

Medical Inventory Management System

College Name: Akshaya College Of Arts and Science

College Code: brubw

TEAM ID: 025NM2025TMID24792

TEAM MEMBERS: 5

Team LeaderName: JASNA A

Email: 23bcajasana@acascbe.edu.in

Team Member1: LAKSHMI O

Email: 23bcalakshmi@acascbe.edu.in

Team Member2: ARTHI T

Email: 23bcaarthi@acascbe.edu.in

Team Member3: AJMAL SHEREEF

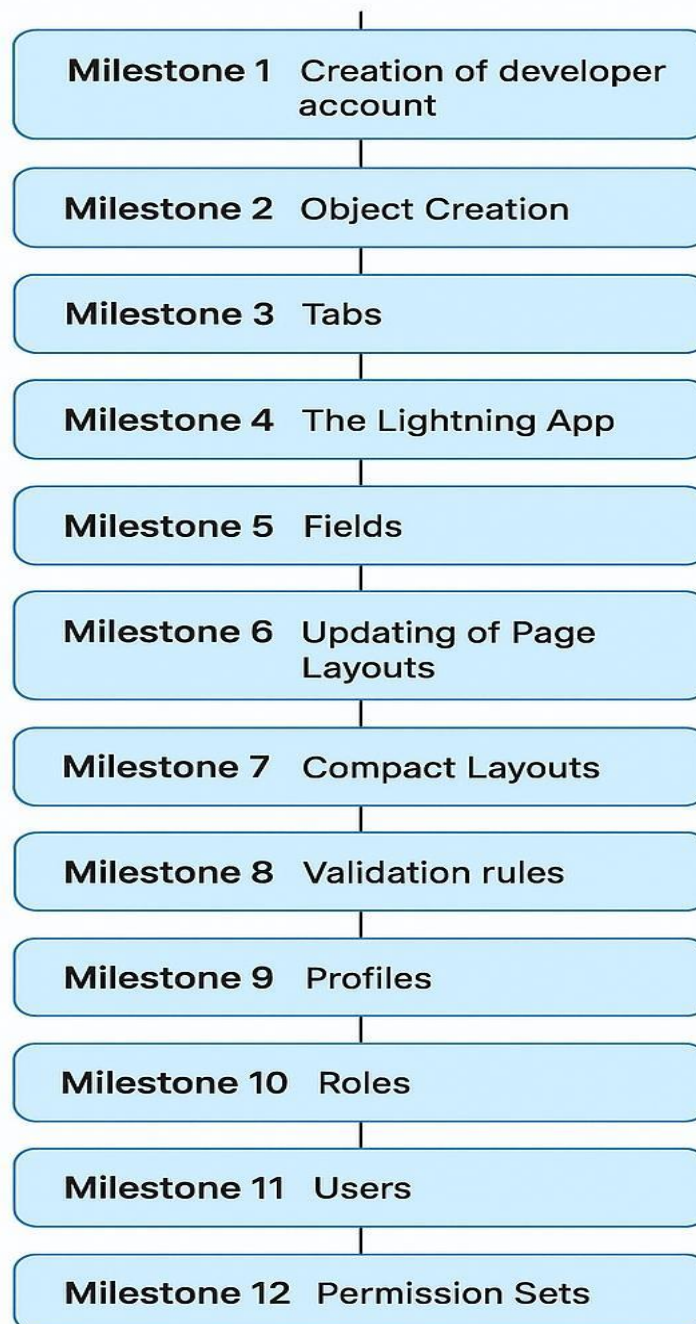
Email: 23bcaajmalshereef@acascbe.edu.in

Team Member4: MUHASIN T A

Email: 23bcamuhasin@acascbe.edu.in

Medical Inventory Management

Project Flow



DEVELOPMENT PHASE

Creating Developer Account

By using this Url : <https://developer.salesforce.com/signup>

2. Fill the sign-up form:

- First name / Last name
- Job title
- Work email (this becomes your username)
- Company
- Country/Region

3. Check the checkbox to accept terms, complete the CAPTCHA, click Sign Me Up.


4. Check your email for the activation message from Salesforce, click the verification link, and set your password.

5. Log in to your Developer Org.

Enter Setup → Object Manager

1. After login, click the Gear icon → Setup (top right).


2. In Setup, go to Object Manager (top-left search “Object Manager” if you don’t see it).



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First name	Last name
<input type="text" value="Jasna"/>	<input type="text" value="A"/>
Job title	Work email
<input type="text" value="Developer"/>	<input type="text" value="23bcajasana@aca"/>
Company	Country/Region
<input type="text" value="Akshaya college o"/>	<input type="text" value="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.

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☒ I'm not a robot
 

[Sign Me Up](#)

- Created Objects : Product, Purchase Order, Order Item, Inventory Transaction and Supplier objects.

- Steps to create one custom object (repeat for each)

1. In Object Manager click Create → Custom Object (or New).

2. Fill object details:

- Label: e.g., Product

- Plural Label: Products•Object Name (API): Product__c (Salesforce sets this automatically)

- Record Name: choose Text (e.g., Product Name) or Auto Number for documents like PurchaseOrder (PO-0001)
- Check options: Allow Reports, Allow Activities, Track Field History if needed.
- Save.

Setup

Home

Object Manager

SETUP > OBJECT MANAGER

Product

Details

Fields & Relationships

Page Layouts

Lightning Record Pages

Buttons, Links, and Actions

Compact Layouts

Field Sets

Details

Description

API Name

Product__c

Custom

✓

Singular Label

Product

Enable Reports

✓

Track Activities

Track Field History

EditDelete

Setup

Home

Object Manager

SETUP > OBJECT MANAGER

Purchase Order

Details

Fields & Relationships

Page Layouts

Lightning Record Pages

Buttons, Links, and Actions

Compact Layouts

Field Sets

Details

Description

API Name

Purchase_Order__c

Custom

✓

Singular Label

Purchase Order

Enable Reports

✓

Track Activities

Track Field History

EditDelete

[Setup](#)[Home](#)[Object Manager](#) [SETUP > OBJECT MANAGER](#)

Order Item

Details

[Fields & Relationships](#)[Page Layouts](#)[Lightning Record Pages](#)[Buttons, Links, and Actions](#)[Compact Layouts](#)[Field Sets](#)

Details

[Edit](#)[Delete](#)

Description

API Name

Order_Item__c

Custom

✓

Singular Label

Order Item

Enable Reports

✓

Track Activities

Track Field History

[Setup](#)[Home](#)[Object Manager](#) [SETUP > OBJECT MANAGER](#)

Inventory Transaction

Details

[Fields & Relationships](#)[Page Layouts](#)[Lightning Record Pages](#)[Buttons, Links, and Actions](#)[Compact Layouts](#)[Field Sets](#)

Details

[Edit](#)[Delete](#)

Description

API Name

Inventory_Transaction__c

Custom

✓

Singular Label

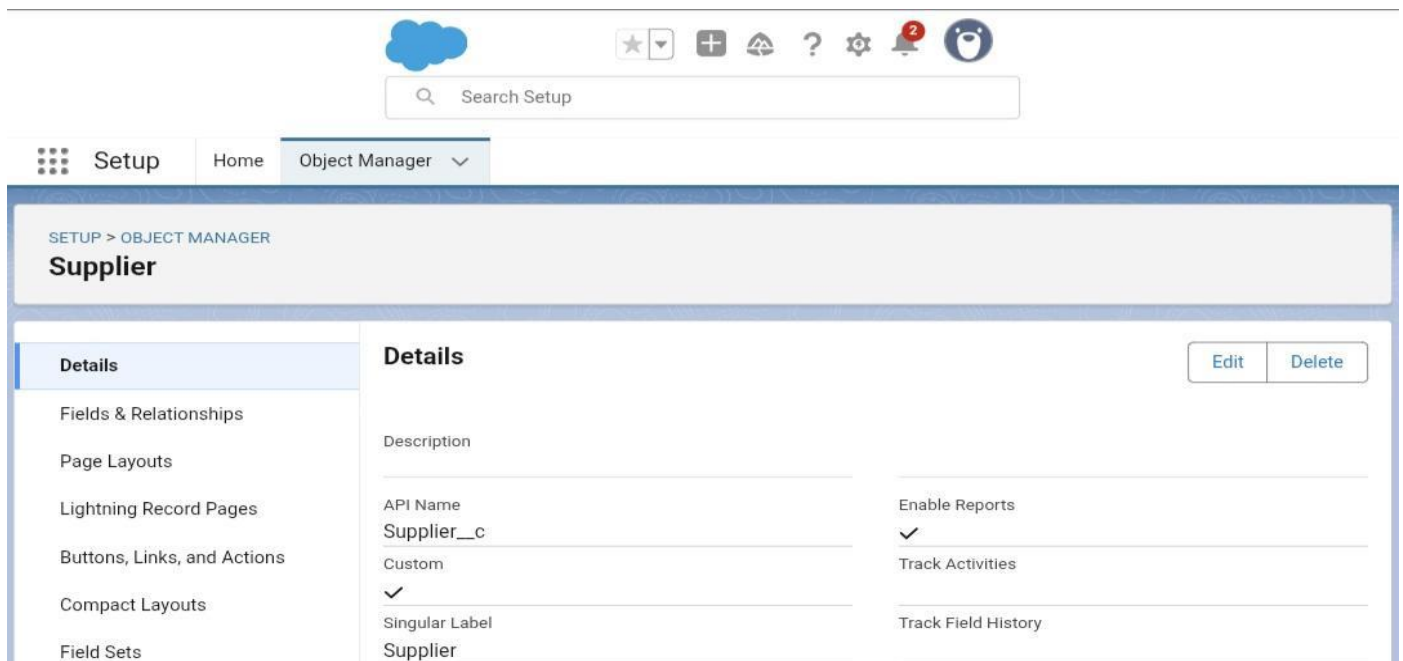
Inventory Transaction

Enable Reports

✓

Track Activities

Track Field History



Add fields to each object

- Go into the object (e.g., Product) → Fields & Relationships New → choose the type → Next → enter label/API name → Save.

1-Product

SKU (Text, unique)

- Description (Long Text Area)
- Price (Currency)
- Quantity On Hand (Number)
- Reorder Level (Number)

2-Supplier (Lookup→ Supplier object)

- Supplier Name (Record name)

- Contact Number (Phone)

- Email (Email)

- Address (Text Area)

3-Purchase Order

- PO Number (Auto Number)

- Supplier (Lookup → Supplier)

4-Order Date (Date)

- Status (Picklist: Draft, Ordered, Received, Cancelled)

- Total Amount (Currency) – this can be a roll-up summary from Order Items

5-Product (Lookup or Master-Detail → Product)

Purchase Order (Master-Detail → Purchase Order) use Master-Detail if you want roll-up summaries on Purchase Order

Quantity (Number)

Unit Price (Currency)

Line Total (Formula: Quantity * Unit Price)

6-Inventory Transaction

Transaction ID (Auto Number)

Product (Lookup → Product)

- Quantity (Number)

- Transaction Type (Picklist: IN, OUT, TRANSFER)

- Reference (Lookup → Purchase Order or Order Item)

7-Date (Date/Time)

SETUP > OBJECT MANAGER

Purchase Order

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

Scoping Rules

Object Access

Triggers

Field

Quick Find

New

Deleted Fields

Field Dependencies

11 Items, Sorted by Field Label

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD
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)	
Product ID	Name	Text(80)	
Purchase Order Id	Purchase_Order_Id__c	Auto Number	
Supplier ID	Supplier_ID__c	Lookup(Supplier)	
Total Order Cost	Total_Order_Cost__c	Currency(18, 0)	

Setup

Home

Object Manager

SETUP > OBJECT MANAGER

Supplier

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

Scoping Rules

Object Access

Field

Quick Find

New

Deleted Fields

Field Dependencies

10 Items, Sorted by Field Label

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD
Address	Address__c	Text Area(255)	
Contact Person	Contact_Person__c	Text(80)	
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	
Product ID	Name	Text(80)	
Supplier Id	Supplier_Id__c	Auto Number	
Supplier Name	Supplier_Name__c	Text(80)	


Creating Tabs for Product Object :

Setup → Tabs → New Custom Tab for Product, Purchase Order, etc.

bedding
- Claims

le Tab Limit
I Labels

oking for? Try

 **SETUP**
Tabs

Custom Tabs






[Help for this Page](#)

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	Inventory Transactions	 Scales	
Edit Del	Order Items	 Box	
Edit Del	Products	 Stethoscope	
Edit Del	Purchase Orders	 Form	
Edit Del	Suppliers	 Building	

Create a Compact Layout to a Product Object :

Configure Page Layouts & Compact Layouts

- Object → Page Layouts → drag fields/sections → add Related Lists (e.g., Order Items on Purchase Order page).

The screenshot shows the Salesforce Setup interface. The top navigation bar includes 'Setup', 'Home', and 'Object Manager'. The breadcrumb trail is 'SETUP > OBJECT MANAGER'. The main heading is 'Purchase Order'. The left sidebar contains a list of configuration options: 'Details', 'Fields & Relationships', 'Page Layouts', 'Lightning Record Pages', 'Buttons, Links, and Actions', 'Compact Layouts' (which is highlighted), 'Field Sets', and 'Object Limits'. The main content area is titled 'Purchase Order Compact Layout' with a subtitle 'Purchase Order Compact Layout' and a link '« Back to Purchase Order'. Below this is a table with the following data:

Compact Layout Detail		Edit		Clone		Delete		Compact Layout Assignment	
Label	Purchase Order Compact Layout	Object Name	Purchase Order						
API Name	Purchase_Order_Compact_Layout								
Included Fields	Order Date Supplier ID Total Order Cost								
Created By	Jasna A , 8/29/2025, 7:03 AM			Modified By	Jasna A , 8/29/2				

At the bottom of the table, there are buttons for 'Edit', 'Clone', 'Delete', and 'Compact Layout Assignment'.

Setup

Home

Object Manager

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

Scoping Rules

Product Compact Layout

Product Compact Layout

Back to Product

Compact Layout Detail

Edit

Clone

Delete

Compact Layout Assignment

Label	Product Compact Layout	Object Name	Product
API Name	Product_Compact_Layout		
Included Fields	Current Stock Level Product Name Unit Price		
Created By	Jasna A, 8/29/2025, 6:59 AM	Modified By	Jasna A, 8/29/2

Edit

Clone

Delete

Compact Layout Assignment

Create an Inventory Manager Profile

Create an Purchase Manager Profile :

Setup

Home

Object Manager

Q Profil

Users

Profiles

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

SETUP

Profiles

Profile

Inventory Manager

Help for this Page

Users with this profile have the permissions and page layouts listed below. Administrators can change a user's profile by editing that user's personal information.

If your organization uses Record Types, use the Edit links in the Record Type Settings section below to make one or more record types available to users with this profile.

Login IP Ranges [0] | Enabled Apex Class Access [0] | Enabled Visualforce Page Access [0] | Enabled External Data Source Access [0] | Enabled Named Credential Access [0] | Enabled External Credential Principal Access [0] | Enabled Custom Metadata Type Access [0] | Enabled Custom Setting Definitions Access [0] | Enabled Flow Access [0] | Enabled Service Presence Status Access [0] | Enabled Custom Permissions [0]

Profile Detail

Edit

Clone

Delete

View Users

Name	Inventory Manager		
User License	Salesforce	Custom Profile	✓
Description			
Created By	Jasna A, 8/29/2025, 7:10 AM	Modified By	Jasna A, 8/29/2025, 10:36 PM

Profiles, Roles & Permission Sets

Create profiles: Inventory Manager, Purchase Manager assign CRUD and field-level permissions.

te an Purchase Manager Profile :

The screenshot displays the Salesforce Setup interface. The left sidebar shows the navigation menu with 'Setup' selected, and 'Profiles' highlighted under the 'Users' section. The main content area is titled 'Profiles' and shows the configuration for the 'Purchase Manager' profile. It includes a list of permissions (Login IP Ranges, Apex Class Access, Visualforce Page Access, External Data Source Access, Named Credential Access, External Credential Principal Access, Custom Metadata Type Access, Custom Setting Definitions Access, Flow Access, Service Presence Status Access, Custom Permissions) and a 'Profile Detail' section with buttons for 'Edit', 'Clone', 'Delete', and 'View Users'. The 'Profile Detail' section shows the profile name 'Purchase Manager', user license 'Salesforce', and a checked 'Custom Profile' checkbox. The 'Description' field is empty. The 'Created By' field shows 'Jasna A.' on 8/29/2025 at 7:13 AM, and the 'Modified By' field shows 'Jasna A.' on 8/29/2025 at 10:36 PM.

Setup Home Object Manager

Q Profil

Users

Profiles

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

Profile [Help for this Page](#)

Purchase Manager

Users with this profile have the permissions and page layouts listed below. Administrators can change a user's profile by editing that user's personal information.

If your organization uses Record Types, use the Edit links in the Record Type Settings section below to make one or more record types available to users with this profile.

[Login IP Ranges \[0\]](#) | [Enabled Apex Class Access \[0\]](#) | [Enabled Visualforce Page Access \[0\]](#) | [Enabled External Data Source Access \[0\]](#) | [Enabled Named Credential Access \[0\]](#) | [Enabled External Credential Principal Access \[0\]](#) | [Enabled Custom Metadata Type Access \[0\]](#) | [Enabled Custom Setting Definitions Access \[0\]](#) | [Enabled Flow Access \[0\]](#) | [Enabled Service Presence Status Access \[0\]](#) | [Enabled Custom Permissions \[0\]](#)

Profile Detail [Edit](#) [Clone](#) [Delete](#) [View Users](#)

Name	Purchase Manager		
User License	Salesforce	Custom Profile	✓
Description			
Created By	Jasna A. 8/29/2025, 7:13 AM	Modified By	Jasna A. 8/29/2025, 10:36 PM

Create Roles (purchasing & Inventory manager)

Object Manager ▾



SETUP

Roles

Creating the Role Hierarchy

You can build on the existing role hierarchy shown on this page. To increase the number of roles, click **Add Role**.

Your Organization's Role Hierarchy

Show

[Collapse All](#) [Expand All](#)

[-] Akshaya

[-] [Add Role](#)

[-] [CEO](#) [Edit](#) | [Del](#) | [Assign](#)

[-] [Add Role](#)

[-] [CFO](#) [Edit](#) | [Del](#) | [Assign](#)

[-] [Add Role](#)

[-] [COO](#) [Edit](#) | [Del](#) | [Assign](#)

[-] [Add Role](#)

[-] [SVP, Customer Service & Support](#) [Edit](#) | [Del](#) | [Assign](#)

[-] [Add Role](#)

[-] [Customer Support, International](#) [Edit](#) | [Del](#) | [Assign](#)

[-] [Add Role](#)

[-] [Customer Support, North America](#) [Edit](#) | [Del](#) | [Assign](#)

[-] [Add Role](#)

[-] [Installation & Repair Services](#) [Edit](#) | [Del](#) | [Assign](#)

[-] [Add Role](#)

[-] [SVP, Human Resources](#) [Edit](#) | [Del](#) | [Assign](#)

[-] [Add Role](#)

[-] [SVP, Sales & Marketing](#) [Edit](#) | [Del](#) | [Assign](#)

[-] [Add Role](#)

[-] [Inventory Manager](#) [Edit](#) | [Del](#) | [Assign](#)

[-] [Add Role](#)

[-] [Purchasing Manager](#) [Edit](#) | [Del](#) | [Assign](#)

[-] [Add Role](#)

Create a Permission Set :

Setup

Home

Object Manager

Q Perm

Users

Permission Set Groups

Permission Sets

Custom Code

Custom Permissions

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

SETUP

Permission Sets

Permission Set

Purchase Manager Create Access

Find Settings...

Clone

Edit Properties

Manage Assignments

View Summary

Permission Set Overview

Description	API Name	Purchase_Manager
License	Namespace Prefix	
Session Activation Required	Created By	Jasna A, 8/29/2025, 7:19 AM
Permission Set Groups Added To	Last Modified By	Jasna A, 8/29/2025, 7:20 AM
		0

Apps

Create Flow to update the Actual Delivery Date :

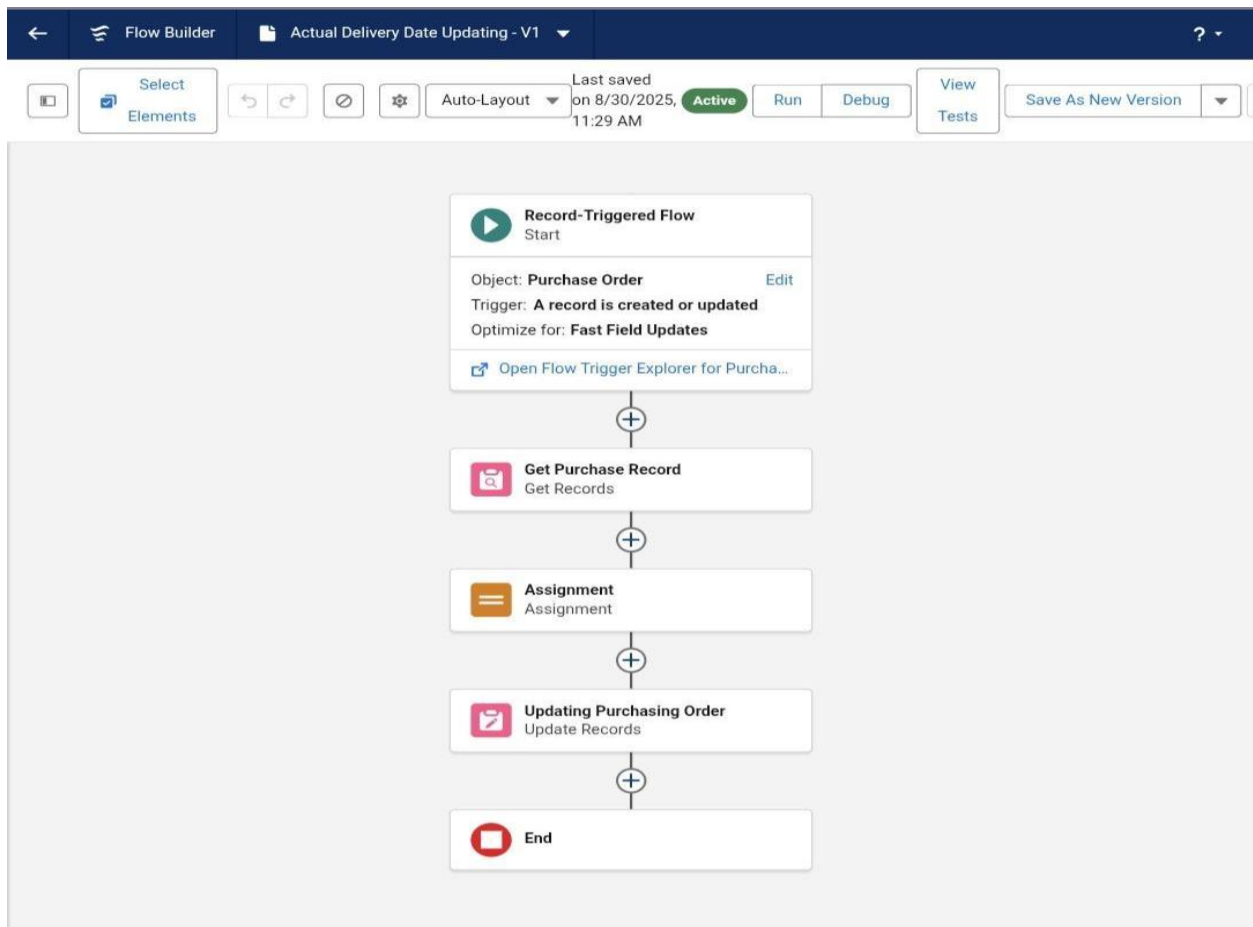
Create a Trigger to Calculate total amount on Order Item :

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(Ttrigger.new, Ttrigger.old, Ttrigger.isInsert,



Trigger.isUpdate, Trigger.isDelete, Trigger.isUndelete);

```
}
```

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;
```

```
}
```

Create Reports :

Medical Inventory ...

Products

Purchase Orders

Order Items

Reports

More

Reports

Recent

2 Items

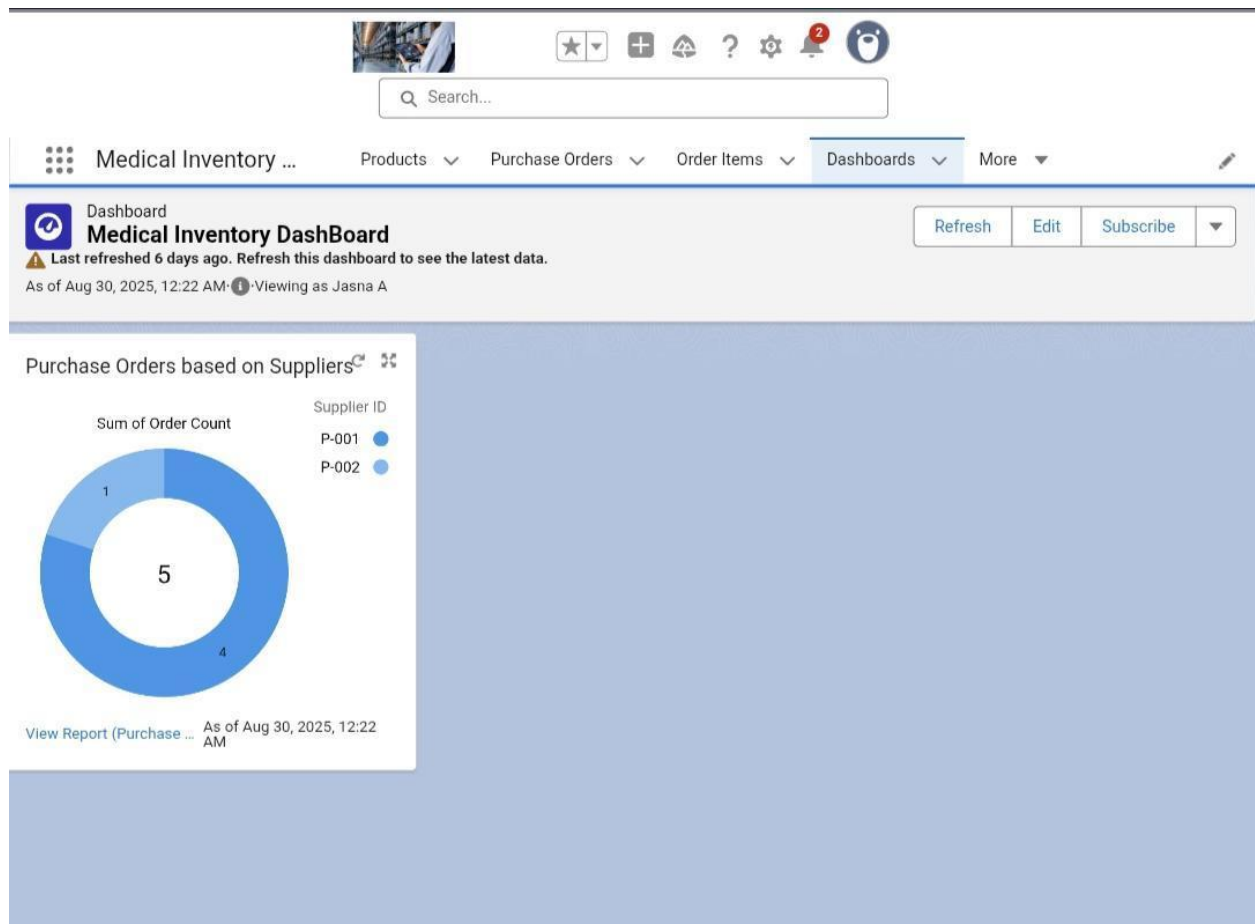
Q Search recent reports...

New Report

New Folder

REPORTS	Report Name	Description	Folder	Creat...	Created On	Subscribed
Recent	Purchase Orders based on Suppliers		Private Reports	Jasna A	8/30/2025, 11:41 AM	
Created by Me	Complete Purchase Details Report		Private Reports	Jasna A	8/30/2025, 12:13 PM	
Private Reports						
Public Reports						
All Reports						

Output :



ADVANTAGES & DISADVANTAGES

Medical inventory management has several advantages and disadvantages. On the positive side, it helps healthcare facilities maintain accurate stock levels, avoid shortages of critical medicines and supplies, reduce wastage from expired products, and streamline purchasing, which saves both time and costs. It also improves patient safety by ensuring that the right products are available when needed. However, the disadvantages include high implementation costs for digital inventory systems, the need for continuous staff training, and potential technical issues such as software errors or system downtime. Additionally, if not managed properly, over-reliance on automated systems can lead to errors being overlooked, and strict monitoring can sometimes slow down workflows. Overall, effective medical inventory management provides significant benefits but requires proper planning, resources, and monitoring to overcome its challenges.

CONCLUSION

In conclusion, medical inventory management is vital for ensuring the smooth functioning of healthcare facilities. It improves efficiency, reduces waste, and enhances patient safety. However, it also involves challenges like high costs and technical dependencies. With proper planning and monitoring, its benefits far outweigh the drawbacks.