

Medical Inventory Management

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

College Code : burbd

TEAM ID: NM2025TMID21062

TEAM MEMBERS: 5

Team LeaderName : ISHWARYA M

Email : ishwaryam2023bca@gmail.com

Team Member : KIRONIKASRI S

Email : kironikasri@gmail.com

Team Member: MOWNISHA R

Email : mownishmownish80@gmail.com

Team Member: SHALINI T

Email : shalinit2023bca@gmail.com

Team Member: PRIYADHARSHINI V

Email : priyadharshiniv2023bca@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 :

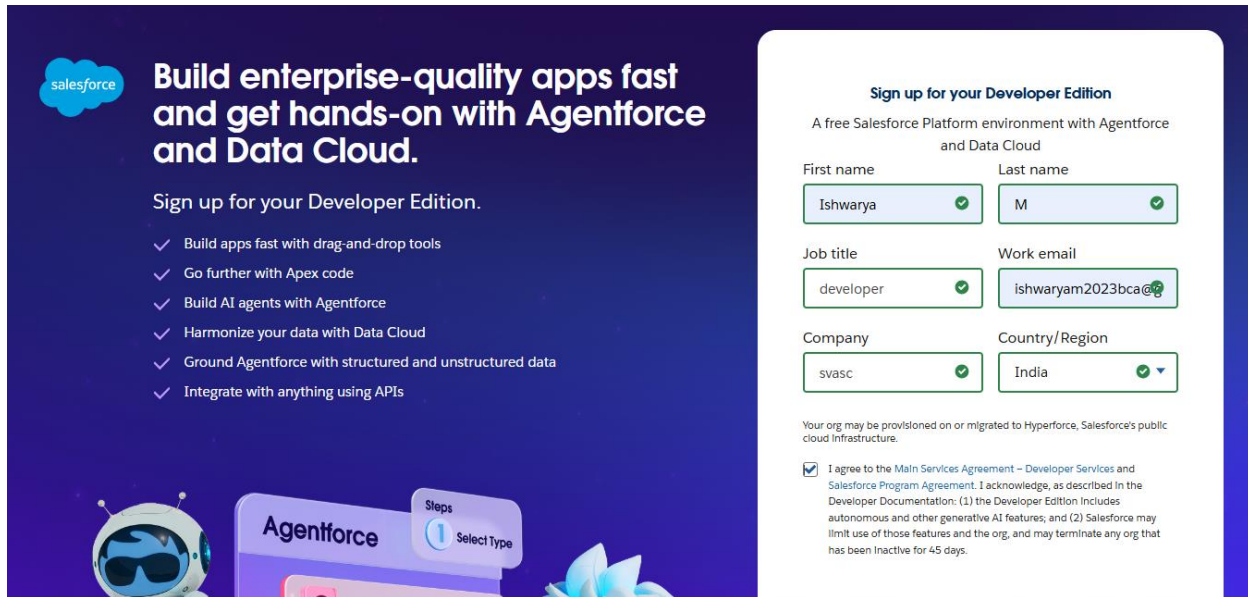
This project is a comprehensive Salesforce application to streamline and manage various operational aspects of medical inventory. The system aims to efficiently maintain supplier details, manage purchase orders, track product details and transactions, and monitor the expiry dates of products. Maintain 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 :



The screenshot shows the Salesforce Developer Edition sign-up page. On the left, there's a dark blue banner with the Salesforce logo and text: "Build enterprise-quality apps fast and get hands-on with Agentforce and Data Cloud." Below this, it says "Sign up for your Developer Edition." and lists five benefits with checkmarks: "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", and "Integrate with anything using APIs". At the bottom of the banner is an illustration of a robot head and a document labeled "Agentforce" with a "Steps" section showing "1 Select Type".

On the right, the sign-up form is titled "Sign up for your Developer Edition" and describes it as "A free Salesforce Platform environment with Agentforce and Data Cloud". The form fields are as follows:

First name	Last name
Ishwarya	M

Job title	Work email
developer	ishwaryam2023bca@gmail.com

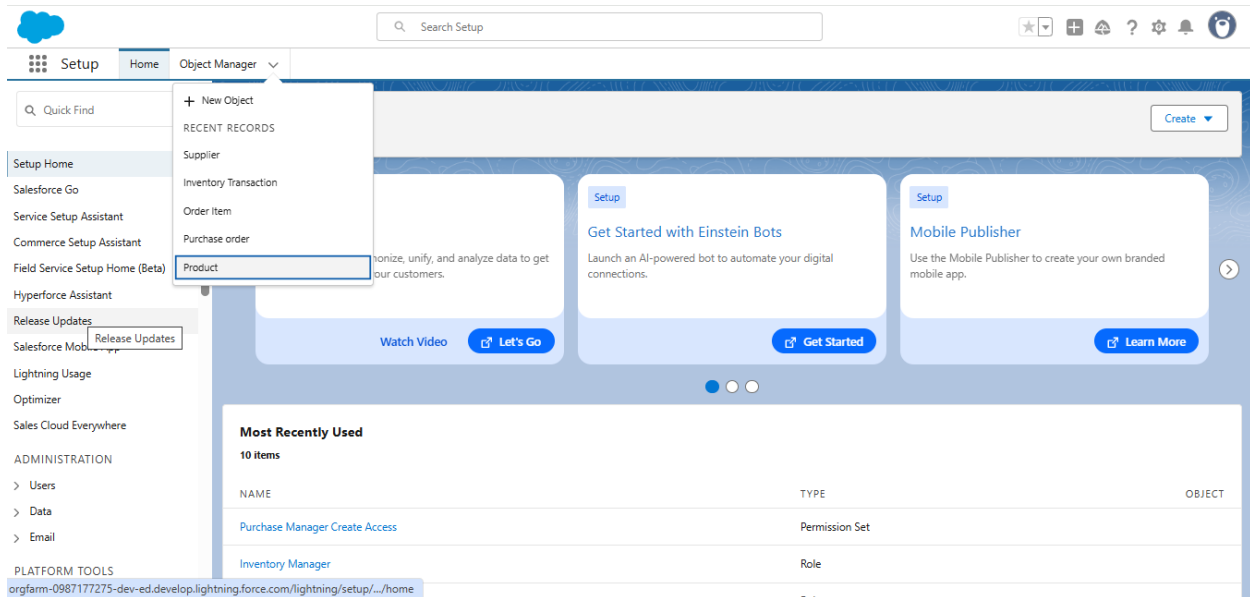
Company	Country/Region
svasc	India

Below the form, there is a note: "Your org may be provisioned on or migrated to Hyperforce, Salesforce's public cloud infrastructure." and a checkbox for agreement: "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." The checkbox is checked.

Click on sign me up after filling these.

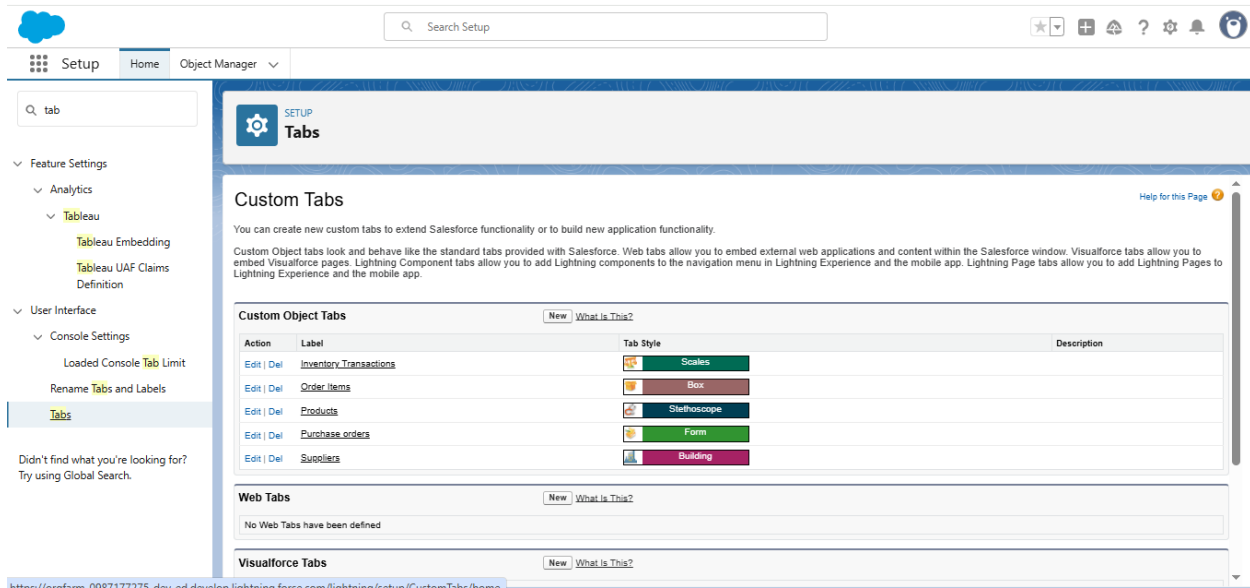
Milestone 2- Objects

Creating a Product Object

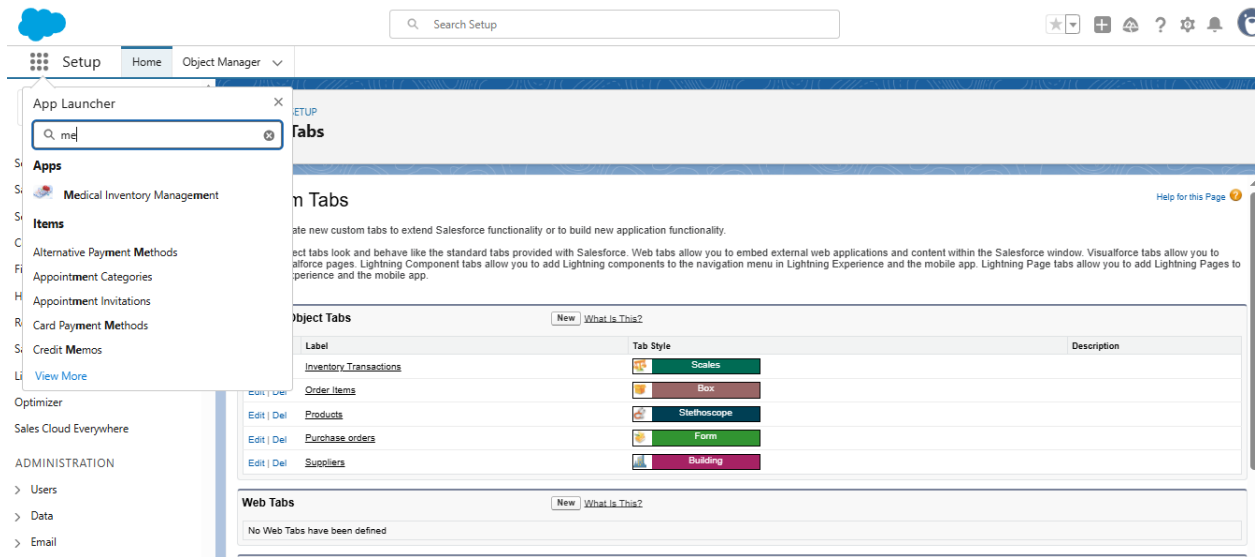


Milestone 3- Tabs

Creating a tab for Object

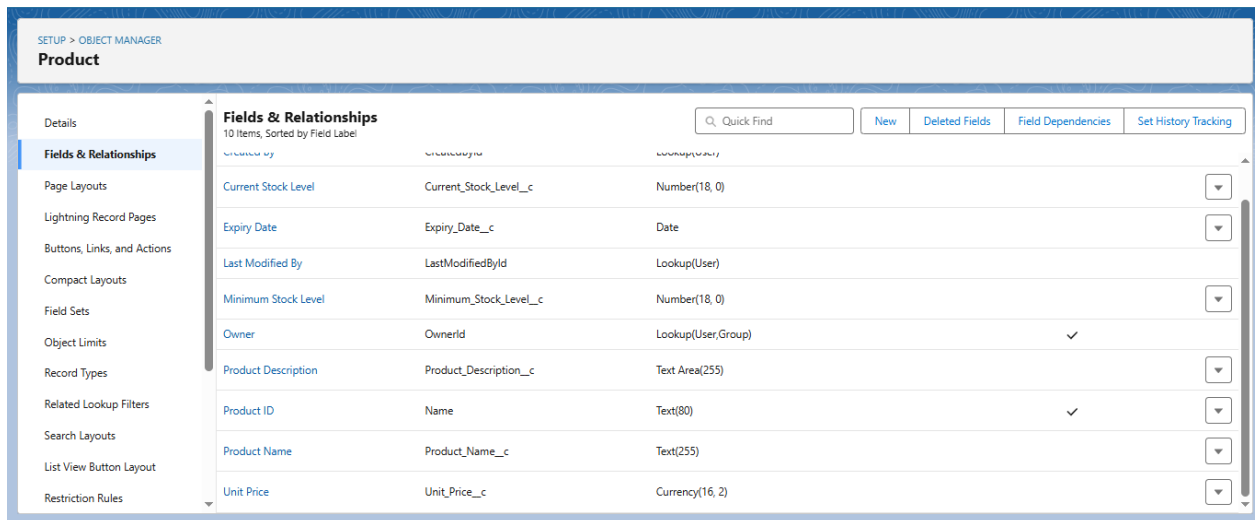


Milestone 4- The Lightning App



Milestone 5- Fields

Creating a Field in Product Object



Creating field in purchase order Object

Setup > Object Manager

Purchase order

Details

Fields & Relationships
11 Items, Sorted by Field Label

Quick Find

New Deleted Fields Field Dependencies Set History Tracking

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

Details

Fields & Relationships
9 Items, Sorted by Field Label

Quick Find

New Deleted Fields Field Dependencies Set History Tracking

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

Details

Fields & Relationships
8 Items, Sorted by Field Label

Quick Find: [] New Deleted Fields Field Dependencies Set History Tracking

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		

Left sidebar: 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.

Creating field in supplier Object

Setup > OBJECT MANAGER
Supplier

Details

Fields & Relationships
9 Items, Sorted by Field Label

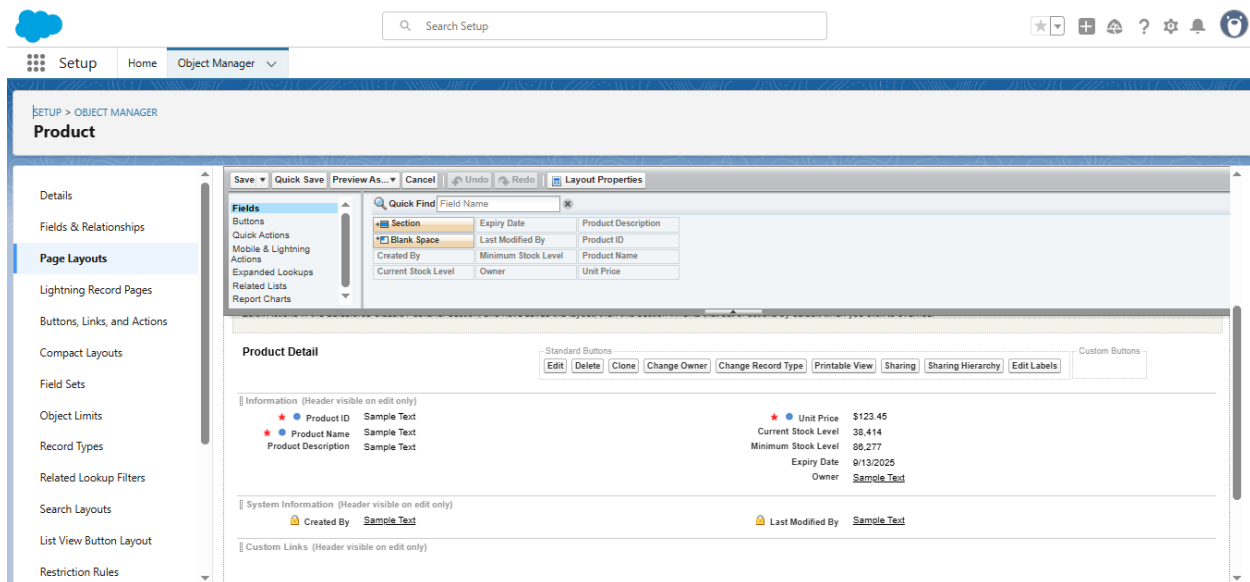
Quick Find: [] New Deleted Fields Field Dependencies Set History Tracking

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)		

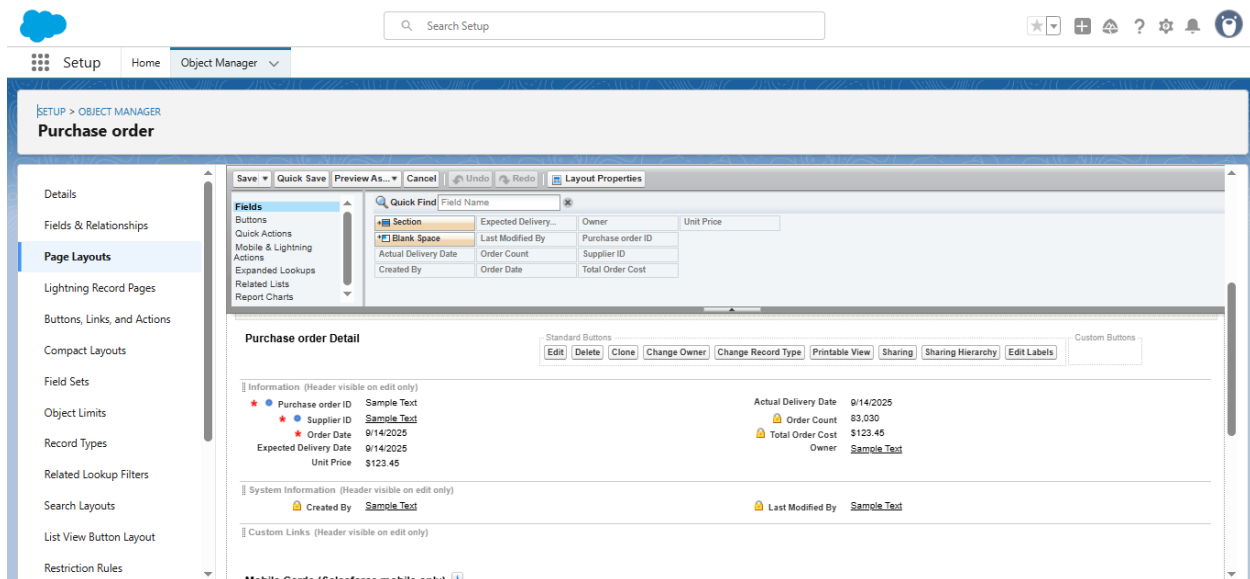
Left sidebar: Details, Fields & Relationships, Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, Related Lookup Filters, Search Layouts, List View Button Layout, Restriction Rules.

Milestone 6 -Editing of Page Layouts

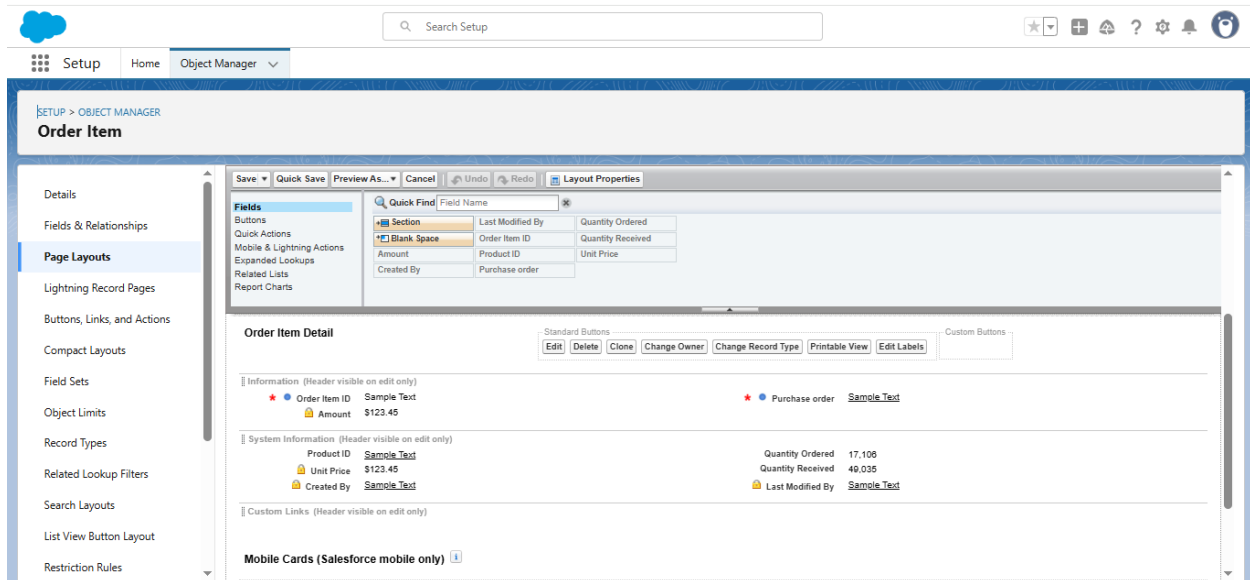
To edit a Page Layout in Product Object



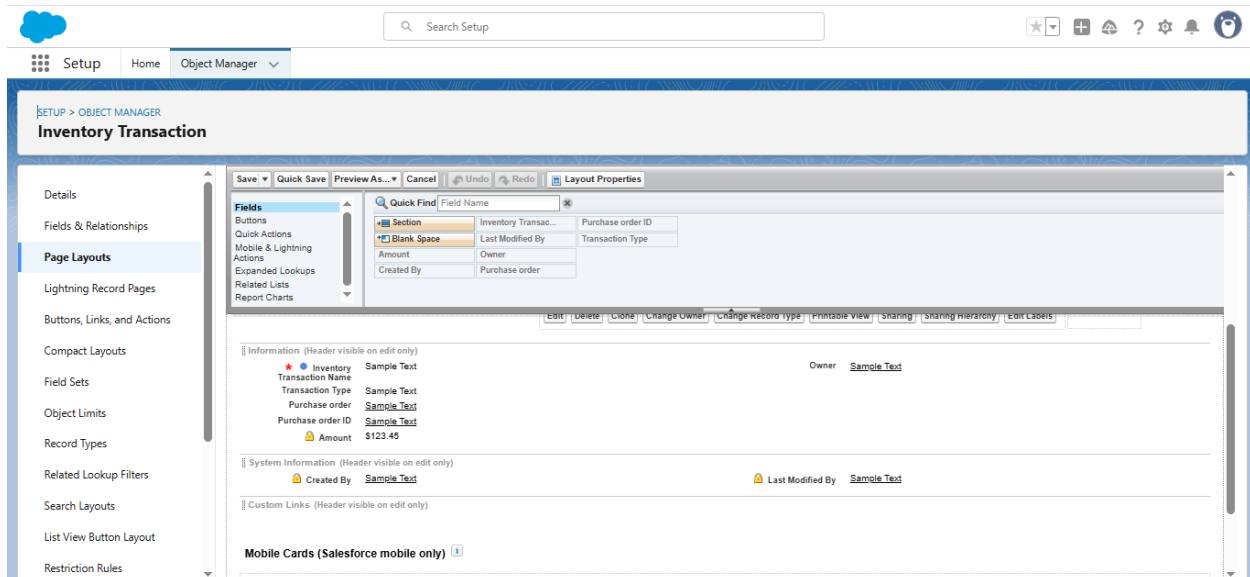
To edit a Page Layout in Purchase Order Object



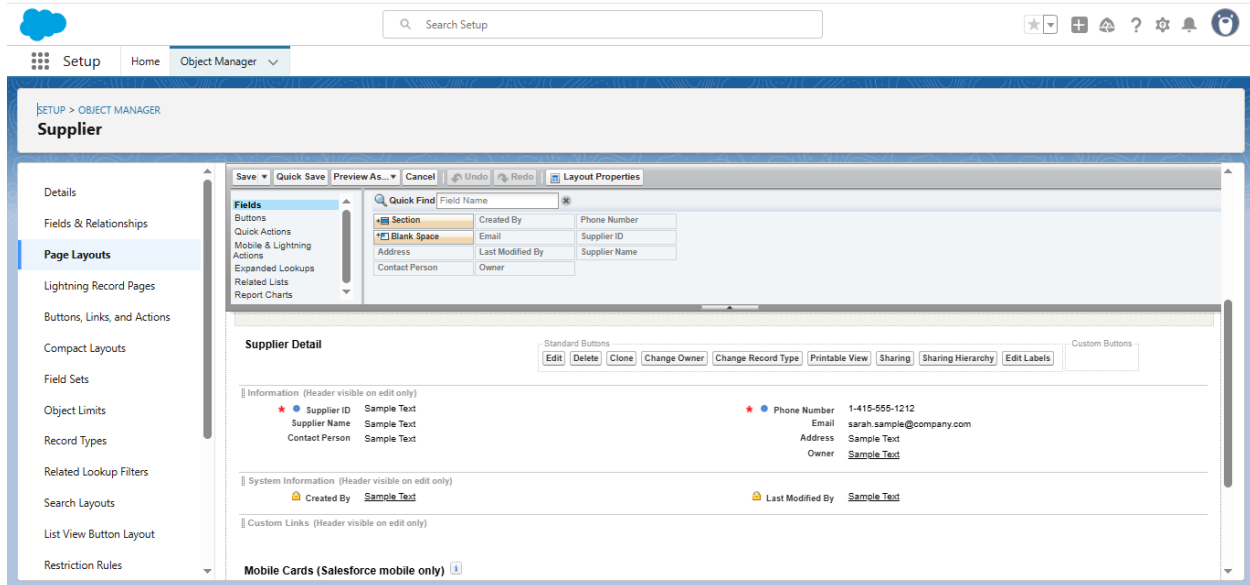
To edit a Page Layout in Order Item Object



To edit a Page Layout in Inventory Transaction Object

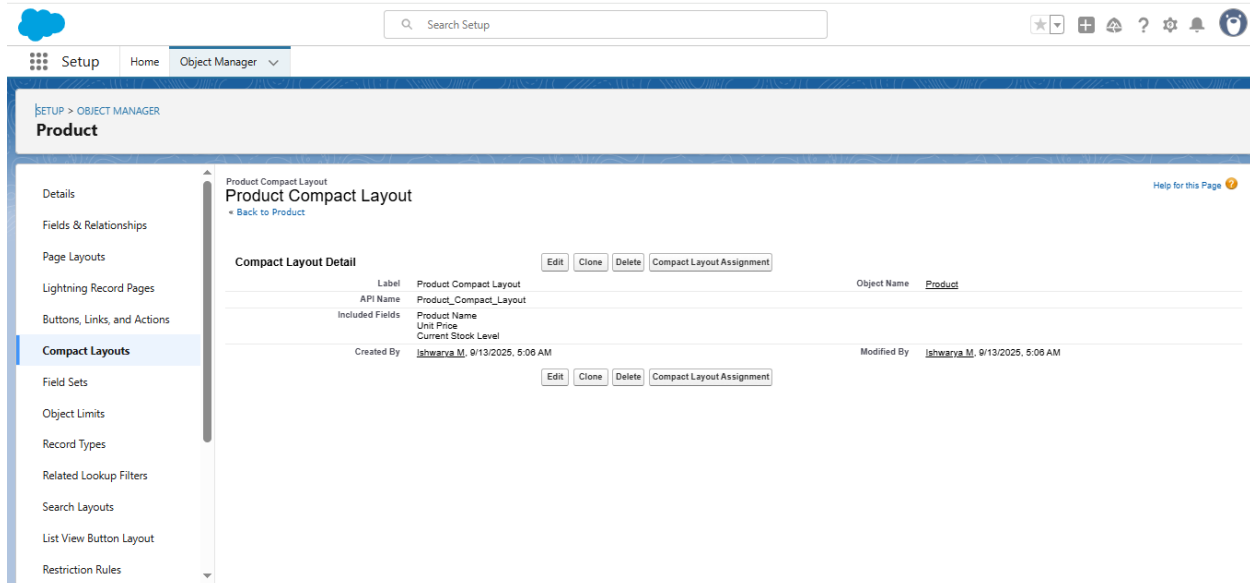


To edit a Page Layout in Supplier Object

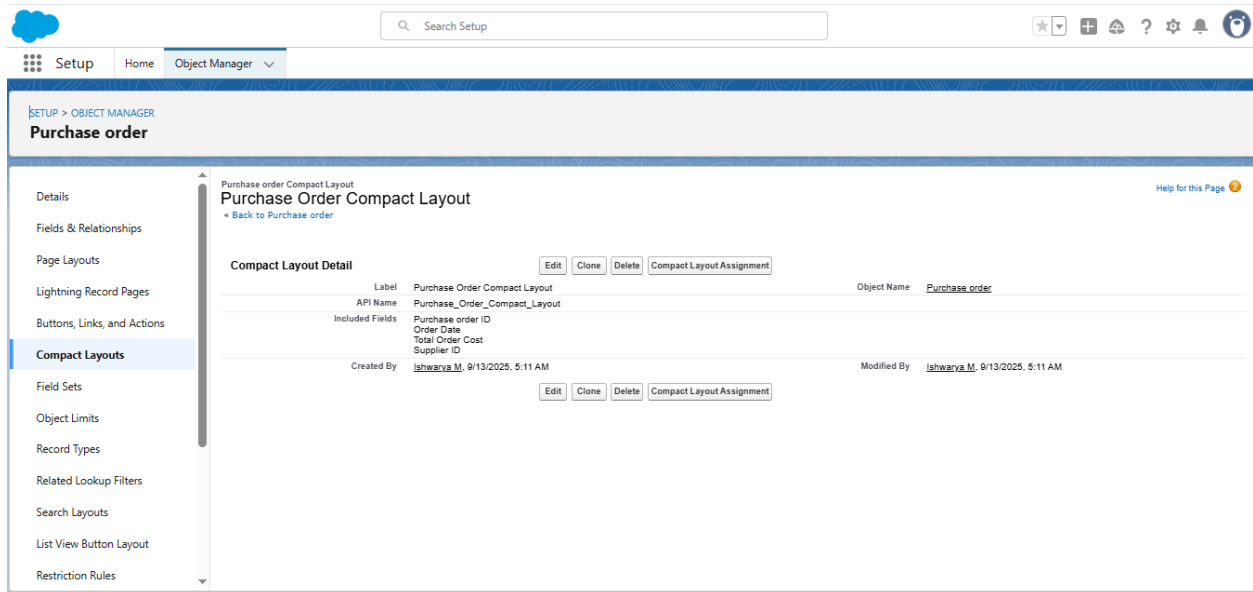


Milestone 7 - Compact Layouts

To create a Compact Layout to a Product Object

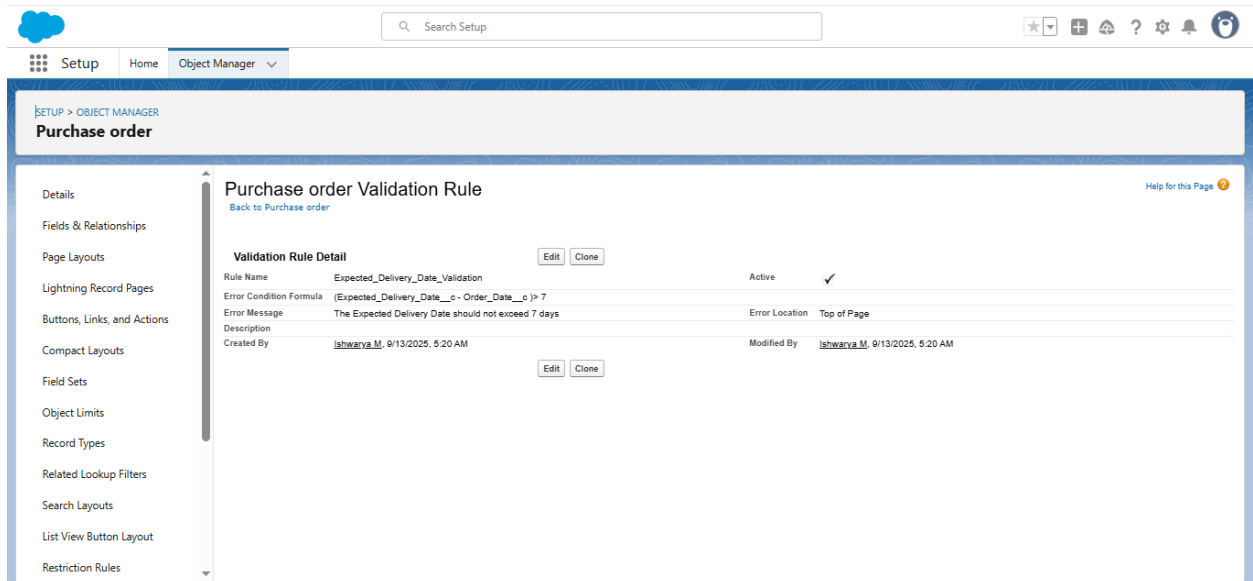


To create a Compact Layout to a Purchase Order Object



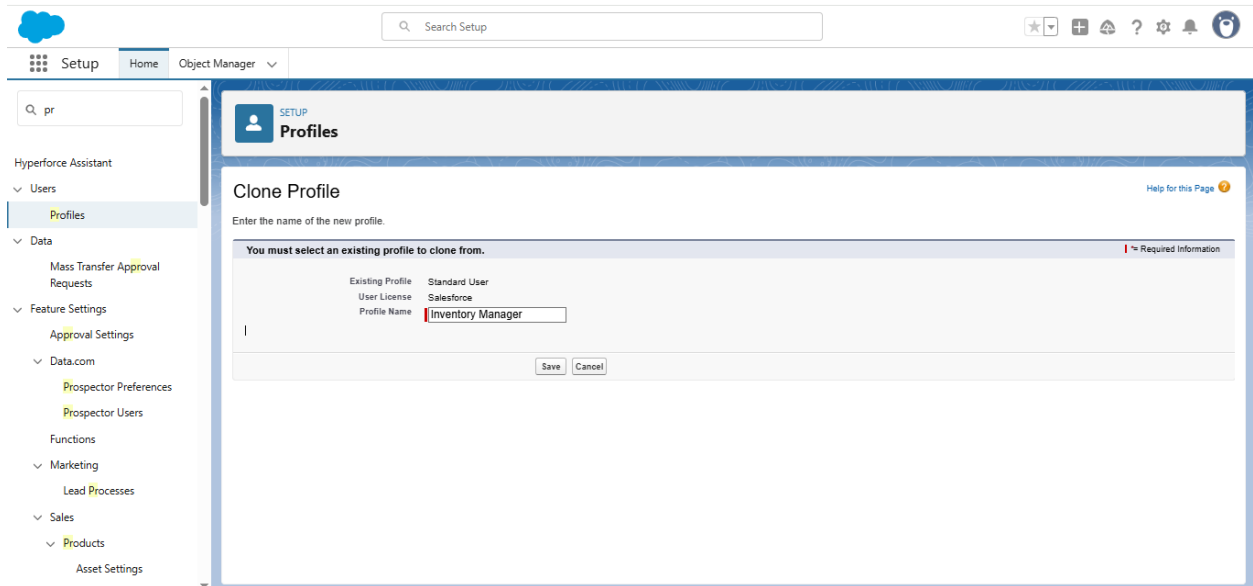
Milestone 8 - Validation Rules

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

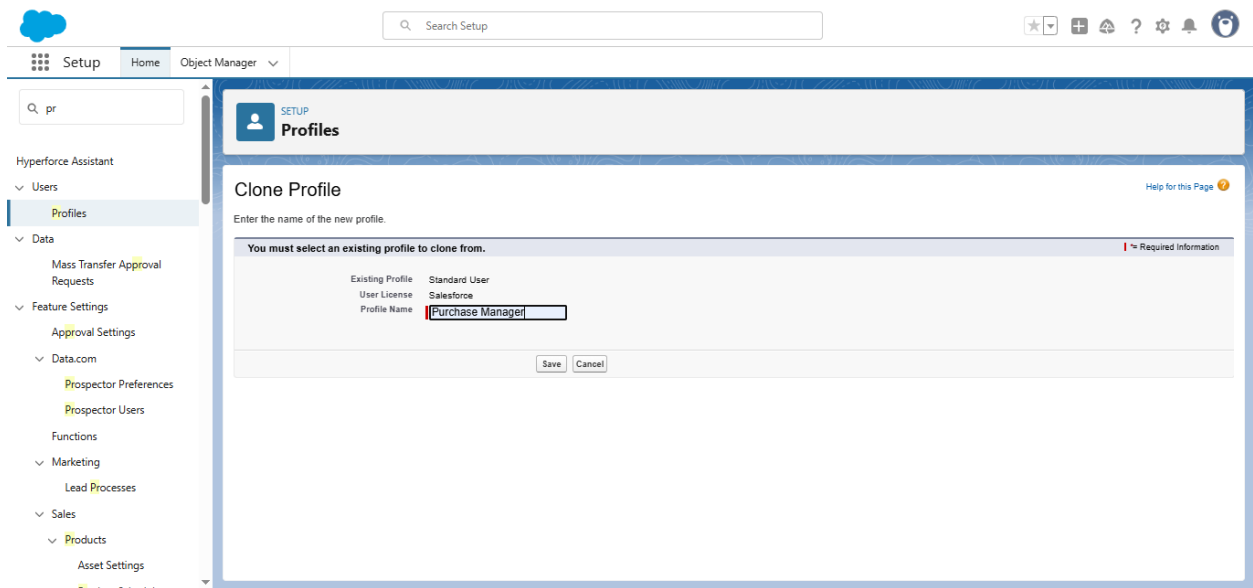


Milestone 9 - Profiles

To create an Inventory Manager Profile



To create an Purchase Manager Profile



Milestone 10 - Roles

Create a Purchasing Manager Role.

Cloud logo

Search Setup

Setup Home Object Manager

roles

Users

Roles

Feature Settings

Sales

Contact Roles on Contracts

Contact Roles on Opportunities

Service

Case Teams

Case Team Roles

Contact Roles on Cases

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

SETUP Roles

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

Save Save & New Cancel

Help for this Page

Cloud logo

Search Setup

Setup Home Object Manager

roles

Users

Roles

Feature Settings

Sales

Contact Roles on Contracts

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Case Team Roles

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Didn't find what you're looking for?
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SETUP Roles

Role Edit

New Role

Role Edit

Label Inventory Manager

Role Name Purchasing_Manager

This role reports to SVP, Sales & Marketing

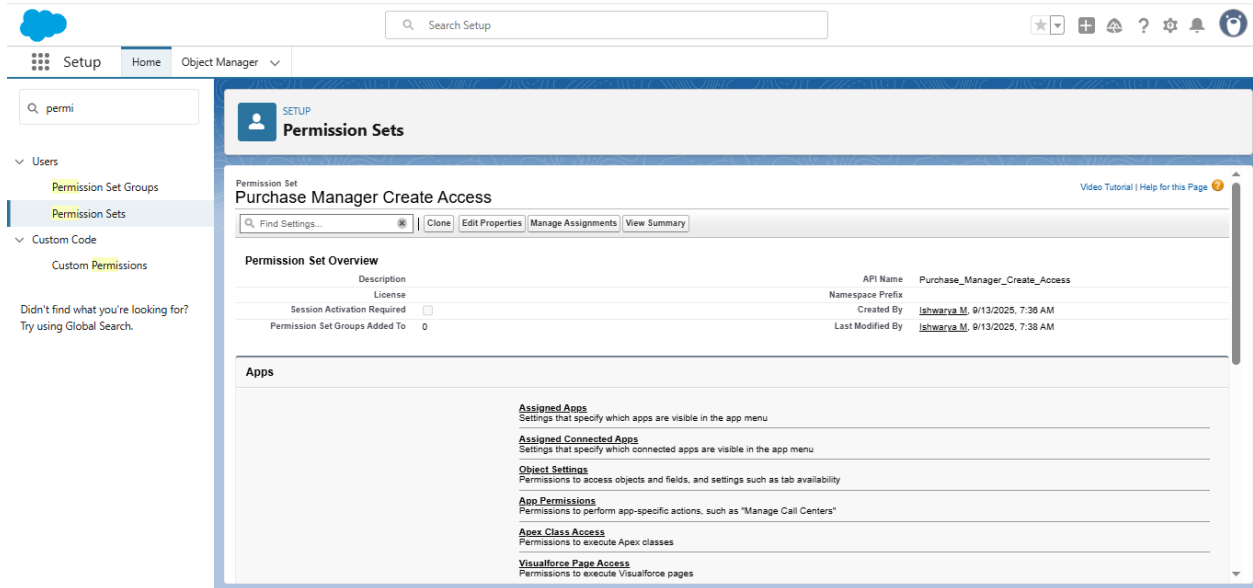
Role Name as displayed on reports

Save Save & New Cancel

Help for this Page

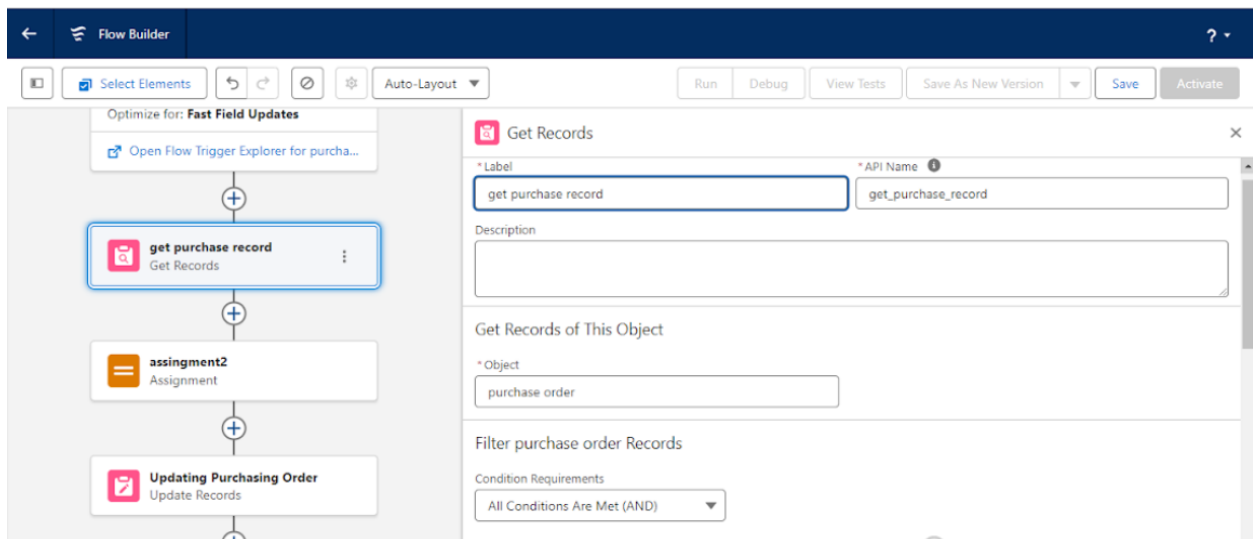
Milestone 12 - Permission Sets

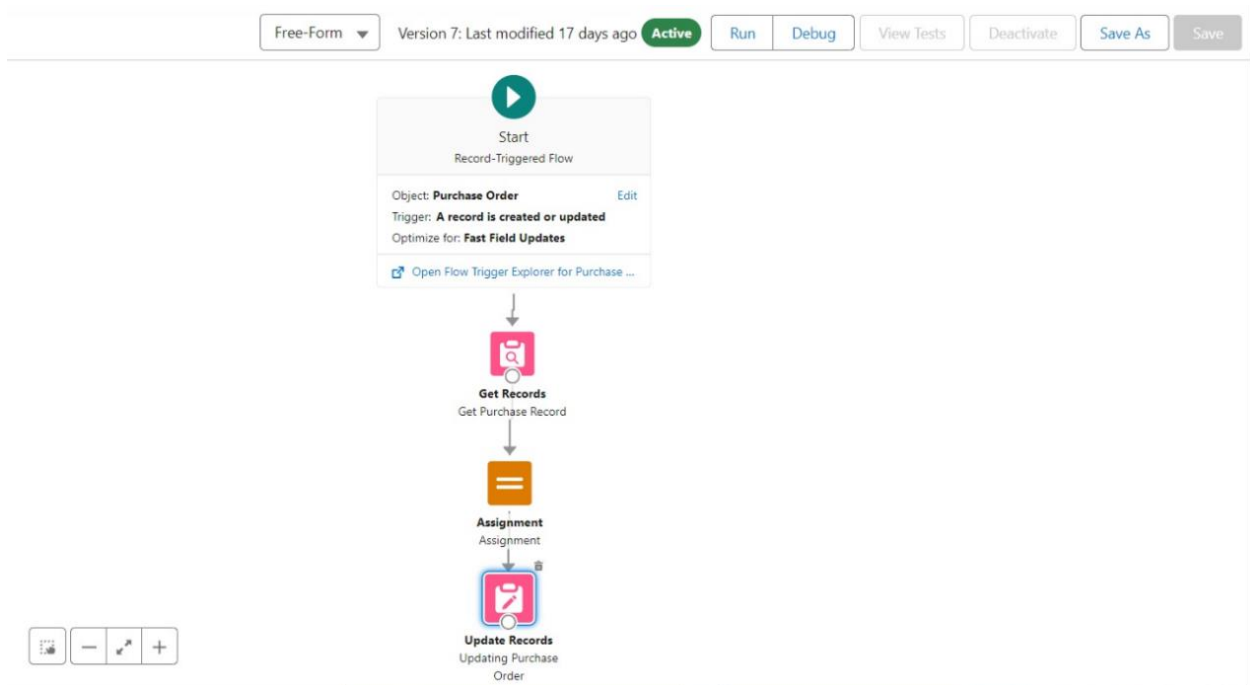
Create a Permission Set.



Milestone 13 – Flows

Create Flow to update the Actual Delivery Date.





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

medical inventory ... Products purchase orders order items inventory transactions suppliers Reports

REPORT New Report order items with purchase orders and supplier

order item: Created Date →

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

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

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

Outline Filters 2

Groups

GROUP ROWS

supplier: Record ID X

purchase order: ID X

GROUP COLUMNS

order item: Created Date X

purchase order: Created Date X

Columns

Add column...

order item: order item id X

Activate Windows

Milestone 16 - Dashboards

medical inventory ... Products purchase orders order items inventory transactions suppliers Reports Dashboards X

Medical Inventory DashBoard

View Report (Sample Report: Orchestration Stage Runs)

Dashboard saved

Sample Flow Report: Screen Flows

View Report (Sample Flow Report: Screen Flows)

Activate Windows