Project Design Phase

Proposed Solution

Date	01-11-2025
Team ID	NM2025TMID06793
Project Name	Garage Management System

1. Introduction

The **Proposed Solution** describes the **Garage Management System (GMS)** in detail, explaining how it resolves the operational challenges identified during the ideation phase.
This section defines the system's functionalities, workflows, and user interactions designed to enhance efficiency, accuracy, and customer satisfaction in automobile repair management.

Objectives

- Provide a detailed description of GMS features and modules.
- Explain how each feature addresses specific operational issues.
- Include examples, scenarios, and workflows for clear understanding.

2. System Overview

The **Garage Management System (GMS)** is a **cloud-based Salesforce CRM application** that streamlines the daily operations of automobile repair centers. It integrates various modules to automate processes, improve customer experience, and ensure data accuracy.

Core Components

1. **Customer and Vehicle Management** – Records customer and vehicle details for easy tracking.
2. **Service Request Management** – Manages service scheduling, job assignments, and status updates.
3. **Billing and Payment Automation** – Generates and processes invoices automatically using Flows.

4. **Feedback and Quality Control** – Collects customer feedback and monitors service quality.
5. **Reporting and Dashboard Analytics** – Provides real-time insights into performance and revenue.
6. **Role-Based Access Control** – Defines access levels for Admin, Staff, and Mechanics to ensure security.

3. Feature Description

Feature	Description	User Impact
Customer & Vehicle Management	Centralized database linking customers to their vehicles via lookup relationships.	Reduces data duplication and simplifies record tracking.
Service Scheduling & Tracking	Allows service requests to be created, assigned, and tracked through status updates.	Improves workflow and ensures timely job completion.
Automated Billing & Payments	Uses record-triggered Flows and Apex Triggers to calculate costs and generate invoices.	Ensures accurate, fast, and transparent billing.
Feedback Management	Captures customer feedback after each service to evaluate satisfaction levels.	Enhances customer relations and service quality.
Reporting & Dashboards	Displays revenue trends, mechanic performance, and service statistics.	Supports quick and informed decision-making.
Role-Based Access	Assigns permissions based on user roles (Admin, Staff, Mechanic).	Ensures data security and organized user access.

4. Workflow Scenarios

Scenario 1: Service Request Management

1. Customer record and vehicle details are entered into the system.
2. A new service request is created and automatically assigned to an available mechanic.

3. Mechanic updates service status upon completion.
4. System generates a bill and sends payment confirmation via email.
5. Admin monitors progress and reports via dashboards.

Outcome: Streamlined workflow, reduced delays, and improved service tracking.

Scenario 2: Automated Billing and Payment

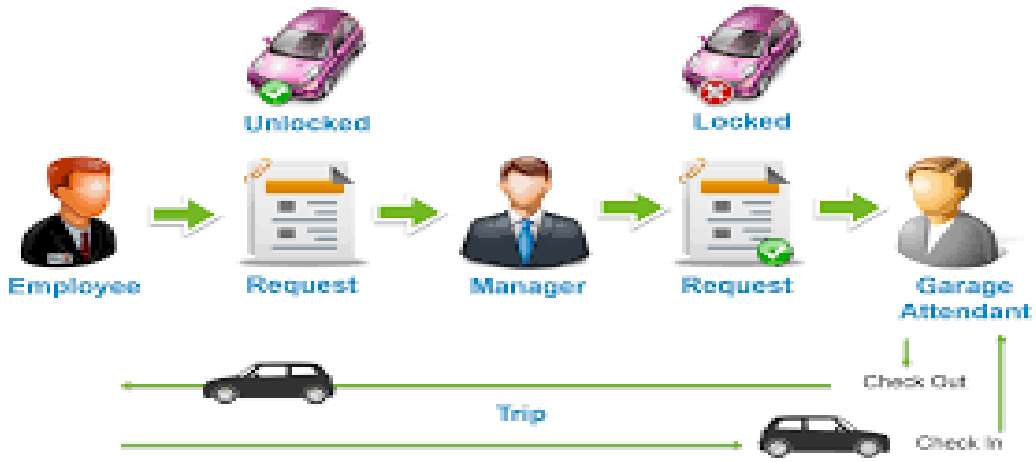
1. Service details and costs are entered under the Service Request object.
2. Record-triggered Flow calculates total cost and updates the Payment field.
3. A confirmation email is automatically sent to the customer.
4. Payment status is reflected in the dashboard for review.

Outcome: Faster, error-free billing and increased financial transparency.

Scenario 3: Role-Based Access and Reporting

1. Admin creates roles: Admin, Staff, Mechanic.
2. Each role is assigned specific permissions for data access.
3. Reports are generated for revenue, mechanic performance, and customer feedback.
4. Dashboards display insights for management review.

Outcome: Secure data management and performance-driven decision-making.



5. Conclusion

The **Proposed Solution** leverages **Salesforce's powerful low-code tools**—including **Custom Objects, Flows, Apex Triggers, Validation Rules, and Dashboards**—to create a fully automated and scalable **Garage Management System**.

By integrating automation, analytics, and role-based access, GMS significantly enhances operational efficiency, minimizes errors, strengthens customer relationships, and ensures secure, data-driven management of garage operations.