

PROJECT TITLE:

Medical Inventory Management

College Name: Nilgiri College of Arts and Science

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1.INTRODUCTION

1.1 Project Overview

The **Medical Inventory Management System (MIMS)** is a Salesforce-based application designed to manage medical supplies, track stock levels, manage orders, and automate alerts for expiry or low stock. The system helps healthcare providers maintain inventory accuracy, automate workflows, and make data-driven decisions

1.2 Purpose

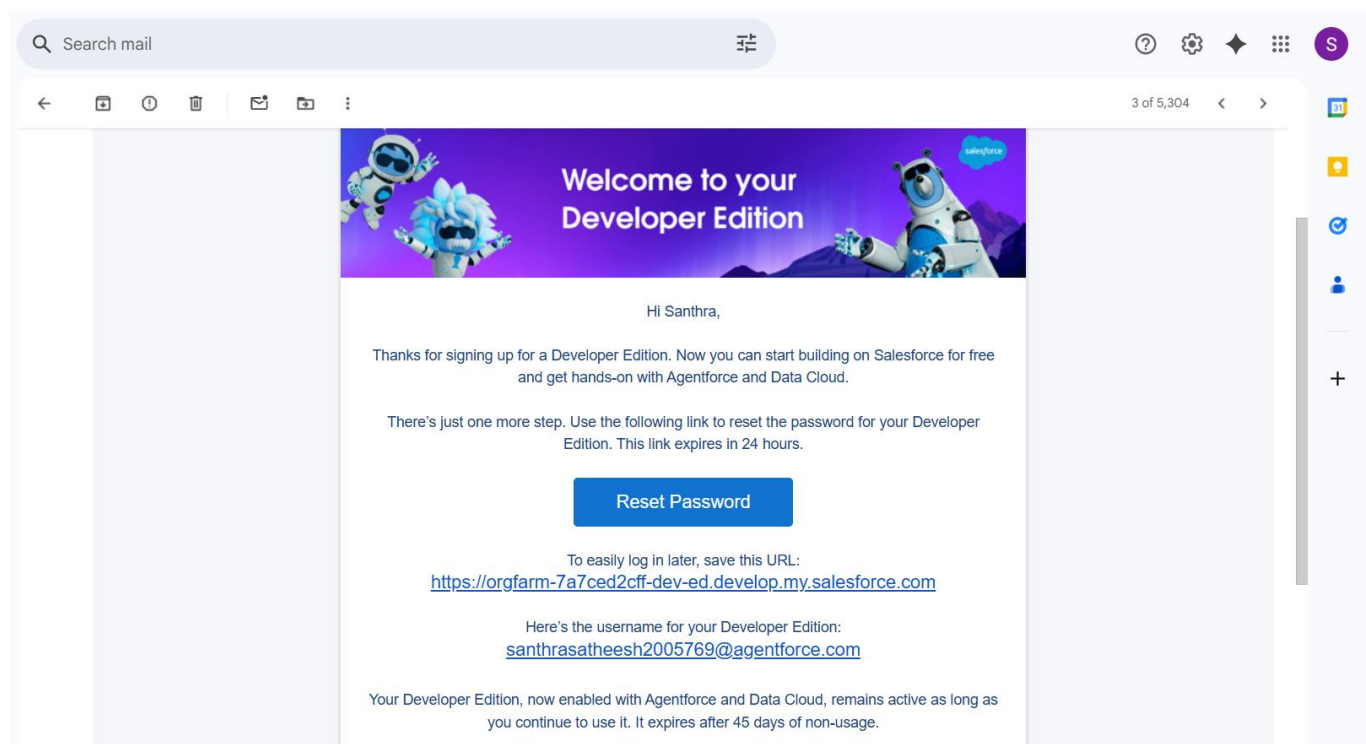
- Efficient inventory tracking for medical supplies.
- Automation of alerts for low stock and item expiry.
- Minimize manual data entry errors.
- Generate analytics reports for decision-making.
- Streamline order processing and supplier management.

DEVELOPMENT PHASE


Creating Developer Account:

By using this URL - <https://www.salesforce.com/form/developer-signup/?d=pb>








Created a developer account



Created a product object



Search Setup



SetupHomeObject Manager

SETUP > OBJECT MANAGER

Product

DetailsFields & RelationshipsPage LayoutsLightning Record PagesButtons, Links, and ActionsCompact LayoutsField SetsObject LimitsRecord TypesRelated Lookup FiltersSearch LayoutsList View Button LayoutRestriction RulesScoping Rules

Details

EditDelete

Description

API NameProduct_c

Custom

✓

Singular LabelProduct

Plural LabelProducts

Enable Reports

✓

Track Activities


Track Field History

Deployment StatusDeployed








Help Settings

Standard salesforce.com Help Window

Created a tab for product object



Search Setup



SetupHomeObject Manager

SETUP

Tab

Q tabs

User InterfaceRename Tabs and LabelsTab

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

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

NewWhat Is This?

Action	Label	Tab Style	Description
Edit Del	Inventory Transactions	 Bell	
Edit Del	Order Items	 Laptop	
Edit Del	Products	 Stethoscope	
Edit Del	Purchase Orders	 Headset	
Edit Del	Suppliers	 Computer	

Web Tabs

NewWhat Is This?

No Web Tabs have been defined

Visualforce Tabs

NewWhat Is This?

No Visualforce Tabs have been defined

Created a lighting app for medical inventory management

Setup

Home

Object Manager

Search Setup

Star

Plus

Shield

Help

Settings

2

Profile

app

Salesforce Mobile App

Data

Mass Transfer Approval Requests

Apps

App Manager

AppExchange Marketplace

Connected Apps

Connected Apps OAuth Usage

Manage Connected Apps

External Client Apps

External Client App Manager

OAuth Usage

Settings

Lightning Bolt

Flow Category

Lightning Bolt Solutions

SETUP

Lightning Experience App Manager

New Lightning App

New External Client App

27 items • Sorted by App Name • Filtered by All appmenuitems - TabSet Type, App Type

App Name	Developer Name	Description	Last Modified D...	App ...	Visi...
1 All Tabs	AllTabSet		9/10/2025, 11:52 AM	Classic	
2 Analytics Studio	Insights	Build CRM Analytics dashboards and apps	9/10/2025, 11:52 AM	Classic	
3 App Launcher	AppLauncher	App Launcher tabs	9/10/2025, 11:52 AM	Classic	
4 Approvals	Approvals	Manage approvals and approval flows	9/10/2025, 11:52 AM	Lightning	
5 Automation	FlowsApp	Automate business processes and repetitive tasks.	9/10/2025, 11:58 AM	Lightning	
6 Bolt Solutions	LightningBolt	Discover and manage business solutions designed for your industry.	9/10/2025, 11:52 AM	Lightning	
7 Community	Community	Salesforce CRM Communities	9/10/2025, 11:52 AM	Classic	
8 Content	Content	Salesforce CRM Content	9/10/2025, 11:52 AM	Classic	
9 Data Cloud	Audience360	Build a thorough and complete understanding of your customers.	9/10/2025, 11:52 AM	Lightning	
10 Data Manager	DataManager	Use Data Manager to view limits, monitor usage, and manage recipes.	9/10/2025, 11:52 AM	Lightning	
11 Digital Experiences	SalesforceCMS	Manage content and media for all of your sites.	9/10/2025, 11:52 AM	Lightning	
12 Lightning Usage App	LightningInstrumentation	View Adoption and Usage Metrics for Lightning Experience	9/10/2025, 11:52 AM	Lightning	
13 Marketing CRM Classic	Marketing	Track sales and marketing efforts with CRM objects.	9/10/2025, 11:52 AM	Classic	
14 Medical Inventory Management	Medical_Inventory_Management	Medical Inventory Management	9/13/2025, 11:19 PM	Lightning	

Creating a purchase order object

Setup

Home

Object Manager

Search Setup

Star

Plus

Shield

Help

Settings

2

Profile

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

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








Edit

Delete

Order item object



Search Setup



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

Object Limits

Record Types

Related Lookup Filters

Search Layouts

List View Button Layout

Restriction Rules

Scoping Rules

Details

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

EditDelete

Inventory transaction object



Search Setup



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

Object Limits

Record Types

Related Lookup Filters

Search Layouts

List View Button Layout

Restriction Rules

Scoping Rules

Details

Description

API Name
Inventory_Transaction__c

Custom
✓

Singular Label
Inventory Transaction

Plural Label
Inventory Transactions

Enable Reports
✓

Track Activities

Track Field History

Deployment Status
Deployed

Help Settings
Standard salesforce.com Help Window

EditDelete

Supplier object

The screenshot shows the Salesforce Setup interface for the Supplier object. The top navigation bar includes the Setup menu, Home, and Object Manager. A search bar is present. The left sidebar lists various setup options, with 'Details' selected. The main content area displays the 'Details' for the Supplier object, including fields like Description, API Name (Supplier__c), Custom, Singular Label (Supplier), Plural Label (Suppliers), and various system settings like Enable Reports, Track Activities, and Deployment Status (Deployed).

SETUP > OBJECT MANAGER

Supplier

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

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

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

Page layouts of product object

The screenshot shows the Salesforce Setup interface for the Product object page layout. The top navigation bar includes the Setup menu, Home, and Object Manager. A search bar is present. The left sidebar lists various setup options, with 'Page Layouts' selected. The main content area displays the 'Product Layout' editor, showing a list of fields (Section, Expiry Date, Product Description, Last Modified By, Product ID, Created By, Minimum Stock Level, Product Name, Current Stock Level, Owner, Unit Price) and a 'Product Sample' section with a 'Highlights Panel' and 'Quick Actions'.

SETUP > OBJECT MANAGER

Product

[Mini Page Layout](#) [Mini Console View](#) [Video Tutorial](#) [Help for this Page](#)

Product Layout

[Save](#) [Quick Save](#) [Preview As...](#) [Cancel](#) [Undo](#) [Redo](#) [Layout Properties](#)

Fields

- Buttons
- Quick Actions
- Mobile & Lightning Actions
- Expanded Lookups
- Related Lists
- Report Charts

Product Sample [Edit Page Layout: Product Layout - Salesforce - Developer Edition](#)

Highlights Panel

Customize the highlights panel for this page layout...

Quick Actions in the Salesforce Classic Publisher

Actions in this section are currently inherited from the global publisher layout. You can [override the global publisher layout](#) to set a customized list of actions for the publisher on pages that use this layout.

Salesforce Mobile and Lightning Experience Actions

Actions in this section are predefined by Salesforce. You can [override the predefined actions](#) to set a customized list of actions on Lightning Experience and mobile app pages that use this layout. If you customize the actions in the Quick Actions in the Salesforce Classic Publisher section, and have saved the layout, then this section inherits that set of actions by default when you click to override.

For purchase order

Setup

Home

Object Manager

Search Setup

Star

Plus

Refresh

Help

Settings

2

Profile

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

Purchase Order Layout

Mini Page Layout

Mini Console View

Video Tutorial

Help for this Page

Edit Page Layout: Purchase Order Layout - Salesforce - Developer Edition

Layout Properties

Fields

Buttons

Quick Actions

Mobile & Lightning Actions

Expanded Lookups

Related Lists

Report Charts

Quick Find

Field Name

Section

Expected Delivery...

Owner

Blank Space

Last Modified By

Purchase Order ID

Actual Delivery Date

Order Count

Supplier ID

Created By

Order Date

Total Order Cost

Purchase Order Sample

Highlights Panel

Customize the highlights panel for this page layout...

Quick Actions in the Salesforce Classic Publisher

Actions in this section are currently inherited from the global publisher layout. You can [override the global publisher layout](#) to set a customized list of actions for the publisher on pages that use this layout.

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Created inventory manager and purchase manager profile

Setup

Home

Object Manager

Search Setup

Star

Plus

Refresh

Help

Settings

2

Profile

Q pro

Hyperforce Assistant

Users

Profiles

Data

Mass Transfer Approval Requests

Feature Settings

Approval Settings

Data.com

Prospector Preferences

Prospector Users

Functions

Marketing

Lead Processes

Sales

Products

Asset Settings

Product Schedules

SETUP

Profiles

Profiles

Help for this Page

All Profiles

Edit

Delete

Create New View

New Profile

ABCDEFGHIJKLMNOPQRSTUVWXYZ Other All

Action

Profile Name

User License

Custom

☐

Edit | Clone

Analytics Cloud Integration User

Analytics Cloud Integration User

☐

☐

Edit | Clone

Analytics Cloud Security User

Analytics Cloud Integration User

☐

☐

Edit | Clone

Anypoint Integration

Identity

☐

☐

Edit | Clone

Authenticated Website

Authenticated Website

☐

☐

Edit | Clone

Authenticated Website

Authenticated Website

☐

☐

Edit | Del | ...

B2B Reordering Portal Buyer Profile

External Apps Login

☒

☐

Edit | Clone

Chatter External User

Chatter External

☐

☐

Edit | Clone

Chatter Free User

Chatter Free

☐

☐

Edit | Clone

Chatter Moderator User

Chatter Free

☐

☐

Edit | Clone

Contract Manager

Salesforce

☐

☐

Edit | Clone

Cross Org Data Proxy User

XOrg Proxy User

☐

☐

Edit | Del | ...

Custom Marketing Profile

Salesforce

☒

☐

Edit | Del | ...

Custom Sales Profile

Salesforce

☒

☐

Edit | Del | ...

Custom Support Profile

Salesforce

☒

1-25 of 45

0 Selected

Previous

Next

Page 1 of 2

Created Purchase manager roles

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.

Search Setup

Setup

Home

Object Manager

Roles

Understanding Roles

Set up your Role Hierarchy to control how your organization reports on and accesses data.

Sample Role Hierarchy

View other sample Role Hierarchies: Territory-based Sample

Executive Staff

CEO President CFO VP, Sales

Western Sales Director

Director of W. Sales

Western Sales Rep

CA Sales Rep OR Sales Rep

Eastern Sales Director

Director of E. Sales

Eastern Sales Rep

NY Sales Rep MA Sales Rep

International Sales Director

Director of Int'l Sales

International Sales Rep

Asian Sales Rep European Sales Rep

* View & edit data, roll up forecasts, & generate reports for all users below

* Can't access data of other Executive Staff

* View & edit data, roll up forecasts, & generate reports for all users directly below

* Can't access data of users above or at same level

* View & edit data, roll up forecasts, & generate reports only for own data

* Can't access data of users above or at same level

Set Up Roles

☐ Don't show this page again

Created a permission sets

permi

Users

Permission Set Groups

Permission Sets

Custom Code

Custom Permissions

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

Search Setup

Setup

Home

Object Manager

Permission Sets

Permission Sets

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

All Permission Sets

Edit | Delete | Create New View

New

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

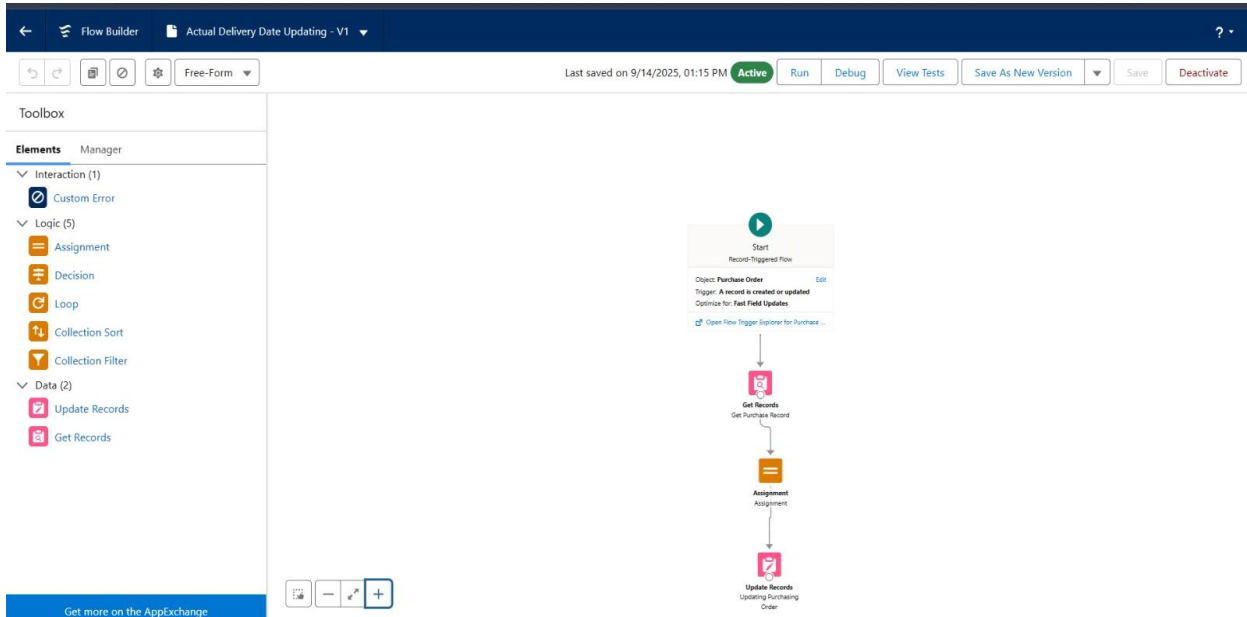
Action	Permission Set Name	Description	License
<input type="checkbox"/>	Clone (Legacy) Data Cloud Data Aware Specialist	This Data Cloud permission set will be deprecated in Spring '24. Learn ...	Customer Data Platform
<input type="checkbox"/>	Clone (Legacy) Data Cloud Marketing Admin	Allows access to Data Cloud Setup if the user is also a Salesforce admi...	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 copilots.	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 auto...	Agentforce Service Agent User
<input type="checkbox"/>	Clone Agentforce Service Agent Secure Base	Set up and use Agentforce Service Agent actions with enhanced data s...	Agentforce Service Agent User
<input type="checkbox"/>	Clone Agentforce Service Agent User	Analyze topics and perform actions as an autonomous AI service agent.	Agentforce Service Agent User

1-25 of 85 0 Selected

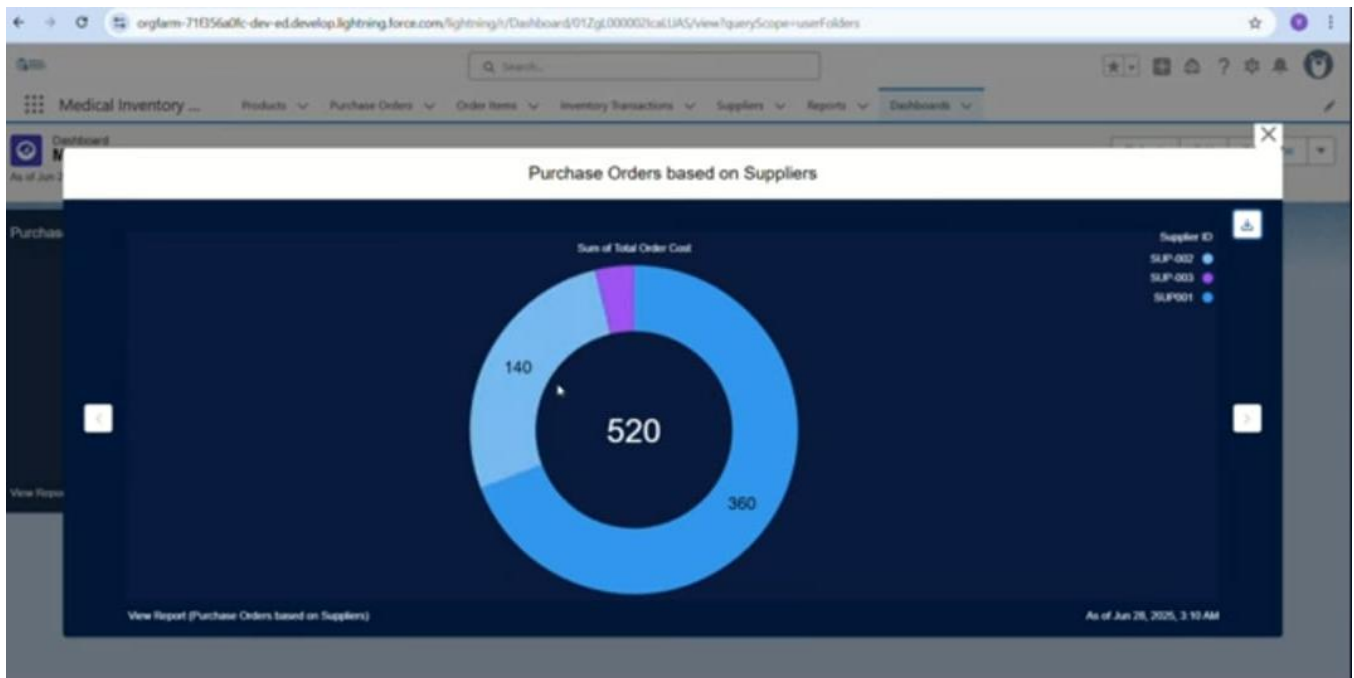
Previous Next

Page 1 of 4

Created flow to update the actual delivery date



Created and viewed the dashboard



ADVANTAGES & DISADVANTAGES

Advantages

- Real-time tracking of medical inventory.
- Automation reduces human error.
- Streamlined supplier and order management.
- Automated expiry and low stock alerts.

Disadvantages

- Requires Salesforce knowledge for customization.
 - Initial setup and configuration can be time-consuming.
-

CONCLUSION

The **Medical Inventory Management System** automates and simplifies inventory management in hospitals or clinics. It helps track stock levels, manage supplier relationships, and reduce manual errors. The system was successfully tested to validate all automated features and meets the project's objectives of improving accuracy, efficiency, and patient safety.

APPENDIX

1.Apex Trigger Code

```
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
    );
}
```

2. Handler Class

```
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
        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);
    }
}

// Map to store Purchase Order total amounts
Map<Id, Decimal> purchaseToUpdateMap = new Map<Id, Decimal>();

if (!parentIds.isEmpty()) {
    // Aggregate query to sum 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
    ];

    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 updates
    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 (!purchaseToUpdate.isEmpty()) {
        update purchaseToUpdate;
    }
}
}
}

```