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**DEPARTMENT
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Project – Medical Inventory Management

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Medical Inventory Management

User Story:

The Medical Inventory Management System is a comprehensive Salesforce application designed to streamline and manage various operational aspects of the medical inventory. It can efficiently maintain supplier details, manage purchase orders, track product details and transactions, and monitor expiry dates of products, thereby improving operational efficiency, data accuracy, and reporting capabilities.

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.

Project Flow:

- Milestone 1 : Creation of developer account
- Milestone 2 : Object Creation
- Milestone 3 : Tabs
- Milestone 4 : The Lightning App
- Milestone 5 : Fields
- Milestone 6 : Updating of Page Layouts
- Milestone 7 : Compact Layouts
- Milestone 8 : Validation rules
- Milestone 9 : Profiles
- Milestone 10 : Roles
- Milestone 11 : Users
- Milestone 12 : Permission Sets
- Milestone 13 : Flow
- Milestone 14 : Triggers
- Milestone 15 : Report

Milestone 16 : Dashboard

Milestone 17 : Conclusion

What you'll learn

- Real Time Salesforce Project
- Object & their relationship in Salesforce
- Page Layout
- Validation Rules
- Compact Layouts
- Profiles
- Roles
- Users
- Permission Sets
- Triggers
- Flows
- Reports
- Dashboard

Milestone 1-Salesforce Account

Introduction:

Are you new to Salesforce? Not sure exactly what it is, or how to use it? Don't know where you should start on your learning journey? If you've answered yes to any of these questions, then you're in the right place. This module is for you. Welcome to Salesforce! Salesforce is game-changing technology, with a host of productivity-boosting features, that will help you sell smarter and faster. As you work toward your badge for this module, we'll take you through these features and answer the question, "What is Salesforce, anyway?".

What Is Salesforce

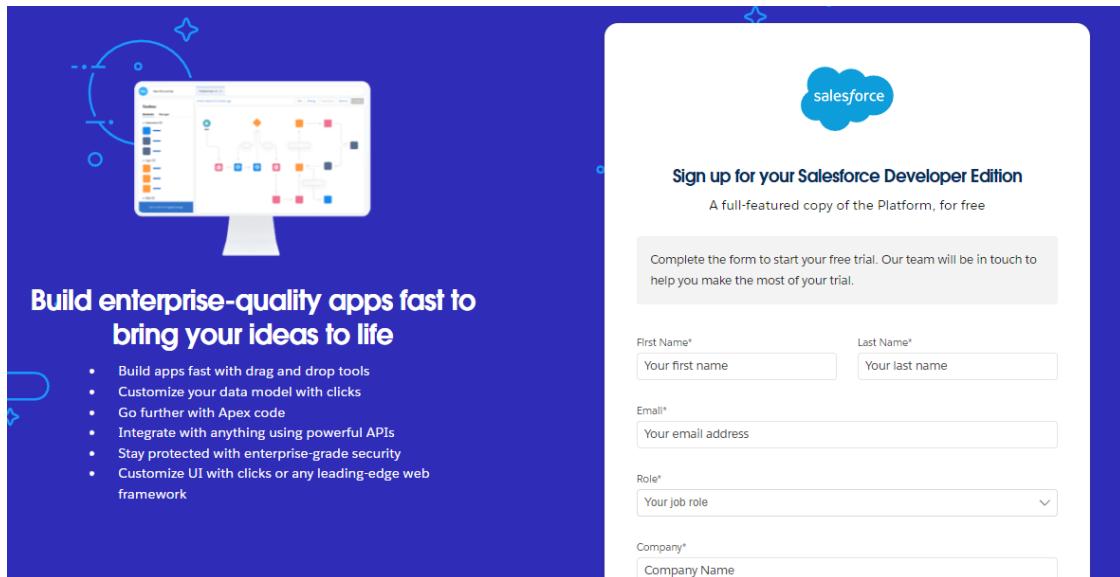
Salesforce is your customer success platform, designed to help you sell, service, market, analyze, and connect with your customers. Salesforce has everything you need to run your business from anywhere. Using standard products and features, you can manage relationships with prospects and customers, collaborate and engage with

employees and partners, and store your data securely in the cloud. So what does that really mean? Well, before Salesforce, your contacts, emails, follow-up tasks, and prospective deals might have been organized something like this: <https://youtu.be/r9EX3lGde5k>

Activity 1: Creating Developer Account

Creating a developer org in salesforce.

- Go to <https://developer.salesforce.com/signup>
- On the sign up form, enter the following details :



1. First name & Last name
2. Email
3. Role : Developer
4. Company : College Name
5. County : India
6. Postal Code : pin code

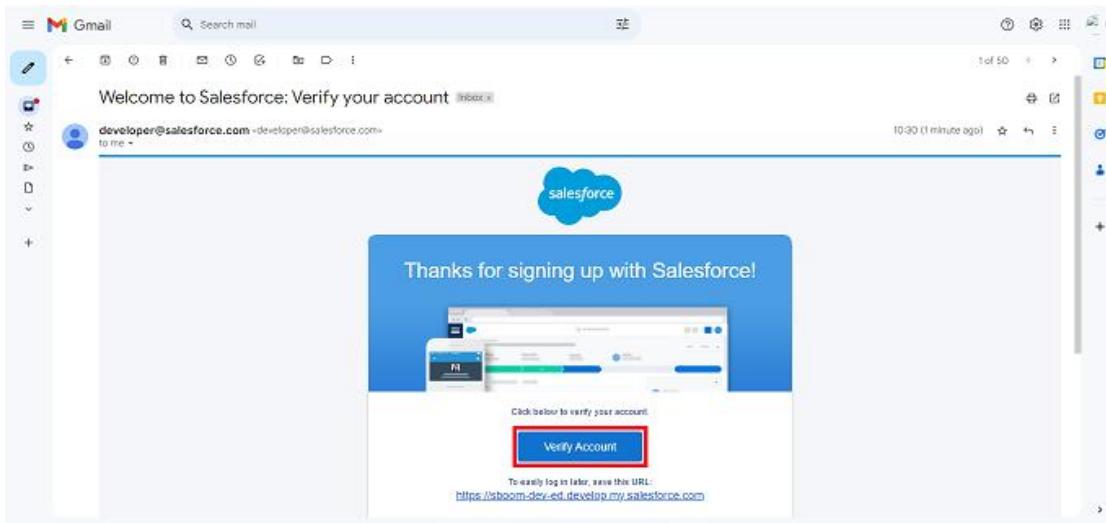
Username : should be a combination of your name and company

This need not be an actual email id, you can give anything in the format:
username@organization.com

Click on sign me up after filling these.

Activity 2: Account Activation

1. Go to the inbox of the email that you used while signing up. Click on the verify account to activate your account. The email may take 5-10mins.

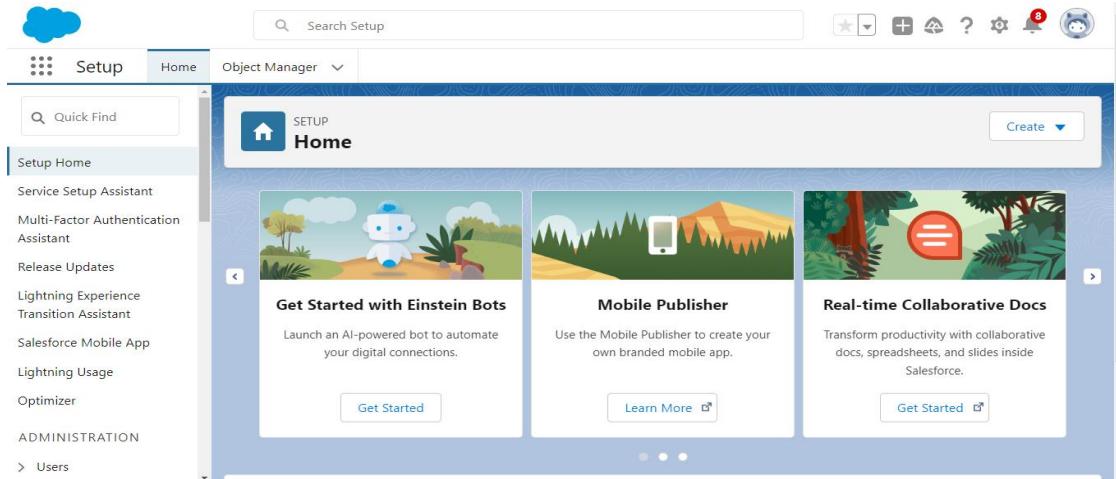


2. Click on Verify Account

3. Give a password and answer a security question and click on change password.

A screenshot of the Salesforce "Change Your Password" page. The title is "Change Your Password". It says "Enter a new password for lead@sb.oom. Make sure to include at least:" followed by three requirements: "8 characters", "1 letter", and "1 number". There are two input fields: "New Password" and "Confirm New Password", both containing dots. Below them is a "Security Question" dropdown set to "In what city were you born?". Underneath is an "Answer" input field containing "asdfghjkl". A large red box highlights the "Change Password" button at the bottom. To the left of the form, there is some blue decorative cloud-like imagery.

4. Then you will redirect to your salesforce setup page.



Milestone 2- Objects

In Salesforce, objects are database tables that allow you to store data specific to your organization.

Activity 1: Creating a Product Object

To create an object:

1. From the setup page
2. Click on Object Manager
3. Click on Create >> Click on Custom Object.
4. Enter the label name as Product
5. Enter Plural label name as Products
6. Enter Record Name as Product ID
7. Select Data Type as Text.
8. Select Allow reports.
9. Select Allow search.
10. Click on Save and New

The screenshot shows the Salesforce Setup Home page. At the top, there is a navigation bar with 'Setup' and 'Home' buttons, followed by a dropdown menu labeled 'Object Manager' with a red box labeled '2' over it. To the right of the dropdown is a 'Create' button with a red box labeled '3' over it. The main content area displays a 'New Custom Object' form.

New Custom Object

Custom Object Definition Edit

Custom Object Information

Label: Example: Account
Plural Label: Example: Accounts
Starts with vowel sound

The Object Name is used when referencing the object via the API.
Object Name: Example: Account

Description:

Context-Sensitive Help Setting: Open the standard Salesforce.com Help & Training window Open a window using a Visualforce page

Enter Record Name Label and Format

The Record Name appears in page layouts, key lists, related lists, lookups, and search results. For example, the Record Name for Account is "Account Name" and for Case it is "Case Number". Note that the Record Name field is always called "Name" when referenced via the API.

Record Name: Example: Account Name
Data Type: Warning: If you plan to insert a high volume of records in this object, via the API for example, use the Text data type.

Optional Features

Allow Reports Allow Activities Track Field History Allow in Chatter Groups Enable Licensing

Deployment Status

In Development Deployed

Search Status

When this setting is enabled, your users can find records of this object type when they search. [Learn more](#).

Allow Search

Object Creation Options (Available only when custom object is first created)

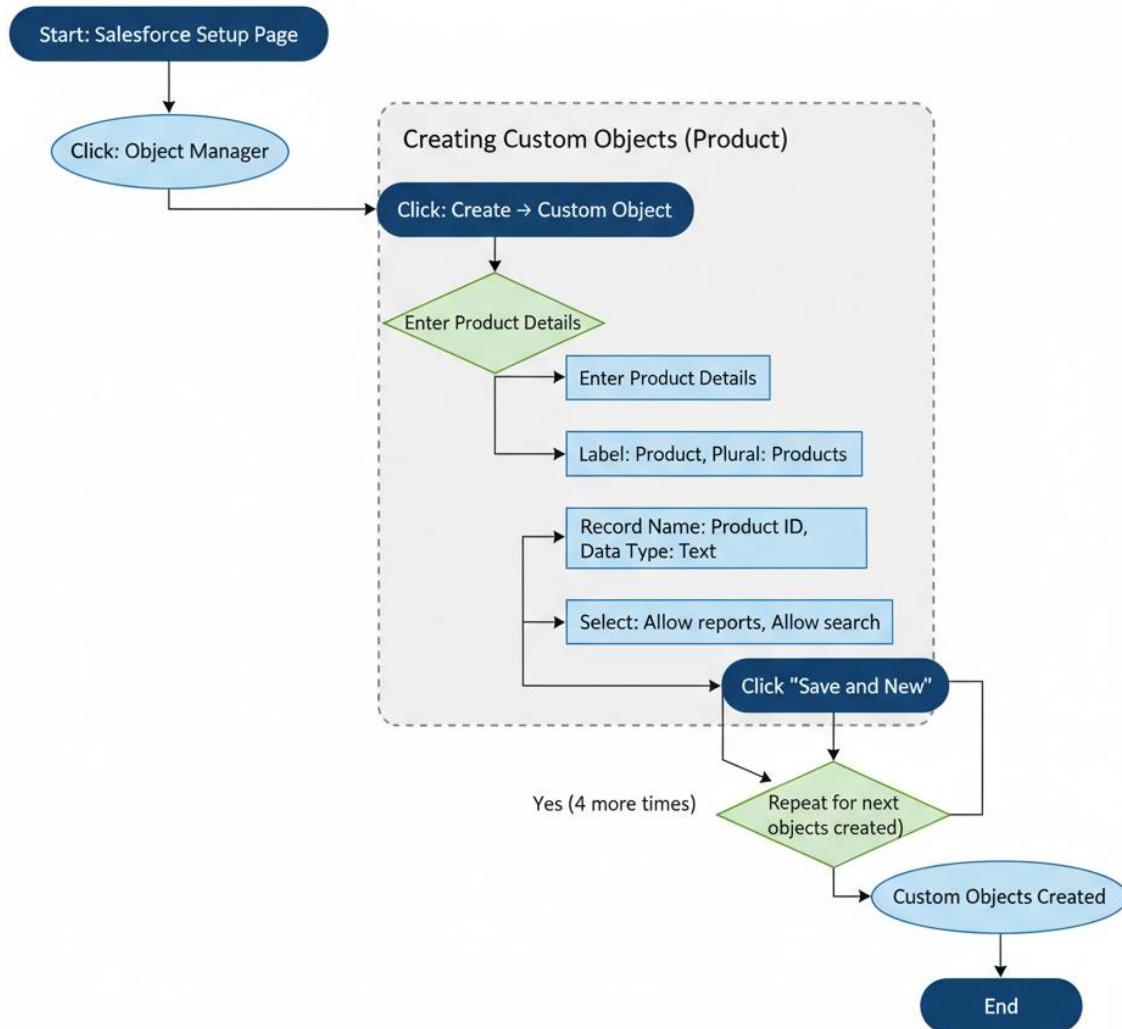
Add Notes and Attachments related list to default page layout Launch New Custom Tab Wizard after saving this custom object

Save & New

Activate Windows
Go to Settings to activate Windows.

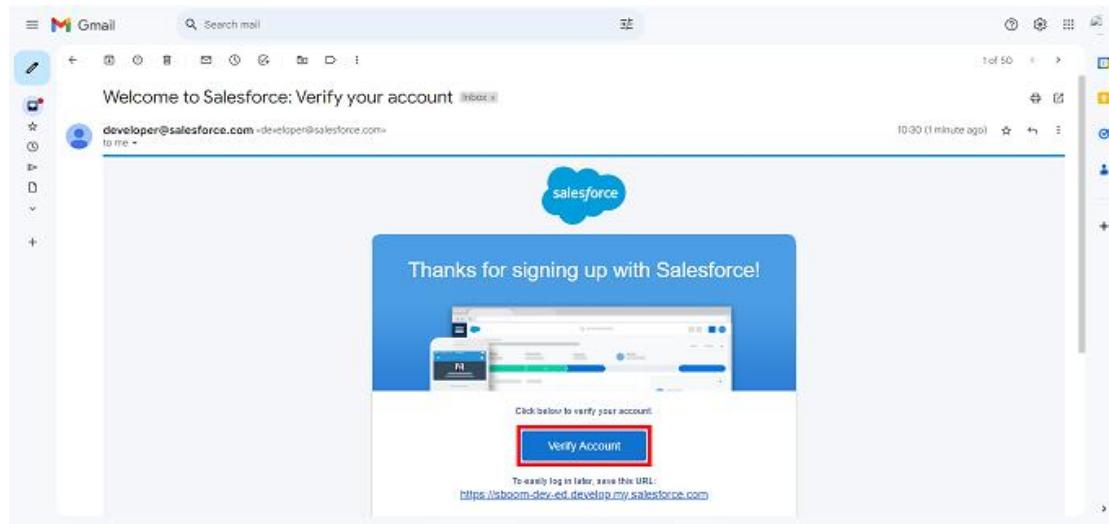
In the same way Create Purchase Order, Order Item, Inventory Transaction and Supplier objects.

Salesforce Custom Object Creation Flow Diagram



Activity 2: Account Activation

1. Go to the inbox of the email that you used while signing up. Click on the verify account to activate your account. The email may take 5-10mins.

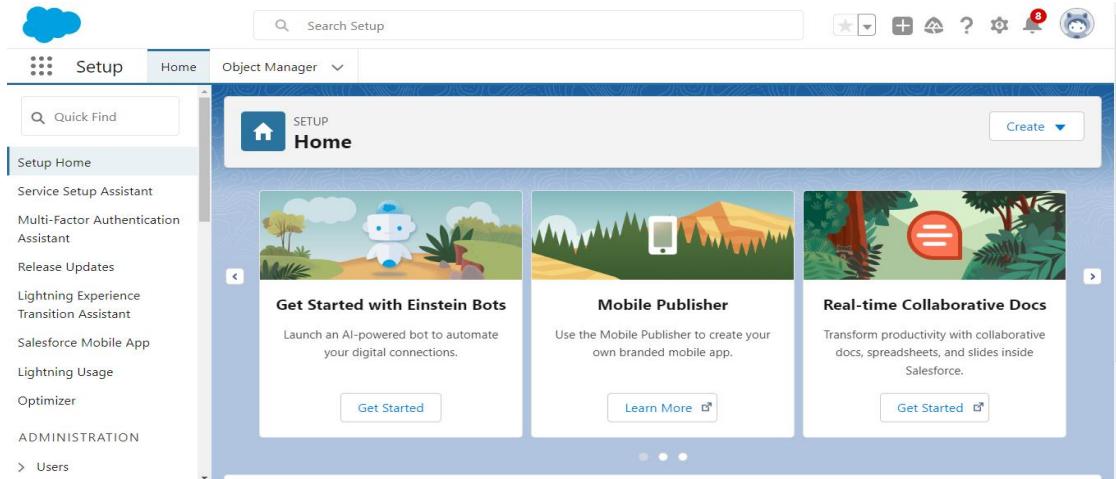


2.Click on Verify Account

3.Give a password and answer a security question and click on change password.

A screenshot of a "Change Your Password" page. It starts with instructions: "Enter a new password for lead@sb.oom. Make sure to include at least: 8 characters, 1 letter, 1 number". Below this are two password input fields: "New Password" and "Confirm New Password", both containing dots and labeled "Good" and "Match" respectively. Under "Security Question", there's a dropdown menu set to "In what city were you born?". In the "Answer" field, the text "asdfghijkl" is entered. At the bottom is a large blue "Change Password" button, which is highlighted with a red box.

4.Then you will redirect to your salesforce setup page.



Milestone 3- Tabs

In Salesforce, tabs are used to make the data stored in objects accessible to users through the user interface. Tabs are a fundamental part of the Salesforce interface, providing a way to navigate to different objects and records.

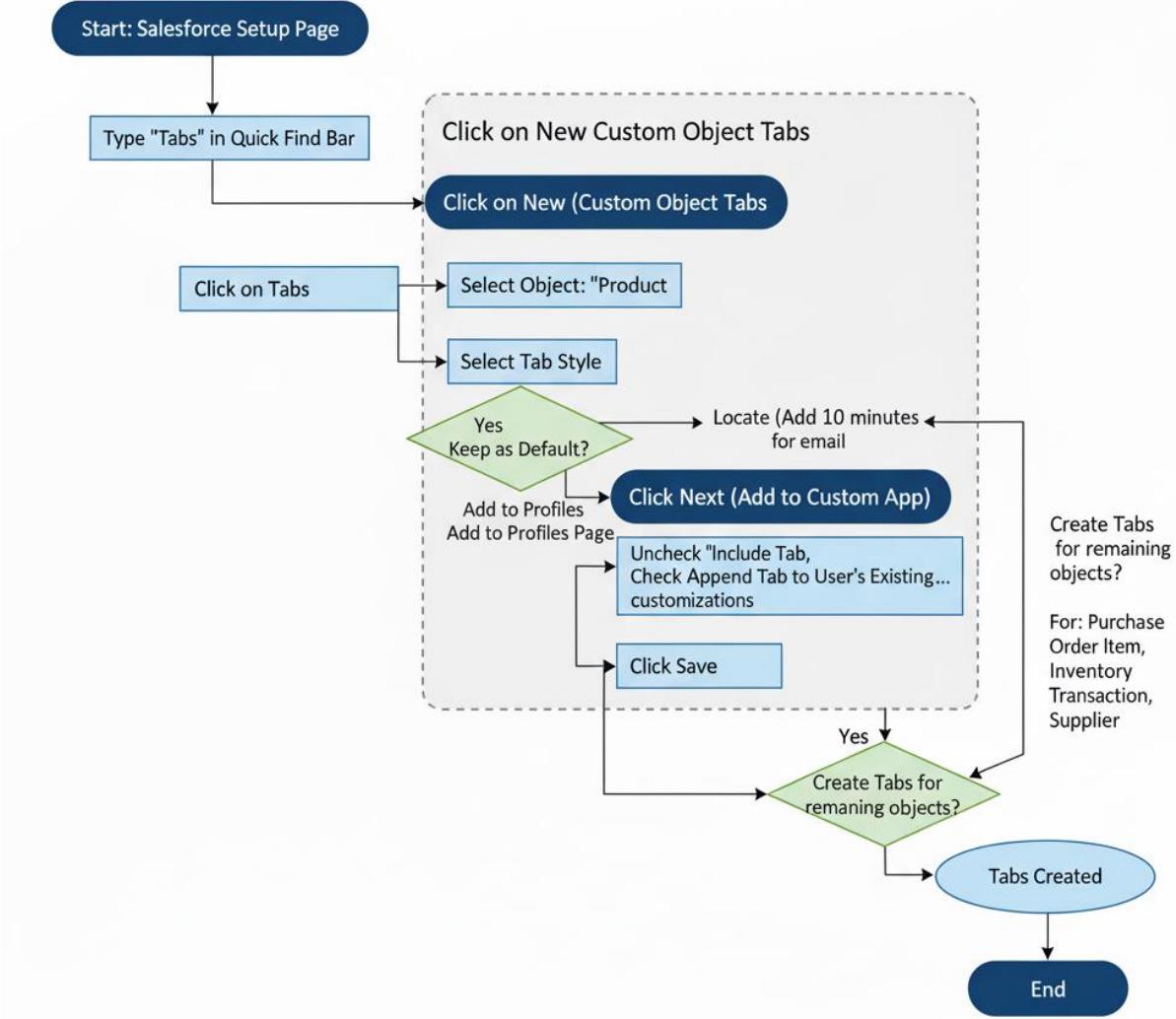
Activity 1: Creating a tab for Product Object

- Go to the setup page >> type Tabs in Quick Find bar
- Click on tabs
- Click on New (under custom object tab).
- Select Object(Product) >> Select the tab style
- Click on Next >> (Add to profiles page) keep it as default >> Click on Next (Add to Custom App) uncheck the include tab .
- Make sure that the Append tab to user's existing personal customizations is checked.
- Click save

Activity 2: Creating Remaining Tabs

- Now create the Tabs for the remaining Objects, they are “Purchase Order, Order Item, Inventory Transaction, Supplier”.
- Follow the same steps as mentioned in Activity -1 .

Salesforce Custom Object Tab Creation Diagram



Milestone 4- The Lightning App

A Lightning App in Salesforce is a collection of items that work together to serve a particular function for the end-users. These items can include standard and custom objects, tabs, utilities, and other productivity tools. Lightning Apps are designed to provide a more intuitive and efficient user experience compared to traditional Salesforce apps.

Activity 1: Create a Lightning App for Medical Inventory Management

1. From Setup, enter App Manager in the Quick Find and select App Manager.
2. Click New Lightning App.
3. Enter Medical Inventory Management as the App Name >> Click on upload image and add an image related to Medical Inventory then click next
4. Under App Options, leave the default selections and click next.
5. Under Utility Items, leave as is and click Next.
6. From Available Items, select Products, Purchase Orders, Order Items, Inventory Transactions, Suppliers, Reports, and Dashboards and move them to Selected Item and Click Next.
7. From Available Profiles, select System Administrator and move it to Selected Profiles.
8. Click Save & Finish.

The screenshot shows the 'Lightning Experience App Manager' interface. At the top, there's a navigation bar with 'Setup', 'Home', and 'Object Manager'. A search bar says 'App man'. Below it, a sidebar shows 'Apps' and 'App Manager' (which is selected). A message says ' Didn't find what you're looking for? Try using Global Search.' On the right, there are two buttons: 'New Lightning App' (highlighted with a red box) and 'New Connected App'. The main area lists '28 items' with columns for 'App Name', 'Developer Name', 'Description', 'Last Modified ...', 'App Type', and 'Vi...'. Below this is a table for 'App Details' with fields for 'App Name' (containing 'Medical Inventory Management'), 'Developer Name' (containing 'Medical_Inventory_Management'), and 'Description' (containing 'Enter a description...'). To the right is the 'App Branding' section, which includes an 'Image' field (with a placeholder image of medical tools), a 'Primary Color Hex Value' field (#0070D2), and an 'Org Theme Options' checkbox. At the bottom, there's an 'App Launcher Preview' section with a progress bar and a 'Next' button (highlighted with a red box).

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

Selected Items

- Products
- Purchase Orders
- Order Items
- Inventory Transactions
- Suppliers
- Reports

6

New Lightning App

User Profiles

Choose the user profiles that can access this app.

7

Available Profiles

Selected Profiles

- System Administrator

8

Save & Finish



Salesforce Lightning App Creation Flow Diagram



Milestone 5- Fields

| Object | Field Name | Data Type |
|---------|----------------------|-----------|
| Product | Product ID(Standard) | Text |
| | Product Name | Text |
| | Product Description | Text Area |

| | | |
|------------------------------|-----------------------------|------------------------------------|
| | Minimum Stock Level | Number(18, 0) |
| | Current Stock Level | Number(18, 0) |
| | Unit Price | Currency(16, 2) |
| | Expiry Date | Date |
| Purchase Order | Purchase Order ID(Standard) | Text |
| | Supplier ID | Lookup(Supplier) |
| | Order Date | Date |
| | Expected Delivery Date | Date |
| | Actual Delivery Date | Date |
| | Order Count | Roll-Up Summary (COUNT Order Item) |
| | Total Order Cost | Currency(16, 2) |
| Order Item | Order Item ID(Standard) | Text |
| | Product ID | Lookup(Product) |
| | Purchase Order ID | Master-Detail(Purchase Order) |
| | Quantity Ordered | Number(18, 0) |
| | Quantity Received | Number(18, 0) |
| | Unit Price | Formula(Currency) |
| | Amount | Formula(Currency) |
| Inventory Transaction | Transaction ID(Standard) | Text |
| | Purchase Order ID | Lookup(Purchase Order) |
| | Transaction Date | Date |

| | | |
|----------|-----------------------|-------------------|
| | Transaction Type | Picklist |
| | Total Order Cost | Formula(Currency) |
| Supplier | Supplier ID(Standard) | Text |
| | Supplier Name | Text |
| | Contact Person | Text |
| | Phone Number | Phone |
| | Email | Email |
| | Address | TextArea |

Activity 1: Creating a Text Field in Product Object

To create fields in an object:

1. Click the gear icon and select Setup. This launches Setup in a new tab.
2. Click the Object Manager tab next to Home.
3. Select Product custom object.
4. Select Fields & Relationships from the left navigation
5. Click on New
6. Select Text field, click Next
7. Enter Field Label as “Product Name” and Length 255.
8. Select Required Field.
9. Click Next, Next, then Save & New.

The screenshot shows the Salesforce Object Manager interface. At the top, there is a navigation bar with tabs for 'Setup' (highlighted), 'Home', and 'Object Manager' (which has a red box around it and a red number '2' below it). Below the navigation is a search bar and a toolbar with various icons. The main area is titled 'Object Manager' and shows a list of objects. A new row is being created, indicated by a red box around the 'Label' column for the 'Product' object (red number '3'). The table columns are labeled: LABEL, API NAME, TYPE, DESCRIPTION, LAST MODIFIED, and DEPLOYED. The 'Product' object is listed as a 'Custom Object'.

| LABEL | API NAME | TYPE | DESCRIPTION | LAST MODIFIED | DEPLOYED |
|---------------------------|--------------------------|-----------------|-------------|---------------|----------|
| Fulfillment Order Product | FulfillmentOrderLineItem | Standard Object | | | |
| Opportunity Product | OpportunityLineItem | Standard Object | | | |
| Order Product | OrderItem | Standard Object | | | |
| Product | Product_c | Custom Object | 18/06/2024 | ✓ | |
| Product | Product2 | Standard Object | | | |
| Product Attribute | ProductAttribute | Standard Object | | | |

Setup Home Object Manager

Product

Fields & Relationships

| FIELD LABEL | FIELD NAME | DATA TYPE | CONTROLLING FIELD | INDEXED |
|------------------|----------------|--------------------|-------------------|---------|
| Created By | CreatedBy | Lookup(User) | | |
| Last Modified By | LastModifiedBy | Lookup(User) | | |
| Owner | OwnerId | Lookup(User,Group) | | ✓ |
| Product ID | Name | Text(80) | | ✓ |

clicking Send an Email. Note that custom email addresses cannot be used for mass emails.

Allows users to define locations. Includes latitude and longitude components, and can be used to calculate distance.

Allows users to enter any number. Leading zeros are removed.

Allows users to enter a percentage number, for example, '10' and automatically adds the percent sign to the number.

Allows users to enter any phone number. Automatically formats it as a phone number.

Allows users to select a value from a list you define.

Allows users to select multiple values from a list you define.

Allows users to enter any combination of letters and numbers.

Allows users to enter up to 255 characters on separate lines.

Allows users to enter up to 131,072 characters on separate lines.

Allows users to enter formatted text, add images and links. Up to 131,072 characters on separate lines.

Allows users to enter any combination of letters and numbers and store them in encrypted form.

Allows users to enter a local time. For example, "2:40 PM", "14:40", "14:40:00", and "14.40.50.60" are all valid times for this field.

Allows users to enter any valid website address. When users click on the field, the URL will open in a separate browser window.

Text 6

Next Cancel

Step 2. Enter the details Step 2 of 4

Field Label Product Name 7

Please enter the maximum length for a text field below.

Length 255 7

Field Name Product 7

Description

Help Text

Required Always require a value in this field in order to save a record 8

Unique Do not allow duplicate values

Treat "ABC" and "abc" as duplicate values (case insensitive)

Treat "ABC" and "abc" as different values (case sensitive)

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

Next Cancel

9

Activity 2: Creating a TextArea Field in Product Object

To create fields in an object:

1. Click the gear icon and select Setup. This launches Setup in a new tab.
2. Click the Object Manager tab next to Home.
3. Select Product custom object.
4. Select Fields & Relationships from the left navigation
5. Click on New
6. Select TextArea field, click Next
7. Enter Field Label as “Product Description” .
8. Click Next, Next, then Save & New.

The screenshot shows a list of field types on the left and their descriptions on the right. The 'Text Area' option is highlighted with a red box and labeled '6'. The 'Text' option is also highlighted with a red box. At the bottom right, there is a 'Next' button with a red box around it, labeled '7'.

- Geolocation
- Number
- Percent
- Phone
- Picklist
- Picklist (Multi-Select)
- Text
- Text Area **6**
- Text Area (Long)
- Text Area (Rich)
- Text (Encrypted) **8**
- Time
- URL

cicking Send an Email. Note that custom email addresses cannot be used for mass emails.
Allows users to define locations. Includes latitude and longitude components, and can be used to calculate distance.
Allows users to enter any number. Leading zeros are removed.
Allows users to enter a percentage number, for example, '10' and automatically adds the percent sign to the number.
Allows users to enter any phone number. Automatically formats it as a phone number.
Allows users to select a value from a list you define.
Allows users to select multiple values from a list you define.
Allows users to enter any combination of letters and numbers.
Allows users to enter up to 255 characters on separate lines.
Allows users to enter up to 131,072 characters on separate lines.
Allows users to enter formatted text, add images and links. Up to 131,072 characters on separate lines.
Allows users to enter any combination of letters and numbers and store them in encrypted form.
Allows users to enter a local time. For example, "2:40 PM", "14:40", "14:40:00", and "14:40:50.600" are all valid times for this field.
Allows users to enter any valid website address. When users click on the field, the URL will open in a separate browser window.

Next Cancel

The screenshot shows the 'Step 2. Enter the details' screen. The 'Field Label' input field is filled with 'Product Description' and has a red box around it, labeled '7'. The 'Field Name' input field is filled with 'Product_Description'. At the top right, there is a 'Next' button with a red box around it, labeled '8'.

Step 2. Enter the details **Step 2 of 4**

Field Label **7**

Field Name

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 **8**

Default Value
Use formula syntax. Enclose text and picklist values in double quotes ("the_text"). Include numbers without quotes (125). Show percentage as decimal (.019), and express date calculated in the standard format (Year "-" "To" "Month" "-" "Day"). To reference a field from a Custom Metadata type record use: \$CustomMetadataType__mtl.RecordAPIName.FieldName

Activity 3: Creating a Number Field in Product object

To create fields in an object:

1. Go to setup >> click on Object Manager >> type object name(Product) in quick find box >> click on the Product custom object.
2. Now click on “Fields & Relationships”
3. Click on New.
4. Select Data type as “Number” and click Next.
5. Enter Field Label as “ Current Stock Level”.
6. Length - 18, Decimal Places - 0.
7. Click on Next, Next and Save.

Step 2. Enter the details

Field Label: Current Stock Level 5

Please enter the length of the number and the number of decimal places. For example, a number with a length of 8 and 2 decimal places can accept values up to "12345678.90".

Length: 18 6 Decimal Places: 0

Field Name: Current_Stock_Level

Description:

Help Text:

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

Unique: Do not allow duplicate values

External ID: Set this field as the unique record identifier from an external system

Step 2 of 4

Previous Next Cancel

7

Activity 4: Creating a Currency Field in Product object

To create fields in an object:

1. Go to setup >> click on Object Manager >> type object name(Product) in quick find box >> click on the Product custom object.
2. Now click on “Fields & Relationships”
3. Click on New.
4. Select Data type as “Currency” and click Next.
5. Enter Field Label as “ Unit Price”.
6. Length - 16, Decimal Places - 2.
7. Select Required Field.
8. Click on Next, Next and Save.

Step 2. Enter the details

Field Label: Unit Price (5)

Please enter the length of the number and the number of decimal places. For example, a number with a length of 8 and 2 decimal places can accept values up to "12345678.90".

Length: 16 (6) Decimal Places: 2

Field Name: Unit_Price (5)

Description:

Help Text:

Required (7) 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 (5)

Step 2 of 4

Previous Next Cancel

Activity 5 : Creating Lookup Relationship in Purchase Order Object

A Lookup relationship is a type of relationship in Salesforce that connects two objects together based on a field known as the Lookup field. It establishes a relationship between a child object and a parent object, allowing the child object to reference the parent object.

To Create a relationship from Purchase Order to Supplier .

1. Go to the Setup page >> click on Object manager >> type object name(Purchase Order) in the quick find bar >> click on the Purchase Order object.
2. Click on Fields & Relationship
3. Click on New.

4. Select “Lookup relationship” as data type and click Next.
5. Select the related object “ Supplier”.
6. Click on Next.
7. Give Field Label as “Supplier ID” .
8. Select Required Field.
9. Click on Next , Next , Next , Save.

The screenshot shows the Salesforce interface for creating a new custom field. The steps are numbered 4 through 9:

- Step 4: Data Type** (Top section)
 - None Selected
 - Auto Number
 - Formula
 - Roll-Up Summary (1)
 - Lookup Relationship (4)
 - Master-Detail Relationship
 - External Lookup Relationship
- Step 5: Choose the related object** (Second section)
 - Related To:
 - Step 2: Previous Next Cancel
 - 6
- Step 7: Field Definition** (Third section)
 - Field Label:
 - Field Name:
 - Description:
 - Help Text:
 - Step 2: Previous Next Cancel
 - 7
- Step 8: Child Relationship and Validation** (Bottom section)
 - Child Relationship Name:
 - Required: Always require a value in this field in order to save a record 8
 - 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 (2)
 - Step 2: Previous Next Cancel
 - 9

Activity 6: Creating a Date Field in Purchase Order object

To create fields in an object:

1. Go to setup >> click on Object Manager >> type object name(Purchase Order) in quick find box>> click on the Purchase Order object.
2. Now click on “Fields & Relationships”
3. Click on New.
4. Select Data type as “Date” and click Next.
5. Enter Field Label as “ Order Date”.
6. Click on Next, Next and Save.

The screenshot shows the 'Step 2. Enter the details' screen for creating a new field. The 'Field Label' input field is highlighted with a red box and contains the text 'Order Date'. To the right of the input field is a red number '5'. At the top right of the screen, there is a 'Next' button which is also highlighted with a red box and has a red number '6' next to it. Other fields visible include 'Field Name' (containing 'Order_Date'), 'Description', 'Help Text', and several checkboxes for 'Required', 'Auto add to custom report type', and 'Default Value' (with a 'Show Formula Editor' link).

Activity 7: Creating a Roll-Up Summary Field in Purchase Order object

To create fields in an object:

1. Go to setup >> click on Object Manager >> type object name(Purchase Order) in quick find box>> click on the Purchase Order object.
2. Now click on “Fields & Relationships”
3. Click on New.
4. Select Data type as “Roll-Up Summary” and click Next.

5. Enter Field Label as “ Order Count”.
6. Choose the Summarized Object as “Order Items”.
7. For Select Roll-Up Type select “Count”.
8. Click on Next, Next and Save.

Data Type

None Selected Select one of the data types below.

Auto Number A system-generated sequence number that uses a display format you define. The number is automatically incremented for each new record.

Formula A read-only field that derives its value from a formula expression you define. The formula field is updated when any of the source fields change.

Roll-Up Summary A read-only field that displays the sum, minimum, or maximum value of a field in a related list or the record count of all records listed in a related list. **4**

Purchase Order New Custom Field Help for this Page

Step 2. Enter the details Step 2 of 5

Field Label **5**

Field Name

Description

Help Text

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

Step 3. Define the summary calculation Step 3 of 5

Select Object to Summarize

Master Object Purchase Order Summarized Object **6**

Required Information

Select Roll-Up Type

COUNT **7**

SUM
 MIN
 MAX

Field to Aggregate

Filter Criteria

All records should be included in the calculation
 Only records meeting certain criteria should be included in the calculation

Activity 8: Creating a Unit Price Formula Field in Order Item object

To create fields in an object:

1. Go to setup >> click on Object Manager >> type object name(Order Item) in quick find box >> click on the Order Item object.
2. Now click on “Fields & Relationships”
3. Click on New.
4. Select Data type as “Formula” and click Next.
5. Enter field label Unit Price.
6. Select formula return type Currency, Click Next
7. Create and insert Advance formula: Product_ID__r.Unit_Price__c
8. Click Next, Next, then Save.

Step 2. Choose output type

Field Label 5

Field Name

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

Formula Return Type

- None Selected
- Checkbox
- Currency 6
- Date
- Date/Time
- Number
- Percent

Help for this Page

Step 3. Enter formula

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

Insert Field 7

Insert Operator

Functions

-- All Function Categories --

ABS
ACOS
ADDMONTHS
AND
ASCII
ASIN

Insert Selected Function

Quick Tips 8

- Getting Started
- Operators & Functions

Activity 9: Creating a Amount Formula Field in Order Item object

To create fields in an object:

1. Go to setup >> click on Object Manager >> type object name(Order Item) in quick find box >> click on the Order Item object.
2. Now click on “Fields & Relationships”
3. Click on New.
4. Select Data type as “Formula” and click Next.
5. Enter field label Amount.
6. Select formula return type Currency, Click Next
7. Create and insert Advance formula: Quantity_Received__c * Unit_Price__c
8. Click Next, Next, then Save.

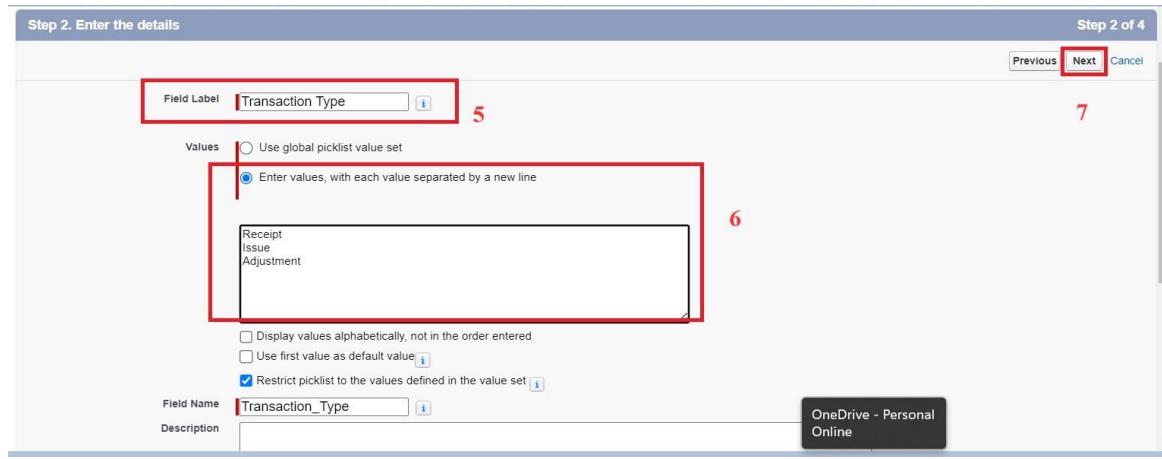


Activity 10: Creating a Picklist Field in Inventory Transaction Object

Transaction Object

To create fields in an object:

1. Go to setup >> click on Object Manager >> type object name(Inventory Transaction) in quick find box>> click on the Inventory Transaction Object.
2. Now click on “Fields & Relationships” .
3. Click on New.
4. Select Data type as “Picklist” and click Next.
5. Enter Field Label as “Transaction Type”.
6. In values select “Enter values, with each value separated by a new line” and enter values as shown below.
 - Receipt
 - Issue
 - Adjustment
7. Click on Next, Next and Save.



Activity 11: Creating a Total Order Cost Formula Field in Inventory Transaction object

To create fields in an object:

- Go to setup >> click on Object Manager >> type object name(Inventory Transaction) in quick find box >> click on the Order Item object.
- Now click on “Fields & Relationships”
- Click on New.
- Select Data type as “Formula” and click Next.
- Enter field label Total Order Cost.
- Select formula return type Currency, Click Next
- Create and insert Advance formula: Purchase_Order_ID__r.Total_Order_Cost__c
- Click Next, Next, then Save.

Activity 12: Creating a Phone Field in Supplier object

To create fields in an object:

- Go to setup >> click on Object Manager >> type object name(Supplier) in quick find box>> click on the Supplier object.

- Now click on “Fields & Relationships”
- Click on New.
- Select Data type as “Phone” and click Next.
- Enter the Field Label as “ Phone Number”.
- Select Required Field.
- Click on Next, Next and Save.

Step 2. Enter the details

Step 2 of 4

Previous **Next** Cancel

7

| | | |
|--|---|---|
| Field Label | Phone Number | 5 |
| Field Name | Phone_Number | |
| Description | | |
| Help Text | | |
| Required | <input checked="" type="checkbox"/> Always require a value in this field in order to save a record | 6 |
| Auto add to custom report type | <input checked="" type="checkbox"/> Add this field to existing custom report types that contain this entity | |
| Default Value | Show Formula Editor | |
| Use formulas syntax. Enclose text and picklist value API names in double quotes - ("Text", "Value"). Include numbers without quotes (25), show percentages as decimals (.010), and express date calculations in the standard format (Today() + 7). To reference a field from a Custom Metadata type record use \$CustomMetadata.Type__mdt.RecordAPIName.Field__c | | |

Activity 13: Creating a Email Field in Supplier

object

To create fields in an object:

1. Go to setup >> click on Object Manager >> type object name(Supplier) in quick find box>> click on the Supplier object.
2. Now click on “Fields & Relationships”
3. Click on New.
4. Select Data type as “Email” and click Next.
5. Enter the Field Label as “ Email”.
6. Click on Next, Next and Save.

Step 2. Enter the details Step 2 of 4

Previous Next Cancel

Field Label 5 6

Field Name 5

Description

Help Text

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

Unique Do not allow duplicate values

External ID Set this field as the unique record identifier from an external system

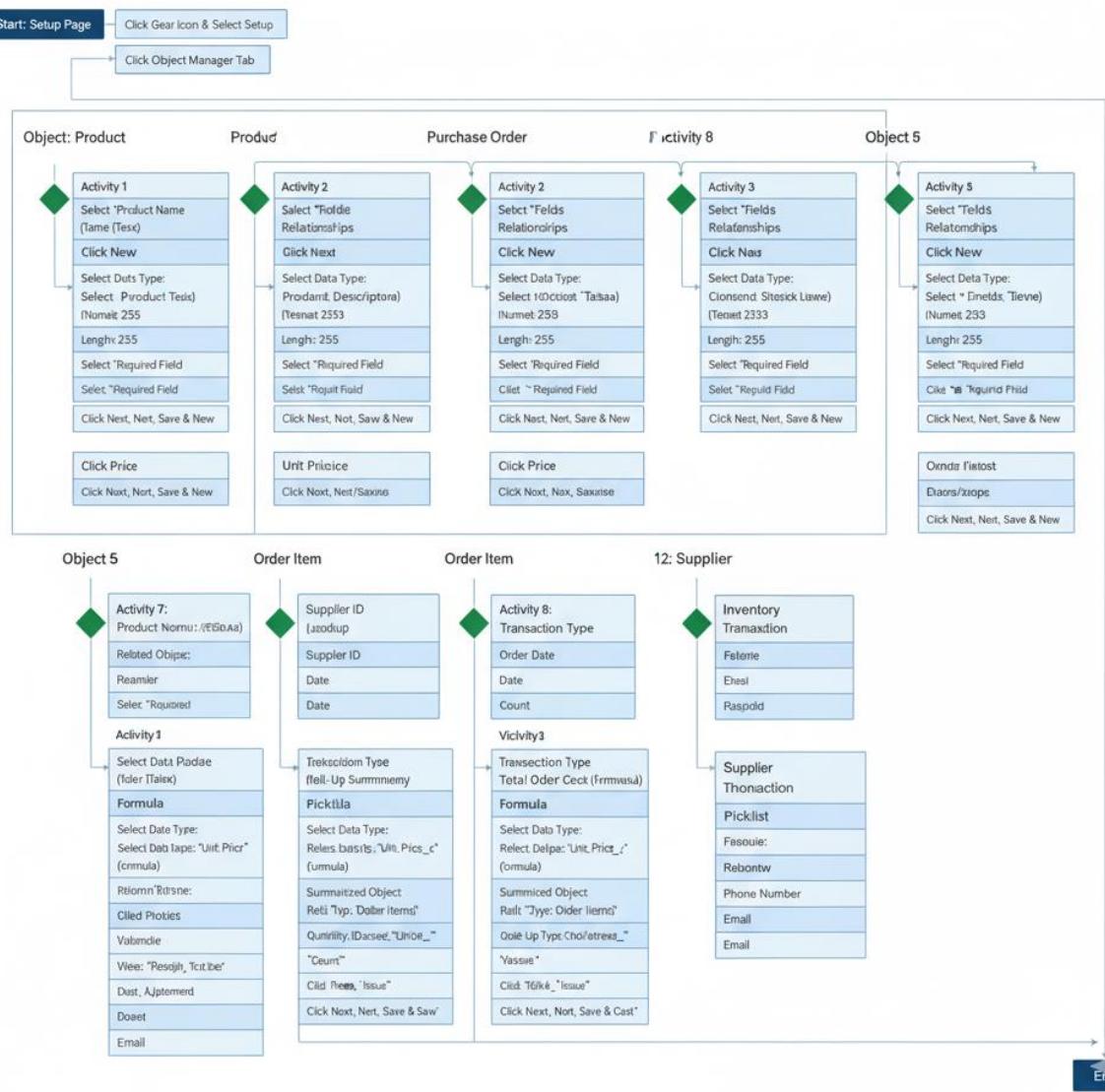
Auto add to custom report type Add this field to existing custom report types that contain this entity 5

Default Value

Use formula syntax: Enclose text and picklist value API names in double quotes : ("the_text"), include numbers without quotes



Salesforce Custom Field Creation Flow Diagram (Activities 1-13)

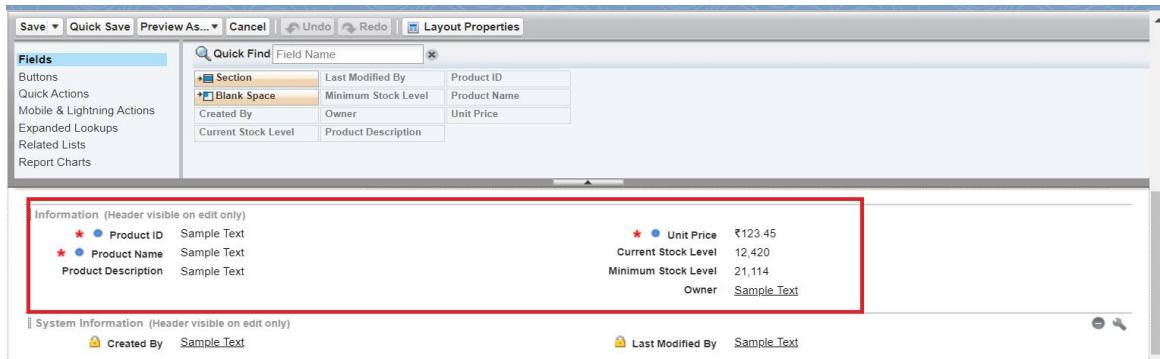


Milestone 6 -Editing of Page Layouts

Page layouts in Salesforce are used to customize the organization, structure, and content of pages for viewing and editing records. They determine which fields, related lists, and custom links are visible to users, as well as the order and grouping of those elements.

Activity 1: To edit a Page Layout in Product Object

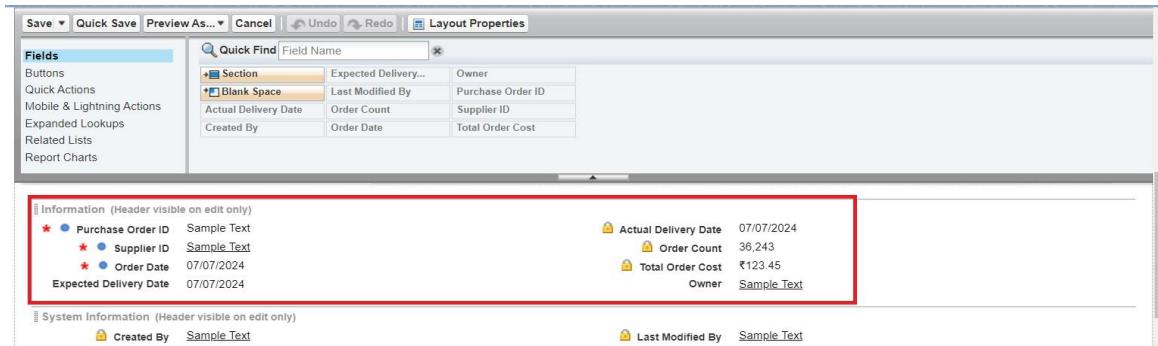
1. Go to setup >> click on Object Manager >> type object name(Product) in quick find box >> click on the Product object >> Page Layouts .
2. Click on the Product Layout.
3. Drag and Arrange the field as shown below.



4. Click on Save.

Activity 2: To edit a Page Layout in Purchase Order Object

1. Go to setup >> click on Object Manager >> type object name(Purchase Order) in quick find box >> click on the Purchase Order object >> Page Layouts.
2. Click on the Purchase Order Layout
3. Drag and Arrange the field as shown below

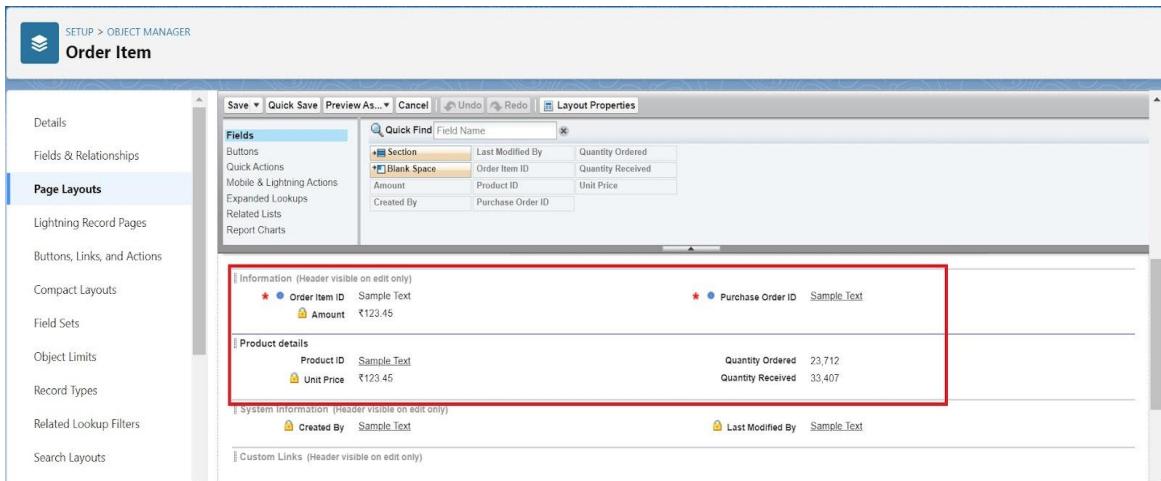


1. Click on field Order Date >> click on settings >> select Required and save it.
2. Click on field Total Order Cost >> click on settings >> select Read Only and save it.

3. Click Save.

Activity 3: To edit a Page Layout in Order Item Object

1. Go to setup >> click on Object Manager >> type object name(Order Item) in quick find box >> click on the Order Item object >> Page Layouts.
2. Click on the Order Item Layout
3. Drag and Arrange the field as shown below

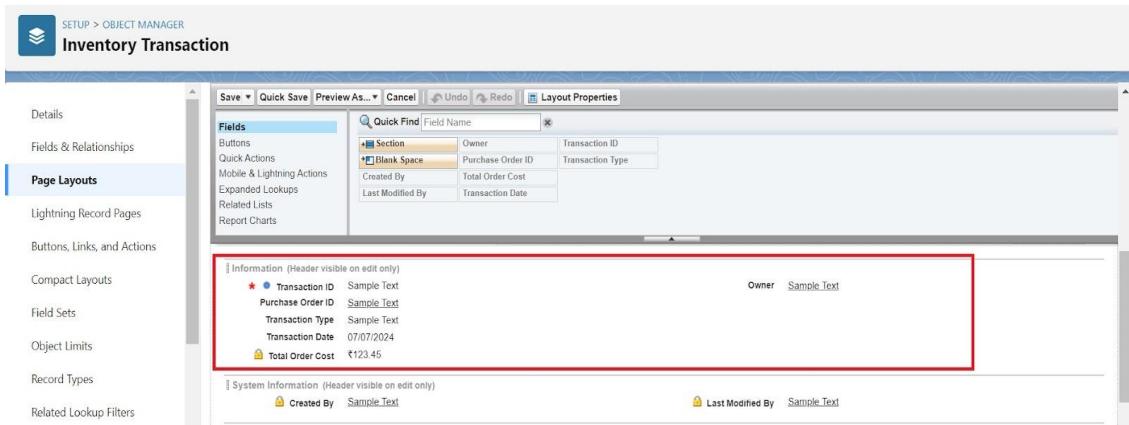


4. Click Save.

Activity 4: To edit a Page Layout in Inventory Transaction Object

Transaction Object

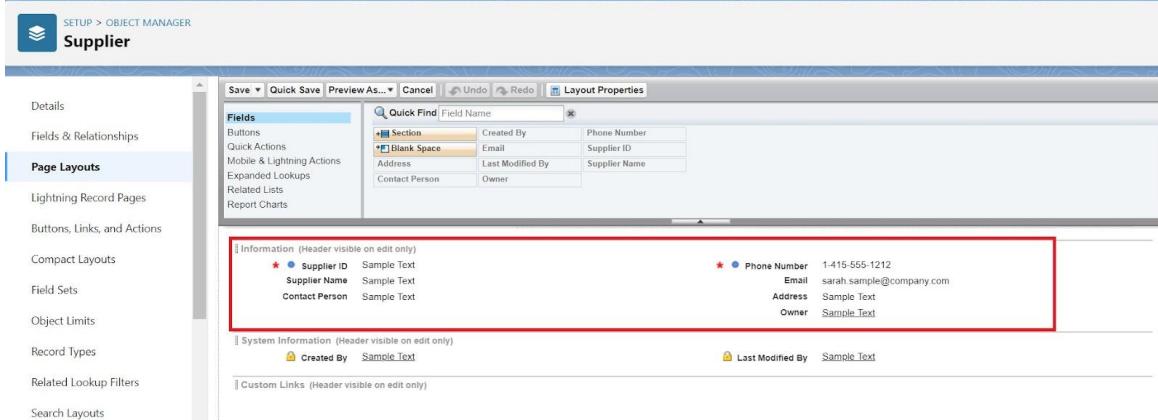
1. Go to setup >> click on Object Manager >> type object name(Inventory Transaction) in quick find box >> click on the Inventory Transaction object >> Page Layouts.
2. Click on the Inventory Transaction Layout
3. Drag and Arrange the field as shown below



- Click Save.

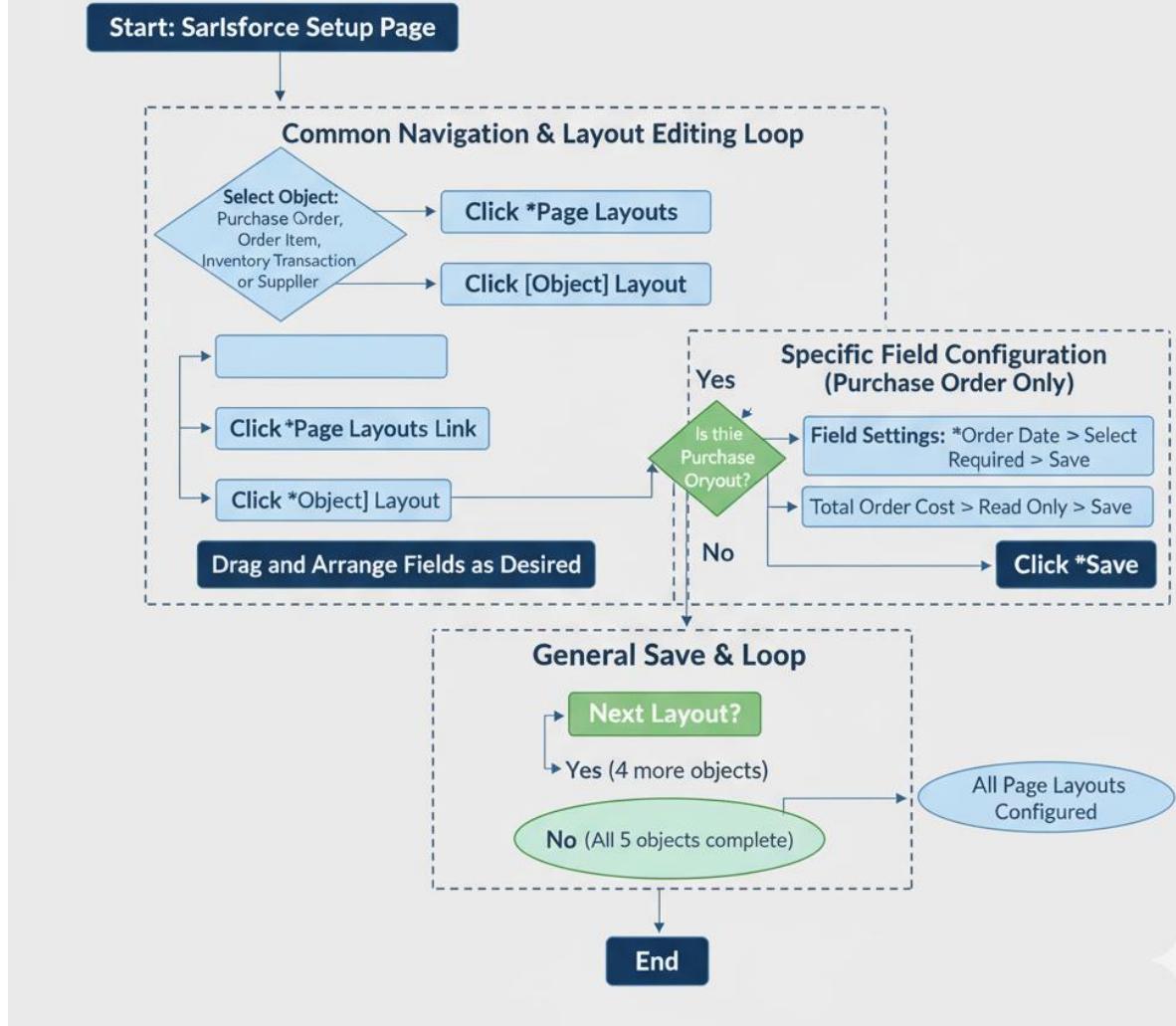
Activity 5: To edit a Page Layout in Supplier Object

- Go to setup >> click on Object Manager >> type object name(Supplier) in quick find box >> click on the Supplier object >> Page Layouts.
- Click on the Supplier Layout
- Drag and Arrange the field as shown below



- Click Save.

Salesforce Page Layout Configuration Flow Diagram (All 5 Objects)

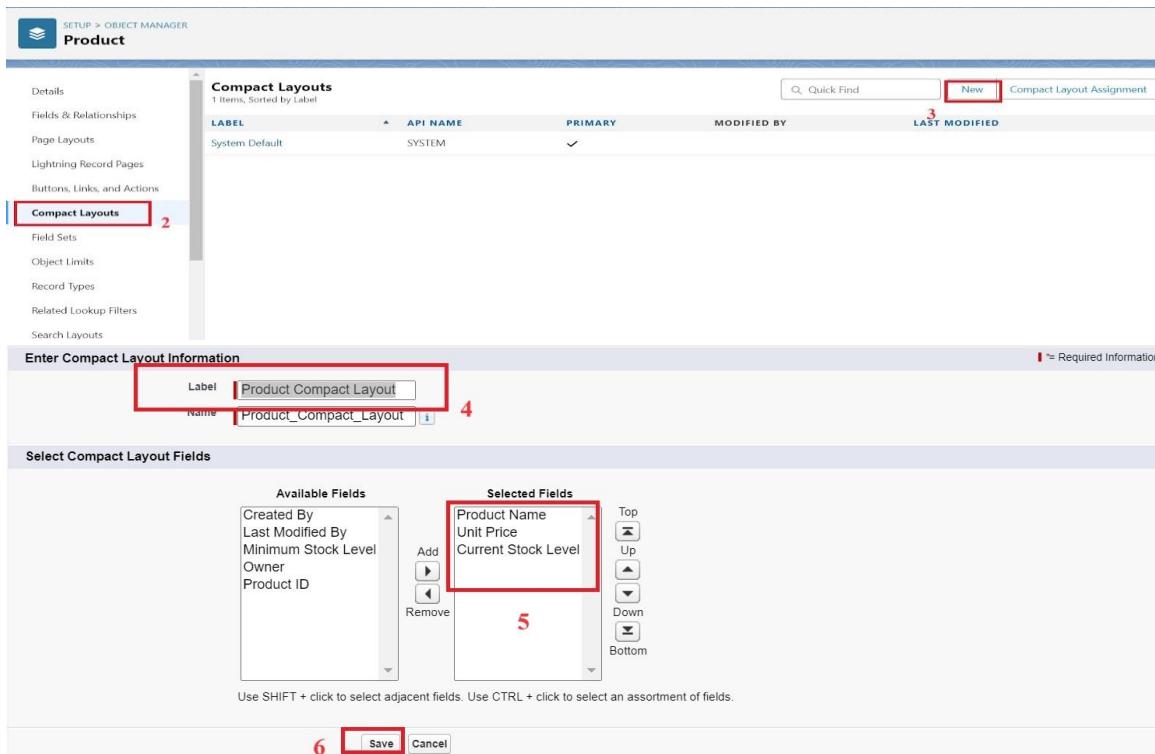


Milestone 7 - Compact Layouts

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

Activity 1: To create a Compact Layout to a Product Object

1. Go to setup >> click on Object Manager >> type object name(Product) in quick find box >> click on the Product object
2. Click on Compact Layouts in the sidebar .
3. Click on New.
4. Enter the Label as “Product Compact Layout”.
5. Select the Compact Layout Fields : Select Product name, Unit Price, Current Stock Level.
6. Click Save.
7. Click Compact Layout Assignment.
8. Click Edit Assignment.
9. Choose "Product Compact Layout" from the dropdown.
10. Click Save.



Product Compact Layouts
Compact Layout Assignment

The screenshot shows a configuration page for a compact layout assignment. At the top, there are 'Save' and 'Cancel' buttons. Below them, a section titled 'Primary Compact Layout' contains a dropdown menu labeled 'Primary Compact Layout: Product Compact Layout'. A red box highlights this dropdown, and the number '9' is placed to its right. At the bottom of the page are two more 'Save' and 'Cancel' buttons, with the number '10' placed below the first 'Save' button.

Activity 2: To create a Compact Layout to a Product Object

1. Go to setup >> click on Object Manager >> type object name(Product) in quick find box >> click on the Product object
2. Click on Compact Layouts in the sidebar .
3. Click on New.
4. Enter the Label as “Product Compact Layout”.
5. Select the Compact Layout Fields : Select Product name, Unit Price, Current Stock Level.
6. Click Save.
7. Click Compact Layout Assignment.
8. Click Edit Assignment.
9. Choose "Product Compact Layout" from the dropdown.
10. Click Save.

The screenshot shows the 'Object Manager' page for the 'Product' object. The left sidebar has a 'Compact Layouts' link highlighted with a red box, and the number '2' is placed to its right. The main area displays a table titled 'Compact Layouts' with one item listed: 'System Default' (Label), 'SYSTEM' (API Name), and 'SYSTEM' (Primary). There are buttons for 'New' and 'Compact Layout Assignment' at the top right. The table includes columns for 'LABEL', 'API NAME', 'PRIMARY', 'MODIFIED BY', and 'LAST MODIFIED'. A search bar 'Quick Find' is also visible.

Enter Compact Layout Information

Label: Product Compact Layout **4**
Name: Product_Compact_Layout

Select Compact Layout Fields

Available Fields

Created By
Last Modified By
Minimum Stock Level
Owner
Product ID

Selected Fields

Product Name
Unit Price
Current Stock Level **5**

Add Remove Top Up Down Bottom

Use SHIFT + click to select adjacent fields. Use CTRL + click to select an assortment of fields.

6 Save Cancel

Product Compact Layouts
Compact Layout Assignment

Save Cancel

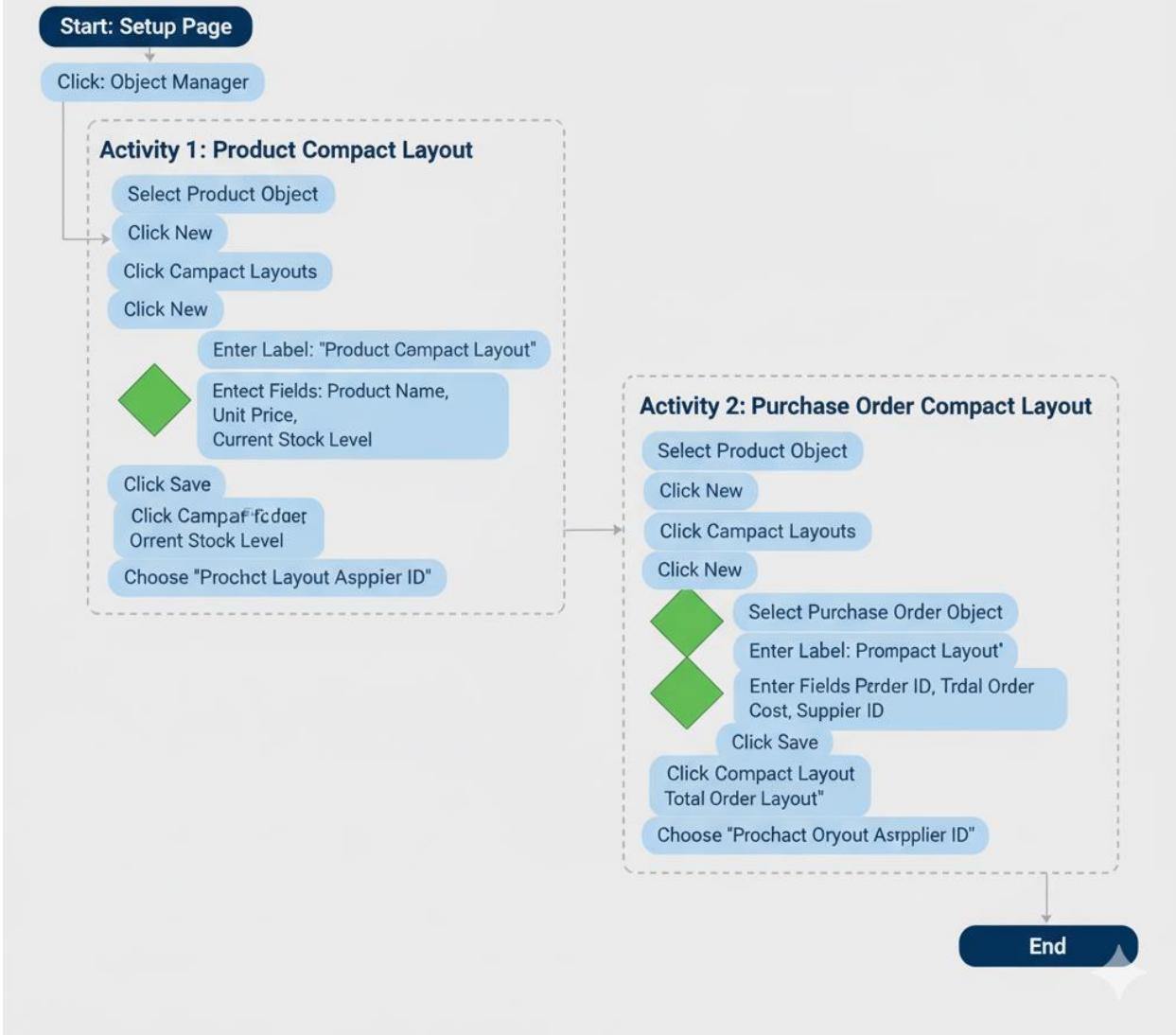
Primary Compact Layout

Select the compact layout to use when this object's records appear as list items in the mobile app.

Primary Compact Layout: Product Compact Layout **9**

10 Save Cancel

Salesforce Compact Layout Configuration Flow Diagram Diagram (Activities 1 & 2)



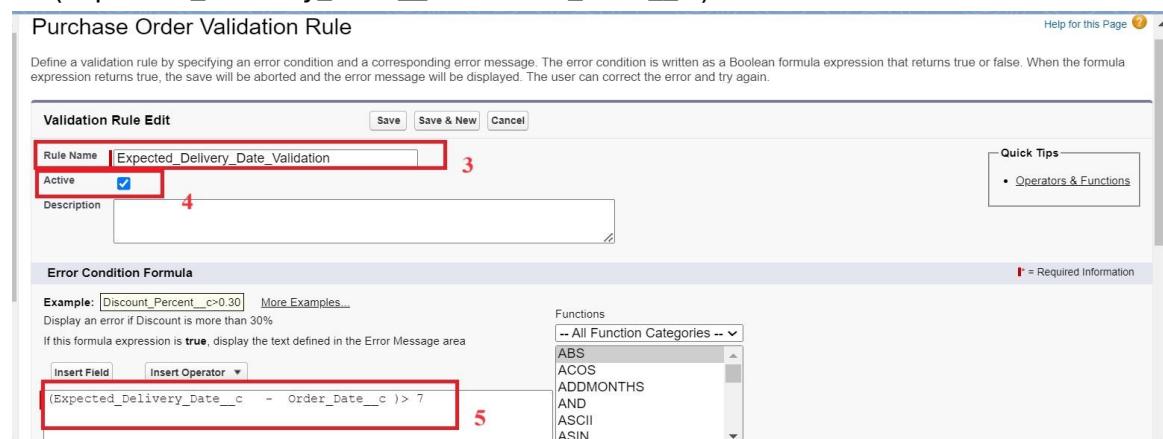
Milestone 8 - Validation Rules

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.

Activity 1: To create an Expected Delivery Date

Validation rule to a Employee Object

1. Go to setup >> click on Object Manager >> type object name(Purchase Order) in quick find box>> click on the Purchase Order object
2. Click on the validation rule >> click on New.
3. Enter the Rule name as “Expected Delivery Date Validation”.
4. Select Active
5. Insert the Error Condition Formula as :
 $(\text{Expected_Delivery_Date_c} - \text{Order_Date_c}) > 7$



Purchase Order Validation Rule

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

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

Functions

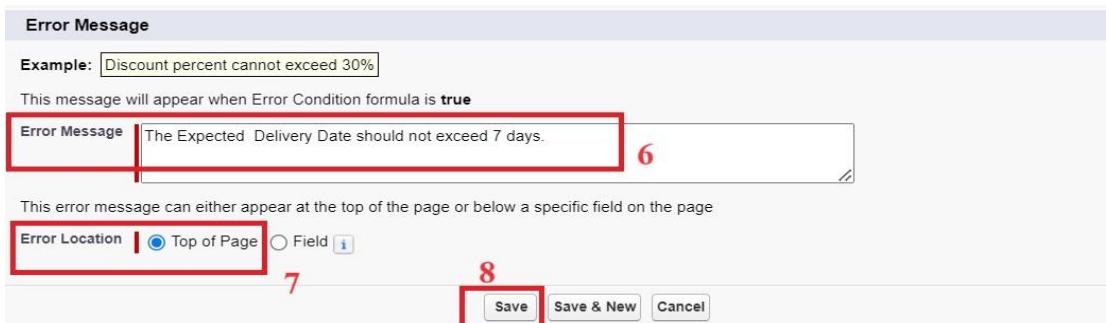
Insert Field (Expected_Delivery_Date__c - Order_Date__c) > 7 Insert Operator 5

Quick Tips

- Operators & Functions

* = Required Information

6. Enter the Error Message as “The Expected Delivery Date should not exceed 7 days.”.
7. Select the Error location as Top of Page
8. Click Save.



Error Message

Example: Discount percent cannot exceed 30%

This message will appear when Error Condition formula is **true**

Error Message: The Expected Delivery Date should not exceed 7 days. 6

This error message can either appear at the top of the page or below a specific field on the page

Error Location: Top of Page Field 7

8 Save Save & New Cancel

Milestone 9 - 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.

Activity 1: To create an Inventory Manager Profile

1. Go to setup >> type profiles in quick find box >> click on profiles >> clone the desired profile (Standard User) >> enter profile name (Inventory Manager) >> Save.

The screenshot shows the Salesforce Setup interface with the 'Profiles' page open. The sidebar on the left has 'Profiles' selected. The main area shows a list of profiles with columns for Action, Profile Name, User License, and Custom. The 'Standard User' profile is highlighted with a red box around its 'Edit | Clone' link. The URL in the browser address bar is [https://na15.salesforce.com/setup/ui/profiles?view=grid&selectedProfileId=a013A0000000000](#).

Clone Profile

Enter the name of the new profile.

You must select an existing profile to clone from.

| | |
|------------------|-------------------|
| Existing Profile | Standard User |
| User License | Salesforce |
| Profile Name | Inventory Manager |

Save Cancel

2. While still on the profile page, then click Edit.
3. Select the Custom App settings as default for the Medical Inventory Management.

| Custom App Settings | | Required Information | | | |
|---|-------------------------------------|----------------------------------|---|-------------------------------------|-----------------------|
| | Visible | Default | | | |
| All Tabs (standard__AllTabSet) | <input checked="" type="checkbox"/> | <input type="radio"/> | Sales (standard__LightningSales) | <input checked="" type="checkbox"/> | <input type="radio"/> |
| Analytics Studio (standard__Insights) | <input checked="" type="checkbox"/> | <input type="radio"/> | Sales (standard__Sales) | <input checked="" type="checkbox"/> | <input type="radio"/> |
| App Launcher (standard__AppLauncher) | <input checked="" type="checkbox"/> | <input type="radio"/> | Sales Console (standard__LightningSalesConsole) | <input checked="" type="checkbox"/> | <input type="radio"/> |
| Bolt Solutions (standard__LightningBolt) | <input checked="" type="checkbox"/> | <input type="radio"/> | Salesforce Chatter (standard__Chatter) | <input checked="" type="checkbox"/> | <input type="radio"/> |
| Community (standard__Community) | <input checked="" type="checkbox"/> | <input type="radio"/> | Salesforce Scheduler Setup (standard__LightningScheduler) | <input type="checkbox"/> | <input type="radio"/> |
| Content (standard__Content) | <input checked="" type="checkbox"/> | <input type="radio"/> | Sample Console (standard__ServiceConsole) | <input type="checkbox"/> | <input type="radio"/> |
| Data Manager (standard__DataManager) | <input checked="" type="checkbox"/> | <input type="radio"/> | Service (standard__Service) | <input checked="" type="checkbox"/> | <input type="radio"/> |
| Digital Experiences (standard__DXConsole) | <input checked="" type="checkbox"/> | <input type="radio"/> | Service Console (standard__LightningService) | <input checked="" type="checkbox"/> | <input type="radio"/> |
| Lightning Usage App (standard__LightningInstrumentation) | <input checked="" type="checkbox"/> | <input type="radio"/> | Site.com (standard__Sites) | <input checked="" type="checkbox"/> | <input type="radio"/> |
| Marketing CRM Classic (standard__Marketing) | <input checked="" type="checkbox"/> | <input type="radio"/> | Subscription Management (standard__RevenueCloudConsole) | <input checked="" type="checkbox"/> | <input type="radio"/> |
| Medical Inventory Management (Medical_Inventory_Management) | <input type="checkbox"/> | <input checked="" type="radio"/> | WDC (standard__Work) | <input checked="" type="checkbox"/> | <input type="radio"/> |
| Queue Management (standard__QueueManagement) | <input checked="" type="checkbox"/> | <input type="radio"/> | | | |

4. Scroll down to Custom Object Permissions and Give access permissions as mentioned in the below diagram.

| Custom Object Permissions | | | | | | |
|---------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| | Basic Access | | | Data Administration | | |
| | Read | Create | Edit | Delete | View All | Modify All |
| Inventory Transactions | <input checked="" type="checkbox"/> |
| Order Items | <input checked="" type="checkbox"/> |
| Products | <input checked="" type="checkbox"/> |
| Purchase Orders | <input checked="" type="checkbox"/> |
| Suppliers | <input checked="" type="checkbox"/> |

5. Change the password policies as mentioned :
 6. User passwords expire in should be “ never expires ”.
 7. Minimum password length should be “ 8 ”, and click save.

| Password Policies | |
|---|--|
| User passwords expire in | <input type="text" value="Never expires"/> |
| Enforce password history | <input type="text" value="3 passwords remembered"/> |
| Minimum password length | <input type="text" value="8"/> |
| Password complexity requirement | <input type="text" value="Must include alpha and numeric characters"/> |
| Password question requirement | <input type="text" value="Cannot contain password"/> |
| Maximum invalid login attempts | <input type="text" value="10"/> |
| Lockout effective period | <input type="text" value="15 minutes"/> |
| Obscure secret answer for password resets | <input type="checkbox"/> |
| Require a minimum 1 day password lifetime | <input type="checkbox"/> |
| Don't immediately expire links in forgot password emails | <input type="checkbox"/> |
| <input type="button" value="Save"/> <input type="button" value="Save & New"/> <input type="button" value="Cancel"/> | |

Activity 2: To create an Purchase Manager Profile

1. Go to setup >> type profiles in quick find box >> click on profiles >> clone the desired profile (Standard User) >> enter profile name (Purchase Manager) >> Save.

2. While still on the profile page, then click Edit.
3. Select the Custom App settings as default for the Medical Inventory Management.

The screenshot shows the 'Profiles' setup page. A specific profile named 'Purchase Manager' is selected. In the 'Custom App Settings' section, the 'Medical Inventory Management' app is highlighted with a red box around its row, indicating it is being configured as the default app. The 'Visible' and 'Default' checkboxes for this app are both checked.

4. Scroll down to Custom Object Permissions and Give access permissions as mentioned in the below diagram.

| Object | Basic Access | | | | Data Administration | |
|------------------------|-------------------------------------|-------------------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|
| | Read | Create | Edit | Delete | View All | Modify All |
| Inventory Transactions | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Order Items | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Products | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Purchase Orders | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Suppliers | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

5. Change the password policies as mentioned :
6. User passwords expire in should be “ never expires ”.
7. Minimum password length should be “ 8 ”, and click save.

The screenshot shows the 'Password Policies' setup page. Several policy settings are configured:

- 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
- Obscure secret answer for password resets: Unchecked
- Require a minimum 1 day password lifetime: Unchecked
- Don't immediately expire links in forgot password emails: Unchecked

 The 'Save' button at the bottom right is highlighted with a red box.

Milestone 10 - 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.

Activity 1 : Create a Purchasing Manager Role.

1. Go to quick find >> Search for Roles >> click on Set Up Roles.

The screenshot shows the Salesforce Setup interface. The search bar at the top contains the text "roles". The sidebar on the left is expanded to show "Users" and "Roles", with "Roles" being the active tab. The main content area displays a "Sample Role Hierarchy" diagram. At the top is "Executive Staff", which branches down to "CEO - President", "CFO - VP Sales", and "VP Sales". "VP Sales" further branches down to "Western Sales Director" and "Eastern Sales Director", each of which has a "Sales Rep" node below it. "Western Sales Director" has "CA Sales Rep" and "NY Sales Rep". "Eastern Sales Director" has "MA Sales Rep". "International Sales Director" has "Asian Sales Rep" and "European Sales Rep". Below the diagram, there is descriptive text and a note about viewing and editing data. At the bottom right of the page, there is a red box around the "Set Up Roles" button.

2. Click on Expand All and click on add role under SVP, Sales & Marketing role.
3. Give Label as “Purchasing Manager” and Role name gets auto populated. Then click on Save.

Role Edit
New Role

Role Edit

| | |
|-----------------------------------|------------------------|
| Label | Purchasing Manager |
| Role Name | Purchasing_Manager |
| This role reports to | SVP, Sales & Marketing |
| Role Name as displayed on reports | |

Save Save & New Cancel

Activity 2 : Create a Purchasing Manager Role.

1. Go to quick find >> Search for Roles >> click on Set Up Roles.

Setup Home Object Manager

roles

Users Roles

Contact Roles on Contracts Contact Roles on Opportunities

Service Case Teams Case Team Roles

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

SETUP Roles

Understanding Roles

Set up your Role Hierarchy to control how your organization reports on and accesses data.

Sample Role Hierarchy
View other sample Role Hierarchies Territory-based Sample

Executive Staff

- CEO - President
- CFO - VP, Sales

* View & edit data, run up reports, & generate reports
* Can't access data of other Executive Staff

Western Sales Director

- Western Sales Director
- Off. Sales Rep
- CA Sales Rep
- NY Sales Rep
- WA Sales Rep

* View & edit data, run up reports, & generate reports for own data directly
* Can't access data of other Sales Directors at same level

Eastern Sales Director

- Eastern Sales Director
- Off. Sales Rep
- International Sales Director

* View & edit data, run up reports, & generate reports for own data directly
* Can't access data of other Sales Directors at same level

International Sales Director

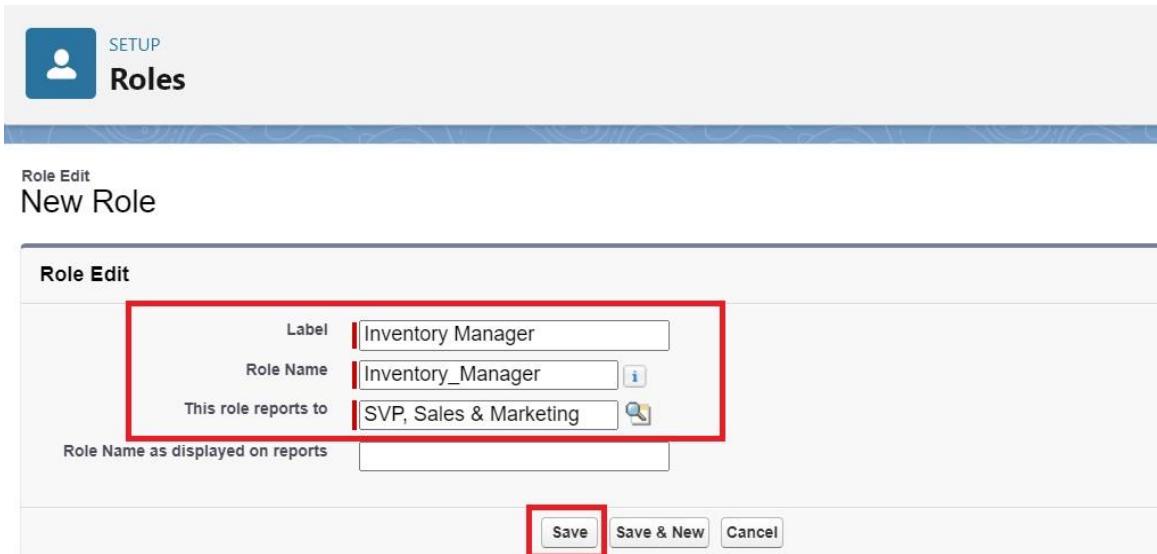
- International Sales Director
- Asian Sales Rep
- European Sales Rep

* View & edit data, run up reports, & generate reports for own data directly
* Can't access data of other Sales Directors at same level

Set Up Roles

Don't show this page again

2. Click on Expand All and click on add role under SVP, Sales & Marketing role.
3. Give Label as “Inventory Manager” and the Role name gets auto populated. Then click on Save.



Milestone 12 - 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.

Activity 1 : Create a Permission Set.

1. Go to setup >> type Permission in quick find box >> Select Permission Set >> click on New.

The screenshot shows the 'Permission Sets' page in the Salesforce Setup. The left sidebar has 'Permission Sets' selected under 'Permission Set Groups'. The main area displays a table of permission sets with columns for Action, Permission Set Label, Description, and License. A red box highlights the 'Label' column header and the first few rows of the table.

2. Enter Label as Purchase Manager Create Access >> Click on Save.

The screenshot shows the 'Create' screen for a new permission set. The 'Label' field is filled with 'Purchase Manager Create Access' and is highlighted with a red box. The 'Save' button is also highlighted with a red box.

3. From Object Settings >> Select Order Item >> Enable for both Tab Available and Visible >> Enable Read and Create in Object Permissions >> Click on Save.

The screenshot shows the 'Object Settings' page for the 'Purchase Manager Create Access' permission set. Under 'Order Items', the 'Available' and 'Visible' checkboxes are checked and highlighted with a red box. Under 'Object Permissions', the 'Read' and 'Create' checkboxes are checked and highlighted with a red box.

4. Navigate to the Permission Set detail page >> Click Manage Assignments >> Click Add Assignments >> Select the user John PurchaseM to assign the permission set to and click Next.

... > PERMISSION SET 'PURCHASE MANAGER CREATE ACCESS' > MANAGE ASSIGNMENT EXPIRATION

Purchase Manager Create Access

Select Users to Assign

Active Users

| Full Name | Alias | Username | Role | Active | Profile |
|-----------------------|---------|---|----------------------------------|-------------------------------------|------------------|
| Annapurna Gurram | AGurr | medicalinventory@sb.com | System Administrator | <input checked="" type="checkbox"/> | |
| Chatter Expert | Chatter | chatty.00dd0000058bqlua.yrgohck7wjvo@chatter.salesforce.com | Chatter Free User | <input checked="" type="checkbox"/> | |
| Integration User | integ | integration@00dd0000058bqlua.com | Analytics Cloud Integration User | <input checked="" type="checkbox"/> | |
| John PurchaseM | jpurc | john@purchasem.com | Purchasing Manager | <input checked="" type="checkbox"/> | Purchase Manager |
| Security User | sec | insightssecurity@00dd0000058bqlua.com | Analytics Cloud Security User | <input checked="" type="checkbox"/> | |

5. Select No Expiration date >> Click on Assign.

... > PERMISSION SET 'PURCHASE MANAGER CREATE ACCESS' > MANAGE ASSIGNMENT EXPIRATION

Purchase Manager Create Access

Select an Expiration Option For Assigned Users

No expiration date (1)

Specify the expiration date

1 Day | 1 Week | 30 Days | 60 Days | Custom Date

Time Zone

Selected Users

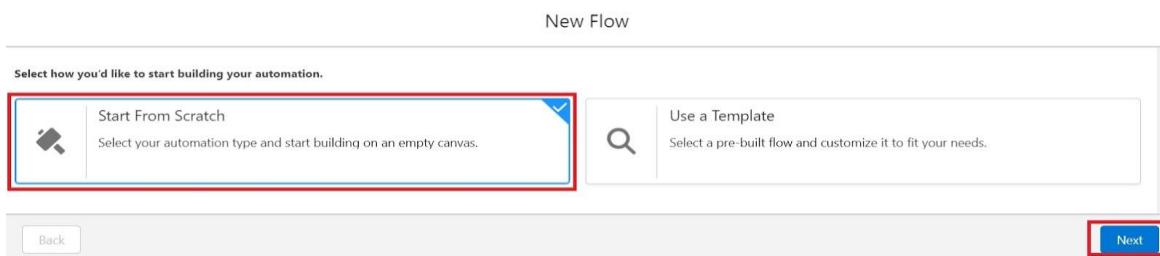
| Full Name | Role | Profile | Active | User License | Expires On |
|----------------|--------------------|------------------|-------------------------------------|--------------|---------------|
| John PurchaseM | Purchasing Manager | Purchase Manager | <input checked="" type="checkbox"/> | Salesforce | Never Expires |

Milestone 13 - Flows

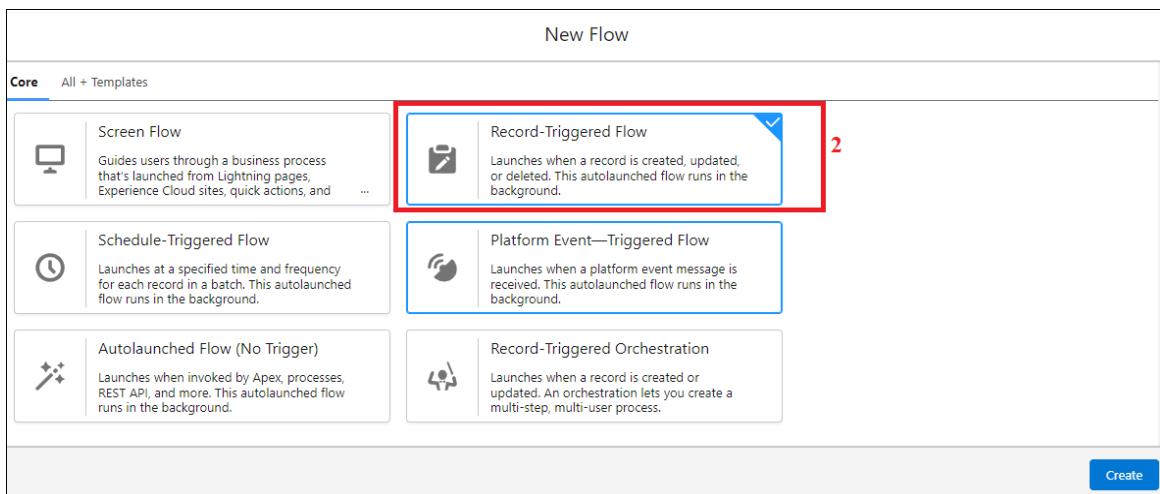
Flows in Salesforce, part of the Lightning Flow product, are powerful automation tools that help you collect data and perform actions in your Salesforce environment. Flows can be used to automate business processes, guide users through tasks, and integrate with external systems. They are highly versatile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

Activity 1 : Create Flow to update the Actual Delivery Date.

1. Go to setup >> type Flow in quick find box >> Click on the Flow and Select the New Flow >> Start From Scratch .



2. Select the record Triggered flow.Click on create.



3. Under Object select “Purchase Order”
4. Select A record is created or updated

Configure Start

Select Object

Select the object whose records trigger the flow when they're created, updated, or deleted.

*Object
Purchase Order 3

Configure Trigger

*Trigger the Flow When:

- A record is created
- A record is updated
- A record is created or updated 4
- A record is deleted

5. Set Entry Conditions : None

6. Select Fast Field Updates and click on Done

Set Entry Conditions

Specify entry conditions to reduce the number of records that trigger the flow and the number of times the flow is executed. Minimizing unnecessary flow executions helps to conserve your org's resources.

If you create a flow that's triggered when a record is updated, we recommend first defining entry conditions. Then select the **Only when a record is updated to meet the condition requirements** option for When to Run the Flow for Updated Records.

Condition Requirements
None 5

*Optimize the Flow for:

Fast Field Updates
Update fields on the record that triggers the flow to run. This high-performance flow runs *before* the record is saved to the database.

Actions and Related Records
Update any record and perform actions, like send an email. This more flexible flow runs *after* the record is saved to the database.

Include a Run Asynchronously path to access an external system after the original transaction for the triggering record is successfully committed

7. Under the record trigger flow click on the “+” icon and select Get Records.

8. Enter Label as “ Get Purchase Record ”.

9. For Object select Purchase Order.

10. For Condition Requirements , select All Conditions are Met(AND)

For the first condition select as follows:

- Field: Id
- Operator: Equals
- Value: {!\$Record.Id}

* Label
Get Purchase Record 8

* API Name
Get_Purchase_Record

Description

Get Records of This Object

* Object
Purchase Order 9

Filter Purchase Order Records 10

Condition Requirements

All Conditions Are Met (AND)

Field Operator Value
Id Equals \$Record > Record ID

+ Add Condition

11. For How many Records to store Select Only the First Record.
12. For How to Store Record Data select Choose fields and let Salesforce do the rest. Select Field: Order_Date__c. Click on Done.

How Many Records to Store

Only the first record

All records

How to Store Record Data

Automatically store all fields

Choose fields and let Salesforce do the rest

Choose fields and assign variables (advanced)

Select Purchase Order Fields to Store in Variable

Field
ID

Field
Order_Date__c

+ Add Field

13. In the Flow Builder, click on the Manager tab on the left-hand side >> Click on New Resource >> In the Resource Type dropdown, select Variable.
14. Enter API name as ActualDeliveryDate >> Select Data type as Date >> Click on Done. From the Toolbox drag and drop Assignment element.
15. Enter the label as “Assignment”.
16. Set Variable Values:
 - a) Variable : {!ActualDeliveryDate}
 - Operator : Equals

Value : {!\$Record.Order_Date__c}

b) Variable : {!ActualDeliveryDate}

Operator : Add

Value : 3

Assignment

| | | |
|--|--------------|-----------------------|
| *Label | * API Name | |
| Assignment | Assignment_1 | |
| Description | | |
| | | |
| Set Variable Values | | |
| Each variable is modified by the operator and value combination. | | |
| Variable | Operator | Value |
| ActualDeliveryDate | Equals | \$Record > Order Date |
| Variable | Operator | Value |
| ActualDeliveryDate | Add | 3 |
| + Add Assignment | | |

18. Click Done

19. From the Toolbox drag and drop Update Records element and connect to the Assignment element.

20. Enter the label as “Updating Purchasing Order”.

21. How to Find Records to Update and Set Their Values : Use the Purchase Order record that triggered the flow

22. Set Filter Conditions : None -Always Update Record

23. Set Field Values for the Trip Record as

Field : Actual_Delivery_Date__c

Value : {!ActualDeliveryDate}

Update Records

*** How to Find Records to Update and Set Their Values**

- Use the purchase order record that triggered the flow
- Update records related to the purchase order record that triggered the flow
- Use the IDs and all field values from a record or record collection
- Specify conditions to identify records, and set fields individually

Info Because this flow runs *before* a record is saved, you can only update the record that triggered the flow to run. To update other records, configure the trigger to run the flow *after* the record is saved.

Set Filter Conditions

Condition Requirements to Update Record

None—Always Update Record

Set Field Values for the Purchase Order Record

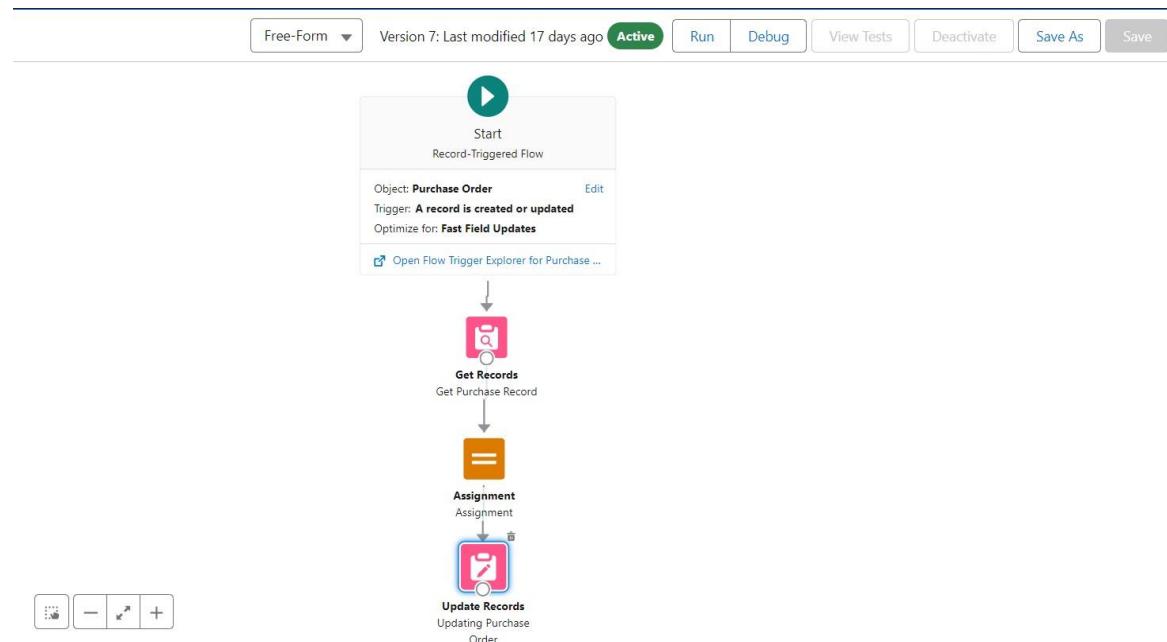
| Field | Value |
|-------------------------|--------------------|
| Actual_Delivery_Date__c | ActualDeliveryDate |

+ Add Field

24. Click Done

25. Save the flow as “Actual Delivery Date Updating”.

26. Activate the flow.



Milestone 14 - 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.

Activity 1 : Create a Trigger to Calculate total amount on Order Item.

Step 1 : Login to Salesforce:

Log in to your Salesforce account with administrative privileges.

Step 2:

i)Navigate to Setup: Once logged in, click on the gear icon ?? (Setup) located at the top-right corner of the page. This will open the Setup menu.

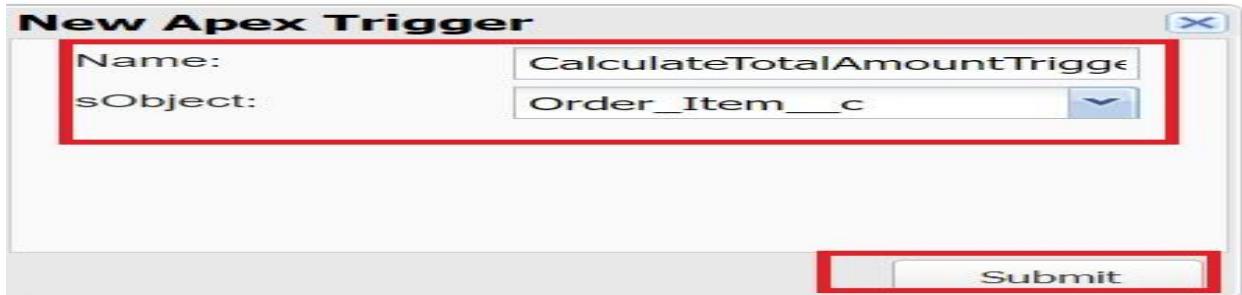
ii)Click on Developer Console: Click on the "Developer Console" option from the Setup menu. This will open the Developer Console in a new browser tab or window.

Step 3:

i) In the Developer Console window, go to the top menu and click on "File".

ii)Select New: From the dropdown menu under "File", select "New".

iii)Choose Apex Trigger: This will open a new Apex Trigger editor tab.



Create an Apex Trigger:

```
trigger CalculateTotalAmountTrigger on Order_Item__c (after insert, after update, after delete, after undelete) {
    // Call the handler class to handle the logic
    CalculateTotalAmountHandler.calculateTotal(Trigger.new, Trigger.old, Trigger.isInsert,
Trigger.isUpdate, Trigger.isDelete, Trigger.isUndelete);
}
```

Step 4:

- i) In the Developer Console window, go to the top menu and click on "File".
- ii) Select New: From the dropdown menu under "File", select "New".
- iii) Choose Apex Class: Name it as CalculateTotalAmountHandler

```
public class CalculateTotalAmountHandler {

    // Method to calculate the total amount for Purchase Orders based on related Order
    Items
    public static void calculateTotal(List<Order_Item__c> newItems, List<Order_Item__c>
oldItems, Boolean isInsert, Boolean isUpdate, Boolean isDelete, Boolean isUndelete) {

        // Collect Purchase Order IDs affected by changes in Order_Item__c records
        Set<Id> parentIds = new Set<Id>();

        // For insert, update, and undelete scenarios
        if (isInsert || isUpdate || isUndelete) {
            for (Order_Item__c ordItem : newItems) {
                parentIds.add(ordItem.Purchase_Order_Id__c);
            }
        }
    }
}
```

```

}

// For update and delete scenarios
if (isUpdate || isDelete) {
    for (Order_Item__c ordItem : oldItems) {
        parentIds.add(ordItem.Purchase_Order_Id__c);
    }
}

// Calculate the total amounts for affected Purchase Orders
Map<Id, Decimal> purchaseToUpdateMap = new Map<Id, Decimal>();

if (!parentIds.isEmpty()){
    // Perform an aggregate query to sum the Amount__c for each Purchase Order
    List<AggregateResult> aggrList = [
        SELECT Purchase_Order_Id__c, SUM(Amount__c) totalAmount
        FROM Order_Item__c
        WHERE Purchase_Order_Id__c IN :parentIds
        GROUP BY Purchase_Order_Id__c
    ];
}

// Map the result to Purchase Order IDs
for (AggregateResult aggr : aggrList) {
    Id purchaseOrderId = (Id)aggr.get('Purchase_Order_Id__c');
    Decimal totalAmount = (Decimal)aggr.get('totalAmount');
    purchaseToUpdateMap.put(purchaseOrderId, totalAmount);
}

// Prepare Purchase Order records for update
List<Purchase_Order__c> purchaseToUpdate = new List<Purchase_Order__c>();
for (Id purchaseOrderId : purchaseToUpdateMap.keySet()) {
    Purchase_Order__c purchaseOrder = new Purchase_Order__c(Id =
    purchaseOrderId, Total_Order_cost__c = purchaseToUpdateMap.get(purchaseOrderId));
    purchaseToUpdate.add(purchaseOrder);
}

// Update Purchase Orders if there are any changes
if (!purchaseToUpdate.isEmpty()) {

```

```
        update purchaseToUpdate;  
    }  
}  
}  
}  
}
```

- Save it.

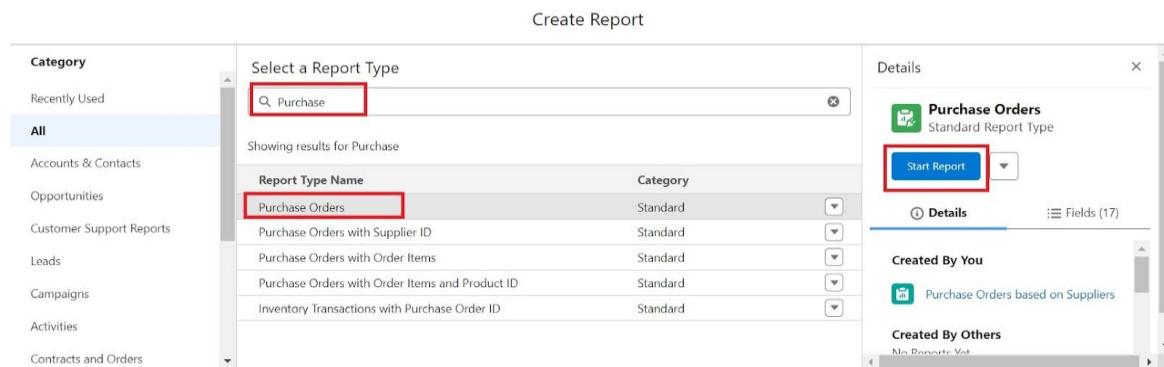
Milestone 15 - Reports

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.

Activity 1: Create a Purchase Orders based on

Suppliers(Summary) Report

1. Click App Launcher
 2. Select Medical Inventory Management App
 3. Click on Reports tab
 4. Click on New Report.
 5. Click the report type as Purchase Orders Click Start report.



6. Click on Filters and select as follows and click on Apply

The screenshot shows a 'Filters' interface with a search bar and two filter options. The first option, 'Show Me All purchase orders', is highlighted with a red box. The second option, 'Actual Delivery Date All Time', is also highlighted with a red box.

7. Customize your report, in group rows select – Supplier ID, Purchase Order: Purchase Order ID, for columns Order Count, Total Order Cost (In this way we are making a Summary Report).

8. Click save and run

9. Give report name – Purchase Orders based on Suppliers.

10. Click Save

NOTE: In this report you can see your all record of the object you selected for reporting (What you selects in “Select a report type option”)

The screenshot shows the 'Purchase Orders based on Suppliers' report configuration. The 'Fields' sidebar on the left has 'Groups' and 'Columns' sections. The main area shows a preview of purchase order data with columns: Supplier ID, Purchase Order: Purchase Order ID, Order Count, and Total Order Cost. The 'Save & Run' button and the 'Update Preview Automatically' checkbox are highlighted with red boxes. Other highlighted areas include the 'Supplier ID' and 'Purchase Order: Purchase Order ID' fields under 'Groups' and the '# Order Count' and '# Total Order Cost' fields under 'Columns'.

| Supplier ID | Purchase Order: Purchase Order ID | Order Count | Total Order Cost |
|------------------|-----------------------------------|-------------|-------------------|
| Supplier-001 (4) | Purchase-0001 (1) | 3 | ₹2,075.00 |
| | Purchase-0002 (1) | 2 | ₹3,250.00 |
| | Purchase-0003 (1) | 3 | ₹7,000.00 |
| | Purchase-0004 (1) | 4 | ₹5,500.00 |
| Supplier-002 (1) | Purchase-0005 (1) | 2 | ₹4,500.00 |
| Total (5) | | 14 | ₹26,325.00 |

View Report

1. Click on App Launcher on the left side of the screen.
2. Search Medical Inventory Management App & click on it.
3. Click on Reports Tab.
4. Click on Purchase Orders based on Suppliers and see records.

Total Records 5 **Total Order Count** 14 **Total Total Order Cost** ₹26,325.00

| Supplier ID | Purchase Order: Purchase Order ID | Order Count | Total Order Cost |
|------------------|-----------------------------------|-------------|-------------------|
| Supplier-001 (4) | Purchase-0001 (1) | 3 | ₹2,075.00 |
| | Purchase-0002 (1) | 2 | ₹3,250.00 |
| | Purchase-0003 (1) | 3 | ₹7,000.00 |
| | Purchase-0004 (1) | 4 | ₹9,500.00 |
| Supplier-002 (1) | Purchase-0005 (1) | 2 | ₹4,500.00 |
| Total (5) | | 14 | ₹26,325.00 |

Row Counts Detail Rows Subtotals Grand Total

Activity 2: Create a Complete Purchase Details

Report

1. Click App Launcher
2. Select Medical Inventory Management App
3. Click on Reports tab
4. Click on New Report.
5. Click the report type as Purchase Orders with Order Items and Product ID >> Click Start report.
6. Click on Filters and select as follows and click on Apply

Filters

Add filter...

| |
|----------------------|
| Show Me |
| All purchase orders |
| Actual Delivery Date |
| All Time |

7. Customize your report, in group rows select – Supplier ID, Actual Delivery Date, Purchase Order: Purchase Order ID, for columns Product ID : Product ID, Product ID : Product Name, Order Count, Quantity Received, Amount (In this way we are making a Summary Report).

8. Click save and run

9. Give report name – Complete Purchase Details Report

10. Click Save

The screenshot shows the Salesforce Reports interface with the following details:

- Report Type:** Purchase Orders with Order Items and Product ID
- Groups:** Supplier ID, Actual Delivery Date, Purchase Order: Purchase Order ID
- Columns:** Product ID: Product ID, Order Count, Product ID: Product Name, Quantity Received, Amount
- Buttons:** Save & Run (highlighted), Save, Close, Run, Update Preview Automatically
- Report Preview:** Shows a summary of purchase orders across different dates and suppliers, detailing product counts, names, and amounts.

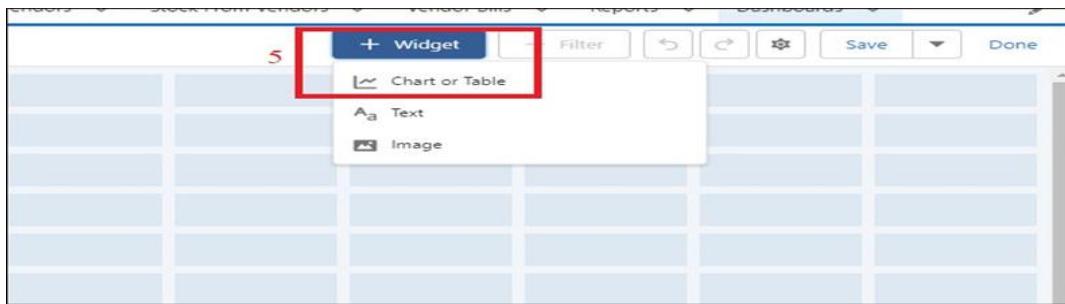
Milestone 16 - Dashboards

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.

Activity 1: - Create Dashboard

1. Click on the Dashboards tab from the Medical Inventory Management application.
2. Click on the new dashboard.
3. Give name - Medical Inventory DashBoard
4. Click create
5. Click on +widget

6. Select the Purchase Orders based on Suppliers Report
7. For the data visualization select any of the charts, tables etc. as per your choice/requirement
8. Click add.
9. Click save.



Select Report

Reports

- Recent
- Created by Me
- Private Reports
- Public Reports
- All Reports

Folders

- Created by Me
- Shared with Me
- All Folders

Select Report

Reports and Folders ▾

All Folders > Private Reports

Complete Purchase Details Report
Annapurna Gurram - 08-Jul-2024, 11:58 am - Private Reports

Purchase Orders based on Suppliers
Annapurna Gurram - 08-Jul-2024, 11:32 am - Private Reports

Select

Add Widget

Report

Purchase Orders based on Supplie X

Use chart settings from report i

Display As

Table
Bar
Line
Scatter
Map
Donut
123
Gauge
Waterfall
Treemap

Value

Sum of Total Order Cost

Sliced By

Supplier ID

Display Units

Preview

Purchase Orders based on Suppliers

Sum of Total Order Cost

Supplier ID

Supplier-001

Supplier-002

[View Report \(Purchase Orders based on Suppliers\)](#)

Add

Add Widget

Title: Purchase Orders based on Suppliers

Subtitle:

Footer:

Legend Position: Right

Widget Theme: Light (Dashboard default) 
 Dark 

Preview

Purchase Orders based on Suppliers



Sum of Total Order Cost

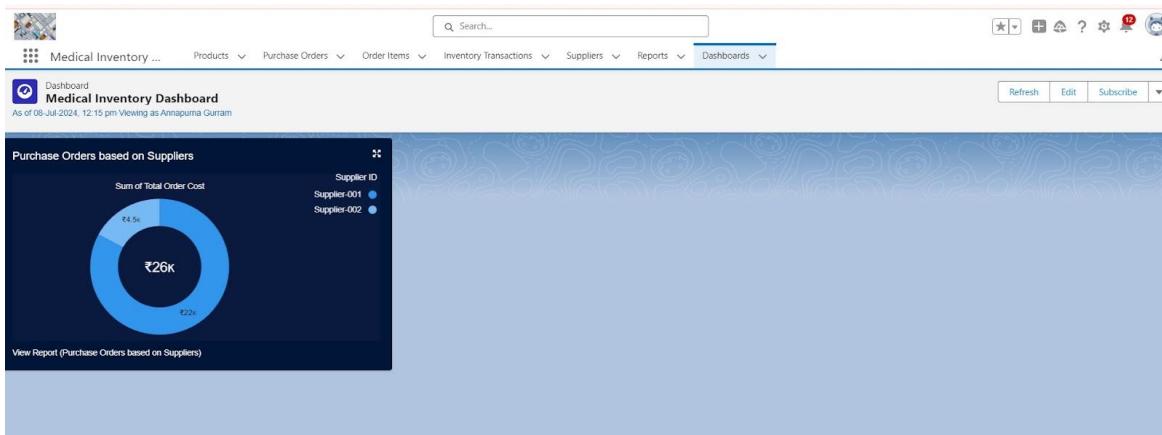
Supplier ID:
Supplier-001
Supplier-002

[View Report \(Purchase Orders based on Suppliers\)](#)

[Cancel](#)
[Add](#)

Activity 2: View Dashboard

1. Click on App Launcher on the left side of the screen.
2. Search Medical Inventory Management & click on it.
3. Click on Dashboard Tab.
4. Click on Medical Inventory DashBoard see graph view of records



Milestone 17 – Conclusion

The Medical Inventory Management System developed on Salesforce successfully streamlines and automates the core processes of inventory handling in healthcare environments. It ensures accurate tracking of suppliers, purchase orders, stock levels, and product expiry dates, thereby minimizing manual errors and improving operational efficiency. By providing real-time data visibility and comprehensive reporting, the system supports better decision-making and resource management. Overall, this project enhances the reliability, safety, and effectiveness of medical inventory control, contributing to improved healthcare service delivery.