Fuel Station CRM Project

Problem statement: Fuel stations face challenges in efficiently managing suppliers, fuel inventory, customer transactions, loyalty programs, and reporting. Manual processes or disconnected systems often result in data errors, delayed decision-making, and missed business opportunities.

The goal of this CRM project is to create a centralized Salesforce-based solution for managing all aspects of a fuel station chain: suppliers, buyers, fuel stock, gas stations, customer details, and loyalty rewards. This system should streamline operations, improve customer service, and provide real-time insights into business performance.

Phase 1 – Problem Understanding & Industry Analysis

> ***Objective: Establish a clear understanding of the industry challenges and define the scope of the CRM solution.***

Requirement Gathering: A structured process involving direct discussions with administrators, suppliers, station managers, and buyers. The aim is to capture both functional and non-functional requirements, such as supplier onboarding, real-time stock management, buyer account maintenance, and loyalty program implementation. This ensures the CRM system is built around actual business needs.

Stakeholder Analysis: A detailed examination of all involved roles, including Admins (system governance), Suppliers (fuel providers), Gas Station Managers (daily operations), and Buyers (customers). Each role's expectations, challenges, and responsibilities are documented to ensure the system delivers value to every stakeholder.

Business Process Mapping: Mapping the complete workflow, starting from a fuel request raised by the station manager, moving through supplier approval and delivery, stock updates, and ending with customer transactions and reporting. This end-to-end visualization highlights inefficiencies and forms the basis for automation and system design.

Industry-Specific Use Cases: Identifying specialized needs of the oil and gas industry such as regulatory compliance, precise fuel supply monitoring, and supplier automation. These cases guide the customization of the CRM to handle industry challenges effectively.

AppExchange Exploration: Analyzing Salesforce's AppExchange marketplace to evaluate existing Oil & Gas solutions. Although these provide useful insights, a custom solution is chosen to meet the unique operational needs of fuel stations more effectively.

✅Outcome: Outcome: Clear understanding of project goals, requirements, and industry context to guide CRM design.

Phase 2 – Org Setup & Configuration

> ***Objective: Prepare the Salesforce environment for fuel station CRM implementation.***

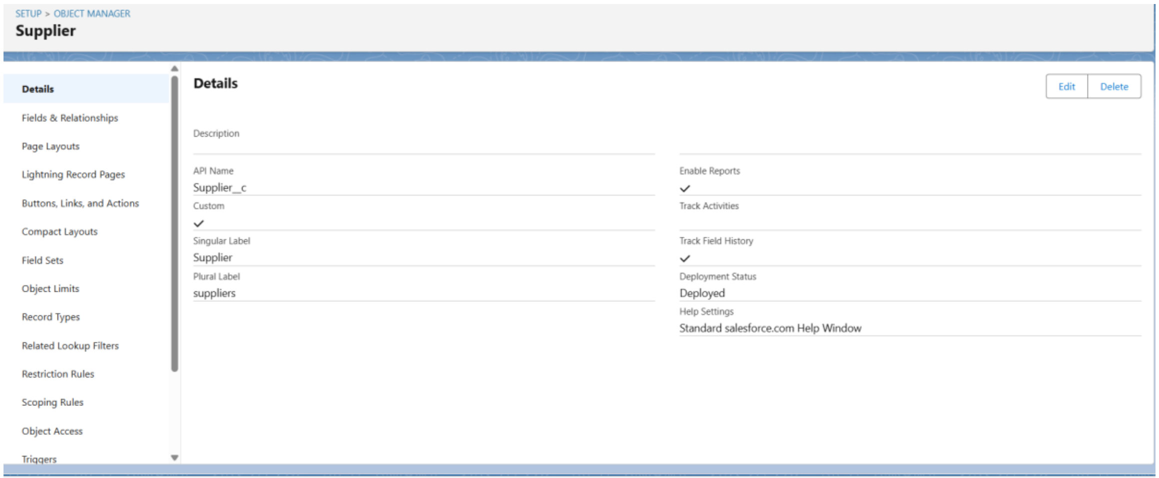
Salesforce Edition: Selecting Sales Cloud Developer Edition to provide flexibility for customization, testing, and scalability. This edition serves as a robust foundation for building, experimenting, and deploying CRM functionalities.

Company Profile: Setting up company details, including regional settings, working hours, and official holidays. This ensures system processes like reporting and scheduling align with organizational operations.

User Setup: Creating user accounts for Admins, Suppliers, Gas Station Managers, and Buyers. Each account is configured with permissions suited to the role, ensuring secure and efficient task execution.

Roles & Profiles: Establishing a structured hierarchy where Admins have complete oversight, Suppliers manage deliveries, Station Managers oversee daily activities, and buyers access loyalty and purchase features. This structure ensures accountability and clarity.

Security: Configuring Organization-Wide Defaults (OWD), Sharing Rules, and Login Hours. These measures protect sensitive data and ensure that access is role-appropriate and compliant with security standards.



Supplier

Details

Description

API Name
Supplier__c

Custom
✓

Singular Label
Supplier

Plural Label
suppliers

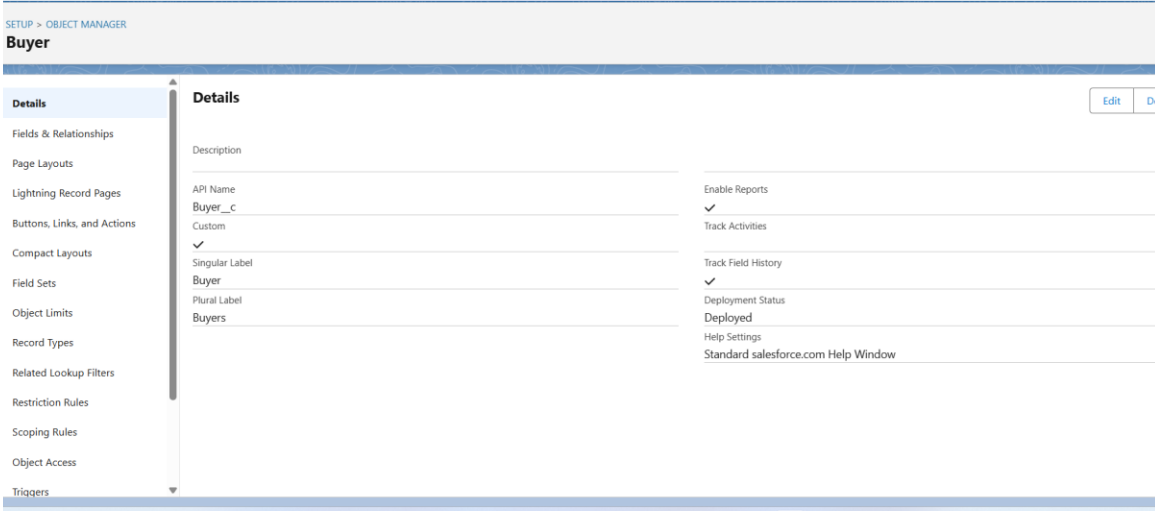
Enable Reports
✓

Track Activities

Track Field History
✓

Deployment Status
Deployed

Help Settings
Standard salesforce.com Help Window



Buyer

Details

Description

API Name
Buyer__c

Custom
✓

Singular Label
Buyer

Plural Label
Buyers

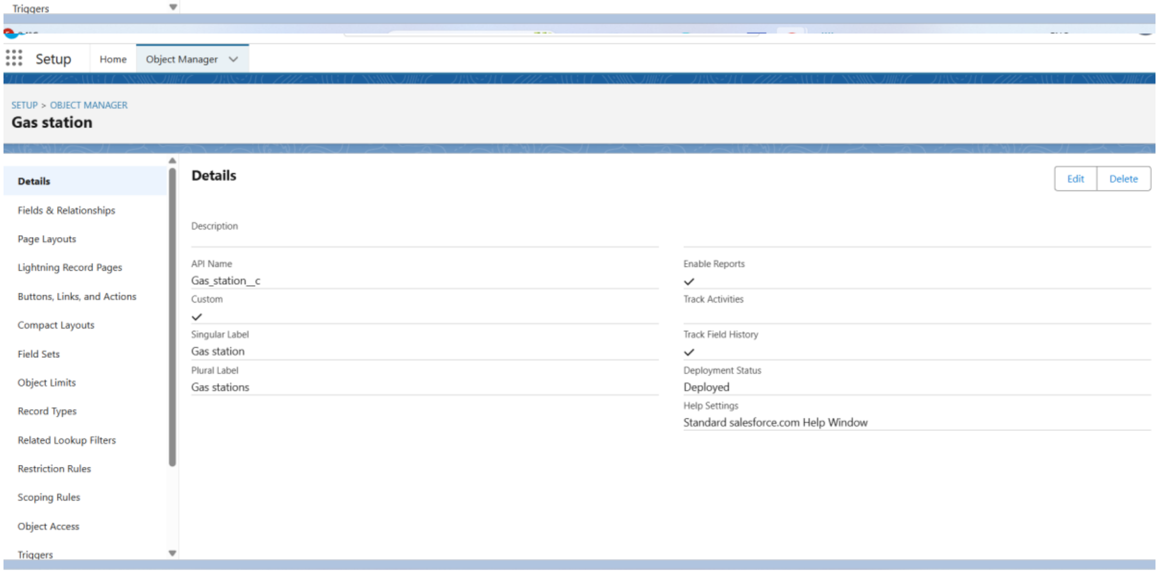
Enable Reports
✓

Track Activities

Track Field History
✓

Deployment Status
Deployed

Help Settings
Standard salesforce.com Help Window



Gas station

Details

Description

API Name
Gas_station__c

Custom
✓

Singular Label
Gas station

Plural Label
Gas stations

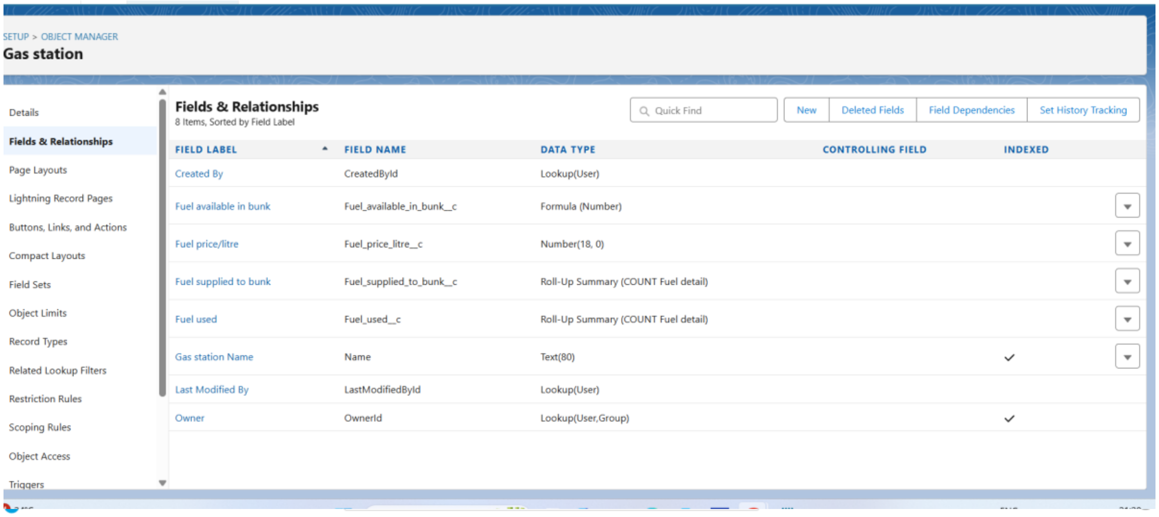
Enable Reports
✓

Track Activities

Track Field History
✓

Deployment Status
Deployed

Help Settings
Standard salesforce.com Help Window



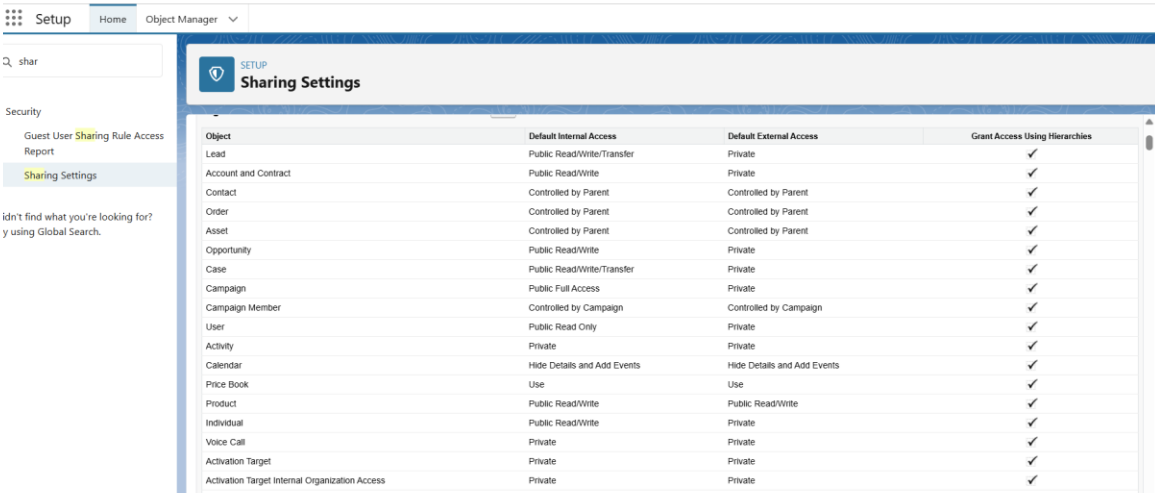
SETUP > OBJECT MANAGER

Gas station

Fields & Relationships

8 Items, Sorted by Field Label

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		
Fuel available in bunk	Fuel_available_in_bunk__c	Formula (Number)		
Fuel price/litre	Fuel_price_litre__c	Number(18, 0)		
Fuel supplied to bunk	Fuel_supplied_to_bunk__c	Roll-Up Summary (COUNT Fuel detail)		
Fuel used	Fuel_used__c	Roll-Up Summary (COUNT Fuel detail)		
Gas station Name	Name	Text(80)		✓
Last Modified By	LastModifiedById	Lookup(User)		
Owner	OwnerId	Lookup(User,Group)		✓

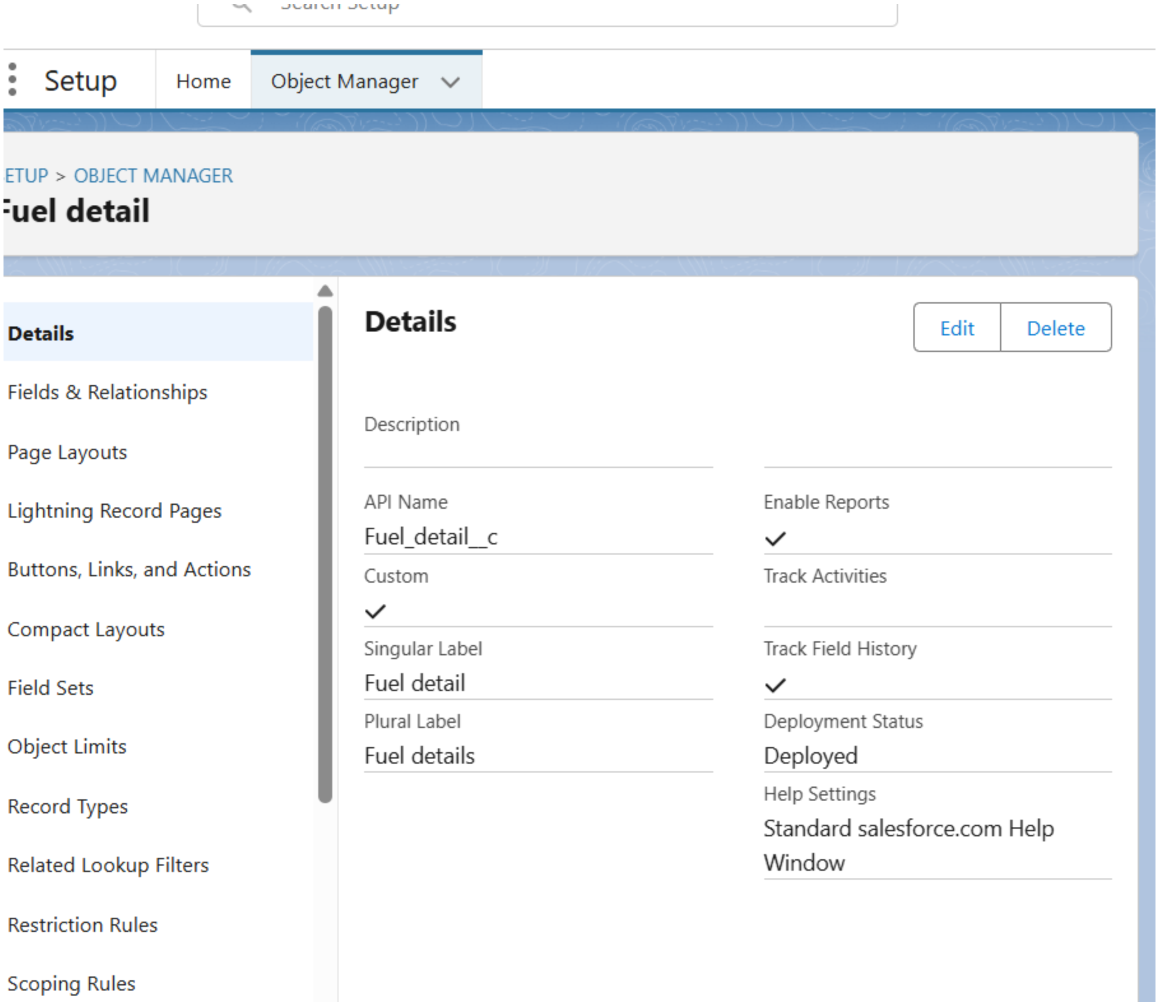


idn't find what you're looking for?
y using Global Search.

SETUP

Sharing Settings

Object	Default Internal Access	Default External Access	Grant Access Using Hierarchies
Lead	Public Read/Write/Transfer	Private	✓
Account and Contract	Public Read/Write	Private	✓
Contact	Controlled by Parent	Controlled by Parent	✓
Order	Controlled by Parent	Controlled by Parent	✓
Asset	Controlled by Parent	Controlled by Parent	✓
Opportunity	Public Read/Write	Private	✓
Case	Public Read/Write/Transfer	Private	✓
Campaign	Public Full Access	Private	✓
Campaign Member	Controlled by Campaign	Controlled by Campaign	✓
User	Public Read Only	Private	✓
Activity	Private	Private	✓
Calendar	Hide Details and Add Events	Hide Details and Add Events	✓
Price Book	Use	Use	✓
Product	Public Read/Write	Public Read/Write	✓
Individual	Public Read/Write	Private	✓
Voice Call	Private	Private	✓
Activation Target	Private	Private	✓
Activation Target Internal Organization Access	Private	Private	✓



Fuel detail

Details

Description

API Name: Fuel_detail__c

Enable Reports: ✓

Custom: ✓

Track Activities:

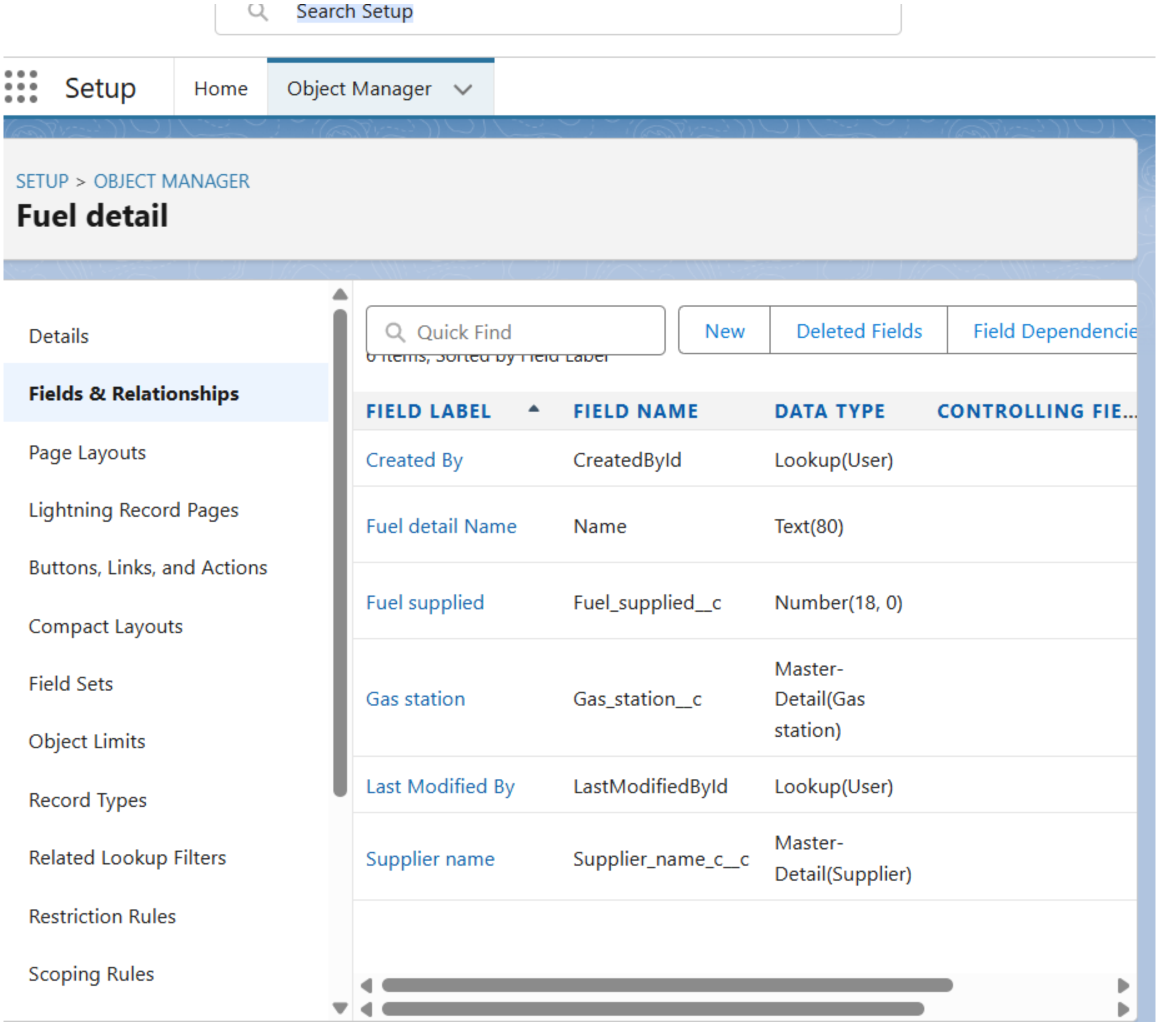
Singular Label: Fuel detail

Track Field History: ✓

Plural Label: Fuel details

Deployment Status: Deployed

Help Settings: Standard salesforce.com Help Window

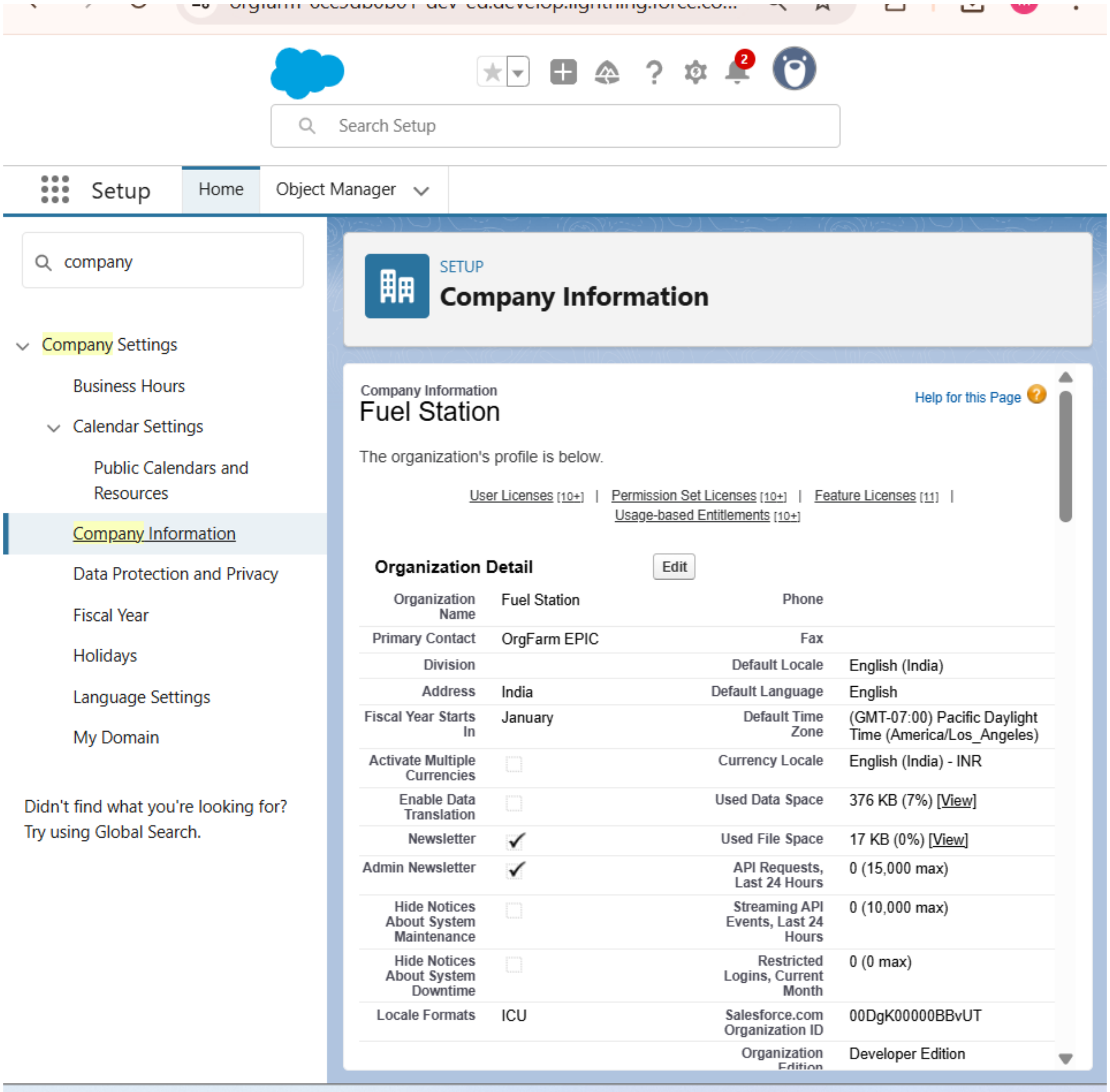


SETUP > OBJECT MANAGER

Fuel detail

6 Items, Sorted by Field Label

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIE...
Created By	CreatedById	Lookup(User)	
Fuel detail Name	Name	Text(80)	
Fuel supplied	Fuel_supplied__c	Number(18, 0)	
Gas station	Gas_station__c	Master-Detail(Gas station)	
Last Modified By	LastModifiedById	Lookup(User)	
Supplier name	Supplier_name_c__c	Master-Detail(Supplier)	



Company Information

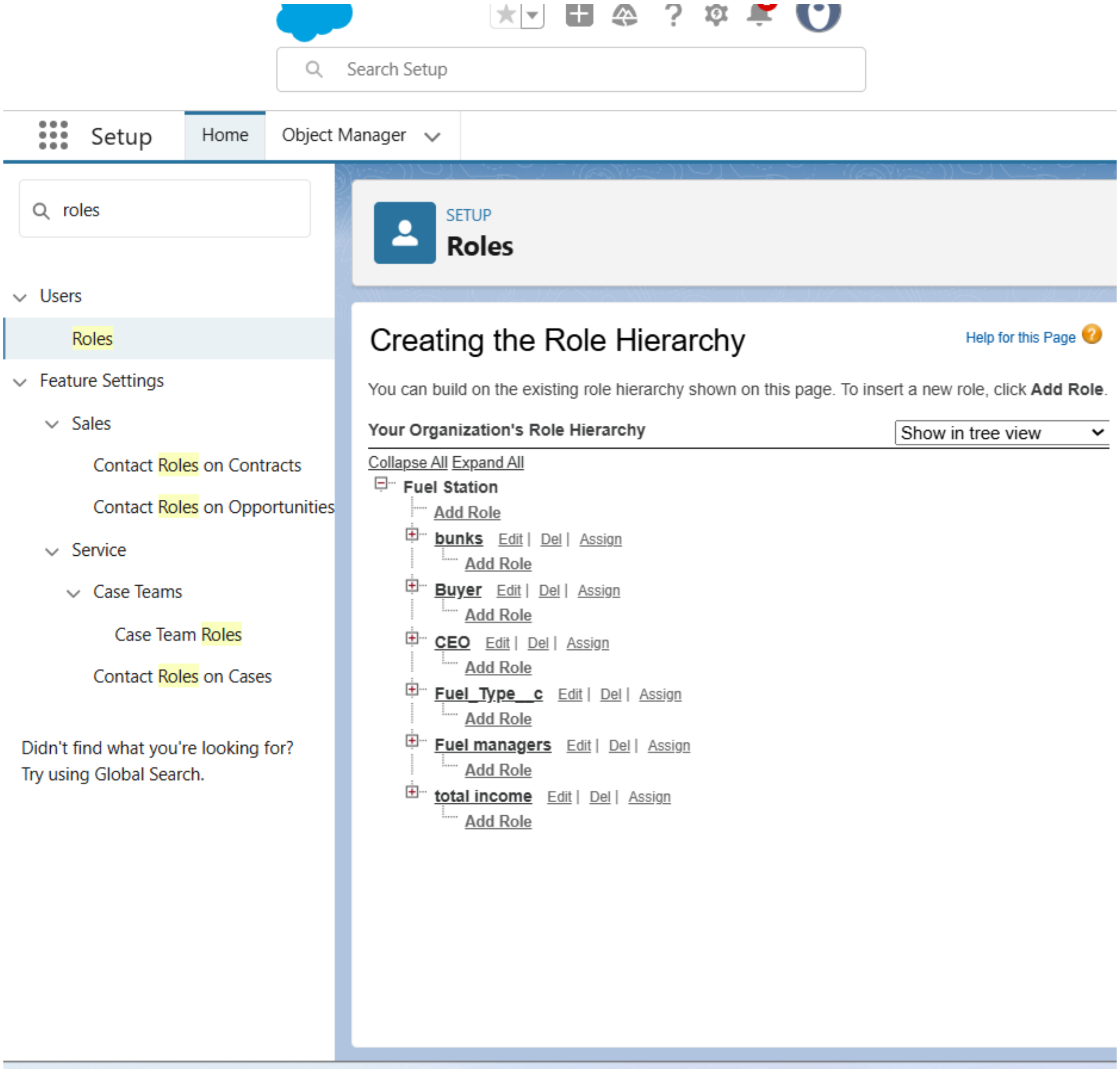
Fuel Station

The organization's profile is below.

User Licenses [10+] | Permission Set Licenses [10+] | Feature Licenses [11] | Usage-based Entitlements [10+]

Organization Detail

Organization Name	Fuel Station	Phone	
Primary Contact	OrgFarm EPIC	Fax	
Division		Default Locale	English (India)
Address	India	Default Language	English
Fiscal Year Starts In	January	Default Time Zone	(GMT-07:00) Pacific Daylight Time (America/Los_Angeles)
Activate Multiple Currencies	□	Currency Locale	English (India) - INR
Enable Data Translation	□	Used Data Space	376 KB (7%) [View]
Newsletter	✓	Used File Space	17 KB (0%) [View]
Admin Newsletter	✓	API Requests, Last 24 Hours	0 (15,000 max)
Hide Notices About System Maintenance	□	Streaming API Events, Last 24 Hours	0 (10,000 max)
Hide Notices About System Downtime	□	Restricted Logins, Current Month	0 (0 max)
Locale Formats	ICU	Salesforce.com Organization ID	00DgK00000BBvUT
		Organization Edition	Developer Edition



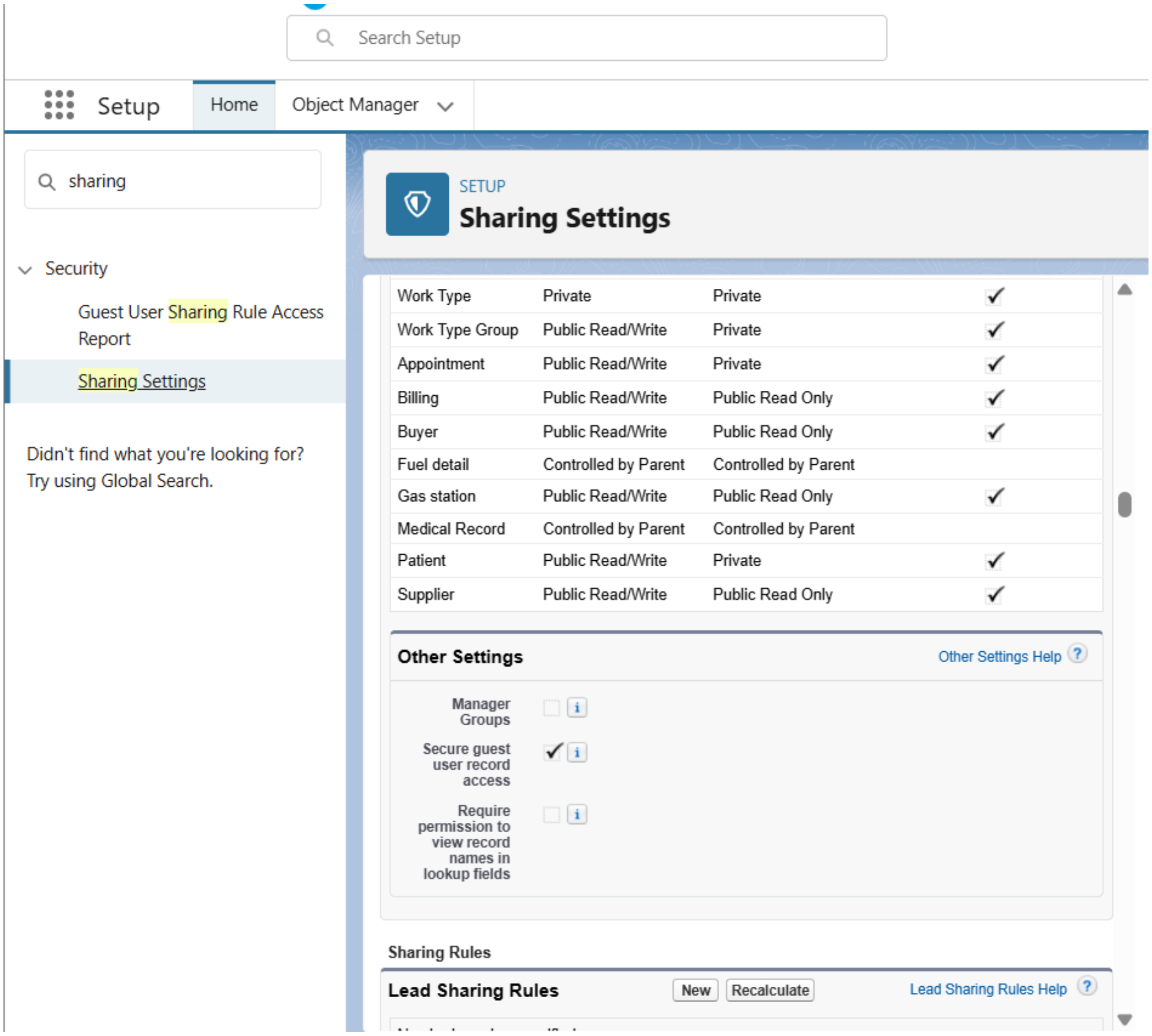
Creating the Role Hierarchy

You can build on the existing role hierarchy shown on this page. To insert a new role, click **Add Role**.

Your Organization's Role Hierarchy Show in tree view

Collapse All Expand All

```
⊟ Fuel Station
    Add Role
  ⊞ bunks  Edit | Del | Assign
      Add Role
  ⊞ Buyer  Edit | Del | Assign
      Add Role
  ⊞ CEO  Edit | Del | Assign
      Add Role
  ⊞ Fuel_Type__c  Edit | Del | Assign
      Add Role
  ⊞ Fuel managers  Edit | Del | Assign
      Add Role
  ⊞ total income  Edit | Del | Assign
      Add Role
```


Search Setup
Setup
Home
Object Manager
sharing
Security
Guest User Sharing Rule Access Report
Sharing Settings
Didn't find what you're looking for? Try using Global Search.
SETUP

Sharing Settings

Work Type	Private	Private	✓
Work Type Group	Public Read/Write	Private	✓
Appointment	Public Read/Write	Private	✓
Billing	Public Read/Write	Public Read Only	✓
Buyer	Public Read/Write	Public Read Only	✓
Fuel detail	Controlled by Parent	Controlled by Parent	
Gas station	Public Read/Write	Public Read Only	✓
Medical Record	Controlled by Parent	Controlled by Parent	
Patient	Public Read/Write	Private	✓
Supplier	Public Read/Write	Public Read Only	✓

Other Settings

Manager Groups □

Secure guest user record access ✓

Require permission to view record names in lookup fields □

Sharing Rules

Lead Sharing Rules

✅Outcome: Outcome: A secure, well-configured Salesforce org ready for customization.

Phase 3 – Data Modeling & Relationships

> ***Objective: Build a scalable CRM data structure for suppliers, stations, buyers, and transactions.***

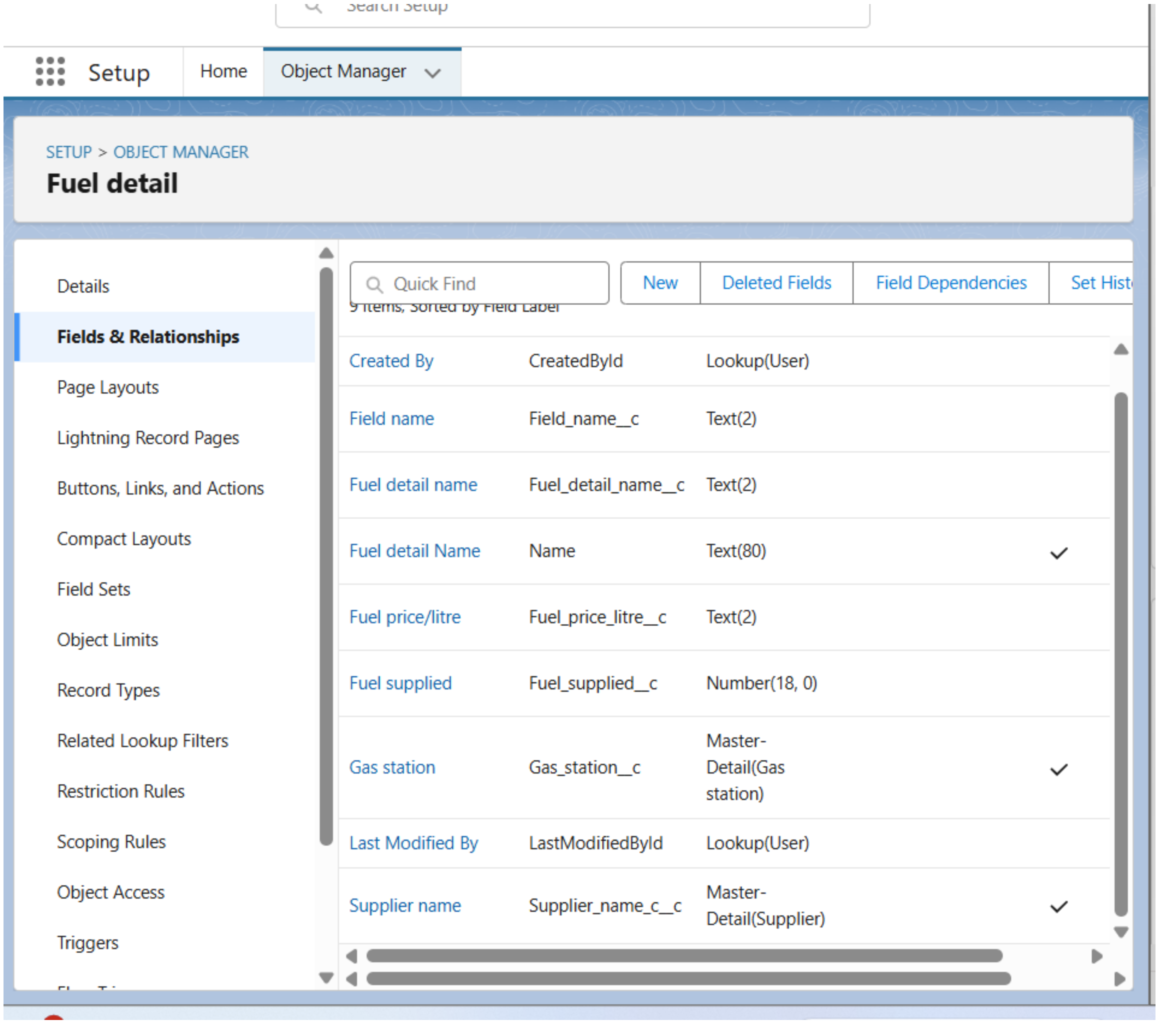
• **Custom Objects**: Gas Station, Supplier, Buyer, Fuel Details, Transactions.

• **Relationships**: Supplier → Fuel Details (Master-Detail), Gas Station → Fuel Details (Lookup), Buyer → Transactions (Lookup).

• **Fields:** Fuel Type, Quantity, Price, Date Supplied; Transactions → Amount, Buyer, Fuel Type, Purchase Date.

• **Layouts & Record Types**: Configure layouts for Gas Station and Buyer for better usability.

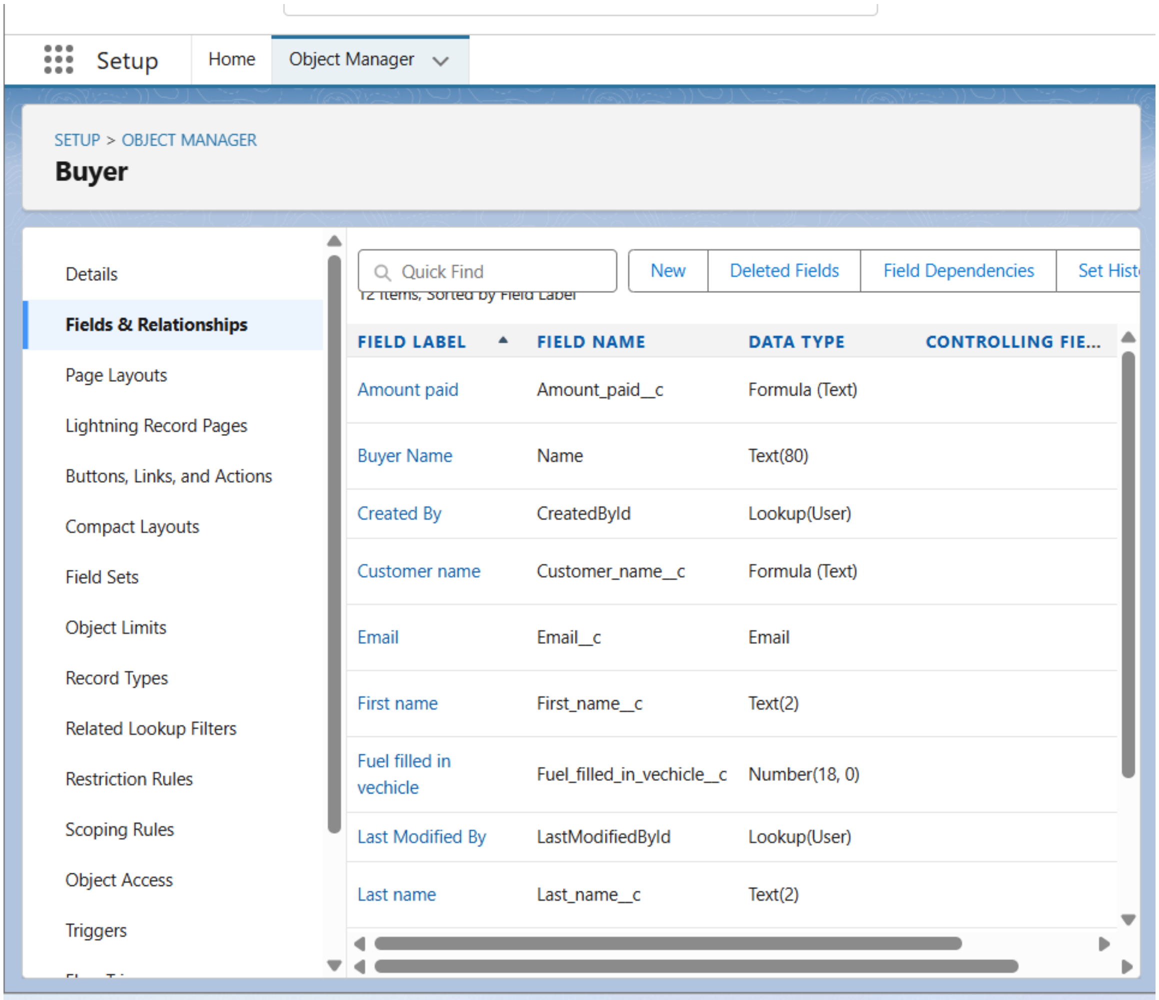
- **Schema Builder**: Relationships for various data
- **Junction objects**: Had multiple data suppliers
- **Compact layouts:** status, fuel details we added compact layouts



Fuel detail

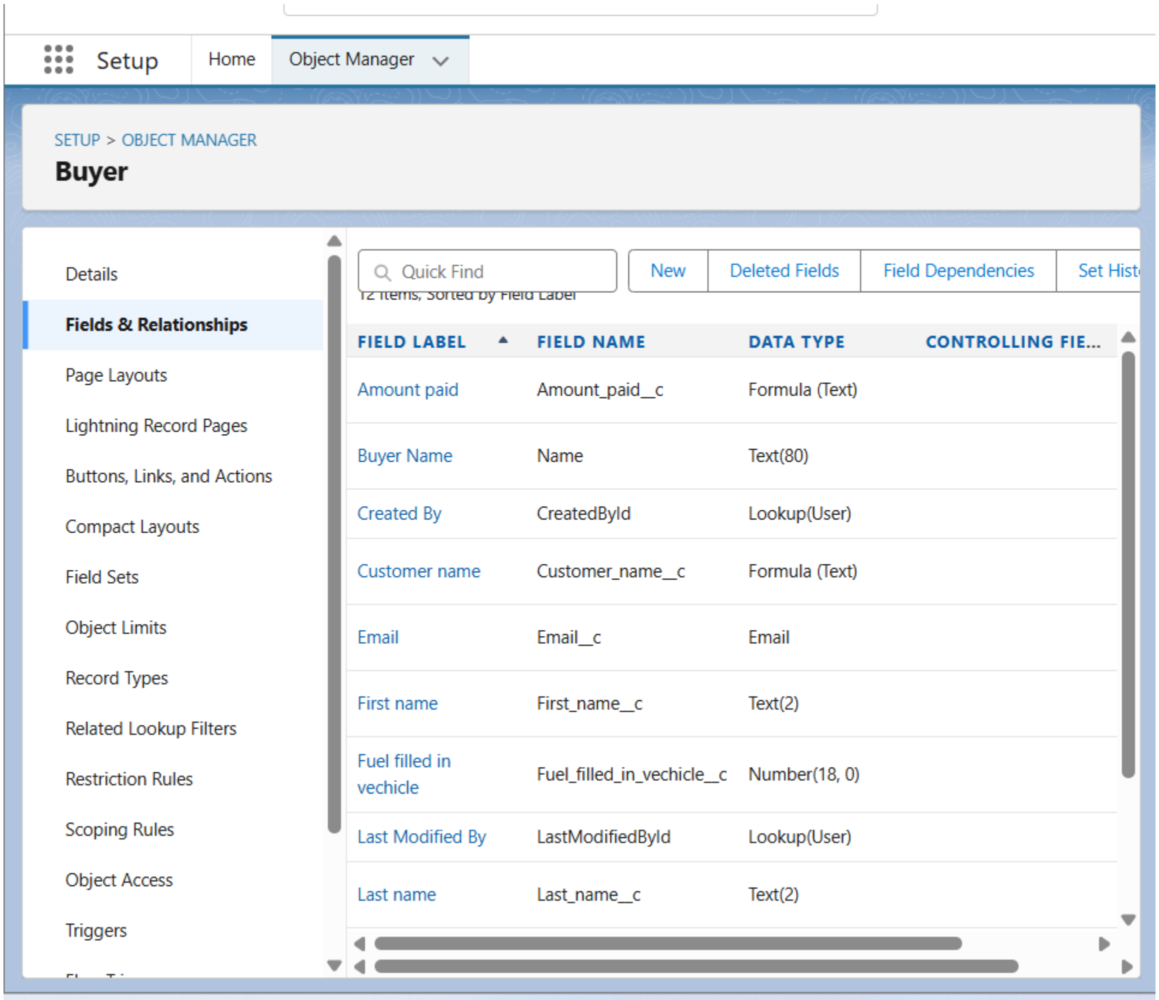
9 Items, Sorted by Field Label

Created By	CreatedById	Lookup(User)	
Field name	Field_name__c	Text(2)	
Fuel detail name	Fuel_detail_name__c	Text(2)	
Fuel detail Name	Name	Text(80)	✓
Fuel price/litre	Fuel_price_litre__c	Text(2)	
Fuel supplied	Fuel_supplied__c	Number(18, 0)	
Gas station	Gas_station__c	Master-Detail(Gas station)	✓
Last Modified By	LastModifiedById	Lookup(User)	
Supplier name	Supplier_name_c__c	Master-Detail(Supplier)	✓



12 Items, Sorted by Field Label

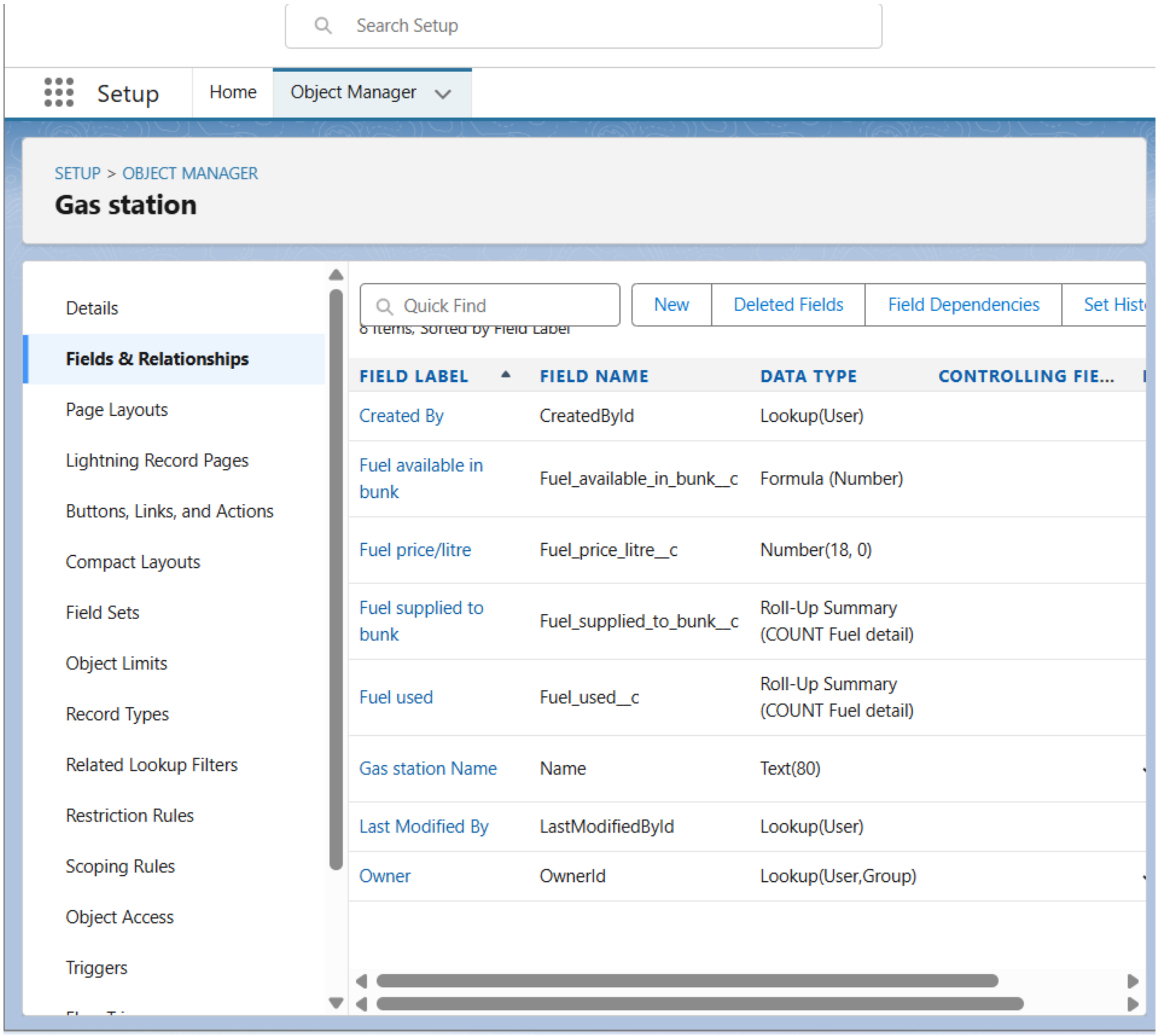
FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIE...
Amount paid	Amount_paid__c	Formula (Text)	
Buyer Name	Name	Text(80)	
Created By	CreatedById	Lookup(User)	
Customer name	Customer_name__c	Formula (Text)	
Email	Email__c	Email	
First name	First_name__c	Text(2)	
Fuel filled in vechicle	Fuel_filled_in_vechicle__c	Number(18, 0)	
Last Modified By	LastModifiedById	Lookup(User)	
Last name	Last_name__c	Text(2)	



Buyer

12 Items, Sorted by Field Label

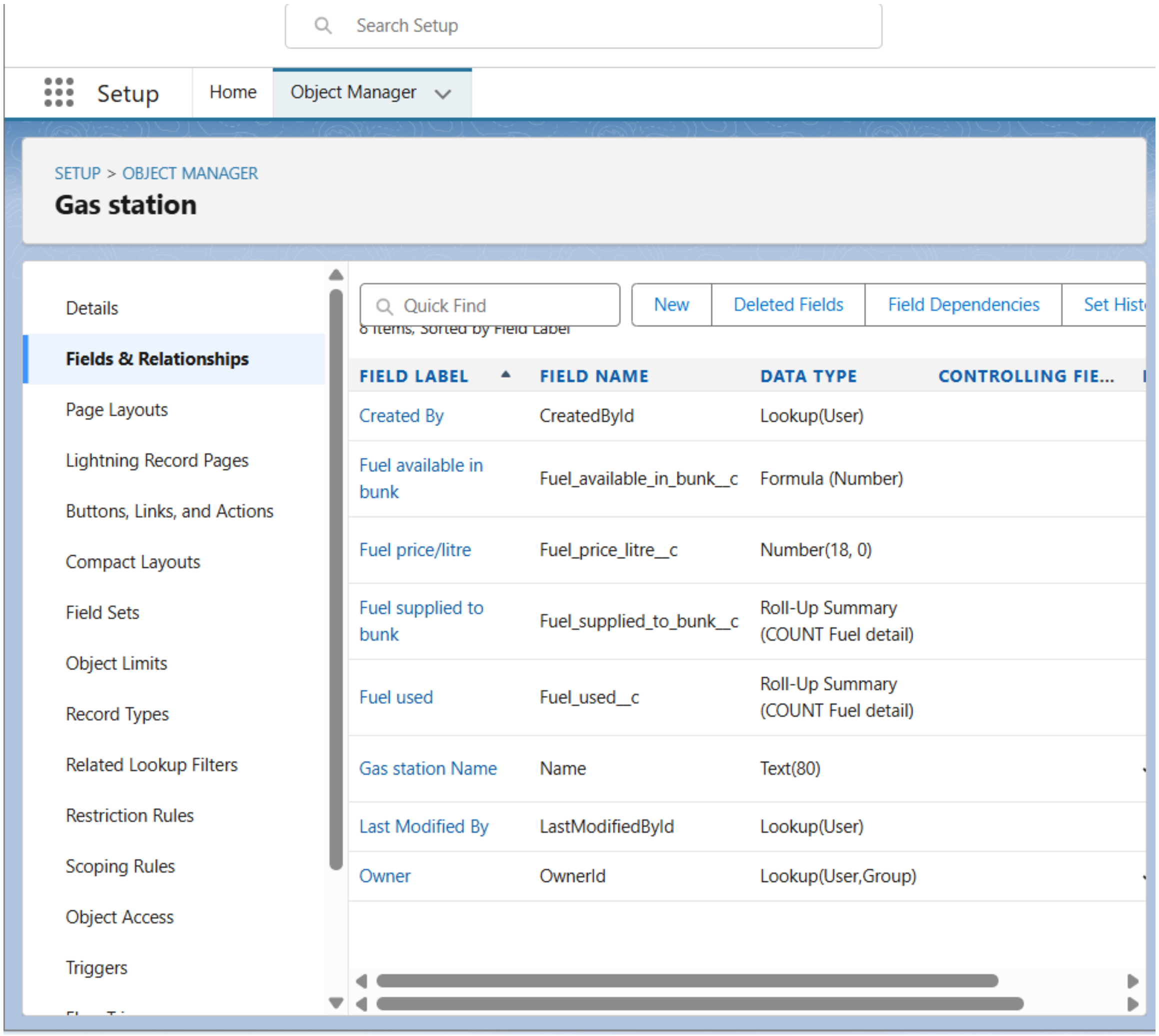
FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIE...
Amount paid	Amount_paid__c	Formula (Text)	
Buyer Name	Name	Text(80)	
Created By	CreatedById	Lookup(User)	
Customer name	Customer_name__c	Formula (Text)	
Email	Email__c	Email	
First name	First_name__c	Text(2)	
Fuel filled in vechicle	Fuel_filled_in_vechicle__c	Number(18, 0)	
Last Modified By	LastModifiedById	Lookup(User)	
Last name	Last_name__c	Text(2)	



Gas station

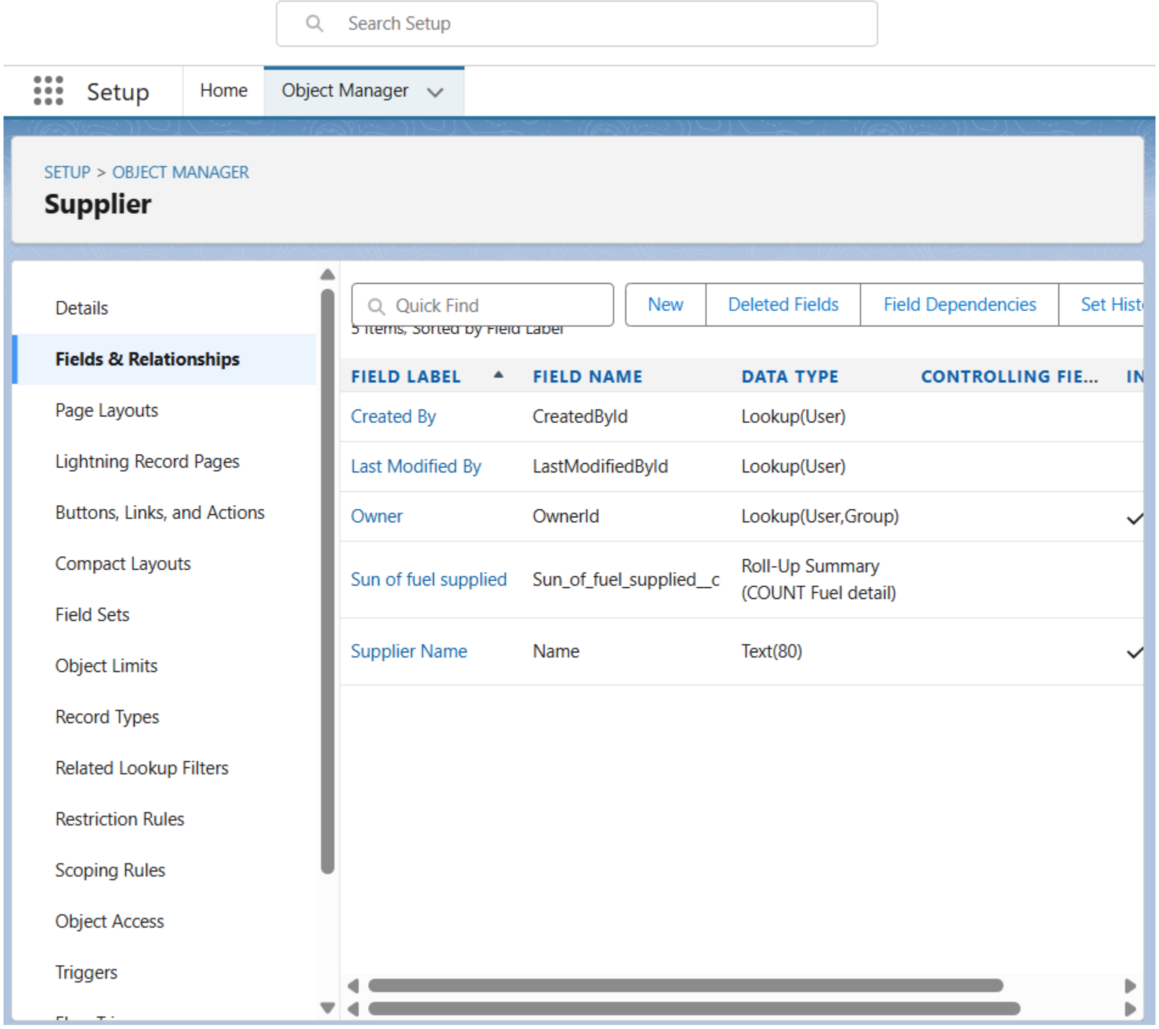
8 items, Sorted by Field Label

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIE...
Created By	CreatedById	Lookup(User)	
Fuel available in bunk	Fuel_available_in_bunk__c	Formula (Number)	
Fuel price/litre	Fuel_price_litre__c	Number(18, 0)	
Fuel supplied to bunk	Fuel_supplied_to_bunk__c	Roll-Up Summary (COUNT Fuel detail)	
Fuel used	Fuel_used__c	Roll-Up Summary (COUNT Fuel detail)	
Gas station Name	Name	Text(80)	
Last Modified By	LastModifiedById	Lookup(User)	
Owner	OwnerId	Lookup(User,Group)	



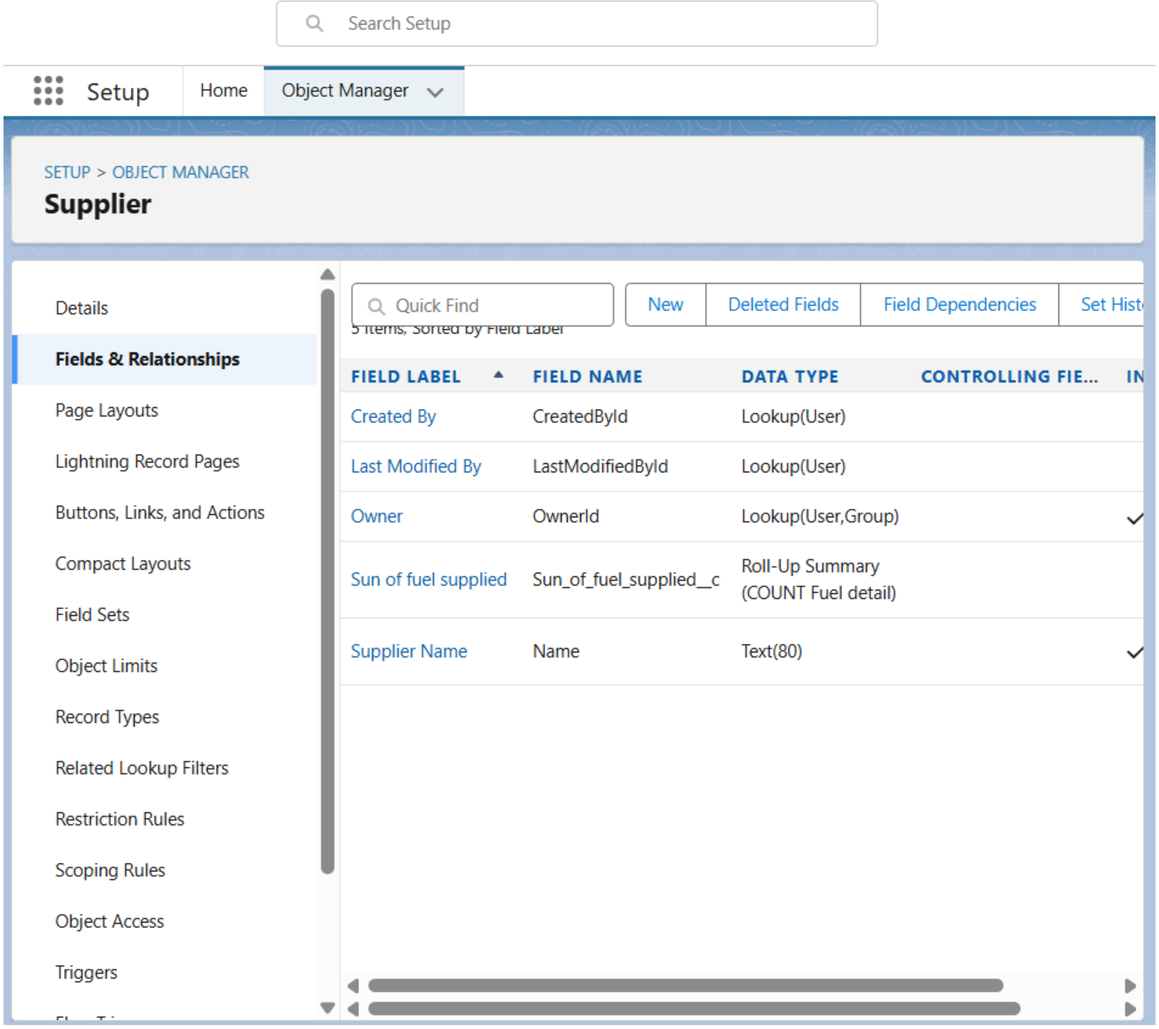
8 Items, Sorted by Field Label

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIE...
Created By	CreatedById	Lookup(User)	
Fuel available in bunk	Fuel_available_in_bunk__c	Formula (Number)	
Fuel price/litre	Fuel_price_litre__c	Number(18, 0)	
Fuel supplied to bunk	Fuel_supplied_to_bunk__c	Roll-Up Summary (COUNT Fuel detail)	
Fuel used	Fuel_used__c	Roll-Up Summary (COUNT Fuel detail)	
Gas station Name	Name	Text(80)	
Last Modified By	LastModifiedById	Lookup(User)	
Owner	OwnerId	Lookup(User,Group)	



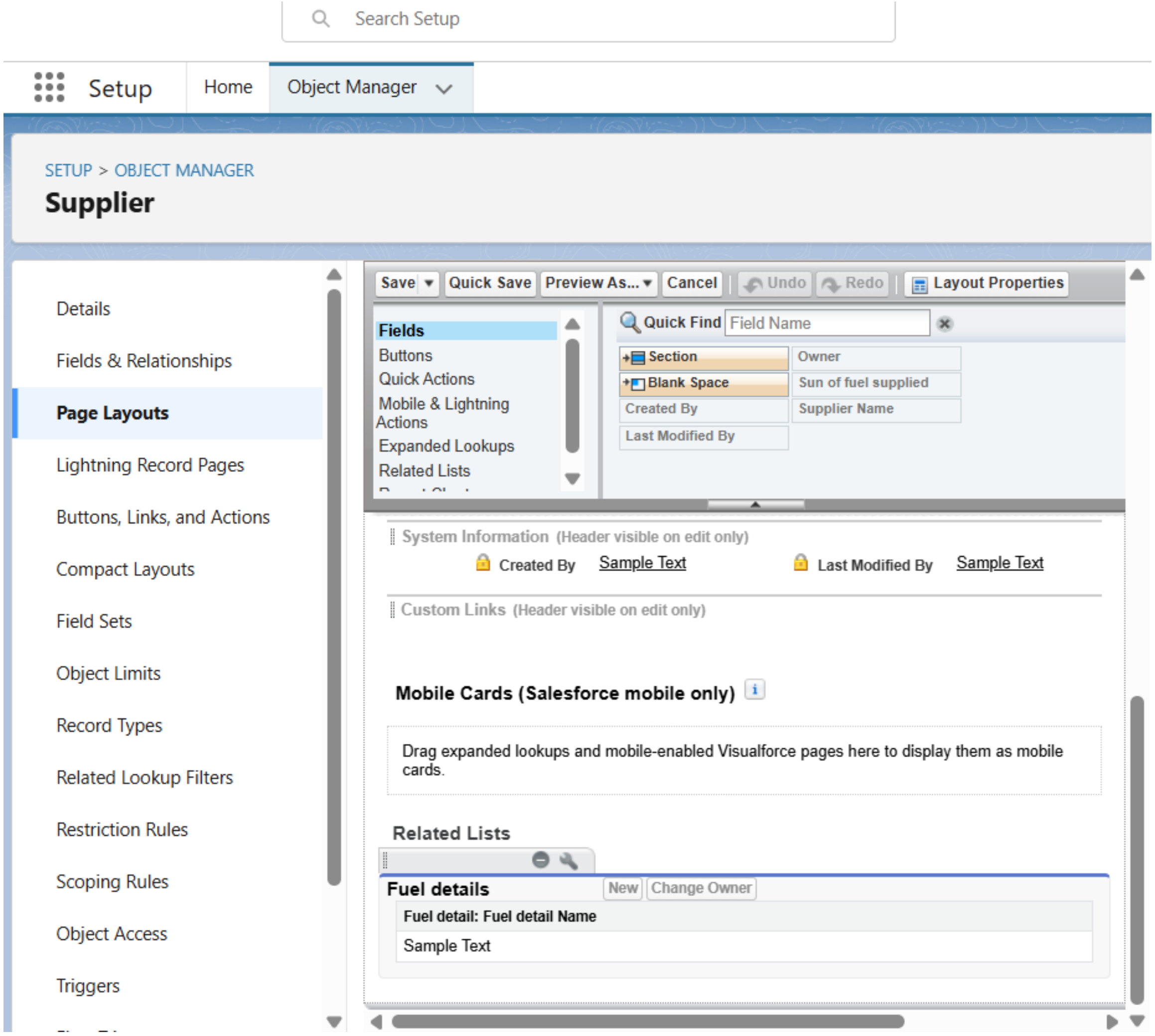
5 Items, Sorted by Field Label

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIE...	IN
Created By	CreatedById	Lookup(User)		
Last Modified By	LastModifiedById	Lookup(User)		
Owner	OwnerId	Lookup(User,Group)		✓
Sun of fuel supplied	Sun_of_fuel_supplied__c	Roll-Up Summary (COUNT Fuel detail)		
Supplier Name	Name	Text(80)		✓

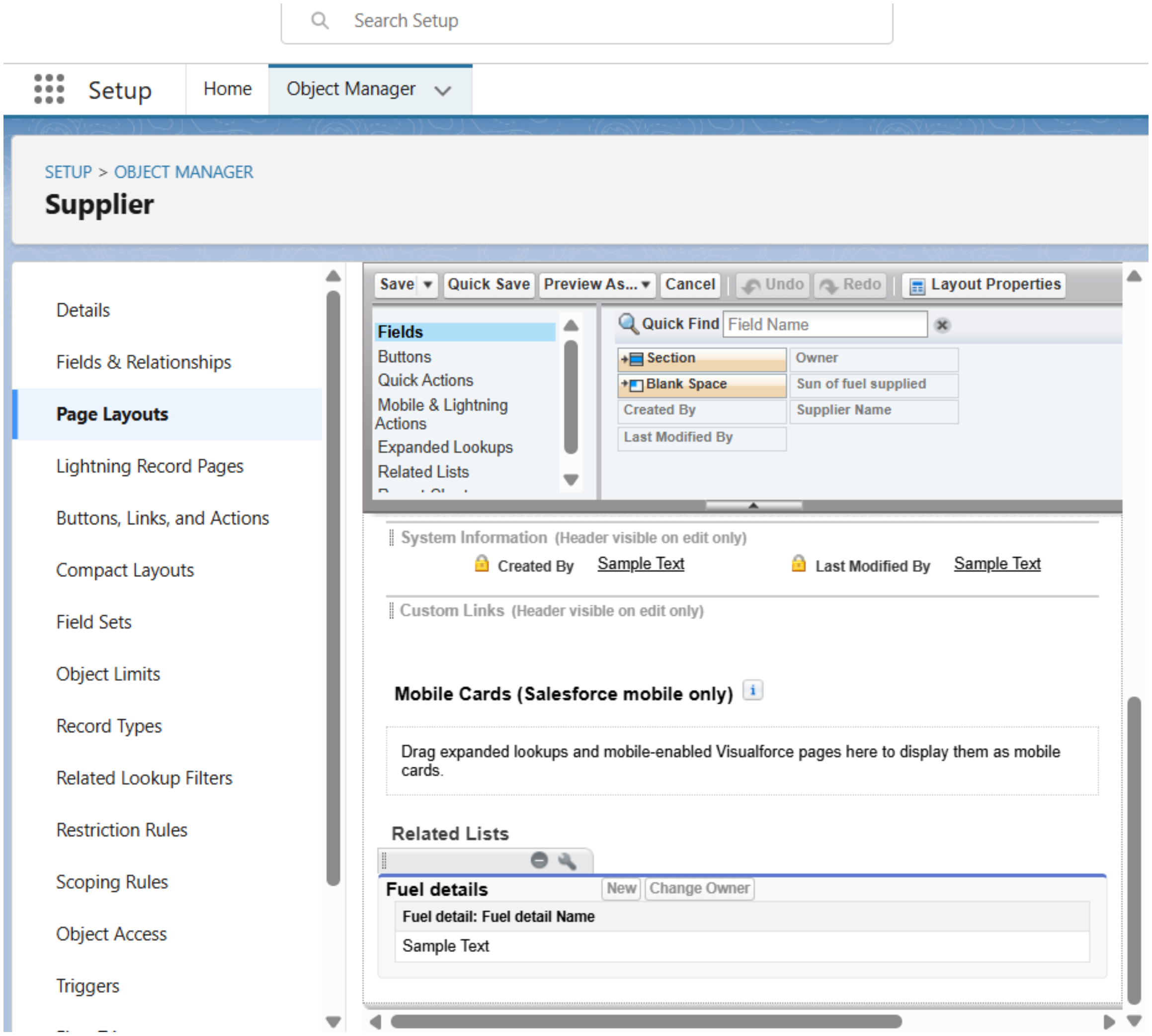


5 Items, Sorted by Field Label

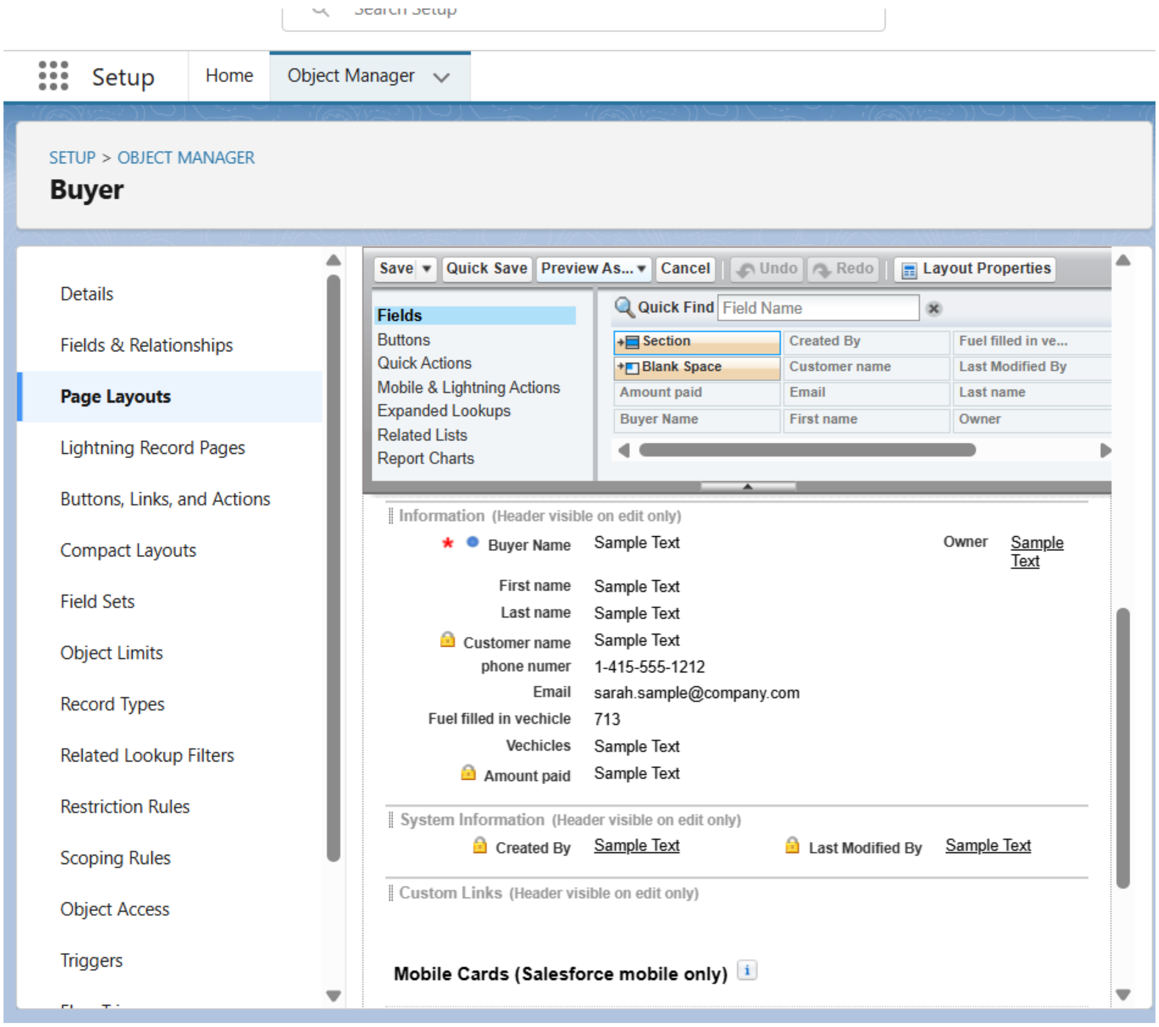
FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIE...	IN
Created By	CreatedById	Lookup(User)		
Last Modified By	LastModifiedById	Lookup(User)		
Owner	OwnerId	Lookup(User,Group)		✓
Sun of fuel supplied	Sun_of_fuel_supplied__c	Roll-Up Summary (COUNT Fuel detail)		
Supplier Name	Name	Text(80)		✓



Drag expanded lookups and mobile-enabled Visualforce pages here to display them as mobile cards.



Drag expanded lookups and mobile-enabled Visualforce pages here to display them as mobile cards.



Information (Header visible on edit only)

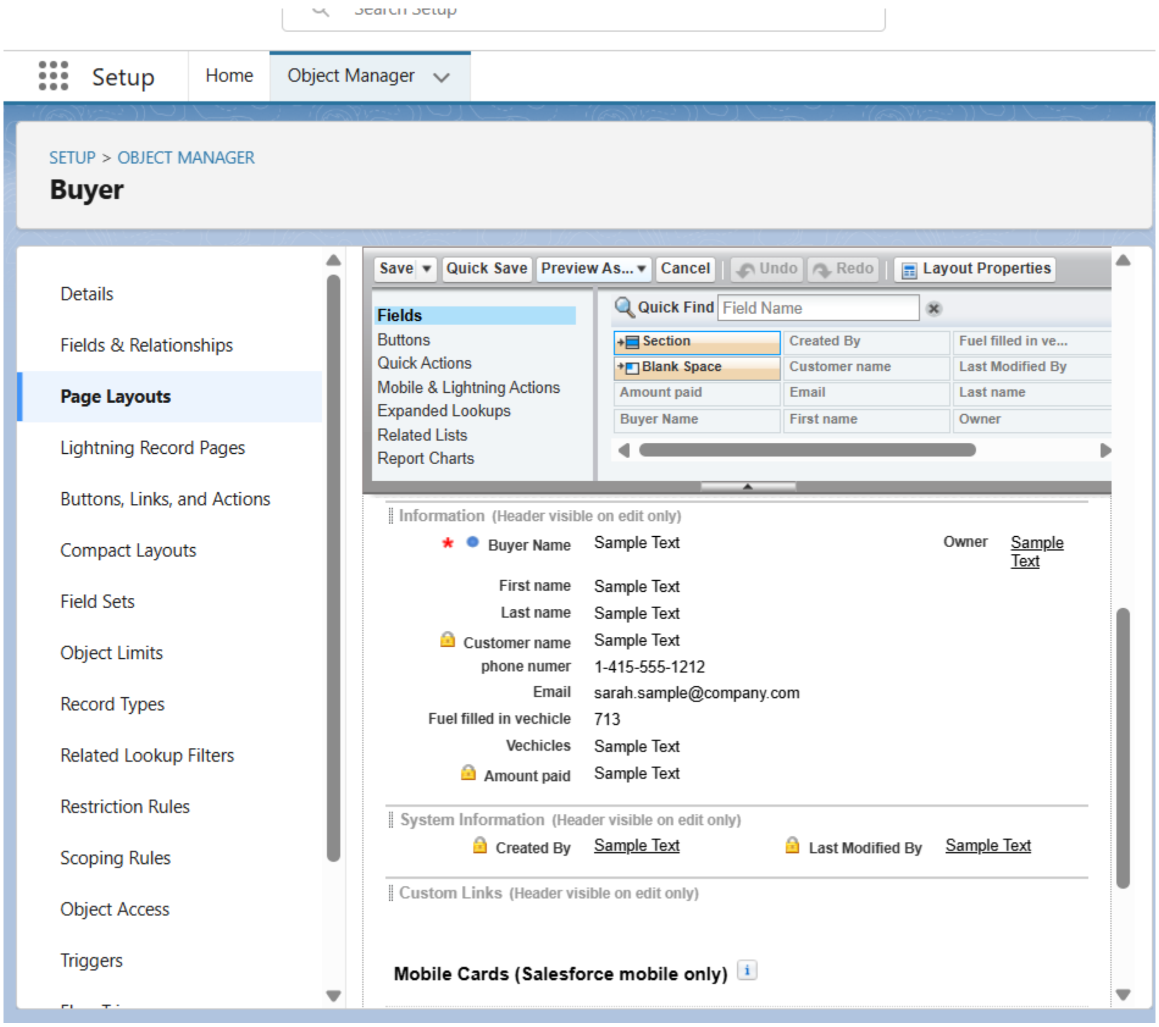
* Buyer Name	Sample Text	Owner	Sample Text
First name	Sample Text		
Last name	Sample Text		
Customer name	Sample Text		
phone numer	1-415-555-1212		
Email	sarah.sample@company.com		
Fuel filled in vechicle	713		
Vechicles	Sample Text		
Amount paid	Sample Text		

System Information (Header visible on edit only)

Created By	Sample Text	Last Modified By	Sample Text

Custom Links (Header visible on edit only)

Mobile Cards (Salesforce mobile only)



Information (Header visible on edit only)

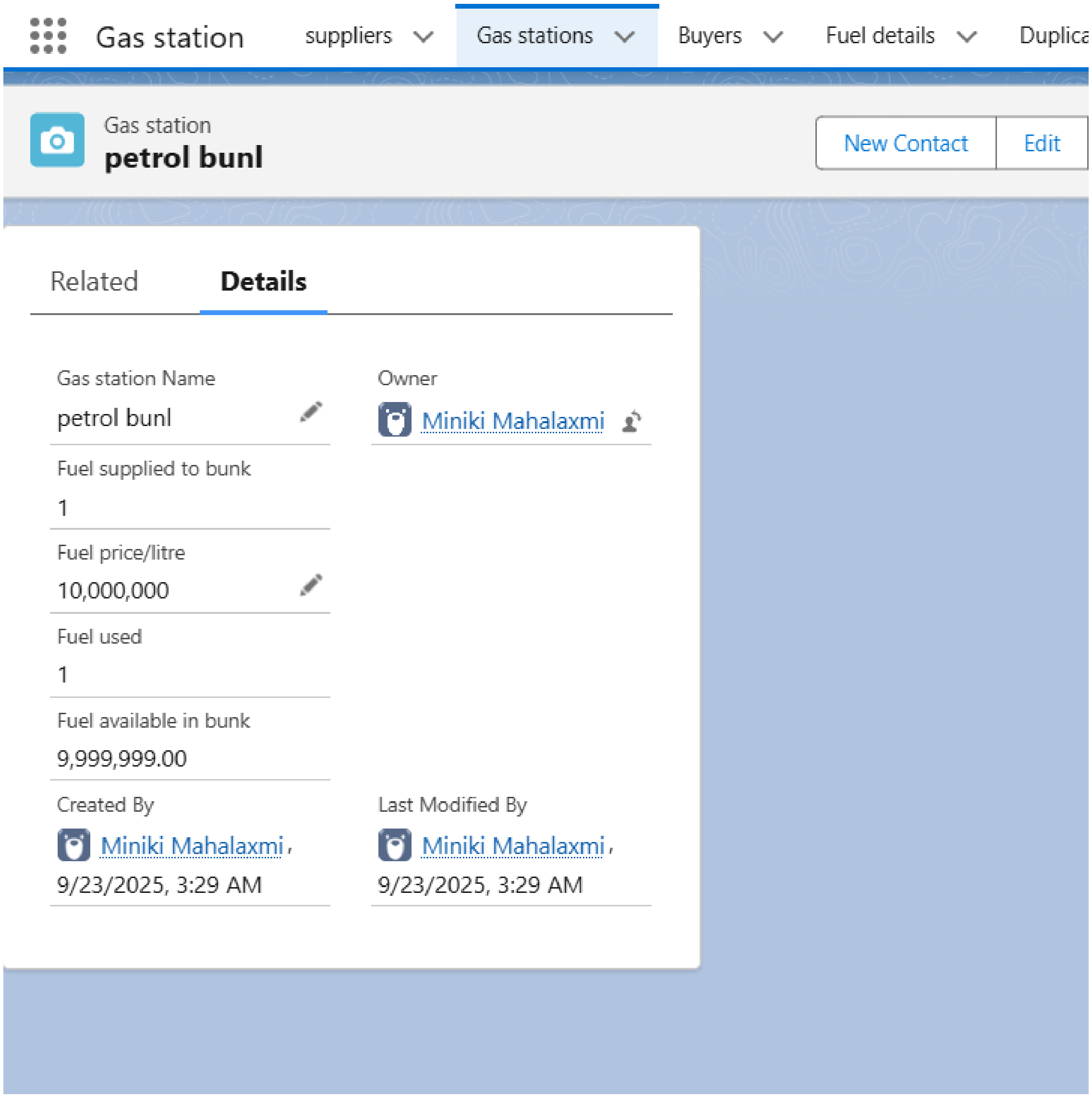
* Buyer Name	Sample Text	Owner	Sample Text
First name	Sample Text		
Last name	Sample Text		
Customer name	Sample Text		
phone numer	1-415-555-1212		
Email	sarah.sample@company.com		
Fuel filled in vechicle	713		
Vechicles	Sample Text		
Amount paid	Sample Text		

System Information (Header visible on edit only)

Created By	Sample Text	Last Modified By	Sample Text

Custom Links (Header visible on edit only)

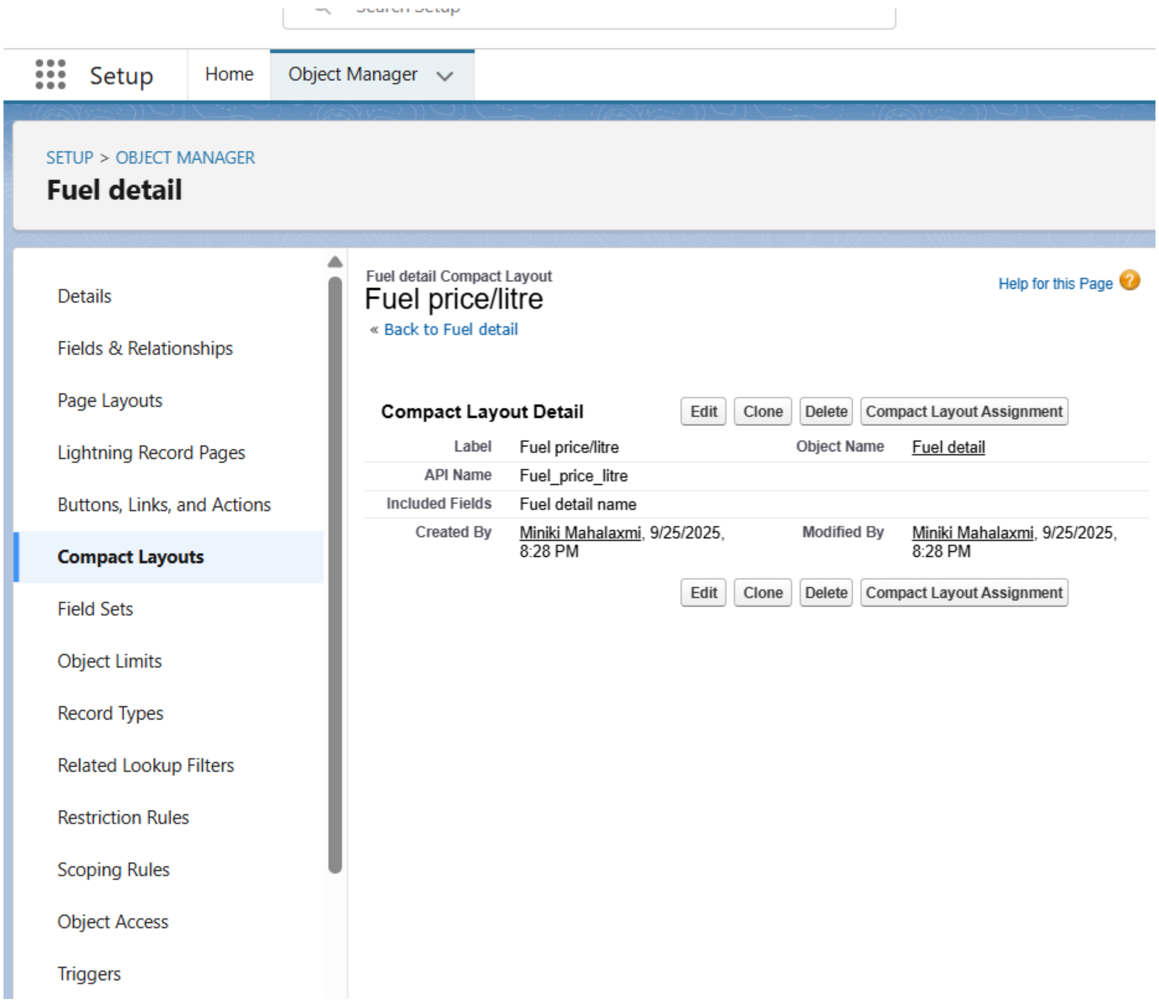
Mobile Cards (Salesforce mobile only)



Gas station

petrol bunl

Gas station Name petrol bunl	Owner Miniki Mahalaxmi
Fuel supplied to bunk 1	
Fuel price/litre 10,000,000	
Fuel used 1	
Fuel available in bunk 9,999,999.00	
Created By Miniki Mahalaxmi, 9/23/2025, 3:29 AM	Last Modified By Miniki Mahalaxmi, 9/23/2025, 3:29 AM



Fuel detail Compact Layout

Fuel price/litre

Compact Layout Detail

Label	Fuel price/litre	Object Name	Fuel detail
API Name	Fuel_price_litre		
Included Fields	Fuel detail name		
Created By	Miniki Mahalaxmi, 9/25/2025, 8:28 PM	Modified By	Miniki Mahalaxmi, 9/25/2025, 8:28 PM

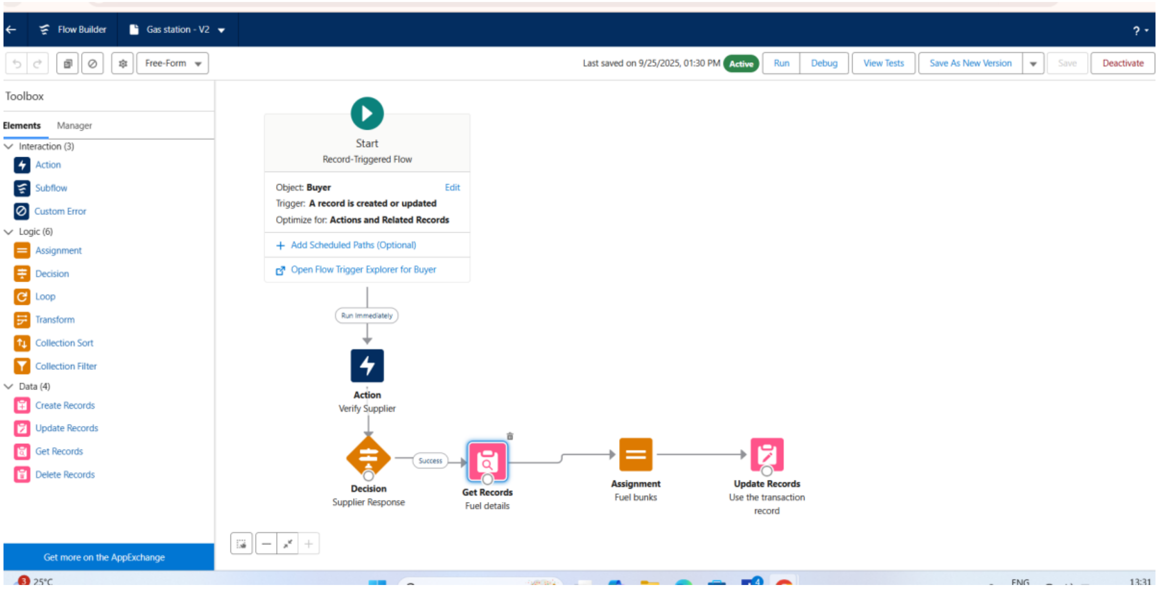
✅Outcome: Outcome: A robust Salesforce data model enabling accurate fuel station operations tracking.

Phase 4 – Process Automation (Admin)

Objective: Automate critical business workflows to improve efficiency.

- **Validation Rules:** Ensure Amount > 0, Fuel Quantity > 0.
- **Approval Processes:** Automate high-value supplier contract approvals.
- **Flows:** Automatically update stock after transactions.

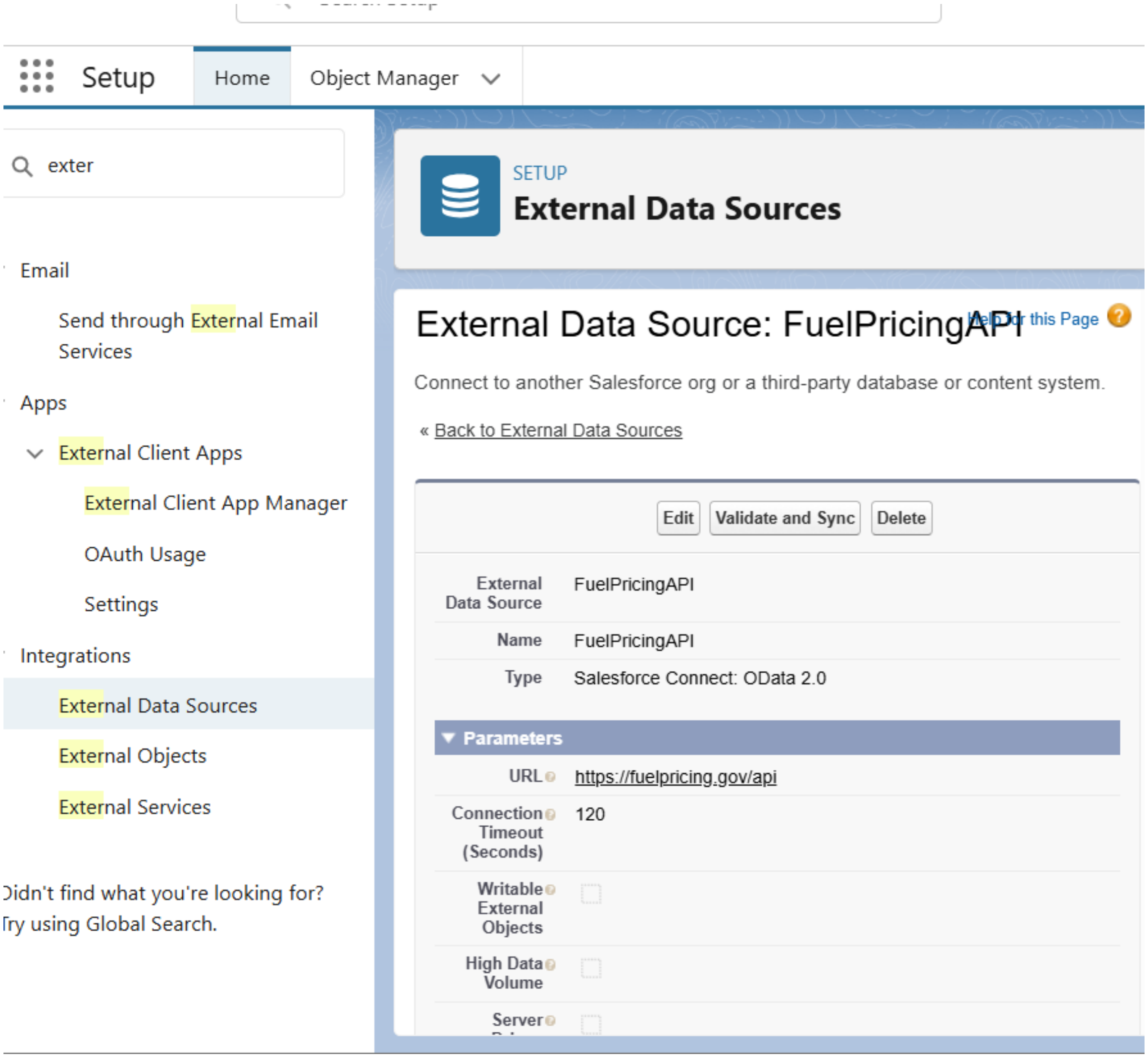
- **Email Alerts:** Notify managers for low stock or pending approvals.
- **Reminders:** Send notifications for supplier reorders.
- **Custom notification:** Set up notification for agent to update fuel details.
- **Field updates:** After approval Fuel manager =” confirmed”
- **Workflow rules:** Auto-send email when buyer send bulk amount
- **Workflow rules:** Replaced by flow now



Object: **Buyer**

Trigger: **A record is created or updated**

Optimize for: **Actions and Related Records**



External Data Source: FuelPricingAPI

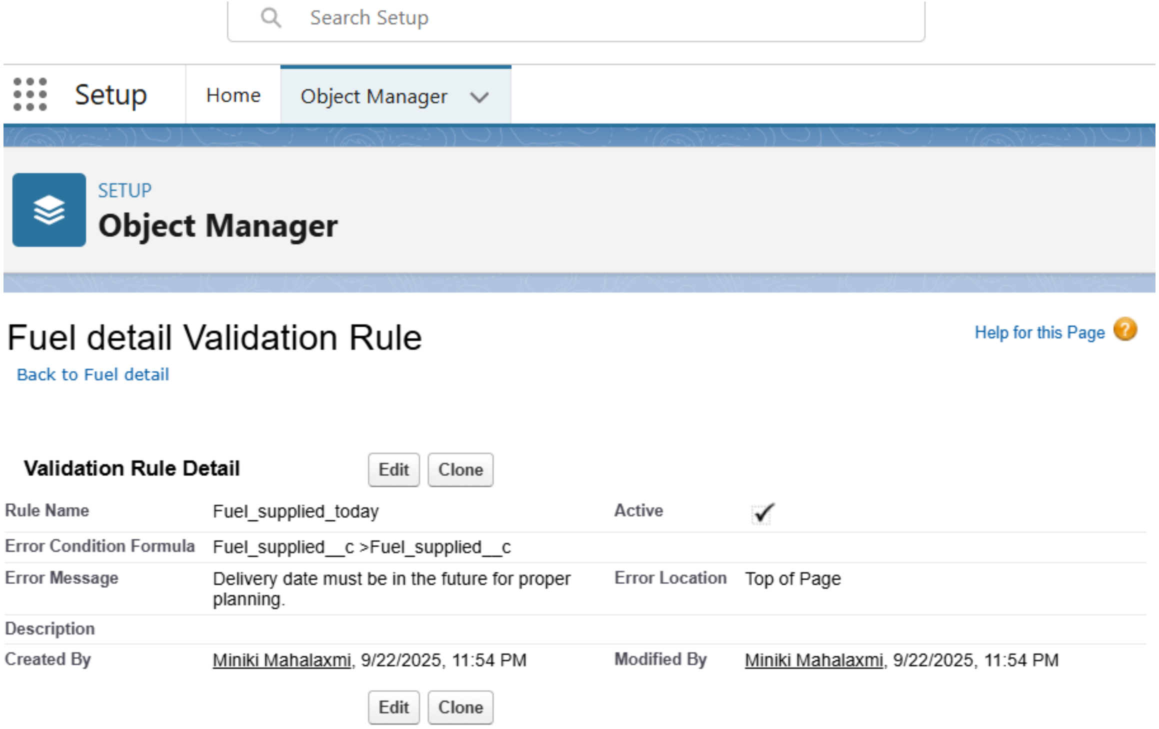
Connect to another Salesforce org or a third-party database or content system.

« Back to External Data Sources

External Data Source	FuelPricingAPI
Name	FuelPricingAPI
Type	Salesforce Connect: OData 2.0

Parameters

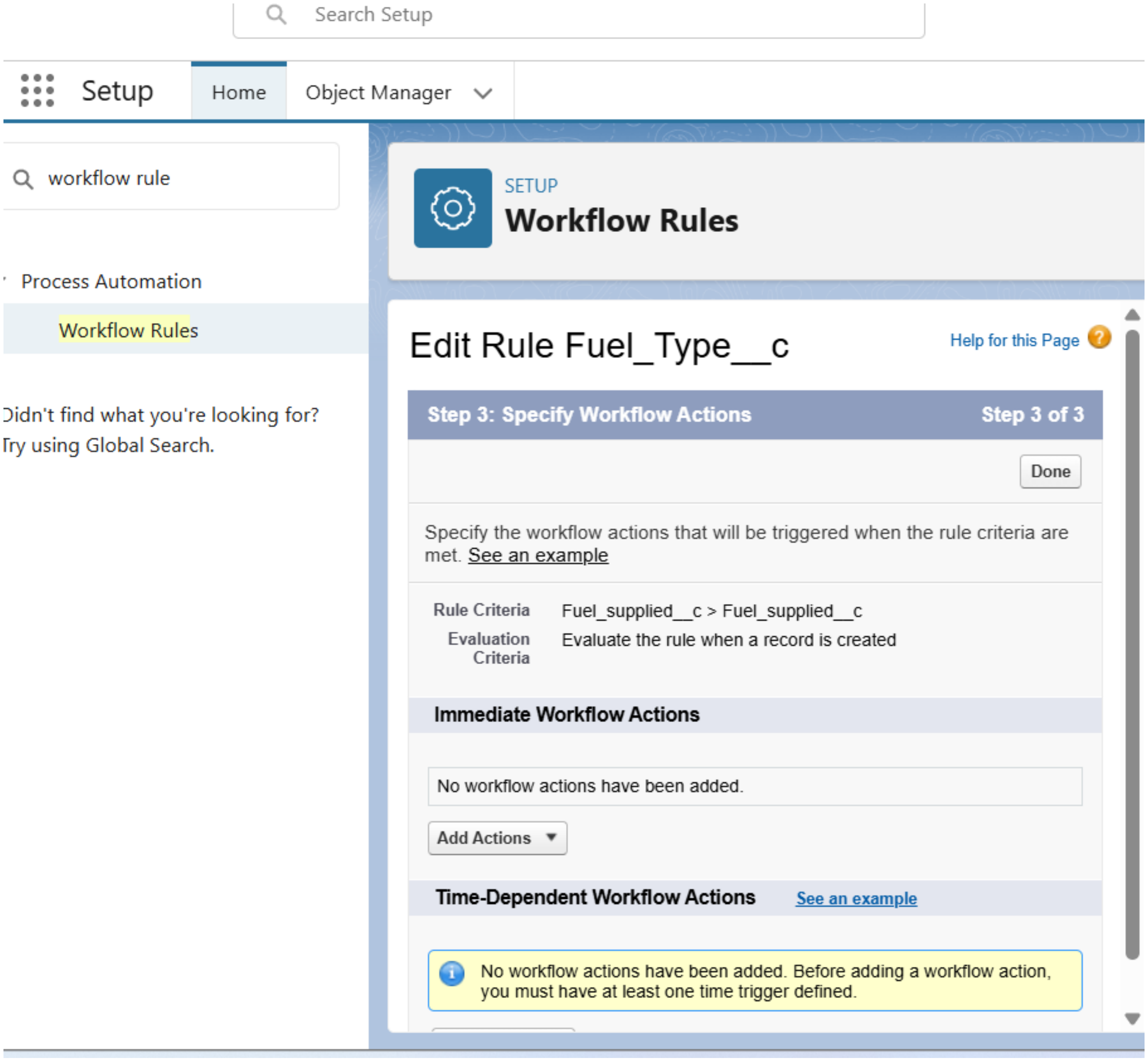
URL	https://fuelpricing.gov/api
Connection Timeout (Seconds)	120
Writable External Objects	□
High Data Volume	□
Server	□



Fuel detail Validation Rule

Validation Rule Detail

Rule Name	Fuel_supplied_today	Active	✓
Error Condition Formula	Fuel_supplied__c >Fuel_supplied__c		
Error Message	Delivery date must be in the future for proper planning.	Error Location	Top of Page
Description			
Created By	Miniki Mahalaxmi, 9/22/2025, 11:54 PM	Modified By	Miniki Mahalaxmi, 9/22/2025, 11:54 PM



Didn't find what you're looking for?
Try using Global Search.

SETUP

Workflow Rules

Edit Rule Fuel_Type__c

Step 3: Specify Workflow Actions — Step 3 of 3

Specify the workflow actions that will be triggered when the rule criteria are met. See an example

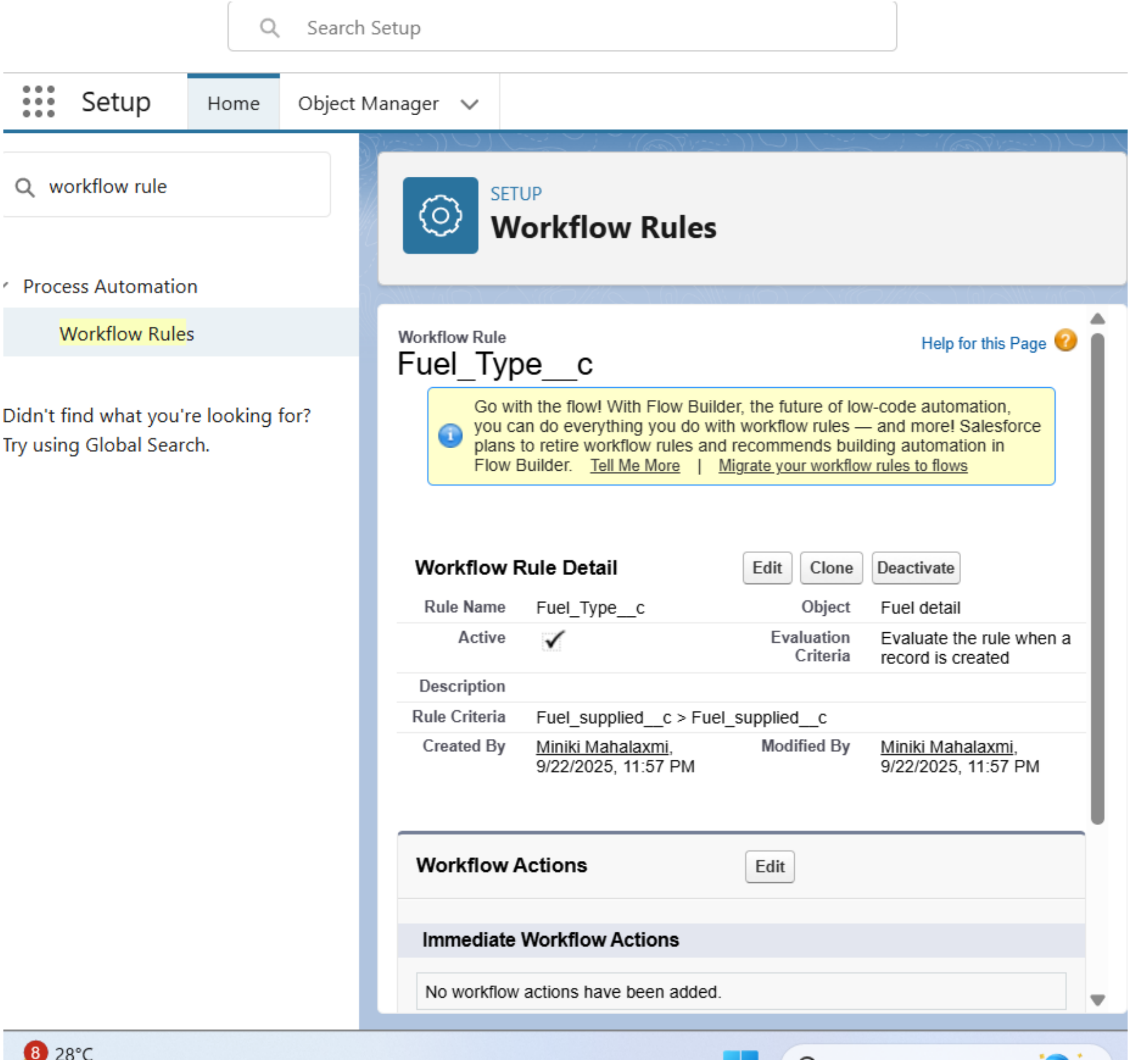
Rule Criteria	Fuel_supplied__c > Fuel_supplied__c
Evaluation Criteria	Evaluate the rule when a record is created

Immediate Workflow Actions

No workflow actions have been added.

Time-Dependent Workflow Actions

No workflow actions have been added. Before adding a workflow action, you must have at least one time trigger defined.



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Workflow Rule

Fuel_Type__c

Go with the flow! With Flow Builder, the future of low-code automation, you can do everything you do with workflow rules — and more! Salesforce plans to retire workflow rules and recommends building automation in Flow Builder. Tell Me More | Migrate your workflow rules to flows

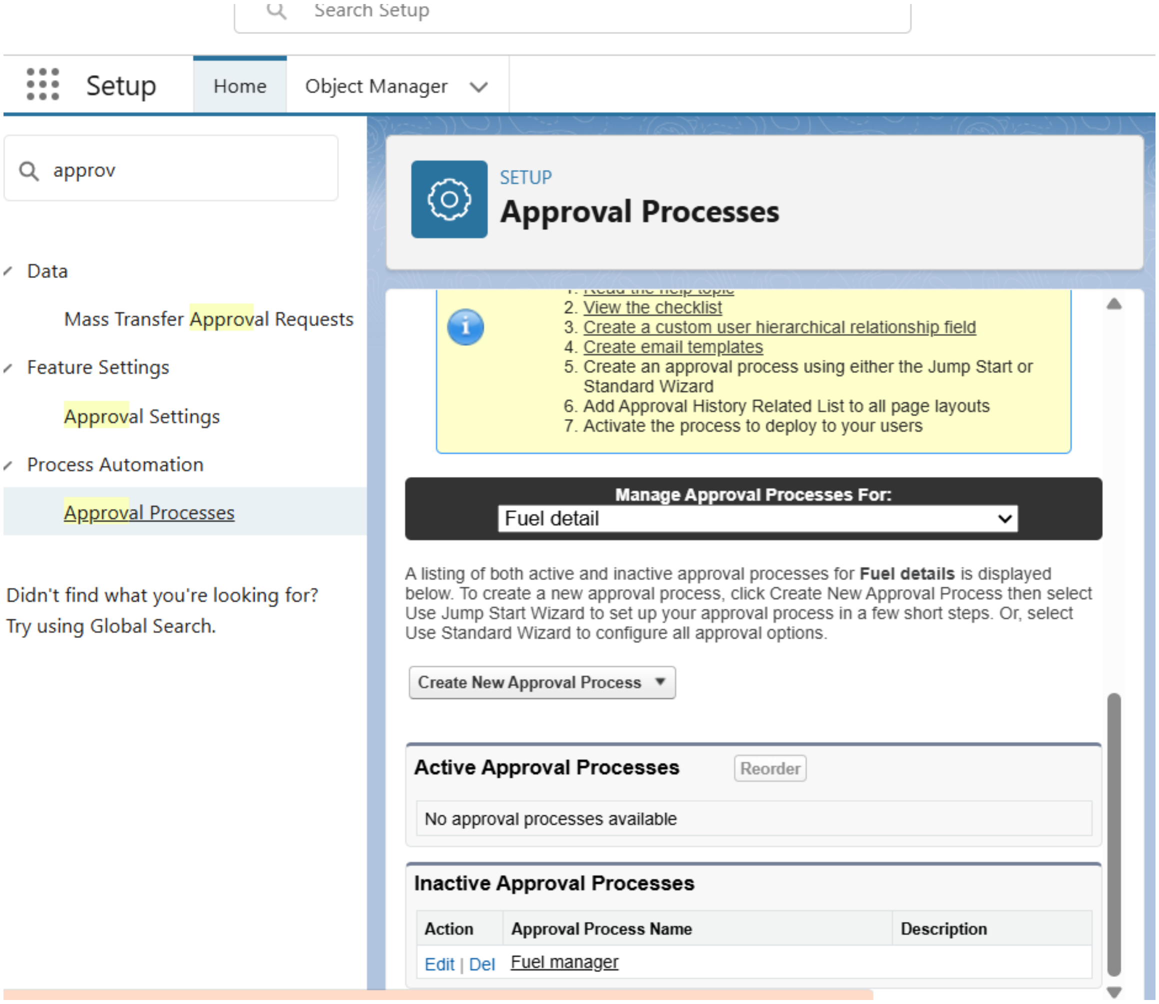
Workflow Rule Detail

Rule Name	Fuel_Type__c	Object	Fuel detail
Active	✓	Evaluation Criteria	Evaluate the rule when a record is created
Description			
Rule Criteria	Fuel_supplied__c > Fuel_supplied__c		
Created By	Miniki Mahalaxmi, 9/22/2025, 11:57 PM	Modified By	Miniki Mahalaxmi, 9/22/2025, 11:57 PM

Workflow Actions

Immediate Workflow Actions

No workflow actions have been added.



Approval Processes

2. View the checklist
3. Create a custom user hierarchical relationship field
4. Create email templates
5. Create an approval process using either the Jump Start or Standard Wizard
6. Add Approval History Related List to all page layouts
7. Activate the process to deploy to your users

Manage Approval Processes For: Fuel detail

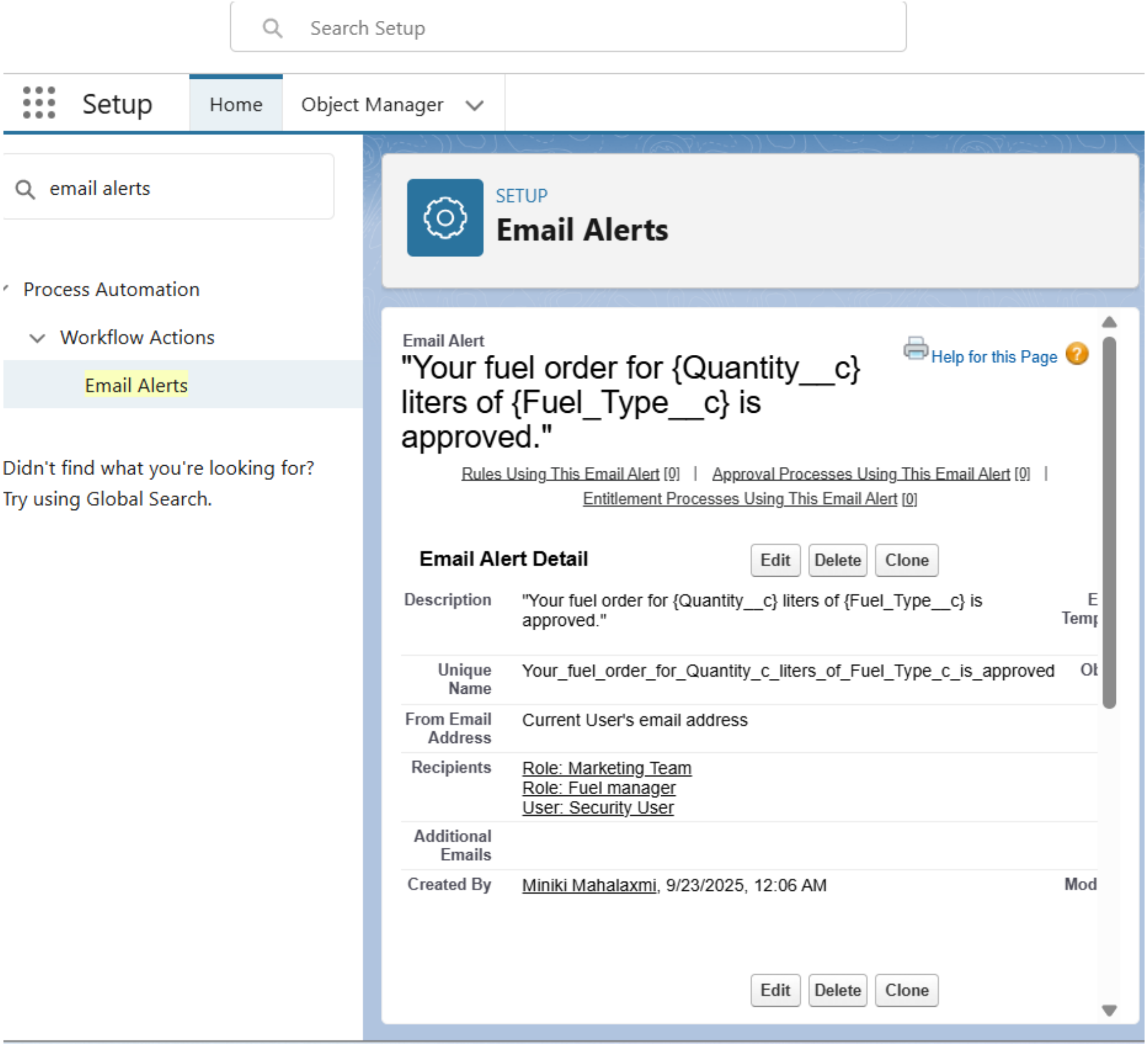
A listing of both active and inactive approval processes for **Fuel details** is displayed below. To create a new approval process, click Create New Approval Process then select Use Jump Start Wizard to set up your approval process in a few short steps. Or, select Use Standard Wizard to configure all approval options.

Active Approval Processes

No approval processes available

Inactive Approval Processes

Action	Approval Process Name	Description
Edit | Del	Fuel manager	



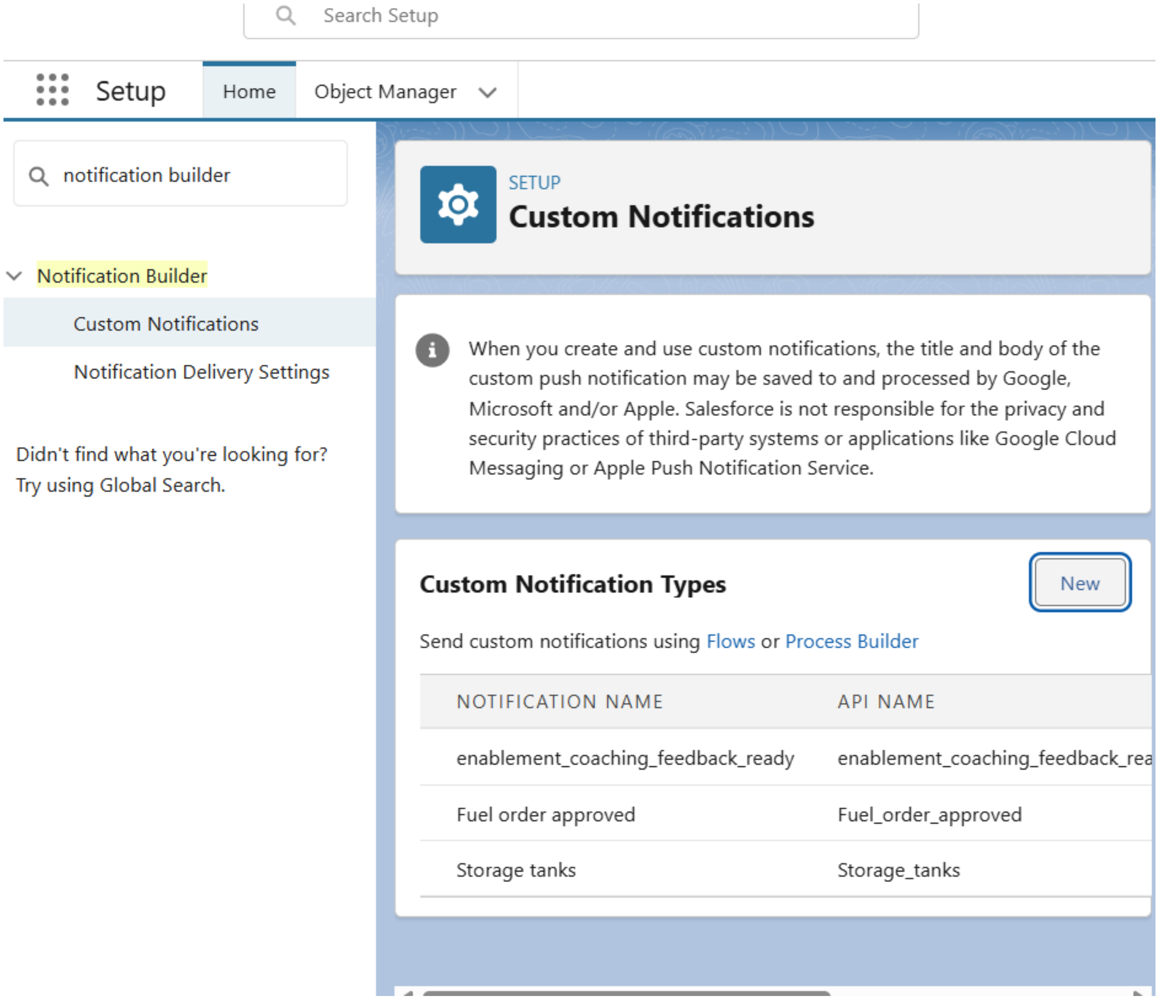
Email Alert

"Your fuel order for {Quantity__c} liters of {Fuel_Type__c} is approved."

Rules Using This Email Alert [0] | Approval Processes Using This Email Alert [0] | Entitlement Processes Using This Email Alert [0]

Email Alert Detail

Description	"Your fuel order for {Quantity__c} liters of {Fuel_Type__c} is approved."	E Temp
Unique Name	Your_fuel_order_for_Quantity_c_liters_of_Fuel_Type_c_is_approved	Ob
From Email Address	Current User's email address	
Recipients	Role: Marketing Team Role: Fuel manager User: Security User	
Additional Emails		
Created By	Miniki Mahalaxmi, 9/23/2025, 12:06 AM	Mod



notification builder

Didn't find what you're looking for? Try using Global Search.

SETUP

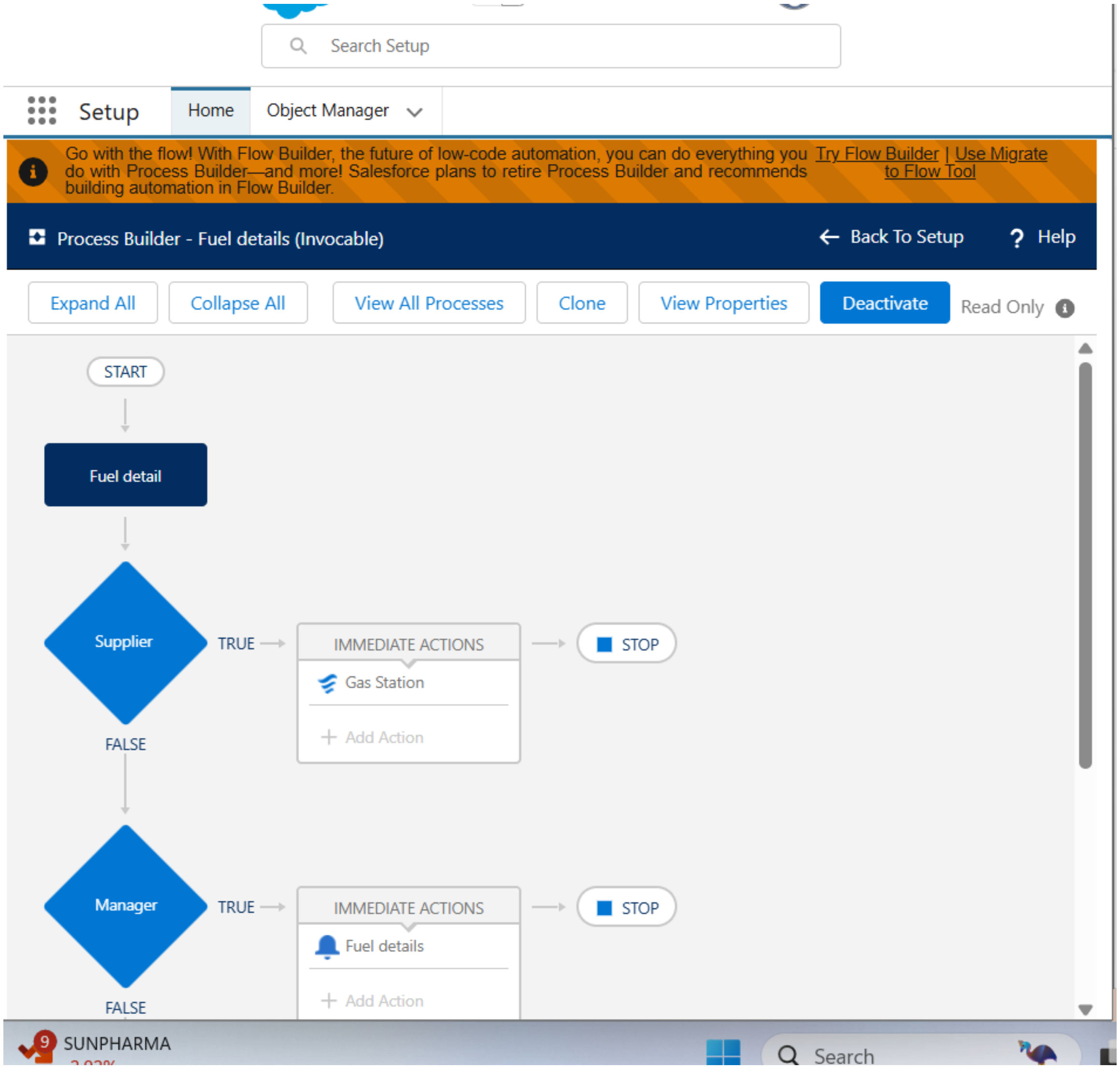
Custom Notifications

When you create and use custom notifications, the title and body of the custom push notification may be saved to and processed by Google, Microsoft and/or Apple. Salesforce is not responsible for the privacy and security practices of third-party systems or applications like Google Cloud Messaging or Apple Push Notification Service.

Custom Notification Types

Send custom notifications using Flows or Process Builder

NOTIFICATION NAME	API NAME
enablement_coaching_feedback_ready	enablement_coaching_feedback_rea
Fuel order approved	Fuel_order_approved
Storage tanks	Storage_tanks


Search Setup
Setup
Home
Object Manager
Go with the flow! With Flow Builder, the future of low-code automation, you can do everything you do with Process Builder—and more! Salesforce plans to retire Process Builder and recommends building automation in Flow Builder.
Try Flow Builder | Use Migrate to Flow Tool
Process Builder - Fuel details (Invocable)
Back To Setup
Help
Expand All
Collapse All
View All Processes
Clone
View Properties
Deactivate
Read Only
START
Fuel detail
Supplier
TRUE
IMMEDIATE ACTIONS
Gas Station
Add Action
STOP
FALSE
Manager
TRUE
IMMEDIATE ACTIONS
Fuel details
Add Action
STOP
FALSE
SUNPHARMA
Search

✓Outcome: Outcome: Reduced manual work with automated and reliable business processes.

Phase 5 – Apex Programming (Developer)

Objective: Implement advanced business logic with Salesforce Apex.

- **Triggers:** Prevent duplicate fuel supply entries.

```
trigger DeliveryTrigger on Delivery__c (before insert, before update) {
    DeliveryHandler.beforeSave(Trigger.new, Trigger.oldMap);
}

public class DeliveryHandler {
    public static void beforeSave(List<Delivery__c> newList, Map<Id, Delivery__c> oldMap) {
        // custom validation logic here
    }
}
```

- **SOQL:** Retrieve fuel stock and transaction details efficiently.

```
List<Delivery__c> deliveries = [SELECT Id, Delivery_Status__c FROM Delivery__c WHERE
Delivery_Status__c = 'Pending'];
 SOSL – Search Across Customers and OrdersList<List<SObject>> results =
   [FIND 'Kavya*' IN ALL FIELDS
    RETURNING Customer__c(Id, Name), Order__c(Id, Status__c)];
```

- **Batch Apex:** Run nightly batch jobs for sales and fuel stock updates.

```
global class UpdateDeliveryBatch implements Database.Batchable<SObject> {
    global Database.QueryLocator start(Database.BatchableContext bc) {
        return Database.getQueryLocator('SELECT Id, Delivery_Status__c FROM Delivery__c');
    }
    global void execute(Database.BatchableContext bc, List<Delivery__c> scope) {
        for (Delivery__c d : scope) {
            d.Delivery_Status__c = 'Archived';
        }
        update scope;
    }
    global void finish(Database.BatchableContext bc) {}
}
```

- **Future Methods:** Enable asynchronous calls for supplier APIs.

- **Test Classes:** Ensure code reliability and maintain test coverage.

```
@isTest
 private class DeliveryTriggerTest {
    @isTest static void testDuplicateDeliveryNumber() {
       // insert deliveries and check addError
    }
 }
```

- **Apex Triggers:** prevent overlapping bookings for the same Fuel.

```
trigger DeliveryTrigger on Delivery__c (before insert, before update) {
     for (Delivery__c d : Trigger.new) {
         Boolean exists = [
             SELECT Id FROM Delivery__c
            WHERE Delivery_Number__c = :d.Delivery_Number__c
            AND Id != :d.Id
             LIMIT 1
         ] != null;
         if (exists) {
             d.addError('This Delivery Number already exists.');
         }
     }
 }
```

- **Classes & Objects:** Create a BookingService class for reusable logic.

```
public class DeliveryService {
    public static void confirmDelivery(Id deliveryId) {
       Delivery__c d = [SELECT Id, Delivery_Status__c FROM Delivery__c WHERE Id =
:deliveryId];
       d.Delivery_Status__c = 'Confirmed';
       update d;
    }
 }
```

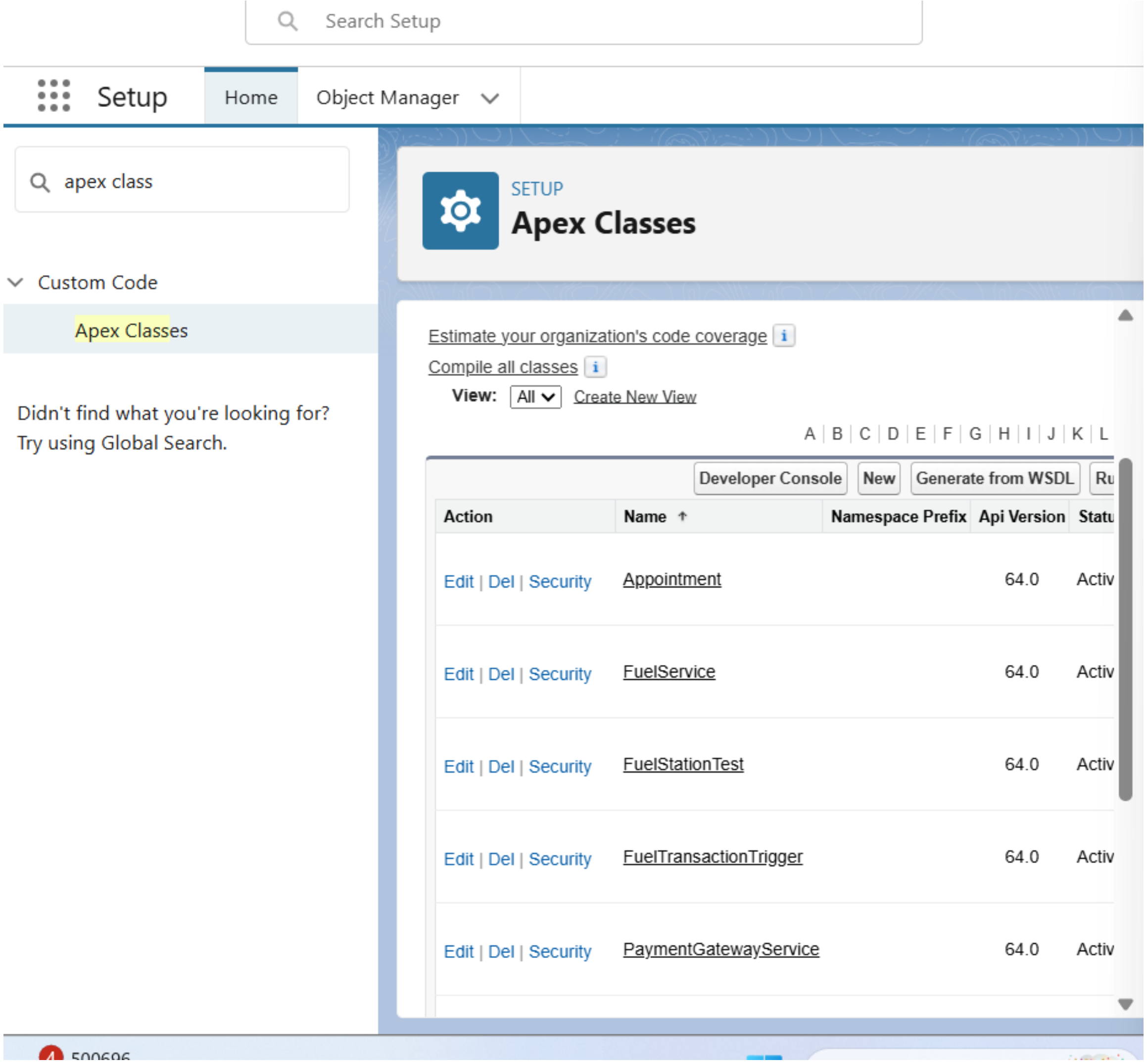
- **Collections:** Store multiple vehcile IDs in Set to avoid duplicates.

```
List<String> orderIds = new List<String>();
 Set<Id> customerIds = new Set<Id>();
 Map<Id, Order__c> orderMap = new Map<Id, Order__c>([SELECT Id, Status__c FROM Order__c]);
```

- **Asynchronous Processing:** Batch + Queueable + Future = async jobs.

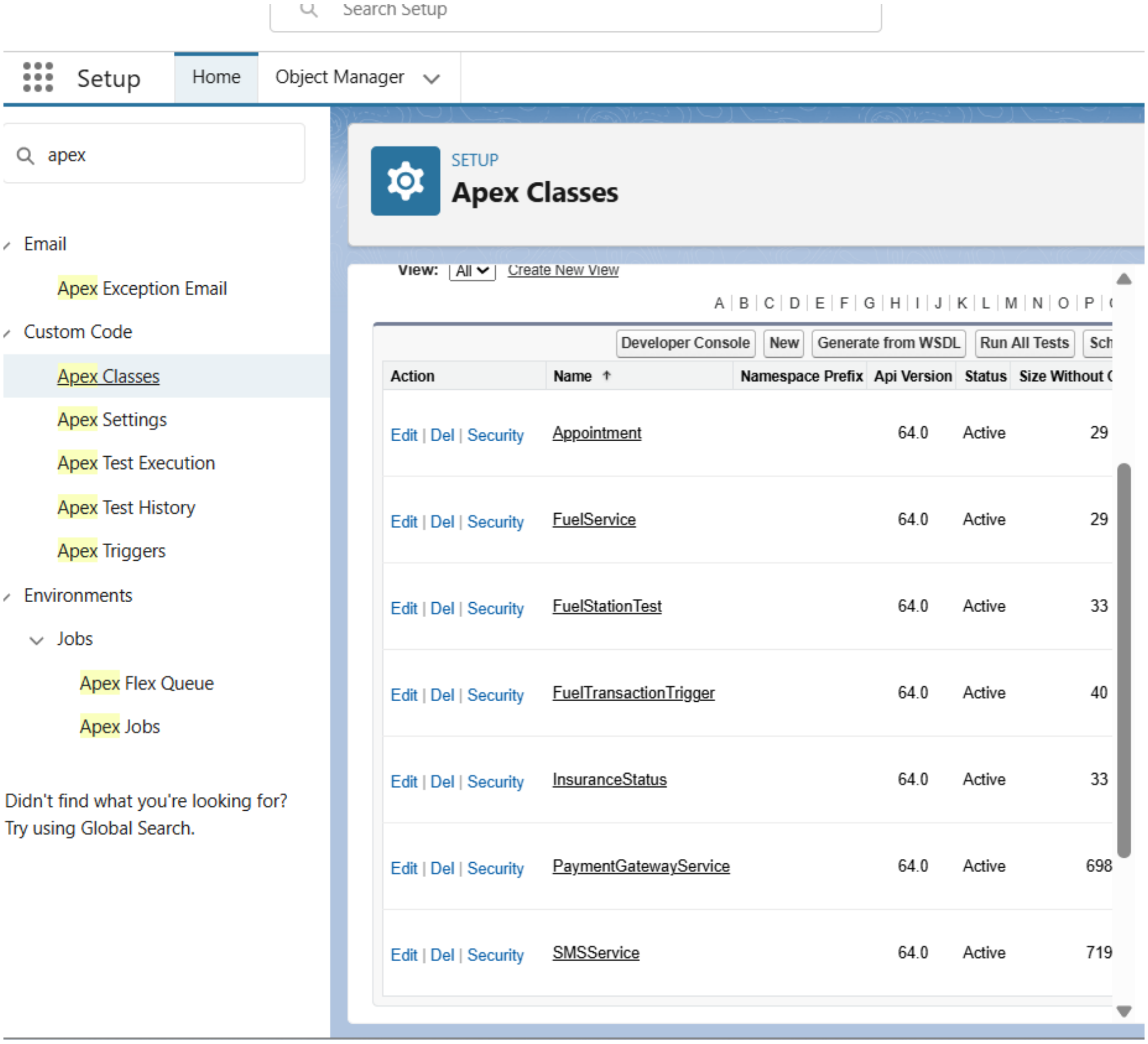
- **Future Methods:** Call external insurance API async.

```
public class PaymentGateway {
    @future(callout=true)
    public static void processPayment(Id paymentId) {
        // external API call for payment processing
    }
 }
```



View: All

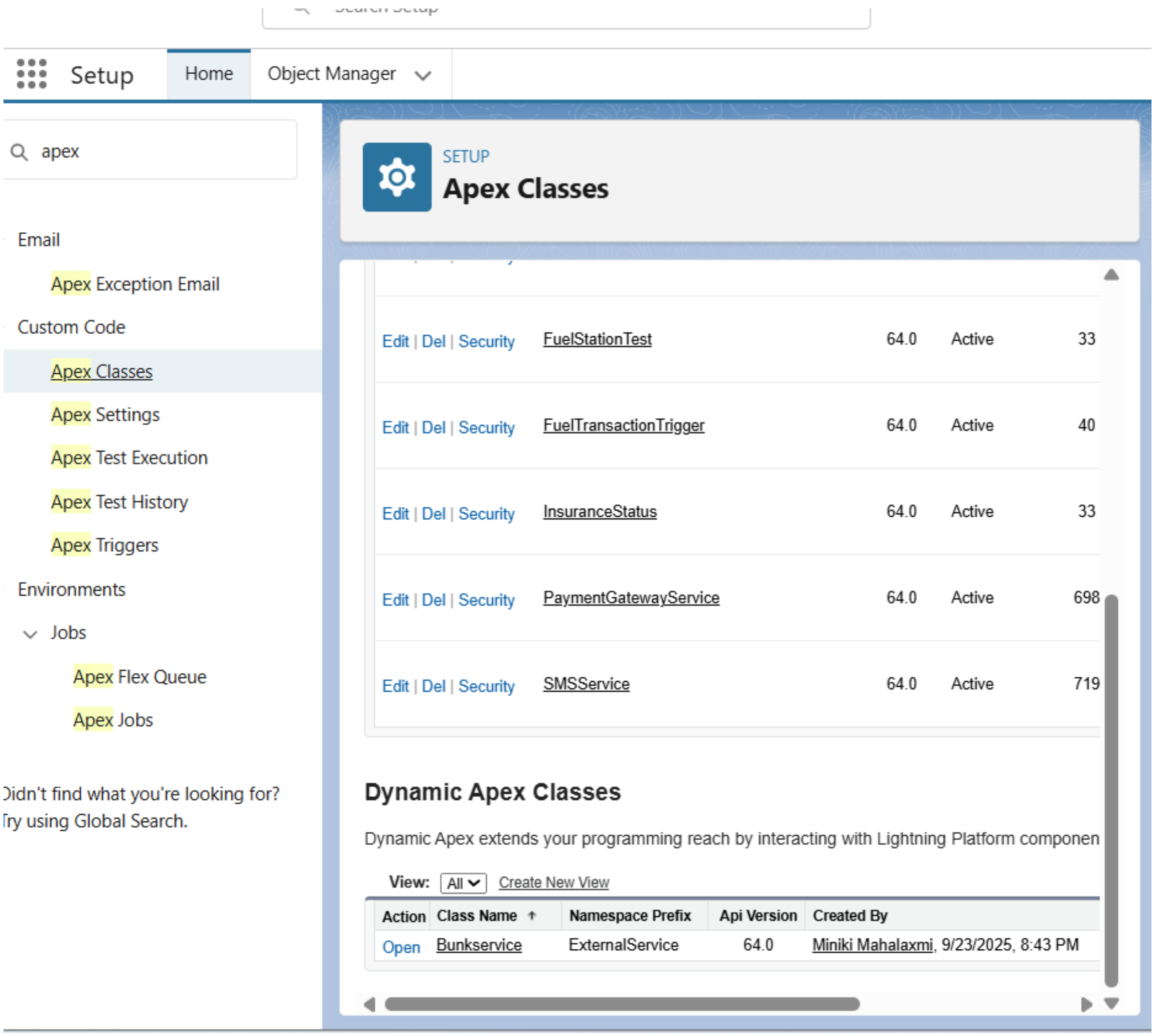
Action	Name ↑	Namespace Prefix	Api Version	Statu
Edit | Del | Security	Appointment		64.0	Activ
Edit | Del | Security	FuelService		64.0	Activ
Edit | Del | Security	FuelStationTest		64.0	Activ
Edit | Del | Security	FuelTransactionTrigger		64.0	Activ
Edit | Del | Security	PaymentGatewayService		64.0	Activ



SETUP

Apex Classes

Action	Name ↑	Namespace Prefix	Api Version	Status	Size Without (
Edit | Del | Security	Appointment		64.0	Active	29
Edit | Del | Security	FuelService		64.0	Active	29
Edit | Del | Security	FuelStationTest		64.0	Active	33
Edit | Del | Security	FuelTransactionTrigger		64.0	Active	40
Edit | Del | Security	InsuranceStatus		64.0	Active	33
Edit | Del | Security	PaymentGatewayService		64.0	Active	698
Edit | Del | Security	SMSService		64.0	Active	719



Apex Classes

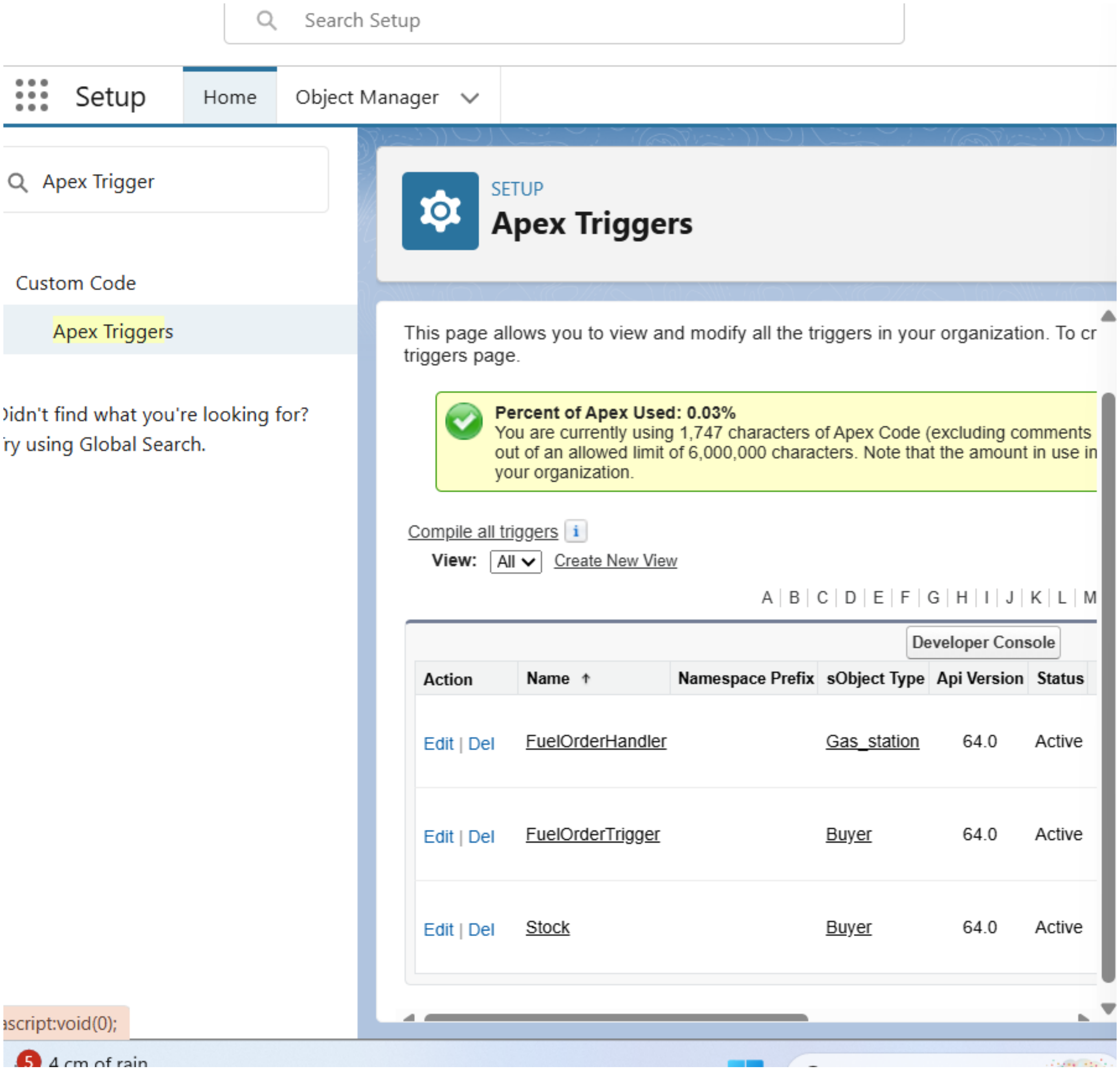
Edit | Del | Security	FuelStationTest	64.0	Active	33
Edit | Del | Security	FuelTransactionTrigger	64.0	Active	40
Edit | Del | Security	InsuranceStatus	64.0	Active	33
Edit | Del | Security	PaymentGatewayService	64.0	Active	698
Edit | Del | Security	SMSService	64.0	Active	719

Dynamic Apex Classes

Dynamic Apex extends your programming reach by interacting with Lightning Platform componen

View: All Create New View

Action	Class Name ↑	Namespace Prefix	Api Version	Created By
Open	Bunkservice	ExternalService	64.0	Miniki Mahalaxmi, 9/23/2025, 8:43 PM



This page allows you to view and modify all the triggers in your organization. To cr
triggers page.

Percent of Apex Used: 0.03%
You are currently using 1,747 characters of Apex Code (excluding comments out of an allowed limit of 6,000,000 characters. Note that the amount in use in your organization.

Compile all triggers

View: All Create New View

A | B | C | D | E | F | G | H | I | J | K | L | M

Developer Console

Action	Name ↑	Namespace Prefix	sObject Type	Api Version	Status
Edit | Del	FuelOrderHandler		Gas_station	64.0	Active
Edit | Del	FuelOrderTrigger		Buyer	64.0	Active
Edit | Del	Stock		Buyer	64.0	Active

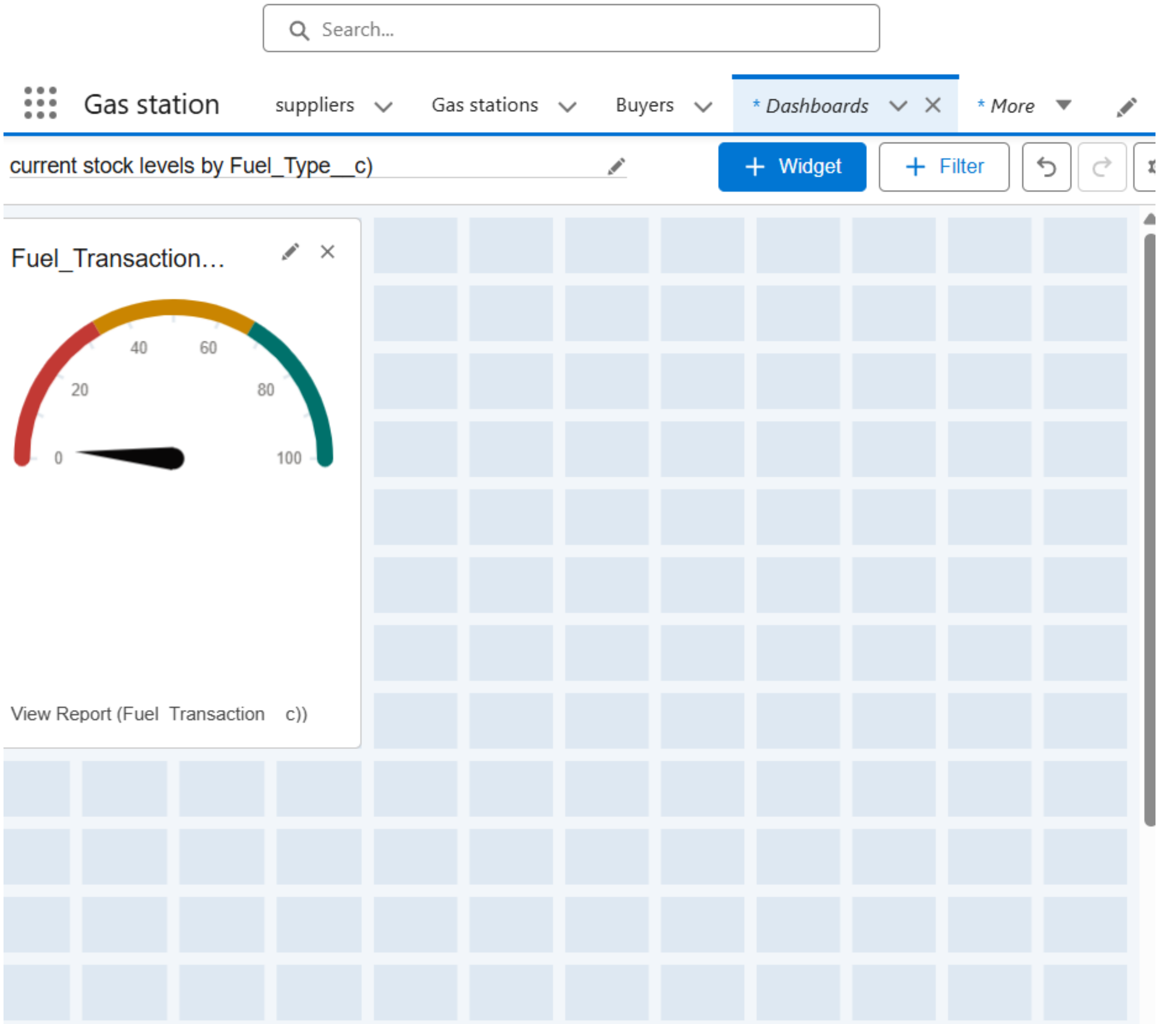
✓Outcome: Outcome: A scalable, high-performance backend with advanced business logic.

Phase 6 – User Interface Development

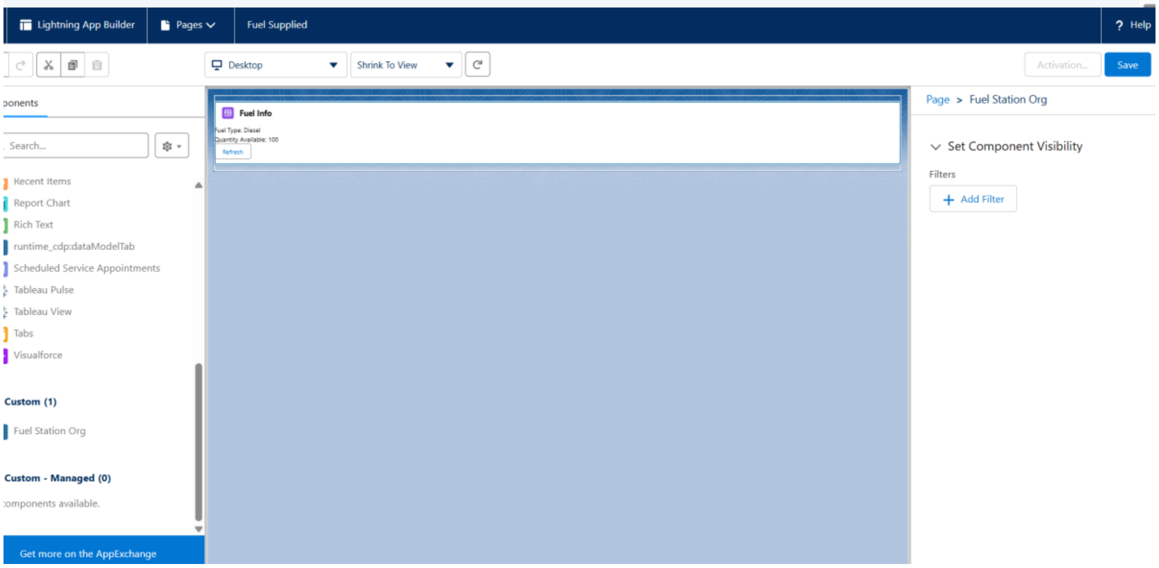
Objective: Deliver a user-friendly CRM experience with Lightning components.

- **Lightning App:** Create 'Fuel CRM' app with a professional interface.
- **Navigation Tabs:** Gas Station, Suppliers, Buyers, Transactions, Reports.
- **Dashboards:** Visualize Fuel Sales, Supplier Deliveries, and Buyer Loyalty.

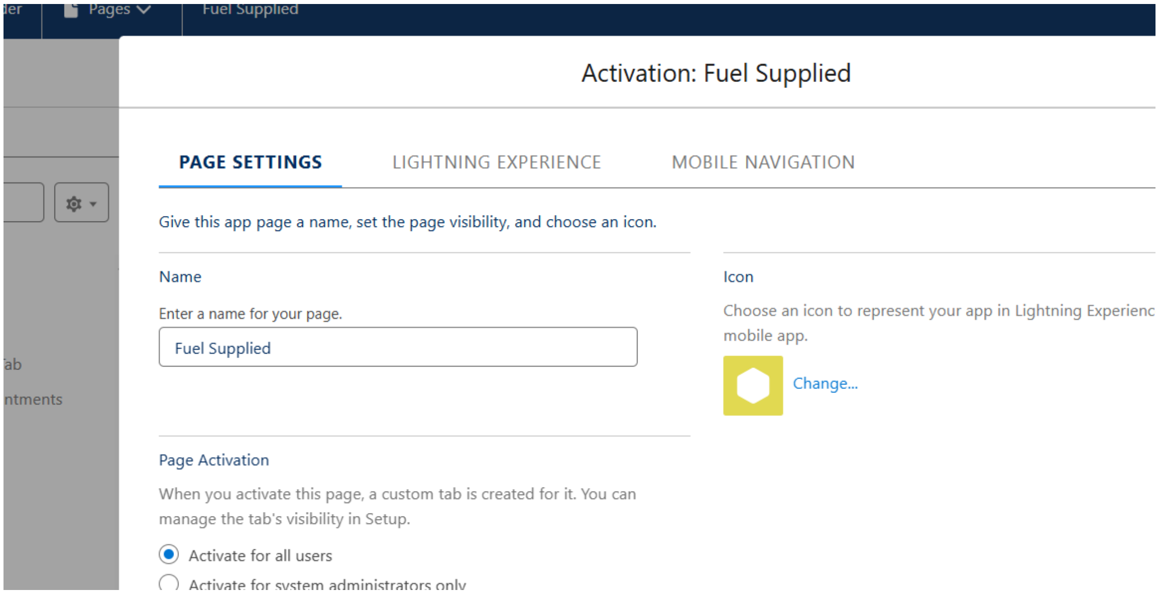
- **Lightning Web Components (LWC):** Develop a search tool for fuel availability by station/date.
- **Record Pages:** Fuel → list of Booking types of fuel
- **Tabs:** Add Station & Bookings Fuels.
- **Events in LWC:** Child component (search form) → sends event to parent (results).
- **Utility Bar:** Quick “Fuel details” action.
- **Navigation Service:** After booking → navigate to the Booking record page.



current stock levels by Fuel_Type__c)



Fuel Type: Diesel
Quantity Available: 100



Activation: Fuel Supplied

Give this app page a name, set the page visibility, and choose an icon.

Name

Enter a name for your page.

Fuel Supplied

Icon

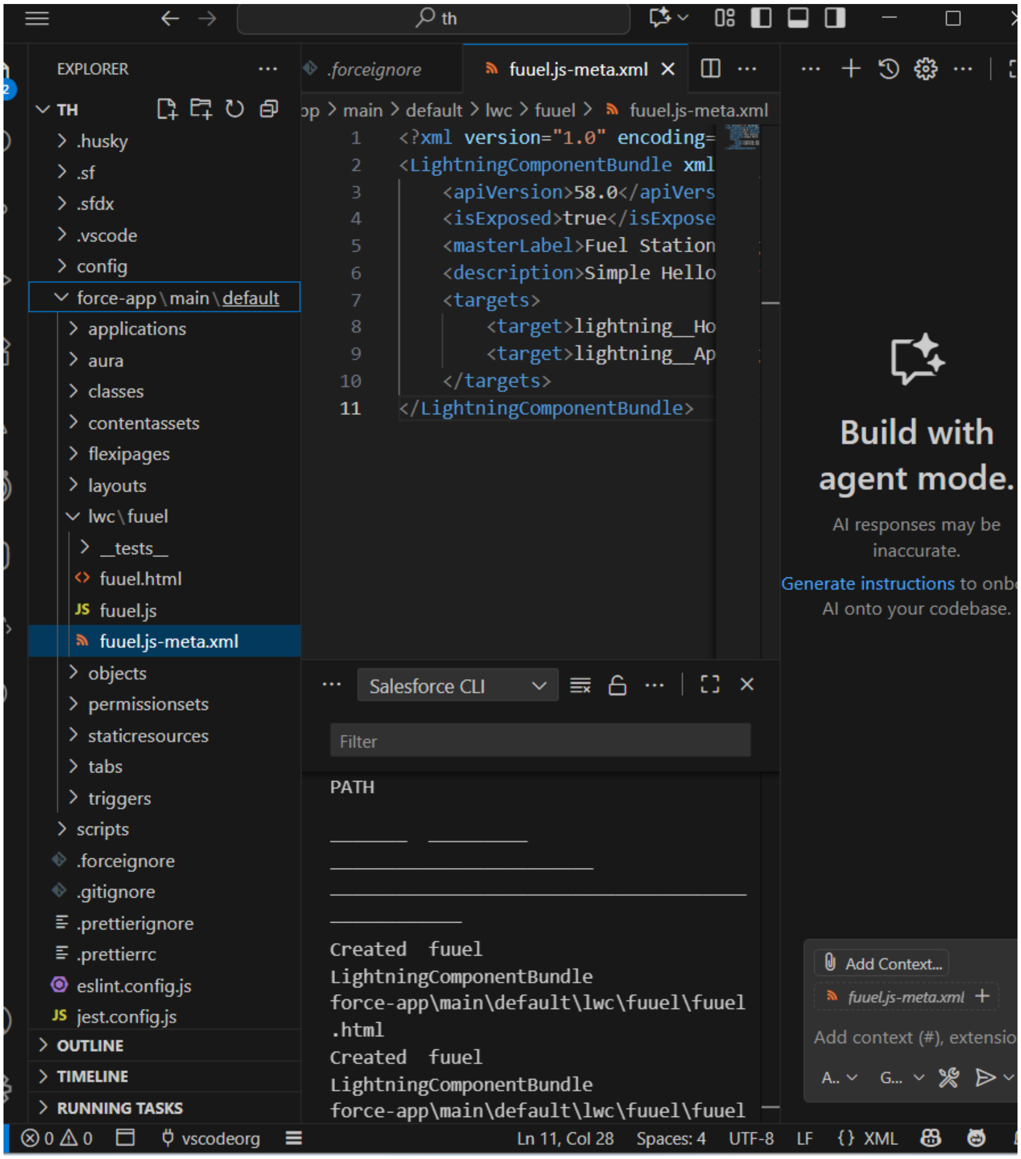
Choose an icon to represent your app in Lightning Experienc mobile app.

Page Activation

When you activate this page, a custom tab is created for it. You can manage the tab's visibility in Setup.

● Activate for all users

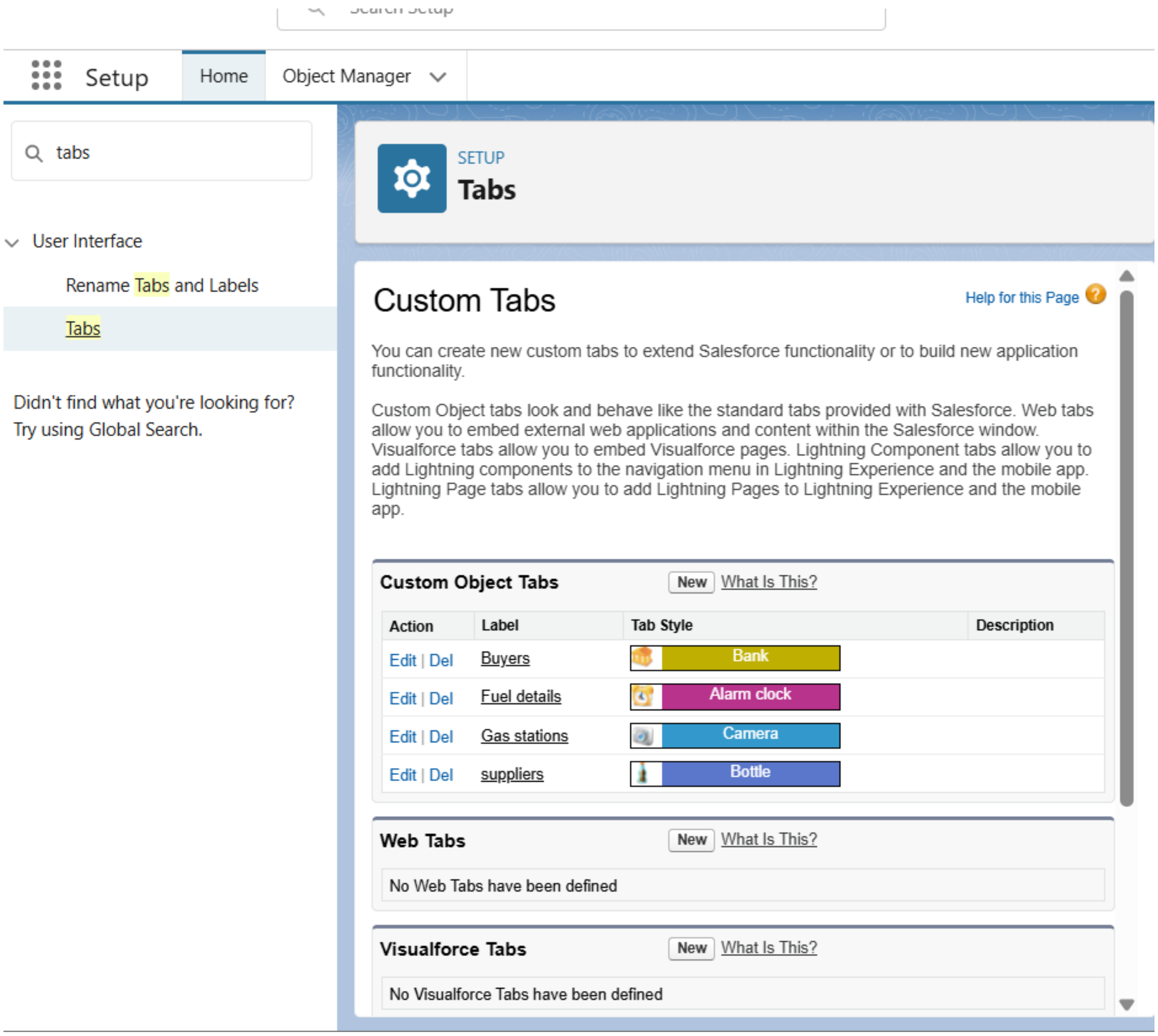
○ Activate for system administrators only



```
<?xml version="1.0" encoding=
<LightningComponentBundle xml
    <apiVersion>58.0</apiVers
    <isExposed>true</isExpose
    <masterLabel>Fuel Station
    <description>Simple Hello
    <targets>
        <target>lightning__Ho
        <target>lightning__Ap
    </targets>
</LightningComponentBundle>
```

```
PATH

Created   fuuel
LightningComponentBundle
force-app\main\default\lwc\fuuel\fuuel
.html
Created   fuuel
LightningComponentBundle
force-app\main\default\lwc\fuuel\fuuel
```



Didn't find what you're looking for? Try using Global Search.

Custom Tabs

You can create new custom tabs to extend Salesforce functionality or to build new application functionality.

Custom Object tabs look and behave like the standard tabs provided with Salesforce. Web tabs allow you to embed external web applications and content within the Salesforce window. Visualforce tabs allow you to embed Visualforce pages. Lightning Component tabs allow you to add Lightning components to the navigation menu in Lightning Experience and the mobile app. Lightning Page tabs allow you to add Lightning Pages to Lightning Experience and the mobile app.

Custom Object Tabs New What Is This?

Action	Label	Tab Style	Description
Edit | Del	Buyers	Bank	
Edit | Del	Fuel details	Alarm clock	
Edit | Del	Gas stations	Camera	
Edit | Del	suppliers	Bottle	

Web Tabs New What Is This?

No Web Tabs have been defined

Visualforce Tabs New What Is This?

No Visualforce Tabs have been defined

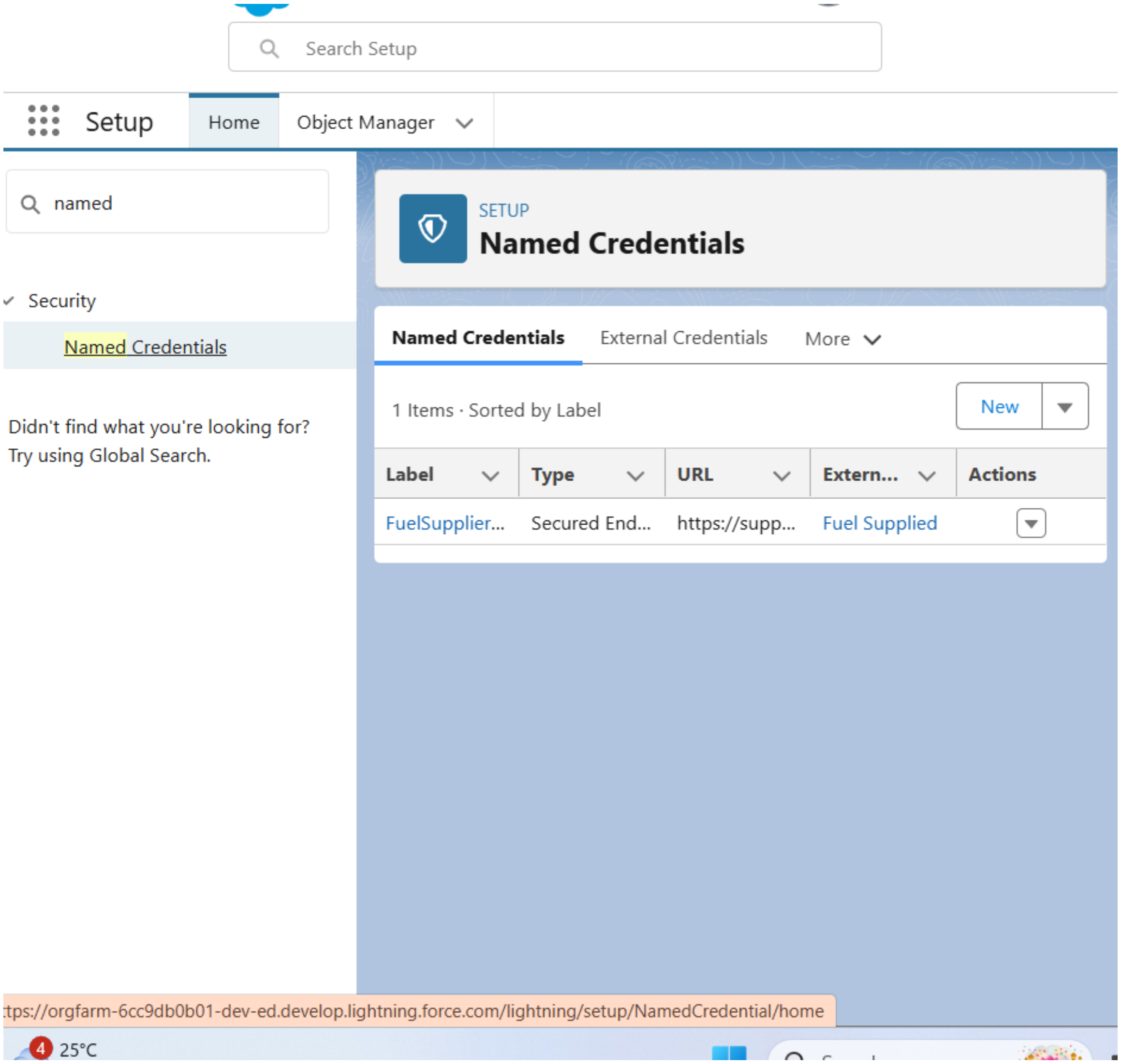
✅Outcome: Outcome: A modern and intuitive interface that enhances user adoption.

Phase 7 – Integration & External Access

Objective: Connect Salesforce with external systems for real-time data access.

- **Named Credentials:** Secure supplier API logins.
- **External Services:** Connect with external insurance verification.
- **REST Integration:** Fetch real-time fuel prices from external systems.
- **Platform Events:** Trigger alerts for low stock levels.
- **OAuth:** Enable secure buyer login via external portals.

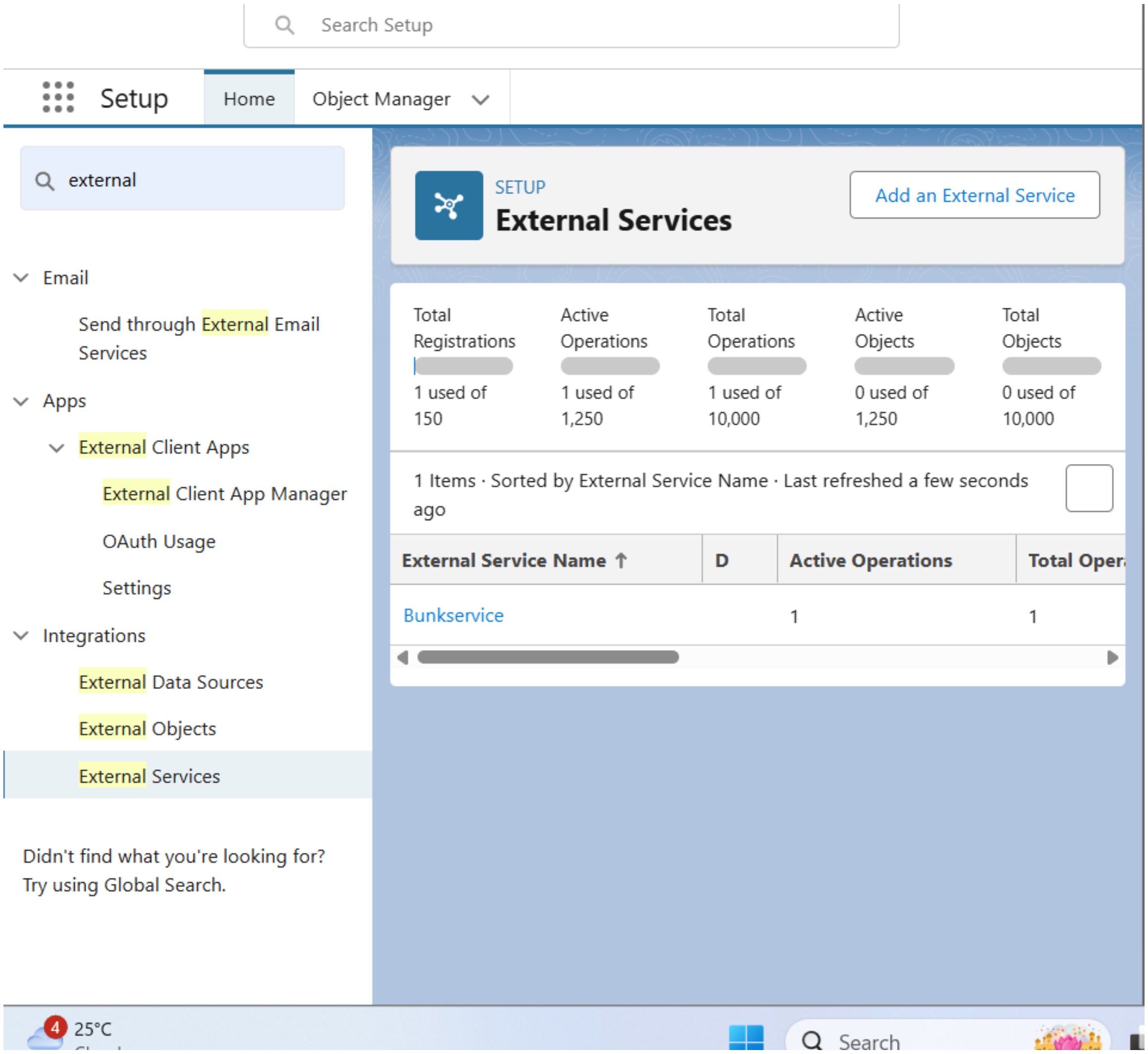
- **Remote Site Settings:** Allow callouts to external domains.
- **Callouts:** Triggered when booking was created.
- **API Limits:** Monitor API calls/day.



1 Items · Sorted by Label

Label	Type	URL	Extern...	Actions
FuelSupplier...	Secured End...	https://supp...	Fuel Supplied	▼

tps://orgfarm-6cc9db0b01-dev-ed.develop.lightning.force.com/lightning/setup/NamedCredential/home

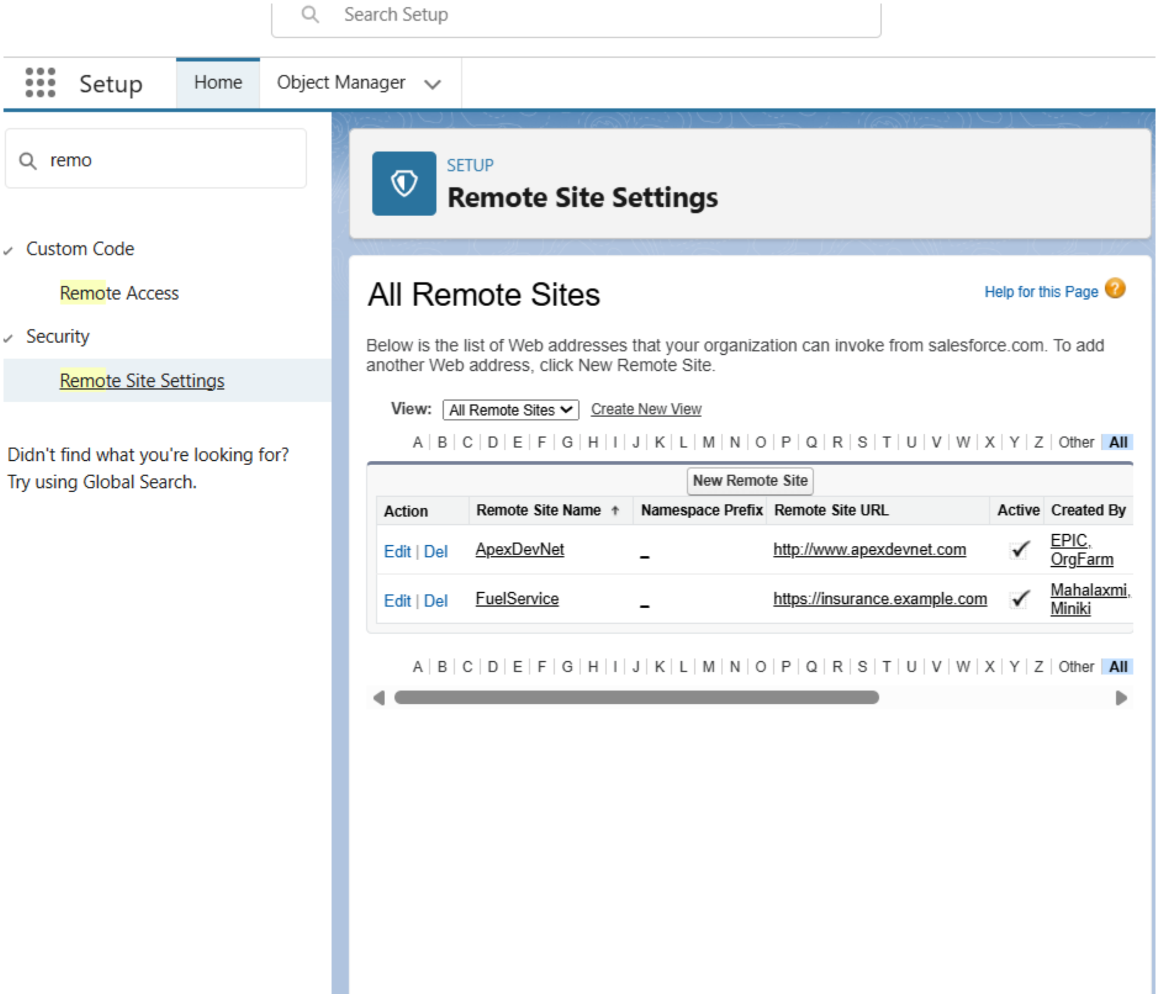


External Services

Total Registrations	Active Operations	Total Operations	Active Objects	Total Objects
1 used of 150	1 used of 1,250	1 used of 10,000	0 used of 1,250	0 used of 10,000

1 Items · Sorted by External Service Name · Last refreshed a few seconds ago

External Service Name ↑	D	Active Operations	Total Opera
Bunkservice		1	1



Didn't find what you're looking for? Try using Global Search.

Remote Site Settings

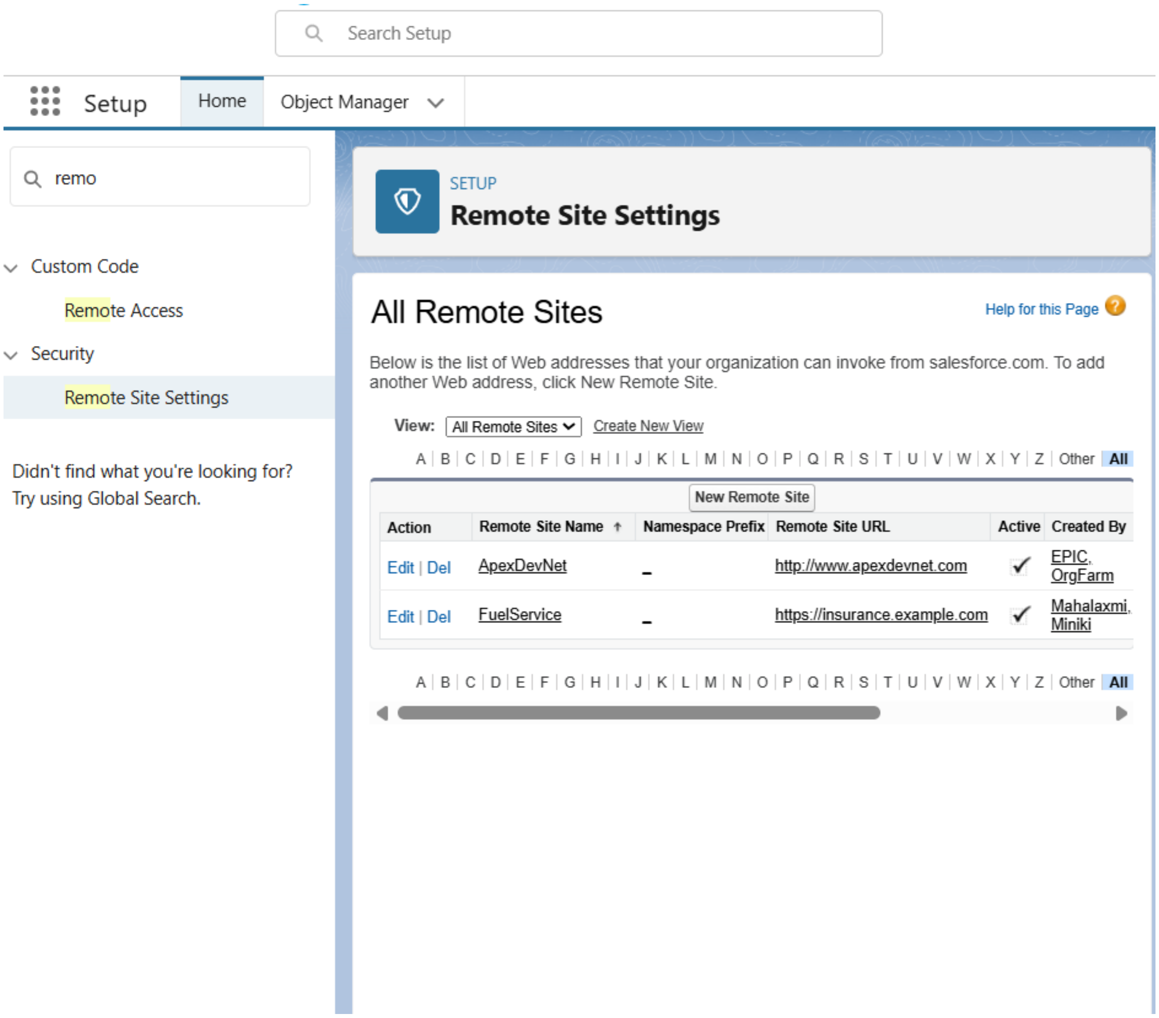
All Remote Sites

Help for this Page

Below is the list of Web addresses that your organization can invoke from salesforce.com. To add another Web address, click New Remote Site.

View: All Remote Sites Create New View

Action	Remote Site Name ↑	Namespace Prefix	Remote Site URL	Active	Created By
Edit | Del	ApexDevNet	–	http://www.apexdevnet.com	✓	EPIC, OrgFarm
Edit | Del	FuelService	–	https://insurance.example.com	✓	Mahalaxmi, Miniki



Didn't find what you're looking for? Try using Global Search.

All Remote Sites

Below is the list of Web addresses that your organization can invoke from salesforce.com. To add another Web address, click New Remote Site.

Action	Remote Site Name ↑	Namespace Prefix	Remote Site URL	Active	Created By
Edit | Del	ApexDevNet	-	http://www.apexdevnet.com	✓	EPIC, OrgFarm
Edit | Del	FuelService	-	https://insurance.example.com	✓	Mahalaxmi, Miniki

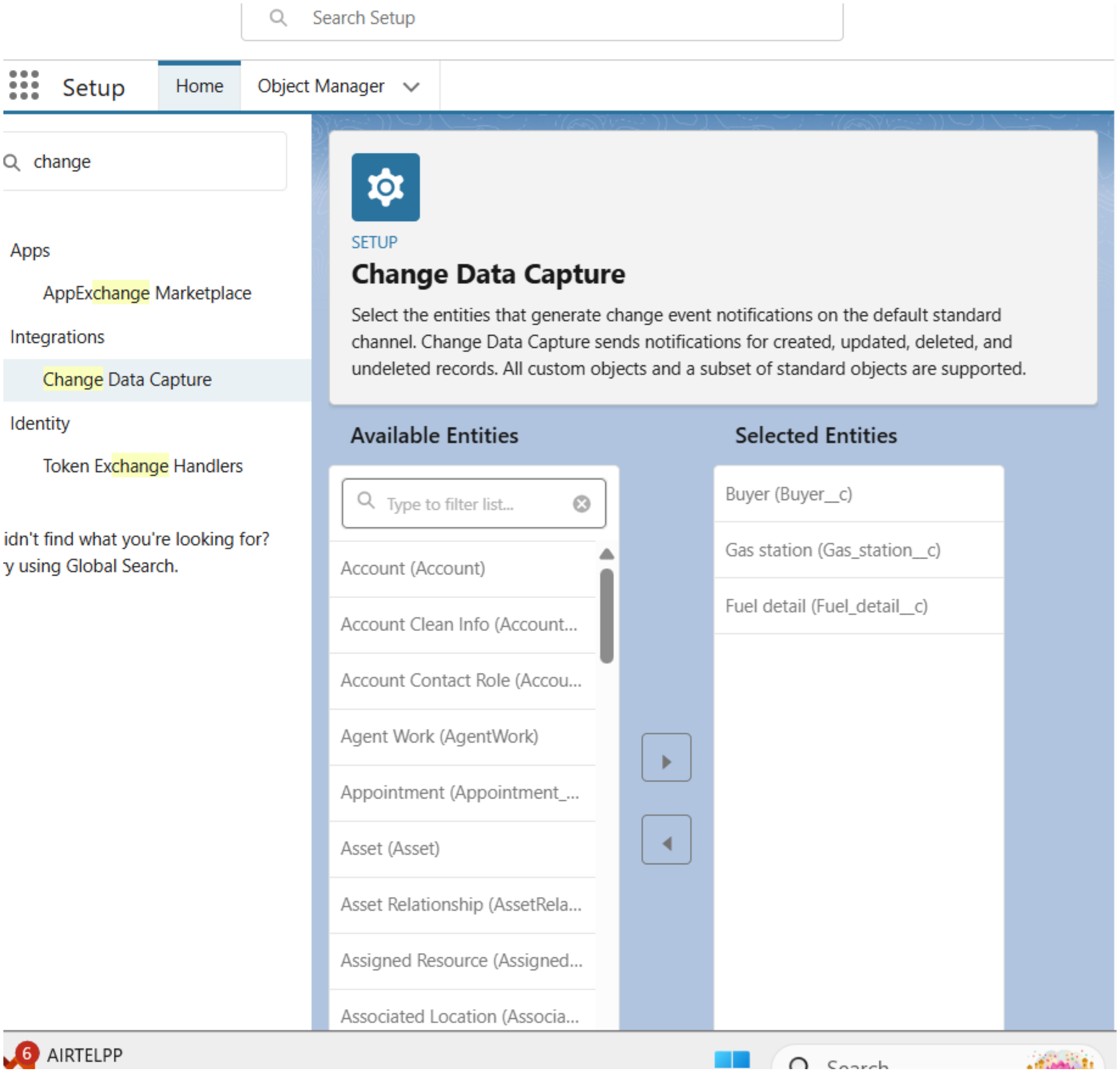
✅Outcome: Outcome: Seamless data exchange between Salesforce and external systems.

Phase 8 – Data Management & Deployment

Objective: Ensure data accuracy and prepare for deployment.

- **Data Import Wizard:** Load supplier and buyer information.
- **Data Loader:** Bulk upload large transaction datasets.
- **Duplicate Rules:** Prevent duplicate records for suppliers and buyers.
- **Data Backup:** Schedule weekly backups for recovery.

- **Change Sets:** Deploy configurations and customizations between environments.
- **Unmanaged vs Managed Packages:** Managed if you want to publish on AppExchange.
- **ANT Migration Tool:** Command-line deployment.
- **VS Code & SFDX:** Dev-friendly deployments.



Change Data Capture

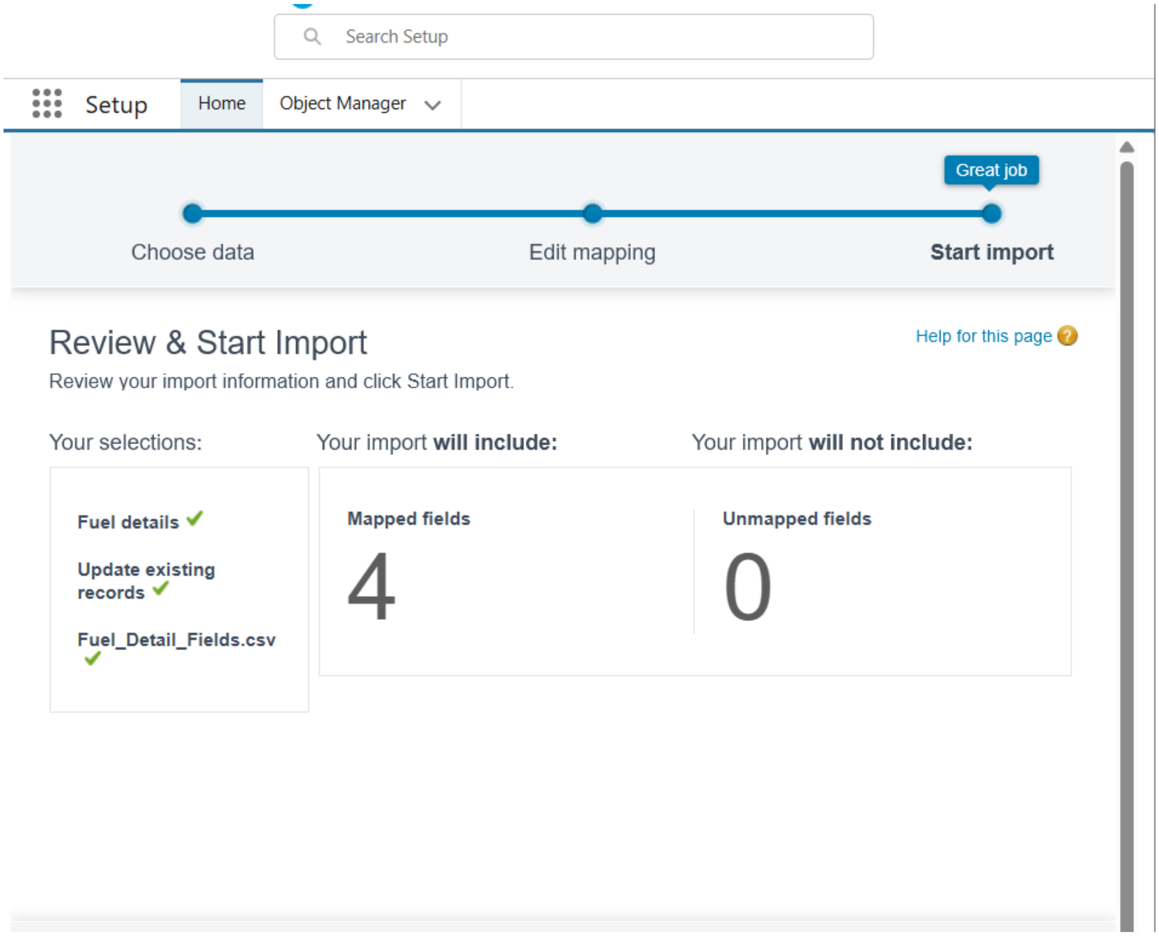
Select the entities that generate change event notifications on the default standard channel. Change Data Capture sends notifications for created, updated, deleted, and undeleted records. All custom objects and a subset of standard objects are supported.

Available Entities

- Account (Account)
- Account Clean Info (Account...
- Account Contact Role (Accou...
- Agent Work (AgentWork)
- Appointment (Appointment_...
- Asset (Asset)
- Asset Relationship (AssetRela...
- Assigned Resource (Assigned...
- Associated Location (Associa...

Selected Entities

- Buyer (Buyer__c)
- Gas station (Gas_station__c)
- Fuel detail (Fuel_detail__c)



Review & Start Import

Review your import information and click Start Import.

Your selections:

Fuel details ✓

Update existing records ✓

Fuel_Detail_Fields.csv ✓

Your import **will include:**

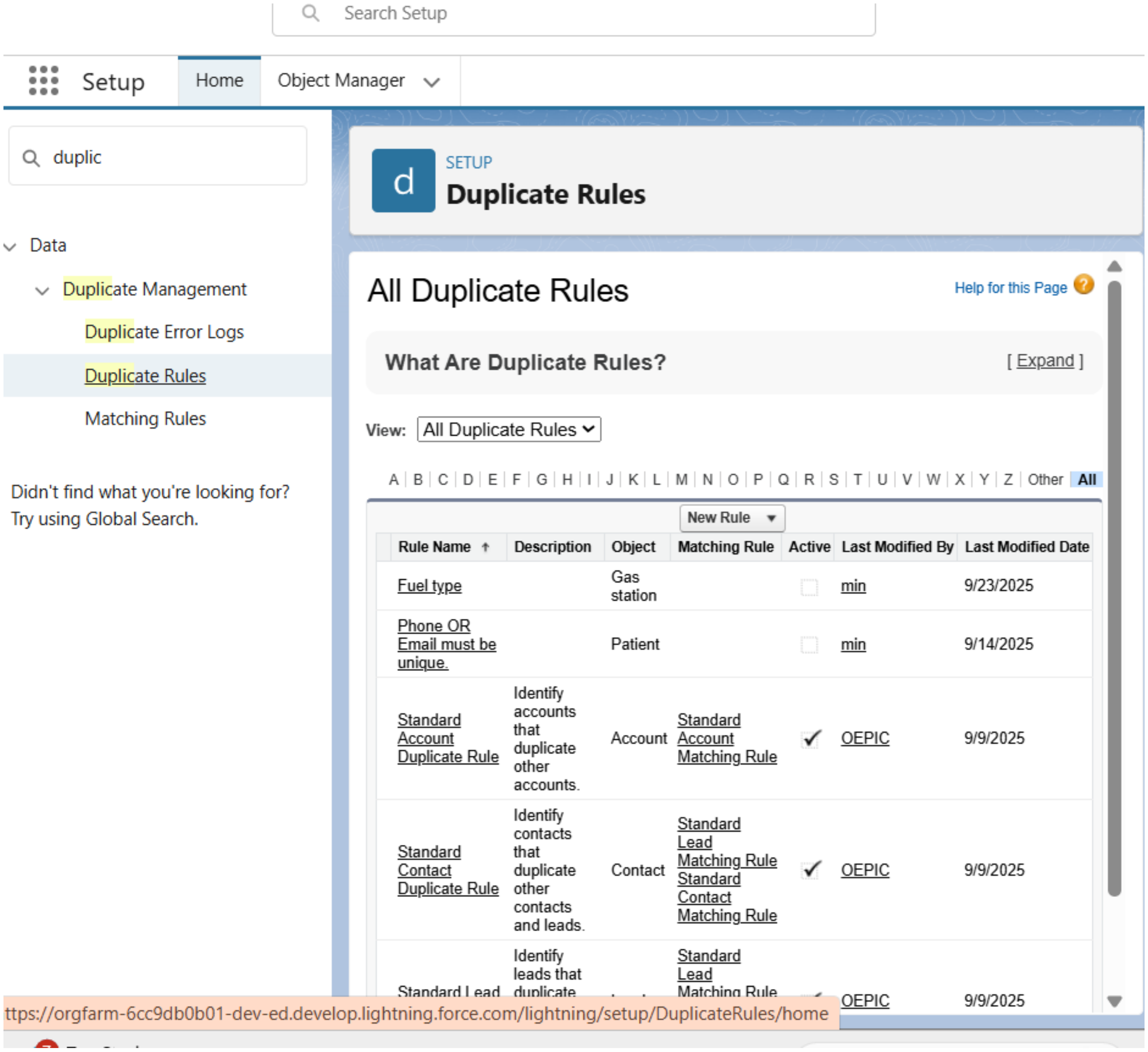
Mapped fields

4

Your import **will not include:**

Unmapped fields

0



Duplicate Rules

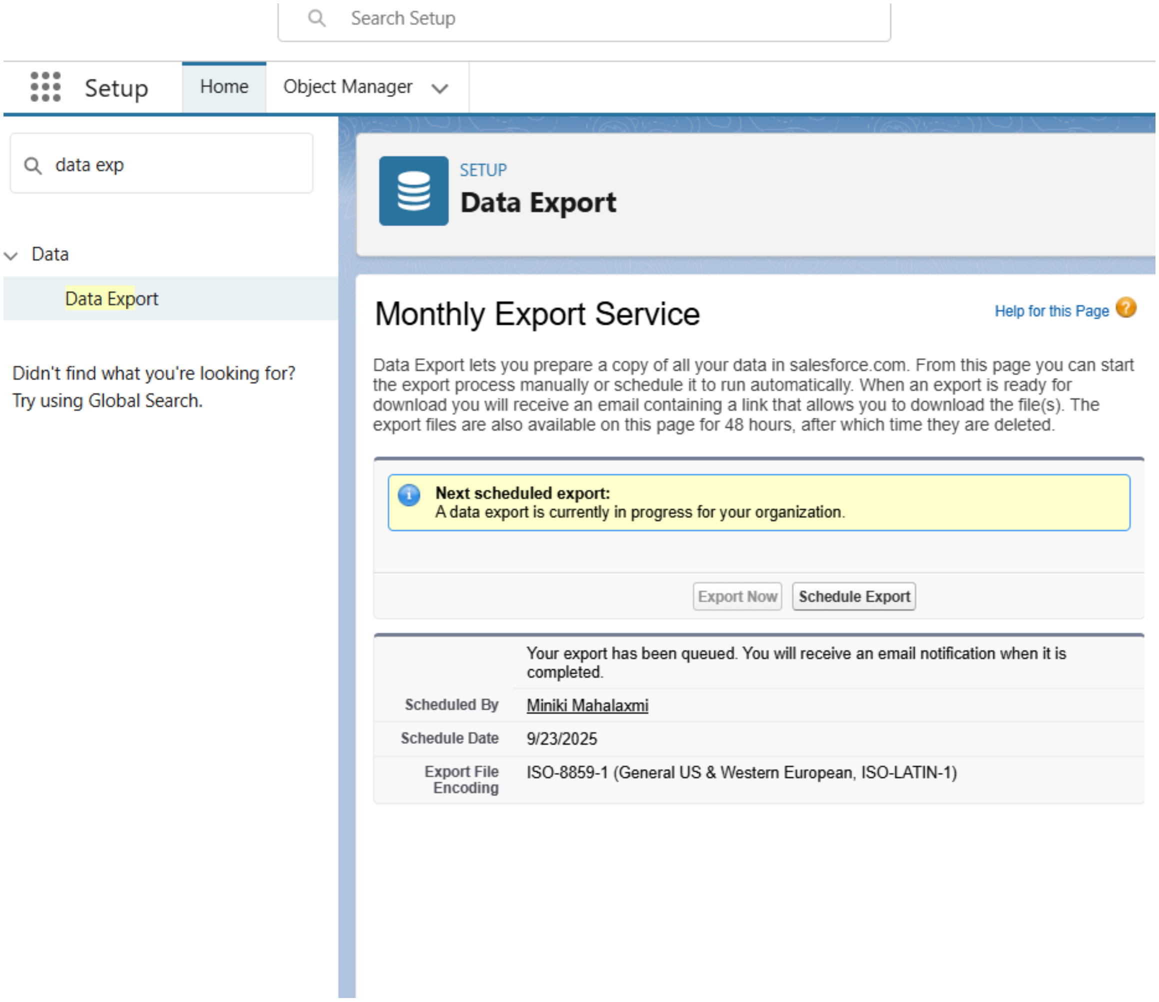
All Duplicate Rules

What Are Duplicate Rules?

[Expand]
View: All Duplicate Rules
A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Other | All
New Rule

Rule Name ↑	Description	Object	Matching Rule	Active	Last Modified By	Last Modified Date
Fuel type		Gas station		□	min	9/23/2025
Phone OR Email must be unique.		Patient		□	min	9/14/2025
Standard Account Duplicate Rule	Identify accounts that duplicate other accounts.	Account	Standard Account Matching Rule	✓	OEPIC	9/9/2025
Standard Contact Duplicate Rule	Identify contacts that duplicate other contacts and leads.	Contact	Standard Lead Matching Rule Standard Contact Matching Rule	✓	OEPIC	9/9/2025
Standard Lead	Identify leads that duplicate		Standard Lead Matching Rule		OEPIC	9/9/2025

ttps://orgfarm-6cc9db0b01-dev-ed.develop.lightning.force.com/lightning/setup/DuplicateRules/home



Didn't find what you're looking for? Try using Global Search.

SETUP

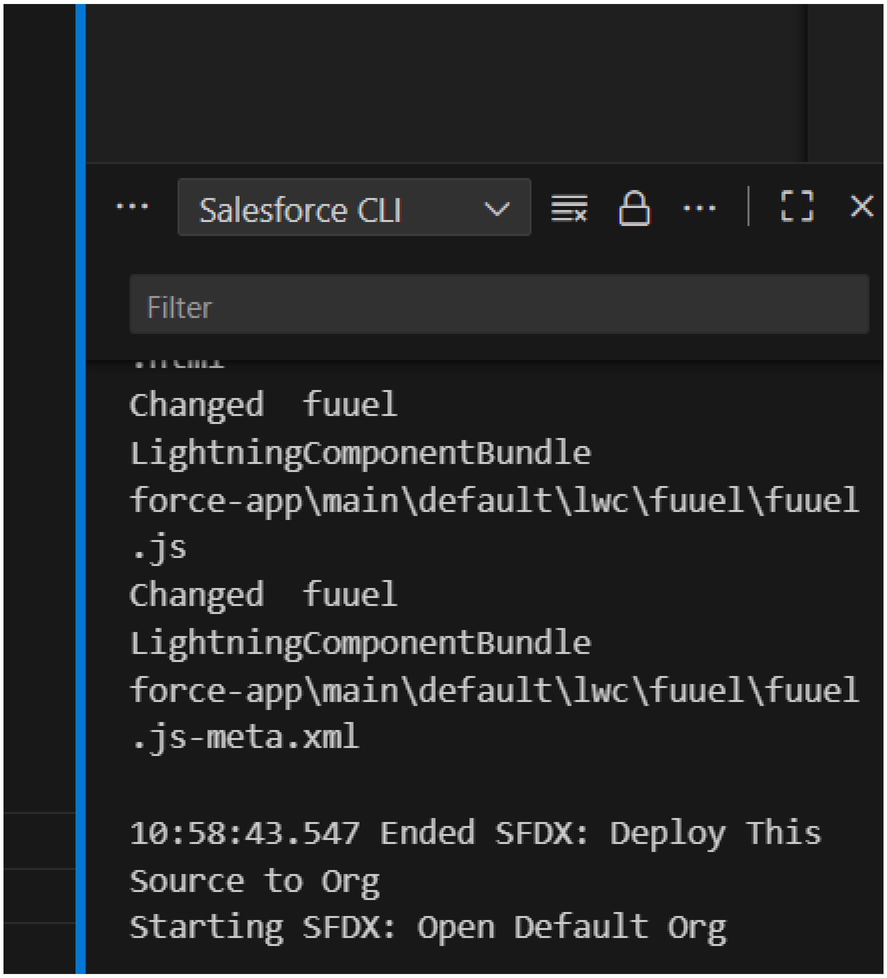
Data Export

Monthly Export Service

Data Export lets you prepare a copy of all your data in salesforce.com. From this page you can start the export process manually or schedule it to run automatically. When an export is ready for download you will receive an email containing a link that allows you to download the file(s). The export files are also available on this page for 48 hours, after which time they are deleted.

Next scheduled export:
A data export is currently in progress for your organization.

	Your export has been queued. You will receive an email notification when it is completed.
Scheduled By	Miniki Mahalaxmi
Schedule Date	9/23/2025
Export File Encoding	ISO-8859-1 (General US & Western European, ISO-LATIN-1)



```
.html
Changed  fuuel
LightningComponentBundle
force-app\main\default\lwc\fuuel\fuuel
.js
Changed  fuuel
LightningComponentBundle
force-app\main\default\lwc\fuuel\fuuel
.js-meta.xml

10:58:43.547 Ended SFDX: Deploy This
Source to Org
Starting SFDX: Open Default Org
```

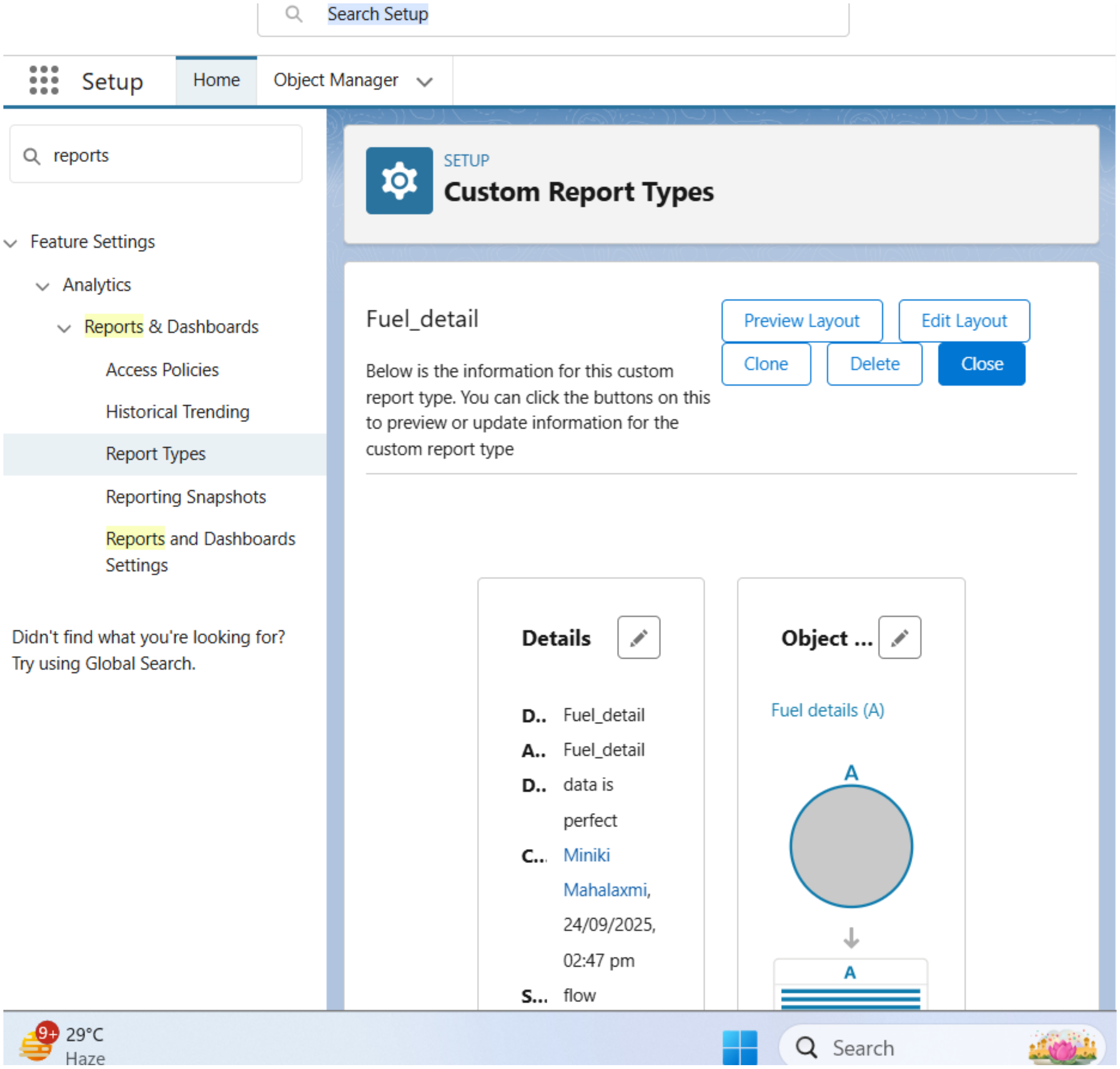
✓Outcome: Outcome: Reliable, duplicate-free data with a structured deployment strategy.

Phase 9 – Reporting, Dashboards & Security Review

Objective: Provide insights and enforce strong security.

• Reports: Tabular, Summary, Matrix, and Joined reports for sales, supplier performance, and buyer loyalty.

• **Report Types:** Standard and Custom report types for fuel station-specific insights.



SETUP

Custom Report Types

Fuel_detail

Below is the information for this custom report type. You can click the buttons on this to preview or update information for the custom report type

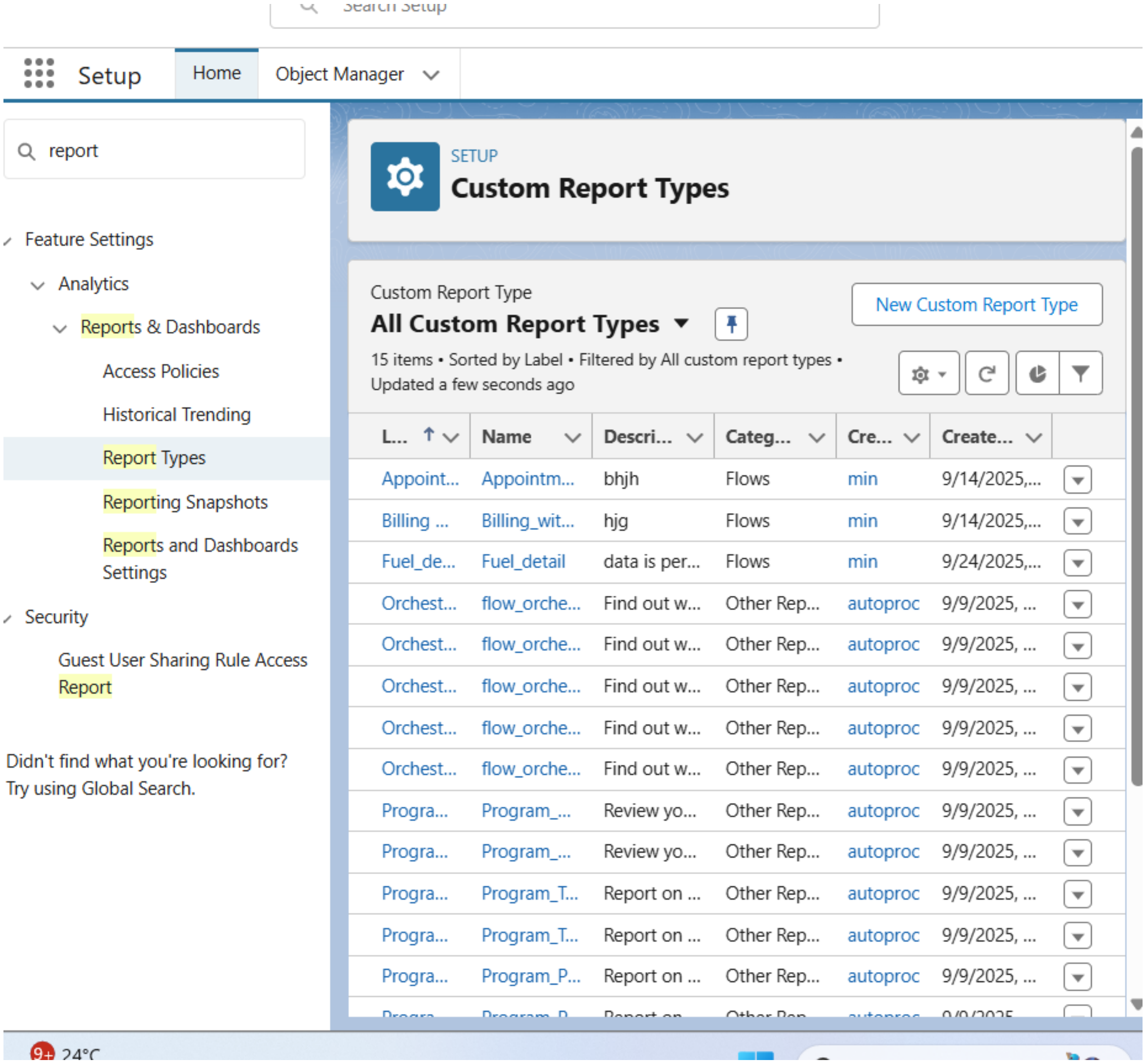
Didn't find what you're looking for? Try using Global Search.

Details

D..	Fuel_detail
A..	Fuel_detail
D..	data is perfect
C..	Miniki Mahalaxmi, 24/09/2025, 02:47 pm
S...	flow

Object ...

Fuel details (A)



Didn't find what you're looking for? Try using Global Search.

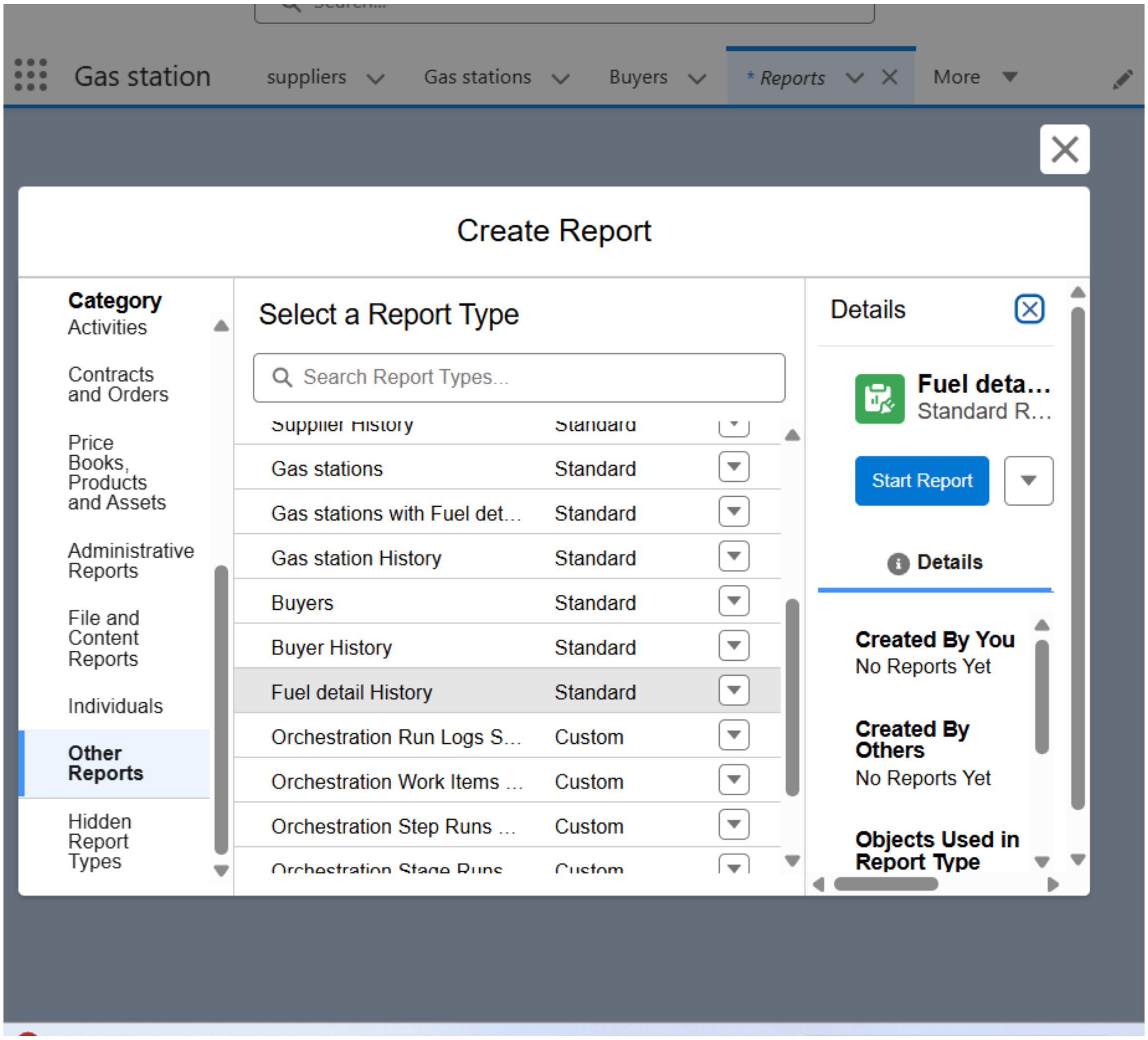
Custom Report Types

Custom Report Type

All Custom Report Types

15 items • Sorted by Label • Filtered by All custom report types • Updated a few seconds ago

L... ↑	Name	Descri...	Categ...	Cre...	Create...
Appoint...	Appointm...	bhjh	Flows	min	9/14/2025,...
Billing ...	Billing_wit...	hjg	Flows	min	9/14/2025,...
Fuel_de...	Fuel_detail	data is per...	Flows	min	9/24/2025,...
Orchest...	flow_orche...	Find out w...	Other Rep...	autoproc	9/9/2025, ...
Orchest...	flow_orche...	Find out w...	Other Rep...	autoproc	9/9/2025, ...
Orchest...	flow_orche...	Find out w...	Other Rep...	autoproc	9/9/2025, ...
Orchest...	flow_orche...	Find out w...	Other Rep...	autoproc	9/9/2025, ...
Orchest...	flow_orche...	Find out w...	Other Rep...	autoproc	9/9/2025, ...
Progra...	Program_...	Review yo...	Other Rep...	autoproc	9/9/2025, ...
Progra...	Program_...	Review yo...	Other Rep...	autoproc	9/9/2025, ...
Progra...	Program_T...	Report on ...	Other Rep...	autoproc	9/9/2025, ...
Progra...	Program_T...	Report on ...	Other Rep...	autoproc	9/9/2025, ...
Progra...	Program_P...	Report on ...	Other Rep...	autoproc	9/9/2025, ...
Progra...	Program_P...	Report on ...	Other Rep...	autoproc	9/9/2025



Create Report

Category

Activities

Contracts and Orders

Price Books, Products and Assets

Administrative Reports

File and Content Reports

Individuals

Other Reports

Hidden Report Types

Select a Report Type

Search Report Types...

Supplier History	Standard
Gas stations	Standard
Gas stations with Fuel det...	Standard
Gas station History	Standard
Buyers	Standard
Buyer History	Standard
Fuel detail History	Standard
Orchestration Run Logs S...	Custom
Orchestration Work Items ...	Custom
Orchestration Step Runs ...	Custom
Orchestration Stage Runs	Custom

Details

Fuel deta...
Standard R...

Start Report

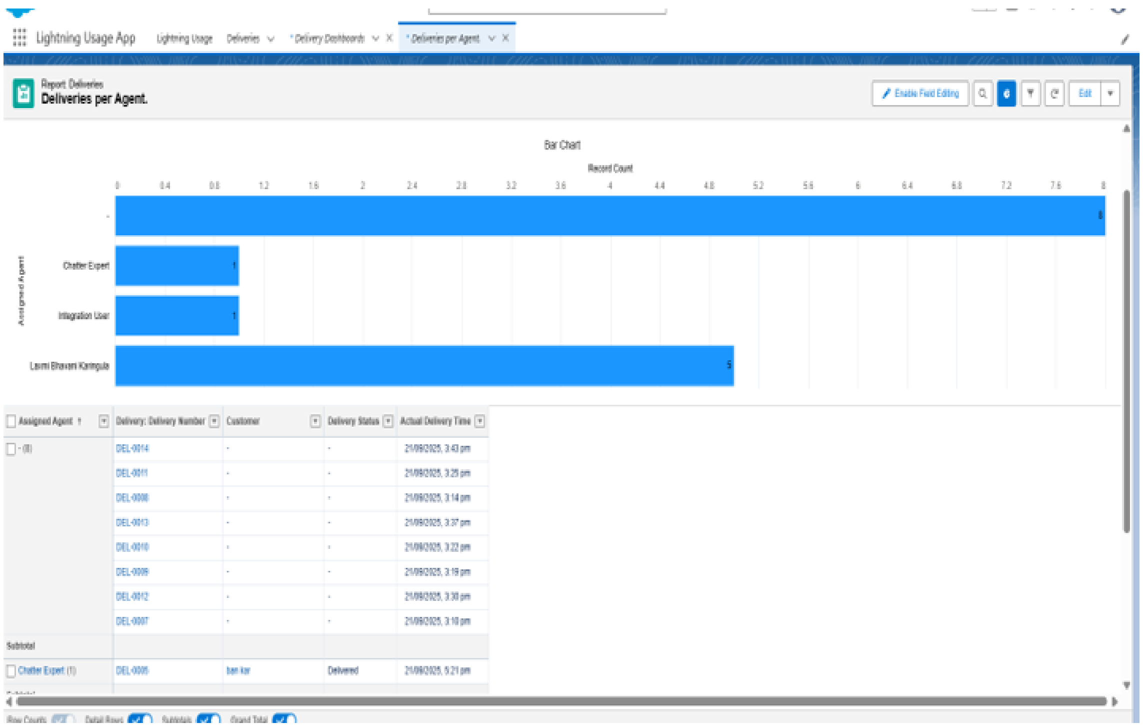
Details

Created By You
No Reports Yet

Created By Others
No Reports Yet

Objects Used in Report Type

- **Dynamic Dashboards:** Role-based visibility for Admin, Manager, Supplier, Buyer.

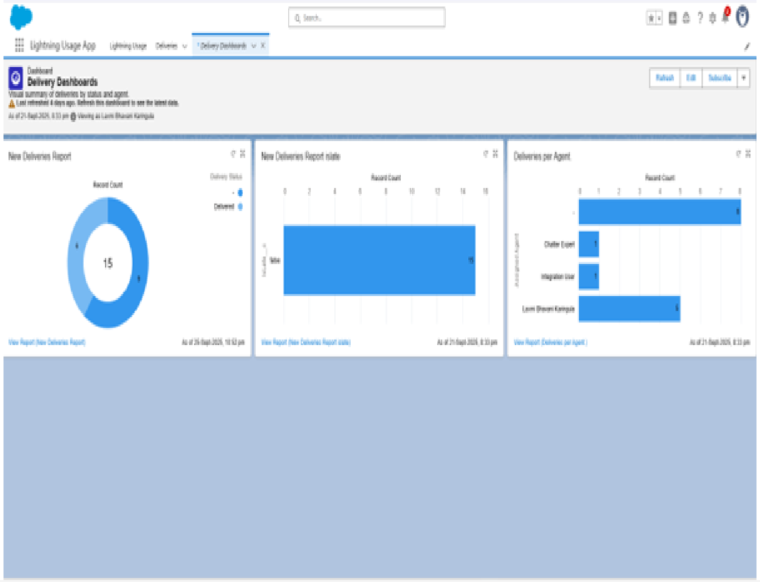


Report: Deliveries

Deliveries per Agent.

Assigned Agent ↑	Delivery: Delivery Number	Customer	Delivery Status	Actual Delivery Time
□ - (8)	DEL-0014	-	-	21/09/2025, 3:43 pm
	DEL-0011	-	-	21/09/2025, 3:25 pm
	DEL-0008	-	-	21/09/2025, 3:14 pm
	DEL-0013	-	-	21/09/2025, 3:37 pm
	DEL-0010	-	-	21/09/2025, 3:22 pm
	DEL-0009	-	-	21/09/2025, 3:19 pm
	DEL-0012	-	-	21/09/2025, 3:30 pm
	DEL-0007	-	-	21/09/2025, 3:10 pm
Subtotal				
□ Chatter Expert (1)	DEL-0005	ban kar	Delivered	21/09/2025, 5:21 pm

- **Dashboards:** Revenue trends, Stock usage, Supplier performance, Buyer loyalty programs.



Dashboard

Delivery Dashboards

Visual summary of deliveries by status and agent.

⚠ Last refreshed 4 days ago. Refresh this dashboard to see the latest data.

As of 21-Sept-2025, 8:33 pm · Viewing as Laxmi Bhavani Karingula

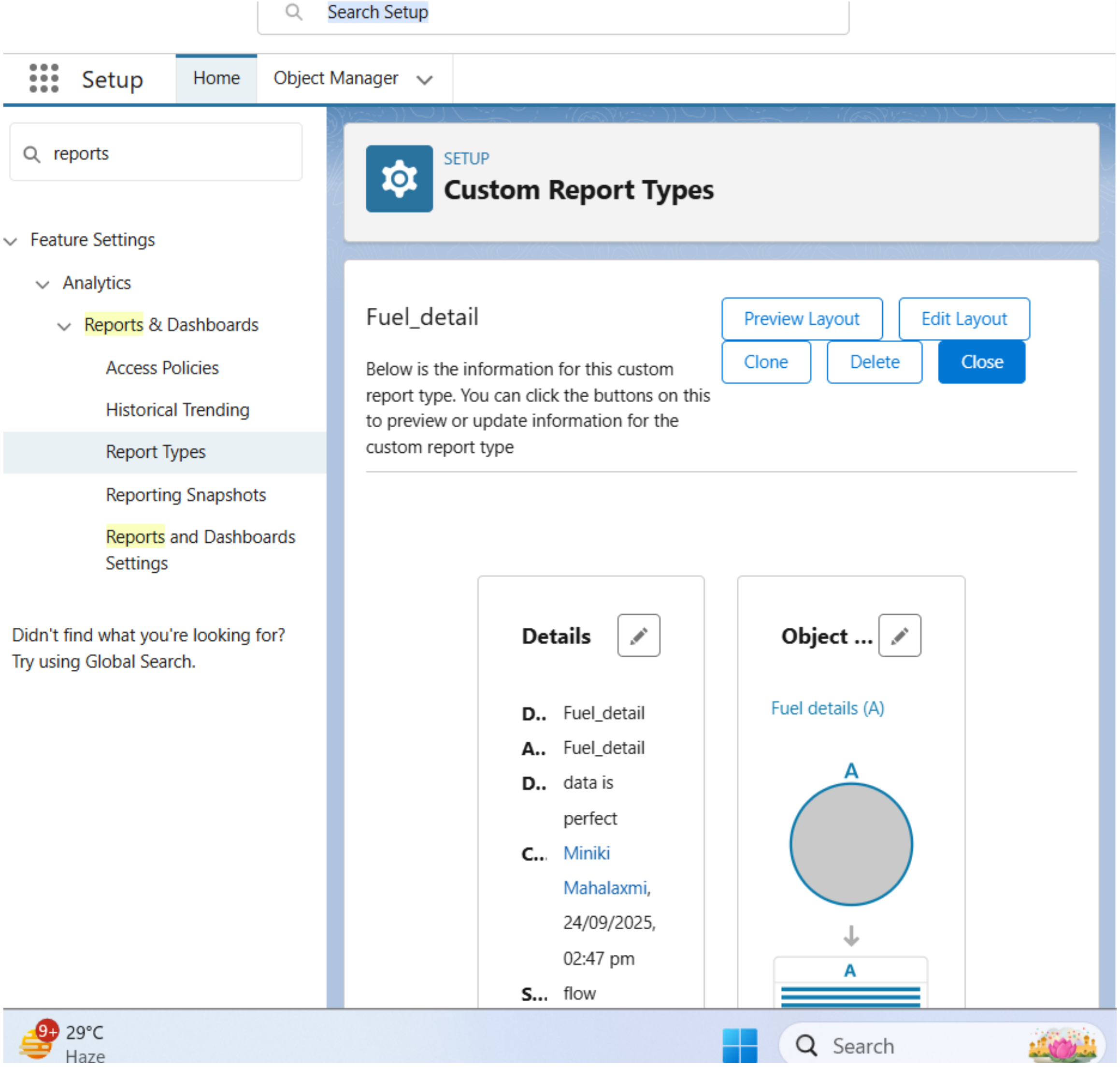
- **Field-Level Security (FLS):** Restrict sensitive data like pricing and customer PII.

- **Sharing Settings:** Configure OWD and Sharing Rules for secure data visibility.

- **Session Settings:** Define session duration, MFA, and timeouts.

- **Login IP Ranges:** Restrict logins to authorized networks.

- **Audit Trail:** Monitor configuration changes and maintain compliance.



Fuel_detail

Below is the information for this custom report type. You can click the buttons on this to preview or update information for the custom report type

D.. Fuel_detail
A.. Fuel_detail
D.. data is perfect
C.. Miniki Mahalaxmi, 24/09/2025, 02:47 pm
S... flow

✅Outcome: Outcome: Powerful analytics and dashboards with role-based security and compliance monitoring.

Phase 10 – Final Presentation & Demo Day

Objective: Showcase the final CRM solution to stakeholders.

- Pitch: Present the problem, solution, and business benefits.
- Demo: Walk through key flows – creating transactions, updating stock, generating reports.
- Documentation: Deliver a comprehensive User and Admin guide.

- Showcase: Publish project details on LinkedIn or professional portfolio.

✅Outcome: Outcome: A successful project delivery with clear demonstration of value and professional presentation.