

# **PROJECT TITLE : MEDICAL INVENTORY MANAGEMENT SYSTEM**

COLLEGE NAME: NANDHA ARTS AND SCIENCE COLLEGE - ERODE

COLLEGE CODE: bru4j

TEAM ID: NM2025TMID22904

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# INTRODUCTION

- **PROJECT OVERVIEW:**

This project is a comprehensive Salesforce application to streamline and manage various operational aspects of medical inventory. The system aims to efficiently maintain supplier details, manage purchase orders, track product details and transactions, and monitor the expiry dates of products. Maintain detailed records of suppliers, including contact information. Catalog product information, including descriptions, stock levels. Monitor and track product expiry dates to avoid using expired items. Comprehensive reports to track supplier performance, and purchase orders.

# Objectives

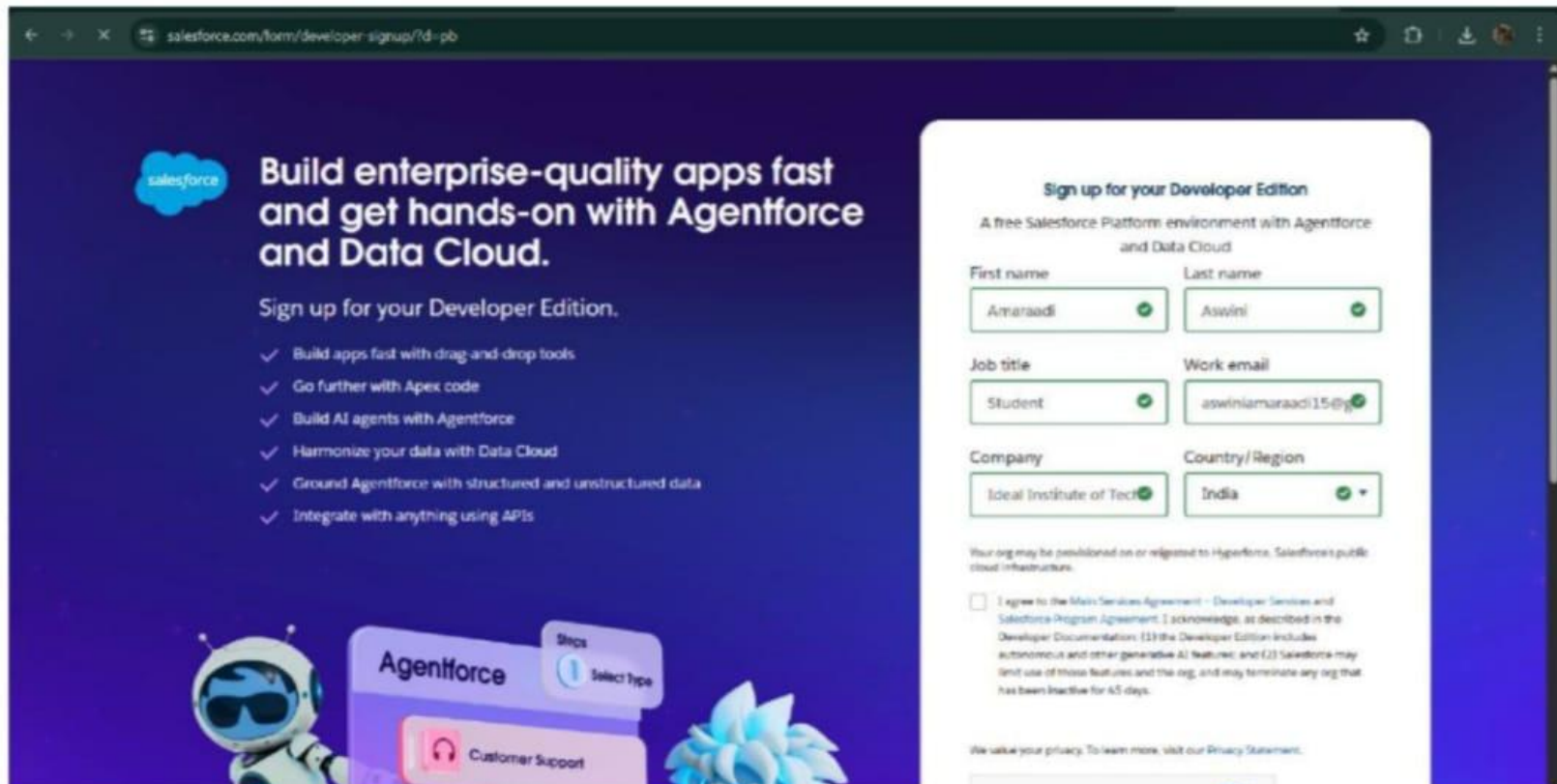
1. Develop a centralized platform to manage medical inventory.
2. Enable real-time tracking of stock levels and expiry dates.
3. Generate automated alerts for low-stock and near-expiry products.
4. Maintain a transaction history for audits and regulatory compliance.
5. Provide analytics dashboards for decision-making

# DEVELOPER PHASE

Creating Developer Account:

By using this URL –

<https://www.salesforce.com/form/developer-signup/?d=pb>



The screenshot shows the Salesforce Developer Edition signup page. The left side features a dark blue background with the Salesforce logo and the text "Build enterprise-quality apps fast and get hands-on with Agentforce and Data Cloud." Below this, it says "Sign up for your Developer Edition." and lists six benefits with checkmarks: "Build apps fast with drag-and-drop tools", "Go further with Apex code", "Build AI agents with Agentforce", "Harmonize your data with Data Cloud", "Ground Agentforce with structured and unstructured data", and "Integrate with anything using APIs". At the bottom left is an illustration of an Agentforce robot. The right side is a white form titled "Sign up for your Developer Edition" with the subtitle "A free Salesforce Platform environment with Agentforce and Data Cloud." The form contains several input fields: "First name" (Amaraadi), "Last name" (Aswini), "Job title" (Student), "Work email" (aswiniamaraadi15@gmail.com), "Company" (Ideal Institute of Tech), and "Country/Region" (India). Below the form, there is a checkbox for "I agree to the Main Services Agreement" and a link to the "Privacy Statement".

salesforce

## Build enterprise-quality apps fast and get hands-on with Agentforce and Data Cloud.

Sign up for your Developer Edition.

- ✓ Build apps fast with drag-and-drop tools
- ✓ Go further with Apex code
- ✓ Build AI agents with Agentforce
- ✓ Harmonize your data with Data Cloud
- ✓ Ground Agentforce with structured and unstructured data
- ✓ Integrate with anything using APIs

Agentforce

Customer Support

### Sign up for your Developer Edition

A free Salesforce Platform environment with Agentforce and Data Cloud

First name: Amaraadi

Last name: Aswini

Job title: Student

Work email: aswiniamaraadi15@gmail.com

Company: Ideal Institute of Tech

Country/Region: India

Your org may be provisioned on or migrated to Hyperforce, Salesforce's public cloud infrastructure.

☐ I agree to the Main Services Agreement - Developer Services and Salesforce Program Agreement. I acknowledge, as described in the Developer Documentation: (1) the Developer Edition includes autonomous and other generative AI features; and (2) Salesforce may limit use of those features and the org, and may terminate any org that has been inactive for 65 days.

We value your privacy. To learn more, visit our [Privacy Statement](#).

# Create Purchase Order, Order Item, Inventory Transaction and Supplier objects.

The screenshot shows the Salesforce Setup interface. At the top, there's a blue cloud logo, a search bar labeled "Search Setup", and several utility icons (star, plus, shield, question mark, gear, bell, and user profile). Below the header, the navigation bar includes "Setup", "Home", and "Object Manager" (which is selected and has a checkmark icon). The main content area is titled "SETUP > OBJECT MANAGER" and "Product". On the left, a sidebar lists various configuration options: Details (selected), Fields & Relationships, Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, and Record Types. The "Details" section is expanded, showing a list of fields and their values. The fields are arranged in two columns. The first column includes Description, API Name (Product\_\_c), Custom (checked), Singular Label (Product), Plural Label (Products), and Record Types. The second column includes Enable Reports (checked), Track Activities, Track Field History, Deployment Status (Deployed), Help Settings, and a link to the Standard salesforce.com Help Window. At the top right of the details section, there are "Edit" and "Delete" buttons. A small green box at the bottom left of the sidebar contains the text "javascript:void(0);".

Setup > OBJECT MANAGER

## Product

[Edit](#) [Delete](#)

**Details**

Description	
API Name	Product__c
Custom	✓
Singular Label	Product
Plural Label	Products
Record Types	
Enable Reports	✓
Track Activities	
Track Field History	
Deployment Status	Deployed
Help Settings	
Standard salesforce.com Help Window	

javascript:void(0);



## Record Types

Delete



## Record Types

Delete

# Configured fields and relationships

orgfarm-afca59b09f-dev-ed.develop.lightning.force.com/lightning/setup/ObjectManager/01lgK00000248FZ/FieldsAndRelationships/view

Search Setup

Setup Home Object Manager

SETUP > OBJECT MANAGER

## Inventory Transaction

Details

**Fields & Relationships**  
8 Items, Sorted by Field Label

Quick Find New Deleted Fields Field Dependencies Set History Tracking

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		
Inventory Transaction ID	Name	Text(80)		✓
Last Modified By	LastModifiedById	Lookup(User)		
Owner	OwnerId	Lookup(User,Group)		✓
Purchase Order ID	Purchase_Order_ID__c	Lookup(Purchase Order)		✓
Total Order Cost	Total_Order_Cost__c	Formula (Currency)		

Setup Home Object Manager

SETUP > OBJECT MANAGER

## Purchase Order

Details

**Fields & Relationships**  
10 Items, Sorted by Field Label

Quick Find New Deleted Fields Field Dependencies Set History Tracking

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Actual Delivery Date	Actual_Delivery_Date__c	Date		
Created By	CreatedById	Lookup(User)		
Expected Delivery Date	Expected_Delivery_Date__c	Date		
Last Modified By	LastModifiedById	Lookup(User)		
Order Count	Order_Count__c	Roll-Up Summary (COUNT Order Item)		
Order Date	Order_Date__c	Date		

## Order Item

Details

Fields &amp; Relationships

Page Layouts

Lightning Record Pages

Buttons, Links, and Actions

Compact Layouts

Field Sets

Object Limits

Record Types

## Fields &amp; Relationships

9 Items, Sorted by Field Label

Quick Find

New

Deleted Fields

Field Dependencies

Set History Tracking

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		
label Amount	label_Amount__c	Formula (Currency)		
Last Modified By	LastModifiedById	Lookup(User)		
Order Item ID	Name	Text(80)		✓
Product ID	Product_ID__c	Lookup(Product)		✓
Purchase Order ID	Purchase Order ID__c	Master-Detail(Purchase Order)		✓

## Developed Lightning App with relevant tabs

← Lightning App Builder

⚙ App Settings

📄 Pages ▾

Medical Inventory Management

? Help

**App Settings**

**App Details & Branding**

App Options

Utility Items (Desktop Only)

Navigation Items

User Profiles

**App Details & Branding**

App Details & Branding

Give your Lightning app a name and description. Upload an image and choose the highlight color for its navigation bar.


**App Details**


\* App Name ⓘ  
Medical Inventory Management

\* Developer Name ⓘ  
Medical\_Inventory\_Management

Description ⓘ  
Enter a description...

**App Branding**

Image ⓘ  
  
Clear

Primary Color Hex Value ⓘ  
 #0070D2

Org Theme Options  
☐ Use the app's image and color instead of the org's custom theme

App Launcher Preview



## App Settings

### App Details & Branding

## App Options

### Utility Items (Desktop Only)

## Navigation Items

## User Profiles


## Navigation Items

Choose the items to include in the app, and arrange the order in which they appear. Users can personalize the navigation to add or move items, but users can't remove or rename the items that you add. Some navigation items are available only for phone or only for desktop. These items are dropped from the navigation bar when the app is viewed in a format that the item doesn't support.


### Available Items




Accounts




Activation Targets




Activations



All Sites



Alternative Payment Methods



Analytics

### Selected Items

	Purchase Orders
	Products
	Order Items
	Inventory Transactions
	Suppliers
	Reports
	Dashboards

## Editing of Page Layouts

SETUP > OBJECT MANAGER

## Product

Details

Fields & Relationships

**Page Layouts**

Lightning Record Pages

Buttons, Links, and Actions

Compact Layouts

Field Sets

Object Limits

Record Types

Save ▾ Quick Save Preview As... ▾ Cancel Undo Redo Layout Properties

**Fields**

- Buttons
- Quick Actions
- Mobile & Lightning Actions
- Expanded Lookups
- Related Lists
- Report Charts

Quick Find <input type="text" value="Field Name"/>		
+ Section	Expiry Date	Product Description
+ Blank Space	Last Modified By	Product ID
Created By	Minimum Stock Level	Product Name
Current Stock Level	Owner	Unit Price

Information (Header visible on edit only)

* ● Product ID	Sample Text	* ● Unit Price	\$123.45
* ● Product Name	Sample Text	Current Stock Level	52,177
* ● Product Description	Sample Text	Minimum Stock Level	51,355
		* ● Expiry Date	9/18/2025
		Owner	<u>Sample Text</u>

Setup

Home

Object Manager

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

SaveQuick SavePreview As...CancelUndoRedoLayout Properties

Fields

Buttons

Quick Actions

Mobile & Lightning Actions

Expanded Lookups

Related Lists

Report Charts

Quick FindField Name

Section	Expected Delivery...	Owner
Blank Space	Last Modified By	Purchase Order ID
Actual Delivery Date	Order Count	Supplier ID
Created By	Order Date	Total Order Cost

Information (Header visible on edit only)

★

●

Purchase Order ID

Sample Text

★

●

Supplier ID

Sample Text

★

●

Order Date

9/18/2025

★

●

Expected Delivery Date

9/18/2025

🔒

Actual Delivery Date

9/18/2025

🔒

Order Count

35,335

🔒

Total Order Cost

\$123.45

Owner

Sample Text

System Information (Header visible on edit only)

Setup

Home

Object Manager

SETUP > OBJECT MANAGER

Order Item

Details

Fields & Relationships

Page Layouts

Lightning Record Pages

Buttons, Links, and Actions

Compact Layouts

Field Sets

Object Limits

Record Types

SaveQuick SavePreview As...CancelUndoRedoLayout Properties

Fields

Buttons

Quick Actions

Mobile & Lightning Actions

Expanded Lookups

Related Lists

Report Charts

Quick FindField Name

Section	Last Modified By	Quantity Ordered
Blank Space	Order Item ID	Quantity Received
Created By	Product ID	Unit Price
Label Amount	Purchase Order ID	

Information (Header visible on edit only)

★

●

Order Item ID

Sample Text

🔒

Label Amount

\$123.45

★

●

Product ID

Sample Text

🔒

Unit Price

\$123.45

★

●

Purchase Order ID

Sample Text

★

●

Quantity Ordered

72,169

Quantity Received

93,448

System Information (Header visible on edit only)

🔒

Created By

Sample Text

🔒

Last Modified By

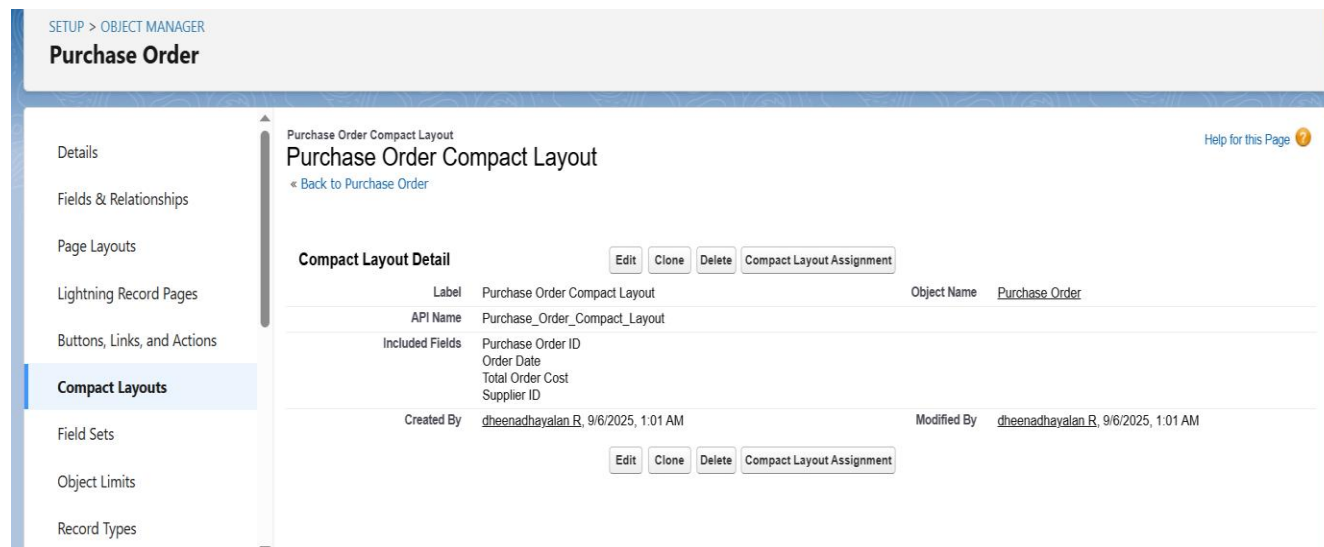
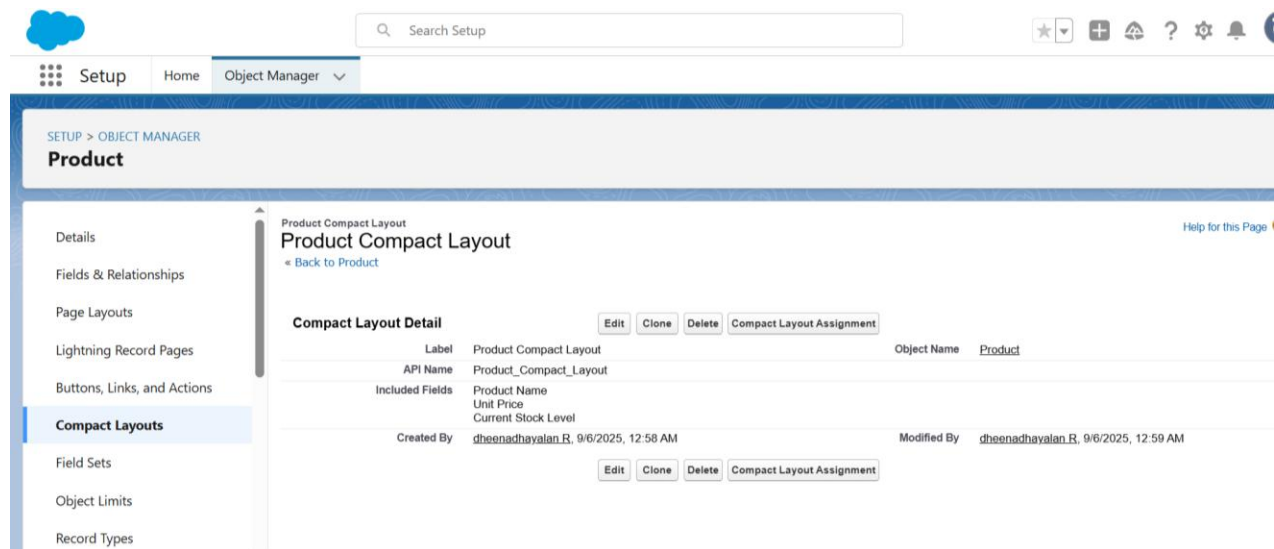
Sample Text

## Compact Layouts


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



## Compact Layouts







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




# Validation Rules








 Setup

Home

Object Manager 

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

Purchase Order Validation Rule

[Back to Purchase Order](#)

Validation Rule Detail

EditClone

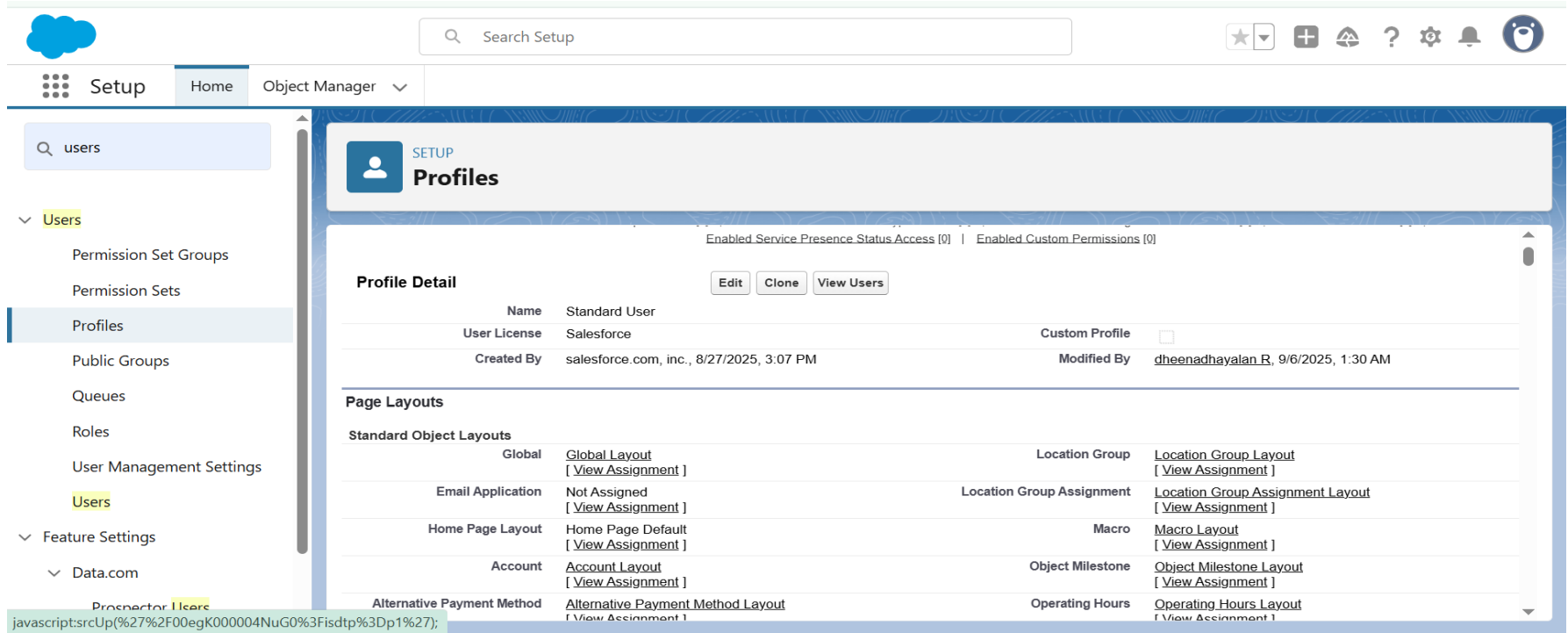
Rule Name	Expected_Delivery_Date_Validation	Active	
Error Condition Formula	(Expected_Delivery_Date__c - Order_Date__c) > 7		
Error Message	The Expected Delivery Date should not exceed 7 days.	Error Location	Top of Page
Description			
Created By	<a href="#">dheenadhayalan R</a> , 9/6/2025, 1:04 AM	Modified By	<a href="#">dheenadhayalan R</a> , 9/6/2025, 1:04 AM

EditClone

Help for this Page 

# 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.



## Roles And Users

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.

The screenshot displays the Salesforce Setup interface, specifically the 'Roles' section. The left sidebar shows navigation options: Setup, Home, Object Manager, Users, Roles (highlighted), Feature Settings, Sales, Service, and Case Teams. The main content area is titled 'Roles' and shows a 'Sample Role Hierarchy' for a 'Territory-based Sample'. The hierarchy is as follows:

- Executive Staff** (CEO, President, CFO, VP, Sales)
  - \* View & edit data, roll up forecasts, & generate reports for all users below
  - \* Can't access data of other Executive Staff
  - Western Sales Director** (Director of W. Sales)
      - \* View & edit data, roll up forecasts, & generate reports for all users directly below
      - \* Can't access data of users above or at same level
      - Western Sales Rep** (CA Sales Rep, OR Sales Rep)
    - Eastern Sales Director** (Director of E. Sales)
      - \* View & edit data, roll up forecasts, & generate reports for all users directly below
      - \* Can't access data of users above or at same level
      - Eastern Sales Rep** (NY Sales Rep, MA Sales Rep)
    - International Sales Director** (Director of Int'l Sales)
      - \* View & edit data, roll up forecasts, & generate reports for all users directly below
      - \* Can't access data of users above or at same level
      - International Sales Rep** (Asian Sales Rep, European Sales Rep)

## 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 displays the Salesforce Setup interface. The left sidebar contains navigation links: Setup, Home, Object Manager, Users, Permission Set Groups, Permission Sets (highlighted), Custom Code, and Custom Permissions. The main content area is titled 'Permission Sets' and shows the configuration for a specific permission set named 'Purchase Manager Create Access'. The 'Permission Set Overview' section includes a table with details about the permission set, such as its description, license, session activation requirements, and the user who created it. Below this, there are sections for 'Apps' and 'Assigned Apps'.

**Permission Set Overview**

Description	API Name
Purchase Manager Create Access	Purchase_Manager_Create_Access

**License**

Session Activation Required	Namespace Prefix
<input type="checkbox"/>	Created By dheenadhayalan R, 9/6/2025, 2:16 AM

**Permission Set Groups Added To**

Last Modified By
dheenadhayalan R, 9/6/2025, 2:18 AM

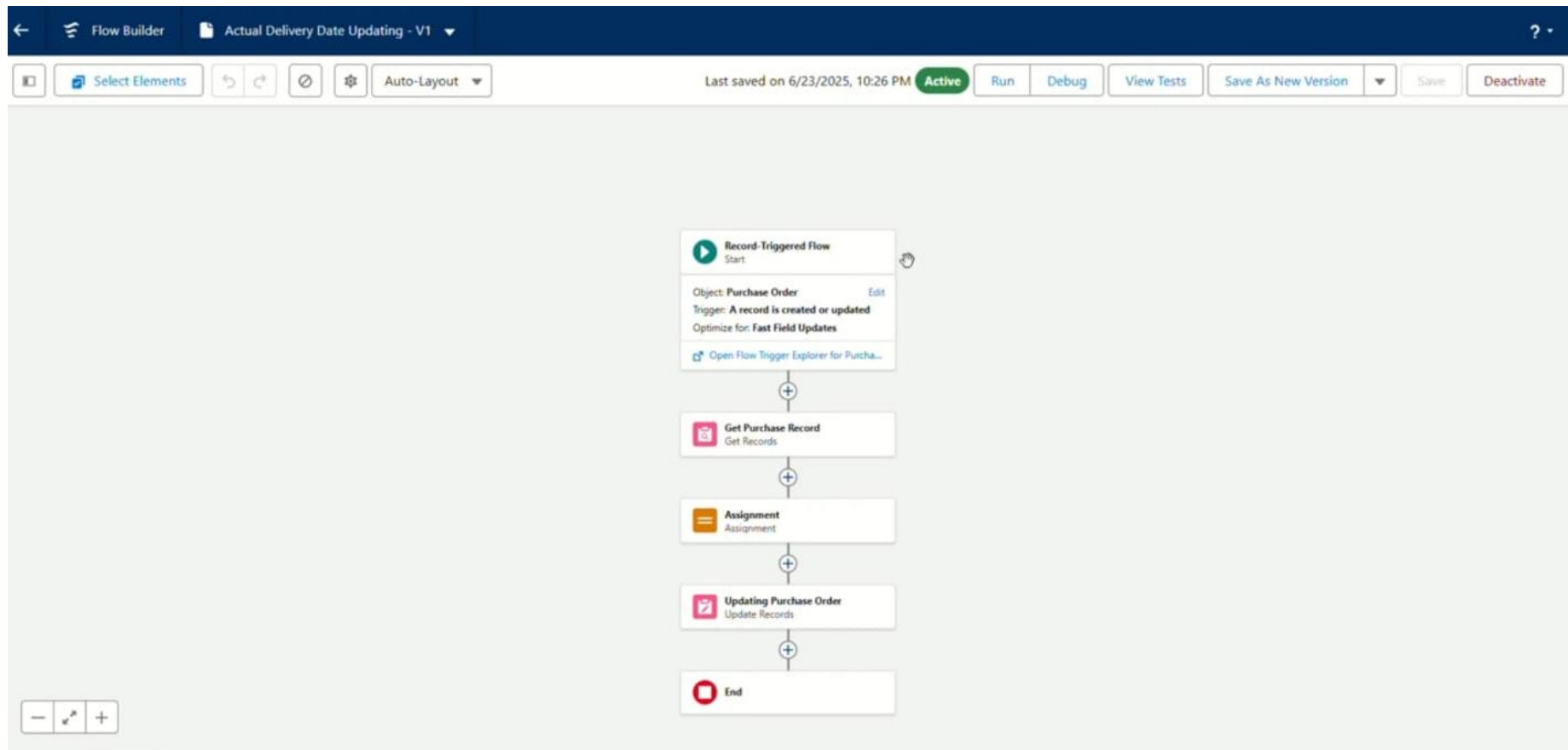
**Apps**

**Assigned Apps**  
Settings that specify which apps are visible in the app menu

**Assigned Connected Apps**

## 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



## 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.



**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

Medical Inventory ...

Products

Purchase Orders

Order Items

Inventory Transactions

Suppliers

Reports

Dashboards

Report: Purchase Orders with Order Items and Product

Complete Purchase Details Report

Enable Field Editing

Add Chart

Edit

Supplier ID	Actual Delivery Date	Purchase Order: Purchase Order ID	Product: Product ID	Product: Product Name	Order Count	Quantity Received	Amount
		Subtotal			2	350	\$400.00
		Subtotal			3	360	\$550.00
		Subtotal			3	360	\$550.00
SUP-002 (3)	6/28/2025 (3)	PO-003 (3)	P-002	Paracetamol	3	10	\$10.00
			P001	Digital Thermometer	3	5	\$75.00
			P-004	Hand Sanitizer 500ml	3	25	\$150.00
			Subtotal		3	40	\$235.00
		Subtotal			3	40	\$235.00
		Subtotal			3	40	\$235.00
SUP-003 (2)	6/28/2025 (1)	PO-004 (1)	P-004	Hand Sanitizer 500ml	1	20	\$120.00
			Subtotal		1	20	\$120.00
			Subtotal		1	20	\$120.00
	7/1/2025 (1)	p01 (1)	p101	Dolo 150	1	-	\$0.00
			Subtotal		1	0	\$0.00
		Subtotal			1	0	\$0.00
		Subtotal			2	20	\$120.00
Total (8)					8	420	\$905.00

Row Counts

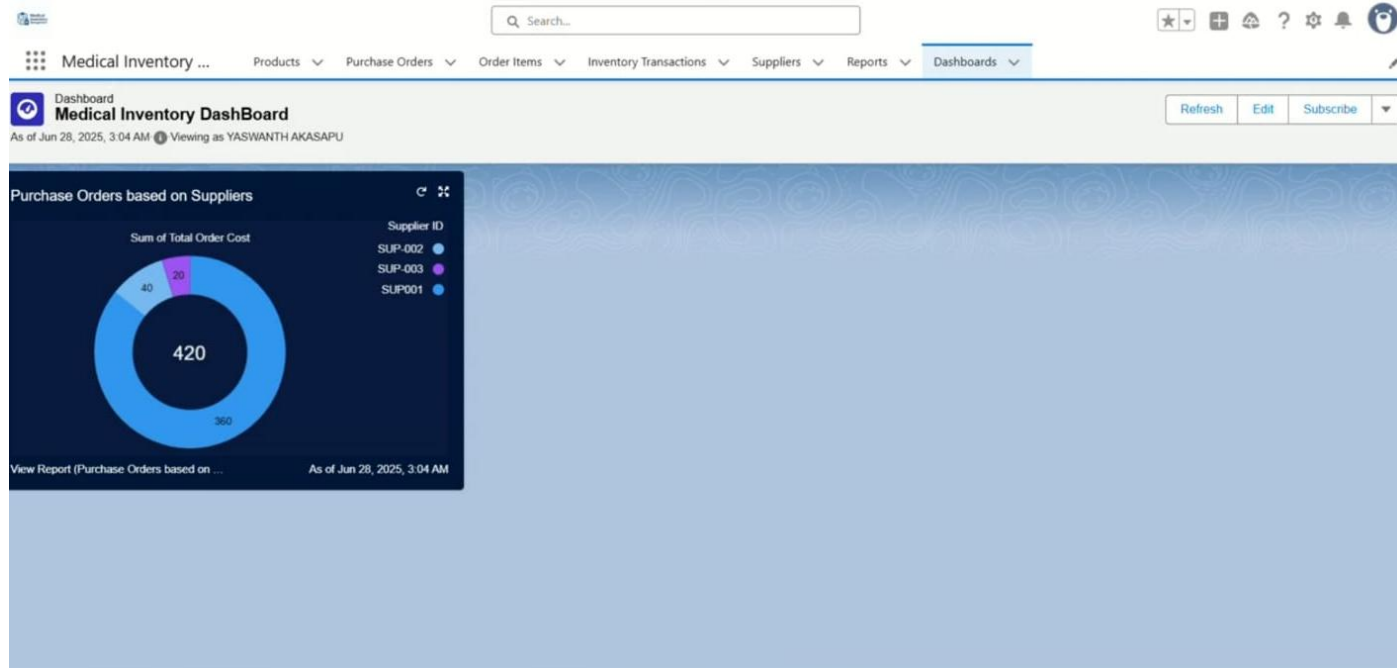
Detail Rows

Subtotals

Grand Total

# Dashboards

Dashboards in Salesforce are dynamic visual representations of key metrics and data from reports, providing a consolidated view of organizational performance and trends.



## Conclusion

The proposed Smart Medical Inventory Management System will optimize resourceus

age, ensure timely availability of medicines, reduce wastage, and support better patient care. This project aligns with Naan Mudhalvan's objective of creating industry-relevant, impactful solutions for real-world problems.