

# Garage Management System

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## 1. Project Overview

This project focuses on the development of a "Garage Management System" using Salesforce. The solution addresses the challenges of organizing, managing, and streamlining operations in a garage or auto service center. The goal is to deliver a unified system that enhances operational efficiency, improves customer satisfaction, and provides real-time data-driven insights for decision-making.

Through this project, the aim is to:

- Centralize vehicle service records.
- Streamline booking and service processes.
- Enable efficient inventory and workforce management.
- Provide an improved customer interaction and feedback system.

## 2. Objectives

### Business Goals:

1. Improve the efficiency of garage operations by at least 30%.
2. Increase customer retention by offering better service and engagement.
3. Reduce errors in inventory and billing through automation.

### Specific Outcomes:

- A user-friendly booking portal integrated into Salesforce.
- Real-time service tracking and updates for customers.
- Inventory management tools for parts and supplies.
- Dashboards for operational and financial reporting.

## 3. Salesforce Key Features and Concepts Utilized

### 1. Salesforce Objects

- Custom objects for Vehicles, Services, and Inventory.
- Standard objects for Accounts, Contacts, and Cases to manage customer data.

### 2. Process Automation

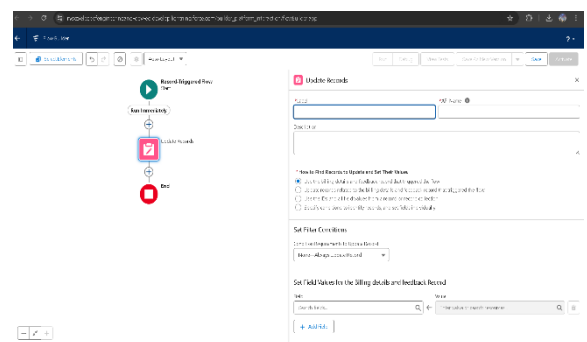
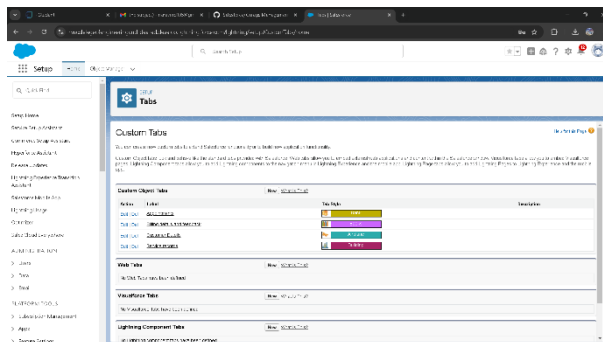
- Flows for service booking and approval processes.
- Workflow Rules and Apex Triggers for inventory updates.

### 3. Customer Engagement Tools

- Communities to enable customer self-service for booking and tracking.
- Email and SMS integrations for notifications.

### 4. Reporting and Analytics

- Dashboards for service analytics, inventory tracking, and financial reporting.



## 4. Detailed Steps to Solution Design

### 1. Data Model Design:

- Custom objects: Vehicles, Service History, Inventory.
- Relationships between objects: A Vehicle can have multiple service records linked to a Contact or Account.

### 2. User Interface:

- Lightning App for Garage Management with custom pages for booking, service history, and inventory.
- Mobile app design for technicians to update statuses on the go.

### 3. Business Logic:

- Automations for customer reminders, inventory updates, and service approvals.
- Validation rules to ensure data accuracy (e.g., service date must be in the future).

## 5. Testing and Validation

### • Unit Testing:

- Apex Classes and Triggers tested with >90% code coverage.
- **User Interface Testing:**
  - Validated UI components across desktop and mobile platforms.
  - Tested workflows for booking, inventory updates, and reporting.
- **Integration Testing:**
  - Validated integrations with external systems like payment gateways and SMS services.

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## 6. Key Scenarios Addressed by Salesforce in the Implementation Project

### 1. Customer Booking:

- Customers can book services online and receive automated reminders.

### 2. Inventory Management:

- Real-time updates to inventory upon part usage during services.

### 3. Service Tracking:

- Technicians can update service status, and customers receive live updates.

### 4. Feedback Collection:

- Customers can provide feedback directly linked to service records for continuous improvement.

## 7. Conclusion

The Garage Management System built on Salesforce enhances the operational efficiency of garages through process automation, improves customer experience with real-time updates, and provides actionable insights via dashboards and reports. This scalable and robust system aligns with modern business needs and can adapt to future demands.