MEDICAL INVENTORY MANAGEMENT

COLLEGE: KG college of Arts and Science

TEAM ID: NM2025TMID23630

TEAM SIZE: 4

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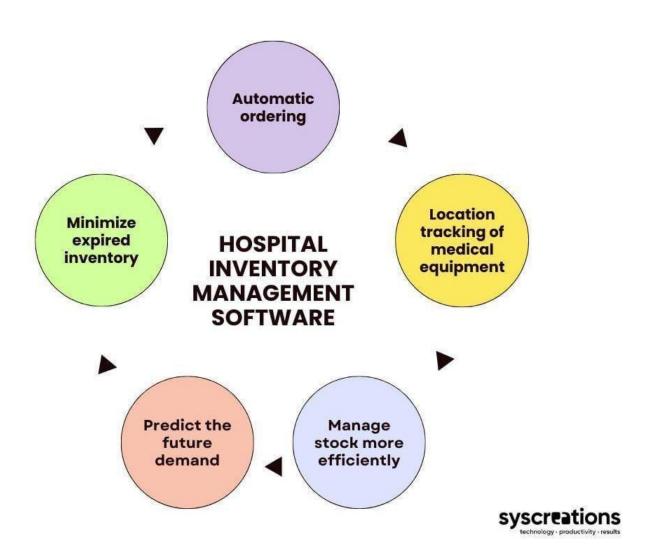
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INTRODUCTION

1.1 Project Overview

The Medical Inventory Management system is designed to streamline the tracking, storage, and distribution of medical supplies. It helps healthcare facilities maintain accurate stock levels, reduce wastage, and ensure timely availability of critical items.



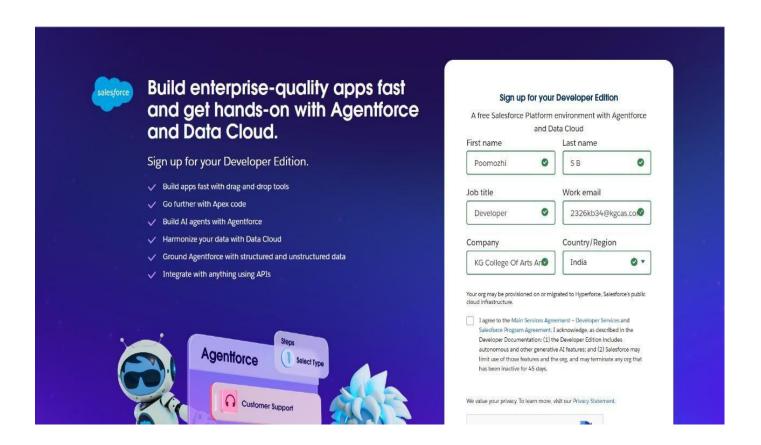
1.2 Purpose

The purpose of a Medical Inventory Management system is to ensure the efficient tracking, control, and distribution of medicines and medical supplies. It helps healthcare organizations maintain optimal stock levels, prevent shortages or overstocking, reduce wastage due to expiry, and provide timely availability of essential items for patient care.

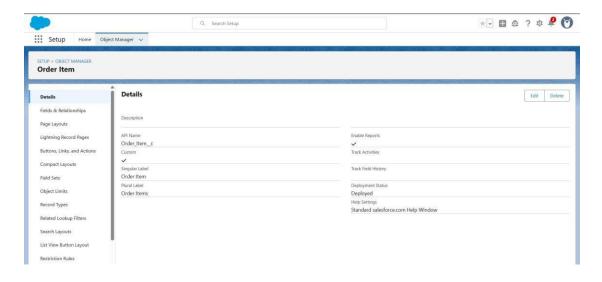
DEVELOPMENT PHASE

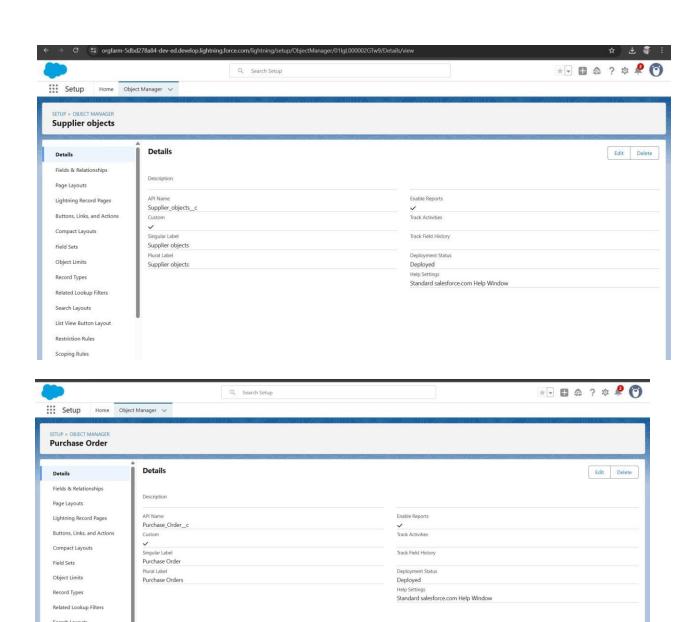
Creating Developer Account:

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

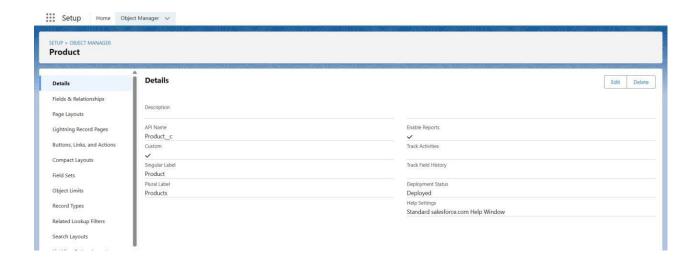


• Created objects: Order Item, Supplier, Purchase Order, Product

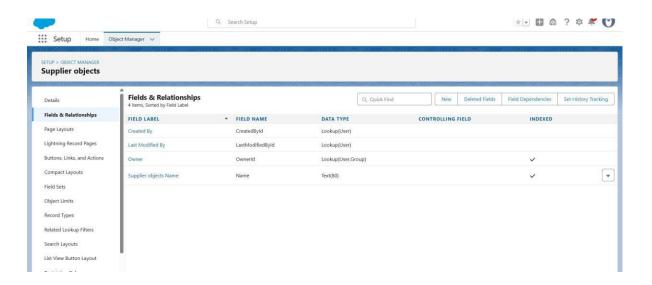


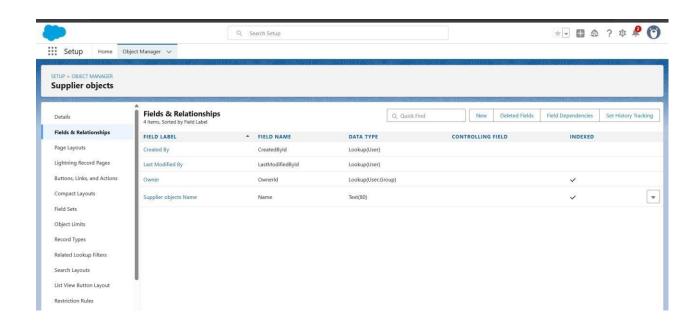


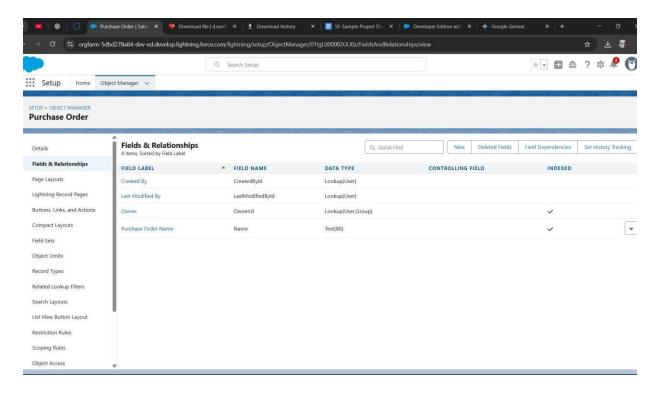
List View Button Layout
Restriction Rules

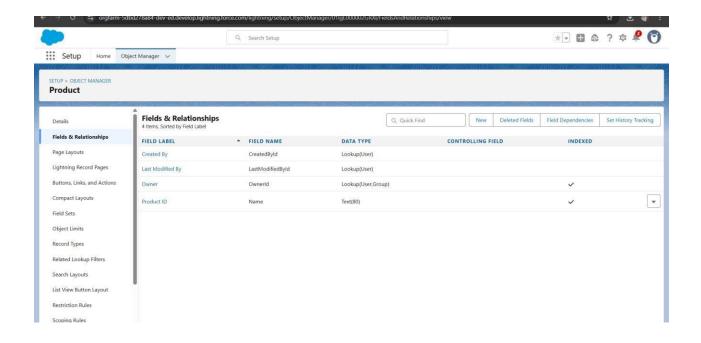


• Configured fields and relationships

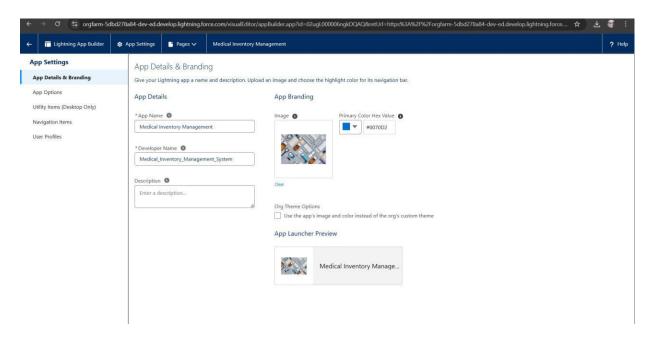


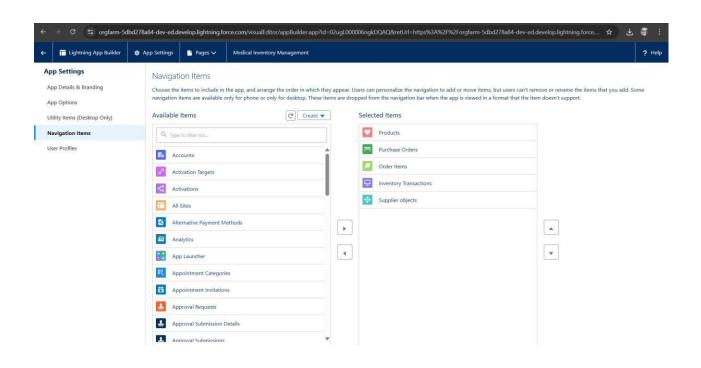


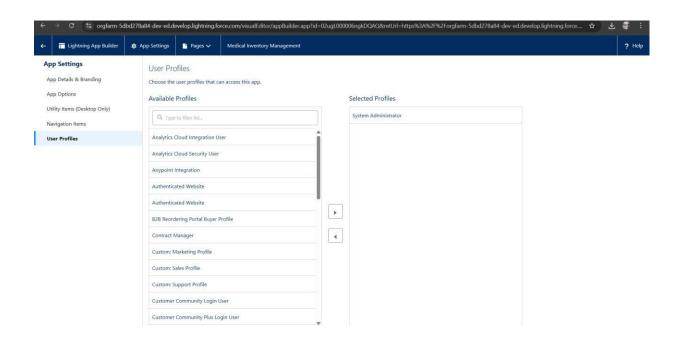


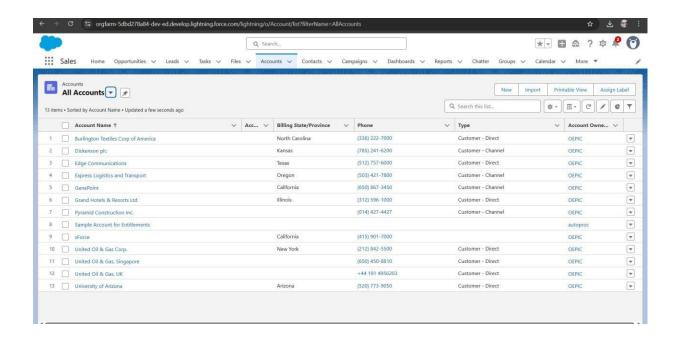


• Developed Lightning App with relevant tabs

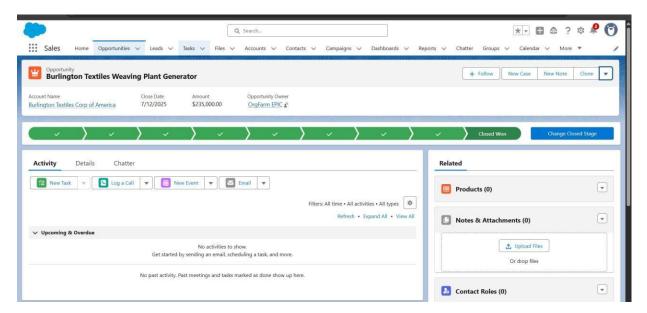




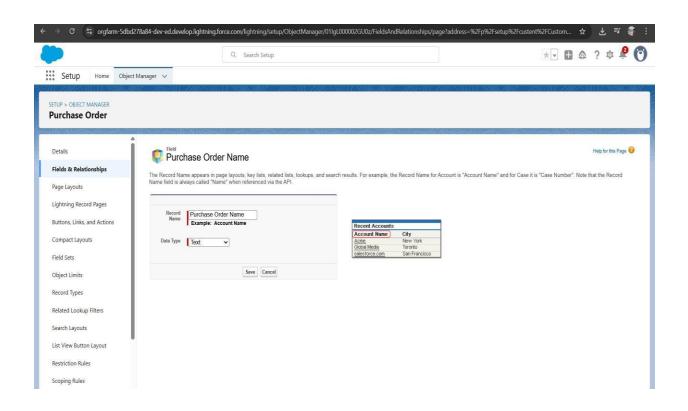


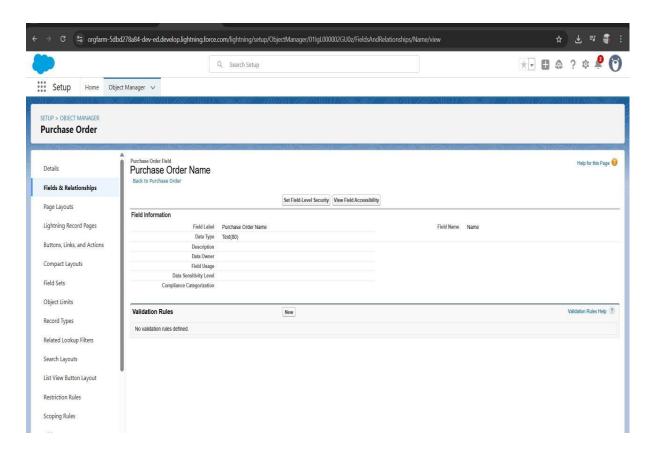


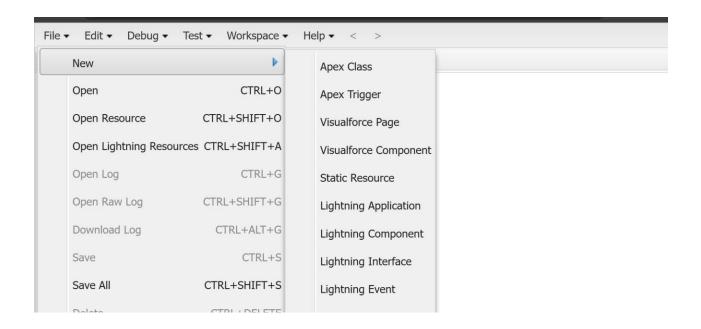
• Automates the calculation and tracking of monthly rent for medical equipment or facilities, ensuring timely reminders and accurate records.



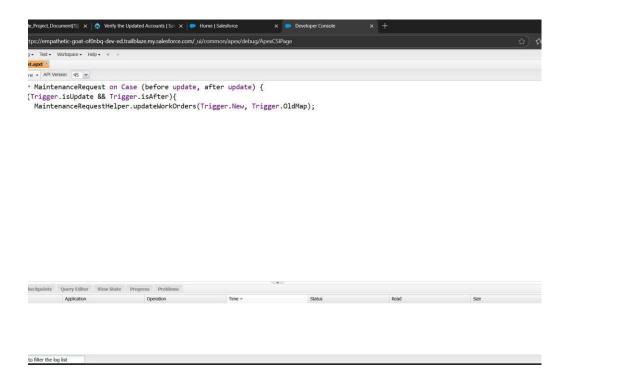
• Ensure that a lease record is valid only if the leased medical equipment has not expired (i.e., medicine/equipment expiry date is later than lease end date).



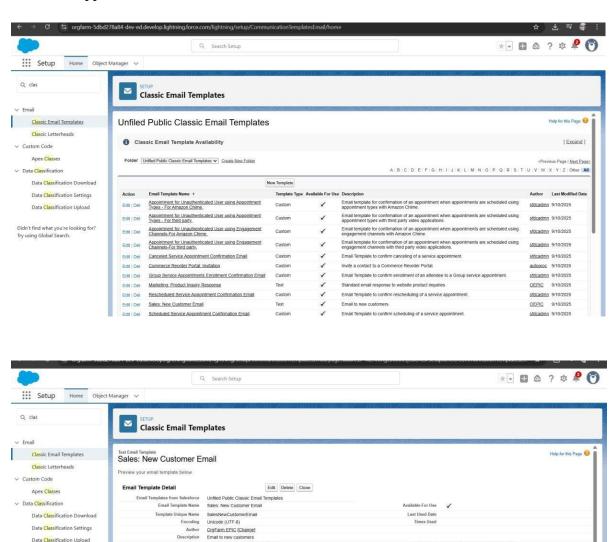




• Scheduled monthly reminder emails using Apex class



Built and tested email templates for Product, Purchase Name, Order Item and Supplier.



Modified By OrgFarm EPIC, 9/10/2025, 5:27 PM

Created By OrgFarm EPIC, 9/10/2025, 5:27 PM

I would like to introduce myself as your Account Manager. Should you have any questions, please feel free to call me at (IUser Phone) or email me at (IUser Email).

Edit Delete Clone

Send Test and Verify Merge Fields

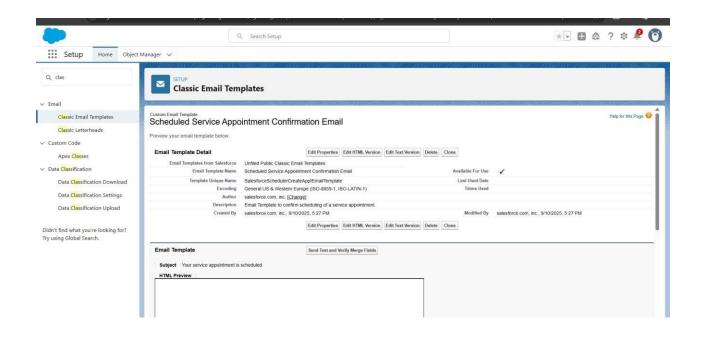
Data Classification Settings Data Classification Upload

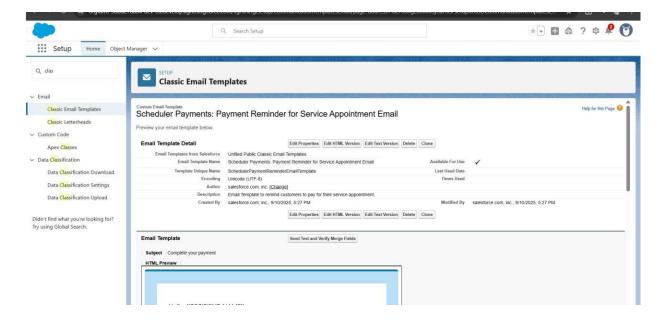
Email Template

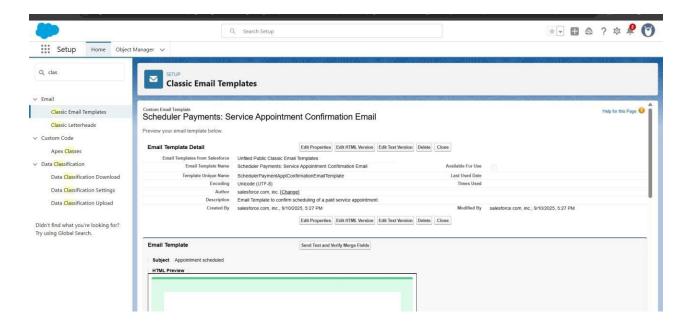
Plain Text Preview

Subject Welcome to the GenWatt Community

All of us at GenWatt are glad to have (IAccount.Name) as a customer.

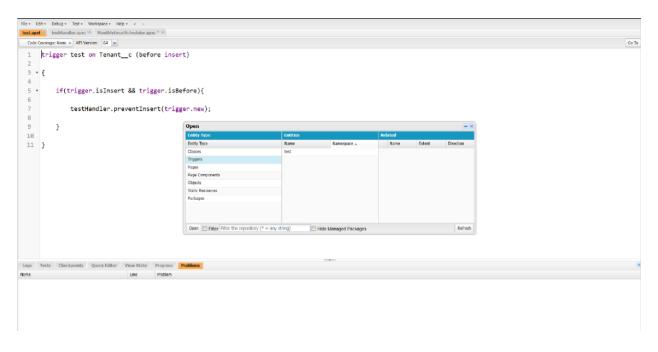




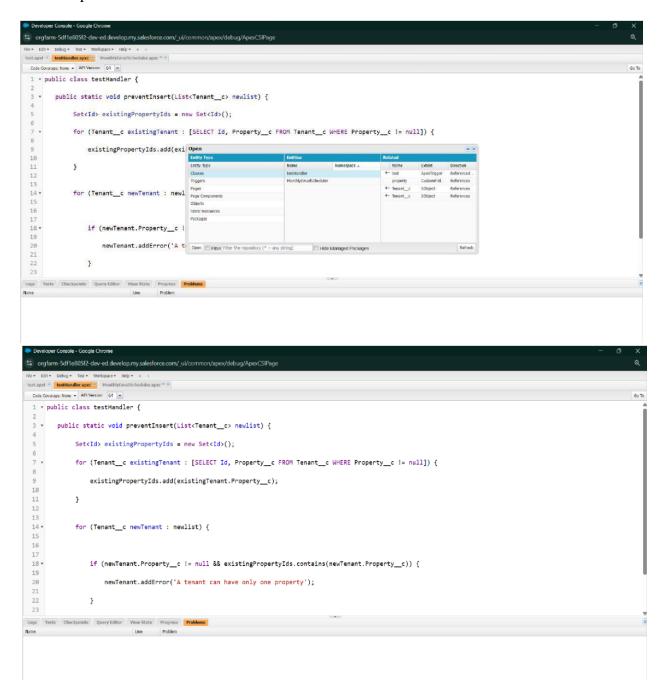


Apex Trigger

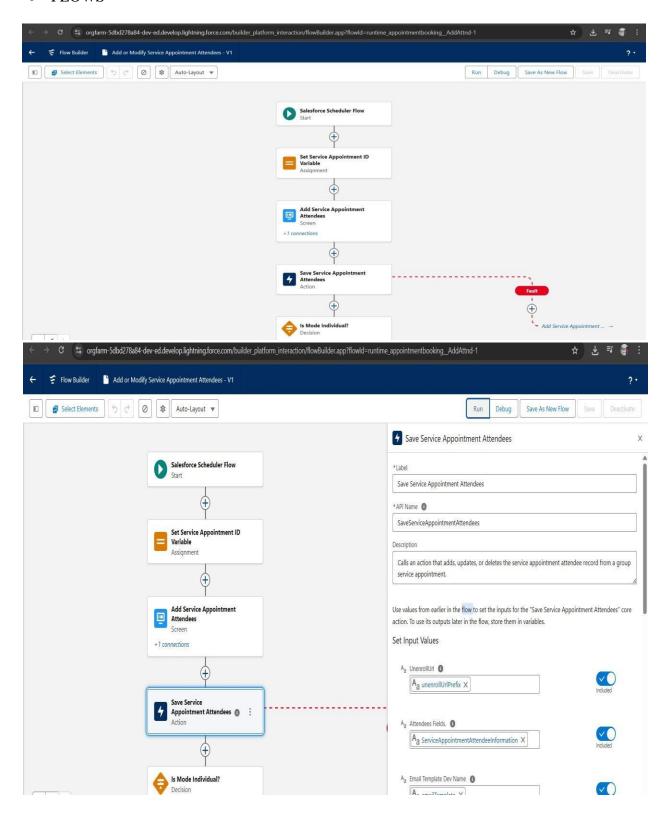
Create an Apex Trigger



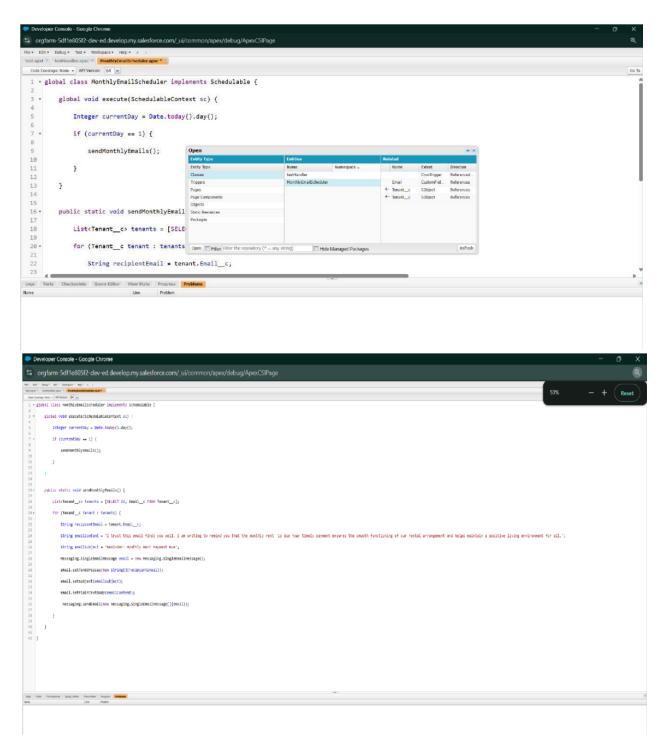
Create an Apex Handler class



• FLOWS



Schedule class: Create an Apex Class



ADVANTAGES

Accurate Tracking – Monitors medicines, suppliers, leases, and patients in real time.

Automation – Flows handle monthly rent, payment alerts, and stock updates automatically.

Error Prevention – Validation rules ensure data integrity (e.g., lease dates, rent values).

Reduced Wastage – Tracks expiry dates to avoid expired stock usage.

Improved Efficiency – Saves time by reducing manual record-keeping and errors.

DISADVANTAGES

Implementation Cost – Requires investment in Salesforce setup, licenses, or tools.

Training Need – Users must learn how to operate the system properly.

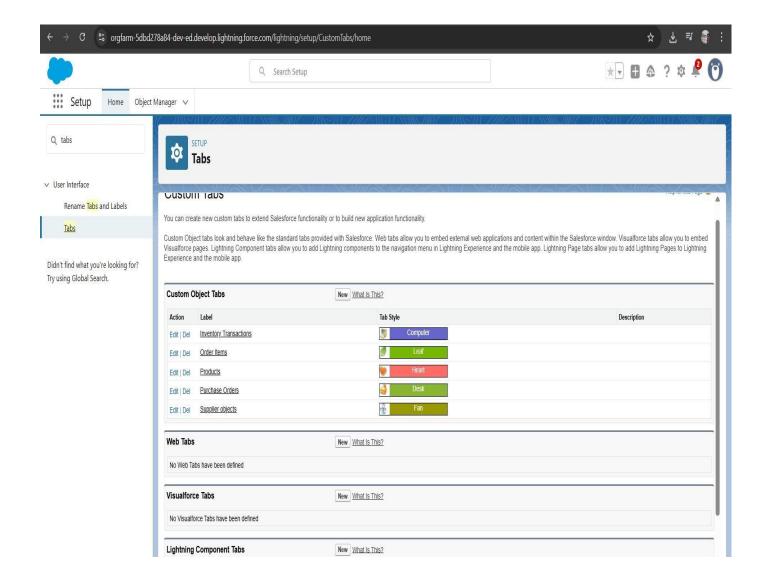
Customization Complexity – Creating flows, validation rules, and roll-ups may need admin or developer expertise.

Data Dependency – System is only as good as the accuracy of the data entered.

Maintenance – Requires regular updates, monitoring, and troubleshooting.

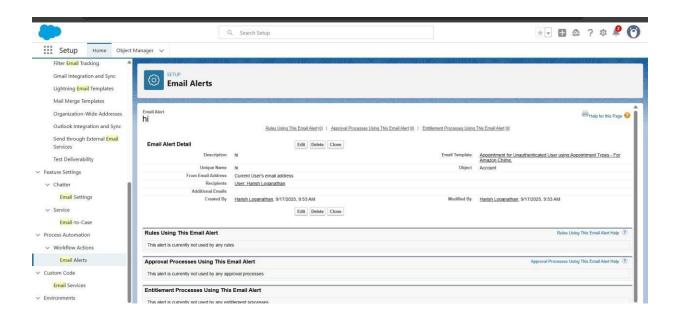
RESULTS

Output Screenshots



Tabs for Product, Purchase Order, Order ID, Supplier

Email alerts



CONCLUSION

The Medical Inventory Management system ensures efficient handling of medicines, suppliers, purchase orders, patients, and lease records. By implementing automation through flows (monthly rent tracking and payment alerts) and enforcing validation rules on the Lease object (such as preventing expired equipment leases), the system enhances accuracy, safety, and compliance. Overall, it reduces manual errors, improves inventory control, and supports timely availability of critical medical supplies.

APPENDIX

• Source Code: Provided in Apex Classes and Triggers

```
public with sharing class MaintenanceRequestHelper {
   public static void updateworkOrders(List<Case> updWorkOrders,
   Map<Id,Case> nonUpdCaseMap) {
      Set<Id> validIds = new Set<Id>();
```

For (Case c : updWorkOrders){
 if (nonUpdCaseMap.get(c.Id).Status != 'Closed' && c.Status == 'Closed'){

```
if (c.Type == 'Repair' || c.Type == 'Routine Maintenance'){
           validIds.add(c.Id);
         }
    }
    if (!validIds.isEmpty()){
       List<Case> newCases = new List<Case>();
       Map<Id,Case> closedCasesM = new Map<Id,Case>([SELECT Id, Vehicle c, Equipment
c, Equipment_r.Maintenance_Cycle_c,(SELECT Id,Equipment_c,Quantity_c FROM
Equipment_Maintenance_Items_r)
                                 FROM Case WHERE Id IN :validIds]);
       Map<Id,Decimal> maintenanceCycles = new Map<ID,Decimal>();
       AggregateResult[] results = [SELECT Maintenance Request c,
MIN(Equipment r.Maintenance Cycle c)cycle FROM Equipment Maintenance Item c
WHERE Maintenance_Request_c IN :ValidIds GROUP BY Maintenance_Request_c];
    for (AggregateResult ar : results){
       maintenanceCycles.put((Id) ar.get('Maintenance_Request_c'), (Decimal) ar.get('cycle'));
     }
       for(Case cc : closedCasesM.values()){
         Case nc = new Case (
           ParentId = cc.Id,
         Status = 'New',
           Subject = 'Routine Maintenance',
           Type = 'Routine Maintenance',
           Vehicle c = cc. Vehicle c, Equipment
           c =cc.Equipment_c, Origin = 'Web',
           Date\_Reported\_c = Date.Today()
         );
         If (maintenanceCycles.containskey(cc.Id)){
           nc.Date_Due_c = Date.today().addDays((Integer) maintenanceCycles.get(cc.Id));
         }
         newCases.add(nc);
```

```
insert newCases;
       List<Equipment_Maintenance_Item_c> clonedWPs = new
 List<Equipment_Maintenance_Item_c>();
       for (Case nc : newCases){
          for (Equipment_Maintenance_Item_c wp:
 closedCasesM.get(nc.ParentId).Equipment_Maintenance_Items_r){
            Equipment_Maintenance_Item_c wpClone = wp.clone();
            wpClone.Maintenance_Request_c = nc.Id;
            ClonedWPs.add(wpClone);
        insert ClonedWPs;
 }
trigger MaintenanceRequest on Case (before update, after update) {
 if(Trigger.isUpdate && Trigger.isAfter){
 MaintenanceRequestHelper.updateWorkOrders(Trigger.New,
 Trigger.OldMap);
 }
```