multiple clients. By reducing operational costs, minimizing human errors, and automating service tracking, it provides a cost-effective digital transformation solution for garage owners.
6.	Scalability of the Solution	The Garage Management System can be easily scaled to accommodate additional modules like inventory management, spare parts tracking, or employee scheduling. It can also integrate with payment gateways, customer portals, or CRM extensions for large enterprises.

Solution Description:

To prevent accidental deletion of vehicles or customers linked to active service jobs in the Garage Management System (GMS), a custom validation rule is implemented on the Customer and Vehicle tables. This rule checks whether the selected customer or vehicle is currently associated with any ongoing or scheduled

service tasks. If the system detects active service records, it automatically blocks the deletion and displays an appropriate warning message.

This approach leverages the built-in validation and business logic features of the GMS application, ensuring a plugin-free, maintainable, and efficient solution. By enforcing this safeguard, the system maintains data integrity, prevents loss of critical service information, and ensures smooth workflow continuity for mechanics and administrators during service operations.

Conclusion

The Garage Management System provides an innovative and reliable digital framework for managing garage operations within Salesforce.

Through the combination of custom objects, automation, validation rules, and reporting, the solution ensures efficient service management, accurate billing, and improved customer satisfaction.

It demonstrates how Salesforce can be customized to meet real-world operational needs — making the system scalable, cost-effective, and user-friendly for garage businesses of any size.