Medical Inventory Management

College Name: Shree Venkateshwara arts and science (co-education) college

College Code : burbd

TEAM ID: NM2025TMID21074

TEAM MEMBERS: 5

Team LeaderName : ARAVIND C K

Email : aravindck2023bca@gmail.com

Team Member : KISHORE S

Email : kishoresuresh011@gmail.com

Team Member: KISHORE S

Email : kishores2023bca@gmail.com

Team Member: ATHEESWARAN A

Email : atheeswarana2023bca@gmail.com
Team Member: SHARAN T S
Email : sharants2023bca@gmail.com

INTRODUCTION

The Medical Inventory Management System is a comprehensive Salesforce application designed to streamline and manage various operational aspects of the medical inventory. It can efficiently maintain supplier details, manage purchase orders, track product details and transactions, and monitor expiry dates of products, thereby improving operational efficiency, data accuracy, and reporting capabilities.

Project Overview :

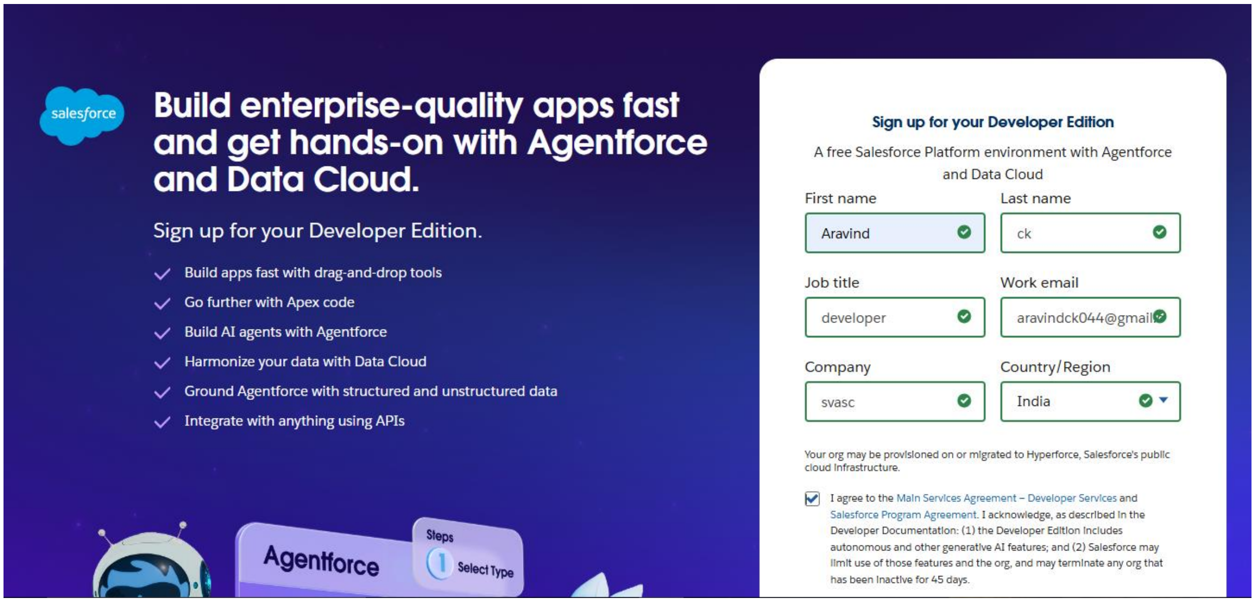
This project is a comprehensive Salesforce application to streamline and manage various operational aspects of medical inventory. The system aims to efficiently maintain supplier details, manage purchase orders, track product details and transactions, and monitor the expiry dates of products. Maintain detailed records of suppliers, including contact information. Catalog product information, including descriptions, stock levels. Monitor and track product expiry dates to avoid using expired items. Comprehensive reports to track supplier performance, and purchase orders.

Milestone 1-Salesforce Account

Creating Developer Account

Creating a developer org in salesforce.

1. Go to https://developer.salesforce.com/signup
2. On the sign up form, enter the following details :



Build enterprise-quality apps fast and get hands-on with Agentforce and Data Cloud.

Sign up for your Developer Edition.

- ✓ Build apps fast with drag-and-drop tools
- ✓ Go further with Apex code
- ✓ Build AI agents with Agentforce
- ✓ Harmonize your data with Data Cloud
- ✓ Ground Agentforce with structured and unstructured data
- ✓ Integrate with anything using APIs

Sign up for your Developer Edition

A free Salesforce Platform environment with Agentforce and Data Cloud

First name	Last name
Aravind	ck
Job title	Work email
developer	aravindck044@gmail
Company	Country/Region
svasc	India

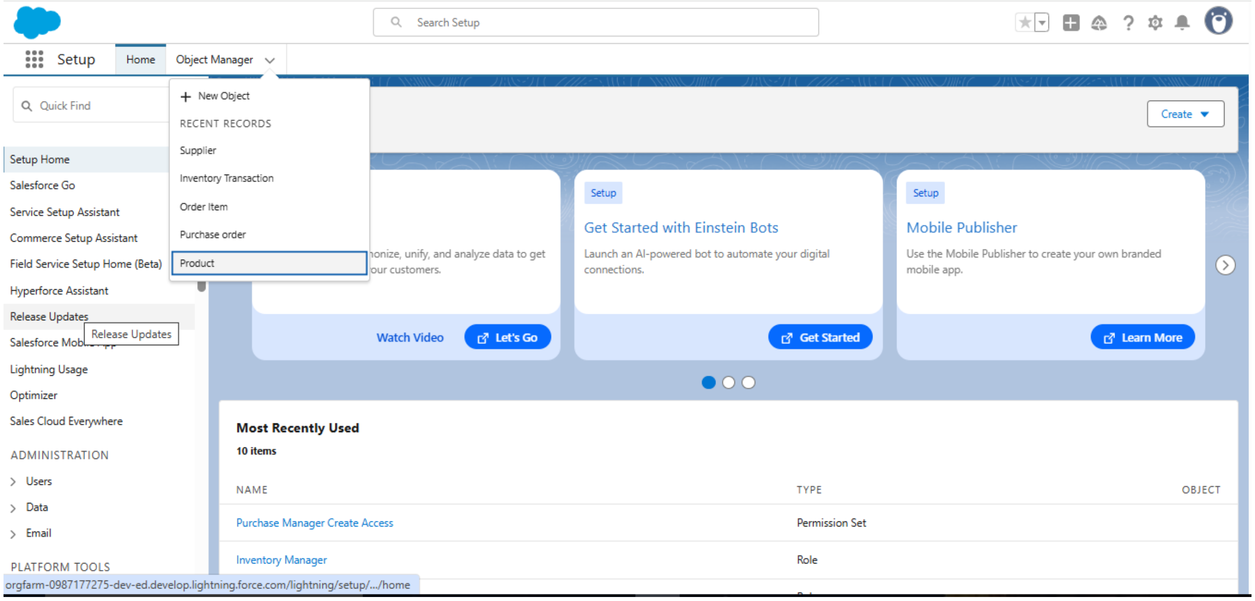
Your org may be provisioned on or migrated to Hyperforce, Salesforce's public cloud infrastructure.

☑ I agree to the Main Services Agreement – Developer Services and Salesforce Program Agreement. I acknowledge, as described in the Developer Documentation: (1) the Developer Edition includes autonomous and other generative AI features; and (2) Salesforce may limit use of those features and the org, and may terminate any org that has been inactive for 45 days.

Click on sign me up after filling these.

Milestone 2- Objects

Creating a Product Object



...ionize, unify, and analyze data to get ...our customers.

Get Started with Einstein Bots

Launch an AI-powered bot to automate your digital connections.

Mobile Publisher

Use the Mobile Publisher to create your own branded mobile app.

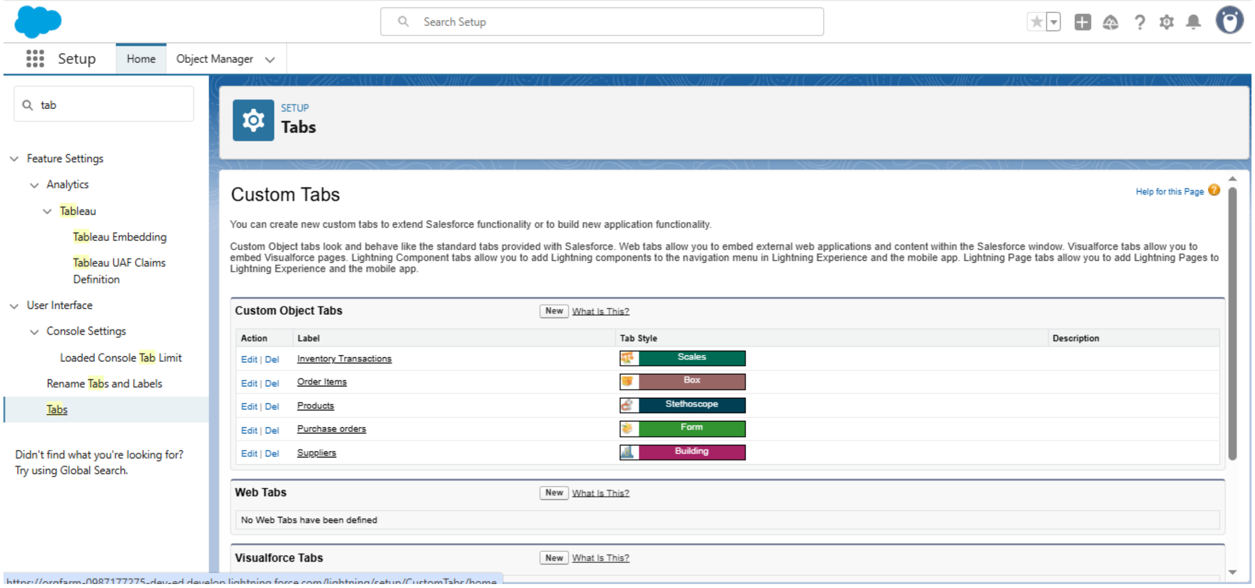
Most Recently Used

10 items

NAME	TYPE	OBJECT
Purchase Manager Create Access	Permission Set	
Inventory Manager	Role	

Milestone 3- Tabs

Creating a tab for Object



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

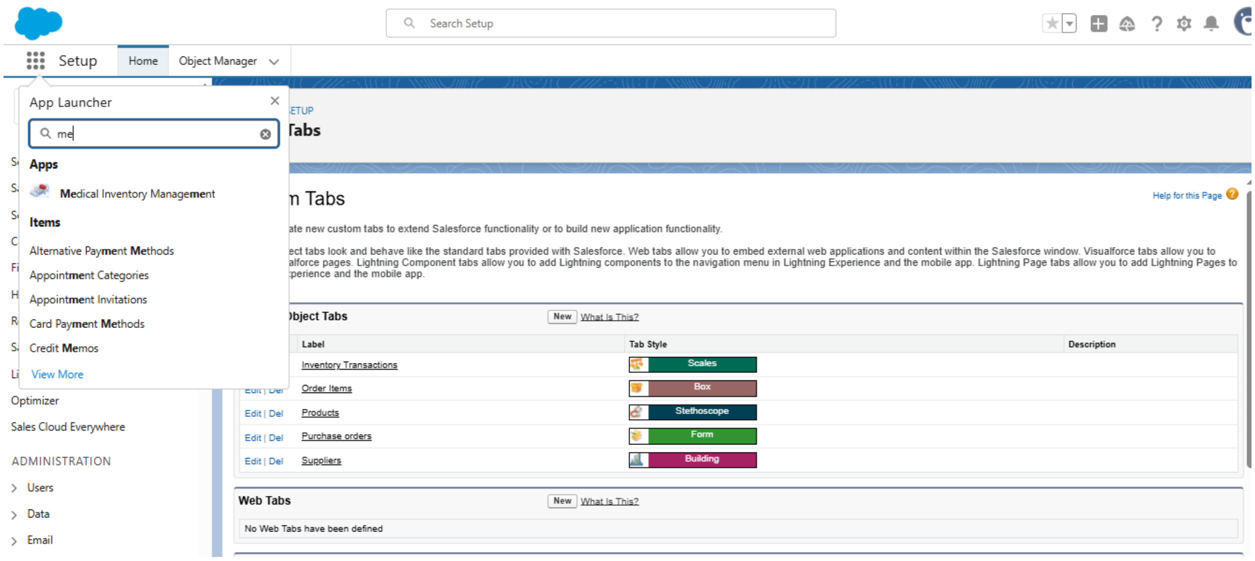
Action	Label	Tab Style	Description
Edit | Del	Inventory Transactions	Scales	
Edit | Del	Order Items	Box	
Edit | Del	Products	Stethoscope	
Edit | Del	Purchase orders	Form	
Edit | Del	Suppliers	Building	

Web Tabs

No Web Tabs have been defined

Visualforce Tabs

Milestone 4- The Lightning App



Search Setup

Setup | Home | Object Manager

App Launcher

me

Apps

Medical Inventory Management

Items

Alternative Payment Methods

Appointment Categories

Appointment Invitations

Card Payment Methods

Credit Memos

View More

Optimizer

Sales Cloud Everywhere

ADMINISTRATION

> Users

> Data

> Email

ETUP

Tabs

n Tabs

Help for this Page

ate new custom tabs to extend Salesforce functionality or to build new application functionality.

ect 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 alforce 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 perience and the mobile app.

bject Tabs New What Is This?

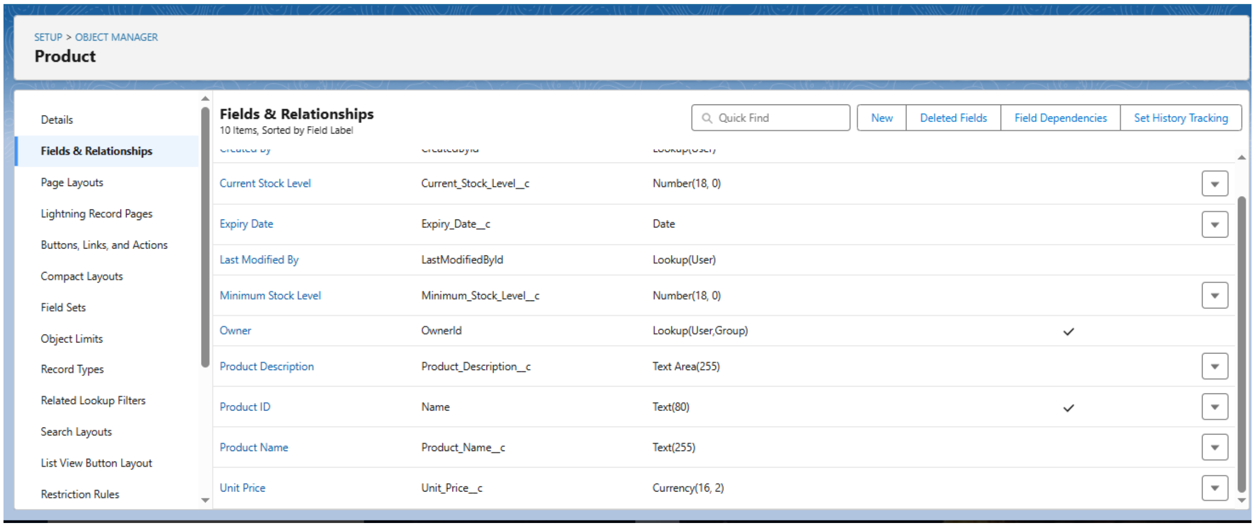
	Label	Tab Style	Description
	Inventory Transactions	Scales	
Edit | Del	Order Items	Box	
Edit | Del	Products	Stethoscope	
Edit | Del	Purchase orders	Form	
Edit | Del	Suppliers	Building	

Web Tabs New What Is This?

No Web Tabs have been defined

Milestone 5- Fields

Creating a Field in Product Object



SETUP > OBJECT MANAGER

Product

Details

Fields & Relationships

Page Layouts

Lightning Record Pages

Buttons, Links, and Actions

Compact Layouts

Field Sets

Object Limits

Record Types

Related Lookup Filters

Search Layouts

List View Button Layout

Restriction Rules

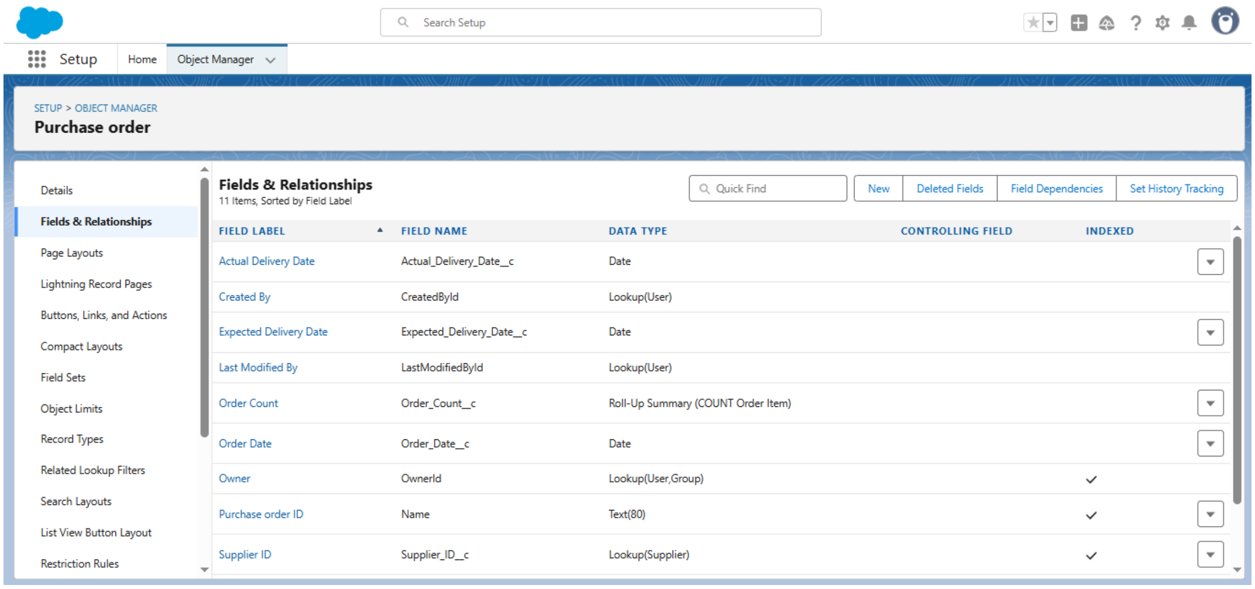
Fields & Relationships

10 Items, Sorted by Field Label

Quick Find | New | Deleted Fields | Field Dependencies | Set History Tracking

Created By	CreatedById	Lookup(User)		
Current Stock Level	Current_Stock_Level__c	Number(18, 0)		▾
Expiry Date	Expiry_Date__c	Date		▾
Last Modified By	LastModifiedById	Lookup(User)		
Minimum Stock Level	Minimum_Stock_Level__c	Number(18, 0)		▾
Owner	OwnerId	Lookup(User,Group)	✓	
Product Description	Product_Description__c	Text Area(255)		▾
Product ID	Name	Text(80)	✓	▾
Product Name	Product_Name__c	Text(255)		▾
Unit Price	Unit_Price__c	Currency(16, 2)		▾

Creating field in purchase order Object



SETUP > OBJECT MANAGER

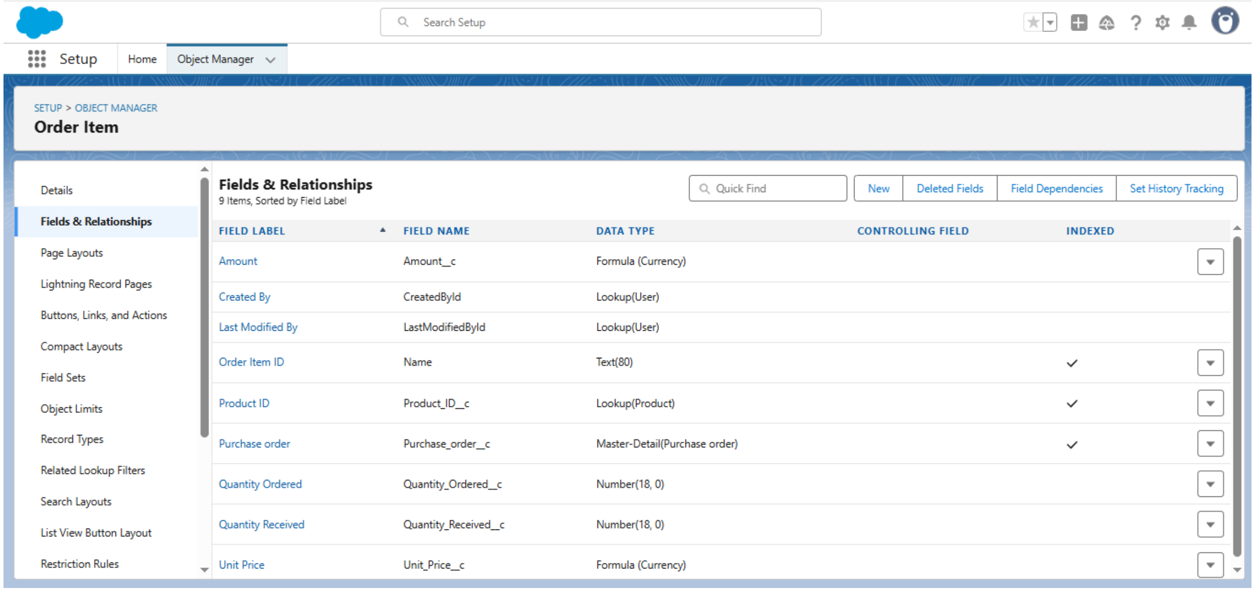
Purchase order

Fields & Relationships

11 Items, Sorted by Field Label

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Actual Delivery Date	Actual_Delivery_Date__c	Date		
Created By	CreatedById	Lookup(User)		
Expected Delivery Date	Expected_Delivery_Date__c	Date		
Last Modified By	LastModifiedById	Lookup(User)		
Order Count	Order_Count__c	Roll-Up Summary (COUNT Order Item)		
Order Date	Order_Date__c	Date		
Owner	OwnerId	Lookup(User,Group)		✓
Purchase order ID	Name	Text(80)		✓
Supplier ID	Supplier_ID__c	Lookup(Supplier)		✓

Creating field in order item Object



SETUP > OBJECT MANAGER

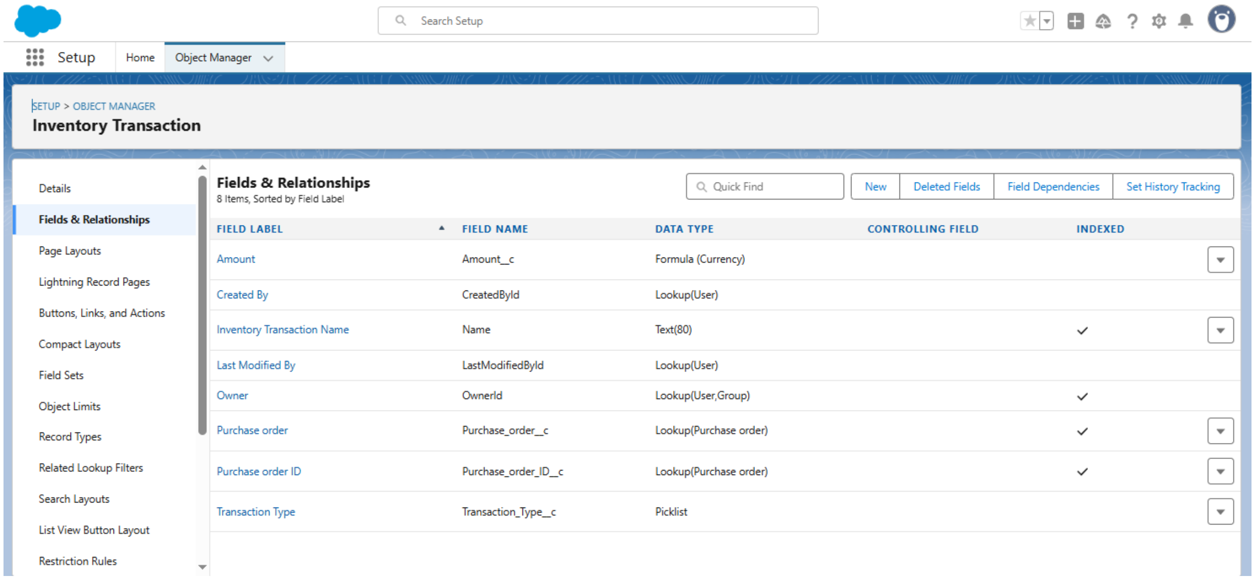
Order Item

Fields & Relationships

9 Items, Sorted by Field Label

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Amount	Amount__c	Formula (Currency)		
Created By	CreatedById	Lookup(User)		
Last Modified By	LastModifiedById	Lookup(User)		
Order Item ID	Name	Text(80)		✓
Product ID	Product_ID__c	Lookup(Product)		✓
Purchase order	Purchase_order__c	Master-Detail(Purchase order)		✓
Quantity Ordered	Quantity_Ordered__c	Number(18, 0)		
Quantity Received	Quantity_Received__c	Number(18, 0)		
Unit Price	Unit_Price__c	Formula (Currency)		

Creating field in Inventory Transaction Object



SETUP > OBJECT MANAGER

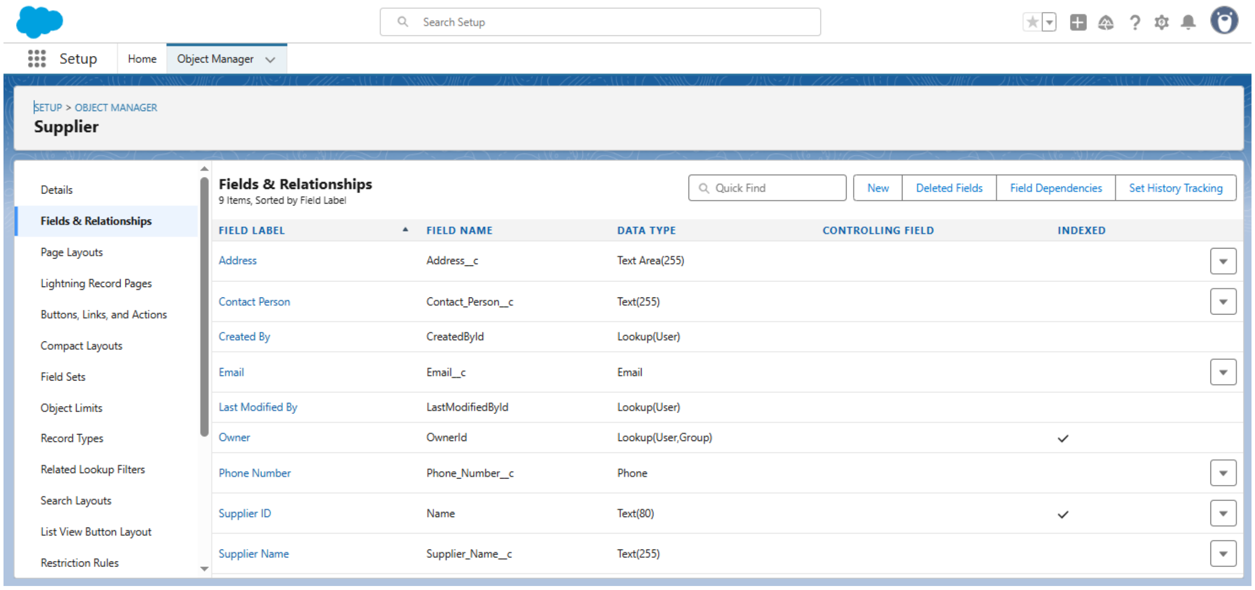
Inventory Transaction

Fields & Relationships

8 Items, Sorted by Field Label

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Amount	Amount__c	Formula (Currency)		
Created By	CreatedById	Lookup(User)		
Inventory Transaction Name	Name	Text(80)		✓
Last Modified By	LastModifiedById	Lookup(User)		
Owner	OwnerId	Lookup(User,Group)		✓
Purchase order	Purchase_order__c	Lookup(Purchase order)		✓
Purchase order ID	Purchase_order_ID__c	Lookup(Purchase order)		✓
Transaction Type	Transaction_Type__c	Picklist		

Creating field in supplier Object



SETUP > OBJECT MANAGER

Supplier

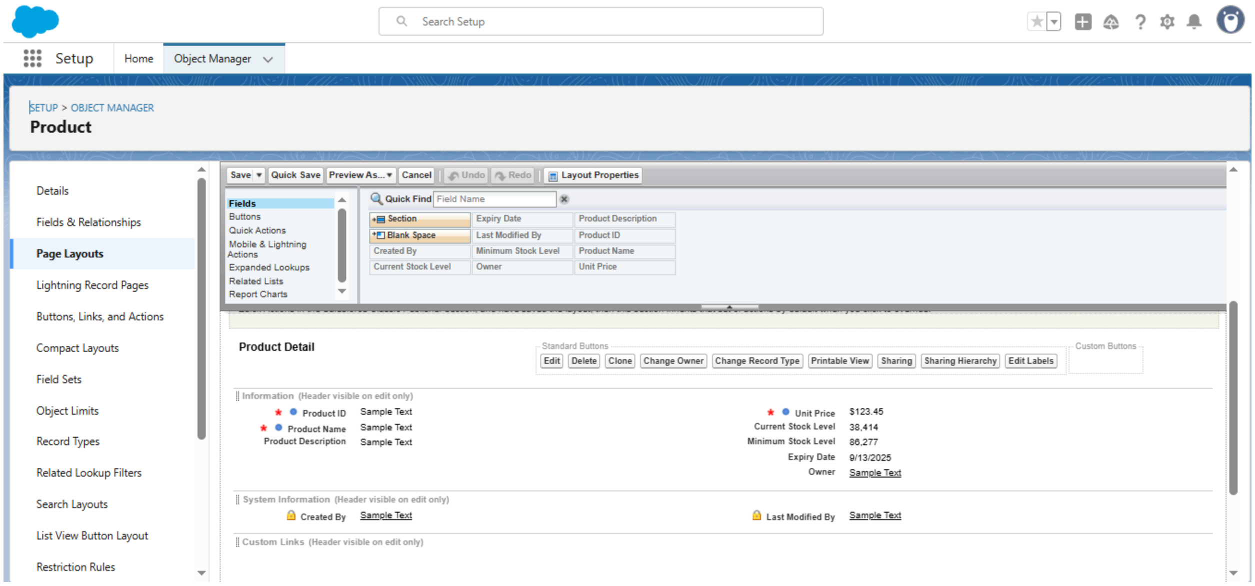
Fields & Relationships

9 Items, Sorted by Field Label

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Address	Address__c	Text Area(255)		
Contact Person	Contact_Person__c	Text(255)		
Created By	CreatedById	Lookup(User)		
Email	Email__c	Email		
Last Modified By	LastModifiedById	Lookup(User)		
Owner	OwnerId	Lookup(User,Group)		✓
Phone Number	Phone_Number__c	Phone		
Supplier ID	Name	Text(80)		✓
Supplier Name	Supplier_Name__c	Text(255)		

Milestone 6 -Editing of Page Layouts

To edit a Page Layout in Product Object



SETUP > OBJECT MANAGER

Product

Product Detail

Information (Header visible on edit only)

Product ID Sample Text
Product Name Sample Text
Product Description Sample Text

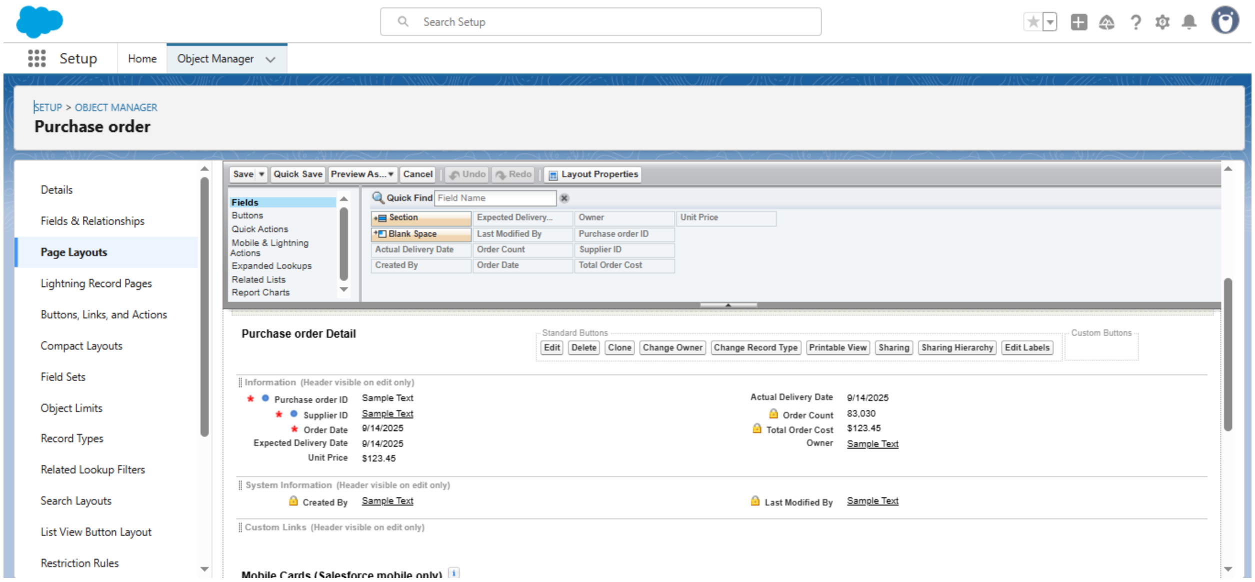
Unit Price $123.45
Current Stock Level 38,414
Minimum Stock Level 86,277
Expiry Date 9/13/2025
Owner Sample Text

System Information (Header visible on edit only)

Created By Sample Text
Last Modified By Sample Text

Custom Links (Header visible on edit only)

To edit a Page Layout in Purchase Order Object



SETUP > OBJECT MANAGER

Purchase order

Purchase order Detail

Information (Header visible on edit only)

Purchase order ID Sample Text
Supplier ID Sample Text
Order Date 9/14/2025
Expected Delivery Date 9/14/2025
Unit Price $123.45

Actual Delivery Date 9/14/2025
Order Count 83,030
Total Order Cost $123.45
Owner Sample Text

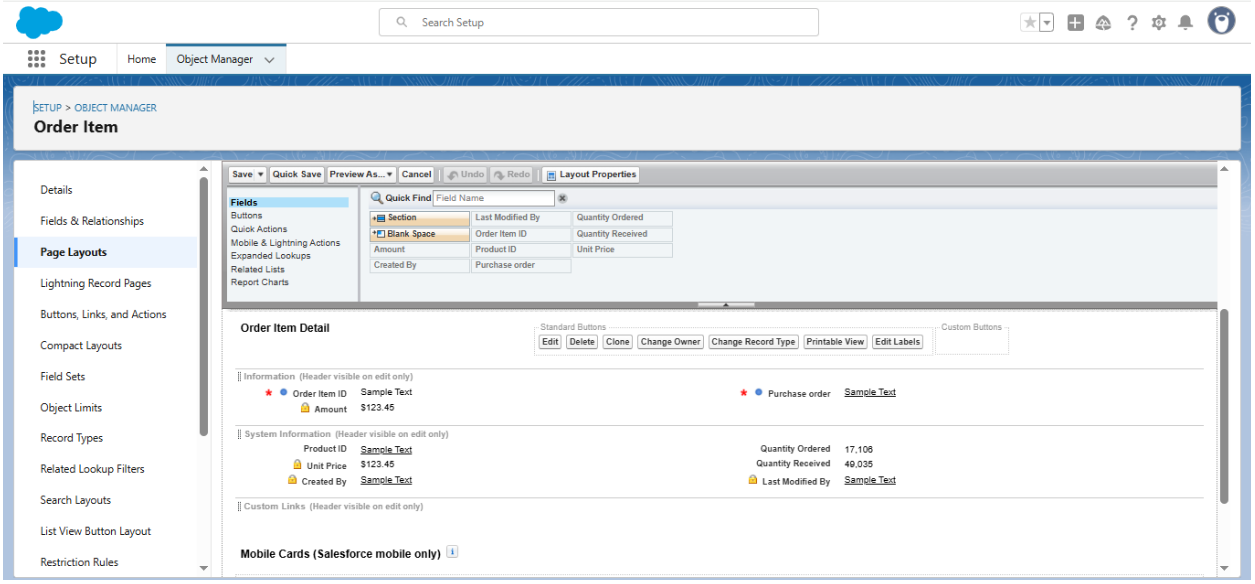
System Information (Header visible on edit only)

Created By Sample Text
Last Modified By Sample Text

Custom Links (Header visible on edit only)

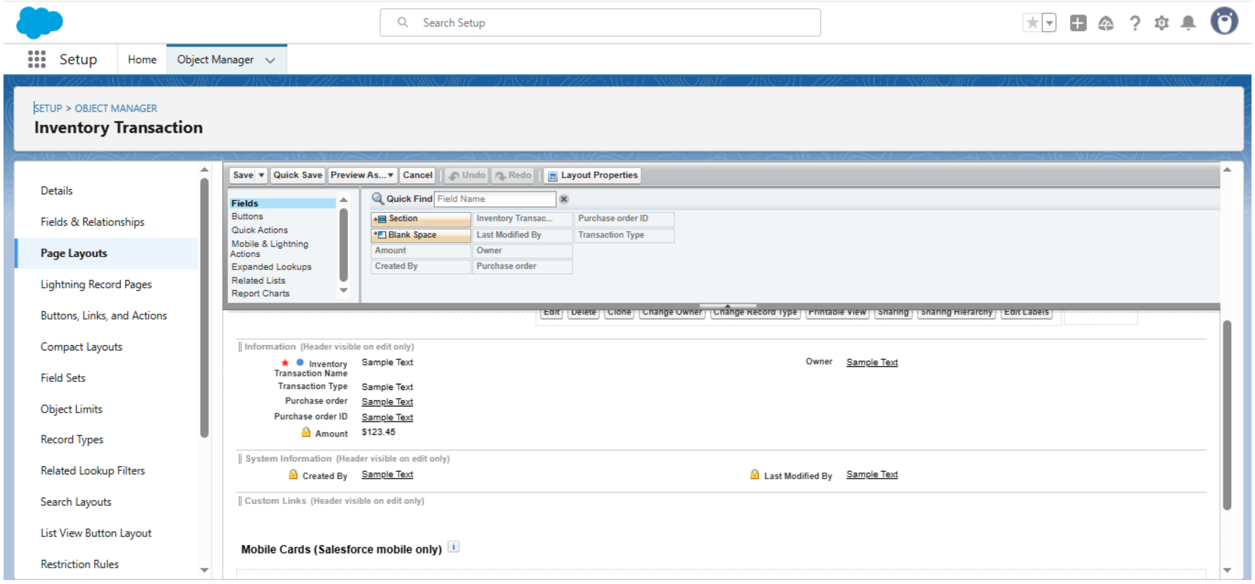
Mobile Cards (Salesforce mobile only)

To edit a Page Layout in Order Item Object



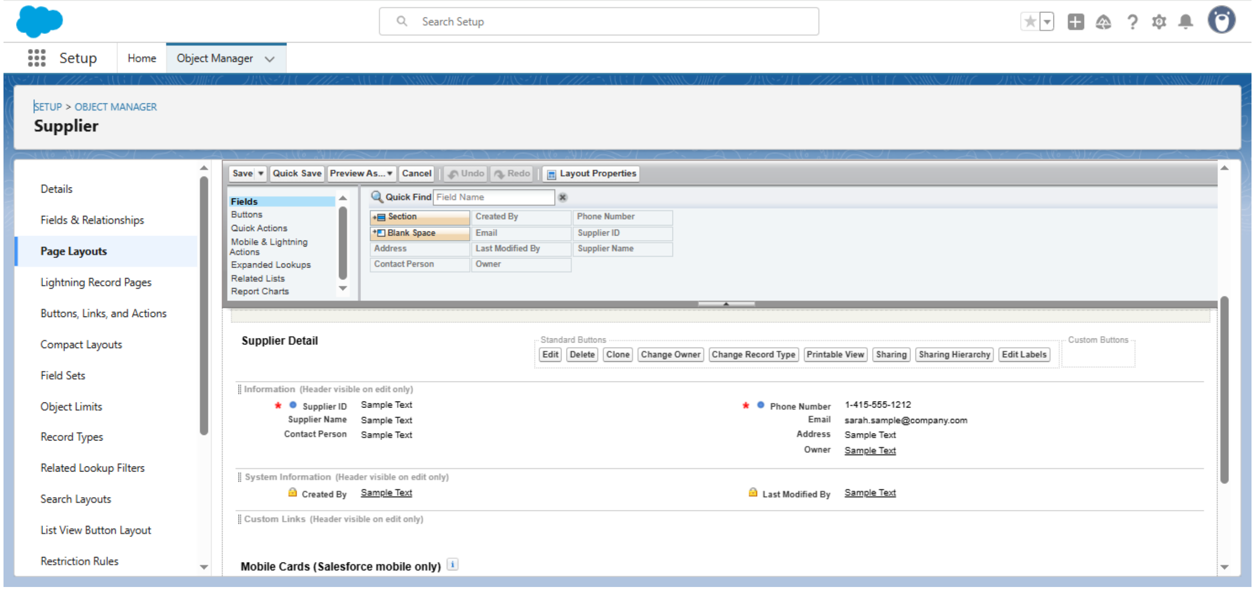
Order Item ID: Sample Text
Amount: $123.45
Purchase order: Sample Text
Product ID: Sample Text
Unit Price: $123.45
Created By: Sample Text
Quantity Ordered: 17,106
Quantity Received: 49,035
Last Modified By: Sample Text

To edit a Page Layout in Inventory Transaction Object



Inventory Transaction Name: Sample Text
Transaction Type: Sample Text
Purchase order: Sample Text
Purchase order ID: Sample Text
Amount: $123.45
Owner: Sample Text
Created By: Sample Text
Last Modified By: Sample Text

To edit a Page Layout in Supplier Object



Supplier Detail

Information (Header visible on edit only)

Supplier ID	Sample Text	Phone Number	1-415-555-1212
Supplier Name	Sample Text	Email	sarah.sample@company.com
Contact Person	Sample Text	Address	Sample Text
		Owner	Sample Text

System Information (Header visible on edit only)

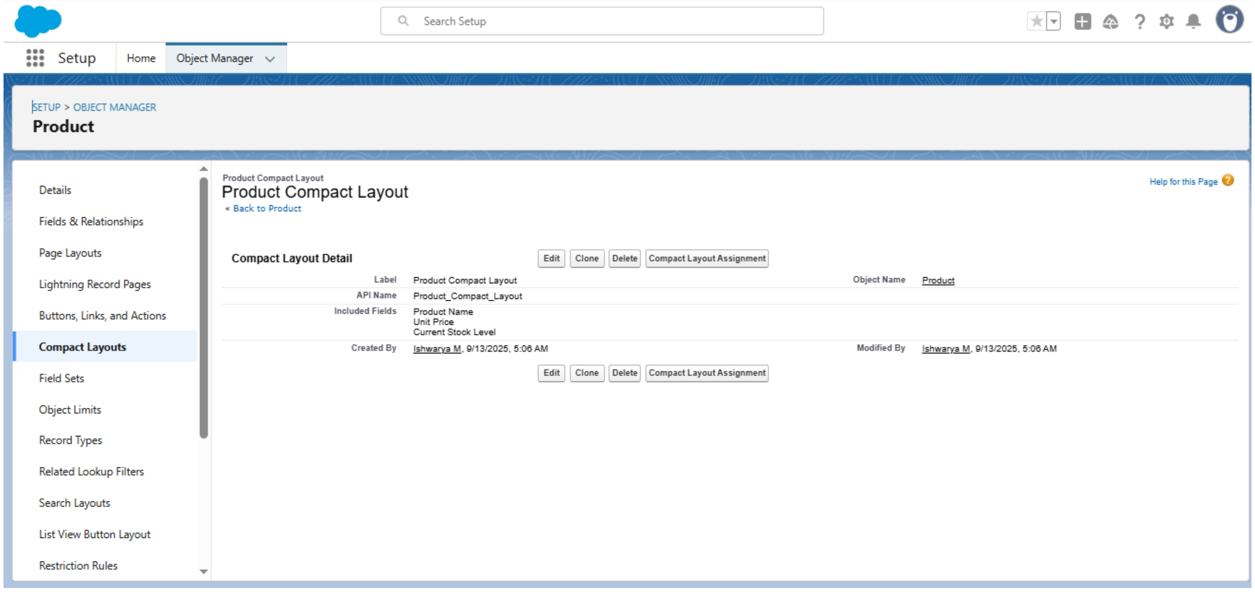
Created By	Sample Text	Last Modified By	Sample Text

Custom Links (Header visible on edit only)

Mobile Cards (Salesforce mobile only)

Milestone 7 - Compact Layouts

To create a Compact Layout to a Product Object



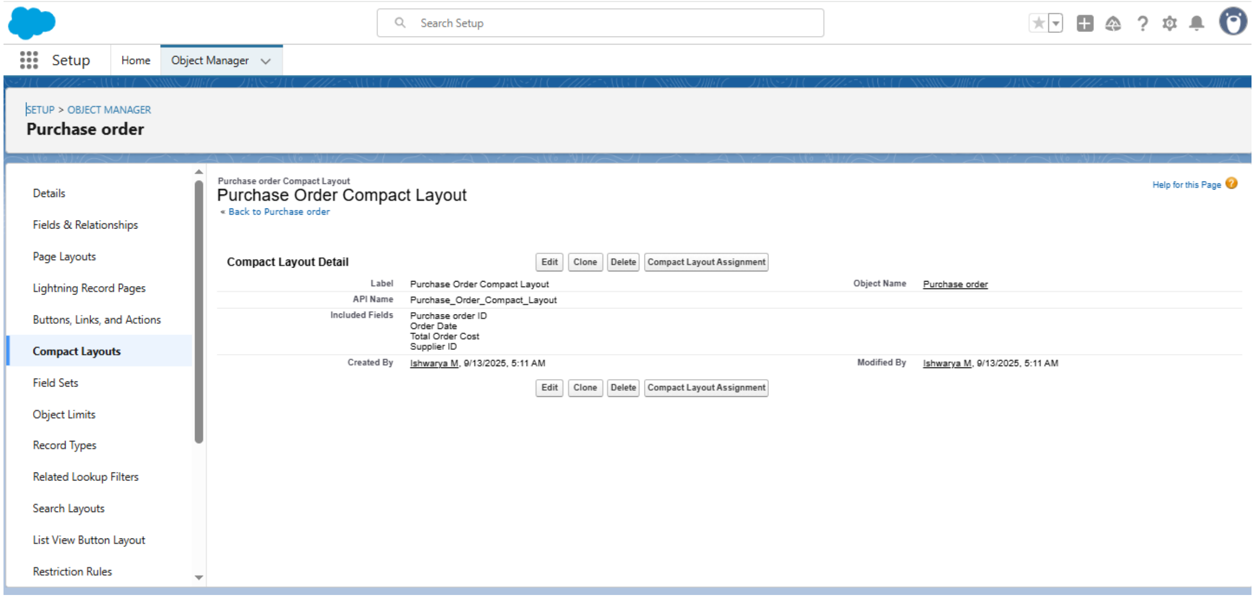
Product Compact Layout

Product Compact Layout

Compact Layout Detail

Label	Product Compact Layout	Object Name	Product
API Name	Product_Compact_Layout		
Included Fields	Product Name Unit Price Current Stock Level		
Created By	Ishwarya M, 9/13/2025, 5:06 AM	Modified By	Ishwarya M, 9/13/2025, 5:06 AM

To create a Compact Layout to a Purchase Order Object



Purchase order Compact Layout

Purchase Order Compact Layout

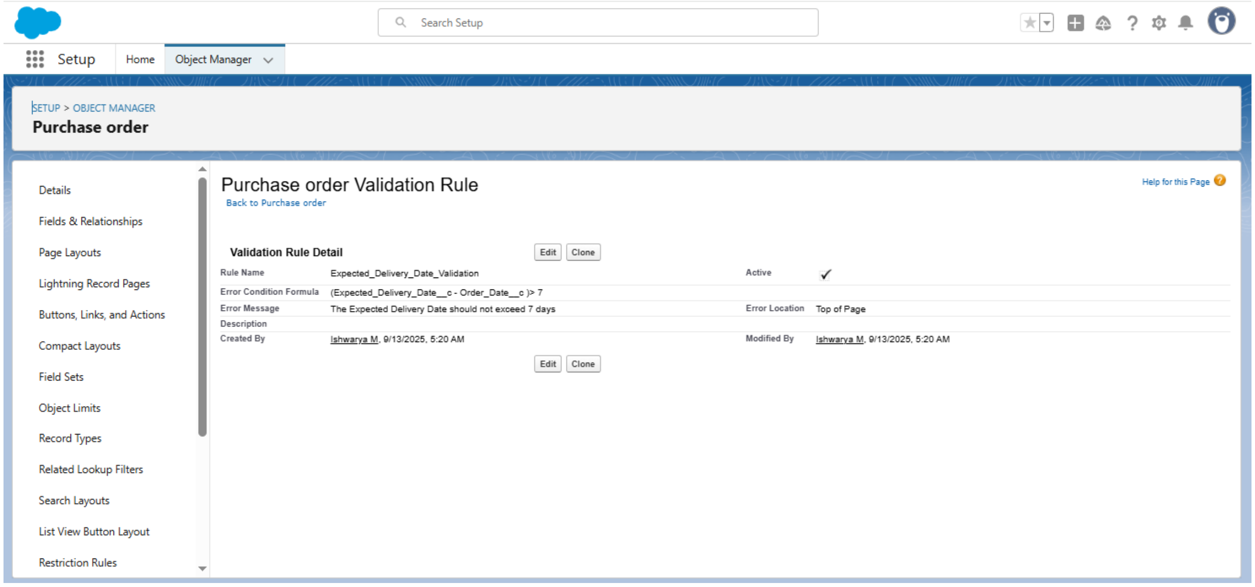
« Back to Purchase order

Compact Layout Detail

Label	Purchase Order Compact Layout	Object Name	Purchase order
API Name	Purchase_Order_Compact_Layout		
Included Fields	Purchase order ID Order Date Total Order Cost Supplier ID		
Created By	Ishwarya M, 9/13/2025, 5:11 AM	Modified By	Ishwarya M, 9/13/2025, 5:11 AM

Milestone 8 - Validation Rules

To create an Expected Delivery Date Validation rule to a Employee Object



Purchase order Validation Rule

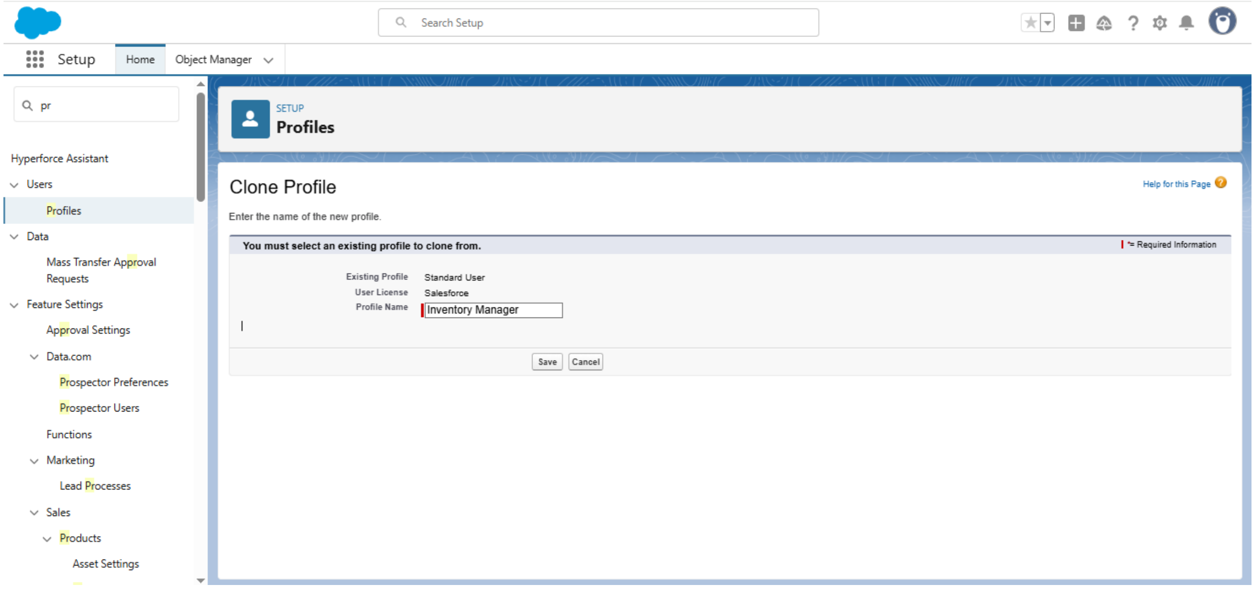
Back to Purchase order

Validation Rule Detail

Rule Name	Expected_Delivery_Date_Validation	Active	✓
Error Condition Formula	(Expected_Delivery_Date__c - Order_Date__c)> 7		
Error Message	The Expected Delivery Date should not exceed 7 days	Error Location	Top of Page
Description			
Created By	Ishwarya M, 9/13/2025, 5:20 AM	Modified By	Ishwarya M, 9/13/2025, 5:20 AM

Milestone 9 - Profiles

To create an Inventory Manager Profile



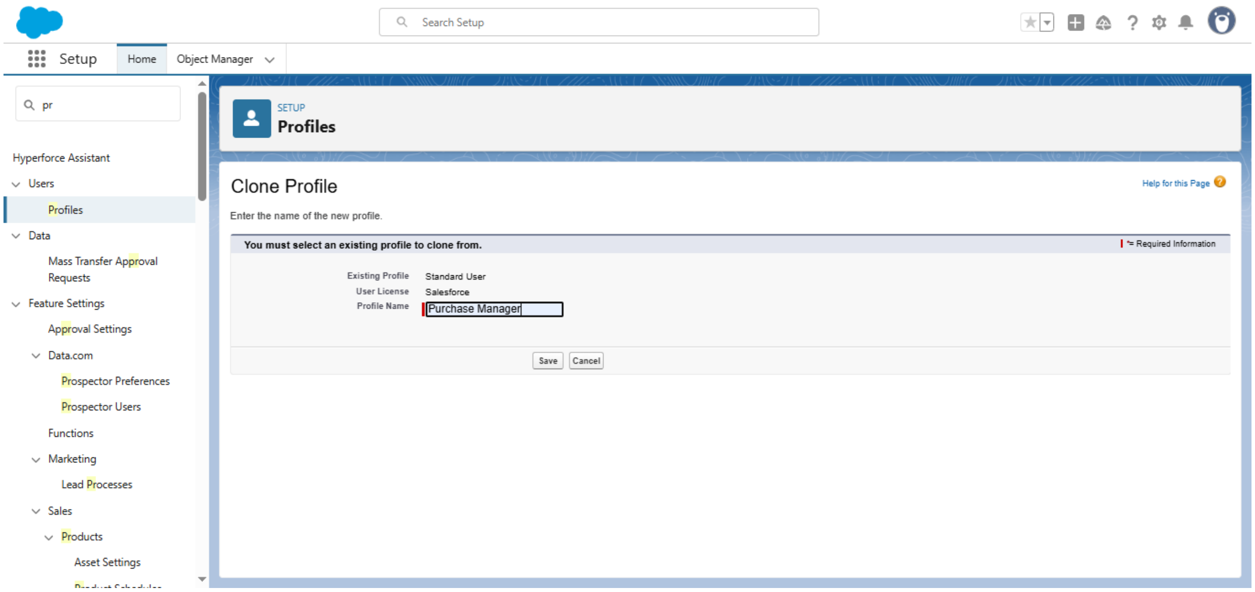
Clone Profile

Enter the name of the new profile.

You must select an existing profile to clone from. | = Required Information

Existing Profile	Standard User
User License	Salesforce
Profile Name	Inventory Manager

To create an Purchase Manager Profile



Clone Profile

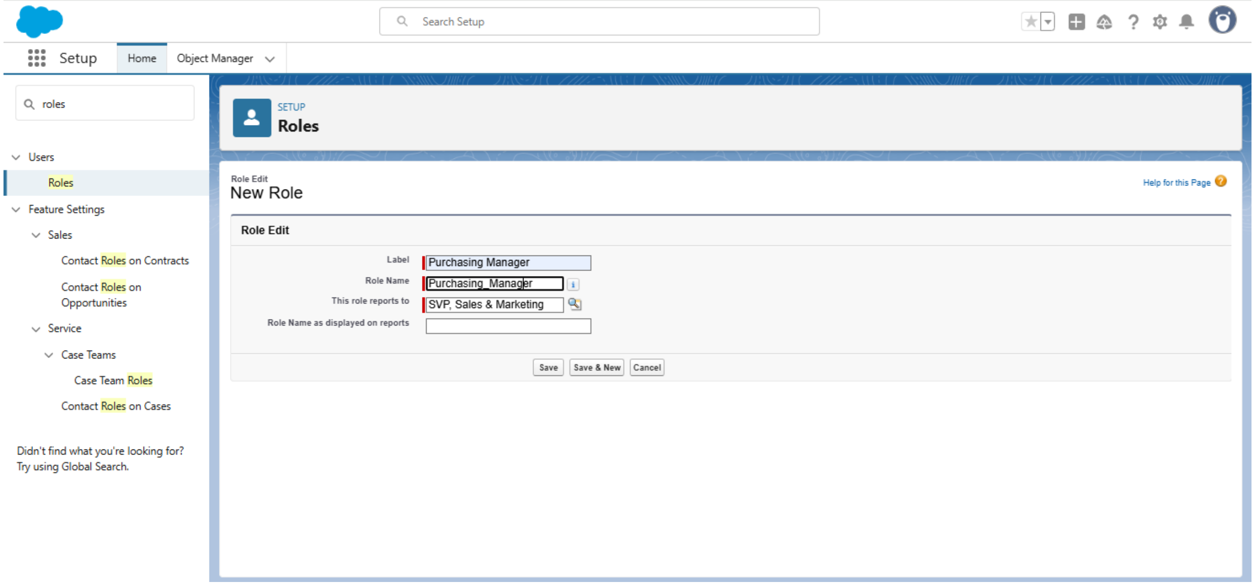
Enter the name of the new profile.

You must select an existing profile to clone from. | = Required Information

Existing Profile	Standard User
User License	Salesforce
Profile Name	Purchase Manager

Milestone 10 - Roles

Create a Purchasing Manager Role.

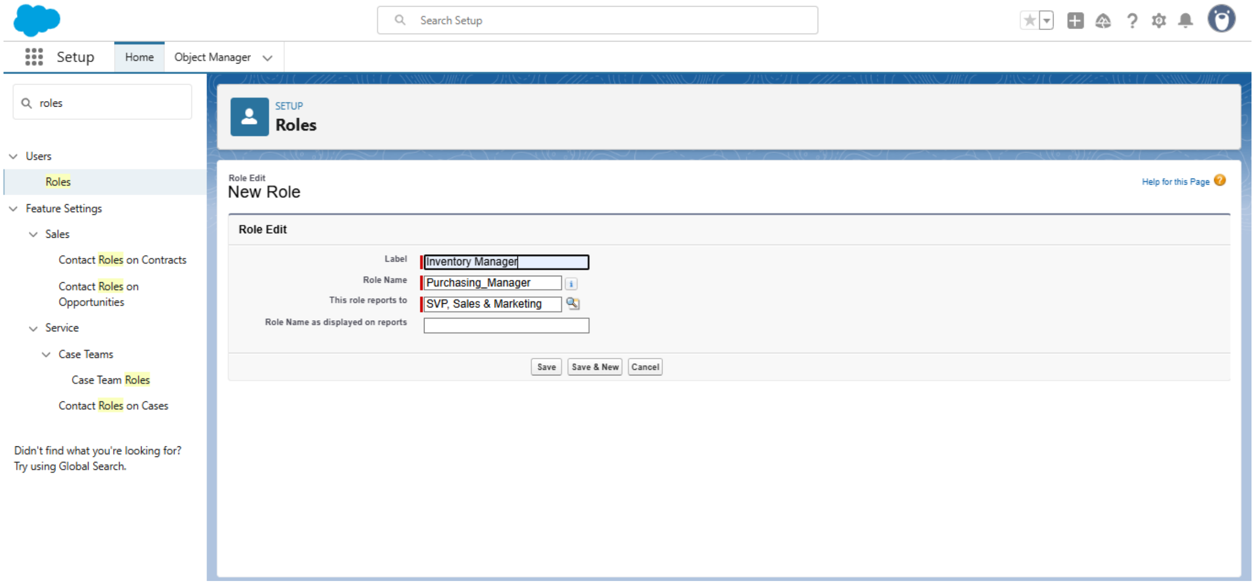


Role Edit

New Role

Role Edit

Label	Purchasing Manager
Role Name	Purchasing_Manager
This role reports to	SVP, Sales & Marketing
Role Name as displayed on reports	



Role Edit

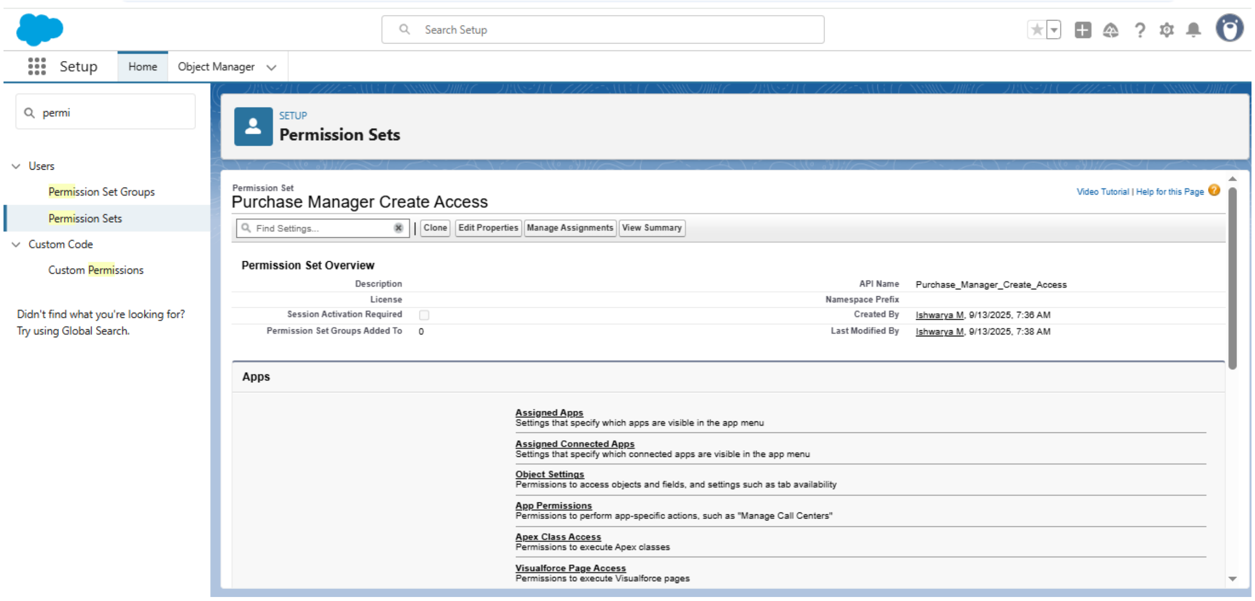
New Role

Role Edit

Label	Inventory Manager
Role Name	Purchasing_Manager
This role reports to	SVP, Sales & Marketing
Role Name as displayed on reports	

Milestone 12 - Permission Sets

Create a Permission Set.



Permission Set

Purchase Manager Create Access

Permission Set Overview

Description		API Name	Purchase_Manager_Create_Access
License		Namespace Prefix	
Session Activation Required	□	Created By	Ishwarya M, 9/13/2025, 7:36 AM
Permission Set Groups Added To	0	Last Modified By	Ishwarya M, 9/13/2025, 7:38 AM

Apps

Assigned Apps
Settings that specify which apps are visible in the app menu

Assigned Connected Apps
Settings that specify which connected apps are visible in the app menu

Object Settings
Permissions to access objects and fields, and settings such as tab availability

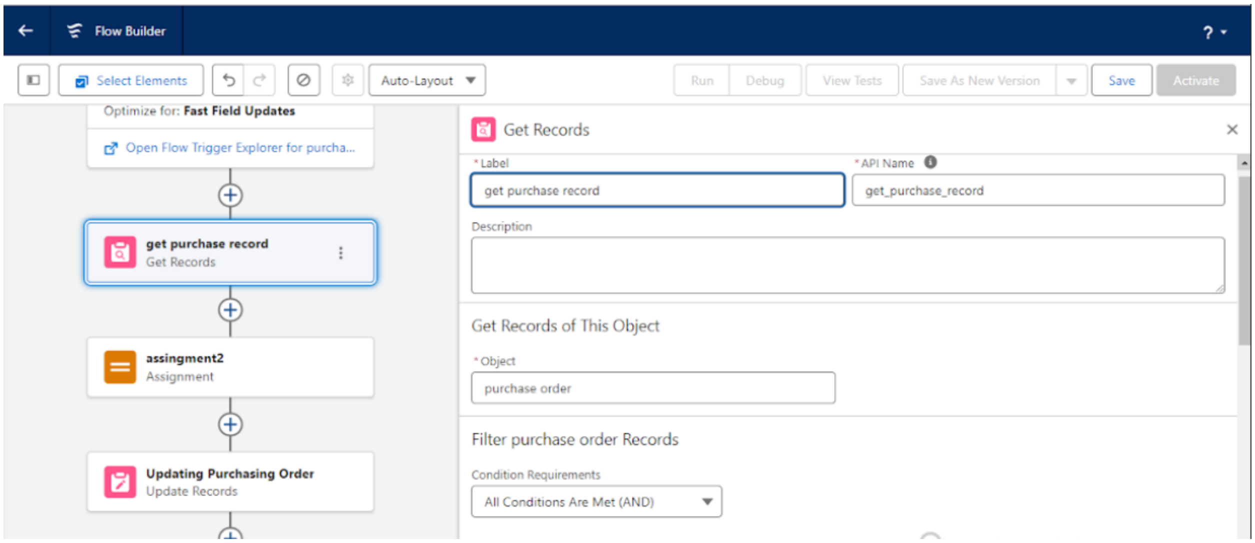
App Permissions
Permissions to perform app-specific actions, such as "Manage Call Centers"

Apex Class Access
Permissions to execute Apex classes

Visualforce Page Access
Permissions to execute Visualforce pages

Milestone 13 – Flows

Create Flow to update the Actual Delivery Date.



Label: get purchase record

API Name: get_purchase_record

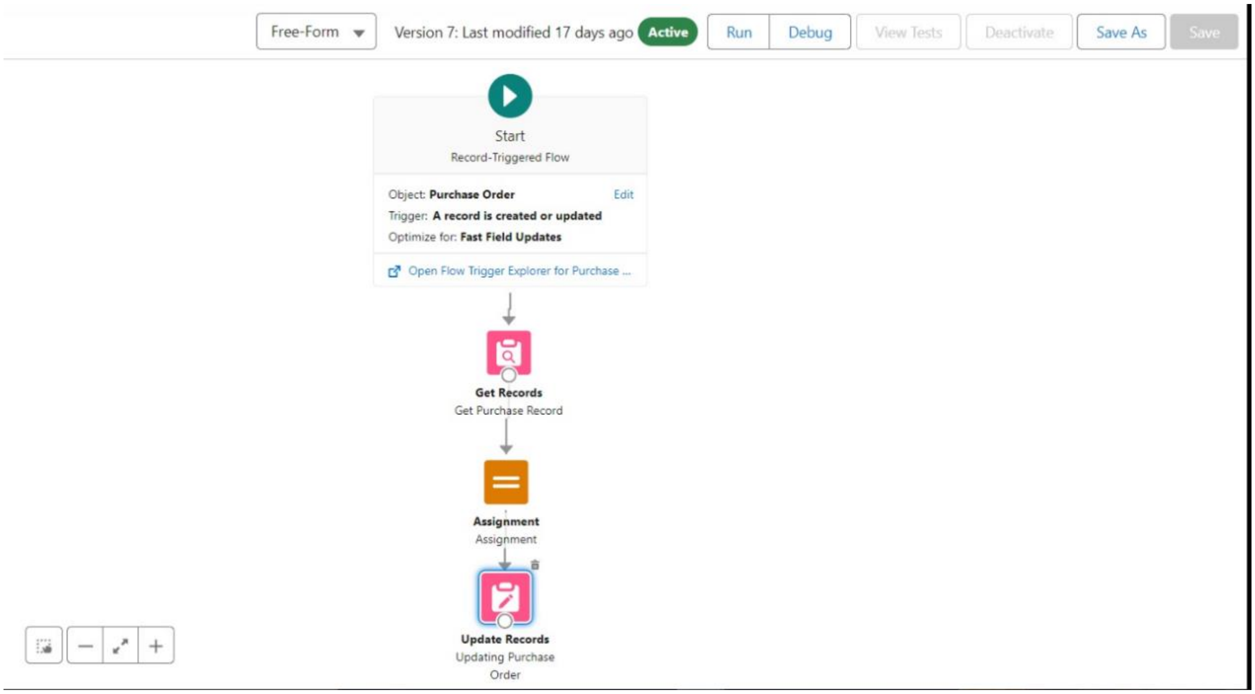
Description

Get Records of This Object

Object: purchase order

Filter purchase order Records

Condition Requirements: All Conditions Are Met (AND)



Object: Purchase Order

Trigger: A record is created or updated

Optimize for: Fast Field Updates

Create a Trigger to Calculate total amount on Order Item.

Create an Apex Trigger:

```
trigger CalculateTotalAmountTrigger on Order_Item__c
(after insert, after update, after delete, after undelete) {
    // Call the handler class to handle the logic
    CalculateTotalAmountHandler.calculateTotal(Trigger.new, Trigger.old, Trigger.isInsert, Trigger.isUpdate,
Trigger.isDelete, Trigger.isUndelete);
}
```

Step 4:

i) In the Developer Console window, go to the top menu and click on "File".

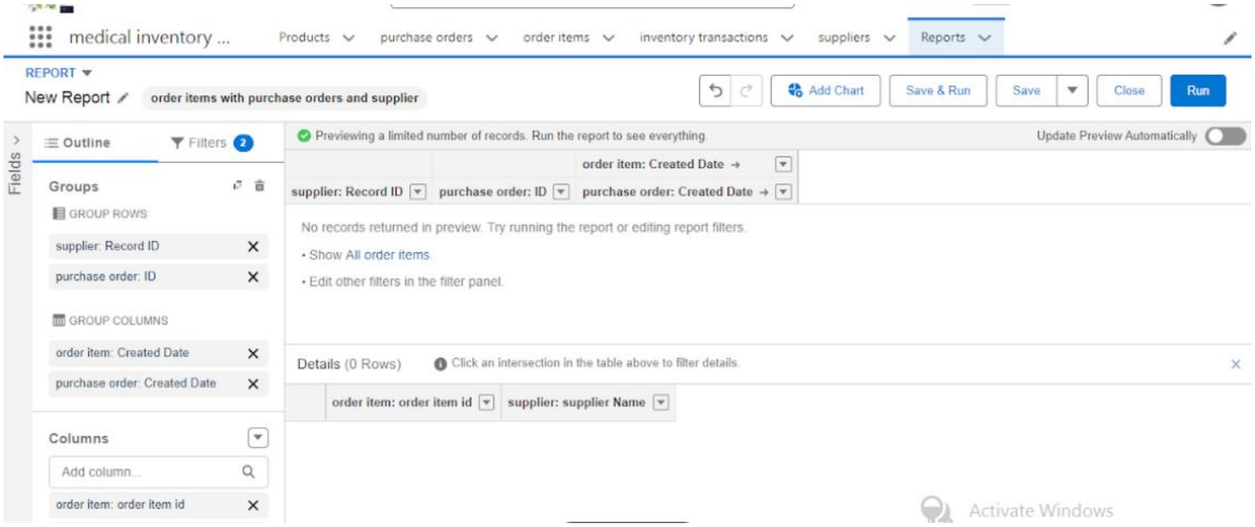
ii)Select New: From the dropdown menu under "File", select "New".

iii)Choose Apex Class: Name it
as CalculateTotalAmountHandler

```
 public class CalculateTotalAmountHandler {

        // Method to calculate the total amount for Purchase
Orders based on related Order Items

    public static void calculateTotal(List<Order_Item__c>
newItems, List<Order_Item__c> oldItems, Boolean
isInsert, Boolean isUpdate, Boolean isDelete, Boolean
isUndelete)

    // Collect Purchase Order IDs affected by changes in
Order_Item__c records

        Set<Id> parentIds = new Set<Id>();

                // For insert, update, and undelete scenarios

        if (isInsert || isUpdate || isUndelete) {

            for (Order_Item__c ordItem : newItems) {

                parentIds.add(ordItem.Purchase_Order_Id__c);
            }
        }
        // For update and delete scenarios
        if (isUpdate || isDelete) {
            for (Order_Item__c ordItem : oldItems) {
                parentIds.add(ordItem.Purchase_Order_Id__c);
            }
        }
       // Calculate the total amounts for affected Purchase
Orders
        Map<Id, Decimal> purchaseToUpdateMap = new
Map<Id, Decimal>
 if (!parentIds.isEmpty()) {
            // Perform an aggregate query to sum the
Amount__c for each Purchase Order
            List<AggregateResult> aggrList = [
                SELECT Purchase_Order_Id__c,
SUM(Amount__c) totalAmount
                FROM Order_Item__c
                WHERE Purchase_Order_Id__c IN :parentIds
                GROUP BY Purchase_Order_Id__c
            ];
                    // Map the result to Purchase Order IDs
            for (AggregateResult aggr : aggrList) {
                Id purchaseOrderId =
(Id)aggr.get('Purchase_Order_Id__c');
                Decimal totalAmount =
(Decimal)aggr.get('totalAmount');
                purchaseToUpdateMap.put(purchaseOrderId,
totalAmount);
            }
            // Prepare Purchase Order records for update
            List<Purchase_Order__c> purchaseToUpdate =
new List<Purchase_Order__c>();
            for (Id purchaseOrderId :
purchaseToUpdateMap.keySet()) {
                Purchase_Order__c purchaseOrder = new
Purchase_Order__c(Id = purchaseOrderId,
Total_Order_cost__c =
purchaseToUpdateMap.get(purchaseOrderId));
            purchaseToUpdate.add(purchaseOrder);
         }
       // Update Purchase Orders if there are any changes
         if (!purchaseToUpdate.isEmpty()) {
            update purchaseToUpdate;
         }
      }
   }
}
```

Save it.

Milestone 15 - Reports



New Report

order items with purchase orders and supplier

Previewing a limited number of records. Run the report to see everything.

Groups

GROUP ROWS

supplier: Record ID

purchase order: ID

GROUP COLUMNS

order item: Created Date

purchase order: Created Date

Columns

Add column...

order item: order item id

		order item: Created Date →
supplier: Record ID	purchase order: ID	purchase order: Created Date →

No records returned in preview. Try running the report or editing report filters.

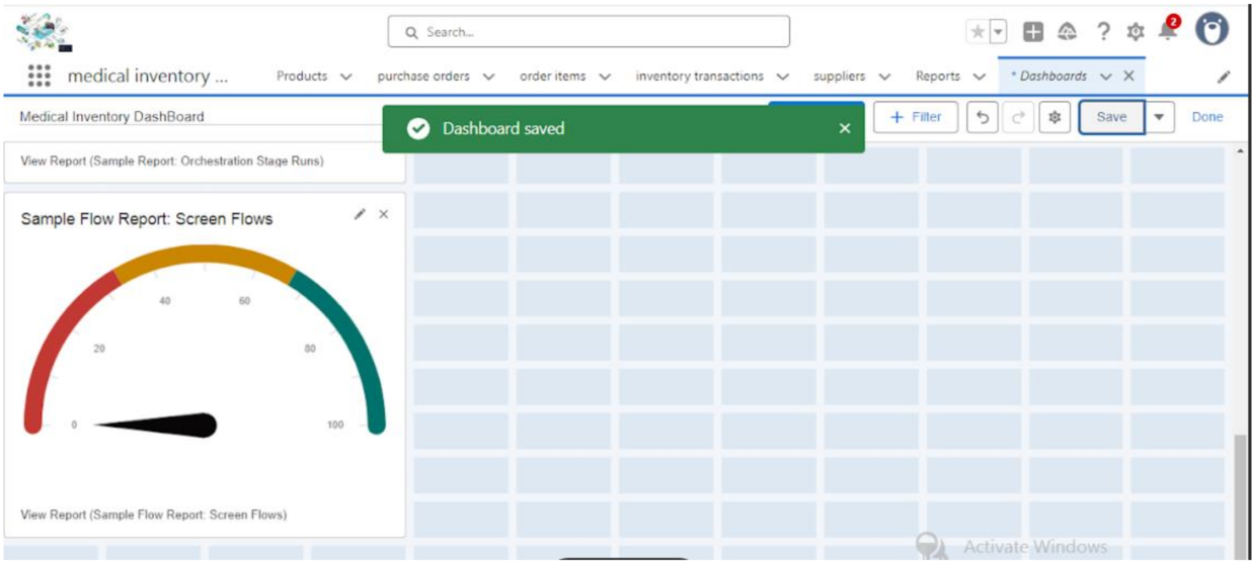
- Show All order items.
- Edit other filters in the filter panel.

Details (0 Rows)

Click an intersection in the table above to filter details.

order item: order item id	supplier: supplier Name

Milestone 16 - Dashboards



Medical Inventory DashBoard

Dashboard saved

View Report (Sample Report: Orchestration Stage Runs)

Sample Flow Report: Screen Flows

View Report (Sample Flow Report: Screen Flows)