Garage Management System (GMS)

Team Project – Design & Planning Phase

Team Details

Role	Name	Details
Team Leader	Tamil Mani S	Team ID: NM2025TMID07171
Team Member	Sudharshan S	Team Size: 4
Team Member	Nilavarasan S	
Team Member	Rageesh Kumar M	

1. Problem–Solution Fit

Garage service centers face inefficiencies due to manual data handling, poor tracking, and lack of automation. The Salesforce-based Garage Management System (GMS) bridges this gap by automating customer, vehicle, and service management. It ensures efficient workflows, accurate data tracking, and better communication between customers and technicians.

2. Proposed Solution

The proposed solution leverages Salesforce components to deliver a complete automation platform for garage operations. **Core Features:** - Customer and Vehicle Management - Service Request Tracking - Technician Assignment and Restriction Logic - Billing and Invoice Generation - Dashboards and Reports **Salesforce Tools Used:** - Apex Classes and Triggers - Process Builder and Flows - Validation Rules and LWC Components - Role-based Security and Field-Level Permissions

3. Solution Architecture

The architecture follows Salesforce's layered model to ensure scalability and maintainability.
Architecture Layers:
1. User Interface Layer – Lightning Web Components (LWC)
2. Business Logic Layer – Apex Classes and Triggers
3. Data Layer – Salesforce Custom Objects (Customer, Vehicle, Service Request, Technician, Invoice)
4. Automation Layer – Flows, Validation Rules
5. Analytics Layer – Reports and Dashboards **Data Relationships:** Customer (1) → Vehicle (M)
Vehicle (1) → Service Request (M)
Service Request (M) → Technician (M)
Service Request (1) → Invoice (1) **Security Model:**
Role-based access, field-level security, and authentication through Salesforce's standard security framework.

4. Project Planning Phase

The team followed Agile Scrum methodology for planning and execution. The phase includes product backlog, sprint planning, user stories, and velocity tracking. **Key Agile Metrics:**
- Sprint Duration: 6 Days
- Average Velocity: 1.78 story points/day
- Completed Sprints: 4
- Tool: Jira / Salesforce Agile Board Refer to attached: *Project Planning (1).pdf*

5. Deliverable Summary

■ Complete Salesforce-based system design and architecture
■ Defined Agile execution with clear roles and sprints
■ Documentation of problem, solution, and architectural flow
■ Demonstrated teamwork and balanced workload distribution

Submitted by Team NM2025TMID07171

Team Size: 4 Members