

**Government Arts & Science College**

**Anthiyur – 638 501**

**Department of Computer Science**

**Sales Force Developer with Agent  
Blazer Champion**

**Medical Inventory Management**

**Team Leader : Tamilselvan S**

**Team Members : Rajesh V  
Mayilraj M  
Nirmalraj S**

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## 1. Introduction:

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### Project Overview:

The **Medical Inventory Management System** is a comprehensive Salesforce-based solution developed to digitize and streamline the management of medical supplies in healthcare facilities. The system addresses common inventory challenges such as manual errors, stockouts, and expired medicines by offering a real-time, automated approach to inventory control.

Designed with usability and efficiency in mind, the system provides features such as barcode scanning, real-time stock level tracking, automatic expiry alerts, and detailed inventory reporting. It supports role-based access, ensuring that pharmacists, doctors, and administrators can securely manage and view inventory according to their specific roles.

This solution enables healthcare providers to:

- Maintain accurate records of stock levels and item details.
- Monitor expiry dates to prevent the usage of outdated medical products.
- Manage supplier and purchase order information efficiently.
- Access inventory data from multiple devices through a user-friendly interface.

By integrating automation into medical inventory operations, this project aims to enhance accuracy, reduce waste, and improve the overall efficiency and safety of healthcare supply management.

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### Purpose

The primary purpose of the Medical Inventory Management System is to offer healthcare facilities an intelligent, automated platform for effectively managing their medical inventory. The system is developed to:

- Enable accurate and real-time tracking of medical stock levels.
- Prevent critical stockouts of essential medicines and supplies.
- Minimize wastage by promptly identifying items nearing expiration.
- Provide insightful reports and analytics to support informed decision-making.
- Simplify procurement through restock alerts and purchase order tracking.
- Promote patient safety by ensuring the timely availability of necessary medicines.



In essence, this project is intended to improve the operational workflows within healthcare settings, reduce inventory-related risks, and support high-quality healthcare service delivery through efficient supply chain management.

## 2. Ideation Phase

### Brainstorming:

In the **Medical Inventory Management System** project, the ideation phase encourages the generation of a wide range of ideas without initially judging their feasibility. The focus is on quantity over perfection, embracing unconventional or out-of-the-box solutions. These raw ideas form the foundation for robust, scalable, and innovative Salesforce-based solutions. Team collaboration helps filter and refine ideas into practical implementations tailored for medical inventory need

### Empathy Map:

The empathy map centers on understanding the core needs, emotions, and challenges faced by key stakeholders, such as pharmacists, inventory managers, and hospital staff who rely on the system.

- Says:** Users emphasize the importance of accurate stock tracking, expiry date monitoring, low-stock alerts, efficient reporting, and easy data entry.
- Thinks:** They are concerned about missing expiry dates, manual data errors, and compliance with healthcare regulations.
- Does:** Regularly monitor inventory levels, update records, generate reports, communicate with suppliers, and prepare for audits.
- Feels:** Anxious about shortages, frustrated with complex systems, relieved when alerts work properly, and confident when the system is efficient.

This empathy map helps align the solution to the real-world pain points of users, resulting in increased system usability, trust, and satisfaction

### Problem Statement:

While building the Medical Inventory Management System using Salesforce, users often face difficulties in generating accurate and dynamic reports due to:

- Complex data relationships



- Manual report creation
- Limited native customization options

These limitations can lead to:

- Incomplete inventory visibility
- Delayed expiry tracking
- Missed stock alerts

Such challenges impact decision-making, regulatory compliance, and patient safety. Therefore, there is a critical need for a **streamlined, automated, and real-time reporting system** within Salesforce that ensures accurate tracking, timely notifications, and reliable inventory management.

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### 3. Requirement Analysis:

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#### Customer Journey map:

The customer journey map outlines the key stages a typical user (e.g., pharmacist, hospital staff) goes through when interacting with the Salesforce-based inventory system:

**1. Awareness & Consideration:**

Users identify the limitations of manual inventory methods and explore the system's benefits in improving accuracy and automation.

**2. Onboarding & Initial Use:**

Users are introduced to the Salesforce platform, undergo brief training, and begin using features like stock entry, reporting, and expiry alerts. Some initial learning challenges are common.

**3. Issue Resolution & Support:**

Users may face issues like report generation errors or navigation difficulties and rely on support for resolution. Timely help builds user trust.

**4. Adoption & Loyalty:**

As users gain confidence, they depend more on the system. Consistent performance and continuous improvements can lead to high satisfaction and advocacy for the platform.

#### Key Insights:

Seamless onboarding, intuitive interface, timely support, and reliable real-time data are essential to maximize user satisfaction and system adoption.

#### Solution Requirements:

**1. Functional Requirements**

- Real-time inventory tracking with batch numbers and expiry date monitoring



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- Automated alerts for low stock levels and approaching expiries
- Custom real-time reports for inventory status, audits, and expiry tracking
- Barcode scanning for quick and accurate data entry
- Role-based access control for pharmacists, auditors, and managers
- Automated workflows for restocking and expiry item handling
- Mobile accessibility for updates and reporting
- Optional integration with supplier/vendor systems

## 2. Non-Functional Requirements

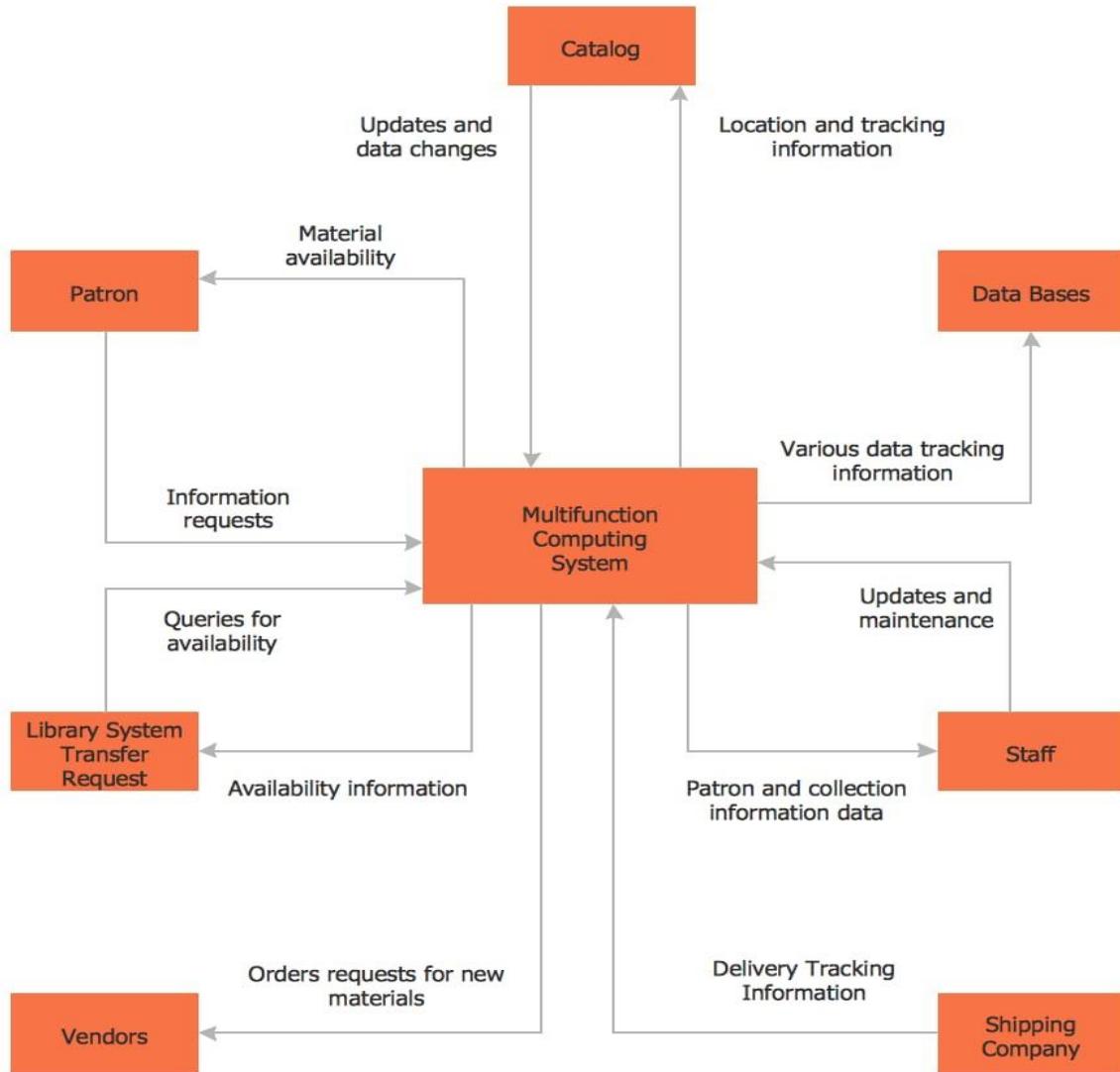
- Fast system performance and real-time response
- User-friendly interface with minimal training needed
- Scalability for expanding inventory and user base
- High system availability and minimal downtime
- Strong data protection and access security
- Easy to maintain and update with minimal technical intervention

## Technology stack

**Platform:** Salesforce Developer Edition

**Key Tools & Technologies:**

- **Objects & Schema Builder** for data modeling
- **Process Builder / Flow** for workflow automation
- **Apex** for custom logic and backend processes
- **Visualforce / Lightning Components** for UI customization
- **Reports & Dashboards** for analytics
- **Data Loader** for bulk data operations
- **Salesforce Mobile App** for accessibility
- **External APIs (optional)** for supplier integration



## 4. Project Design:

### Problem Solution Fit:

#### Problem:

Healthcare facilities often face:

- Stock shortages.
- Expired medicines going unnoticed.
- Manual tracking errors.
- Inefficient inventory reporting.



A Medical Inventory Management System that:

- Tracks stock levels in real-time.
- Sends automated alerts for low stock and nearing expiry.
- Provides accurate reporting and analytics.
- Reduces manual errors with barcode scanning and digital records.

**Problem-Solution Fit:**

You achieve fit when:

- Healthcare staff find the system easy to use and it saves their time.
- Expiry alerts reduce medicine wastage.
- Stock shortage incidents drop significantly.
- Decision-makers trust the reports and use them for ordering and planning.

Problem-Solution Fit is when medical inventory system genuinely solves the pain points of medicine tracking, stock management, and reporting in healthcare settings, and the users (like pharmacists, nurses, and admins) are happy with the solution.

**Proposed Solution:**

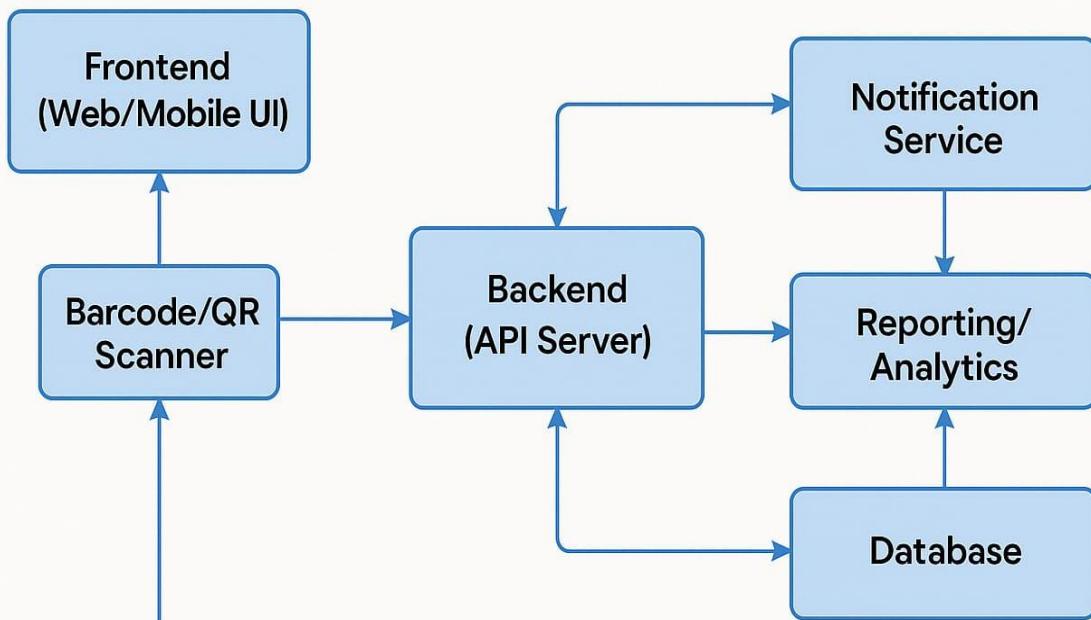
The Medical Inventory Management System is a smart, digital solution designed to address the common challenges faced by healthcare facilities in managing their medical supplies. Traditional manual tracking methods often lead to stock shortages, unnoticed expiry dates, and reporting errors that can impact patient safety and hospital efficiency. This system offers real-time inventory tracking with automated alerts for low stock and upcoming expiries, ensuring timely replenishment and reducing wastage. It integrates barcode scanning to speed up inventory updates and minimize manual entry errors.

A user-friendly interface makes it simple for healthcare staff, including pharmacists, nurses, and inventory managers, to use the system with minimal training. It also provides detailed reporting and analytics, helping administrators make quick, data-driven decisions regarding procurement and inventory levels. The system supports multi-user access with role-based permissions, ensuring that each user interacts with the system according to their responsibilities. This enhances data security and workflow efficiency.

By digitizing the inventory process, the proposed solution significantly improves accuracy, reduces human error, and helps maintain a safe and well-stocked medical supply chain in healthcare facilities.

**Solution Architecture:**

## Solution Architecture



## Medical Inventory Management System

The solution architecture of the Medical Inventory Management System is designed to ensure seamless, secure, and real-time management of medical inventories across healthcare facilities. It is structured into three main layers:

### 1. Frontend Layer:

The user interface is accessible via both web and mobile applications, providing role-based dashboards for pharmacists, doctors, and administrators. It allows users to view stock levels, receive alerts, and generate reports in a user-friendly environment.

### 2. Backend Layer:

The backend consists of a RESTful API server that manages business logic, inventory operations, and user authentication. It handles all communication between the frontend and the database and integrates services like email and SMS notifications for timely stock and expiry alerts.

### 3. Database Layer:

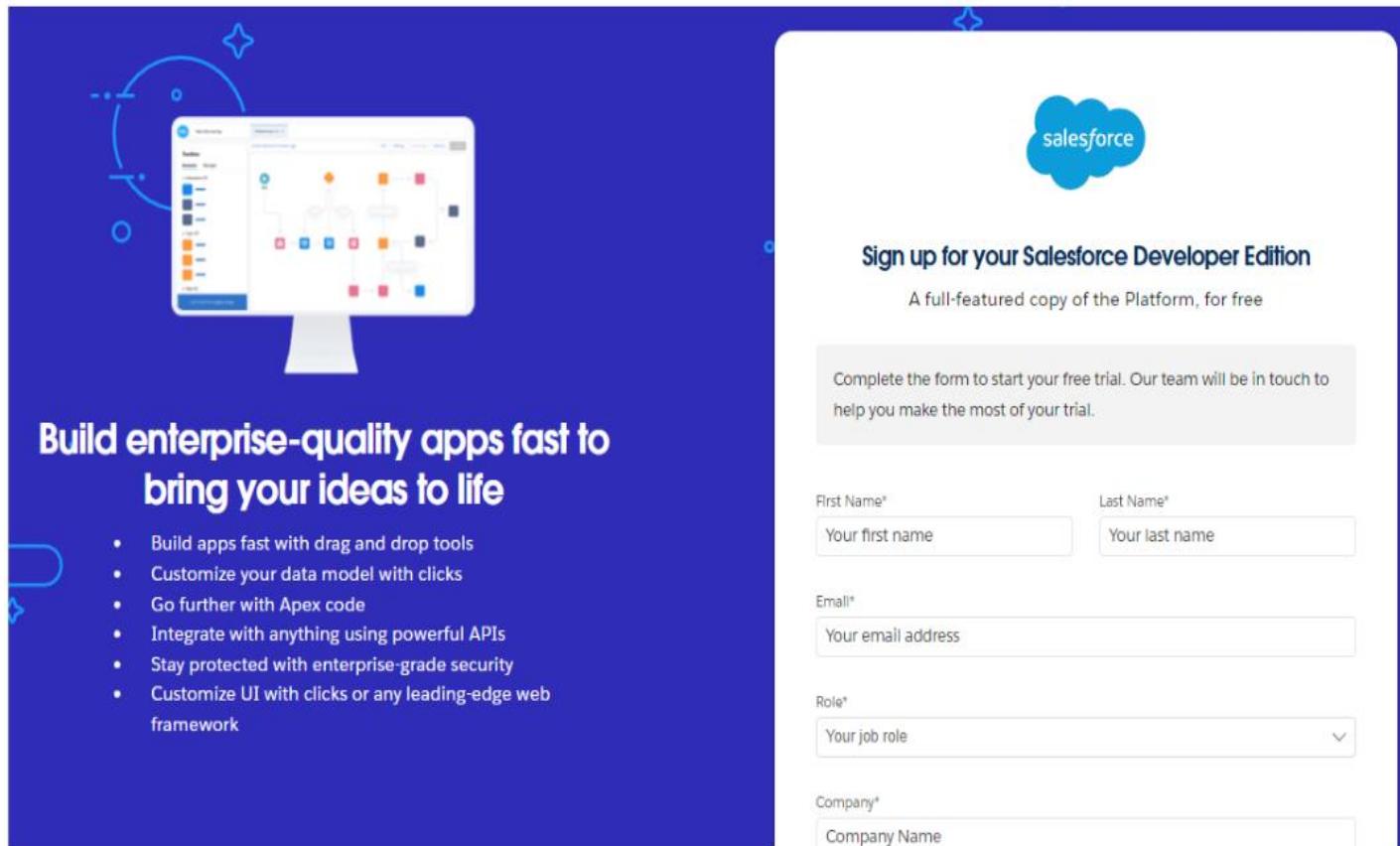
The database securely stores all medical inventory data, including stock details, expiry dates, user roles, and transaction logs. It supports real-time updates and retrievals to ensure accuracy and quick response times.

## 5. Project Planning & Scheduling

### Project Planning:

#### ➤ Initiation:

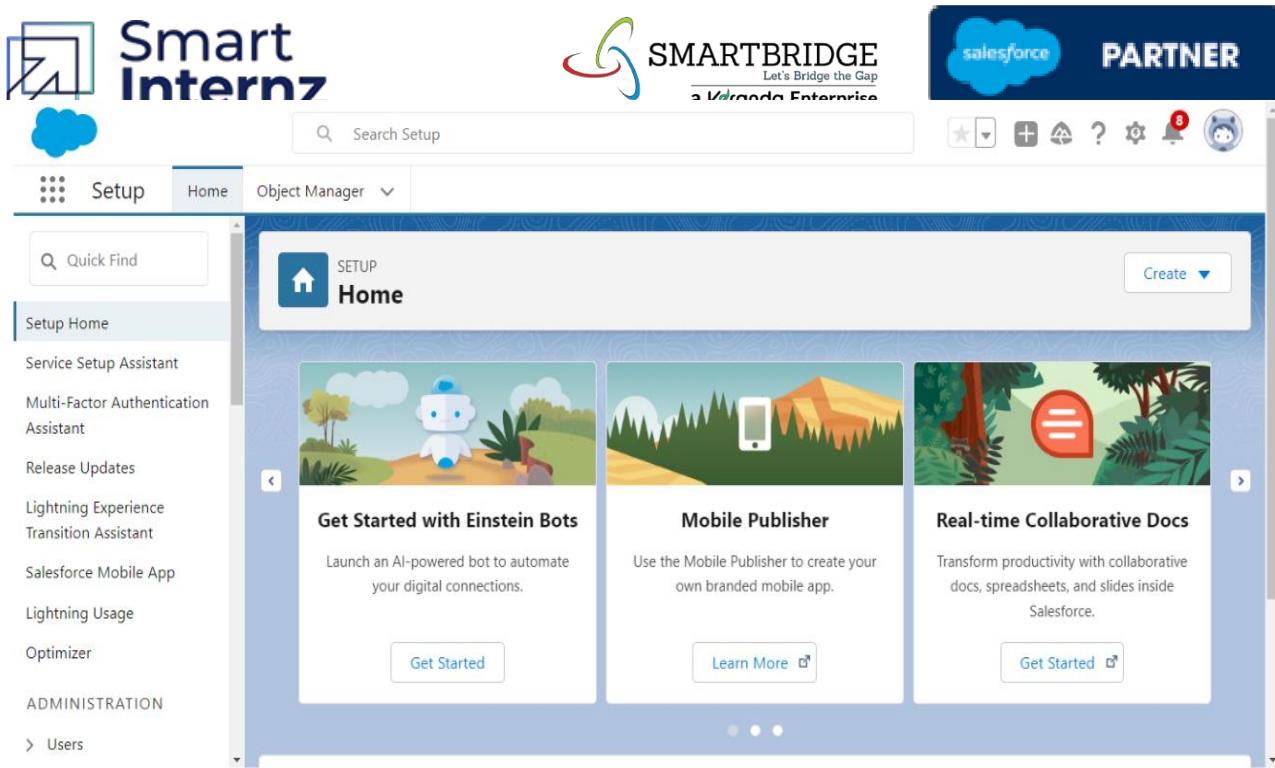
- Creating a developer org in salesforce.
- On the signup form, entered the details.



Build enterprise-quality apps fast to bring your ideas to life

- Build apps fast with drag and drop tools
- Customize your data model with clicks
- Go further with Apex code
- Integrate with anything using powerful APIs
- Stay protected with enterprise-grade security
- Customize UI with clicks or any leading-edge web framework

- After Activating the account, we will be having the developer account to create the project.



## ➤ Planning:

During the planning phase of the **Medical Inventory Management System**, key components and configurations were carefully outlined and implemented to ensure a smooth development and deployment process. The following activities were undertaken:

- **Custom Object Creation:**

Developed essential custom objects including **Product**, **Purchase Order**, **Order Item**, **Inventory Transaction**, and **Supplier** to manage various aspects of medical inventory.

- **Tab Configuration:**

Created custom tabs for the newly developed objects to enable easy navigation and accessibility within the Salesforce interface.

- **Lightning App Setup:**

Designed and configured a dedicated **Lightning App** named *Medical Inventory Management* to group all relevant components, streamlining user access.

- **Field and Layout Customization:**

Added custom fields to each object based on functional requirements and tailored **page layouts** to improve user experience and data input efficiency.

- **Compact Layouts:**

Defined **compact layouts** for key objects to display critical information in highlights panels, enhancing user visibility in Lightning Experience.

- **Validation Rules:**

Implemented **validation rules** in relevant objects (e.g., Employee) to ensure data integrity and prevent invalid entries during record creation or updates.

- **Security & Access Configuration:**

Established **Profiles**, **Roles**, **Users**, and **Permission Sets** to control access based on user roles such as Pharmacist, Admin, and Inventory Manager.

- **Automation and Reporting:**

Developed **Flows** and **Triggers** to automate processes like stock updates and expiry



Created **Reports and Dashboards** to provide real-time insights into inventory status, stock movement, and supplier performance.

➤ **Development:**

**Creation of Objects:**

To create a custom object in Salesforce, navigate to **Setup** from the Salesforce homepage. From the **Object Manager** tab, click on "**Create New Custom Object**". Fill in the necessary details such as the **Label**, **Object Name**, and **Record Name**, and configure options like **Allow Reports**, **Track Field History**, and **Deployment Status**. Once the details are complete, click **Save** to create the object.

This process was repeated to create all the required objects for the **Medical Inventory Management System**. The following custom objects were created to support the application's functionality:

- **Product** – Stores information about medical items available in inventory.
- **Purchase Order** – Tracks orders placed to suppliers for inventory restocking.
- **Order Item** – Represents individual items within a purchase order.
- **Inventory Transaction** – Logs stock movement such as additions, usage, or removals.
- **Supplier** – Maintains details of vendors supplying medical products.

These objects form the core structure of the system and were further customized with fields, relationships, and automation to suit the medical inventory workflow.

LABEL	API NAME	TYPE	DESCRIPTION	LAST MODIFIED	DEPLOYED
Order Item	Order_Item__c	Custom Object		6/27/2025	✓
Inventory Transaction	Inventory_Transaction__c	Custom Object		6/27/2025	✓
Product	Product__c	Custom Object		6/27/2025	✓
Purchase Order	Purchase_Order__c	Custom Object		6/27/2025	✓
Supplier	Supplier__c	Custom Object		6/27/2025	✓
Work Type Group Member	WorkTypeGroupMember	Standard Object			





Search Setup

Setup Home Object Manager

SETUP > OBJECT MANAGER  
Purchase Order

**Details**

Description	<input checked="" type="checkbox"/> Enable Reports
API Name Purchase_Order_c	✓
Custom	Track Activities
Singular Label Purchase Order	Track Field History
Plural Label Purchase Orders	Deployment Status Deployed
	Help Settings Standard salesforce.com Help Window

Fields & Relationships  
Page Layouts  
Lightning Record Pages  
Buttons, Links, and Actions  
Compact Layouts  
Field Sets  
Object Limits  
Record Types  
Related Lookup Filters  
Search Layouts

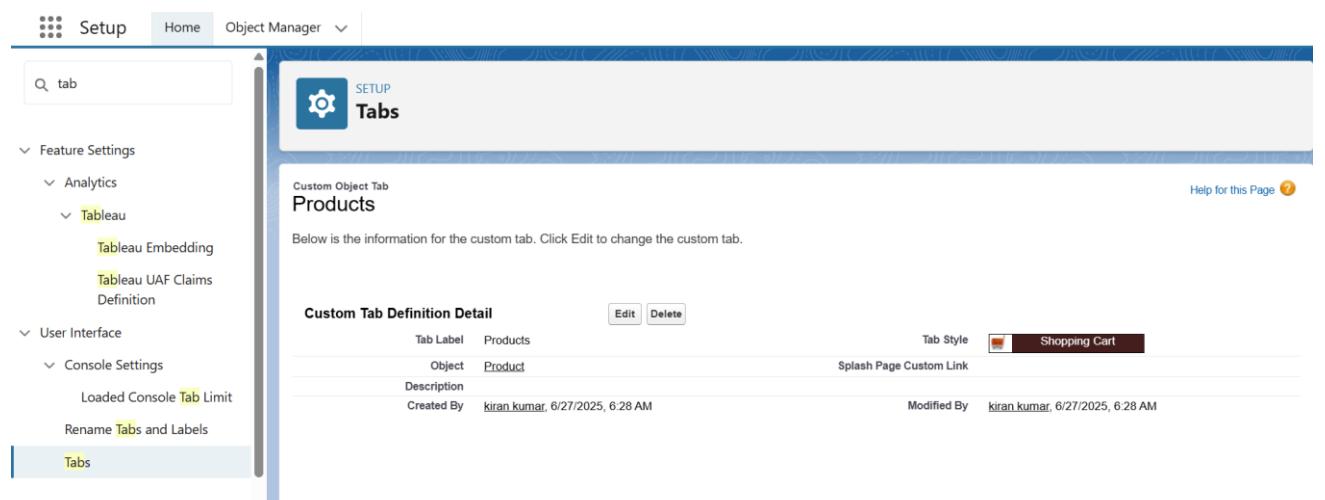
Edit Delete

## Creation of Tabs:

**Tabs** in Salesforce are used to make the data stored within custom or standard objects easily accessible to users through the user interface. They serve as navigation elements that allow users to view, create, and manage records related to a specific object.

Tabs are a fundamental part of the Salesforce experience, enabling seamless access to different objects without needing to navigate through complex menus. By creating custom tabs for each of the objects—such as **Product**, **Purchase Order**, **Order Item**, **Inventory Transaction**, and **Supplier**—users can quickly access and interact with the data relevant to the **Medical Inventory Management System**.

Tabs not only improve user efficiency but also enhance the overall usability of the application by organizing key modules in a structured, intuitive layout.



Setup Home Object Manager

Q tab

Feature Settings

- Analytics
- Tableau
- Tableau Embedding
- Tableau UAF Claims Definition

User Interface

- Console Settings
- Loaded Console Tab Limit
- Rename Tabs and Labels
- Tabs**

Custom Object Tab Products

Custom Tab Definition Detail

Tab Label	Products	<input type="button" value="Edit"/>	<input type="button" value="Delete"/>
Object	Product	Tab Style	
Description	kiran kumar, 6/27/2025, 6:28 AM	Splash Page Custom Link	
Created By	kiran kumar	Modified By	kiran kumar, 6/27/2025, 6:28 AM

Help for this Page ?



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Setup Home Object Manager ▾

Q tab

- Feature Settings
  - Analytics
  - Tableau
    - Tableau Embedding
    - Tableau UAF Claims Definition
- User Interface
  - Console Settings
    - Loaded Console Tab Limit
    - Rename Tabs and Labels
    - Tabs

Custom Object Tabs

Action	Label	Tab Style	Description
Edit   Del	Inventory Transactions	Pencil	
Edit   Del	Order Items	Truck	
Edit   Del	Products	Shopping Cart	
Edit   Del	Purchase Orders	Box	
Edit   Del	Suppliers	People	

Web Tabs

New What Is This?

No Web Tabs have been defined

## Creating the Lightning App:

A **Lightning App** in Salesforce is a customized collection of components—such as standard and custom objects, tabs, utilities, and tools—designed to streamline workflows and enhance the user experience for a specific business function. Lightning Apps provide a more modern, efficient, and role-specific interface compared to traditional Salesforce apps.

For the **Medical Inventory Management System**, a dedicated Lightning App was created to bring together all relevant components into a unified workspace.

### Steps to Create the Lightning App:

1. Go to **Setup**, and in the **Quick Find** box, type **App Manager**, then select it.
2. Click **New Lightning App**.
3. Enter the **App Name** as **Medical Inventory Management**.
4. Configure the app settings, including the branding, navigation style, and utility bar (if needed).
5. Add the required **objects and tabs** such as Product, Purchase Order, Inventory Transaction, Order Item, and Supplier.
6. Assign the app to relevant user profiles to ensure appropriate access.

This app serves as the central hub for all medical inventory operations, allowing users to navigate quickly and efficiently between various modules.



Search Setup

Setup Home Object Manager ▾

Q App

Salesforce Mobile App

- Data
  - Mass Transfer Approval Requests
- Apps
  - App Manager
  - AppExchange Marketplace
- Connected Apps
  - Connected Apps OAuth Usage
  - Manage Connected Apps
- External Client Apps
  - External Client App Manager
  - OAuth Usage
  - Settings
- Lightning Bolt

Lightning Experience App Manager

New Lightning App New External Client App

27 items • Sorted by App Name • Filtered by All appmenuitems - TabSet Type, App Type

App Name ↑	Developer Name	Description	Last Modified ...	Ap... ▾	Vl... ▾
12 Lightning Usage App	LightningInstrumentation	View Adoption and Usage Metrics for Lightning Experience	6/19/2025, 12:04 PM	Lightning ✓	▼
13 Marketing CRM Classic	Marketing	Track sales and marketing efforts with CRM objects.	6/19/2025, 12:04 PM	Classic ✓	▼
14 Medical Inventory Management	Medical_Inventory_Manageme...		6/27/2025, 2:31 AM	Lightning ✓	▼
15 My Service Journey	MSIApp	Discover new customer service capabilities.	6/19/2025, 12:04 PM	Lightning ✓	▼
16 Platform	Platform	The fundamental Lightning Platform	6/19/2025, 12:04 PM	Classic	▼
17 Queue Management	QueueManagement	Create and manage queues for your business.	6/19/2025, 12:04 PM	Lightning ✓	▼
18 Sales	Sales	The world's most popular sales force automation (SFA) solution	6/19/2025, 12:04 PM	Classic	▼
19 Sales	LightningSales	Manage your sales process with accounts, leads, opportunities, and more	6/19/2025, 12:04 PM	Lightning ✓	▼
20 Sales Cloud Mobile	SalesCloudMobile	New seller focused mobile first experience	6/19/2025, 12:04 PM	Lightning ✓	▼
21 Sales Console	LightningSalesConsole	(Lightning Experience) Lets sales reps work with multiple records on one screen	6/19/2025, 12:04 PM	Lightning ✓	▼
22 Salesforce Chatter	Chatter	The Salesforce Chatter social network, including profiles and feeds	6/19/2025, 12:04 PM	Classic ✓	▼
23 Salesforce Scheduler Setup	LightningScheduler	Set up personalized appointment scheduling.	6/19/2025, 12:10 PM	Lightning ✓	▼



## Creating Fields in Objects:

## Creating a Text Field in Product Object:

Screenshot of the Salesforce Setup > Object Manager interface for the Product object.

The left sidebar shows navigation options: Details, Fields & Relationships (highlighted with a red box), Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, Related Lookup Filters, and Search Layouts.

The main area displays the "Fields & Relationships" section with the following table:

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedBy	Lookup(User)		
Last Modified By	LastModifiedBy	Lookup(User)		
Owner	Owned	Lookup(User/group)		✓
Product ID	Name	Text(100)		✓

At the top right of the main area, there are buttons: Q, Quick Find, New (highlighted with a red box), Deleted Fields, Field Dependencies, and Set History Tracking.

**Step 2: Enter the details** (Step 2 of 4) - This is a modal window for creating a new field.

Form fields (highlighted with red boxes):

- Field Label: Product Name (7)
- Length: 255 (7)
- Field Name: Product (7)

Description and Help Text fields are present but not highlighted.

Configuration settings at the bottom:

- Required:  Always require a value in this field in order to save a record (8)
- Unique:  Do not allow duplicate values
- External ID:  Set this field as the unique record identifier from an external system
- Auto add to custom report type:  Add this field to existing custom report types that contain this entity (8)

## Creating a Text area Field in Product Object:



Step 2. Enter the details Step 2 of 4

Field Label  7

Field Name  8

Description

Help Text

Required  Always require a value in this field in order to save a record

Auto add to custom report type  Add this field to existing custom report types that contain this entity

Default Value [Show Formula Editor](#)

Use formula syntax: Enclose text and picklist value API names in double quotes: ("the\_text"). Include numbers without quotes (25), show percentages as decimals (.10), and express date calculations in the standard format: (Today() + 7). To reference a field from a Custom Metadata type record use: @CustomMetadataType\_\_md.RecordAPIName.Field\_\_c

## Created fields in Product Object:



SETUP > OBJECT MANAGER  
**Product**

Details	Fields & Relationships				
	FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Page Layouts	Created By	CreatedBy	Lookup(User)		
Lightning Record Pages	Current Stock Level	Current_Stock_Level__c	Number(18, 0)		
Buttons, Links, and Actions	Last Modified By	LastModifiedBy	Lookup(User)		
Compact Layouts	Minimum Stock Level	Minimum_Stock_Level__c	Number(18, 0)		
Field Sets	Owner	OwnerId	Lookup(User/Group)		✓
Object Limits	Product Description	Product_Description__c	Text Area(255)		
Record Types	Product ID	Name	Text(80)		
Related Lookup Filters	Product Name	Product_Name__c	Text(255)		
Search Layouts	Unit Price	Unit_Price__c	Currency(16, 2)		
List View Button Layout					
Restriction Rules					
Scoping Rules					
Object Access					
Triggers					
Flow Triggers					
Validation Rules					
Conditional Field Formatting					



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## Creating Lookup Relationship in Purchase Order Object:

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Purchase Order  
New Relationship

Step 2. Choose the related object

Select the other object to which this object is related.

Related To: Supplier 5

Step 2

Previous Next Cancel 6

Field Label: Supplier ID 7

Field Name: Supplier\_ID

Description:

Help Text:

Child Relationship Name: Purchase\_Orders 8

Required:  Always require a value in this field in order to save a record.

What to do if the lookup record is deleted?

- Clear the value of this field. You can't choose this option if you make this field required.
- Don't allow deletion of the lookup record that's part of a lookup relationship.

Auto add to custom report type:  Add this field to existing custom report types that contain this entity 9

Previous Next Cancel

## Created Fields in Purchase Order Object:

SETUP > OBJECT MANAGER

Purchase Order

Fields & Relationships		Fields & Relationships			
FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED	
Actual Delivery Date	Actual_Delivery_Date_c	Date			
Created By	CreatedBy	Lookup(User)			
Expected Delivery Date	Expected_Delivery_Date_c	Date			
Last Modified By	LastModifiedBy	Lookup(User)			
Order Count	Order_Count_c	Roll-Up Summary (COUNT Order Item)			
Order Date	Order_Date_c	Date			
Owner	OwnerId	Lookup(User,Group)			
Purchase Order ID	Name	Text(80)			
Supplier ID	Supplier_ID_c	Lookup(Supplier)			
Total Order Cost	Total_Order_Cost_c	Currency(18, 0)			

## Creating a Unit Price Formula Field in Order Item object:

Step 2. Choose output type Step 2 of 5

Field Label **Unit Price** 5

Field Name **Unit\_Price**

Auto add to custom report type  Add this field to existing custom report types that contain this entry

Formula Return Type

Select one of the data types below.

None Selected

Checkbox

**Currency** 6

Date

Date/Time

Number

Percent

Calculate a boolean value  
Example: `TODAY() > CloseDate`

Calculate a dollar or other currency amount and automatically format the field as a currency amount.  
Example: `Gross Margin = Amount - Cost__c`

Calculate a date, for example, by adding or subtracting days to other dates.  
Example: `Reminder Date = CloseDate + 7`

Calculate a datetime, for example, by adding a number of hours or days to another datetime.  
Example: `New = NOW() + 1`

Calculate a numeric value  
Example: `Estimated = 1.8 * Current__c + 32`

Calculate a percent and automatically add the percent sign to the number  
Example: `Margin = 100 * (Gross Margin / Cost__c)`

Order item New Custom Field Help for this Page

Step 3. Enter formula Step 3 of 5

Enter your formula and click Check Syntax to check for errors. Click the Advanced Formula subtab to use additional fields, operators, and functions.

Example: `Gross Margin = Amount - Cost__c` More Examples

Simple Formula Advanced Formula | 7

Insert Field Insert Operator Functions

Unit Price (Currency) = `Product_ID__c * Unit_Business_Sales`

All Function Categories -- ABS ACOS ADDMONTHS AND ASCII ASIN Insert Selected Function

Quick Tips

- Getting Started
- Operations & Functions

## Created Fields in Order Item Object:

SETUP > OBJECT MANAGER Order Item

Fields & Relationships		Details		
10 items. Sorted by Field Label		FIELD NAME	DATA TYPE	CONTROLLING FIELD INDEXED
Page Layouts	Amount	Amount__c	Formula (Currency)	
Lightning Record Pages	Created By	CreatedBy	Lookup(User)	
Buttons, Links, and Actions	Last Modified By	LastModifiedBy	Lookup(User)	
Compact Layouts	Order Item ID	Name	Text(80)	✓
Field Sets	Product ID	Product_ID__c	Lookup(Product)	✓
Object Limits	Product Lookup	Product_Lookup__c	Lookup(Product)	✓
Record Types	Purchase Order	Purchase_Order__c	Master-Detail(Purchase Order)	✓
Related Lookup Filters	Quantity Ordered	Quantity_Ordered__c	Number(18, 0)	
Search Layouts	Quantity Received	Quantity_Received__c	Number(18, 0)	
List View Button Layout	Unit Price	Unit_Price__c	Formula (Currency)	
Restriction Rules				
Scoping Rules				
Object Access				
Triggers				
Flow Triggers				
Validation Rules				
Conditional Field Formatting				

## Created Fields in Inventory Transaction Object:



SETUP > OBJECT MANAGER  
**Inventory Transaction**

Fields & Relationships		Actions			
8 items, Sorted by Field Label		FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Details	Created By	CreatedById	Lookup(User)		
Fields & Relationships	Inventory Transaction ID	Name	Text(80)		✓
Page Layouts	Last Modified By	LastModifiedById	Lookup(User)		
Lightning Record Pages	Owner	OwnerId	Lookup(User/Group)		✓
Buttons, Links, and Actions	Purchase Order ID	Purchase_Order_ID_c	Lookup(Purchase Order)		✓
Compact Layouts	Total Order Cost	Total_Order_Cost_c	Formula (Currency)		
Field Sets	Transaction Date	Transaction_Date_c	Date		
Object Limits	Transaction Type	Transaction_Type_c	Picklist		
Record Types					
Related Lookup Filters					
Search Layouts					
List View Button Layout					
Restriction Rules					
Scoping Rules					
Object Access					
Triggers					
Flow Triggers					
Validation Rules					
Conditional Field Formatting					

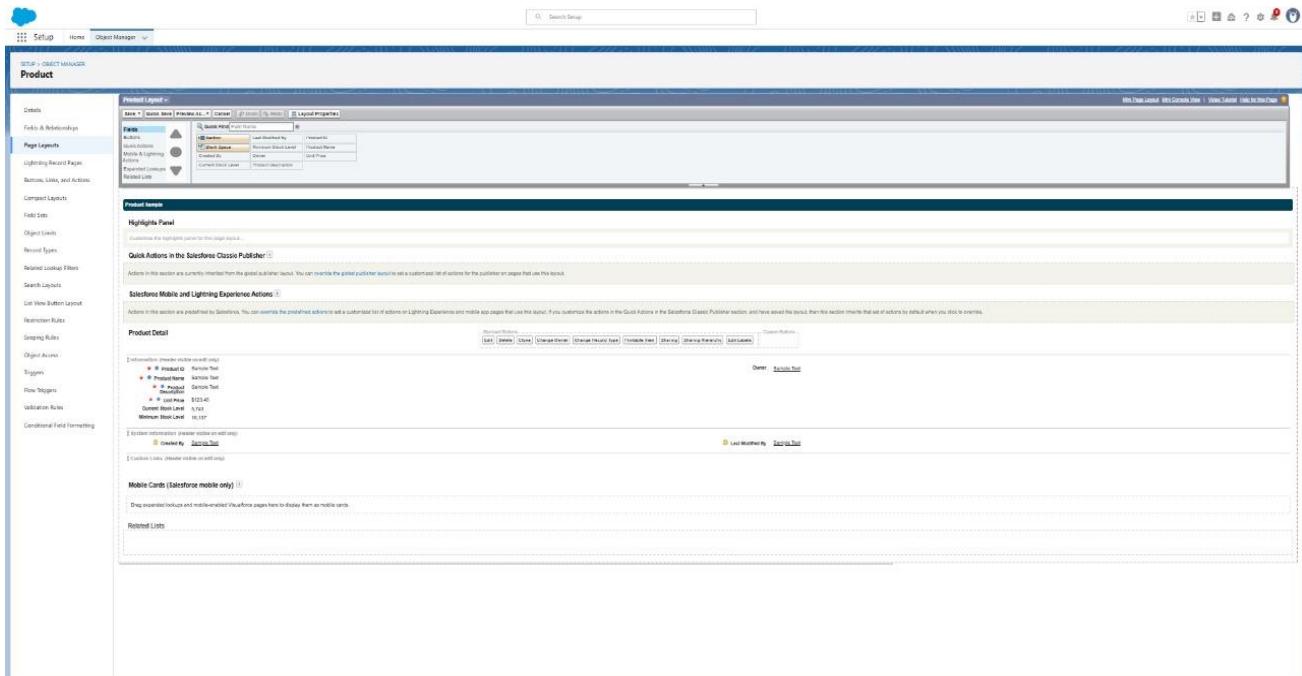
## Created Fields in Supplier Object:

SETUP > OBJECT MANAGER  
**Supplier**

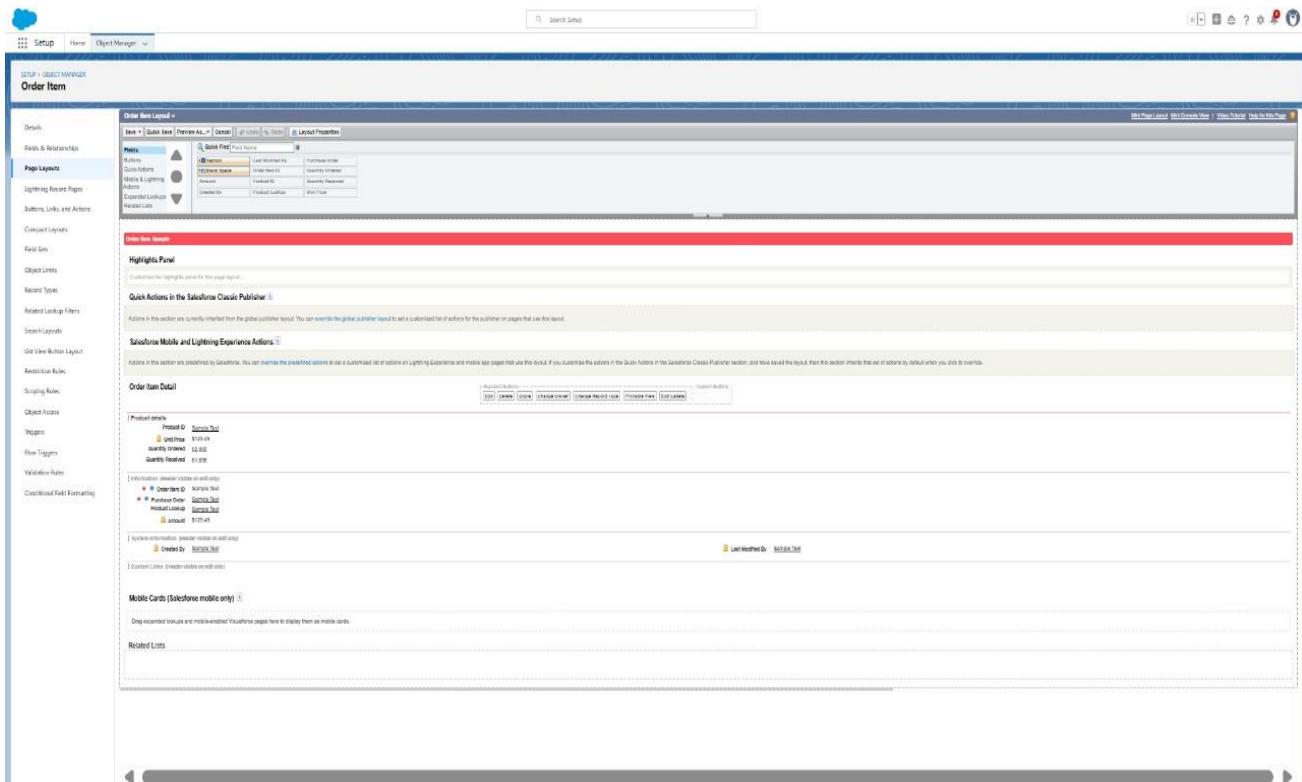
Fields & Relationships		Actions			
9 items, Sorted by Field Label		FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Details	Address	Address_c	Long Text Area(32760)		
Fields & Relationships	Contact Person	Contact_Person_c	Text(80)		
Page Layouts	Created By	CreatedById	Lookup(User)		
Lightning Record Pages	Email	Email_c	Email		
Buttons, Links, and Actions	Last Modified By	LastModifiedById	Lookup(User)		
Compact Layouts	Owner	OwnerId	Lookup(User/Group)		✓
Field Sets	Phone Number	Phone_Number_c	Phone		
Object Limits	Supplier ID	Name	Text(80)		
Record Types	Supplier Name	Supplier_Name_c	Text(80)		
Related Lookup Filters					
Search Layouts					
List View Button Layout					
Restriction Rules					
Scoping Rules					
Object Access					
Triggers					
Flow Triggers					
Validation Rules					
Conditional Field Formatting					

## Creating page layouts in Created objects:

## Created Page layout in Product object:



## Created Page layout in Order Item object:





## Created Page layout in Inventory Transaction object:



## Created Page layout in Supplier object:

## Compact Layouts:



Compact layouts display a record's key fields at a glance, providing important information quickly without needing to open the record.

## Created Compact layout in Product object:

The screenshot shows the Salesforce Setup interface under Object Manager for the Product object. A new Compact Layout named "Product Compact Layout" has been created. The layout detail page shows the following configuration:

Label	Product Compact Layout
API Name	Product_Compact_Layout
Included Fields	Product Name Unit Price Current Stock Level
Created By	kiran kumar, 6/27/2025, 10:15 AM
Modified By	kiran kumar, 6/27/2025, 10:17 AM

## Created Compact layout in Purchase Order object:

The screenshot shows the Salesforce Setup interface under Object Manager for the Purchase Order object. A new Compact Layout named "Purchase Order Compact Layout" has been created. The layout detail page shows the following configuration:

Label	Purchase Order Compact Layout
API Name	Purchase_Order_Compact_Layout
Included Fields	Purchase Order ID Order Date Total Line Cost Supplier ID
Created By	kiran kumar, 6/27/2025, 10:18 AM
Modified By	kiran kumar, 6/27/2025, 10:18 AM

## Creating an Expected Delivery Date Validation rule to Employee Object:

Validation rules in Salesforce are used to ensure data integrity by preventing users from saving invalid data in records. They consist of a formula or expression that evaluates the data in one or more fields and return a value of true or false. When the rule's criteria are met (i.e., the expression evaluates to true), an error message is displayed, and the user is prevented from saving the record until the issue is resolved.

## Purchase Order Validation Rule

Help for this Page

Define a validation rule by specifying an error condition and a corresponding error message. The error condition is written as a Boolean formula expression that returns true or false. When the formula expression returns true, the save will be aborted and the error message will be displayed. The user can correct the error and try again.

**Validation Rule Edit**

Save Save & New Cancel

Rule Name: **Expected\_Delivery\_Date\_Validation** 3

Active  4

Description:

**Error Condition Formula**

Example: `Discount_Percent__c>0.30` [More Examples...](#)

If this formula expression is **true**, display the text defined in the Error Message area

Insert Field Insert Operator 5

`(Expected_Delivery_Date__c - Order_Date__c) > 7`

Functions

- All Function Categories --
- ABS
- ACOS
- ADDMONTHS
- AND
- ASCII
- ASIN

## Created Validation Rule in Purchase Order object:

Setup Home Object Manager Search Setup

SETUP > OBJECT MANAGER Purchase Order

Details Fields & Relationships Page Layouts Lightning Record Pages Buttons, Links, and Actions Compact Layouts

**Purchase Order Validation Rule**

[Back to Purchase Order](#)

**Validation Rule Detail**

Rule Name	Expected_Delivery_Date_Validation	Edit	Clone
Error Condition Formula	<code>(Expected_Delivery_Date__c - Order_Date__c) &gt; 7</code>	Active	<input checked="" type="checkbox"/>
Error Message	The Expected Delivery Date should not exceed 7 days.	Error Location	Top of Page
Description		Modified By	<a href="#">kiran kumar</a> 6/27/2025, 10:20 AM
Created By	<a href="#">kiran kumar</a> 6/27/2025, 10:20 AM	Edit	Clone

## Profiles:

Profiles in Salesforce are fundamental to the platform's security model, defining what users can do within the organization. Profiles control a user's permissions to objects, fields, tabs, apps, and other settings. Each user in Salesforce must be assigned a profile, and the profile assigned to a user determines what they can see and do in the system.

## Created Profiles:



Setup Home Object Manager

Profiles

Profiles

All Profiles | Edit | Delete | Create New View

Action	Profile Name *	User License	Custom
<input type="checkbox"/>	Analytics Cloud Integration User	Analytics Cloud Integration User	<input type="checkbox"/>
<input type="checkbox"/>	Analytics Cloud Security User	Analytics Cloud Integration User	<input type="checkbox"/>
<input type="checkbox"/>	Anonymous User	Identify	<input type="checkbox"/>
<input type="checkbox"/>	Authenticated Website	Authenticated Website	<input type="checkbox"/>
<input type="checkbox"/>	External Apps Login	Authenticated Website	<input type="checkbox"/>
<input type="checkbox"/>	External Identity User	External Apps Login	<input checked="" type="checkbox"/>
<input type="checkbox"/>	OBIEE Reporting Portal Viewer Profile	Chatter External	<input type="checkbox"/>
<input type="checkbox"/>	Chatter External User	Chatter External	<input type="checkbox"/>
<input type="checkbox"/>	Chatter Free User	Chatter Free	<input type="checkbox"/>
<input type="checkbox"/>	Chatter Moderator User	Chatter Free	<input type="checkbox"/>
<input type="checkbox"/>	Contract Manager	Salesforce	<input type="checkbox"/>
<input type="checkbox"/>	Cross Org Data Proxy User	XOrg Proxy User	<input type="checkbox"/>
<input type="checkbox"/>	Customer Marketing Profile	Salesforce	<input checked="" type="checkbox"/>
<input type="checkbox"/>	Customer Sales Profile	Salesforce	<input checked="" type="checkbox"/>
<input type="checkbox"/>	Customer Support Profile	Salesforce	<input checked="" type="checkbox"/>
<input type="checkbox"/>	Customer Community Login User	Customer Community Login	<input type="checkbox"/>
<input type="checkbox"/>	Customer Community Plus Login User	Customer Community Plus Login	<input type="checkbox"/>
<input type="checkbox"/>	Customer Community Plus User	Customer Community Plus	<input type="checkbox"/>
<input type="checkbox"/>	Customer Community User	Customer Community	<input type="checkbox"/>
<input type="checkbox"/>	Customer Portal Manager Custom	Customer Portal Manager Custom	<input type="checkbox"/>
<input type="checkbox"/>	Customer Portal Manager Standard	Customer Portal Manager Standard	<input type="checkbox"/>
<input type="checkbox"/>	Einsteins Agent	Einsteins Agent	<input type="checkbox"/>
<input type="checkbox"/>	External Apps Login	External Apps Login	<input type="checkbox"/>
<input type="checkbox"/>	External Identity User	External Identity	<input type="checkbox"/>
<input type="checkbox"/>	Force.com - App Subscription User	Force.com - App Subscription	<input type="checkbox"/>
<input type="checkbox"/>	Force.com - Free User	Force.com - Free	<input type="checkbox"/>

125 of 45 0 Selected

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z Other

Help for this Page

Page 1 of 2

Setup Home Object Manager

Profiles

Profiles

Data Share Sagemaker Connections

Data Share Snowflake Connections

Data Share Targets

Data Share Target Connection

Data Share Target Definition

Data Share Target Definition Maps

Data Sources

Web Store Inventory Sources

Work Orders

Work Plans

Work Plan Templates

Work Step Templates

Work Types

Work Type Groups

Custom Object Permissions

Basic Access	Data Administration				Basic Access	Data Administration									
	Read	Create	Edit	Delete		View All Records	Modify All Records	View All Fields	Read	Create	Edit	Delete	View All Records	Modify All Records	View All Fields
Inventory Transactions	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Order Items	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Products	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Session Settings

Session Times Out After: 2 hours of inactivity

Session Security Level Required at Login

Password Policies

User passwords expire in: Never expires

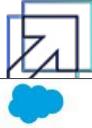
Enforce password history: 3 passwords remembered

Minimum password length: 8

## Roles:

Roles in Salesforce are used to control record-level access and define the hierarchy of an organization, determining the level of visibility and sharing of records among users. Roles work in conjunction with profiles to provide a robust security model. While profiles control what actions users can perform (object and field permissions), roles control which records users can see based on their position in the hierarchy.

## Created Roles:



**Smart Internz**

SMARTBRIDGE Let's Bridge the Gap  
a Vaidika Enterprise

**PARTNER**

salesforce

Setup Home Object Manager

roles

Users Roles Feature Settings Sales Service Case Teams Didn't find what you're looking for? Try using Global Search.

Understanding Roles

Sample Role Hierarchy

View other Sample Role Hierarchies: Territory-based Sample



\* View & edit data, roll up forecasts, & generate reports for all users below  
\* Can't access data of other Executive Staff

\* View & edit data, roll up forecasts, & generate reports for all users directly below  
\* Can't access data of users above or at same level

\* View & edit data, roll up forecasts, & generate reports only for own data  
\* Can't access data of users above or at same level

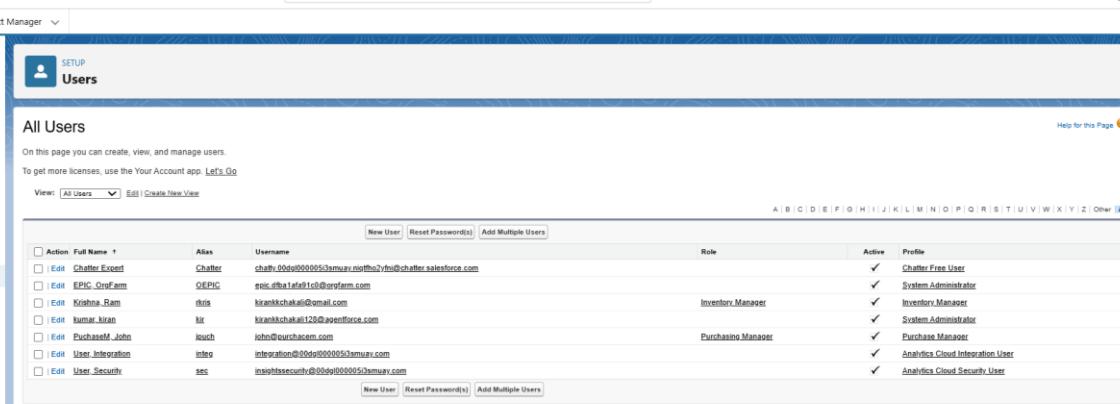
Set Up Roles

Don't show this page again

## Users:

Users in Salesforce are individuals who have access to the Salesforce organization. Each user is assigned a profile that defines their permissions, and they can be assigned to one or more roles within the role hierarchy to determine their access to records. Users can have additional configurations such as permission sets, licenses, and other settings that further define their capabilities within Salesforce.

## Created Users:



Search Setup

Setup Home Object Manager

Q: users

Users

Permission Set Groups  
Profiles  
Public Groups  
Queues  
Roles  
User Management Settings  
**Users**  
Feature Settings  
Data.com  
Prospector Users

Didn't find what you're looking for? Try using Global Search.

All Users

On this page you can create, view, and manage users.

To get more licenses, use the Your Account app. [Let's Go](#)

View: All Users | [Edit](#) | [Create New View](#)

Action	Full Name	Alias	Username	Role	Active	Profile
<a href="#">Edit</a>	Chatter_Expert	Chatter	chatty_0000000053smarav.m@thru24chatter.salesforce.com		✓	Chatter Free User
<a href="#">Edit</a>	EPIC_OrgAdmin	OEPIG	epic_dhatafaf101@openfisrm.com	Inventory_Manager	✓	System Administrator
<a href="#">Edit</a>	Krishna_Ram	krish	krankckhakall126@openforce.com		✓	Inventory Manager
<a href="#">Edit</a>	kumar_kiran	kir	krankckhakall126@openforce.com	Purchasing_Manager	✓	System Administrator
<a href="#">Edit</a>	Purneshwar_John	joush	john@ourcharacem.com		✓	Purchase Manager
<a href="#">Edit</a>	User_Integration	integ	integration@00pd00000053smarav.com		✓	Analytics Cloud Integration User
<a href="#">Edit</a>	User_Security	sec	insightssecurity@00de0000053smarav.com		✓	Analytics Cloud Security User

## Permission Sets:

Permission Sets in Salesforce are a powerful tool to extend user permissions beyond what is defined in their profiles. They allow administrators to grant additional access to various tools and functions without altering the user's profile. Permission sets are particularly useful



for providing specialized permissions to specific users without the need to create multiple profiles.



The screenshot shows the Salesforce Setup interface with the search bar set to "perm". The left sidebar is expanded, showing "Users" with "Permission Set Groups" and "Permission Sets" selected, and "Custom Code" and "Custom Permissions". A note says " Didn't find what you're looking for? Try using Global Search." The main content area is titled "Permission Sets" and displays a table of permission sets. The columns are "Action", "Permission Set Name", "Description", and "License". The table includes rows for various legacy Data Cloud roles like "Data Cloud Data Aware Specialist", "Data Cloud Marketing Manager", etc., and newer roles like "Access Agentforce Default Agent", "Agent Platform Builder", and "Agentforce Default Admin".

## Created Permission set:

The screenshot shows the "Purchase Manager Create Access" permission set being created. The left sidebar has "Permission Sets" selected. The main content area shows the "Purchase Manager Create Access" tab settings, which are set to "Visible". Below that is the "Object Permissions" section, which lists various permissions for the "Purchase Manager Create Access" object. The "Enabled" column indicates which permissions are active.

Permission Name	Enabled
Read	<input checked="" type="checkbox"/>
Create	<input checked="" type="checkbox"/>
Edit	<input type="checkbox"/>
Delete	<input type="checkbox"/>
View All Records	<input type="checkbox"/>
Modify All Records	<input type="checkbox"/>
View All Fields	<input type="checkbox"/>

## Flows:

Flows in Salesforce, part of the Lightning Flow product, are powerful automation tools that help you collect data and perform actions in your Salesforce environment. Flows can be used to automate business processes, guide users through tasks, and integrate with external systems. They are highly versatile and can be configured to meet a wide range of business requirements without the need for custom code.

## Created Flow to update the Actual Delivery Date:

Setup Home Object Manager ▾

Q flows

- Process Automation
  - Flows
  - Identity
  - Login Flows

Didn't find what you're looking for?  
Try using Global Search.

Flow Definitions All Flows +

58 items • Sorted by Flow Label • Filtered by All flow definitions • Updated a minute ago

Flow Label †	Process Type	Active	Template	Package State	Package Name	Last Modified By	Last Modified Date
Actual Delivery Date Updating	Autolaunched Flow	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Unmanaged		kiran kumar	6/28/2025, 3:26 AM
Add or Modify Service Appointment Attendees	Salesforce Scheduler Flow	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Managed-installed			
Approvals Workflow: Evaluate Approval Requests	Screen Flow	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Managed-installed			
Approvals Workflow: Process Approval Submission	Screen Flow	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Managed-installed			
Authentication Provider User Registration	Identity User Registration Flow	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Managed-installed			
Basic Approval Request	Flow Orchestration for CMS	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Managed-installed			
Book Appointment from invitation	Salesforce Scheduler Flow	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Managed-installed			
Cancel Item Flow	Screen Flow	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Managed-installed			
Change Case Owner to Incident Owner	Screen Flow	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Managed-installed			
Chats Routed to Agents and Queues	Omni-Channel Flow	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Managed-installed			
Chats Routed to Agents with the Right Skills	Omni-Channel Flow	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Managed-installed			
Check Flow API Name	Autolaunched Flow	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Managed-installed			
Check Service Plan Eligibility	Autolaunched Flow	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Managed-installed			
Close Change Request & Related Issues	Screen Flow	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Managed-installed			
CMS: Check Whether Any Step is Completed	Evaluation Flow	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Managed-installed			

← ⌂ Flow Builder Actual Delivery Date Updating - V1 ▾

Flow Builder: Actual Delivery Date Updating - V1

Object: Purchase Order Edit Trigger: A record is created or updated Optimize for: Fast Field Updates

Open Flow Trigger Explorer for Purchase Order

```

graph TD
    Start((Record-Triggered Flow)) --> GetPurchaseRecord[Get Purchase Record]
    GetPurchaseRecord --> Assignment[Assignment]
    Assignment --> UpdatePurchasingOrder[Updating Purchasing Order]
    UpdatePurchasingOrder --> End((End))
  
```

Run Debug View Tests Save As New Version Save Deactivate

## Triggers:

Triggers in Salesforce are pieces of Apex code that execute before or after specific data manipulation events on Salesforce records, such as insertions, updates, deletions, and undeletions. They are powerful tools for automating complex business logic and ensuring data integrity by enforcing custom validation rules and workflows that cannot be achieved through declarative tools alone.



## New Apex Trigger

Name:	CalculateTotalAmountTrigger
sObject:	Order_Item__c
Submit	

## Reports:

Reports in Salesforce provide a powerful way to visualize and analyze data stored in your Salesforce organization. They allow users to create, customize, and share different types of reports based on data from standard and custom objects. Reports help organizations make informed decisions by providing insights into key metrics, trends, and performance indicators.

### Created Reports:

The screenshot shows a Salesforce report interface. At the top, there is a navigation bar with links for Medical Inventory ..., Products, Purchase Orders, Order Items, Inventory Transactions, Supplier, Reports, and Dashboards. The report title is "Report: Purchase Orders" and the specific report name is "Purchase Orders based on Suppliers". The report displays the following data:

Total Records	Total Order Count	Total Total Order Cost	
5	26	\$48,150	
Supplier ID	Purchase Order: Purchase Order ID	Order Count	Total Order Cost
Supplier 001 (4)	Purchase-0001 (1)	3	\$2,075
	Purchase-0002 (1)	2	\$3,250
	Purchase-0003 (1)	3	\$7,000
	Purchase-0004 (1)	4	\$9,500
Supplier-002 (1)	Purchase-0005 (1)	14	\$26,325
<b>Total (5)</b>		<b>26</b>	<b>\$48,150</b>

At the bottom of the report, there are checkboxes for Row Counts, Detail Rows, Subtotals, and Grand Total.



Medical Inventory ... Products Purchase Orders Inventory Transactions Reports Dashboards

Reports  
Created by Me  
2 items

REPORTS	Report Name	Description	Folder	Created By	Created On	Subscribed
Recent	Complete Purchase Details Report	Private Reports	Prem Vardhamani	Prem Vardhamani	6/26/2025, 4:10 AM	
Created by Me	Purchase Orders Click Start report	Private Reports	Prem Vardhamani	Prem Vardhamani	6/26/2025, 4:33 AM	

Private Reports  
Public Reports  
All Reports  
FOLDERS  
All Folders  
Created by Me  
Shared with Me  
FAVORITES  
All Favorites

## Dashboards:

Dashboards in Salesforce are dynamic visual representations of key metrics and data from reports, providing a consolidated view of organizational performance and trends. They are powerful tools for monitoring real-time data, tracking progress towards goals, and gaining actionable insights at a glance. Dashboards consist of components such as charts, tables, metrics, and gauges that display data from underlying reports.

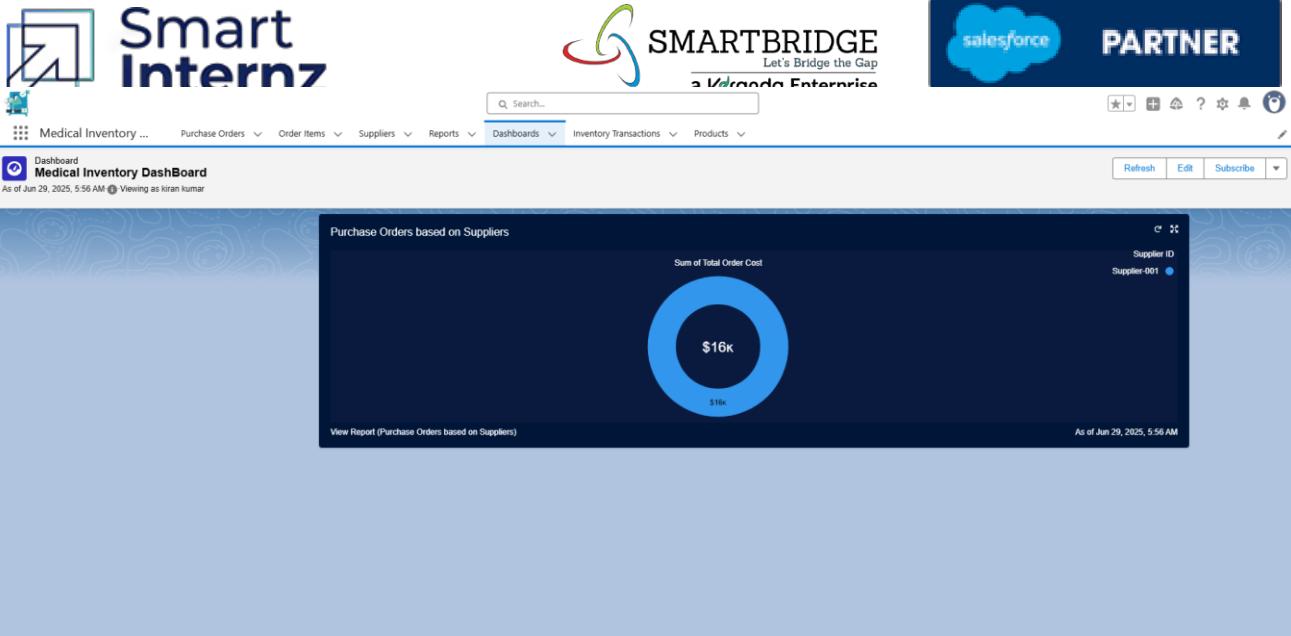
Medical Inventory ... Purchase Orders Order Items Suppliers Reports Dashboards Inventory Transactions Products

Dashboards  
Recent  
1 item

DASHBOARDS	Dashboard Name	Description	Folder	Created By	Created On	Subscribed
Recent	Medical Inventory Dashboard		Private Dashboards	kiran kumar	6/29/2025, 12:44 AM	

Created by Me  
Private Dashboards  
All Dashboards  
FOLDERS  
All Folders  
Created by Me  
Shared with Me  
FAVORITES  
All Favorites

<https://profarm-13a60b91e4-dev-ed.lightning.force.com/lightning/o/Dashboard/home>



## 6. FUNCTIONAL AND PERFORMANCE TESTING

### Performance Testing:

This screenshot shows a user interface for managing reports. On the left, there's a sidebar with sections for 'Recent' (2 items), 'Created by Me' (Private Reports, Public Reports, All Reports), 'FOLDERS' (All Folders, Created by Me, Shared with Me), and 'FAVORITES' (All Favorites). The main area displays a table of reports with columns for 'Report Name', 'Description', 'Folder', 'Created By', 'Created On', and 'Subscribed'. Two reports are listed: 'Summary Report' (Private Reports, kiran kumar, 6/29/2025, 5:53 AM) and 'Purchase Orders based on Suppliers' (Private Reports, kiran kumar, 6/28/2025, 7:16 AM). A search bar at the top right allows users to search for recent reports, and buttons for 'New Report' and 'New Folder' are also present.



Setup Home Object Manager

Quick Find

Setup Home  
Salesforce Go  
Service Setup Assistant  
Commerce Setup Assistant  
Field Service Setup Home (Beta)  
Hyperforce Assistant  
Release Updates  
Salesforce Mobile App  
Lightning Usage  
Optimizer  
Sales Cloud Everywhere  
ADMINISTRATION  
Users  
Permission Set Groups  
**Permission Sets**

## SETUP Permission Sets

### Permission Set Purchase Manager Create Access

[Video Tutorial](#) | [Help for this Page](#)

[Find Settings...](#) [Clone](#) [Edit Properties](#) [Manage Assignments](#) [View Summary](#)

Permission Set Overview > Object Settings Order Items

#### Order Items

Edit

#### Tab Settings

Available	Visible
<input checked="" type="checkbox"/>	<input type="checkbox"/>

#### Object Permissions

Permission Name	Enabled
Read	<input checked="" type="checkbox"/>
Create	<input checked="" type="checkbox"/>
Edit	<input type="checkbox"/>
Delete	<input type="checkbox"/>
View All Records	<input type="checkbox"/>
Modify All Records	<input type="checkbox"/>
View All Fields	<input type="checkbox"/>

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  
List View Button Layout  
Restriction Rules

### Purchase Order Validation Rule

[Help for this Page](#)

[Back to Purchase Order](#)

#### Validation Rule Detail

[Edit](#) [Clone](#)

Rule Name	Expected_Delivery_Date_Validation	Active	<input checked="" type="checkbox"/>
Error Condition Formula	(Expected_Delivery_Date__c - Order_Date__c) > 7		
Error Message	The Expected Delivery Date should not exceed 7 days.	Error Location	Top of Page
Description			

Created By kiran kumar, 6/27/2025, 10:20 AM Modified By kiran kumar, 6/27/2025, 10:20 AM

[Edit](#) [Clone](#)



File ▾ Edit ▾ Debug ▾ Test ▾ Workspace ▾ Help ▾ < >

### Open

Entity Type	Entities	Related
Entity Type	Name Namespace	Name Extent Direction
Classes	CalculateTotalAmount...	← Order Item... SObject References
Triggers		
Pages		
Page Components		
Objects		
Static Resources		
Packages		

Logs Tests User

Open Filter Filter the repository (\* = any string) Hide Managed Packages Refresh

Filter Click here to filter the log list

Flow Builder Actual Delivery Date Updating - VI

Last saved on 6/26/2025, 02:10 PM Active Run Debug View Tests Save As New Version Save Deactivate

Toolbox

Elements Manager

- Interaction (1)
  - Custom Error
- Logic (5)
  - Assignment
  - Decision
  - Loop
  - Collection Sort
  - Collection Filter
- Data (2)
  - Update Records
  - Get Records

Start Record-Triggered Flow

Object: Purchase Order Edit

Trigger: A record is created or updated

Optimize for: Fast Field Updates

Open Flow Trigger Explorer for Purchase ...

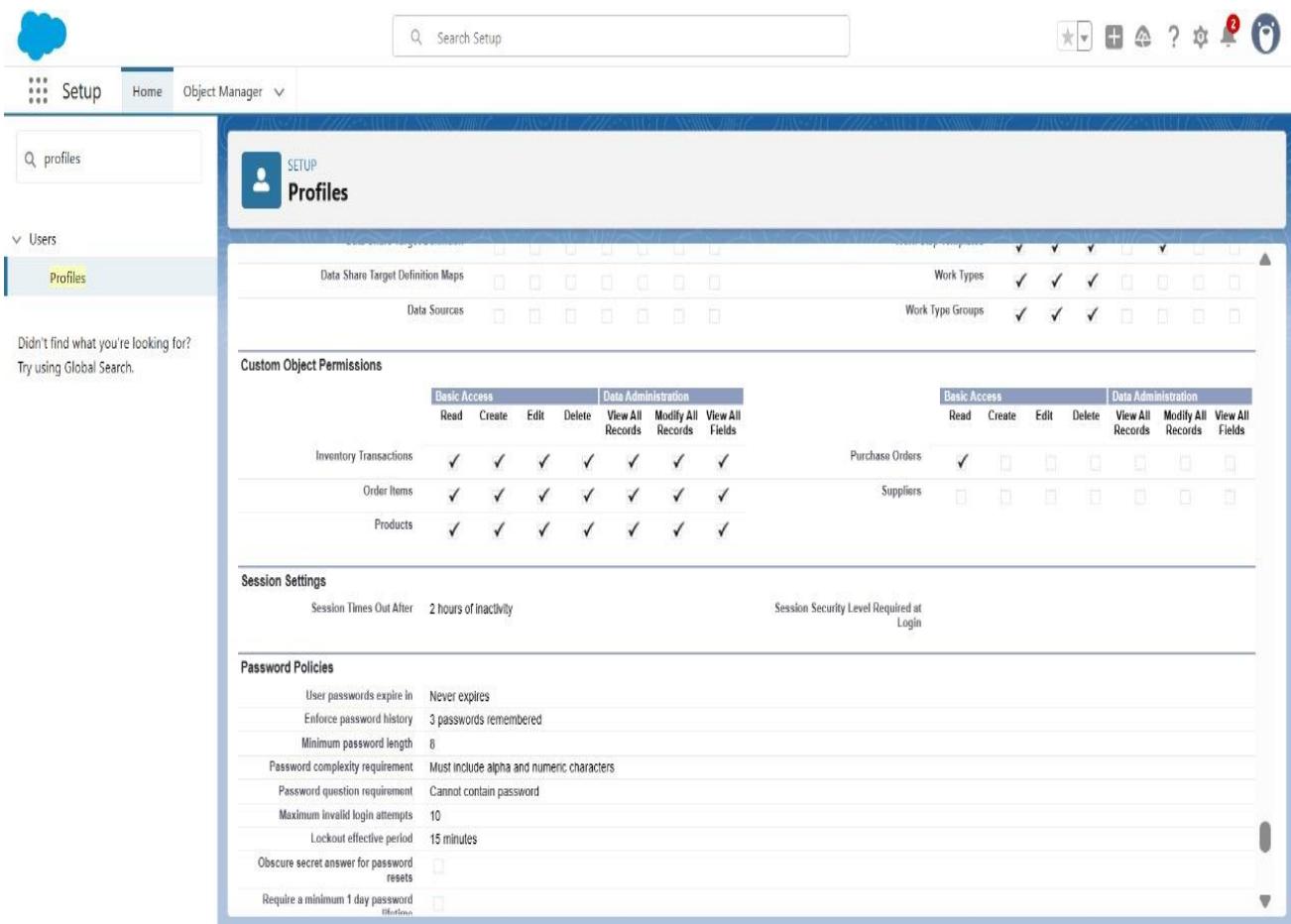
```
graph TD; Start((Start)) --> GetRecords[Get Records]; GetRecords --> Assignment[Assignment]; Assignment --> UpdateRecords[Update Records];
```

Get Records Get Purchase Record

Assignment Assignment

Update Records Updating Purchasing Order

Get more on the AppExchange



The screenshot shows the Salesforce Setup interface for managing Profiles. The top navigation bar includes links for Home, Object Manager, and a search bar labeled "Search Setup". Below the navigation is a toolbar with various icons for navigation and configuration.

The main content area is titled "Profiles" and displays two sections: "Data Share Target Definition Maps" and "Data Sources". Under "Data Share Target Definition Maps", there are columns for "Work Types" and "Work Type Groups", both of which have checkboxes checked. Under "Data Sources", there are also columns for "Work Types" and "Work Type Groups".

Below these sections is a table titled "Custom Object Permissions" showing permissions for "Inventory Transactions", "Order Items", and "Products" across "Basic Access" and "Data Administration" categories. For example, "Inventory Transactions" has checked boxes for Read, Create, Edit, Delete, View All Records, Modify All Records, and View All Fields under Basic Access.

Further down, the "Session Settings" section shows "Session Times Out After" set to "2 hours of inactivity" and "Session Security Level Required at Login".

The "Password Policies" section lists various policy settings:

- User passwords expire in: Never expires
- Enforce password history: 3 passwords remembered
- Minimum password length: 8
- Password complexity requirement: Must include alpha and numeric characters
- Password question requirement: Cannot contain password
- Maximum invalid login attempts: 10
- Lockout effective period: 15 minutes
- Obfuscate secret answer for password resets:
- Require a minimum 1 day password lifetime:



## 7. RESULTS

### Output Screenshots:

The screenshot shows the Salesforce Setup interface for the Purchase Order object. The left sidebar lists various configuration options like Fields & Relationships, Page Layouts, and Buttons, Links, and Actions. The main pane displays the 'Details' tab for the Purchase Order object. It includes fields for Description, API Name (Purchase\_Order\_\_c), Singular Label (Purchase Order), Plural Label (Purchase Orders), and various checkboxes for reports, activities, and history tracking.

The screenshot shows the Salesforce Setup interface for the Order Item object. The left sidebar lists various configuration options. The main pane displays the 'Details' tab for the Order Item object, which includes sections for Order Item Layout (with tabs for Details, Fields & Relationships, Page Layouts, and Buttons, Links, and Actions), Order Item Details (with tabs for Product details, Order item details, and Order item information), and Mobile Cards (Salesforce mobile only).



Setup Home Object Manager



Search Setup



Logout Help

SETUP > OBJECT MANAGER  
Inventory Transaction

Details	Fields & Relationships				
	8 items. Sorted by Field Label				
Fields & Relationships	FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Page Layouts	Created By	CreatedById	Lookup(User)		
Lightning Record Pages	Inventory Transaction ID	Name	Text(50)		✓
Buttons, Links, and Actions	Last Modified By	LastModifiedById	Lookup(User)		
Compact Layouts	Owner	OwnerId	Lookup(User/Group)		✓
Field Sets	Purchase Order ID	Purchase_Order_ID_c	Lookup(Purchase Order)		✓
Object Limits	Total Order Cost	Total_Order_Cost_c	Formula (Currency)		
Record Types	Transaction Date	Transaction_Date_c	Date		
Related Lookup Filters	Transaction Type	Transaction_Type_c	Picklist		
Search Layouts					
List View Button Layout					
Restriction Rules					
Scoping Rules					
Object Access					
Triggers					
Flow Triggers					
Validation Rules					
Conditional Field Formatting					

Q Quick Find New Deleted Fields Field Dependencies Set History Tracking



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

### Details

Description

API Name

Product\_c

Custom

✓

Singular Label

Product

Plural Label

Products

Enable Reports

✓

Track Activities

Track Field History

Deployment Status

Deployed

Help Settings

Standard salesforce.com Help Window

Edit Delete

The screenshot shows the Salesforce Setup interface for the Product object. The top navigation bar includes 'Setup', 'Home', 'Object Manager', and a search bar. The left sidebar lists various setup categories like Details, Fields & Relationships, Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Levels, Record Types, Related List Filters, Search Layouts, List View Button Layout, Restriction Rules, Delegating Rules, Object Access, Triggers, Row Triggers, Validation Rules, Conditional Field Formatters, and Related Lists.

The main content area displays the 'Product Layout' configuration. It shows the 'Fields & Relationships' tab selected, with a 'Fields' section containing fields like 'Name', 'Product Number', 'Description', 'Created Date', 'Last Modified By', and 'Last Modified Date'. Below this is the 'Product Item' section, which includes a 'Highlight Panel' (with a note about customizing the highlight color), 'Quick Actions in the Salesforce Classic Publisher' (with a note about creating a custom list of actions), and 'Salesforce Mobile and Lightning Experience Actions' (with a note about creating a custom list of actions). The 'Product Detail' section contains tabs for 'Standard Buttons' (List, Delete, Close, Change Owner, Change Record Type, Available Item, Change, Share & Reassign, List Labels) and 'Custom Buttons'. Under 'Information' (header visible on all pages), there are sections for 'Product Name' (radio buttons for 'Product Name' and 'Service Test'), 'Product Description' (radio buttons for 'Product Description' and 'Service Test'), and 'Unit Price' (radio buttons for 'Unit Price' and '100.00'). There are also sections for 'Current Item Level' (radio buttons for 'Current Item Level' and '5.00') and 'Minimum Stock Level' (radio buttons for 'Minimum Stock Level' and '10.00'). The 'Mobile Cards (Salesforce mobile only)' section allows dragging and dropping mobile-related Visualforce pages. The 'Related Lists' section is currently empty.



Smart  
Internz

SMARTBRIDGE  
Let's Bridge the Gap  
a Vaidika Enterprise



Setup Home Object Manager

Q profiles

SETUP  
Profiles

v Users

Profiles

Didn't find what you're looking for?  
Try using Global Search.

#### Custom Object Permissions

	Data Share Target Definition Maps							Work Types						
	Read	Create	Edit	Delete	View All Records	Modify All Records	View All Fields	Read	Create	Edit	Delete	View All Records	Modify All Records	View All Fields
Data Sources	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

#### Session Settings

Session Times Out After 2 hours of inactivity

Session Security Level Required at Login

#### Password Policies

User passwords expire in	Never expires
Enforce password history	3 passwords remembered
Minimum password length	8
Password complexity requirement	Must include alpha and numeric characters
Password question requirement	Cannot contain password
Maximum invalid login attempts	10
Lockout effective period	15 minutes
Obfuscate secret answer for password resets	<input type="checkbox"/>
Require a minimum 1 day password	<input type="checkbox"/>

Flow Builder ■ Actual Delivery Date Updating - V1

Last saved on 6/26/2023, 02:10 PM Active Run Debug View Tests Save As New Version Save Deactivate

Toolbox

Elements Manager

Interaction (1) Custom Error

Logic (5) Assignment Decision Loop Collection Sort Collection Filter

Data (2) Update Records Get Records

Start Record-Triggered Flow

Object: Purchase Order Trigger: A record is created or updated Optimize for Fast Field Updates

Get Purchase Record

Assignment Assignment

Update Records Updating Purchasing Order

Get more on the AppExchange

```
graph TD; Start((Start)) --> Get[Get Purchase Record]; Get --> Assignment[Assignment]; Assignment --> Update[Update Records]
```



Medical Inventory ... Products Purchase Orders Order Items Inventory Transactions Supplier Reports Dashboards

Report: Purchase Orders  
**Purchase Orders based on Suppliers**

Total Records	Total Order Count	Total Total Order Cost	
5	26	\$48,150	
Supplier ID ↑ Purchase Order: Purchase Order ID ↑ Order Count ↓ Total Order Cost ↓			
Supplier 001 (4)	Purchase-0001 (1)	3	\$2,075
	Purchase-0002 (1)	2	\$3,250
	Purchase-0003 (1)	3	\$7,000
	Purchase-0004 (1)	4	\$9,500
Supplier-002 (1)	Purchase-0005 (1)	14	\$26,325
<b>Total (5)</b>		<b>26</b>	<b>\$48,150</b>

Row Counts Detail Rows Subtotals Grand Total

## 8. ADVANTAGES & DISADVANTAGES

Here are the advantages and disadvantages of a Medical Inventory Management Project:

### Advantages:

#### Advantages of the Medical Inventory Management System

- **Improved Accuracy**
- Minimizes human errors in recording stock levels, tracking expiry dates, and processing reorders.
- **Real-Time Inventory Tracking**
- Provides live updates on stock availability and movements, enabling faster and more informed decision-making.
- **Cost Efficiency**
- Prevents overstocking and understocking, helping to reduce waste and control unnecessary procurement costs.
- **Enhanced Patient Safety**
- Automatically flags expired or unavailable medications, ensuring safer treatment practices and reducing risk to patients.
- **Regulatory Compliance**
- Maintains precise records that align with healthcare standards, making it easier to pass audits and meet regulatory requirements.
- **Operational Efficiency**



- Automates repetitive tasks such as restock alerts and inventory updates, freeing up time for healthcare personnel.
- **Data-Driven Decision Making**
- Generates detailed reports and analytics that support accurate forecasting, budget planning, and resource allocation.
- \_\_\_\_\_

## Disadvantages:

### **Disadvantages of the Medical Inventory Management System**

- **High Initial Investment**
- Requires upfront costs for system setup, including licensing, hardware (e.g., barcode scanners), and staff training.
- **Risk of System Downtime**
- Technical failures or software outages can temporarily disrupt access to inventory data, affecting operations.
- **Integration Challenges**
- Incorporating the system with existing hospital or ERP systems may require additional development and customization efforts.
- **Training Requirements**
- Effective use of the system depends on proper training for pharmacists, nurses, and administrative staff.
- **Cybersecurity Threats**
- As a digital solution handling sensitive data, the system must be secured against potential cyber-attacks and data breaches.
- **Technology Dependence**
- Heavy reliance on the system means that any malfunction could significantly impact daily operations, especially in emergencies.

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## 9. CONCLUSION

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## Implementation & Conclusion

The implementation of a **Medical Inventory Management System** marks a critical advancement in modernizing healthcare operations. It provides a structured, automated, and scalable solution for efficiently managing the diverse and complex inventory requirements of healthcare facilities—including medicines, equipment, and consumables.

By enabling **real-time tracking, automated alerts** for low stock and expiration dates, and **comprehensive reporting**, the system significantly improves operational accuracy and efficiency. One of its most impactful advantages is the **reduction of manual errors**, which commonly lead to serious issues such as stockouts, overstocking, or the inadvertent use of expired medical supplies.

Improved inventory control ensures that the **right medical products are available at the right time**, directly supporting better patient care and safety outcomes.

In addition, the system enhances **regulatory compliance** by maintaining complete and accurate records, which can be easily retrieved during audits and inspections. This capability supports healthcare organizations in meeting both national and international standards. The availability of **data-driven reports and analytics** empowers administrators to make informed decisions regarding procurement, budgeting, and inventory optimization—leading to long-term operational cost savings.

## Challenges and Considerations

Despite its many advantages, the implementation of such a system is not without challenges:

- **High initial investment** in software licenses, hardware (e.g., barcode scanners), and comprehensive staff training.
- **Technical integration requirements**, especially when aligning with pre-existing hospital or ERP systems.
- **Cybersecurity concerns**, as the system stores sensitive information related to medical supplies and patient safety.

## Final Thoughts

Nonetheless, with proper **planning, system maintenance, and ongoing staff training**, these challenges can be effectively managed. Over time, the benefits of the system—such as streamlined operations, improved compliance, and enhanced patient safety—greatly outweigh the initial constraints.

---

## Conclusion

In conclusion, the successful implementation of a **Medical Inventory Management System** is essential for healthcare institutions seeking to improve accuracy, efficiency, and accountability.



in inventory operations. It not only optimizes internal workflows but also strengthens patient care quality and organizational compliance. In today's fast-evolving medical landscape, such systems are no longer optional—they are fundamental to delivering high-standard, reliable, and cost-effective healthcare services.

## 10. FUTURE SCOPE

### Future Scope of Medical Inventory Management:

The Medical Inventory Management System has vast potential for future growth and development. As healthcare needs continue to evolve, the system can be expanded and enhanced to provide even greater efficiency, accuracy, and integration with emerging technologies. Some of the key future directions and opportunities include:

#### 1. Integration with IoT (Internet of Things)

- Smart shelves, RFID tags, and IoT-enabled sensors can be used to automatically detect stock levels and environmental conditions like temperature and humidity, which are critical for sensitive medicines and vaccines.
- Real-time automated stock updates without manual intervention.

#### 2. Artificial Intelligence (AI) and Predictive Analytics

- AI can be used for demand forecasting, helping hospitals predict future inventory needs based on patient inflow, disease outbreaks, and historical consumption patterns.
- Predictive alerts for possible shortages, stock expiration, and replenishment scheduling.

#### 3. Mobile Accessibility

- Future systems can offer fully mobile applications for on-the-go inventory checks, approvals, and stock updates, improving accessibility for medical staff.
- Real-time push notifications for urgent stock alerts on mobile devices.

#### 4. Blockchain Integration for Enhanced Security

- Blockchain can be used to track the entire supply chain of medical products, ensuring authenticity and reducing counterfeit risks.
- Immutable transaction records can improve traceability and trust.

#### 5. Cloud-Based Solutions

- Moving the system to the cloud will allow scalability, remote access, and centralized data management.
- It will also reduce infrastructure costs and simplify system maintenance.

#### 6. Automatic Supplier Reordering

- Integration with supplier systems to enable automated purchase orders when stock reaches minimum levels.



- Reduces delays in procurement and ensures continuous availability of critical items.

## 7. Advanced Reporting and Dashboards

- Future systems can offer customizable dashboards and real-time visual analytics to assist hospital administrators in making faster and more informed decisions.

## 8. Enhanced Cybersecurity Measures

- As more data becomes digitized, stronger cybersecurity frameworks will be essential to protect sensitive medical inventory and patient data from potential cyber threats.

## 9. Multi-Location and Multi-Branch Inventory Synchronization

- Ability to manage inventory across multiple hospitals, clinics, or warehouses from a single system.
- Supports easy transfer of stock between locations based on demand.

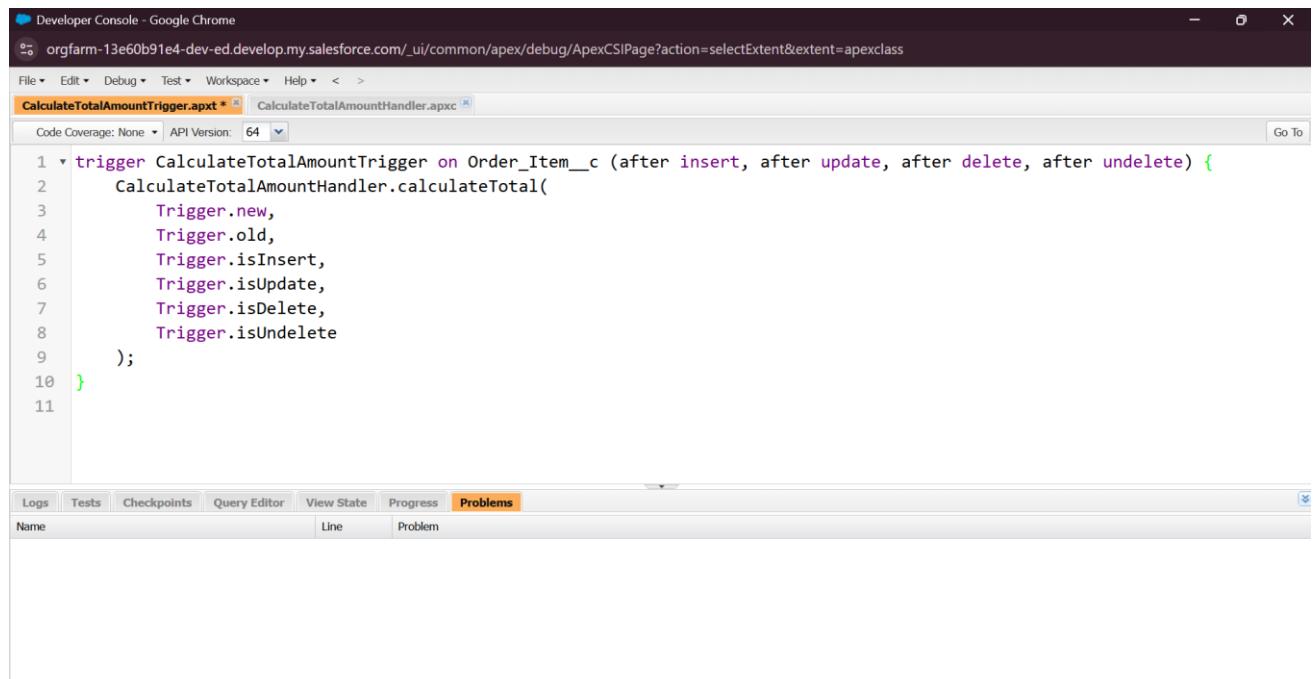
## 10. Sustainability Tracking

- Future systems can track medical waste, expired items, and promote eco-friendly inventory practices in line with sustainable healthcare goals.

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# 11. APPENDIX

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The screenshot shows the Salesforce Developer Console in Google Chrome. The URL is orgfarm-13e60b91e4-dev-ed.develop.my.salesforce.com/\_ui/common/apex/debug/ApexCSIPage?action=selectExtent&extent=apexclass. The code editor displays the following Apex trigger:

```
trigger CalculateTotalAmountTrigger on Order_Item__c (after insert, after update, after delete, after undelete) {
    CalculateTotalAmountHandler.calculateTotal(
        Trigger.new,
        Trigger.old,
        Trigger.isInsert,
        Trigger.isUpdate,
        Trigger.isDelete,
        Trigger.isUndelete
    );
}
```

The code editor interface includes tabs for Logs, Tests, Checkpoints, Query Editor, View State, Progress, and Problems. The Problems tab is selected, showing a single entry: "Name".

**Source code:**



```
Developer Console - Google Chrome
orgfarm-13e60b91e4-dev-ed.develop.my.salesforce.com/_ui/common/apex/debug/ApexCSIPage

1 *public class CalculateTotalSalesHandler {
2 *
3 *    public static void calculateTotalSales(list<Order_Item__c> newItems, list<Order_Item__c> oldItems, Boolean insert, Boolean update, Boolean delete, Boolean undelete) {
4 *
5 *        Set<Id> parentIds = new Set<Id>();
6 *
7 *        if (insert || update || undelete) {
8 *            for (Order_Item__c newItem : newItems) {
9 *                parentIds.add(newItem.Purchase_Order_Id__c);
10 *            }
11 *
12 *            if (update || undelete) {
13 *                for (Order_Item__c existing : oldItems) {
14 *                    parentIds.add(existing.Purchase_Order_Id__c);
15 *                }
16 *            }
17 *
18 *        Map<Id, Decimal> purchaseTotalMap = new Map<Id, Decimal>();
19 *
20 *        if (parentIds.isEmpty()) {
21 *            list<AggregateResults> agrilist = [
22 *                select sum(Total_Amt__c), sum(Quantity__c)
23 *                from Order_Item__c
24 *                where Purchase_Order_Id__c IN :parentIds
25 *                group by Purchase_Order_Id__c
26 *            ];
27 *
28 *            for (AggregateResult agr : agrilist) {
29 *                Id purchaseOrder = new Id(agr.get('Purchase_Order_Id__c'));
30 *                Decimal totalAmount = (Decimal) agr.get('Total_Amt__c');
31 *                purchaseTotalMap.put(purchaseOrder, totalAmount);
32 *            }
33 *
34 *            List<Purchase_Order__c> purchaseOrderList = new List<Purchase_Order__c>();
35 *            for (Id purchaseOrderId : purchaseTotalMap.keySet()) {
36 *                Purchase_Order__c purchaseOrder = new Purchase_Order__c();
37 *                purchaseOrder.Id = purchaseOrderId;
38 *                purchaseOrder.Total_Order_Cost__c = purchaseTotalMap.get(purchaseOrderId);
39 *                purchaseOrderList.add(purchaseOrder);
40 *            }
41 *
42 *            if (!purchaseOrderList.isEmpty()) {
43 *                update purchaseOrderList;
44 *            }
45 *        }
46 *    }
47 *}

```

## GitHub:

## Project Demo Link: