

Project Planning Phase

Project Planning

Date	01-10-2025
Team ID	NM2025TMID08208
Project Name	Garage Management System (GMS)

Introduction

The **Garage Management System (GMS)** is a Salesforce-based CRM solution designed to automate the daily operations of an automobile garage. It replaces manual processes with an integrated digital platform that manages customer information, vehicle details, service requests, billing, and performance reporting.

Objectives:

- Automate and streamline garage operations using Salesforce CRM.
- Maintain accurate records for customers, vehicles, and services.
- Implement validation and duplicate rules for data integrity.
- Automate key processes using Flows and Apex Triggers.
- Secure data through role hierarchies and sharing settings.
- Generate real-time performance reports and dashboards.
- Enhance customer satisfaction through transparency and automation.

Architecture Overview

The **Garage Management System** follows a layered architecture for efficient data management, modular design, and scalability.

1. Presentation Layer (Frontend)

- Built using **Salesforce Lightning App Builder**, **Record Pages**, and **Dashboards**.
- Provides an interactive interface for different user roles (Admin, Staff, Mechanic).
- Displays visual analytics and reports for garage performance and revenue.
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2. Business Logic Layer (Backend)

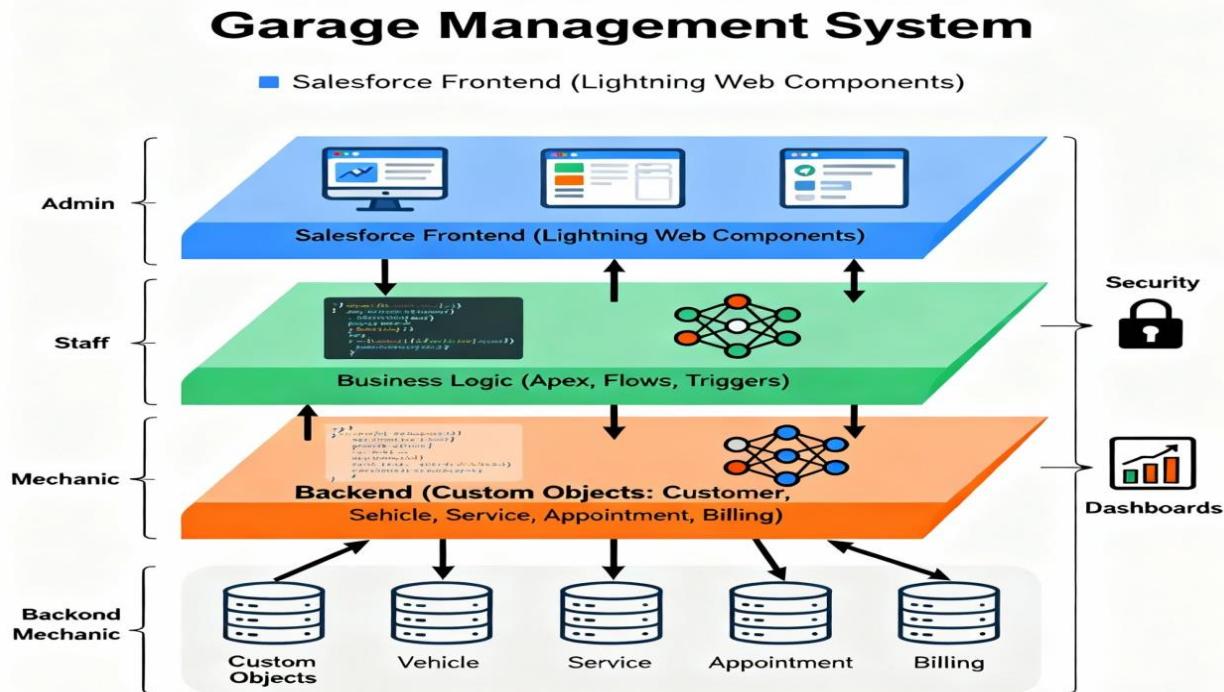
- Implemented using **Apex Classes**, **Apex Triggers**, **Process Builder**, and **Flows**.
- Automates service billing, payment updates, and appointment handling.
- Enforces business rules using validation and duplicate prevention mechanisms.

3. Data Layer

- Built using **Salesforce Standard and Custom Objects**:
 - Customer → Vehicle (Lookup Relationship)
 - Vehicle → Service Request (Master-Detail)
 - Service Request → Billing (Master-Detail)
 - Billing → Feedback (Lookup)
- Maintains accurate data through validation rules and lookup filters.
- Ensures referential integrity and easy retrieval of related data.

4. Integration Layer

- Supports integration with future systems such as online booking or payment gateways.
- Enables **email alerts** and **notifications** for customers.
- Provides real-time synchronization of records and reports.



Component Diagram

Components

Module	Function	User Interaction
Customer Management	Register customers, manage profiles, and contact details	Admin, Staff
Vehicle Management	Store vehicle information and track service history	Admin, Mechanic
Service Request	Create and manage service details and assigned staff	Staff, Mechanic
Appointment Scheduling	Book and track customer appointments	Admin, Staff
Billing & Feedback	Generate bills, record payments, and gather feedback	Admin
Reporting & Dashboard	View service, revenue, and performance metrics	Admin, Management
Security & Access Control	Role-based access and sharing settings	All Users

Conclusion

The **Garage Management System (GMS)** highlights the power of Salesforce as a low-code cloud platform capable of managing and automating all garage operations. It ensures operational efficiency, accurate data handling, and customer satisfaction through automation and role-based access.