

Project Design Phase Solution Architecture

Date	1 Nov 2025
Team ID	NM2025TMID02085
Project Name	Garage Management system

Solution Description

The Garage Management System automates and streamlines garage operations using Salesforce's comprehensive cloud platform. It centralizes all critical workflows including customer management, appointment scheduling, service progress tracking, billing automation, feedback collection, and role-based access control.

Customers and vehicles are recorded in custom Salesforce objects enabling structured, validated data entry. Appointment scheduling supports conflict checking and automated reminder notifications, while service technicians track ongoing work and perform quality checks.

Billing is dynamically calculated based on actual services and parts used, with automatic invoice generation and payment reminders reducing manual errors and delays. Customer feedback is collected post-service, feeding into performance dashboards to inform continuous improvements.

Security is enforced through fine-grained Salesforce profiles and sharing rules, ensuring only authorized users access sensitive data according to their roles. Real-time report dashboards offer managers and sales staff valuable insights into business operations and customer satisfaction.

Solution Architecture

The architecture consists of interconnected Salesforce components working together to deliver an efficient and secure garage management solution:



- Custom Objects: Include Customer, Appointment, Service Record, Billing, and Feedback entities modeled with relationships and validation rules.
- Automation Flows: Handle scheduling reminders, service status transitions, billing triggers, and feedback alert processes.
- Apex Triggers: Enforce complex business logic such as validation checks, calculations, and data integrity.
- Validation Rules: Ensure data quality and compliance with required fields and business constraints.
- Security Model: Configured profiles, roles, and sharing rules guarantee appropriate access control based on user responsibilities.
- Dashboards & Reports: Dynamic visualizations aggregate operational metrics, payments, services completed, and customer feedback.
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The solution follows a seamless data flow from initial customer entry through service delivery to billing and feedback, enhancing operational efficiency, reducing errors, and providing comprehensive visibility for stakeholders.