Medical Inventory Management

College Name: BVC INSTITUTE OF TECHNOLOGY & SCIENCE

TEAM ID: LTVIP2025TMID31641

TEAM MEMBERS:

Team Leader: Chandralekha Hyma Sai

Email: lekhanamana2005@gmail.com

Team Member: Devi Sri Satya Sai Pinisetti

Email: 22h41a05a9devisripinisetti@gmail.com

Team Member: Gayatri Devi Nukala

Email: 22h41a04a5gayatrinukala@gmail.com

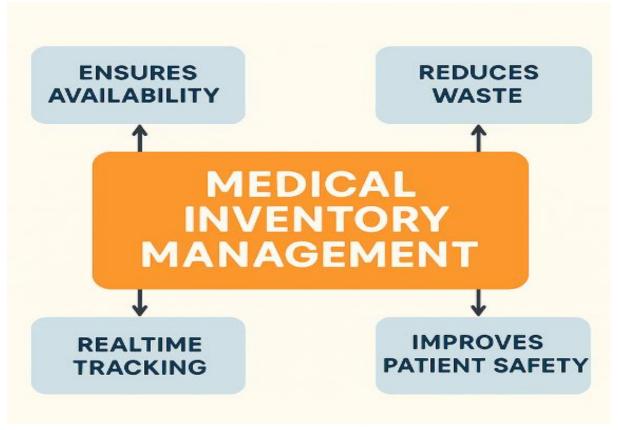
Team Member: Gidugu Hema Satya Sri

Email: giduguhemasatyasri@gmail.com

1.INTRODUCTION

Project Overview

Medical Inventory Management is an essential function in healthcare facilities that ensures the continuous availability of critical medical supplies, equipment, and medications. By efficiently managing stock levels, it helps prevent shortages and overstocking, reducing waste and saving costs. Modern systems use technologies like barcoding, RFID, and automation to enable real-time tracking and automated reordering, significantly reducing human error. This not only ensures timely access to necessary items but also enhances patient safety by avoiding the use of expired or incorrect products. Additionally, inventory management supports compliance with regulatory standards by maintaining accurate records and audit trails. Data analytics further help in forecasting demand, making informed purchasing decisions, and staying prepared for emergencies. Overall, a well-managed inventory system contributes to better healthcare delivery and operational efficiency.



Purpose

The main objective of the project is to enable organizations to efficiently manage properties, tenants, and lease-related activities. It reduces manual intervention, improves accuracy, and ensures better compliance and communication.

2. IDEATION PHASE

2.1 Problem Statement

Managing lease information manually can lead to errors, missed payments, and communication delays. There is a need for a centralized, automated system to maintain lease records, track payments, and manage tenants efficiently.

2.2 Empathy Map Canvas

Think & Feel: Needs confidence in lease management. **Hear**: Concerns from tenants about payment reminders.

See: Missed lease renewals and tracking issues.

Say & Do: Wants a smooth system to manage leases and communications.

Pain: Manual tracking, miscommunication. **Gain**: Streamlined processes, reduced errors.

2.3 Brainstorming

Ideas included automated alerts, integrated payment tracking, custom objects for modular data, and use of approval processes to manage tenant transitions.

3. REQUIREMENT ANALYSIS

3.1 Customer Journey Map

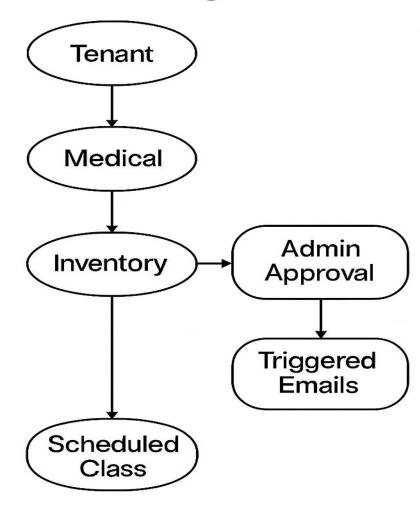
Tenants interact with the system by applying for leases, receiving emails for payment and status updates, and submitting leave requests. Admins handle object creation, approval processes, and maintain oversight through dashboards and flows.

3.2 Solution Requirement

Salesforce platform Email Templates Apex Triggers & Classes

3.3 Data Flow Diagram

3.3 Data Flow Diagram



3.4 Technology Stack

• Platform: Salesforce Lightning

• Language: Apex

Automation: Salesforce Flow

Database: Salesforce Custom Objects **Communication**: Classic Email Templates

4. PROJECT DESIGN

4.1 Problem-Solution Fit

Implementing a Medical Inventory Management system offers real-time tracking, automated stock alerts, expiry monitoring, and streamlined inventory control. It ensures the right medical supplies are available at the right time, reduces waste, minimizes human error, and improves both patient care and operational efficiency.

4.2 Proposed Solution

Create custom Salesforce objects and implement workflows, email templates, and Apex triggers to automate all critical lease management functions.

4.3 Solution Architecture

Frontend: Salesforce UI via Lightning Apps

Backend: Custom Objects and Apex

Automation: Flows, Validation Rules, Scheduled Jobs

Integration: Email alerts via templates

5. PROJECT PLANNING & SCHEDULING

5.1 Project Planning

Week 1: Object and Field Creation

Week 2: Tab and App Setup

Week 3: Flows and Email Templates

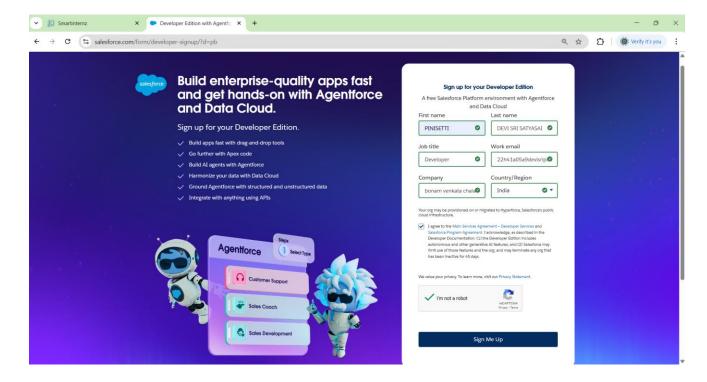
Week 4: Apex Triggers & Approval Process

Week 5: Testing & Validation

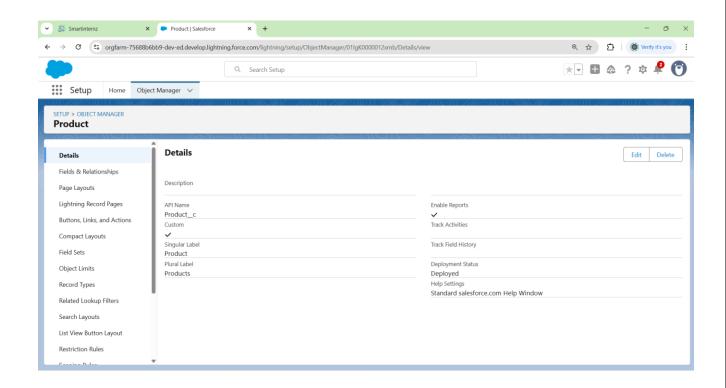
6. DEVELOPMENT PHASE

Creating Developer Account:

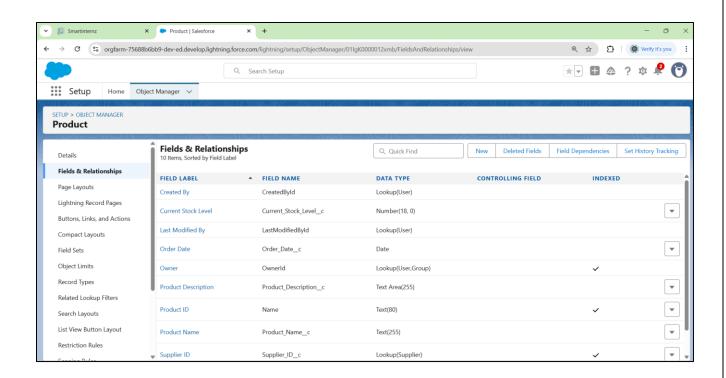
By using this URL - https://www.salesforce.com/form/developer-signup/?d=pb

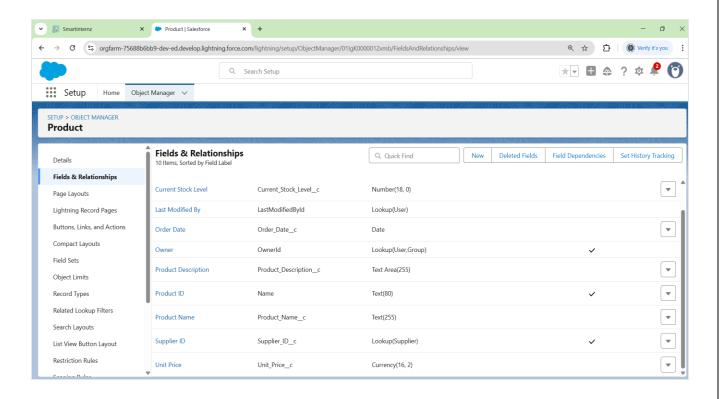


Created objects: Creating a Product Object

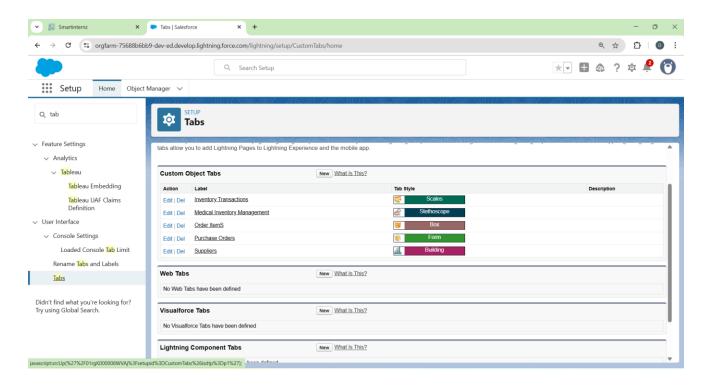




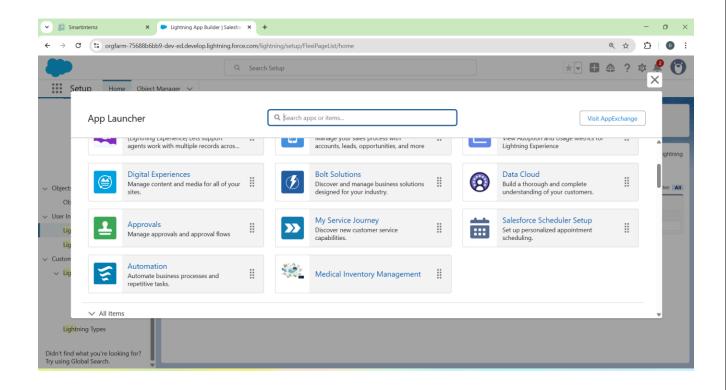




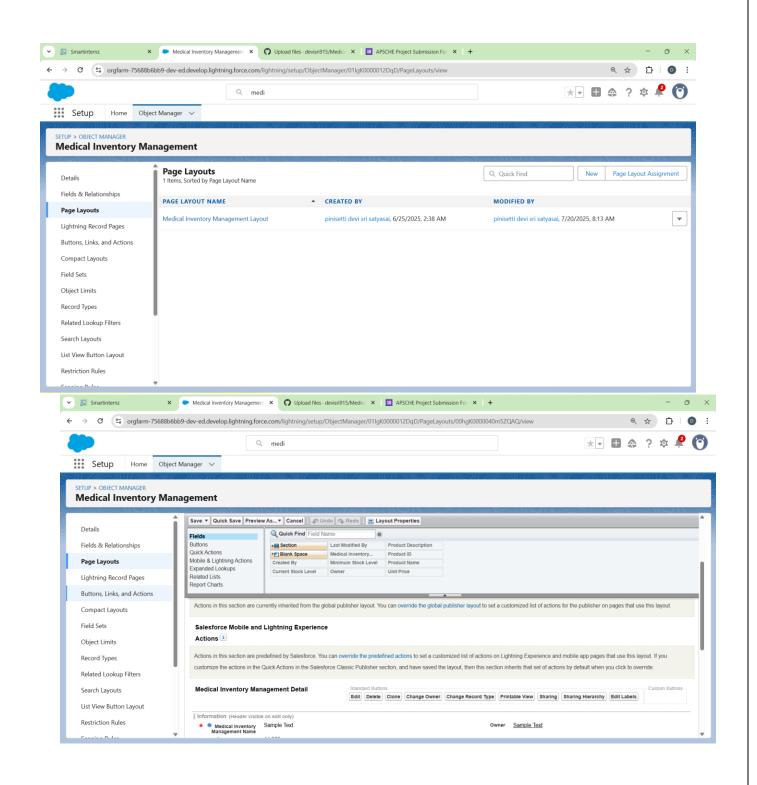
Tabs



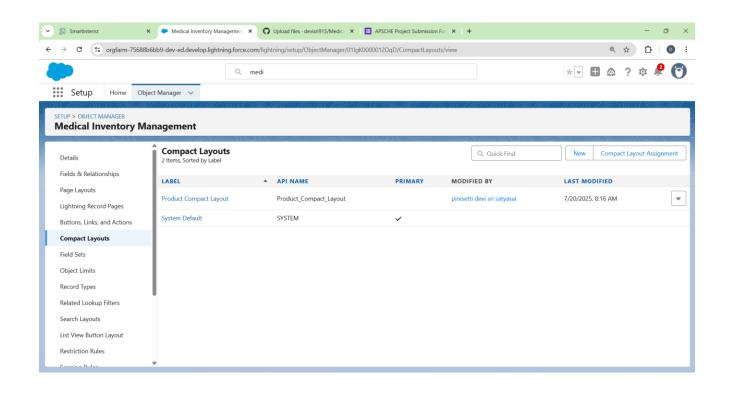
The Lightning App

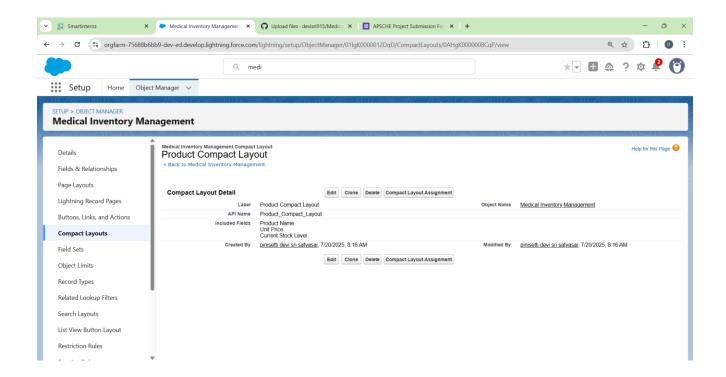


Editing of Page Layouts

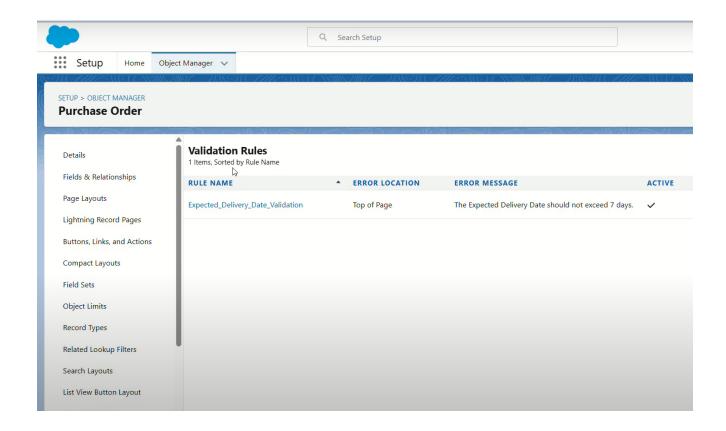


Compact Layouts

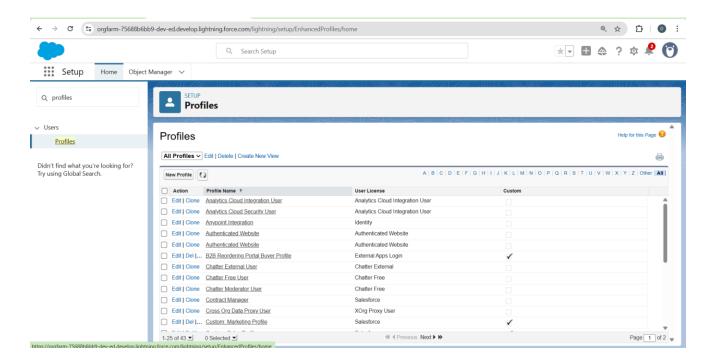




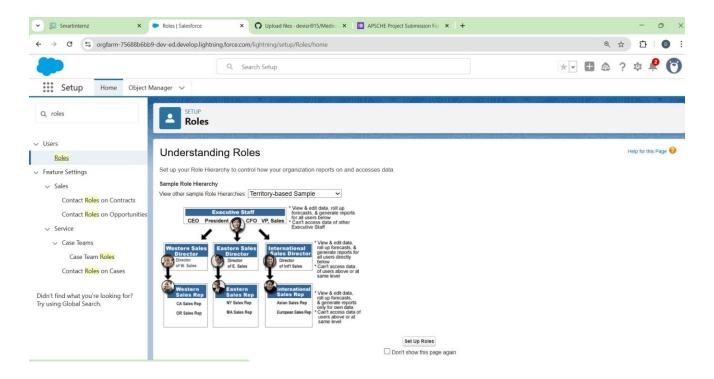
Validation Rules



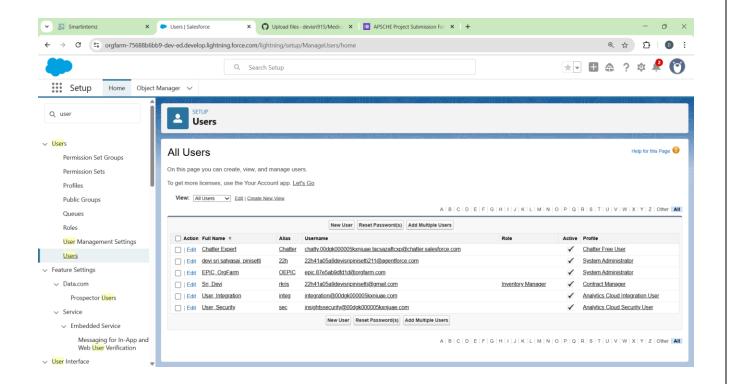
Profiles

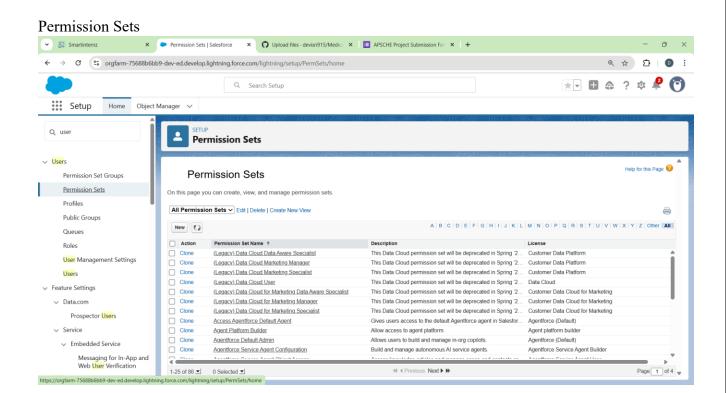


Roles

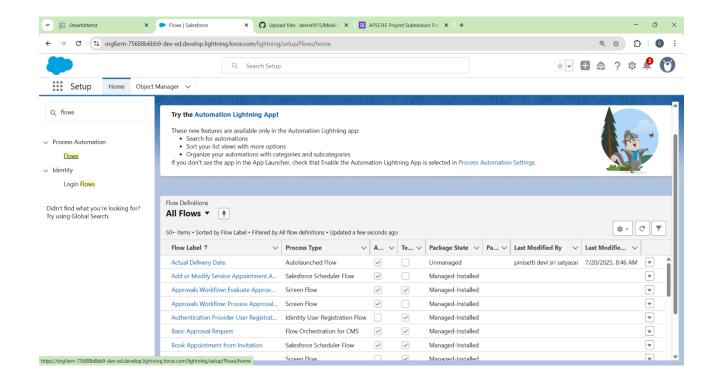


Users

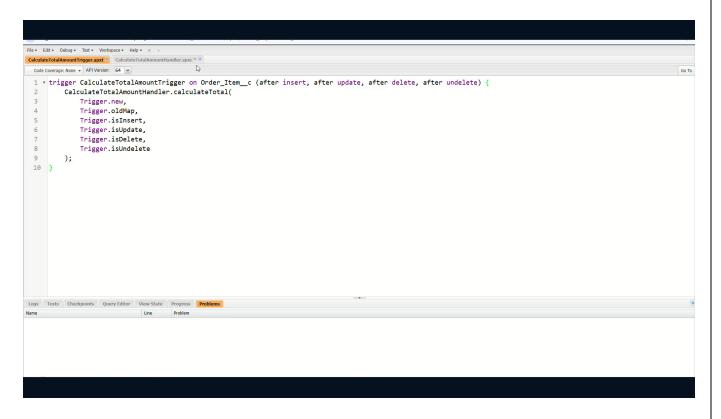




Flows

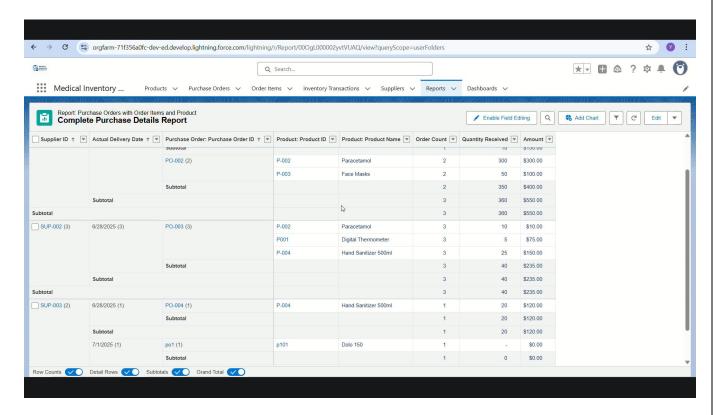


Triggers:

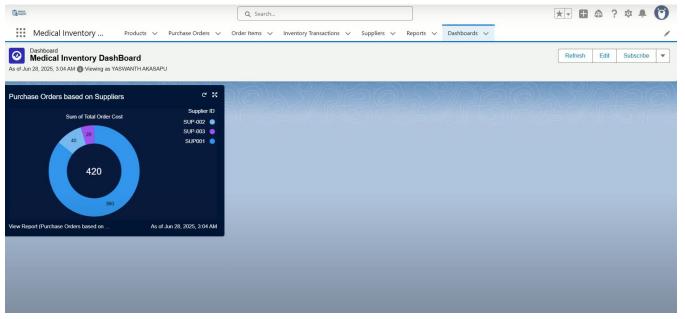


```
Code Coverage: None • API Version: 64 •
 1 → public class CalculateTotalAmountHandler {
          public static void calculateTotal(
              List<Order_Item__c> newList,
              Map<Id, Order_Item__c> oldMap,
              Boolean isInsert,
              Boolean isUpdate,
              Boolean isDelete,
              Boolean isUndelete
10 •
              Set<Id> purchaseOrderIds = new Set<Id>();
12
13
              // Add IDs from newList
              if (isInsert || isUpdate || isUndelete) {
                  for (Order_Item__c item : newList) {
   if (item.Purchase_Order__c != null) {
15 ▼
16 ▼
                           purchaseOrderIds.add(item.Purchase_Order__c);
18
19
21
              // Add IDs from oldMap
22
              if (isUpdate || isDelete) {
Logs Tests Checkpoints Query Editor View State Progress Problems
                              Line Problem
```

Reports



Dashboards



Schedule Apex class