

MEDICAL INVENTORY MANAGEMENT

College Name: KPR COLLEGE OF ARTS SCIENCE AND RESEARCH

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INTRODUCTION

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.



Purpose

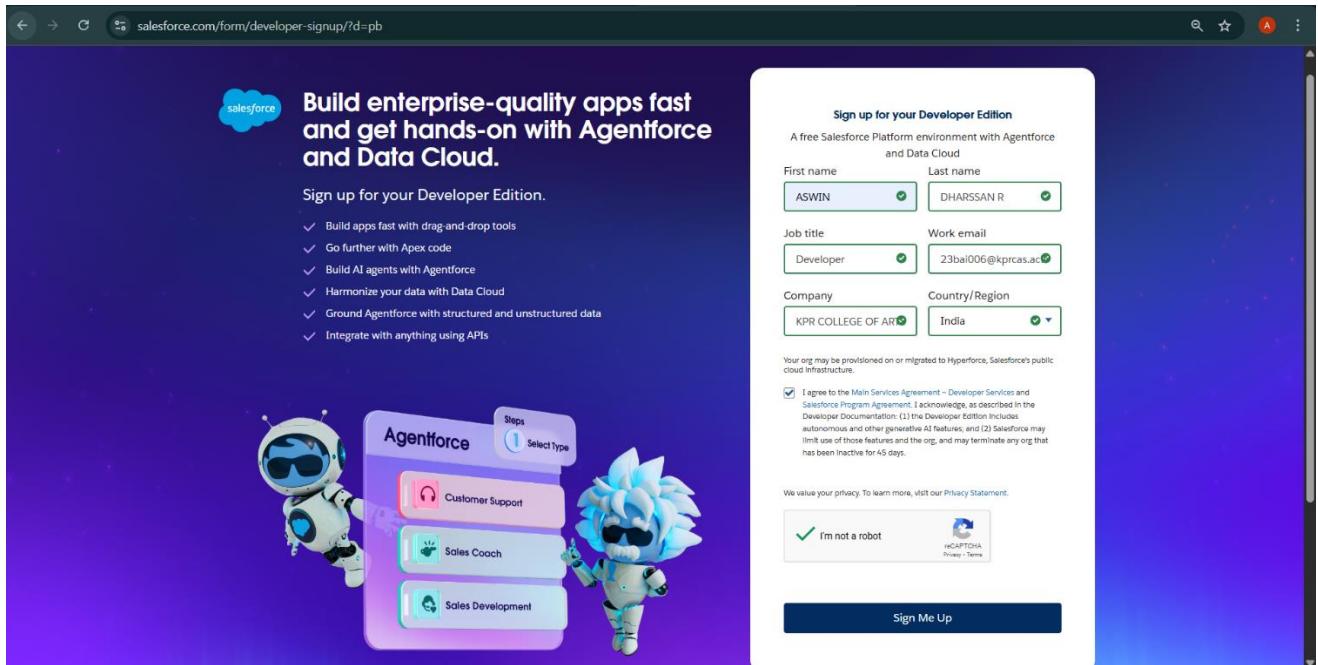
The purpose of this project is to develop a Salesforce-based medical inventory management system that ensures efficient tracking of suppliers, purchase orders, product details, and expiry dates. It aims to streamline operations, reduce errors,

prevent the usage of expired items, and provide comprehensive reports for better decision-making and supplier performance evaluation.

DEVELOPMENT PHASE

Creating Developer Account:

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



- After creating developer account, Go to setup page and create the object.

Setup > OBJECT MANAGER

Product

Details

Description

API Name
Product__c

Custom
✓

Singular Label
Product

Plural Label
Products

Enable Reports
✓

Track Activities

Track Field History

Deployment Status
Deployed

Help Settings
Standard salesforce.com Help Window

Buttons, Links, and Actions

- Fields & Relationships
- Page Layouts
- Lightning Record Pages
- Compact Layouts
- Field Sets
- Object Limits
- Record Types
- Related Lookup Filters
- Search Layouts
- List View Button Layout
- Restriction Rules

Edit Delete

Search Setup

Setup > OBJECT MANAGER

Purchase Order

Details

Description

API Name
Purchase_Order__c

Custom
✓

Singular Label
Purchase Order

Plural Label
Purchase Orders

Enable Reports
✓

Track Activities

Track Field History

Deployment Status
Deployed

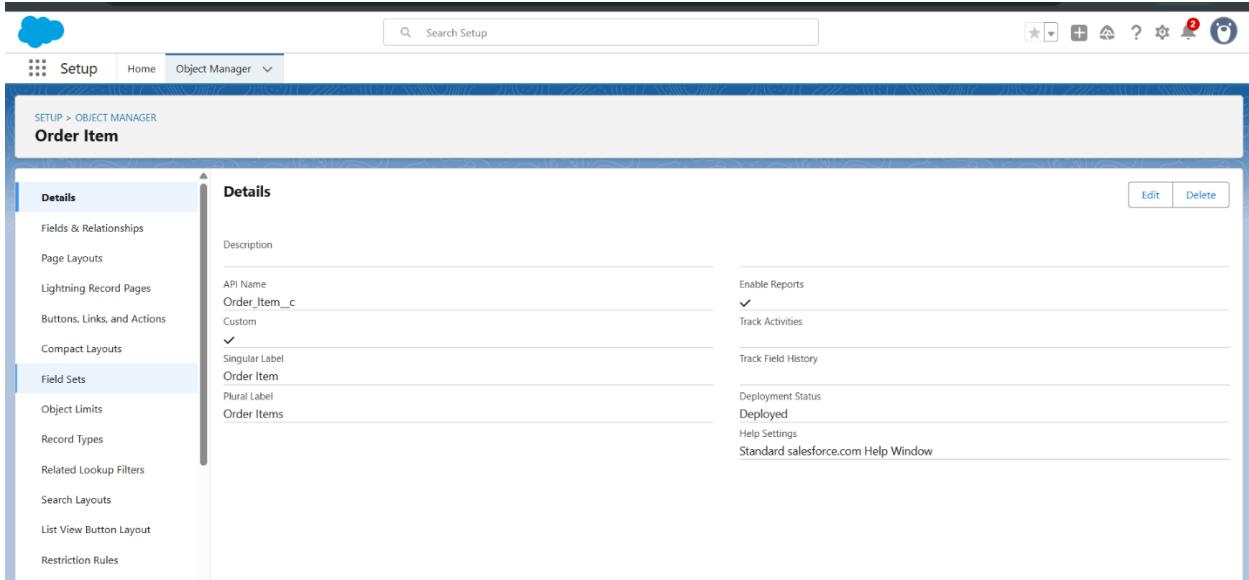
Help Settings
Standard salesforce.com Help Window

Fields & Relationships

- Page Layouts
- Lightning Record Pages
- Compact Layouts
- Field Sets
- Object Limits
- Record Types
- Related Lookup Filters
- Search Layouts
- List View Button Layout
- Restriction Rules

Edit Delete

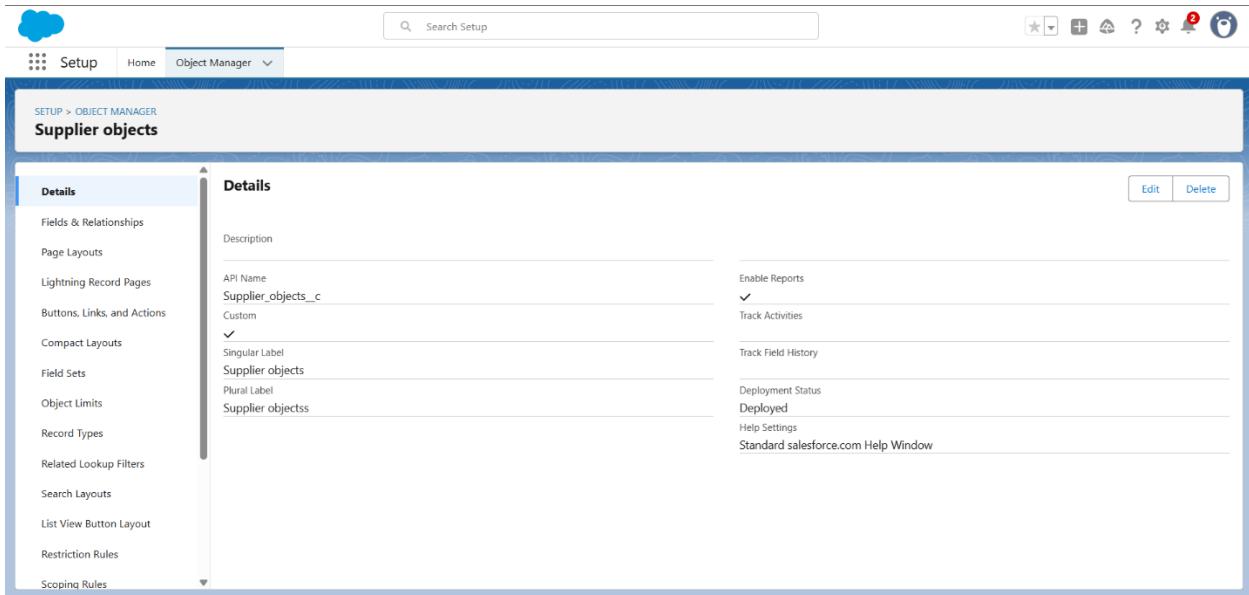
Search Setup



The screenshot shows the Salesforce Object Manager interface for the 'Order Item' object. The left sidebar contains navigation links for 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, and Restriction Rules. The main 'Details' tab displays the following configuration:

Setting	Value
Description	
API Name	Order_Item__c
Custom	✓
Singular Label	Order Item
Plural Label	Order Items
Enable Reports	✓
Track Activities	
Track Field History	
Deployment Status	Deployed
Help Settings	Standard salesforce.com Help Window

At the top right of the details section are 'Edit' and 'Delete' buttons.



The screenshot shows the Salesforce Object Manager interface for the 'Supplier objects' object. The left sidebar contains the same navigation links as the previous screenshot. The main 'Details' tab displays the following configuration:

Setting	Value
Description	
API Name	Supplier_objects__c
Custom	✓
Singular Label	Supplier objects
Plural Label	Supplier objectss
Enable Reports	✓
Track Activities	
Track Field History	
Deployment Status	Deployed
Help Settings	Standard salesforce.com Help Window

At the top right of the details section are 'Edit' and 'Delete' buttons.

- All the given objects has been created.
- Created the five tabs inventory transaction,order item,product,purchase order, supplier objects.

The screenshot shows the Salesforce Setup interface with the 'Tabs' page selected. The left sidebar has 'User Interface' expanded, with 'Tabs' selected. The main content area is titled 'Custom Tabs' and contains three sections:

- Custom Object Tabs:** A table listing objects with their tab labels and styles. All tabs are styled as 'Stethoscope'.
- Web Tabs:** A section stating "No Web Tabs have been defined".
- Visualforce Tabs:** A section stating "No Visualforce Tabs have been defined".

- Created a lightning app for Medical Inventory Management.

The screenshot shows the 'New Lightning App' configuration page. The left sidebar has 'Apps' selected. The main form is titled 'App Details & Branding' and includes the following fields:

App Details		App Branding	
*App Name	medical inventory management	Image	
*Developer Name	medical_inventory_management	Primary Color Hex	#0070D2
Description	Enter a description...	Org Theme Options	<input type="checkbox"/> Use the app's image and color instead of the org's

At the bottom, there is a progress bar with step 12 completed and step 13 in progress, followed by a 'Next' button.

- Created a text field in product object.

The screenshot shows the Salesforce Setup interface for the Product object. The left sidebar includes options like 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, and Restriction Rules. The main content area is titled 'Fields & Relationships' and displays a table of fields:

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		
Current Stock Level	Current_Stock_Level__c	Number(18, 0)		
Last Modified By	LastModifiedById	Lookup(User)		
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)		

The screenshot shows the details for the Product ID field. The left sidebar is identical to the previous screenshot. The main content area is titled 'Product Field Product ID' and includes a 'Field Information' section and a 'Validation Rules' section.

Field Information

Field Label	Product ID	Field Name	Name
Data Type	Text(80)		
Description			
Data Owner			
Field Usage			
Data Sensitivity Level			
Compliance Categorization			

Validation Rules

No validation rules defined.

- Created a textArea in product object.

The screenshot shows the Salesforce Setup interface under the Object Manager. A custom field named 'Product Name' has been created for the 'Product' object. The field is defined as a Text type with a length of 255 characters. It is required and has a unique constraint. The API name is 'Product_Name__c'. The field was created by 'ASWIN DHARSSAN.R' on 9/14/2025 at 3:37 AM and modified by the same user on the same date and time.

Field Label	Field Name	Object Name	Data Type
Product Name	Product_Name	Product	Text
	Product_Name__c		

General Options:

- Required:
- Unique:
- Case Sensitive:
- External ID:
- Default Value:

- Created a number field in product object.

The screenshot shows the Salesforce Setup interface under the Object Manager. A custom field named 'Current Stock Level' has been created for the 'Product' object. The field is defined as a Number type with a scale of 2. It is required and has a unique constraint. The API name is 'Current_Stock_Level__c'. The field was created by 'ASWIN DHARSSAN.R' on 9/8/2025 at 9:37 AM and modified by the same user on the same date and time.

Field Label	Field Name	Object Name	Data Type
Current Stock Level	Current_Stock_Level	Product	Number
	Current_Stock_Level__c		

General Options:

- Required:
- Unique:
- External ID:
- AI Prediction:
- Default Value:

- Created a currency field in product object.

- Created a lookup relationship , date field , roll up summary in purchase order.

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		
Last Modified By	LastModifiedById	Lookup(User)		
Order Date	Order_Date__c	Date		
Owner	OwnerId	Lookup(User,Group)	✓	
Purchase Order ID	Name	Text(80)	✓	
Supplier objects ID	Supplier_objects_ID__c	Lookup(Supplier objects)	✓	

- Created a unit price formula, amount formula field in order item.

SETUP > OBJECT MANAGER
Order Item

Fields & Relationships
4 Items, Sorted by Field Label

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		
Last Modified By	LastModifiedById	Lookup(User)		
Order Item ID	Name	Text(80)		✓
Owner	OwnerId	Lookup(User,Group)		✓

- Created a picklist, total order cost field in inventory transaction .

SETUP > OBJECT MANAGER
Inventory Transaction

Fields & Relationships
4 Items, Sorted by Field Label

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		
Inventory Transaction ID	Name	Text(80)		✓
Last Modified By	LastModifiedById	Lookup(User)		
Owner	OwnerId	Lookup(User,Group)		✓

- Created a phone,email field in supplier object .

Supplier objects

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		
Last Modified By	LastModifiedById	Lookup(User)		
Owner	OwnerId	Lookup(User,Group)		✓
Supplier objects ID	Name	Text(80)		✓

- Edit page layouts in product,purchase order,order item,supplier object,inventory transaction.

Product

Product Detail

Standard Buttons	Custom Buttons
Edit Delete Clone Change Owner Change Record Type Printable View Sharing Sharing Hierarchy Edit Labels	

Information (Header visible on edit only)

Product ID	Sample Text	Unit Price	\$123.45
Product Name	Sample Text	Current Stock Level	81.682
Product Description	Sample Text	Owner	Sample Text

<https://orgfarm-c0abec7f93-dev-ed.lightning.force.com/lightning/setup/ObjectManager/01IgK0000023uMh/PageLayouts/00hgK000006whKTOAY/view>

The screenshot shows the Salesforce Object Manager interface for the Purchase Order object. The left sidebar lists various configuration options under 'Page Layouts'. The main area displays the 'Purchase Order Detail' layout. At the top, there's a toolbar with Save, Quick Save, Preview As..., Cancel, Undo, Redo, and Layout Properties buttons. A 'Fields' section is open, showing fields like Order Date, Owner, and Purchase Order ID. Below this is a section titled 'Salesforce Mobile and Lightning Experience Actions' with instructions for overriding predefined actions. The layout itself contains sections for 'Information' (Order ID, Supplier objects ID, Order Date), 'System Information' (Created By, Last Modified By), and 'Custom Links'. Standard buttons at the bottom include Edit, Delete, Clone, Change Owner, Change Record Type, Printable View, Sharing, Sharing Hierarchy, and Edit Labels.

<https://orgfarm-c0abec7f93-dev-ed.lightning.force.com/lightning/setup/ObjectManager/01IgK0000023uMh/PageLayouts/00hgK000006whKTOAY/view>

This screenshot shows the Order Item page layout configuration in the Salesforce Object Manager. The left sidebar includes 'Page Layouts' under 'Object Manager'. The main area shows the 'Order Item Detail' layout. The 'Fields' section in the toolbar includes Order Item ID and Owner. A note indicates that actions are inherited from the global publisher layout, with an option to override it. The layout details section follows the same structure as the Purchase Order layout, with sections for Information, System Information, and Custom Links, and standard edit buttons at the bottom.

SETUP > OBJECT MANAGER

Inventory Transaction

Page Layouts

Inventory Transaction Detail

Standard Buttons: Edit, Delete, Clone, Change Owner, Change Record Type, Printable View, Sharing, Sharing Hierarchy, Edit Labels, Custom Buttons

Information: Inventory Transaction ID, Created By, Last Modified By, Owner

SETUP > OBJECT MANAGER

Supplier objects

Page Layouts

Supplier objects Detail

Standard Buttons: Edit, Delete, Clone, Change Owner, Change Record Type, Printable View, Sharing, Sharing Hierarchy, Edit Labels, Custom Buttons

Information: Supplier objects ID, Created By, Last Modified By, Owner

Compact layout

- Created compact layout for product.

The screenshot shows the Salesforce Setup interface under the Object Manager. A new compact layout for the 'Product' object is being created. The layout is titled 'Product Compact Layout'. The 'Compact Layout Detail' section shows the layout is labeled 'Product Compact Layout' and has an API name of 'Product__Compact_Layout'. It includes fields for 'Product Name', 'Unit Price', and 'Current Stock Level'. The layout was created by 'ASWIN DHARSSAN R.' on 9/15/2025, 9:08 AM, and modified by the same user on the same date and time. Navigation links on the left include 'Details', 'Fields & Relationships', 'Page Layouts', 'Lightning Record Pages', 'Buttons, Links, and Actions', 'Compact Layouts' (which is selected), 'Field Sets', 'Object Limits', 'Record Types', 'Related Lookup Filters', 'Search Layouts', 'List View Button Layout', 'Restriction Rules', and 'Scoping Rules'.

- Created compact layout for purchase object.

The screenshot shows the Salesforce Setup interface under the Object Manager. A new compact layout for the 'Purchase Order' object is being created. The layout is titled 'Purchase Order Compact Layout'. The 'Compact Layout Detail' section shows the layout is labeled 'Purchase Order Compact Layout' and has an API name of 'Purchase_Order__Compact_Layout'. It includes fields for 'Purchase Order ID', 'Order Date', 'Total Order Cost', and 'Supplier ID'. The layout was created by 'ASWIN DHARSSAN R.' on 9/15/2025, 9:10 AM, and modified by the same user on the same date and time. Navigation links on the left are identical to the previous screenshot, including 'Compact Layouts' (selected).

Validation rules

- create an Expected Delivery Date Validation rule to a Employee Object.

The screenshot shows the Salesforce Setup interface for the Product object. On the left, a sidebar lists various setup categories like Details, Fields & Relationships, Page Layouts, etc. The main area is titled "Product Validation Rule" and contains a "Validation Rule Edit" form. The rule is named "Expected_Delivery_Date_Validation", is active, and has an empty description. The "Error Condition Formula" field contains the formula "(Expected_Delivery_Date__c - Order_Date__c) > 7". A tooltip for the formula editor shows the "Functions" dropdown menu with options like ABS, ACOS, ADDMONTHS, AND, ASCII, ASIN, and Insert Selected Function. A "Quick Tips" box is visible on the right.

Profile

- created an inventory and purchase manager profile.

The screenshot shows the Salesforce Setup interface for Profiles. The search bar at the top has "profile" typed into it. The sidebar shows "Profiles" is selected under the "Users" category. The main area is titled "Clone Profile" and displays a message: "You must select an existing profile to clone from." Below this, there are fields for "Existing Profile" (set to "Standard User"), "User License" (set to "Salesforce"), and "Profile Name" (set to "Inventory Manager"). At the bottom are "Save" and "Cancel" buttons.

Role

- To create a purchasing manager role.

- Created a permission set.

The screenshot shows the Salesforce Setup interface with the following details:

- Header:** Search bar with "permis", a blue cloud icon, and various navigation links like Home, Object Manager, and Setup.
- Left Sidebar:**
 - Users
 - Permission Set Groups
 - Permission Sets** (selected)
 - Custom Code
 - Custom Permissions
- Middle Content:**

Permission Sets

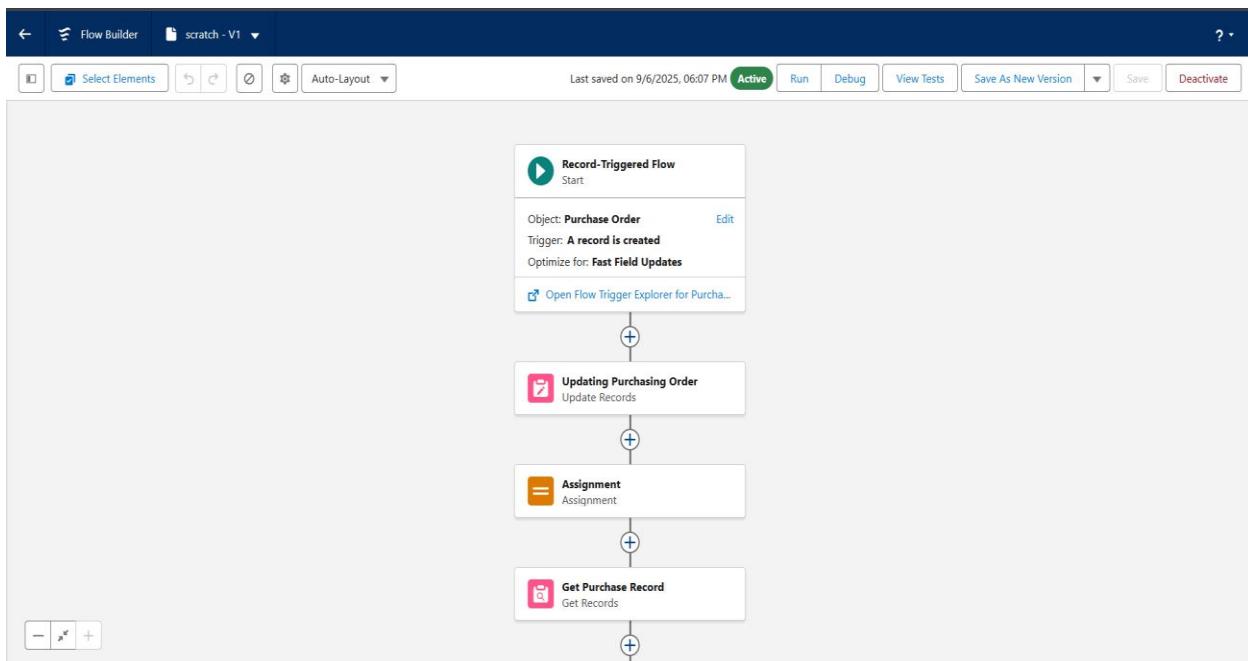
On this page you can create, view, and manage permission sets.

Action **Permission Set Name** **Description** **License**

<input type="checkbox"/>	Clone	(Legacy) Data Cloud Data Aware Specialist	This Data Cloud permission set will be deprecated in Spring '24. Learn ...	Customer Data Platform
<input type="checkbox"/>	Clone	(Legacy) Data Cloud Marketing Admin	Allows access to Data Cloud Setup if the user is also a Salesforce adm...	Customer Data Cloud for Marketing
<input type="checkbox"/>	Clone	(Legacy) Data Cloud Marketing Manager	This Data Cloud permission set will be deprecated in Spring '24. Learn ...	Customer Data Platform
<input type="checkbox"/>	Clone	(Legacy) Data Cloud Marketing Specialist	This Data Cloud permission set will be deprecated in Spring '24. Learn ...	Customer Data Platform
<input type="checkbox"/>	Clone	(Legacy) Data Cloud for Marketing Data Aware Specialist	This Data Cloud permission set will be deprecated in Spring '24. Learn ...	Customer Data Cloud for Marketing
<input type="checkbox"/>	Clone	(Legacy) Data Cloud for Marketing Manager	This Data Cloud permission set will be deprecated in Spring '24. Learn ...	Customer Data Cloud for Marketing
<input type="checkbox"/>	Clone	(Legacy) Data Cloud for Marketing Specialist	This Data Cloud permission set will be deprecated in Spring '24. Learn ...	Customer Data Cloud for Marketing
<input type="checkbox"/>	Clone	Access.Agentforce.Default.Agent	Gives users access to the default Agentforce agent in Salesforce.	Agentforce (Default)
<input type="checkbox"/>	Clone	Agent.Platform.Builder	Allow access to agent platform.	Agent platform builder
<input type="checkbox"/>	Clone	Agentforce.Default.Admin	Allows users to build and manage in-org copilot.	Agentforce (Default)
<input type="checkbox"/>	Clone	Agentforce.Service.Agent.Configuration	Build and manage autonomous AI service agents.	Agentforce Service Agent Builder
<input type="checkbox"/>	Clone	Agentforce.Service.Agent.Object.Access	Access knowledge articles and manage cases and contacts as an au...	Agentforce Service Agent User
<input type="checkbox"/>	Clone	Agentforce.Service.Agent.Secure.Base	Set up and use Agentforce Service Agent actions with enhanced data...	Agentforce Service Agent User
<input type="checkbox"/>	Clone	Agentforce.Service.Agent.User	Analyze topics and perform actions as an autonomous AI service aoe...	Agentforce Service Agent User

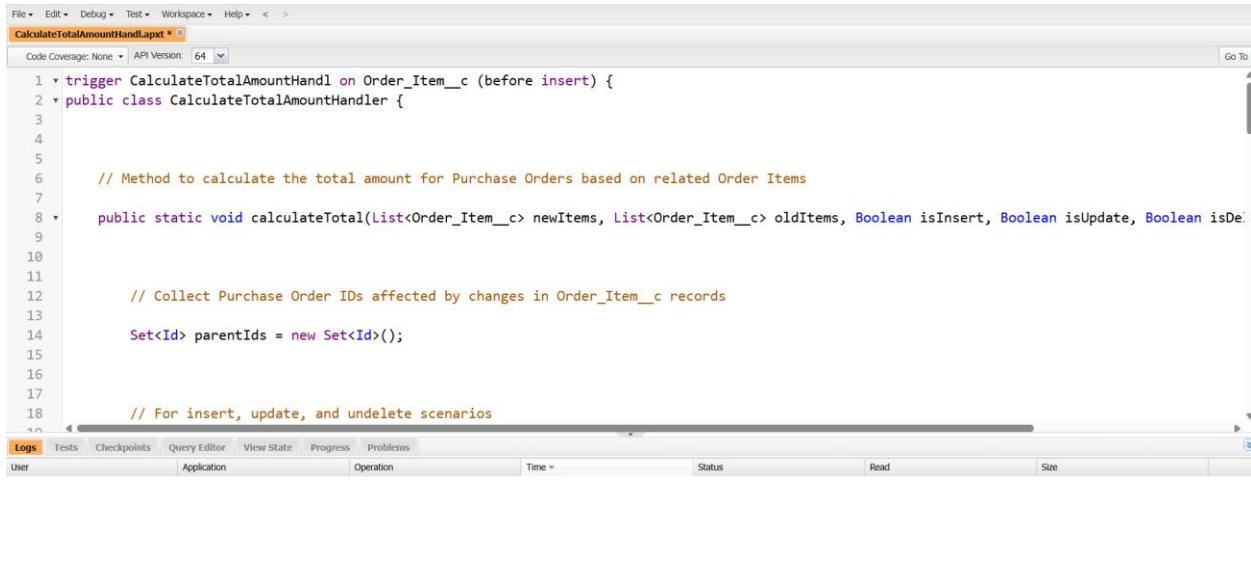
Flows

- Created Flow to update the Actual Delivery Date.



Apex Triggers

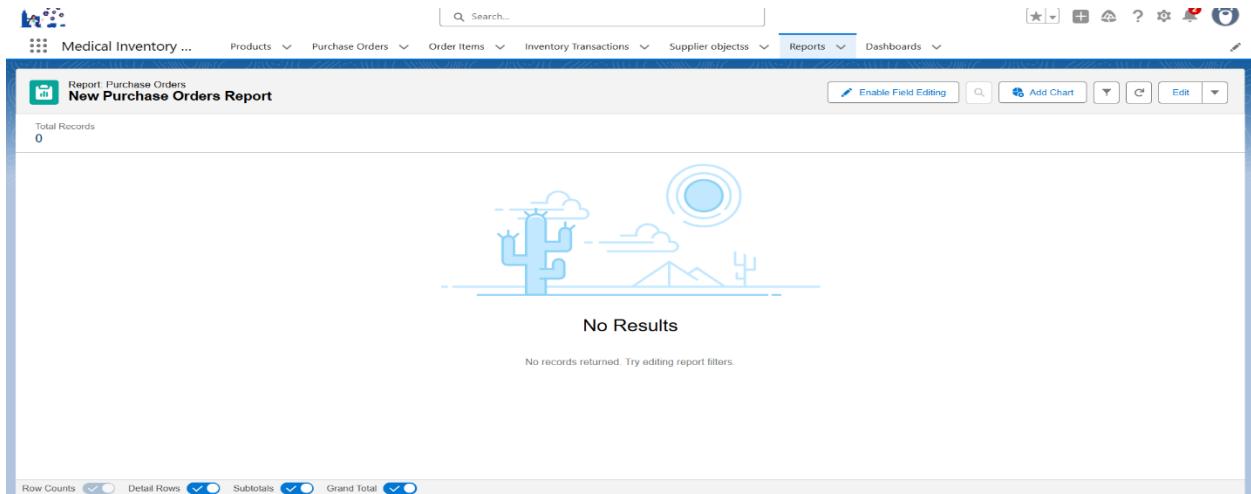
- Created a Trigger to Calculate total amount on Order Item.



```
File ▾ Edit ▾ Debug ▾ Test ▾ Workspace ▾ Help ▾ < >
CalculateTotalAmountHandler.apex ▾
Code Coverage: None ▾ API Version: 64 ▾ Go To
1 * trigger CalculateTotalAmountHandle on Order_Item__c (before insert) {
2 * public class CalculateTotalAmountHandler {
3
4
5     // Method to calculate the total amount for Purchase Orders based on related Order Items
6
7     public static void calculateTotal(List<Order_Item__c> newItems, List<Order_Item__c> oldItems, Boolean isInsert, Boolean isUpdate, Boolean isDelete) {
8
9         // Collect Purchase Order IDs affected by changes in Order_Item__c records
10
11         Set<Id> parentIds = new Set<Id>();
12
13
14         // For insert, update, and undelete scenarios
15
16
17
18 }
```

Report

- Create a Purchase Orders based on Suppliers(Summary) Report



The screenshot shows the Salesforce Reports interface. The top navigation bar includes links for Medical Inventory ..., Products, Purchase Orders, Order Items, Inventory Transactions, Supplier objects, Reports, and Dashboards. The current page is titled "Report: Purchase Orders" and "New Purchase Orders Report". A search bar is at the top right. Below the header, it says "Total Records 0". The main area displays a decorative graphic of a cactus and clouds, followed by the message "No Results" and the subtext "No records returned. Try editing report filters." At the bottom, there are checkboxes for Row Counts, Detail Rows, Subtotals, and Grand Total.

- Create a Complete Purchase Details Report

Report: Purchase Orders
New Purchase Orders Report

Total Records 0

No Results

No records returned. Try editing report filters.

Row Counts Detail Rows Subtotals Grand Total

Dashboard

- Created Dashboard

Medical Inventory DashBoard

New Purchase Orders Report

We can't draw this chart because there is no data.

[View Report \(New Purchase Orders Report\)](#)

- To view the dashboard

The screenshot shows a Salesforce Lightning dashboard titled "Medical Inventory DashBoard". The dashboard has a header with a search bar and various navigation links: Products, Purchase Orders, Order Items, Inventory Transactions, Suppliers, Reports, and Dashboards. Below the header, there is a section titled "Purchase Orders based on Suppliers" which contains a message: "We can't draw this chart because there is no data." At the bottom left, there is a link "View Report (Purchase Orders based on ...)" and at the bottom right, a timestamp "As of Sep 15, 2025, 11:45 PM".