Medical Inventory Management

College Name: CHIKKANNA GOVERNMENT ARTS COLLEGE

College Code:Bru06

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INTRODUCTION:

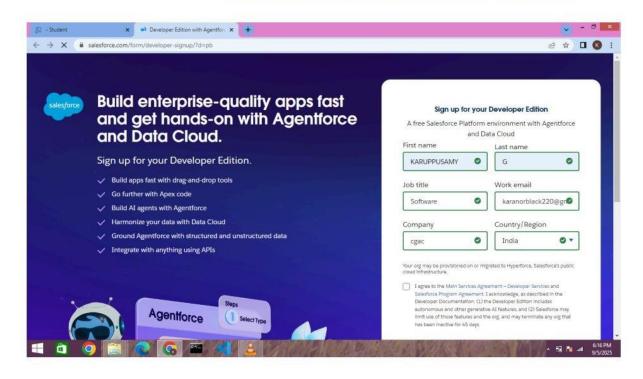
The Medical Inventory Management System is a comprehensive Salesforce application designed to streamline and manage various operational aspects of the medical inventory. It can efficiently maintain supplier details, manage purchase orders, track product details and transactions, and monitor expiry dates of products, thereby improving

operational efficiency, data accuracy, and reporting capabilities.

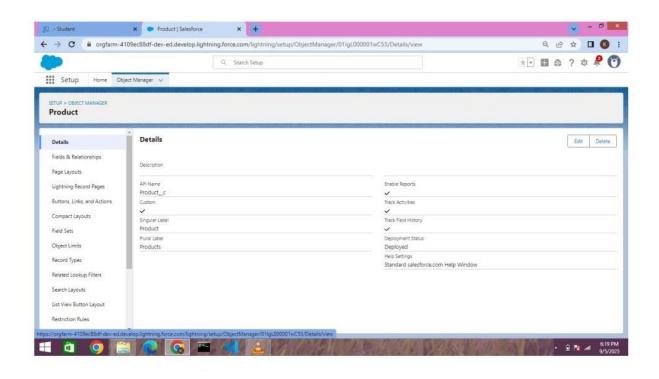
DEVELOPMENT PHASE

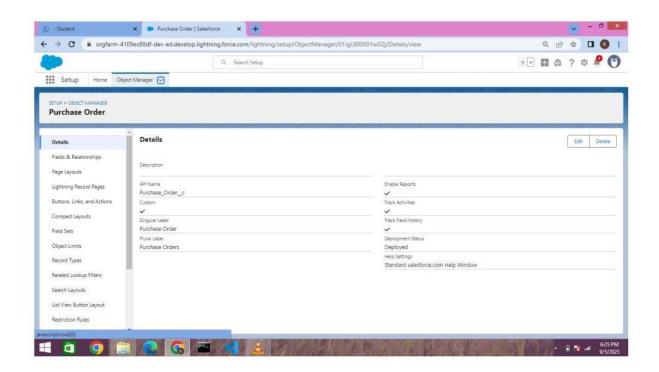
Creating Developer Account:

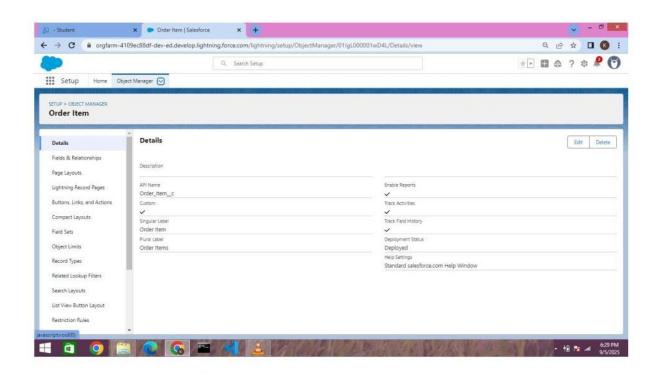
By using this URL - https://developer.salesforce.com/signup

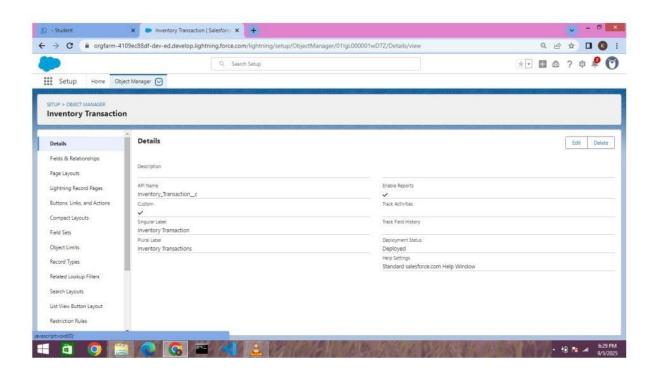


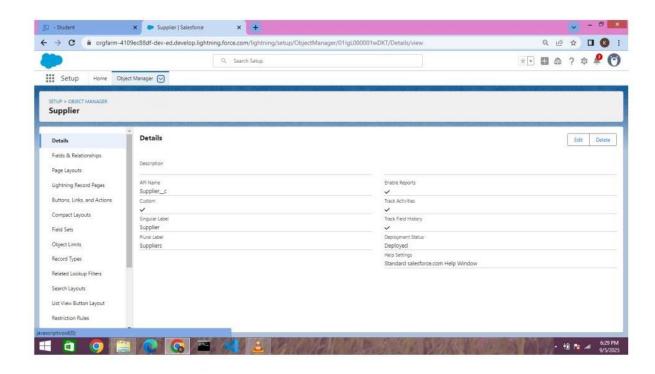
■ Creating objects: Product, Purchase Order, Order Item, Inventory Transaction and Supplier objects.



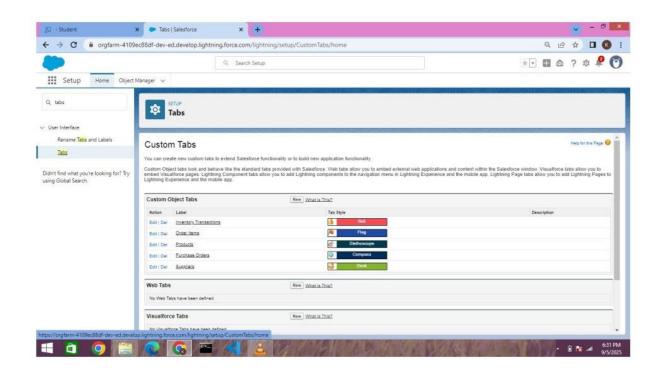




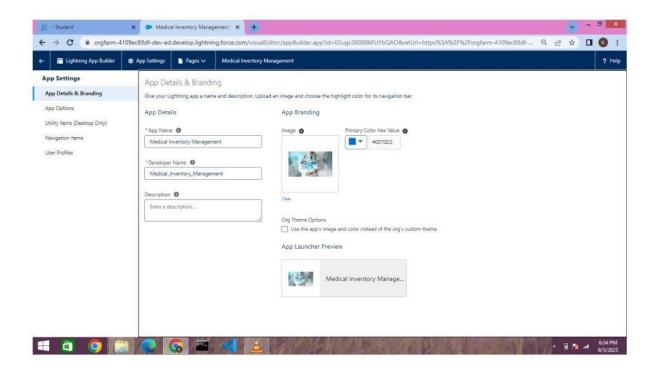




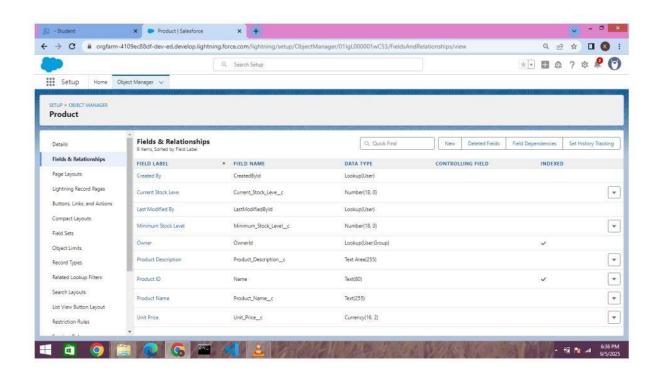
Creating A Tab For Object:

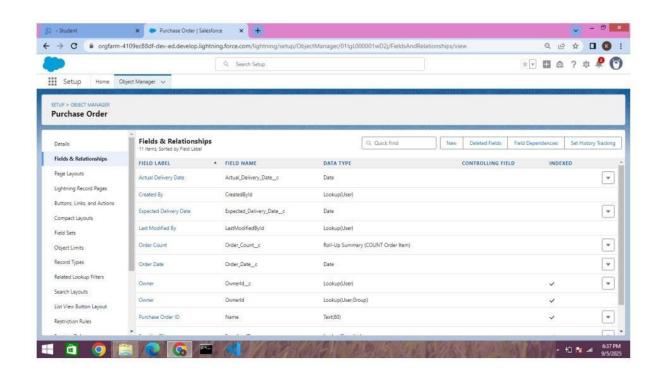


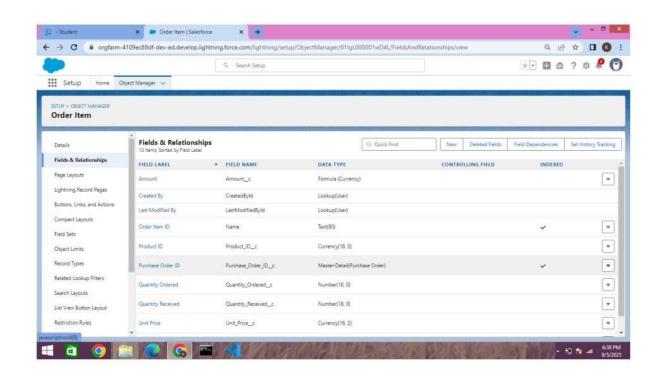
.Developed Lightning App:

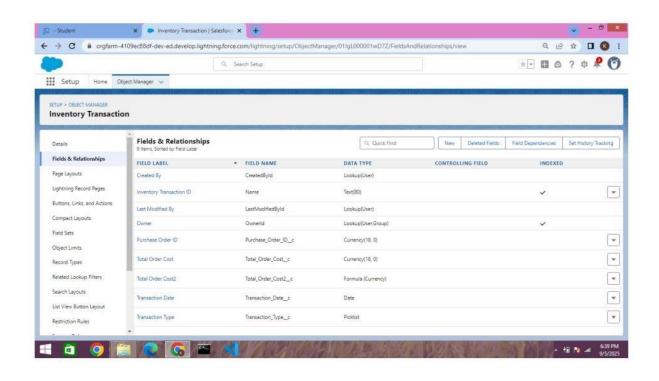


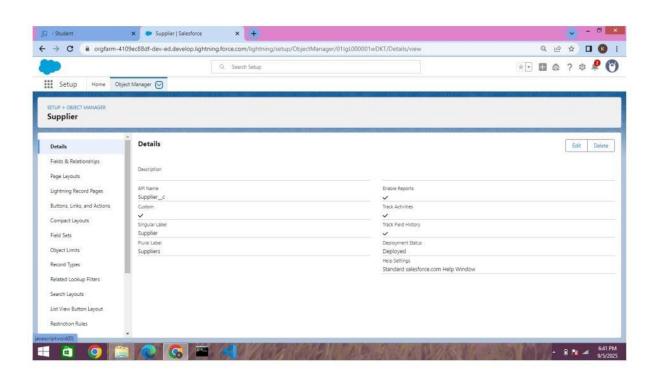
configure Fields and relationship



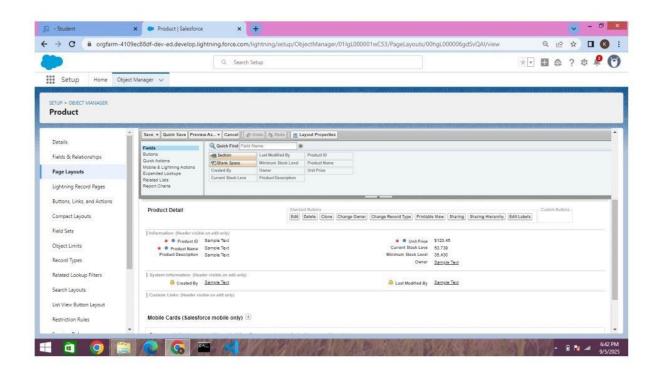


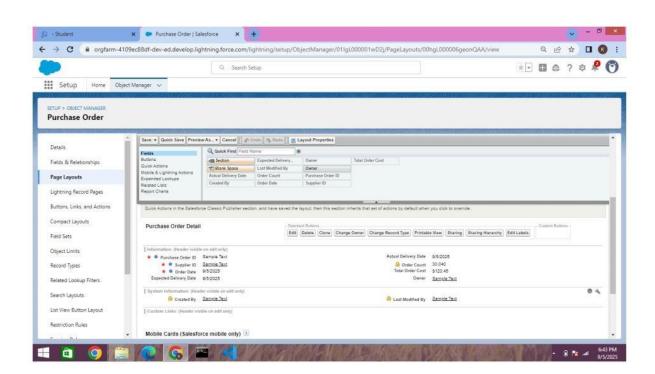


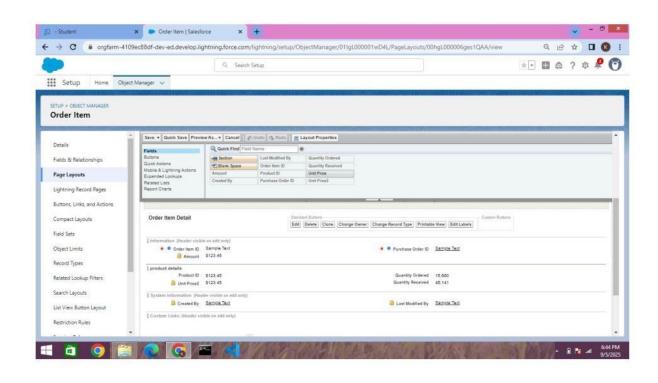


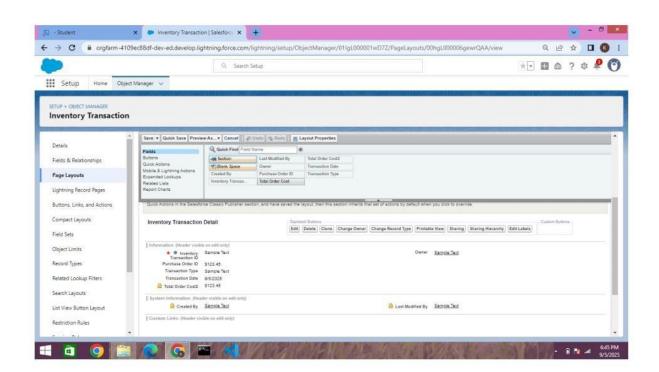


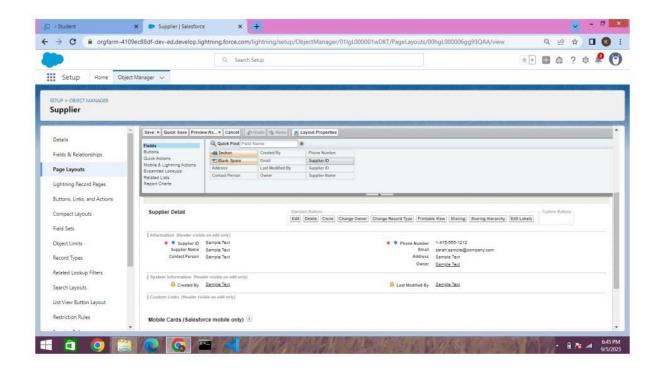
Developed Of Page Layouts



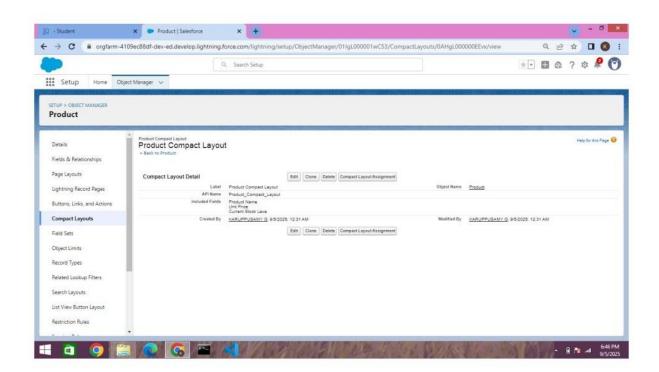


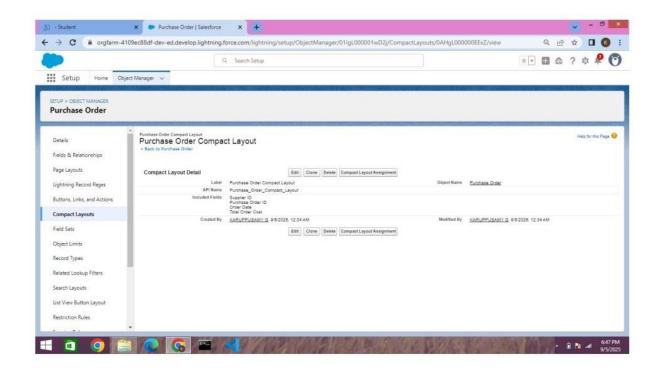




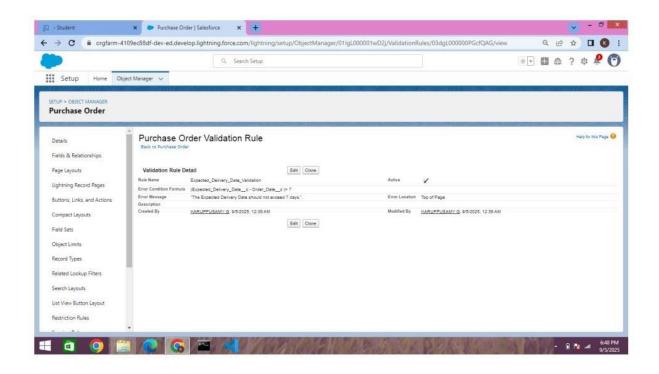


Developed Compact Layouts:

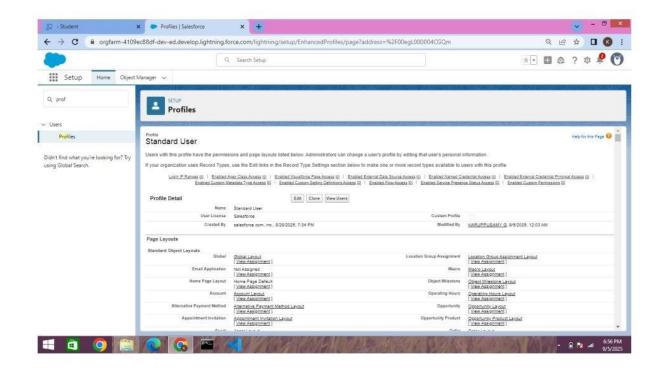




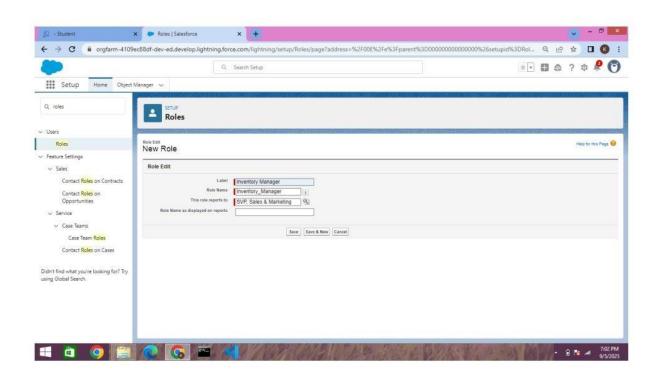
To Create An Expected Delivery Date Validation Rule To A Employee Object:

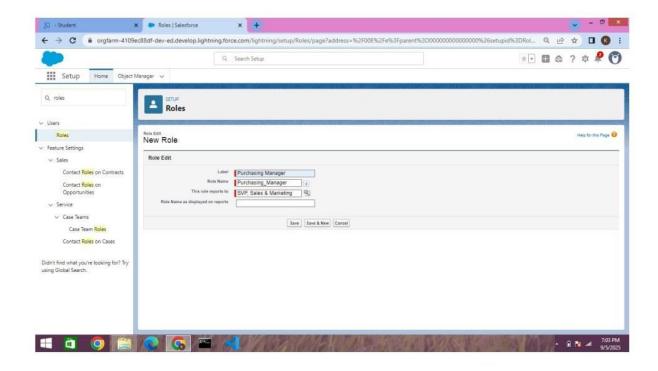


.To create Profiles

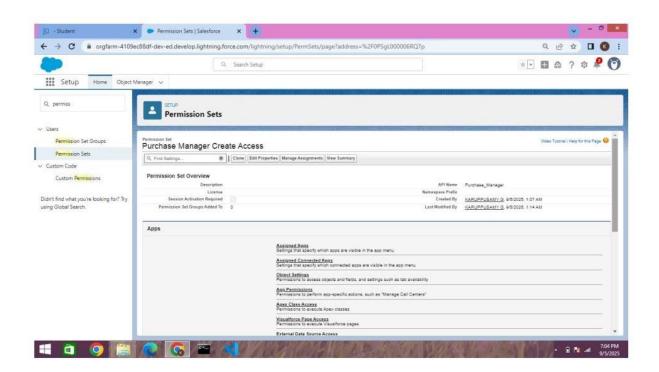


.Roles

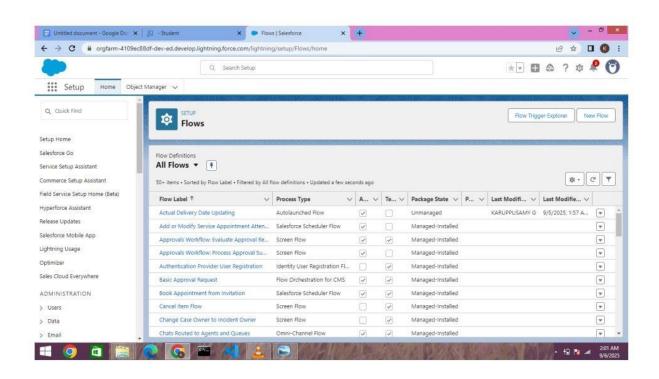


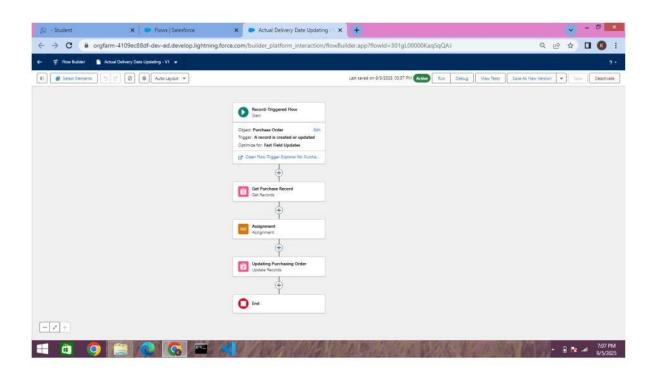


.Create A Permission Set:



.Create Flow To Update The Actual Delivery Date





.Create A Trigger To Calculate Total Amount On Order Item

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.ne w, Trigger.old, Trigger.isInsert, Trigger.isUpdate, Trigger.isDelete, Trigger.isUndelete);
}

.CalculateTotalAmountHandler

public class CalculateTotalAmountHandler {

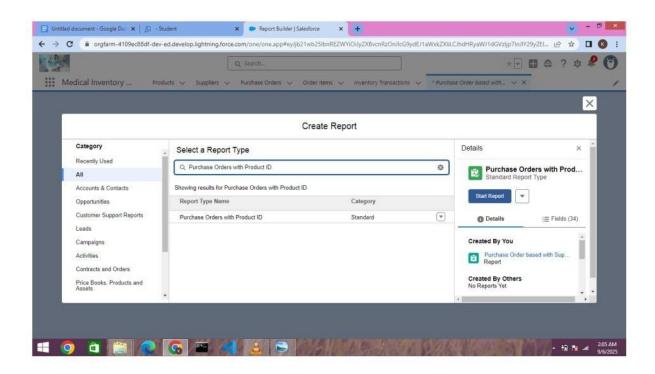
// Method to calculate the total amount for Purchase
Orders based on related Order Items
 public static void calculateTotal(List<Order_Item__c>
 newItems, List<Order_Item__c> oldItems, Boolean isInsert,
Boolean isUpdate, Boolean isDelete, Boolean isUndelete) {

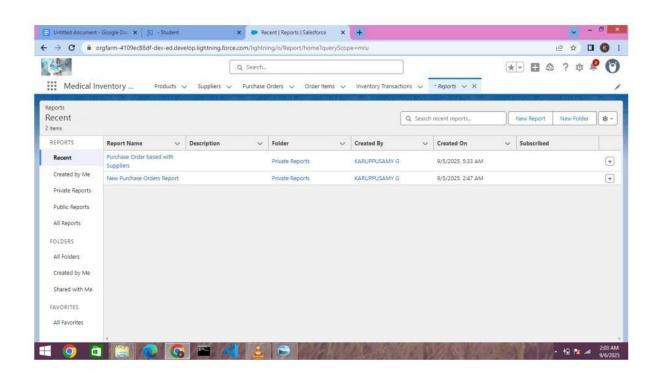
// Collect Purchase Order IDs affected by changes in Order_Item__c records Set<Id> parentIds = new Set<Id>();

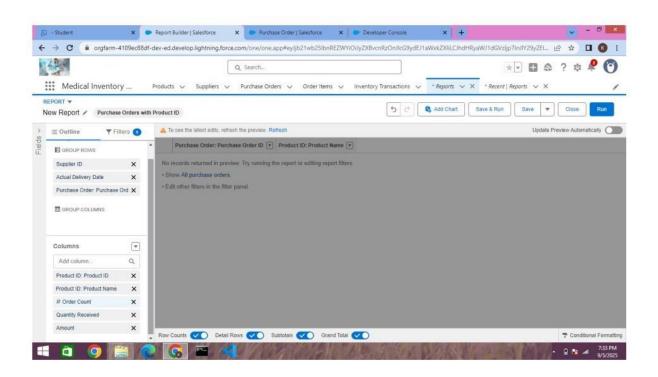
```
// For insert, update, and undelete scenarios
    if (isInsert || isUpdate || isUndelete) {
      for (Order_Item_c ordItem: newItems) {
        parentIds.add(ordItem.Purchase_Order_Id__c);
     }
    }
    // For update and delete scenarios
    if (isUpdate || isDelete) {
      for (Order_Item_c 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
      ];
```

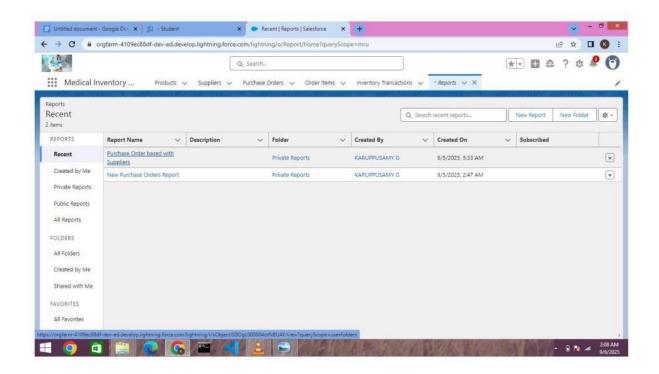
```
// Map the result to Purchase Order IDs
      for (AggregateResult aggr: aggrList) {
        Id purchaseOrderId =
(Id)aggr.get('Purchase_Order_Id__c');
        Decimal totalAmount =
(Decimal)aggr.get('totalAmount');
        purchaseToUpdateMap.put(purchaseOrderId,
totalAmount);
     // Prepare Purchase 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 A Purchase Orders Based On Suppliers(Summary) Report:









CONCLUSION:

The Medical Inventory Management System in Salesforce helps to easily manage suppliers, purchase orders, products, and expiry dates. By using objects, fields, page layouts, validation rules, flows, and triggers, the system ensures smooth operations and accurate data handling. With profiles, roles, and permission sets, data security is also maintained. Reports and dashboards give a clear view of stock levels, supplier performance, and transactions.

This project gives practical knowledge of Salesforce concepts like object creation, security, automation, and reporting. It shows how Salesforce can be used not only as a CRM tool but also as a complete solution for managing real-world business needs such as medical inventory.