Requirement Analysis

Solution Requirement

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

Introduction

The Solution Requirement outlines the functional and non-functional requirements for the Garage Management System (GMS).
This system is built using Salesforce CRM technology to digitalize and automate the operations of an automobile garage, improving customer service, service tracking, and billing management.

Objectives:

- Replace manual garage operations with an automated Salesforce-based CRM solution.
- Manage customers, vehicles, and services efficiently through centralized data storage.
- Automate key processes such as billing, service scheduling, and mechanic assignment.
- Ensure data accuracy and security using validation rules, duplicate management, and role-based access.
- Provide real-time performance insights through reports and dashboards.
- Enhance customer satisfaction by ensuring quick, transparent, and reliable service delivery.

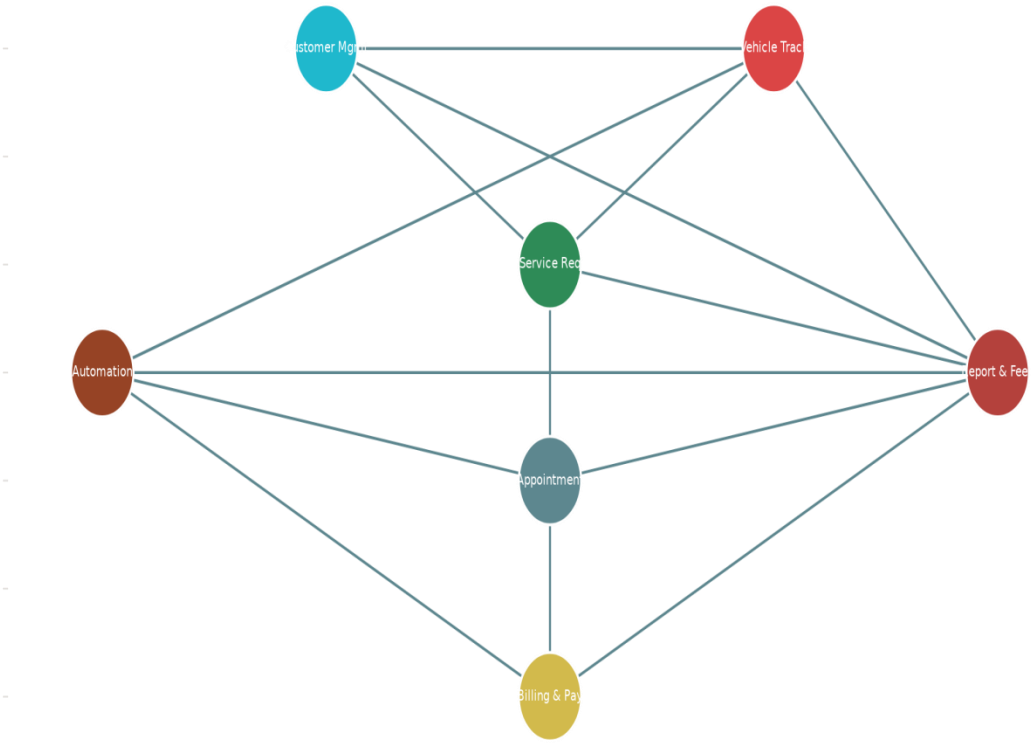
Functional Requirements

Feature	Description	User Impact
Customer & Vehicle Management	Manages customer details, vehicle information, and service tracking through Salesforce objects	Provides accurate records, reduces confusion, and improves monitoring efficiency.
Service & Billing Automation	Automates service scheduling, mechanic assignment, billing, and feedback collection using Flows and Triggers.	Saves time, reduces manual errors, and enhances transparency.
Reports, Security & Role Management	Generates reports and dashboards with role-based access (Admin, Staff, Mechanic) ensuring secure collaboration.	Offers performance insights and maintains data security.

Example User Scenario:

1. Customer details and vehicle data are entered in Salesforce.
2. A service appointment is created and assigned to a mechanic.
3. After service completion, the billing and feedback records are auto-generated.
4. Reports and dashboards display monthly service and revenue insights.

GMS Functional Requirements Flow



Non-Functional Requirements

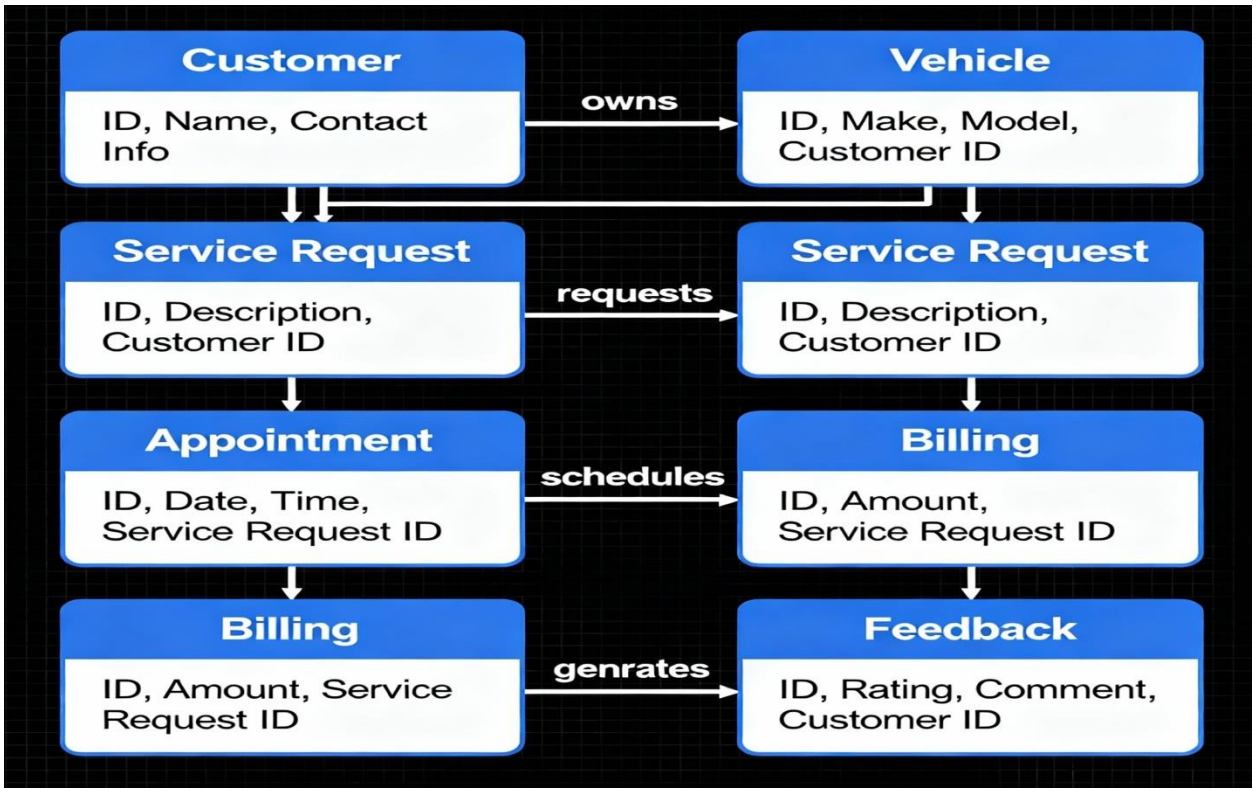
Category	Requirement	Rationale
Performance	System must support up to 100 users with <2 seconds response time.	Ensures smooth operations during busy hours.
Scalability	Supports addition of new services, vehicles, and users.	Enables future expansion of garage operations.
Availability	99.9% uptime through Salesforce Cloud infrastructure.	Ensures continuous accessibility of garage data.
Security	Role-based access, data encryption, and field-level security.	Role-based access, data encryption, and field-level security.
Usability	Intuitive dashboards and forms using Salesforce App Builder.	Reduces training effort for staff and mechanics.
Maintainability	Modular structure using Flows, Apex Classes, and Validation Rules.	Allows easy updates and maintenance.
Compliance	Data stored securely following CRM and privacy standards.	Ensures trust and legal compliance.

Data Stores

- Customer Database
- Vehicle Database
- Service Request Database
- Appointment Database
- Billing & Feedback Database

Data Flow Example

Admin → Creates User Roles → Salesforce Setup
Staff → Registers Customer → Customer Object → Vehicle Object
Mechanic → Updates Service Status → Service Request Object
System → Auto-generates Bill → Billing Object → Dashboard Report



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