SOLUTION ARCHITECTURE

Date	23 Octobar 2025
Team ID	NM2025TMID01747
Project Name	Garage Management System
Maximum Marks	4 Marks

Solution Architecture:

Goals of the Architecture

The architecture is designed to deliver an **integrated, scalable, and automated platform** for managing all aspects of garage operations. It ensures the **efficient handling of customer data, service workflows, and billing processes**, while maintaining **data consistency, security, and accessibility**. The modular design supports **easy customization and future scalability** within the Salesforce ecosystem.

Key Components

The solution architecture is built using core **Salesforce components**, including:

- **Custom Objects** for managing **Customers, Vehicles, Services, and Billing**.
- **Automation Tools** such as **Flows, Validation Rules, and Process Builder** to streamline operations.
- **Dashboards and Reports** for real-time analytics and performance insights.
- **Role-Based Access Control (RBAC)** to enforce data security and proper authorization across different staff roles within the garage.

Development Phases

The project development followed a **structured and systematic approach** comprising the following stages:

1. **Requirement Analysis** – Understanding business needs and defining functional specifications.
2. **Data Modeling** – Designing custom objects and relationships to represent the garage's operational data.
3. **Salesforce Environment Setup** – Configuring the workspace and enabling necessary Salesforce features.
4. **Automation Implementation** – Using **Flows** and **Process Builder** to automate service tracking, billing, and communication.
5. **Testing and Validation** – Ensuring data integrity, rule accuracy, and reliable functionality.
6. **Dashboard and Profile Configuration** – Setting up reports, dashboards, and user profiles to deliver a complete management solution.

Solution Architecture Description

The **Garage Management Project** is fully developed on the **Salesforce platform**, integrating **data management, automation, and analytics** to optimize garage operations. The architecture employs a **relational data model** connecting **Customers, Vehicles, Services, and Billing** through custom objects.

Automation is driven by **Salesforce Flows** and **Process Builder**, which handle service tracking, invoice generation, and notifications. **Validation Rules** uphold data accuracy, while **dashboards and reports** offer real-time visibility into operational performance.

Designed with a **modular and scalable approach**, the architecture supports easy adaptation and future enhancements. Leveraging **Salesforce's secure cloud infrastructure**, the system ensures **reliability, accessibility, and high performance** across all garage management processes.

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Solution Architecture Diagram :