MEDICAL INVENTORY

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COLLEGE CODE: BRU26

TEAM ID: *NM2025TMID20734*

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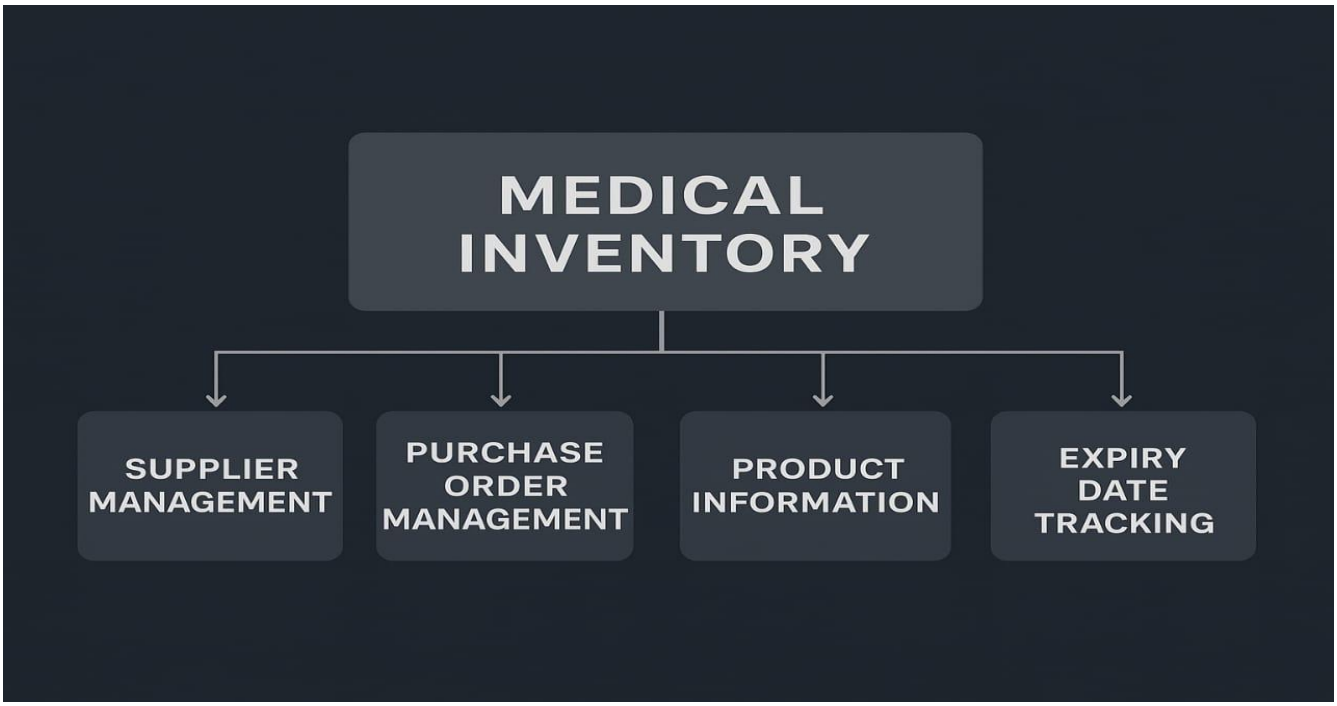
1.INTRODUCTION

1.1 Project Overview

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.



1.2 Purpose

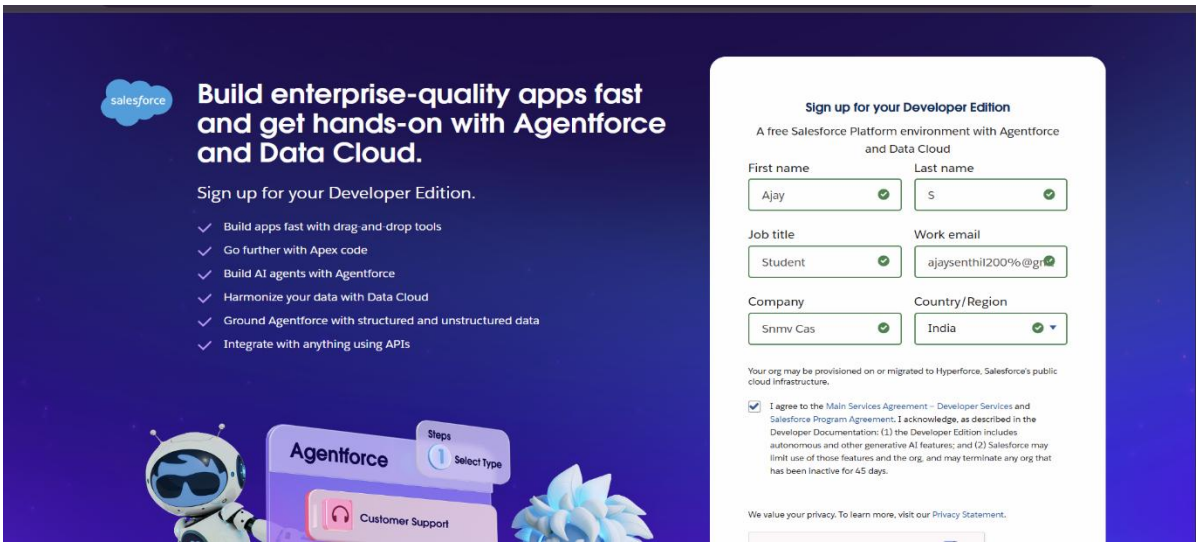
This project is a comprehensive Salesforce application to streamline and manage various operational aspects of medical inventory. The system aims to efficiently maintain supplier details, manage purchase orders, track product details and transactions, and

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.

DEVELOPMENT PHASE

Creating Developer Account:

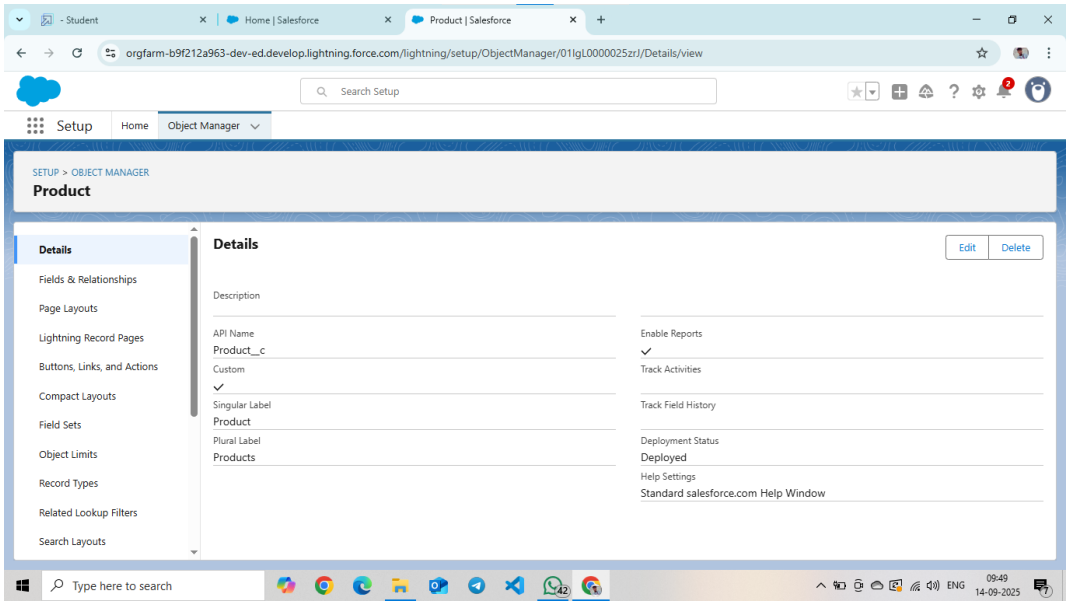
By using this URL - https://developer.salesforce.com/signup



OBJECT:

Created Objects:

- ✓ **Product**
- ✓ **Purchase Order**
- ✓ **Order Item**
- ✓ **Inventory Transaction**
- ✓ **Supplier**


Product | Salesforce
orgfarm-b9f212a963-dev-ed.develop.lightning.force.com/lightning/setup/ObjectManager/01IgL0000025zrJ/Details/view
Search Setup
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
Edit
Delete
Description
API Name
Product__c
Custom
Singular Label
Product
Plural Label
Products
Enable Reports
Track Activities
Track Field History
Deployment Status
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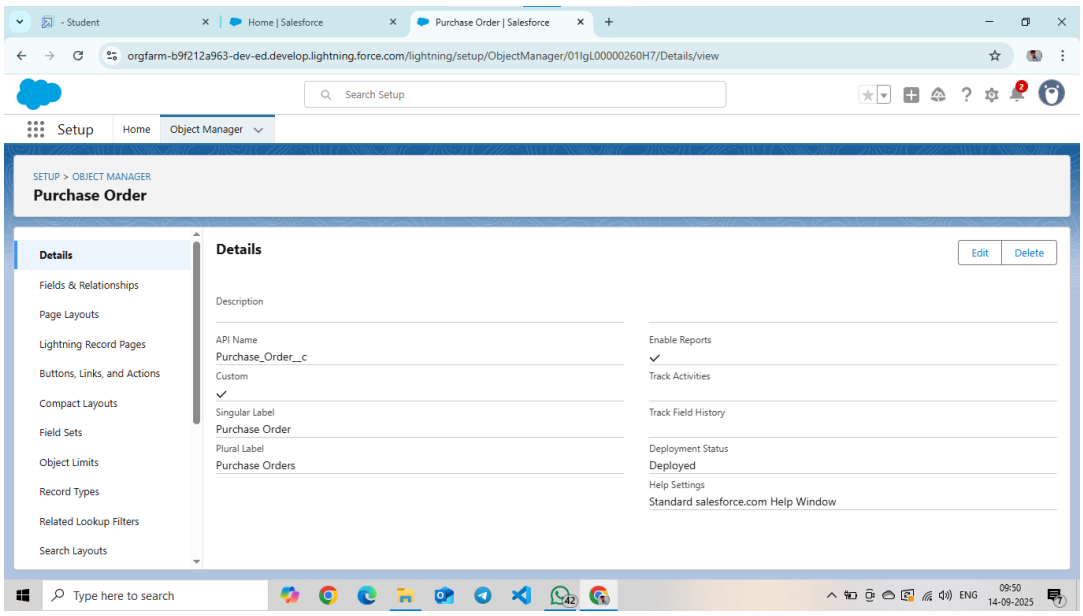
Purchase Order | Salesforce
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Search Setup
Setup
Home
Object Manager
SETUP > OBJECT MANAGER
Purchase Order
Details
Fields & Relationships
Page Layouts
Lightning Record Pages
Buttons, Links, and Actions
Compact Layouts
Field Sets
Object Limits
Record Types
Related Lookup Filters
Search Layouts
Edit
Delete
Description
API Name
Purchase_Order__c
Custom
Singular Label
Purchase Order
Plural Label
Purchase Orders
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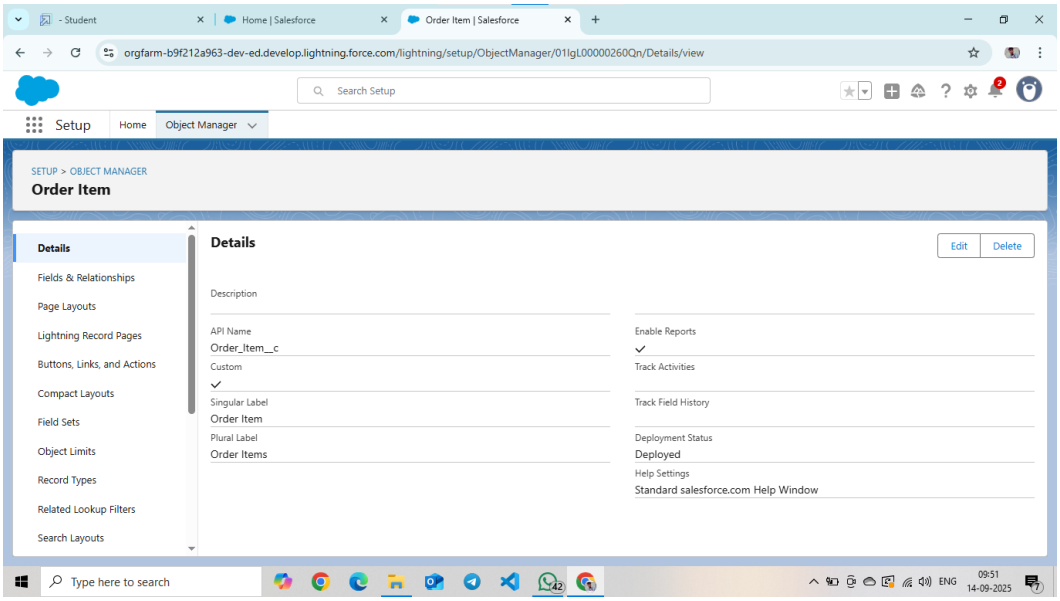
Order Item | Salesforce
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Search Setup
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Object Manager
SETUP > OBJECT MANAGER
Order Item
Details
Fields & Relationships
Page Layouts
Lightning Record Pages
Buttons, Links, and Actions
Compact Layouts
Field Sets
Object Limits
Record Types
Related Lookup Filters
Search Layouts
Details
Edit
Delete
Description
API Name
Order_Item__c
Custom
Singular Label
Order Item
Plural Label
Order Items
Enable Reports
Track Activities
Track Field History
Deployment Status
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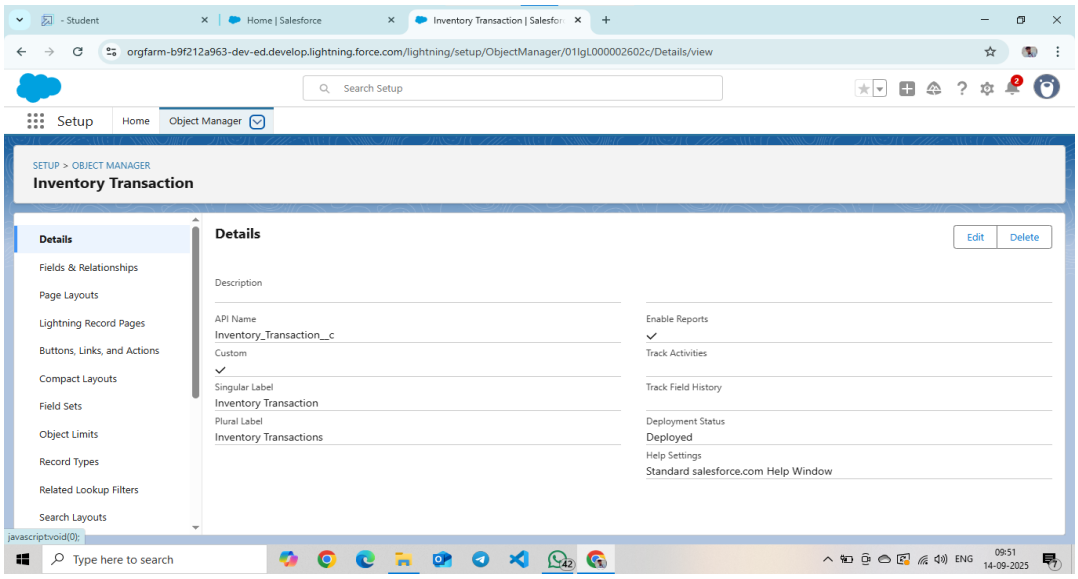
Inventory Transaction | Salesforce
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SETUP > OBJECT MANAGER
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Fields & Relationships
Page Layouts
Lightning Record Pages
Buttons, Links, and Actions
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Plural Label
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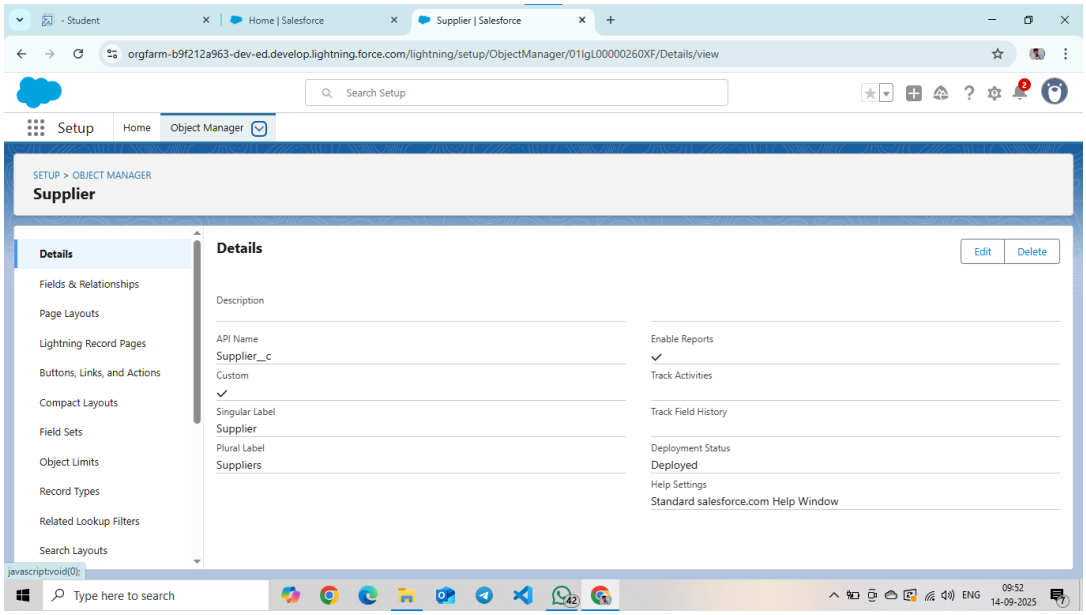

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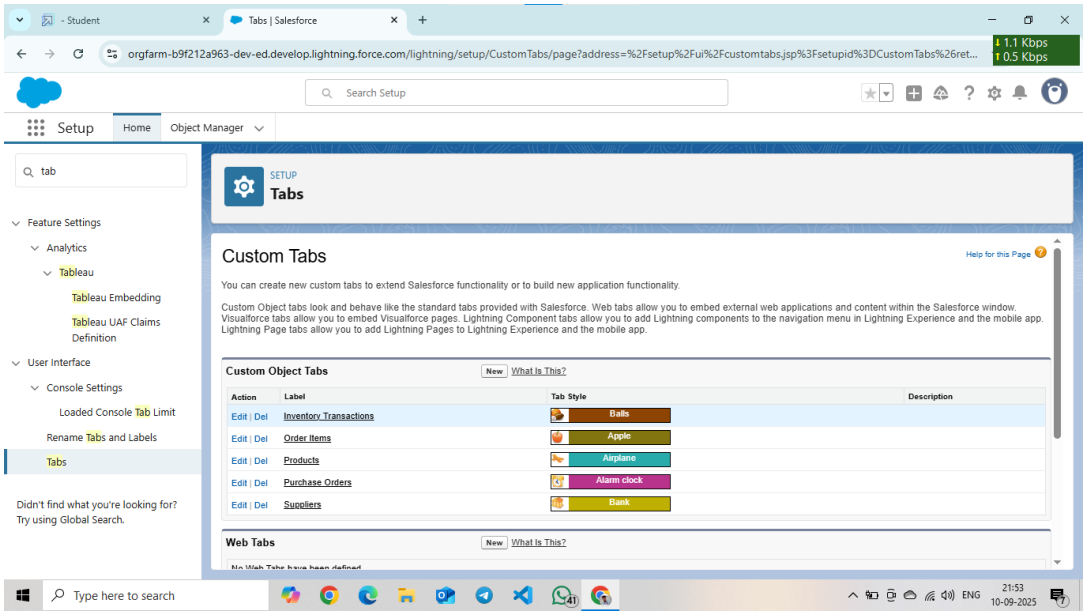
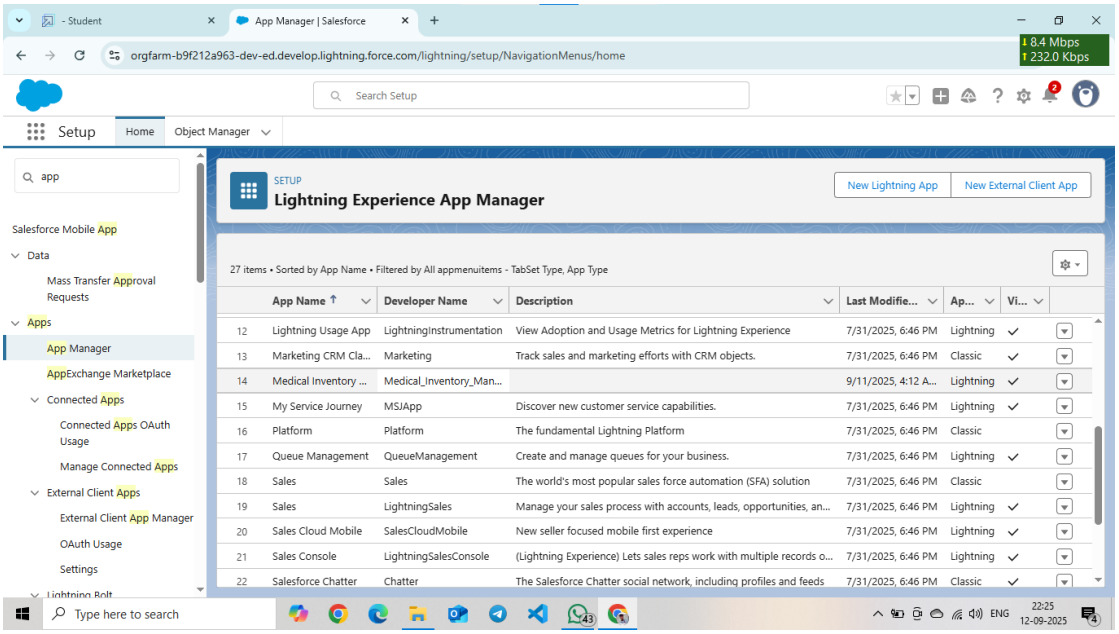
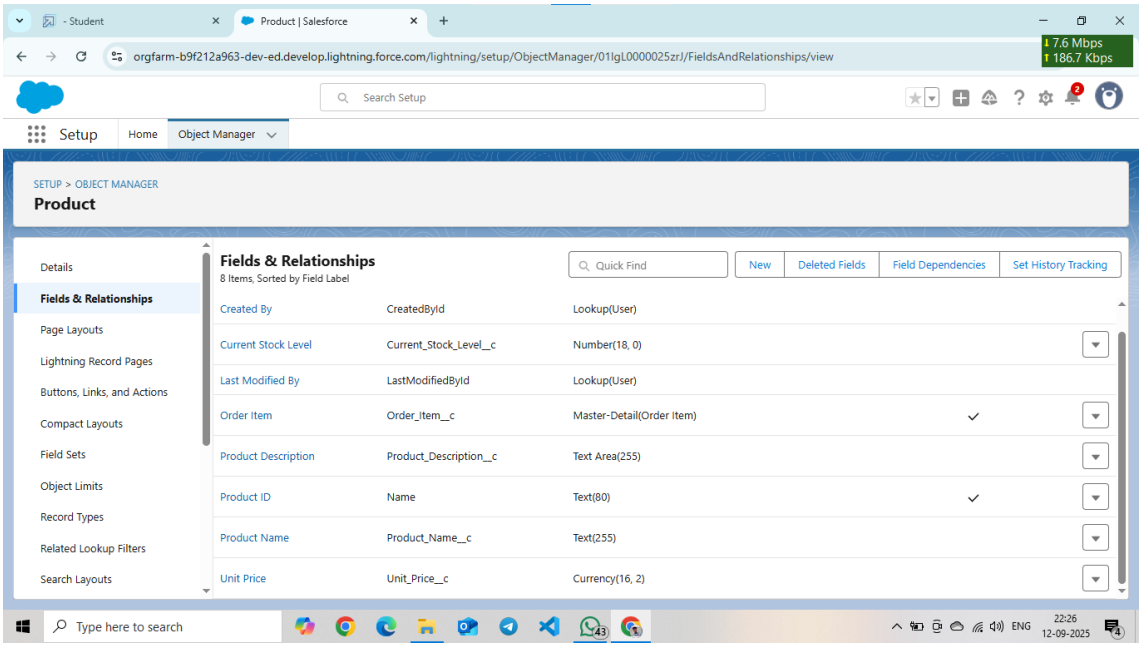


Created a Lightning App

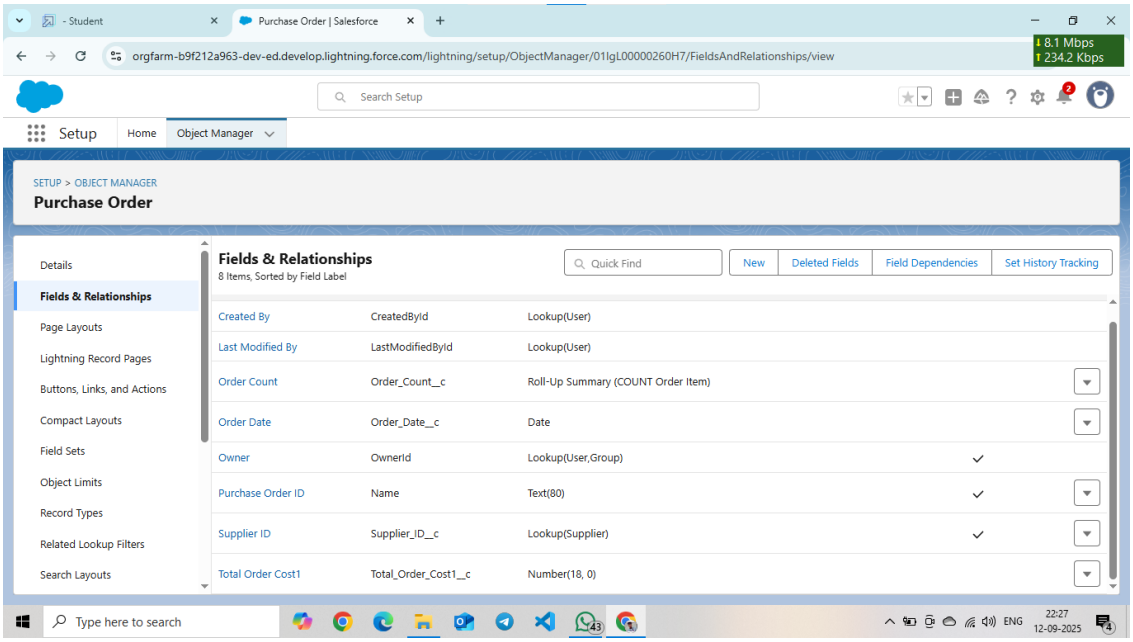


FIELDS:

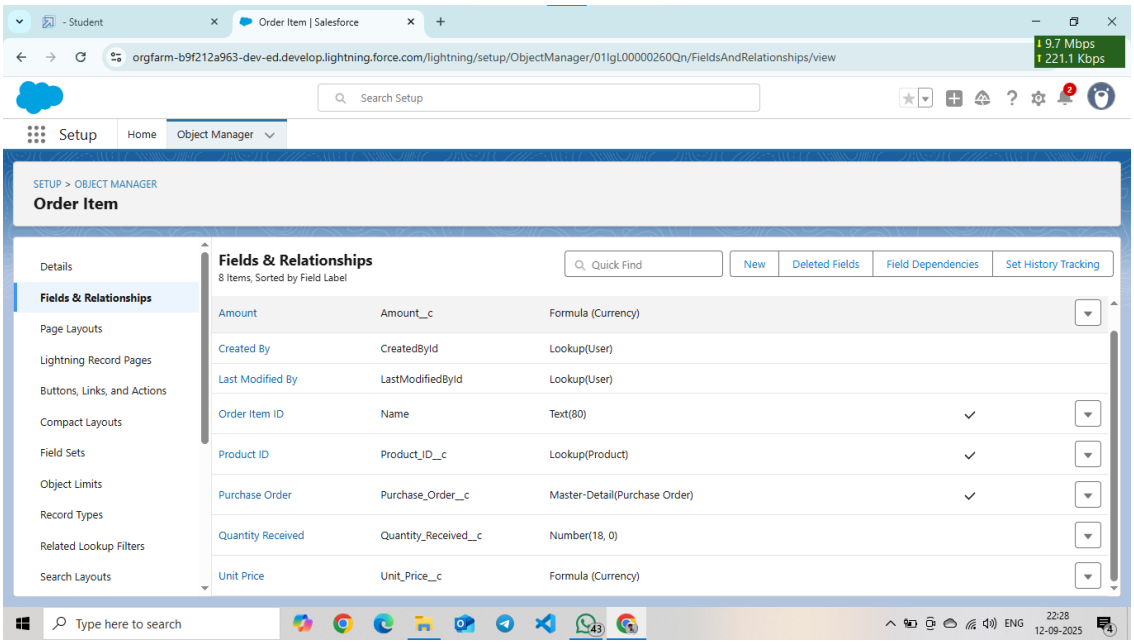
Creation of fields for the Product object:



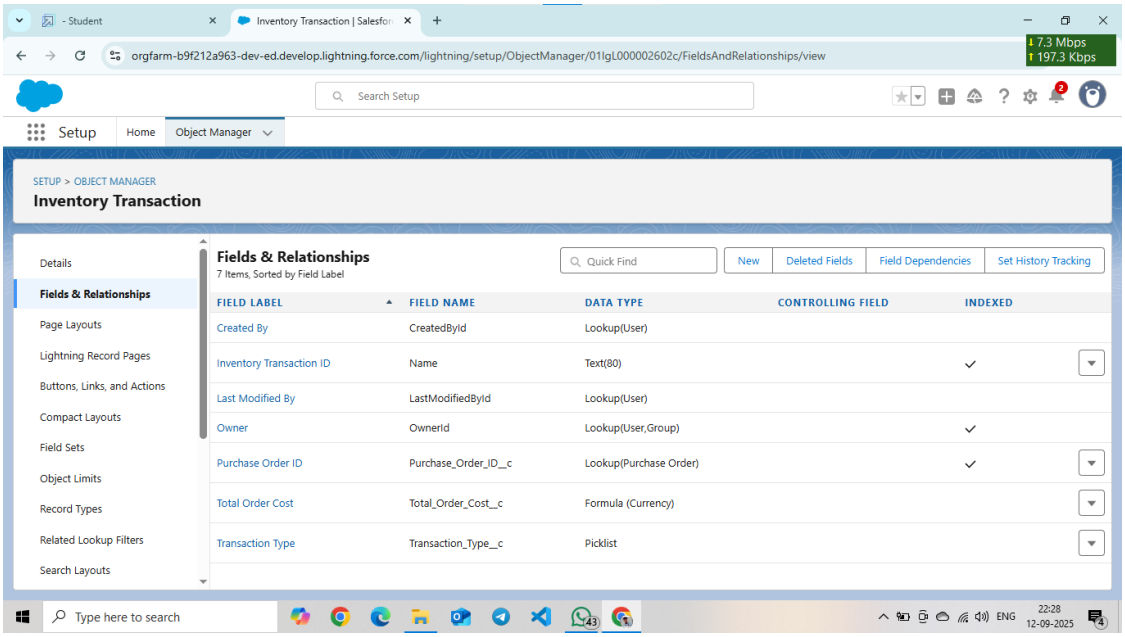
Creation of fields for the Purchase Order object



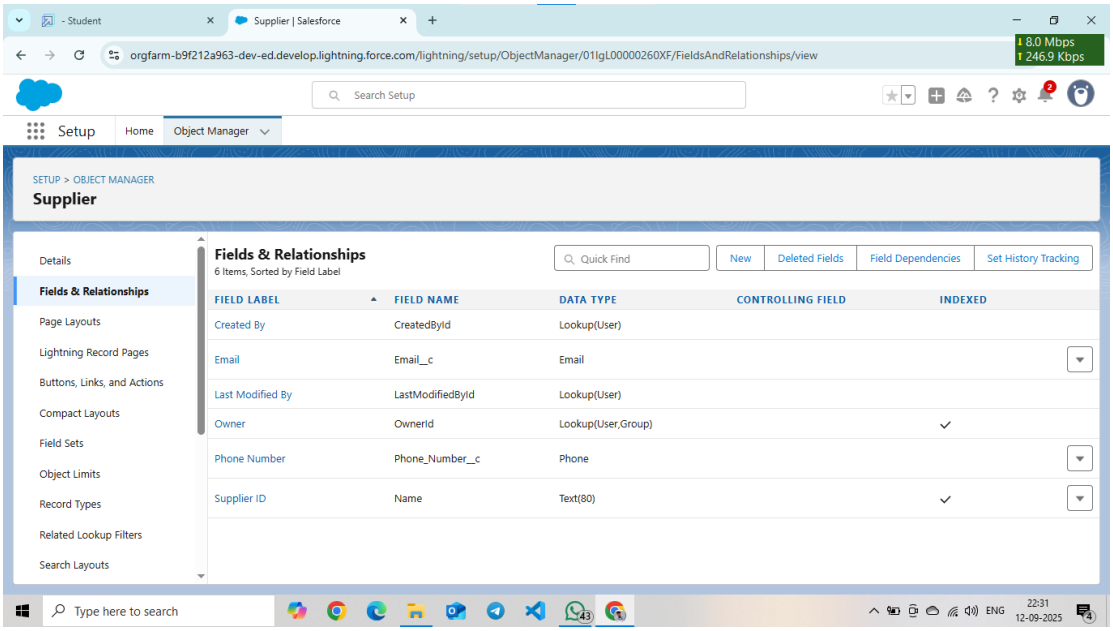
Creation of fields for the Order Item object



Creation of fields for the Inventory Transaction Object



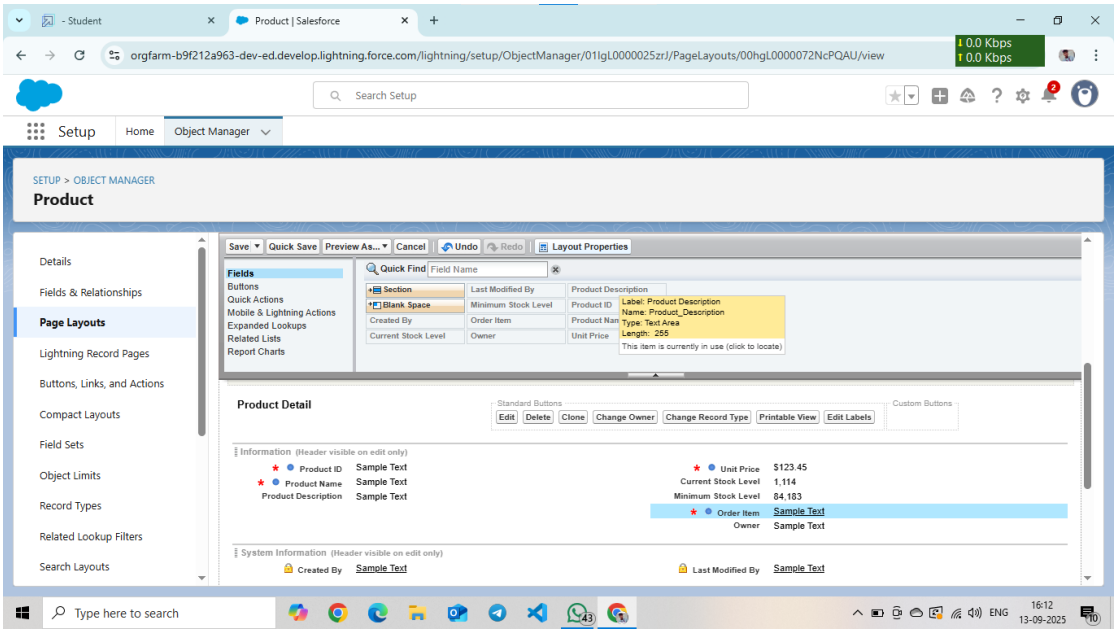
Creation of fields for the Supplier object



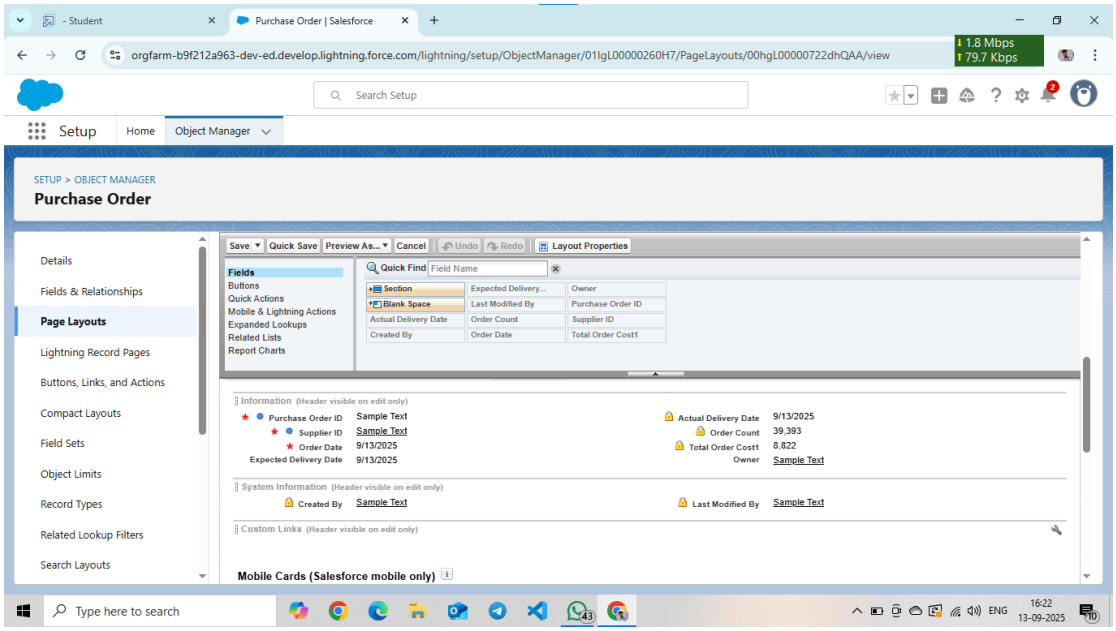
Page Layouts;

Editing of Page Layouts:

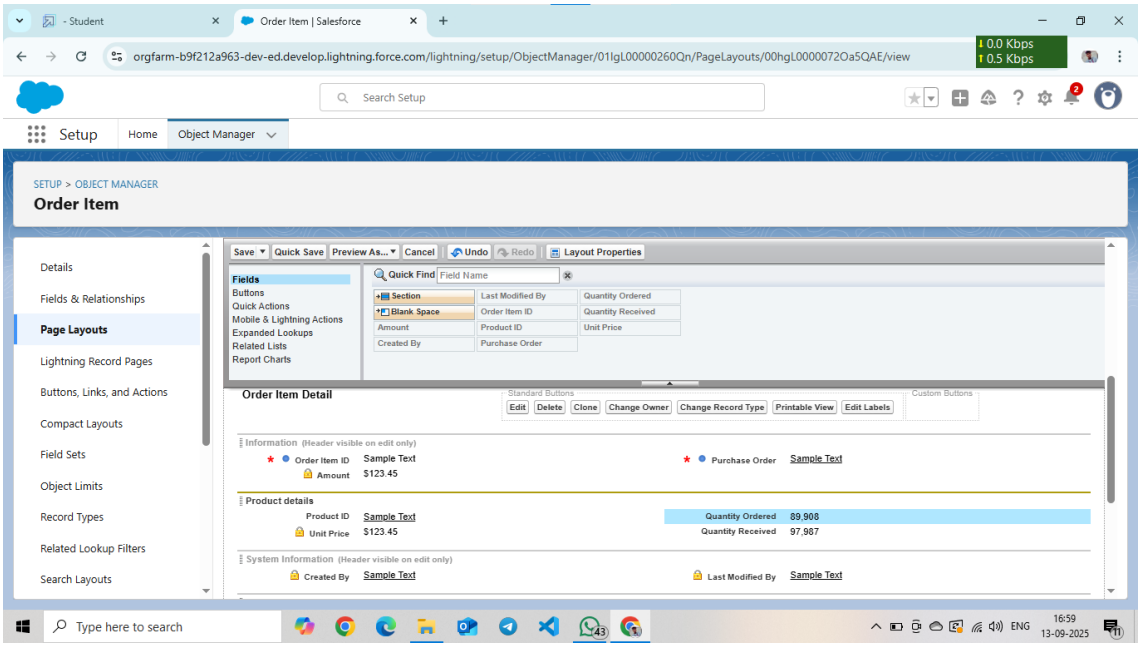
Editing of Page Layout for the Product object



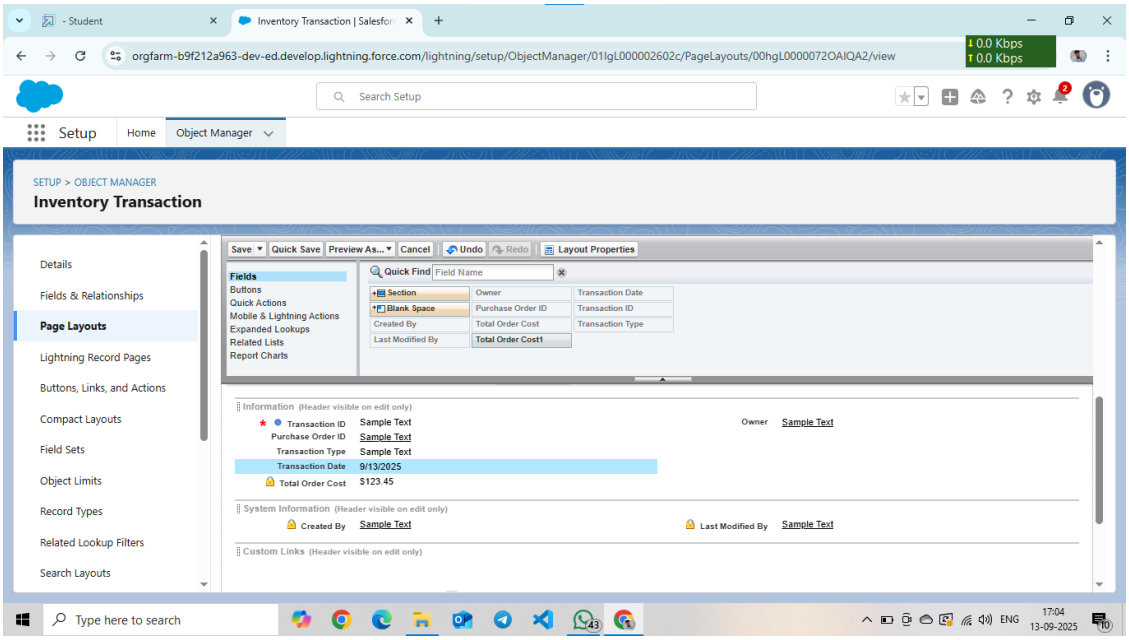
Editing of Page Layout for the Purchase Order object



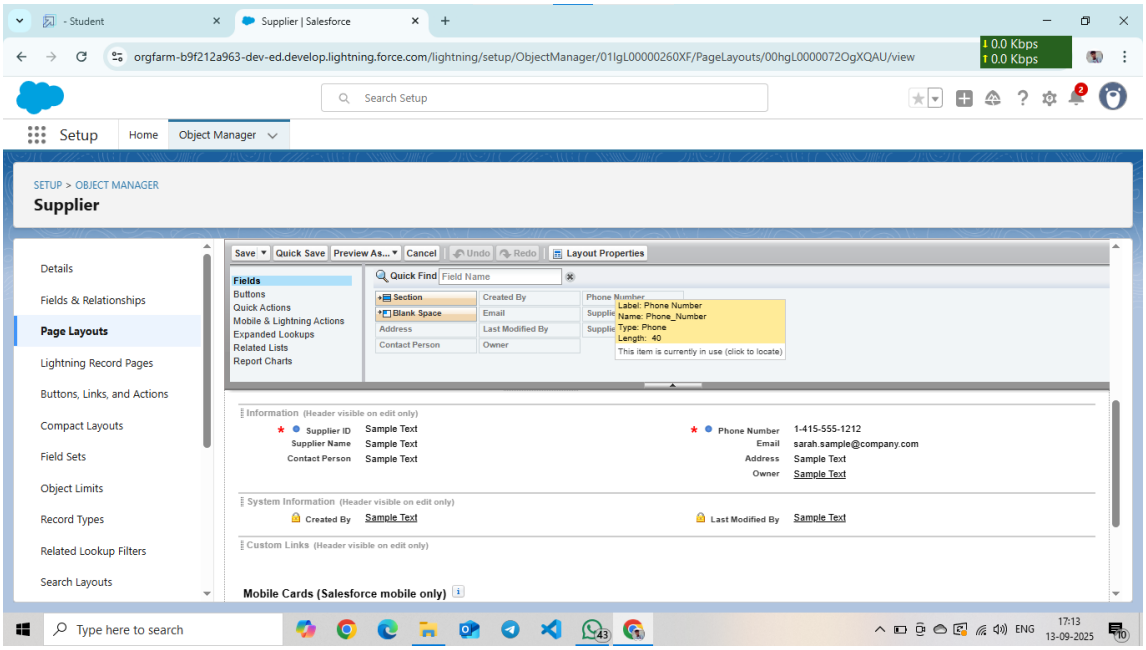
Editing of Page Layout for the Order Item object



Editing of Page Layout for the Inventory Transaction object

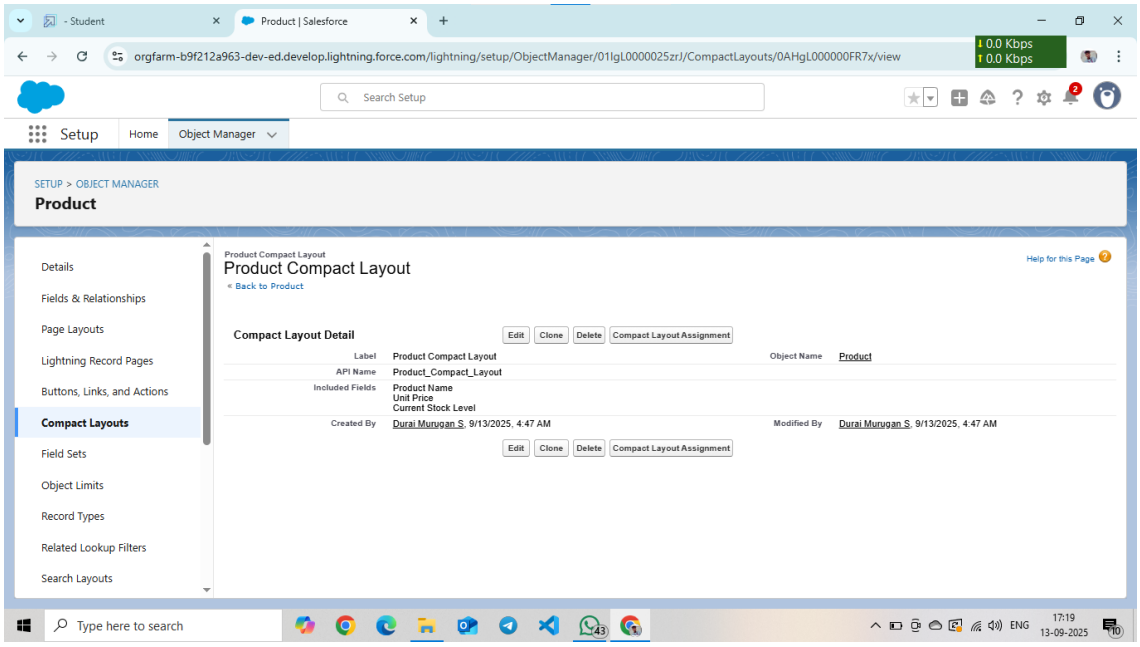


Editing of Page Layout for the Supplier object

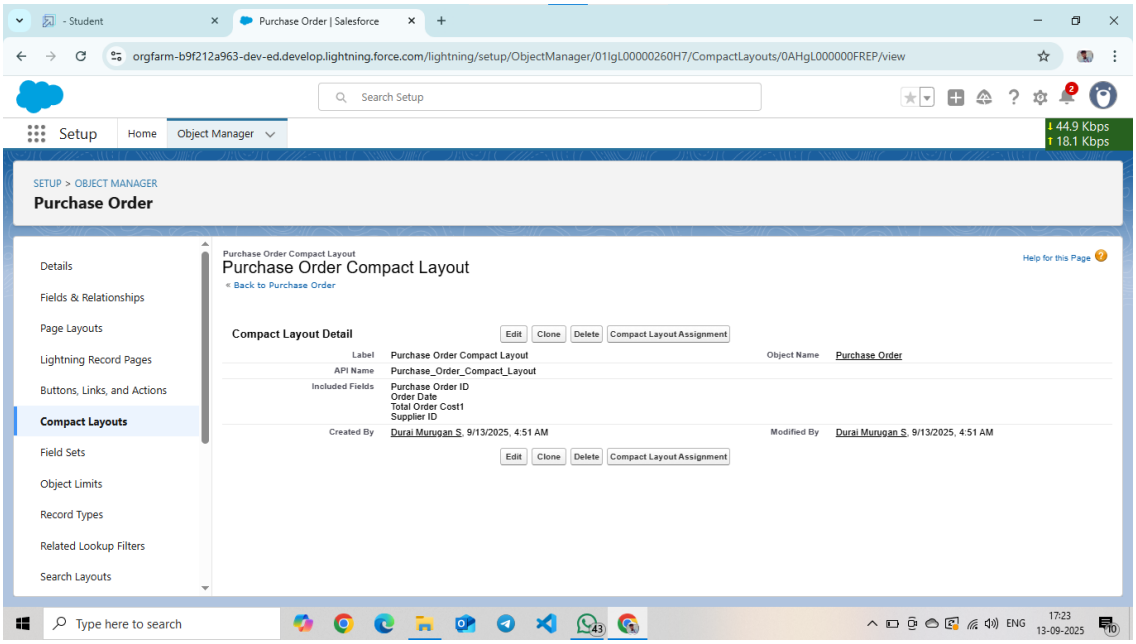


Compact Layouts

Created a Compact Layout for the Product Object

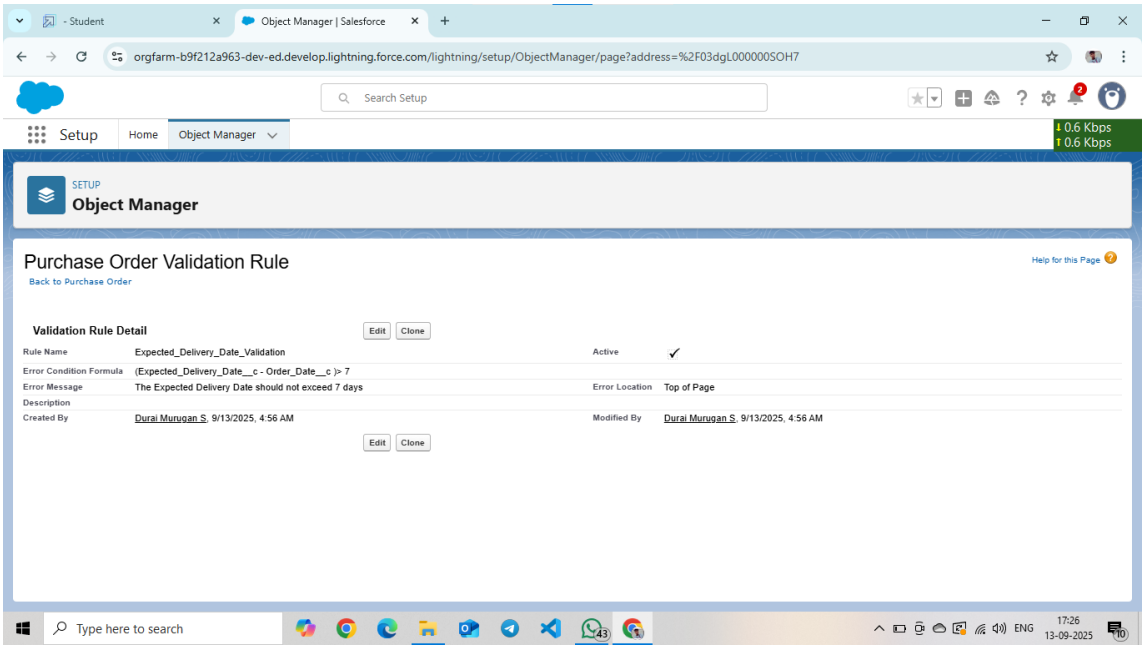


Created a Compact Layout for the Purchase Order Object



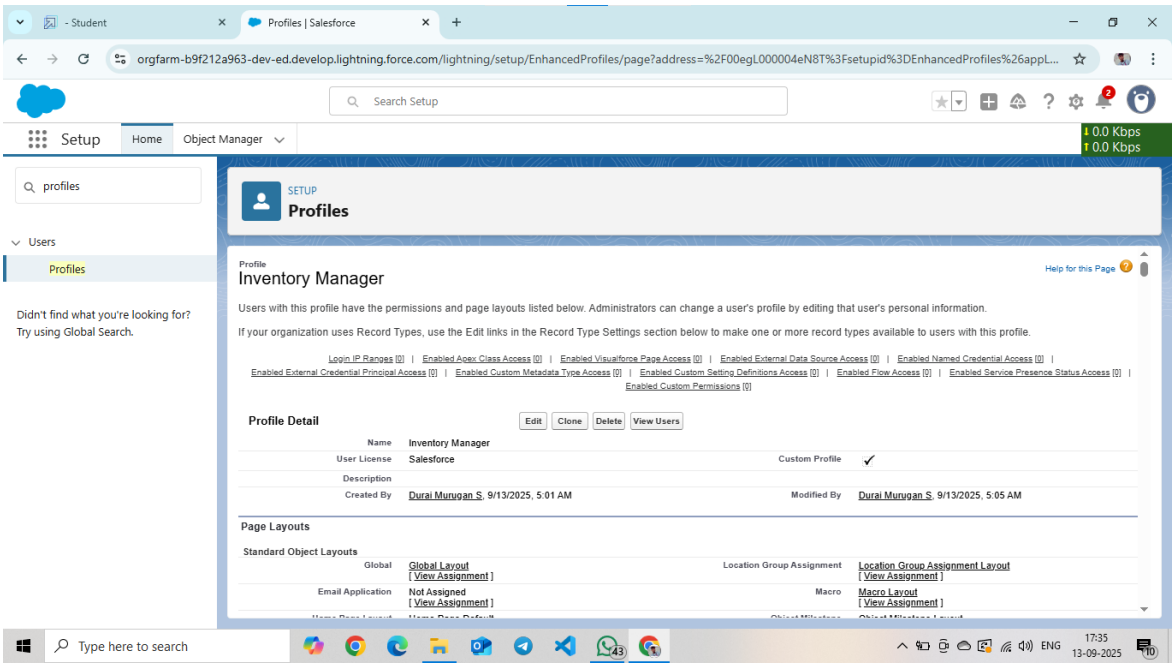
Validation Rules

Created an Expected Delivery Date Validation rule to an Employee Object

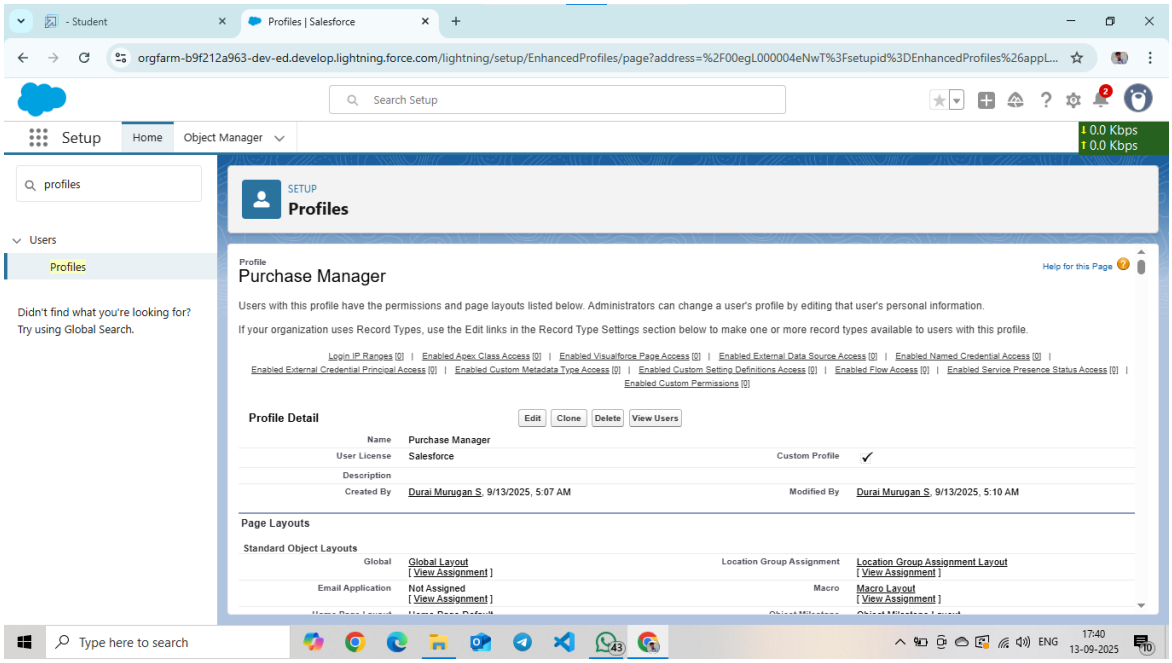


Profiles

Created an Inventory Manager Profile

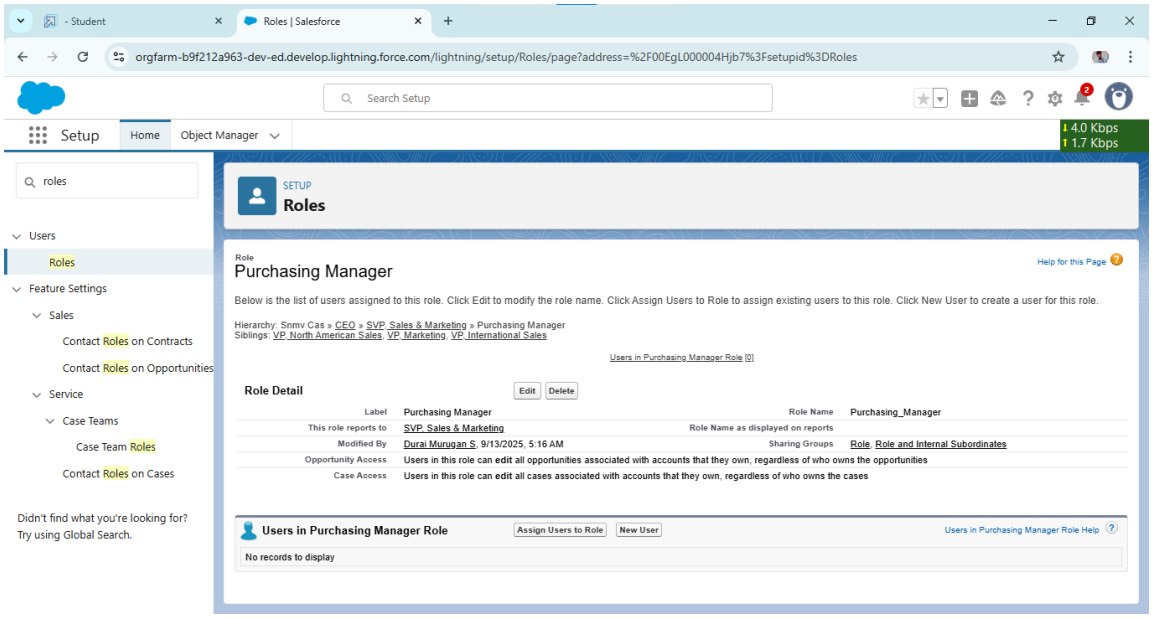


Created a Purchase Manager Profile

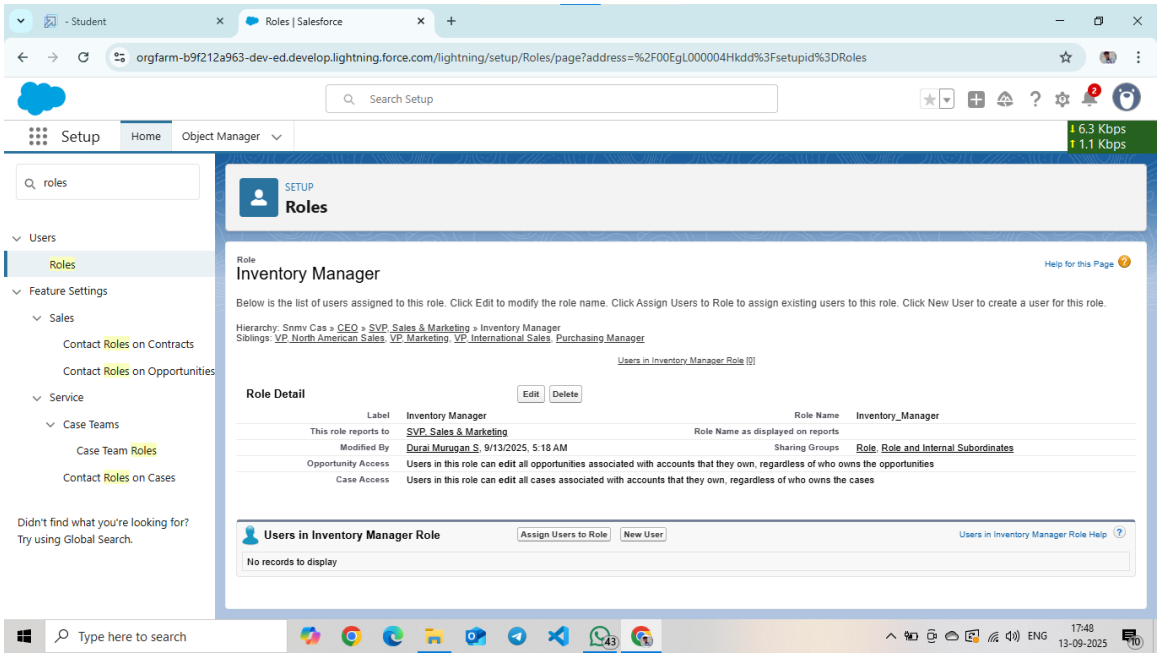


Roles

Created a Purchasing Manager Role (Purchasing Manager)

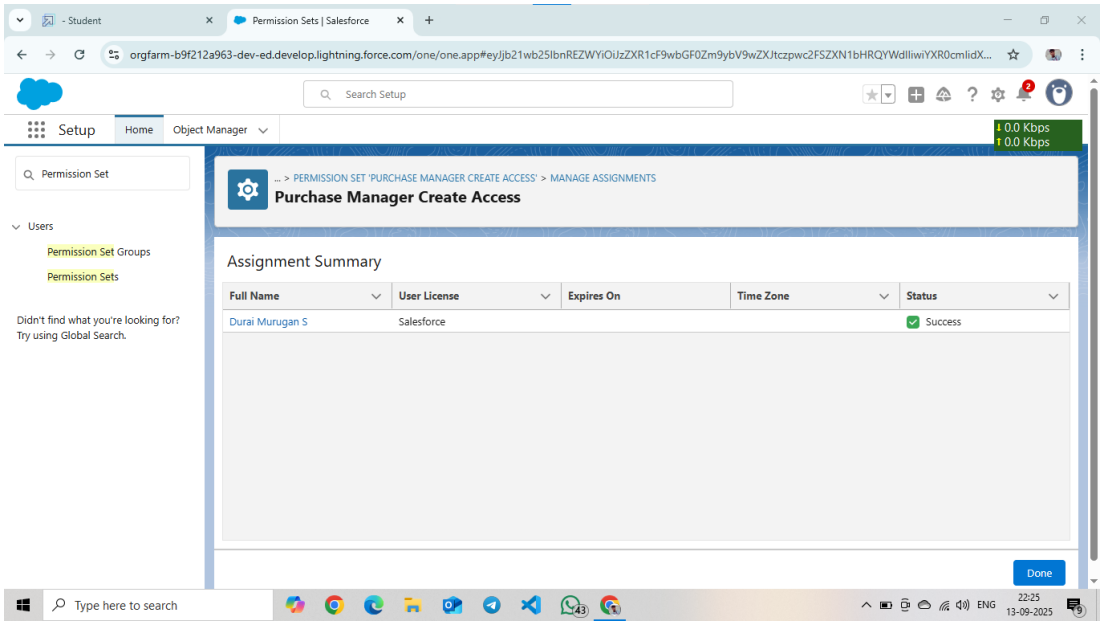


Created a Purchasing Manager Role (Inventory Manager)



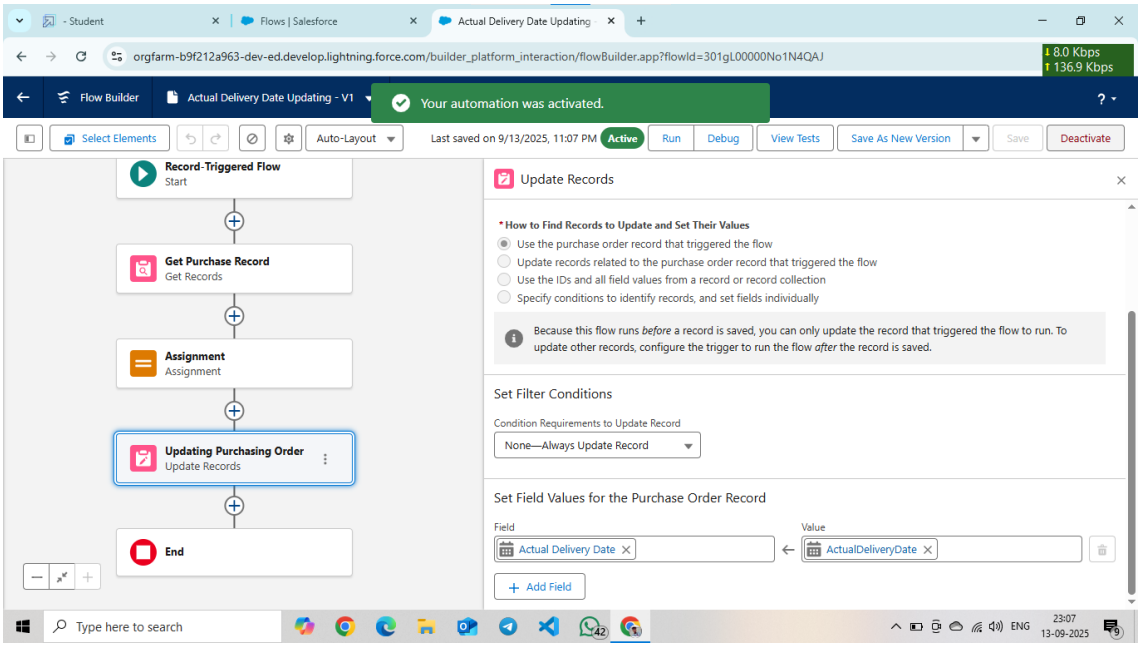
Permission Sets

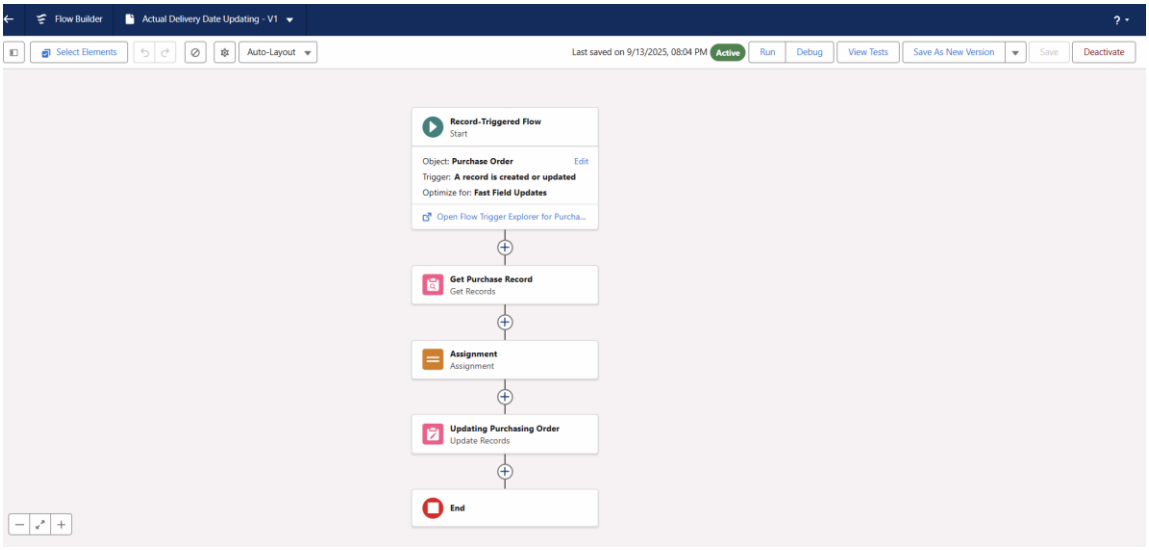
Create a Permission Set



Flows

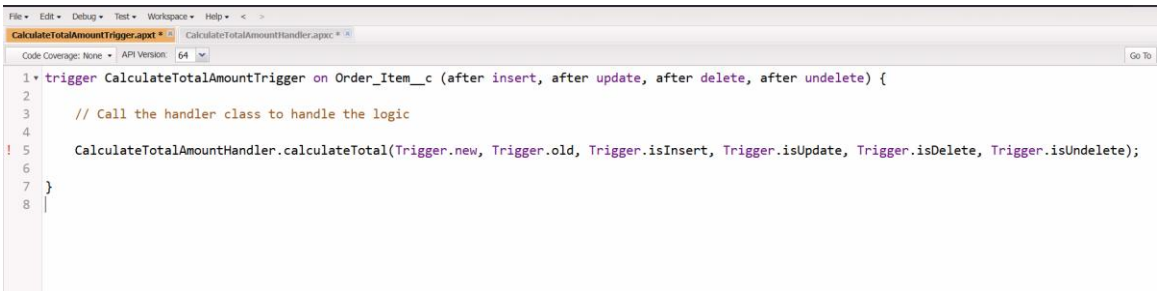
Created Flow to update the Actual Delivery Date





Triggers

Create an Apex Trigger



Coding

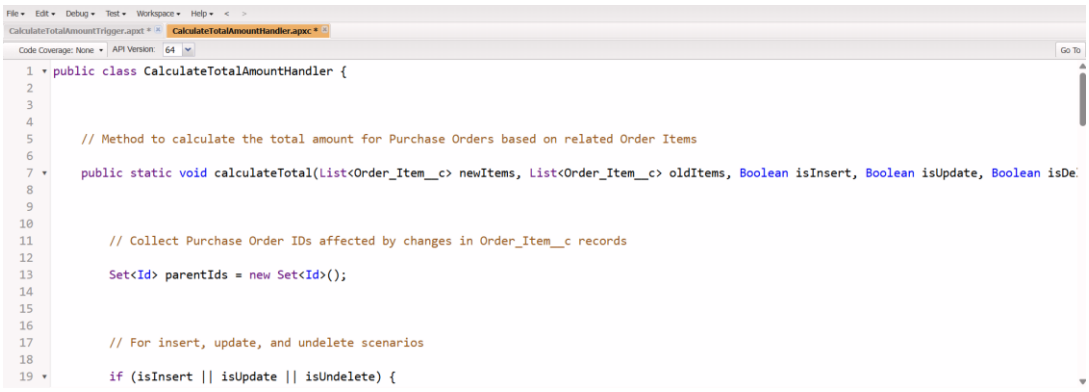
trigger CalculateTotalAmountTrigger on Order_Item__c (after insert, after update, after delete, after undelete) {

// Call the handler class to handle the logic

CalculateTotalAmountHandler.calculateTotal(Trigger.new, Trigger.old, Trigger.isInsert, Trigger.isUpdate, Trigger.isDelete, Trigger.isUndelete);

}

Create an Apex Class



Coding

public class CalculateTotalAmountHandler

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

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

if (isInsert || isUpdate || isUndelete) {

for (Order_Item__c ordItem : newItems) {

parentIds.add(ordItem.Purchase_Order_Id__c);

}

}

if (isUpdate || isDelete) {

for (Order_Item__c ordItem : oldItems) {

parentIds.add(ordItem.Purchase_Order_Id__c);

}

}

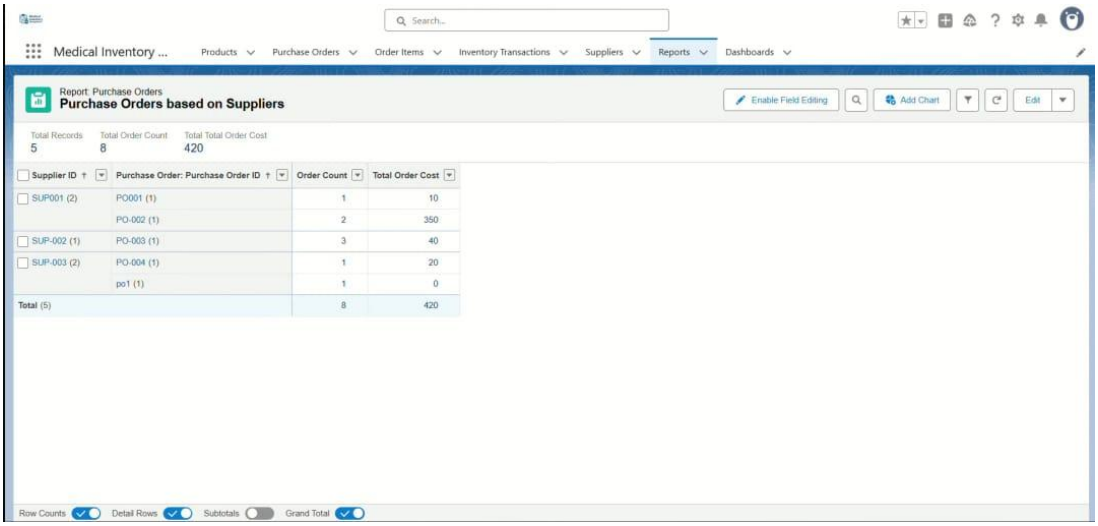
Map<Id, Decimal> purchaseToUpdateMap = new Map<Id, Decimal>();

if (!parentIds.isEmpty()) {

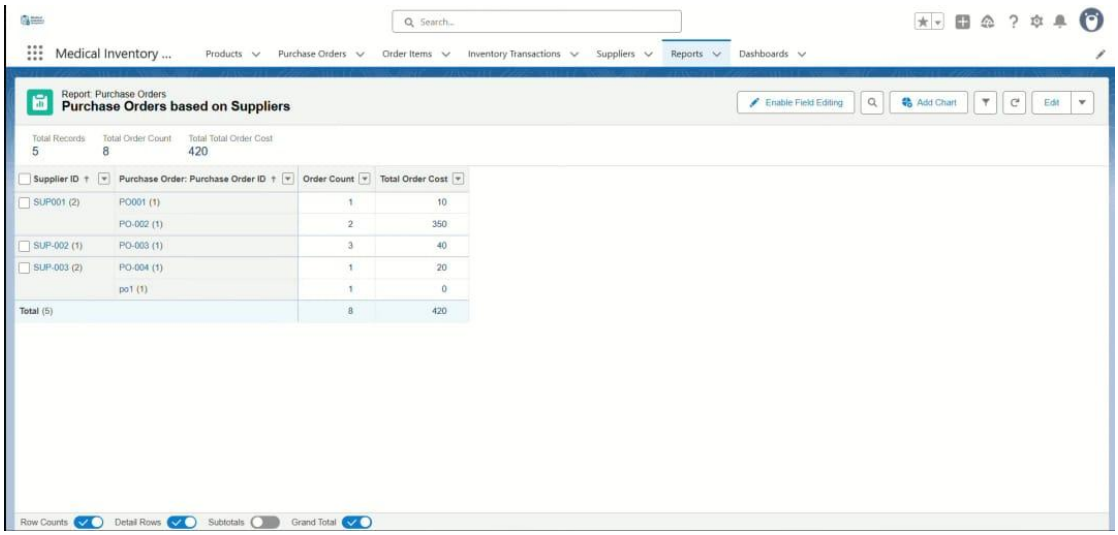
```
  List<AggregateResult> aggrList = [
            SELECT Purchase_Order_Id__c, SUM(Amount__c) totalAmount
            FROM Order_Item__c
            WHERE Purchase_Order_Id__c IN :parentIds
            GROUP BY Purchase_Order_Id__c
        ];
        for (AggregateResult aggr : aggrList) {
            Id purchaseOrderId = (Id)aggr.get('Purchase_Order_Id__c');
            Decimal totalAmount = (Decimal)aggr.get('totalAmount');
            purchaseToUpdateMap.put(purchaseOrderId, totalAmount);
        }
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);
        }
        if (!purchaseToUpdate.isEmpty()) {
            update purchaseToUpdate;
        }
    }
  }
}
```

Reports

Created a Purchase Orders based on Suppliers (Summary) Report

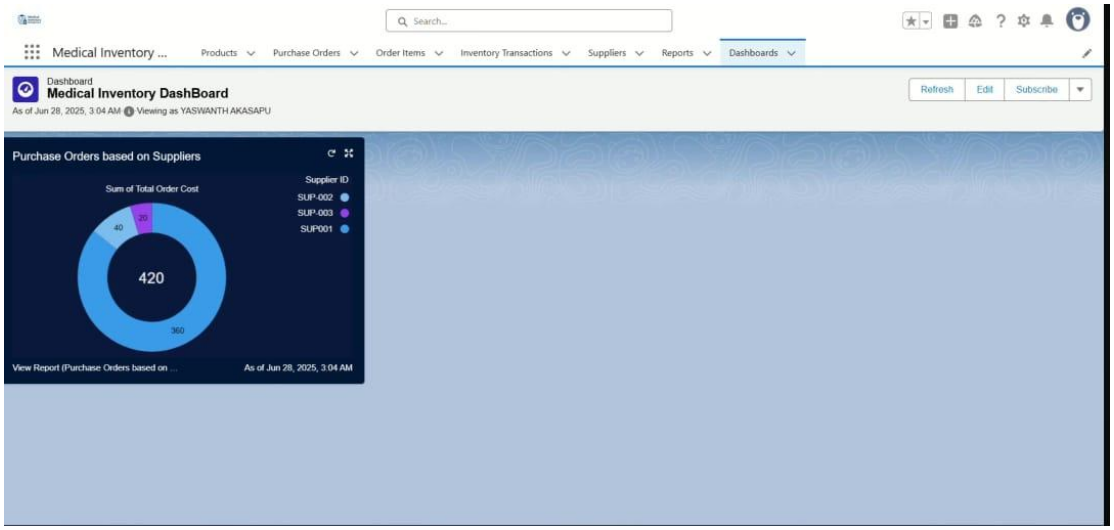


Created a Complete Purchase Details Report



Dashboards

Creation and view of Dashboard



Conclusion

The Salesforce-based Medical Inventory Management System successfully streamlines and automates the key operational aspects of medical inventory. By integrating supplier management, purchase order tracking, product cataloging, and expiry date monitoring, the system ensures accuracy, efficiency, and reliability in handling medical supplies. It reduces the risk of errors, prevents the use of expired products, and enhances decision-making through comprehensive reports and analytics. Overall, this project demonstrates how Salesforce can be effectively utilized to improve healthcare inventory operations, contributing to better resource management and patient safety.