

# Garage Management System (GMS)

## Team Project – Design & Planning Phase

### Team Details

Role	Name	Details
Team Leader	Vinothkumar M	Team ID: NM2025TMID08812
Team Member	Vigneshwaran N	Team Size: 4
Team Member	Lokeh S	
Team Member	Sabina Mary S	

### 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