GMR Institute of Technology

Project Title: Gas Filling Store CRM Application

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Project Overview

The Gas Filling Store CRM Application is a comprehensive Salesforce-based solution tailored to streamline and optimize the gas filling operations for both customers and gas station owners. It focuses on enhancing customer interaction, managing orders, tracking deliveries, and automating business processes. The system provides real-time monitoring, customer profiles, and inventory status updates to ensure seamless operations.

Objectives

- Improve customer satisfaction by providing timely gas delivery and service updates.

- Streamline order management, customer service, and inventory tracking processes.

- Enable automation of routine tasks to reduce manual efforts and errors.

- Offer real-time analytics and reporting features for informed business decisions.

- Establish a secure and scalable CRM solution that adapts to future needs.

Phase 1: Requirement Analysis & Planning

Understanding Business Requirements:

- Customers need a seamless way to book and track gas refills.

- Store owners require a dashboard to manage inventory, delivery, and customer data.

Defining Project Scope and Objectives:

- Centralize customer and order data.

- Automate booking confirmations, reminders, and status updates.

Design Data Model and Security Model:

- Custom Objects: Gas Booking, Delivery, Inventory.

- Security Model: Profile-based access with Role Hierarchy and Field-level security.

Phase 2: Salesforce Development - Backend & Configurations

Environment Setup & DevOps Workflow:

- Developer org configured with change set deployment strategy.
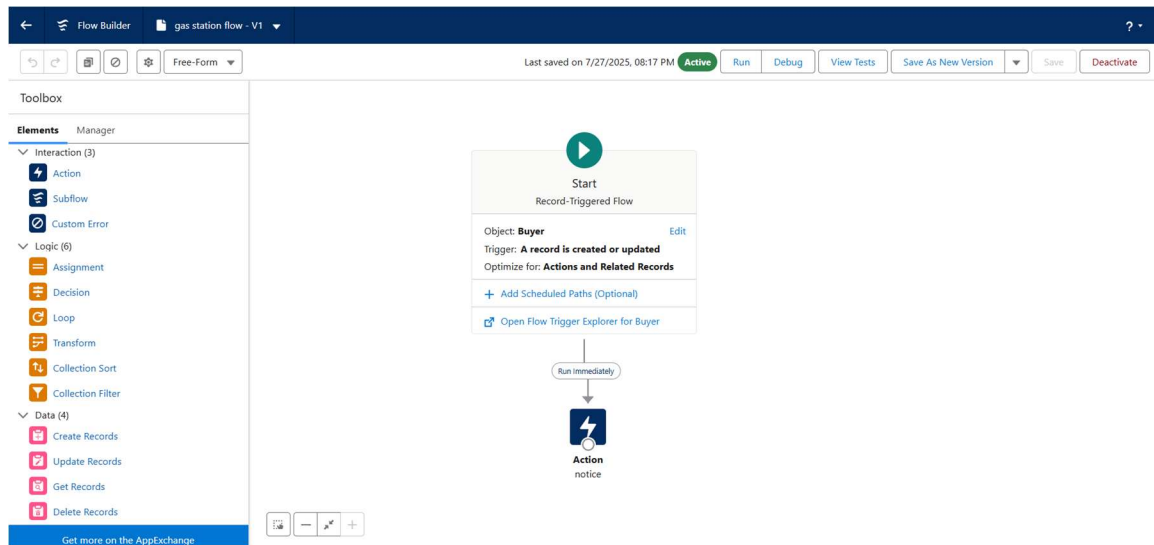
Customizations:

- Custom Objects: Gas_Booking__c, Inventory__c, Delivery__c.

- Fields: Booking_Date__c, Customer_ID__c, Quantity__c, Status__c.

- Validation Rules: Ensure booking date and quantity are not null.

- Automation:

- Flows: Auto-create delivery record when booking is approved.

- Process Builder: Notify customers of delivery confirmation.

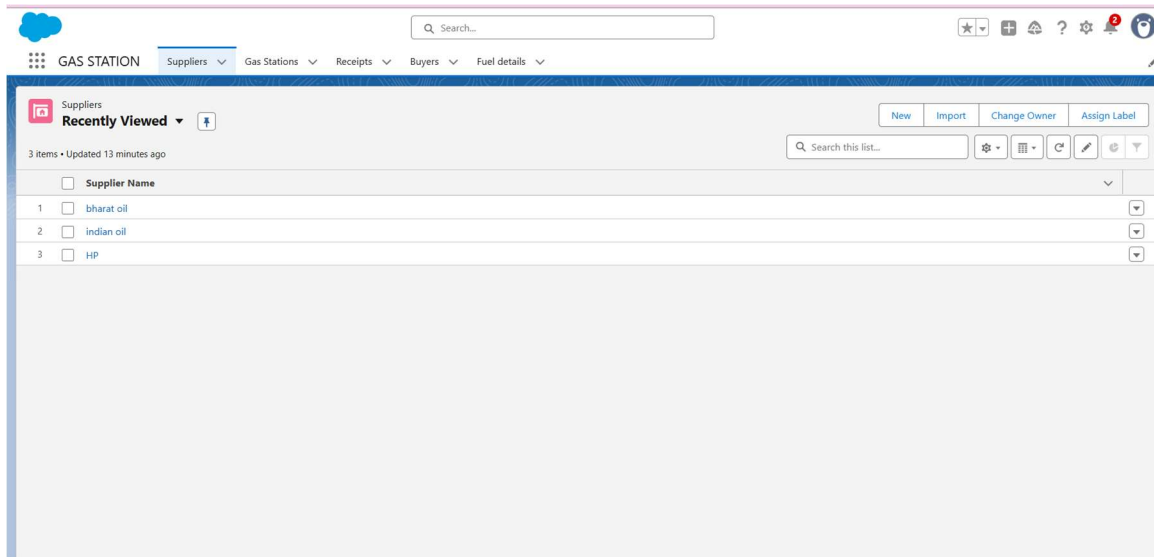- Approval Process: For bulk gas bookings.

- Apex:

- Trigger to auto-update inventory post delivery.

- Scheduled Apex to send monthly usage summaries.

Phase 3: UI/UX Development & Customization

- Lightning App Setup: Created 'Gas Station Manager' App using App Manager.

- Page Layouts & Dynamic Forms: Custom layouts for customer, booking, and delivery objects.

- User Management: Profiles and Permission Sets defined for Admin, Delivery Staff, and Customer Service.

- Reports and Dashboards:

- Daily Booking Report, Inventory Summary, Delivery Delays Dashboard.

- LWC Development:

- Custom Lightning Web Component to track delivery status with map integration.

- Lightning Pages:

- App Home Page with key metrics and quick links.

Phase 4: Data Migration, Testing & Security

- Data Loading: Used Data Loader to import customer and inventory records.

- Field History Tracking: Enabled for Gas_Booking__c and Inventory__c objects.

- Duplicate & Matching Rules: Configured to avoid duplicate customer entries.

- Profiles, Roles, Permission Sets: Defined based on department and responsibilities.

- Test Classes: Covered Apex classes and triggers with over 85% code coverage.

- Test Cases:

- Booking Creation: Input - customer details & quantity; Output - booking confirmed.

- Approval Process: Input - large booking; Output - approval email sent.

- Flow Execution: Input - approved booking; Output - delivery created.

Phase 5: Deployment, Documentation & Maintenance

- Deployment Strategy: Used Change Sets to move metadata from sandbox to production.

- Maintenance Plan: Weekly system audits, monthly data cleanup, quarterly user feedback.

- Troubleshooting Documentation: Common issues logged with resolution steps (e.g., failed flow, duplicate bookings).

Conclusion

The Gas Filling Store CRM Application successfully automates and simplifies the daily operations of a gas station. It improves customer satisfaction, ensures efficient order and delivery handling, and empowers management with insightful reports. The flexible architecture allows future enhancements like integrating chatbot support or predictive ordering using AI.