# **PROJECT TITLE**

# **Medical Inventory Management**

College Name: KG COLLEGE OF ARTS AND SCIENCE

**TEAM ID: NM2025TMID23724** 

**TEAM MEMBERS: 4** 

Team LeaderName: GURJYOTH SINGH P

Email: 2326ka13@kgcas.com

Team Member1: HARINI C N

Email:2326ka14@kgcas.com

Team Member: HARINI P

Email:2326ka15@kgcas.com

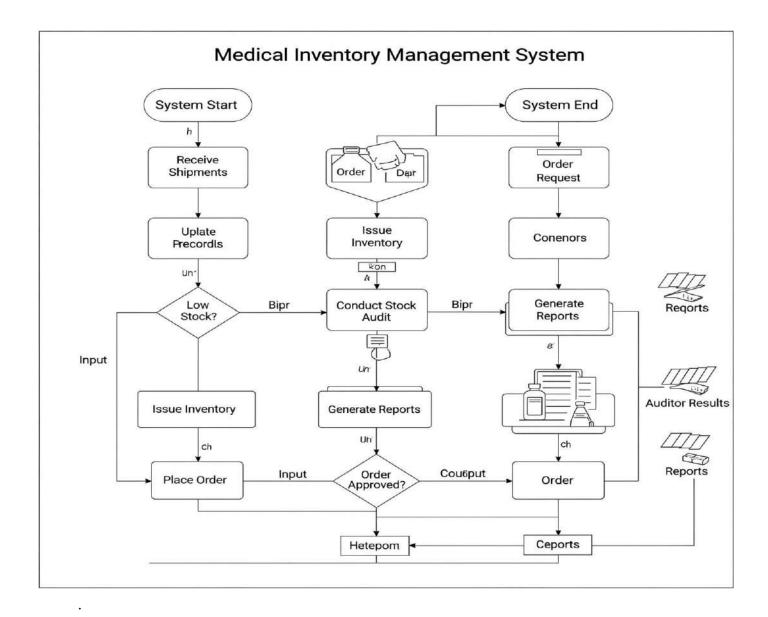
**Team Member: HARSHINI S** 

Email: 2326ka16@kgcas.com

## 1.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.



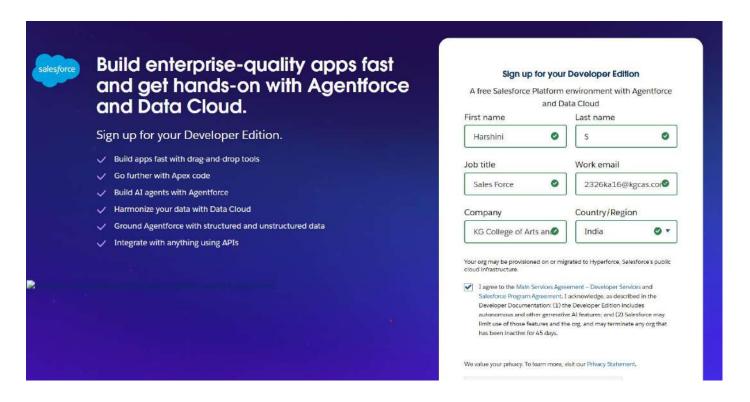
## 1.2 Purpose

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.

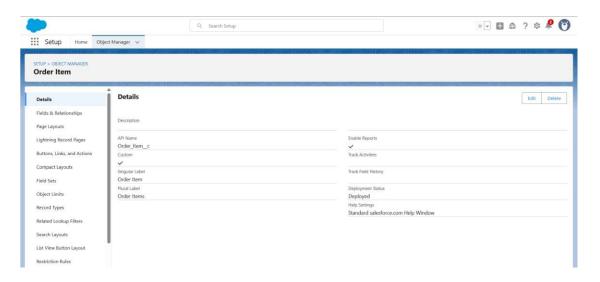
## **DEVELOPMENT PHASE**

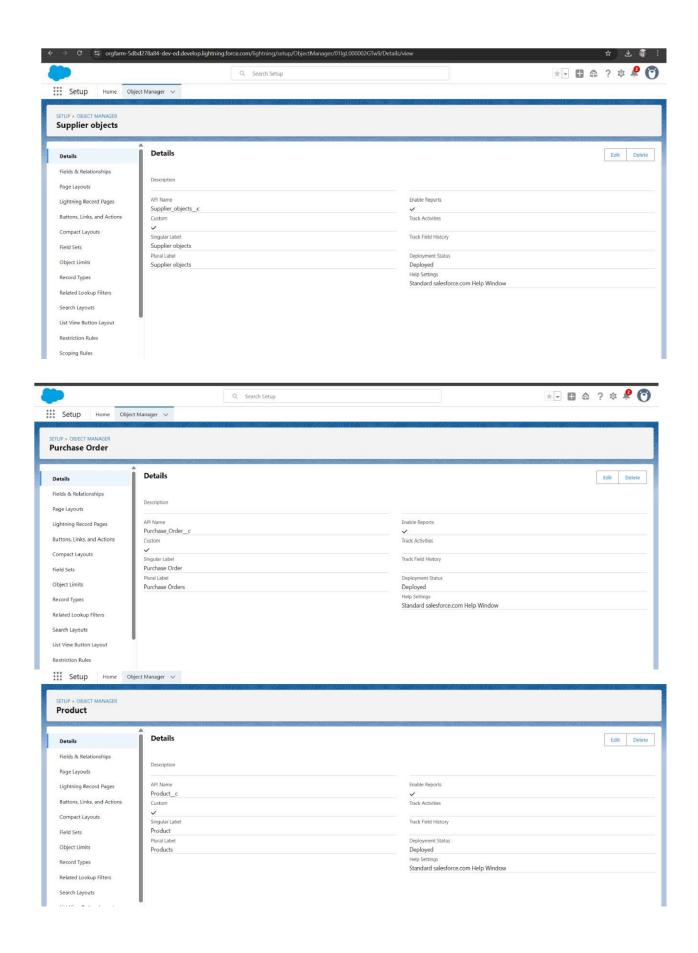
**Creating Developer Account:** 

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

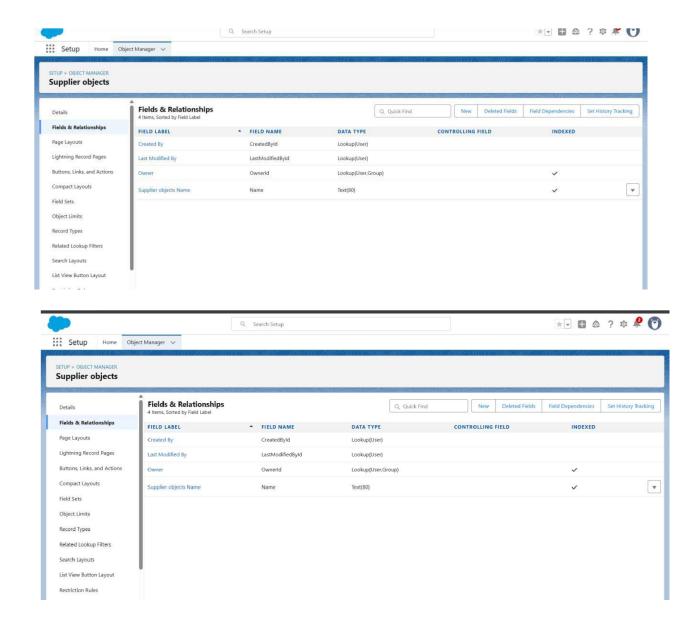


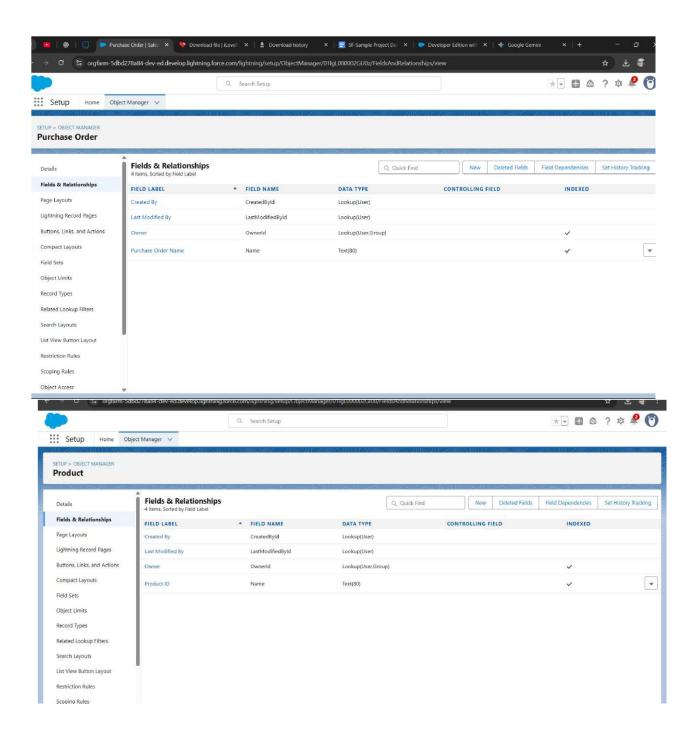
• Created objects: Order Item, Supplier, Purchase Order, Product



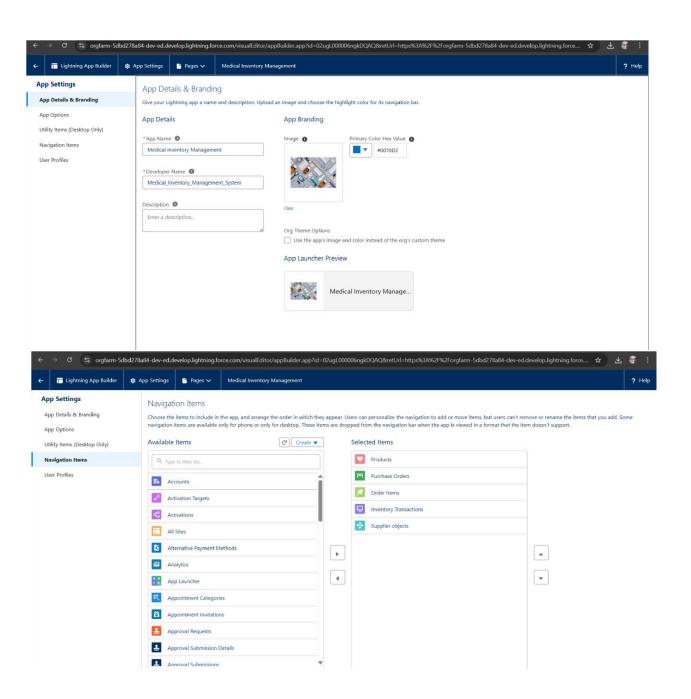


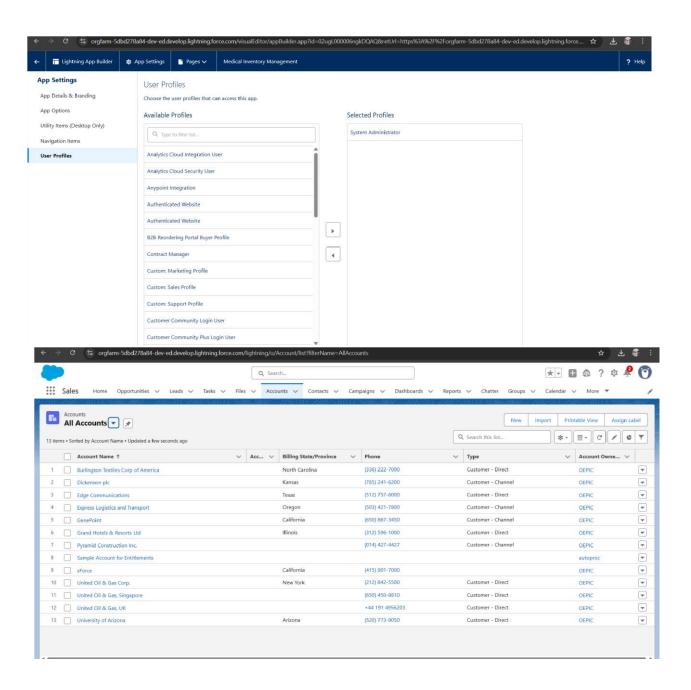
• Configured fields and relationships



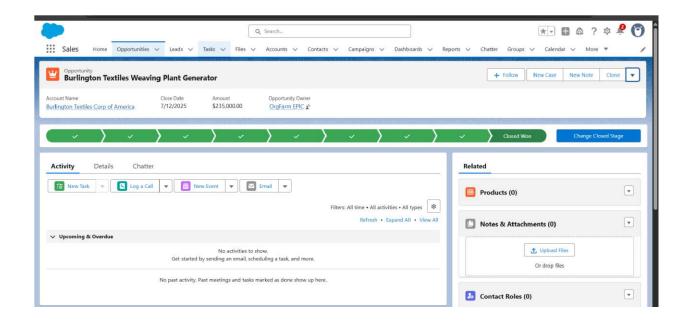


• Developed Lightning App with relevant tabs

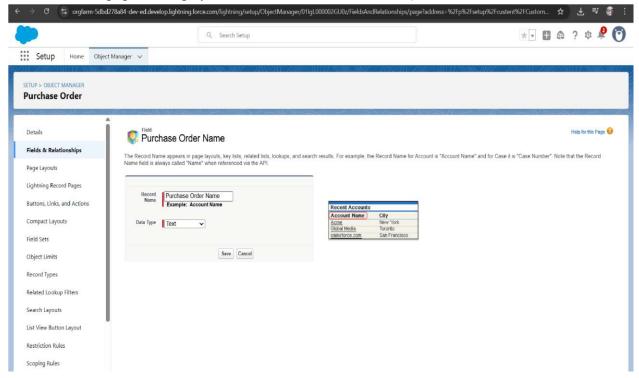


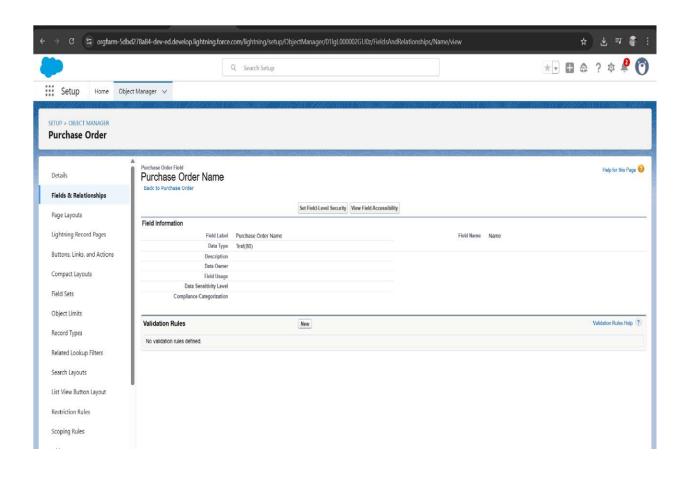


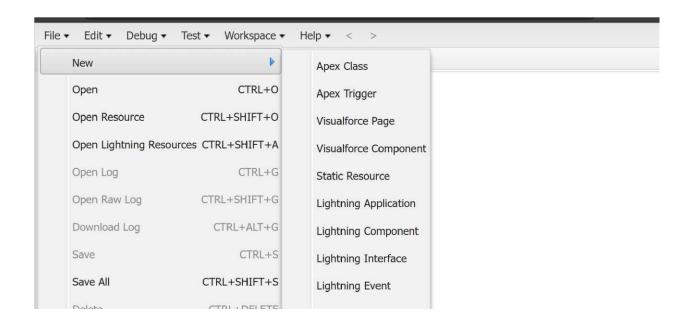
• Automates the calculation and tracking of monthly rent for medical equipment or facilities, ensuring timely reminders and accurate records.



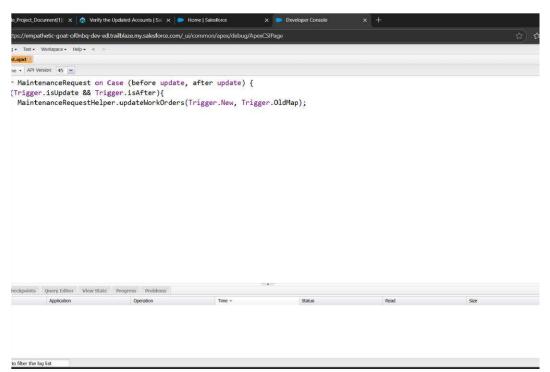
• Ensure that a lease record is valid only if the leased medical equipment has not expired (i.e., medicine/equipment expiry date is later than lease end date).



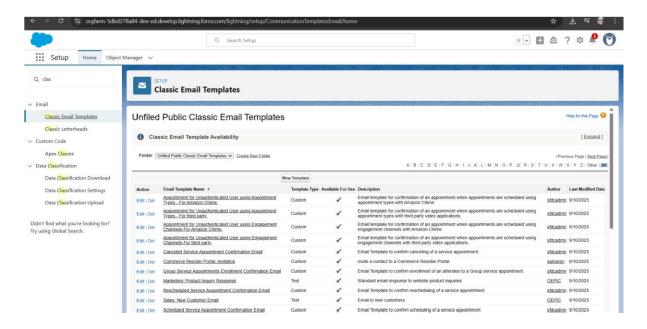


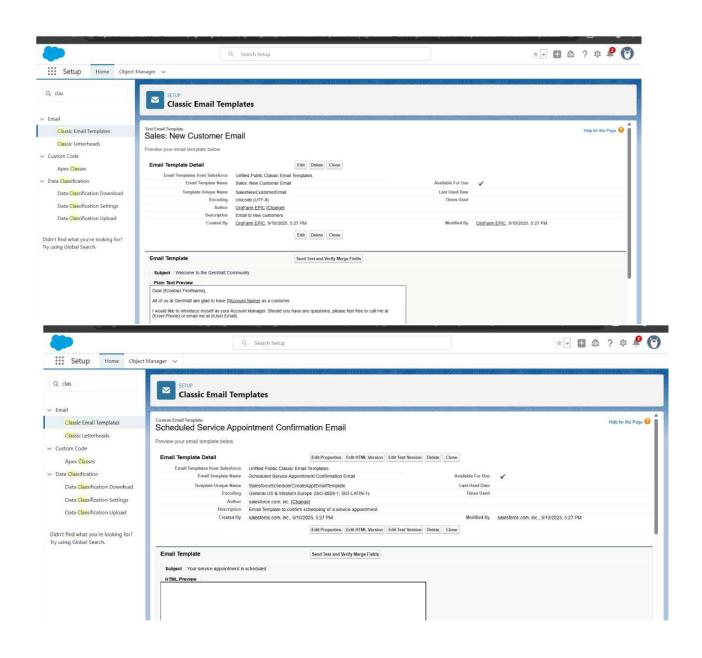


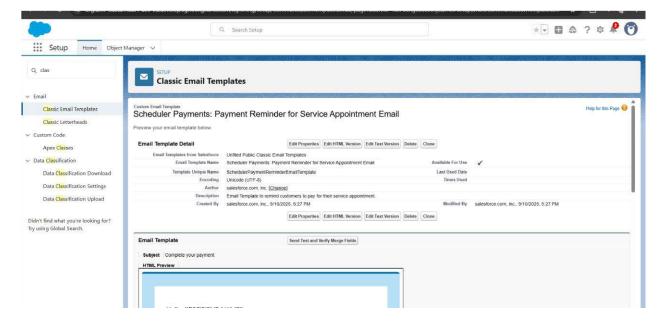
Scheduled monthly reminder emails using Apex class

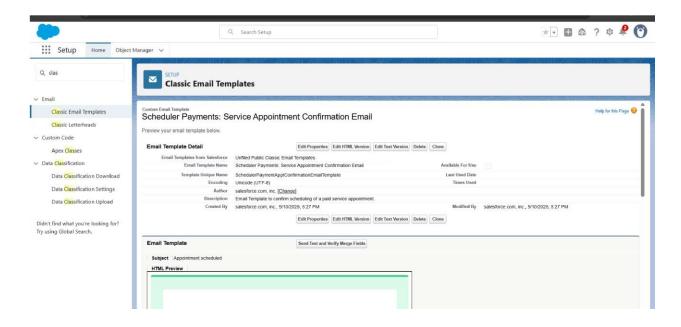


Built and tested email templates for Product, Purchase Name, Order Item and Supplier.



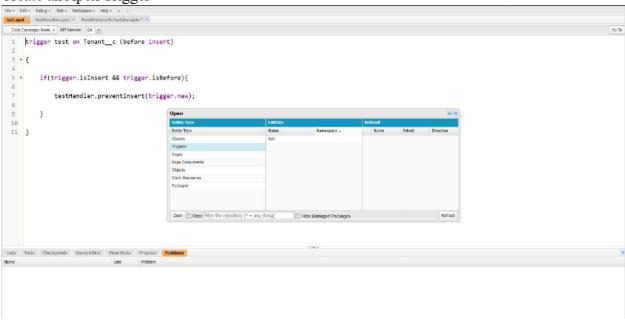




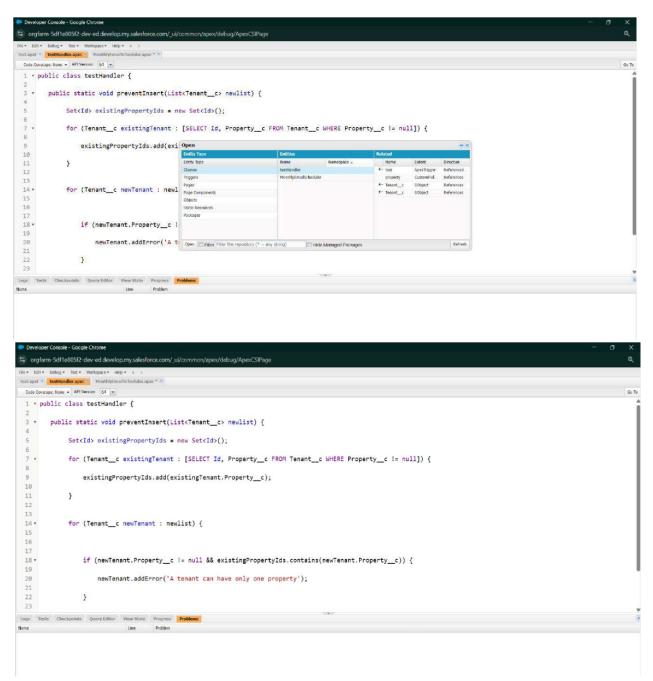


• Apex Trigger

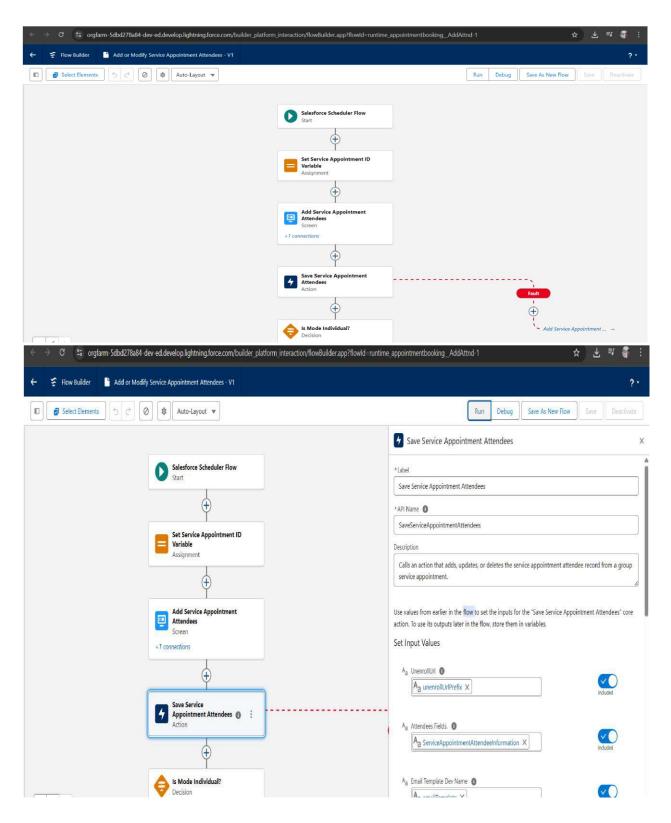
Create an Apex Trigger



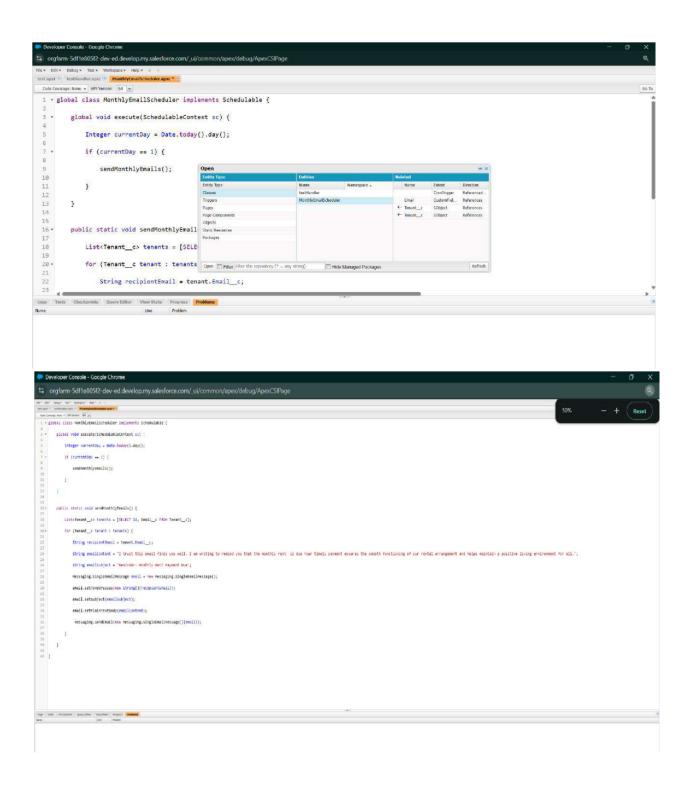
Create an Apex Handler class



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.

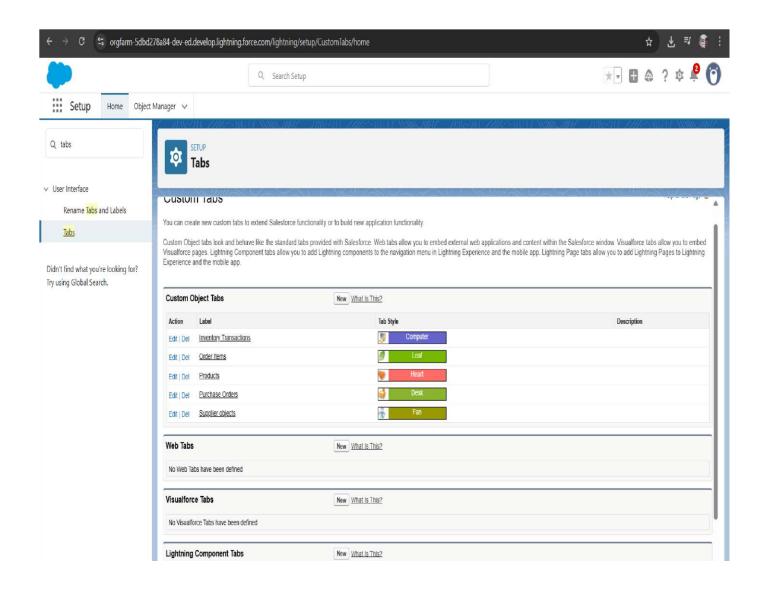
**Customization Complexity** – Creating flows, validation rules, and roll-ups may need admin or developer expertise.

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

Maintenance – Requires regular updates, monitoring, and troubleshooting.

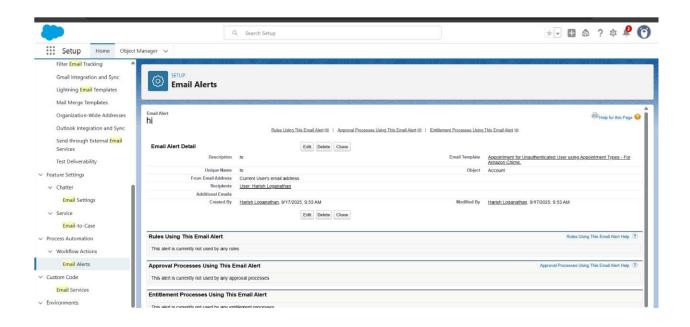
### **RESULTS**

**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;