Medical Inventory Management

College Name:

BISHOP APPASAMY COLLEGE OF ARTS AND SCIENCE.

College Code: BRU3G.

TEAM ID: NM2025TMID20459

TEAM MEMBERS:

Team Leader Name: Adithya R

Email: adithyavar6@gmail.com

Team Member 1: Prabhu S

Email: prabhu7339201211@gmail.com

Team Member 2: Jeeva P

Email: jeevapandi2006@gmail.com

Team Member 3: Sridhar M

Email: sridharmanikandan51@gmail.com

INTRODUCTION:

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.

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.

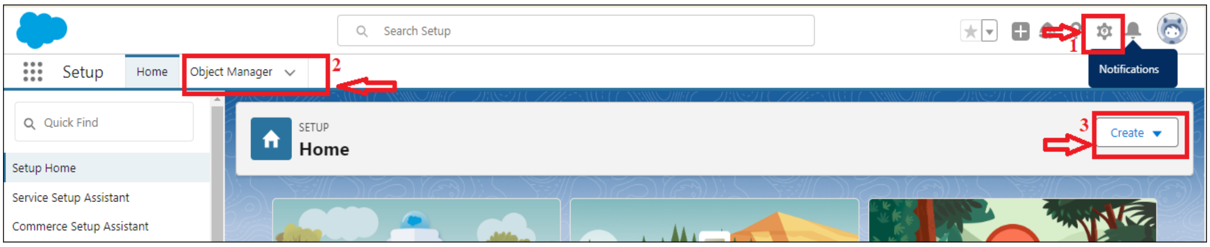
Salesforce has everything you need to run your business from anywhere. Using standard products and features, you can manage relationships with prospects and customers, collaborate and engage with employees and partners, and store your data securely in the cloud. So what does that really mean? Well, before Salesforce, your contacts, emails, follow-up tasks, and prospective deals might have been organized something like this:

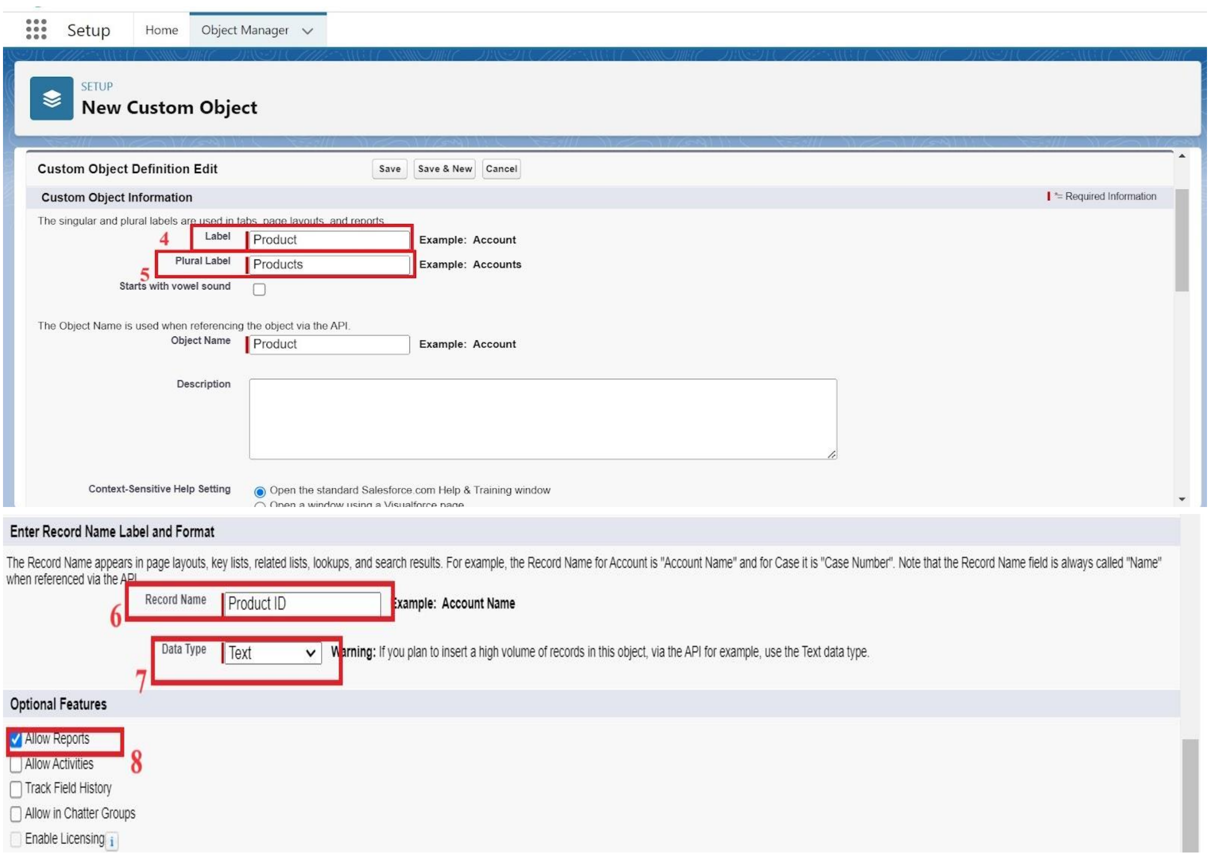
https://youtu.be/r9EX3lGde5k

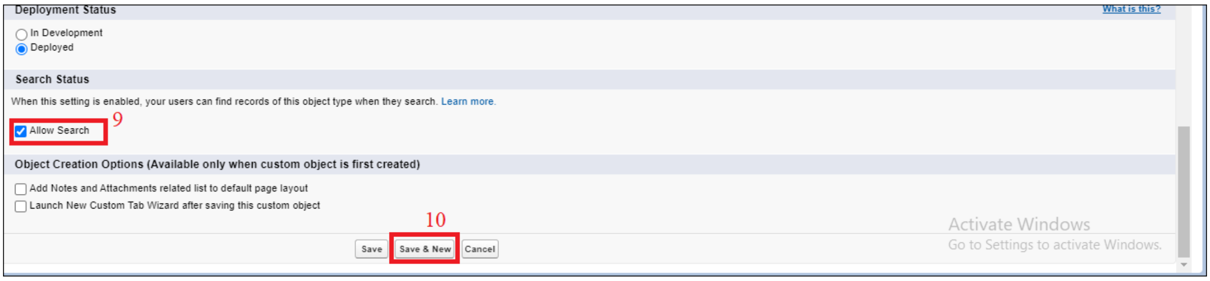
Objects

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



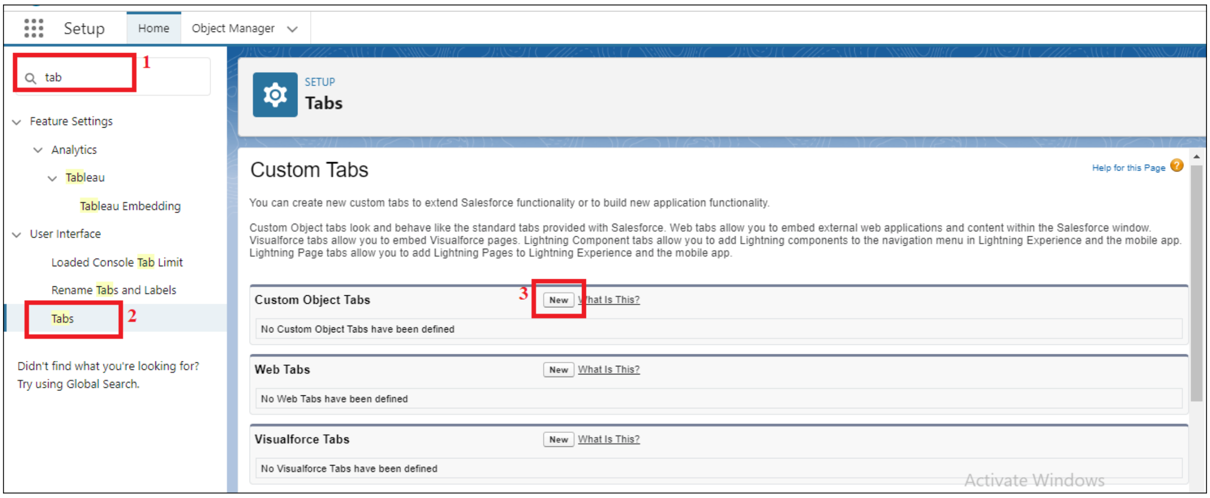


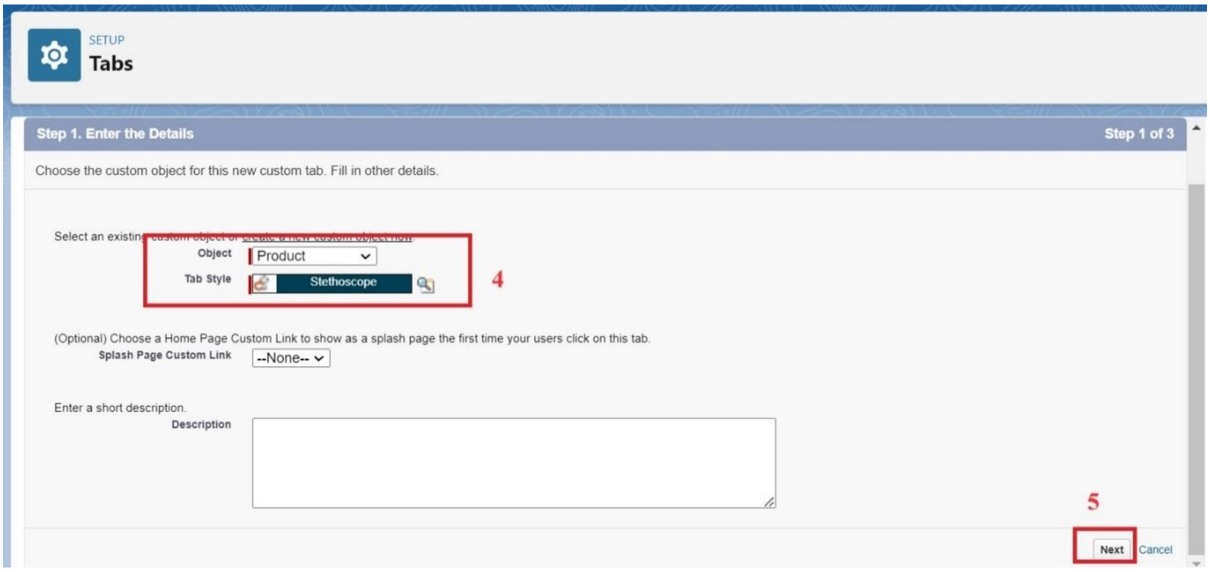


In the same way Create Purchase Order, Order Item, Inventory Transaction and Supplier objects.

TABS:

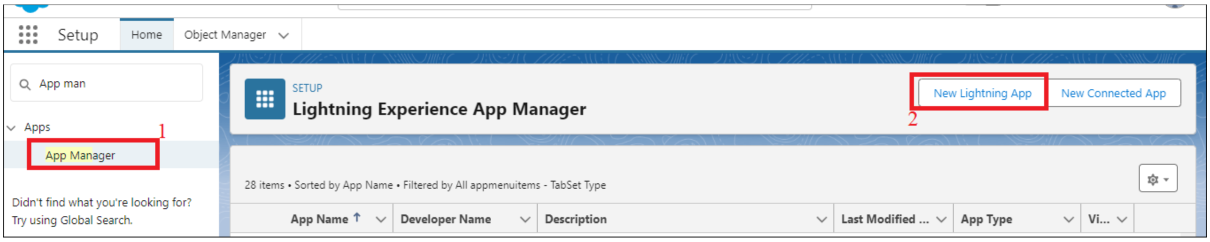
1. Go to the setup page >> type Tabs in Quick Find bar
2. Click on tabs
3. Click on New (under custom object tab).
4. Select Object(Product) >> Select the tab style
5. Click on Next >> (Add to profiles page) keep it as default >> Click on Next (Add to Custom App) uncheck the include tab .
6. Make sure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

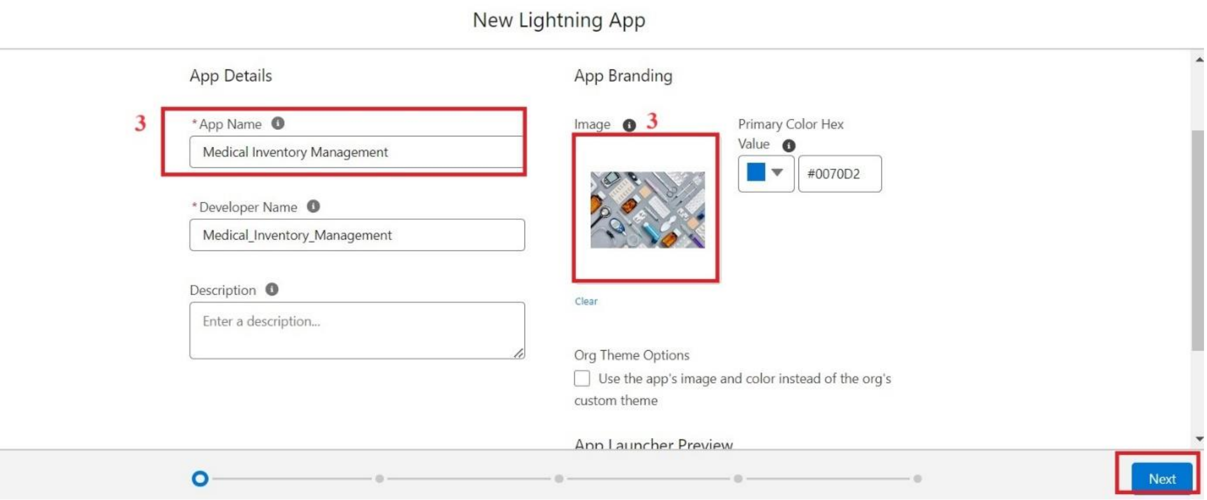


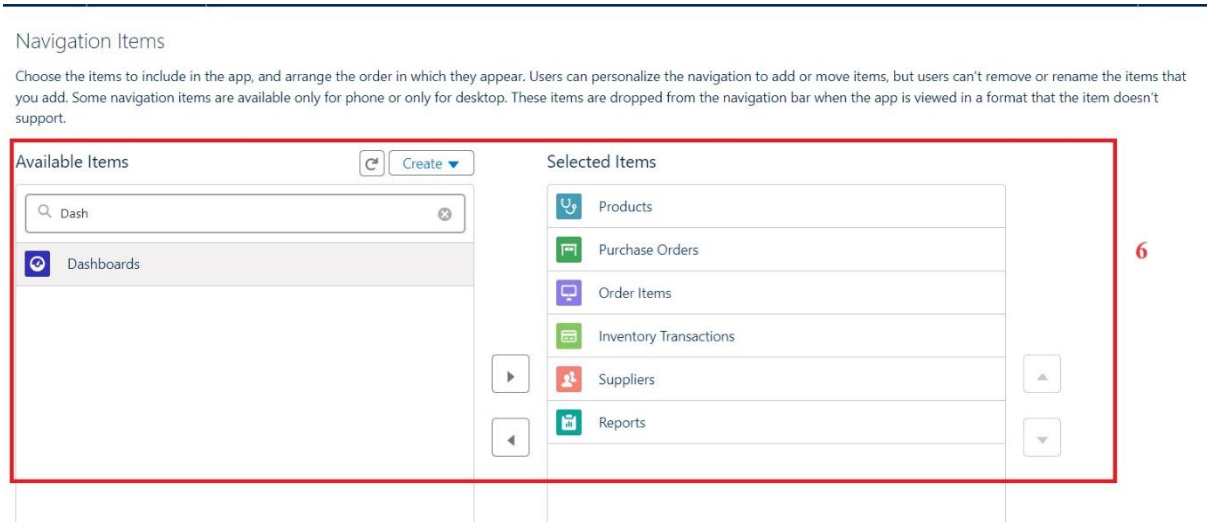


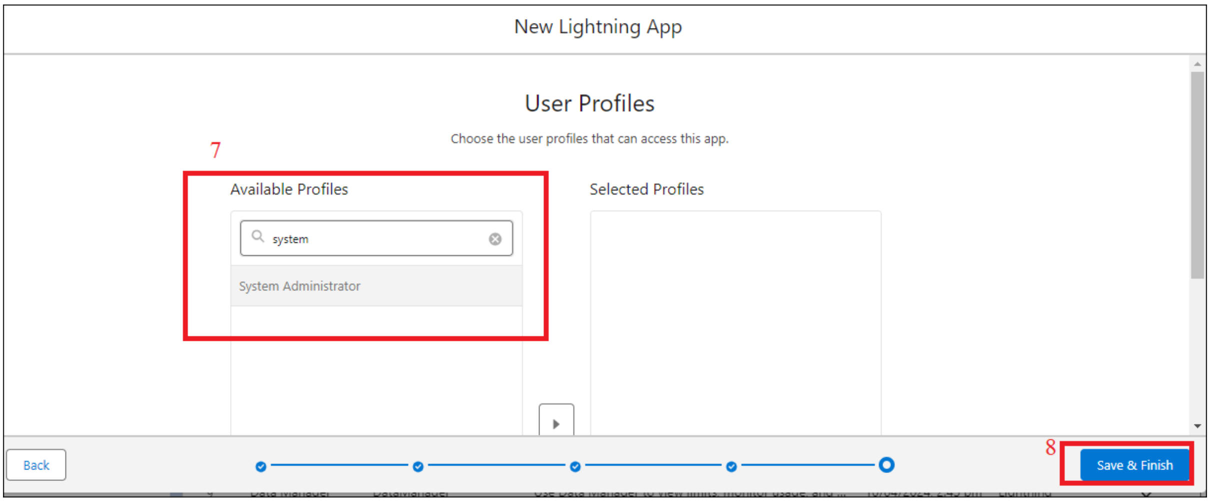
LIGHTNING APP

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.





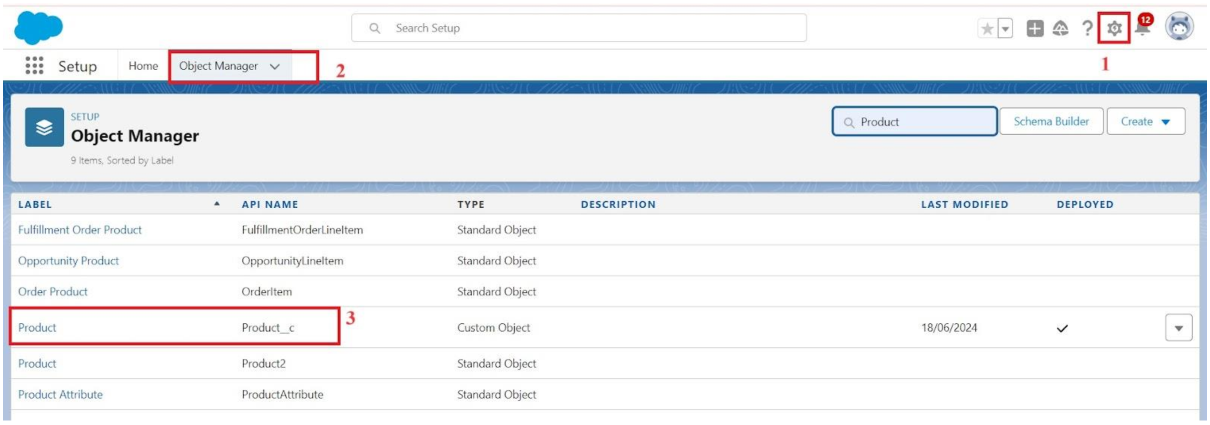

Navigation Items
Choose the items to include in the app, and arrange the order in which they appear. Users can personalize the navigation to add or move items, but users can't remove or rename the items that you add. Some navigation items are available only for phone or only for desktop. These items are dropped from the navigation bar when the app is viewed in a format that the item doesn't support.
Available Items
Create
Dash
Dashboards
Selected Items
Products
Purchase Orders
Order Items
Inventory Transactions
Suppliers
Reports
6

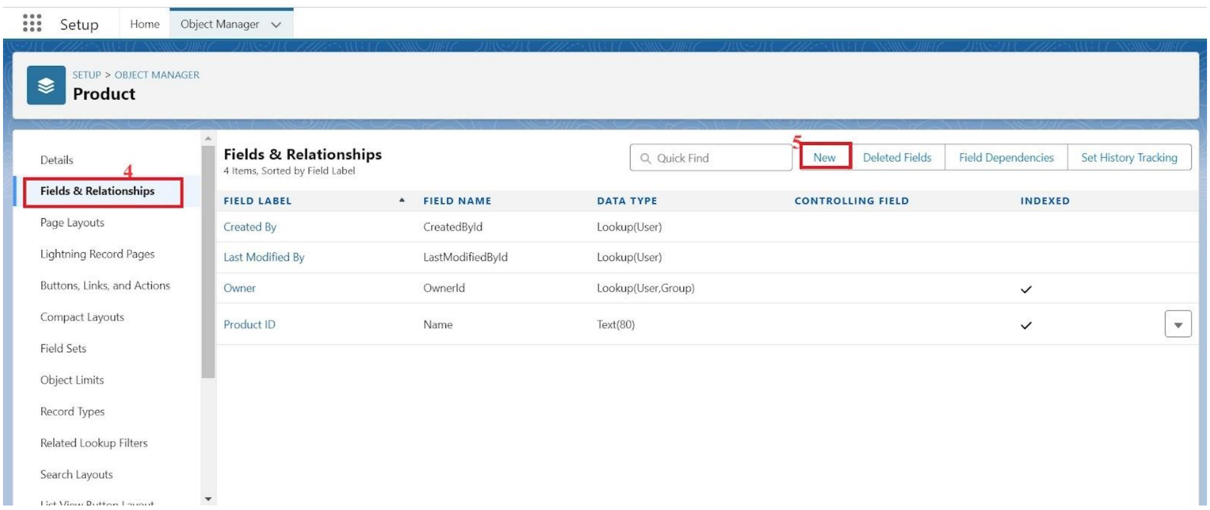

New Lightning App
User Profiles
Choose the user profiles that can access this app.
7
Available Profiles
system
System Administrator
Selected Profiles
Back
8
Save & Finish

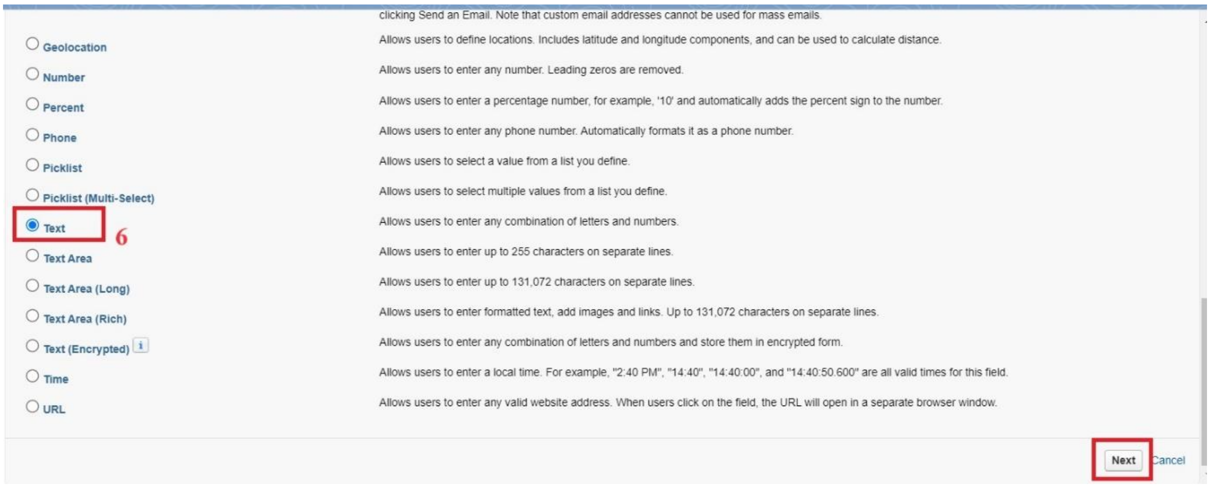
FIELDS:

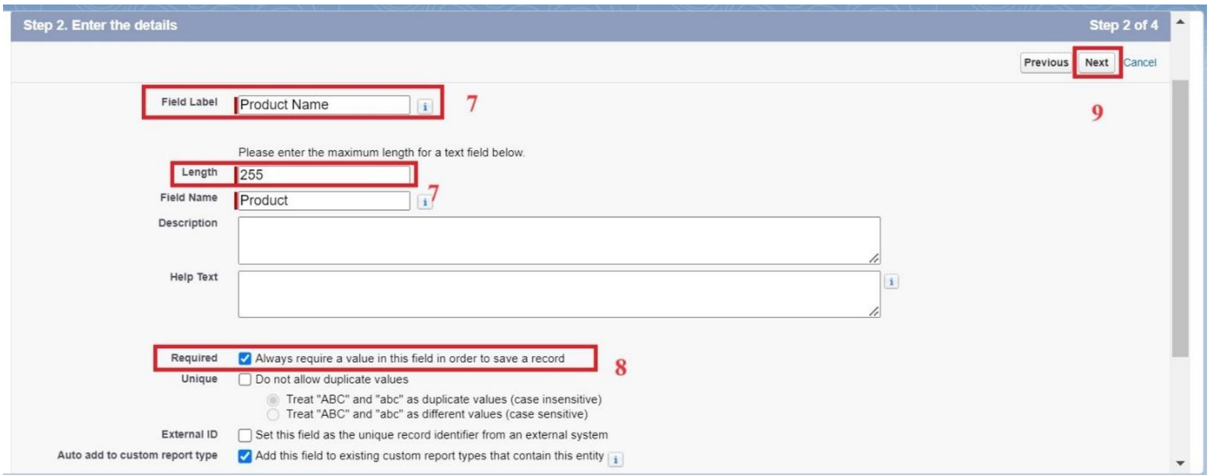
To create fields in an object:

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.



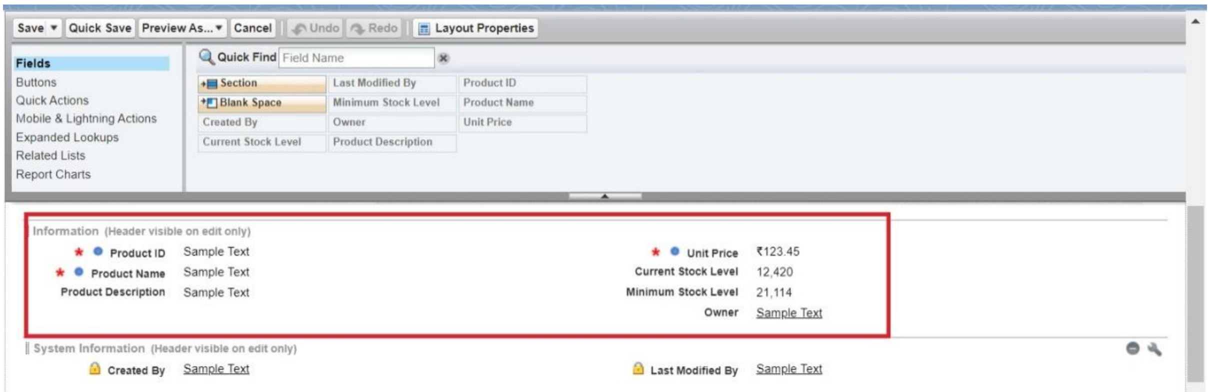



clicking Send an Email. Note that custom email addresses cannot be used for mass emails.
Geolocation
Allows users to define locations. Includes latitude and longitude components, and can be used to calculate distance.
Number
Allows users to enter any number. Leading zeros are removed.
Percent
Allows users to enter a percentage number, for example, '10' and automatically adds the percent sign to the number.
Phone
Allows users to enter any phone number. Automatically formats it as a phone number.
Picklist
Allows users to select a value from a list you define.
Picklist (Multi-Select)
Allows users to select multiple values from a list you define.
Text
6
Allows users to enter any combination of letters and numbers.
Text Area
Allows users to enter up to 255 characters on separate lines.
Text Area (Long)
Allows users to enter up to 131,072 characters on separate lines.
Text Area (Rich)
Allows users to enter formatted text, add images and links. Up to 131,072 characters on separate lines.
Text (Encrypted)
Allows users to enter any combination of letters and numbers and store them in encrypted form.
Time
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.
URL
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


Step 2. Enter the details
Step 2 of 4
Previous
Next
Cancel
9
Field Label
Product Name
7
Please enter the maximum length for a text field below.
Length
255
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

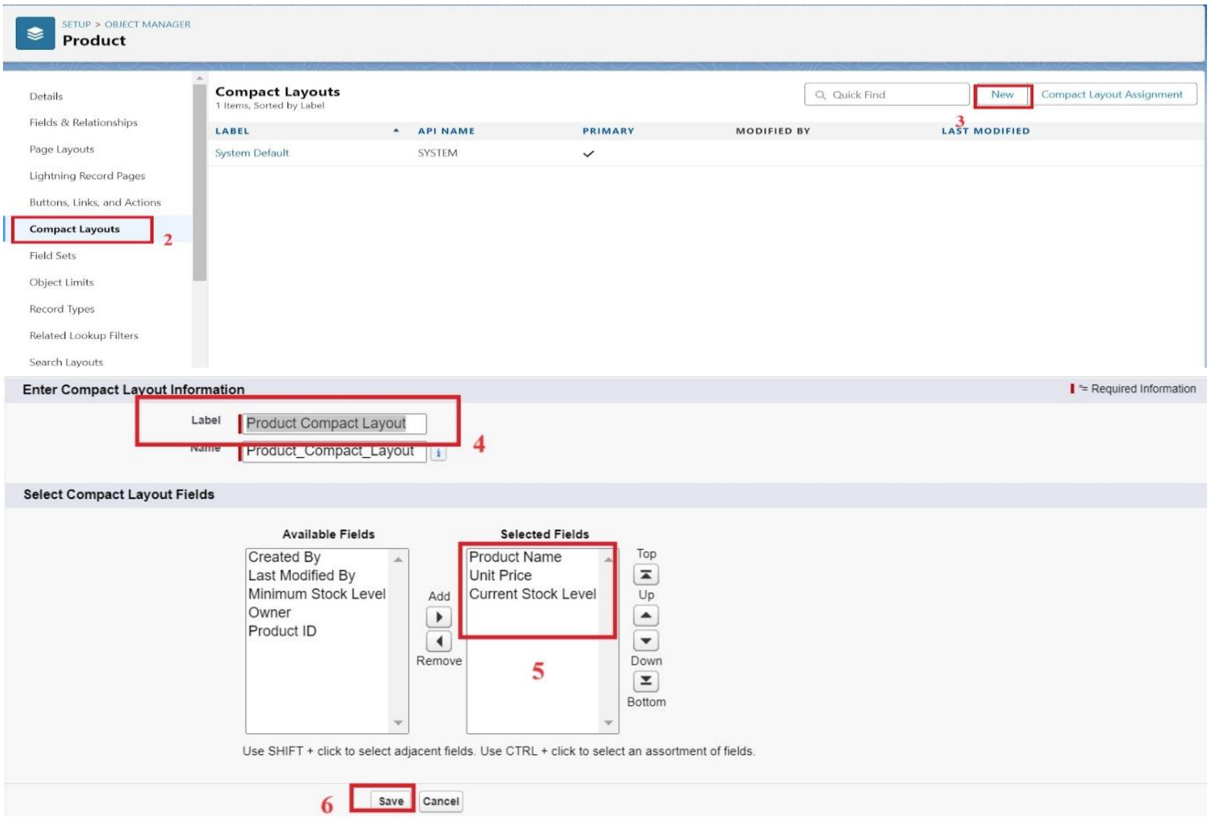
PAGE LAYOUTS:

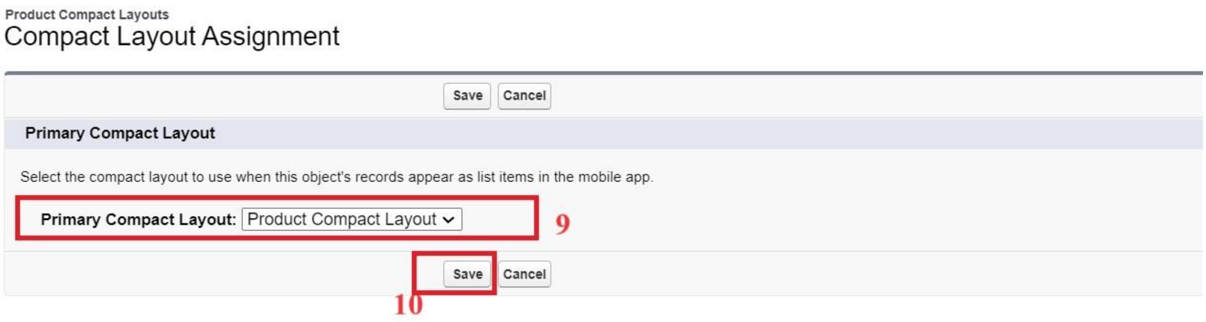
1. Go to setup >> click on Object Manager >> type object name(Product) in quick find box >> click on the Product object >> Page Layouts .
2. Click on the Product Layout.
3. Drag and Arrange the field as shown below.
4. Click on Save.



COMPACT LAYOUTS:

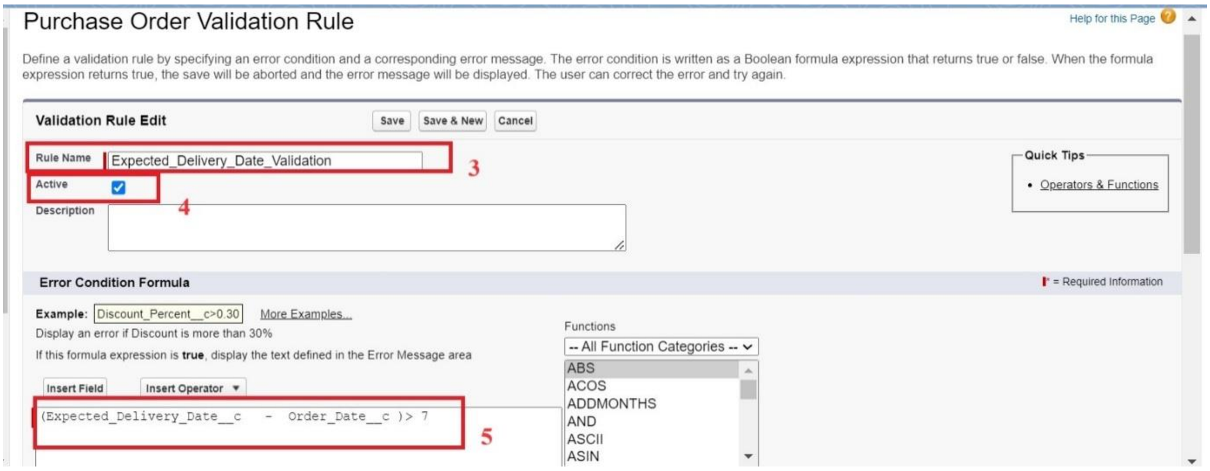
1. Go to setup >> click on Object Manager >> type object name(Product) in quick find box >> click on the Product object
2. Click on Compact Layouts in the sidebar .
3. Click on New.
4. Enter the Label as “Product Compact Layout”.
5. Select the Compact Layout Fields : Select Product name, Unit Price, 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.

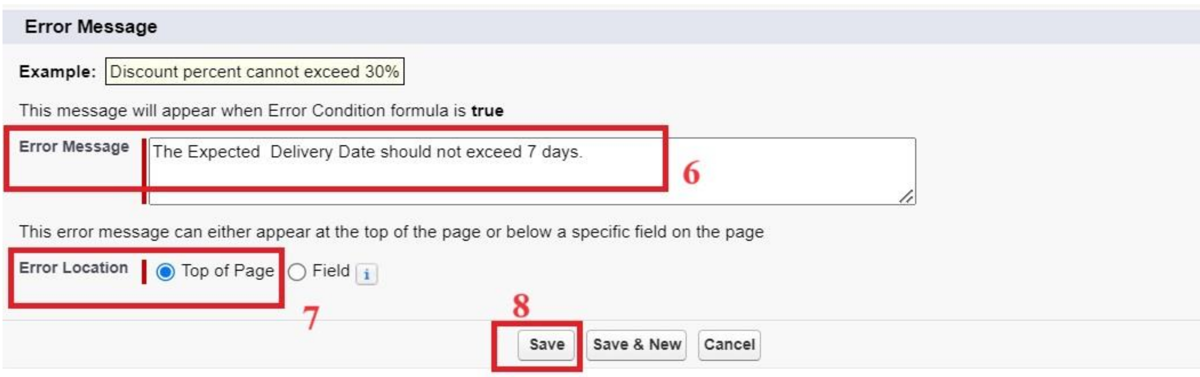



Product Compact Layouts
Compact Layout Assignment
Save
Cancel
Primary Compact Layout
Select the compact layout to use when this object's records appear as list items in the mobile app.
Primary Compact Layout:
Product Compact Layout
9
Save
Cancel
10

VALIDATION RULES:

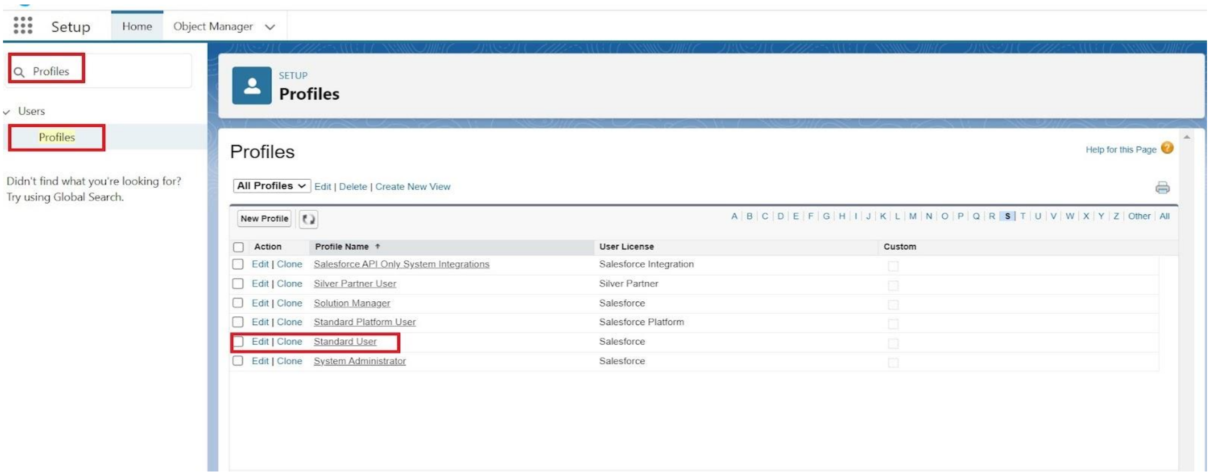
1. Go to setup >> click on Object Manager >> type object name(Purchase Order) in quick find box>> click on the Purchase Order object
2. Click on the validation rule >> click on New.
3. Enter the Rule name as “Expected Delivery Date Validation”.
4. Select Active
5. Insert the Error Condition Formula as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

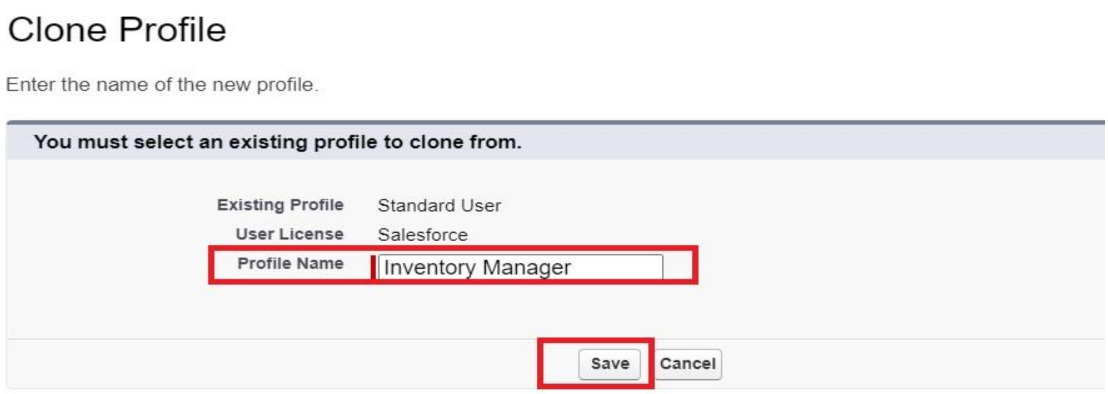




PROFILES:

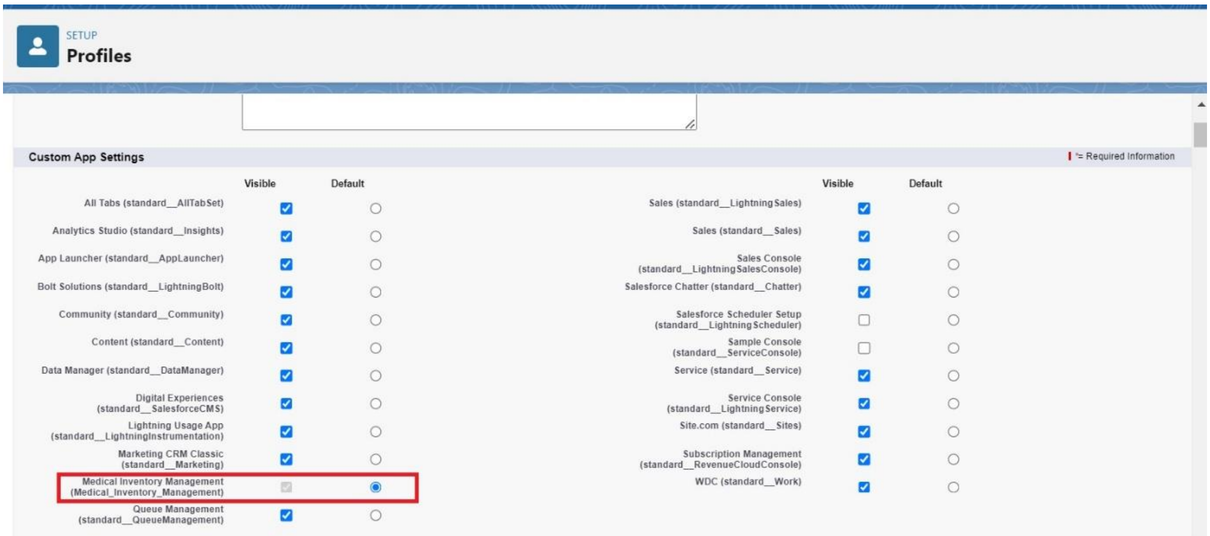
1. Go to setup >> type profiles in quick find box >> click on profiles >> clone the desired profile (Standard User) >> enter profile name (Inventory Manager) >> Save.



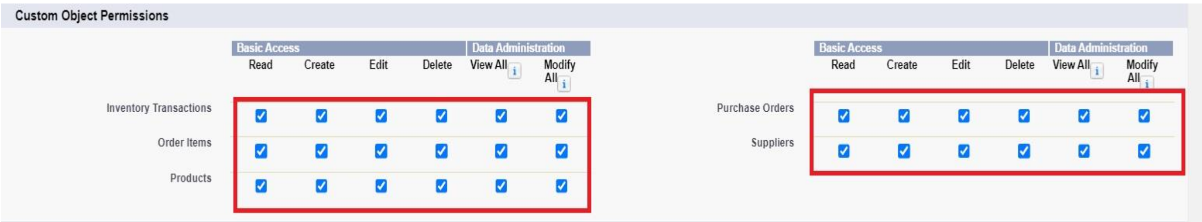


2. While still on the profile page, then click Edit.

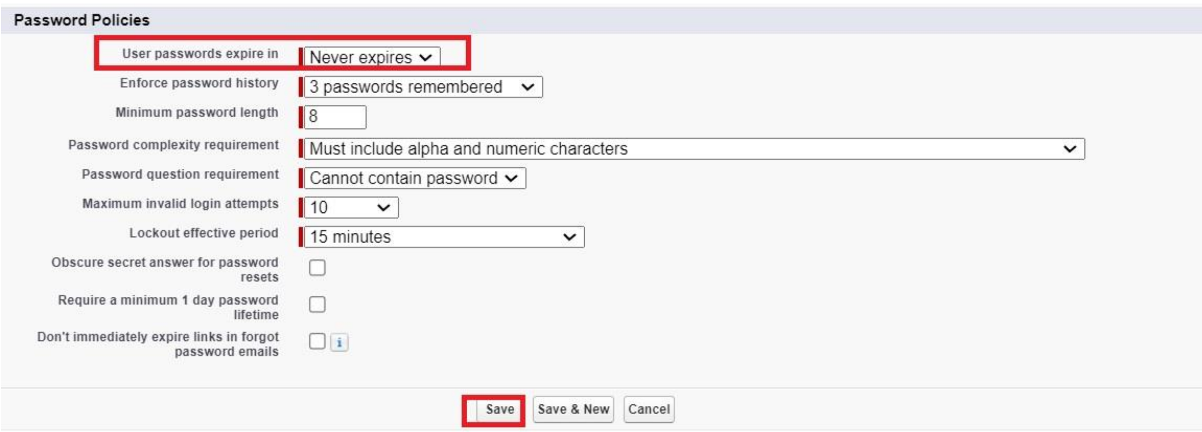
3. Select the Custom App settings as default for the Medical Inventory Management.



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

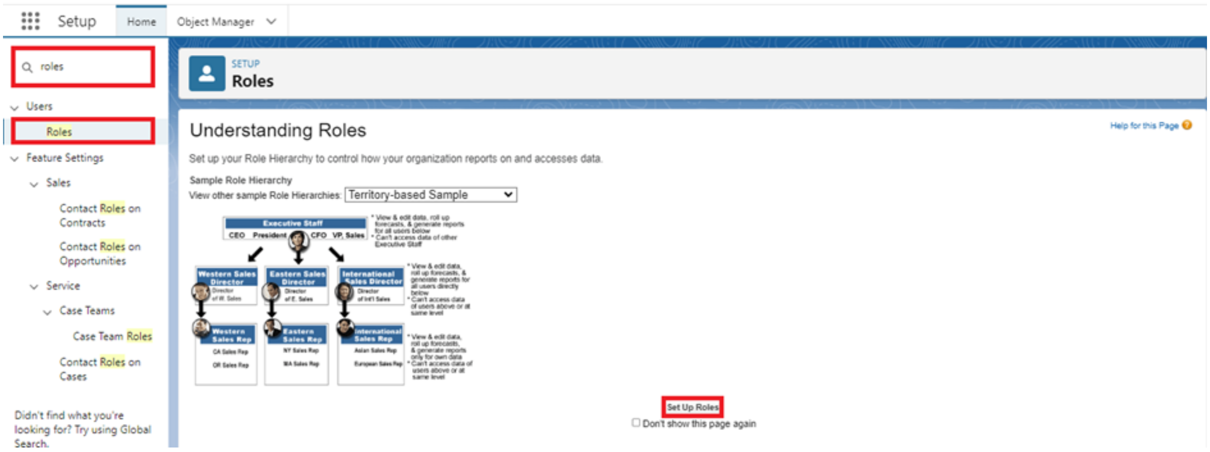


5. Change the password policies as mentioned :
6. User passwords expire in should be “ never expires ”
7. Minimum password length should be “ 8 ”, and click save.

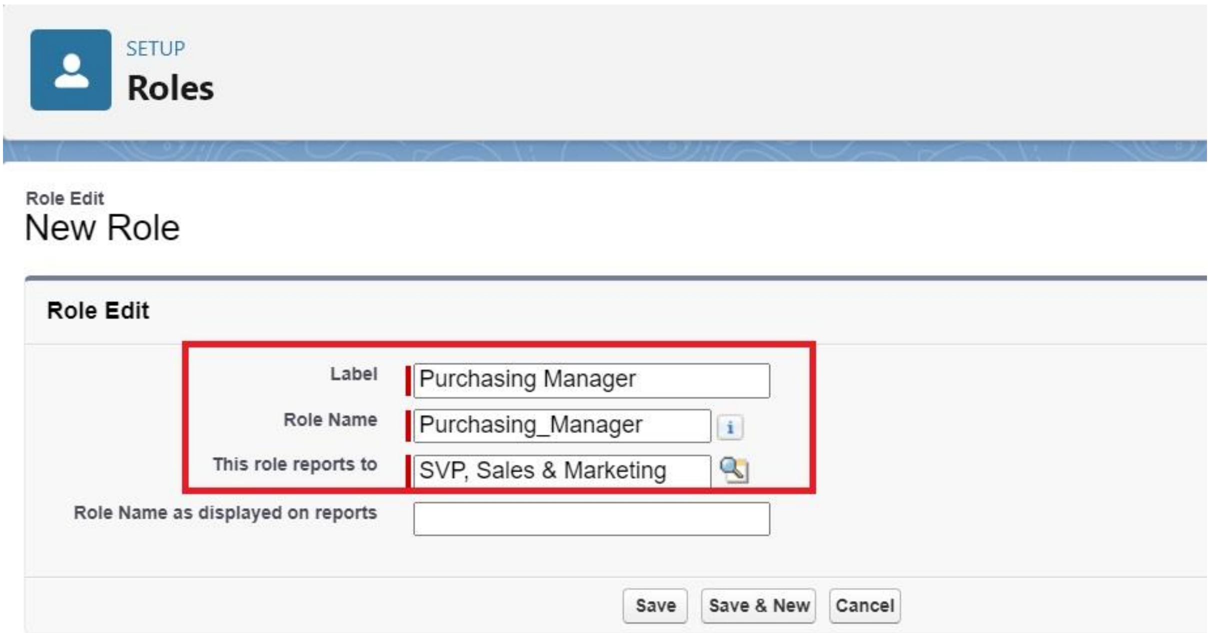


ROLES:

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

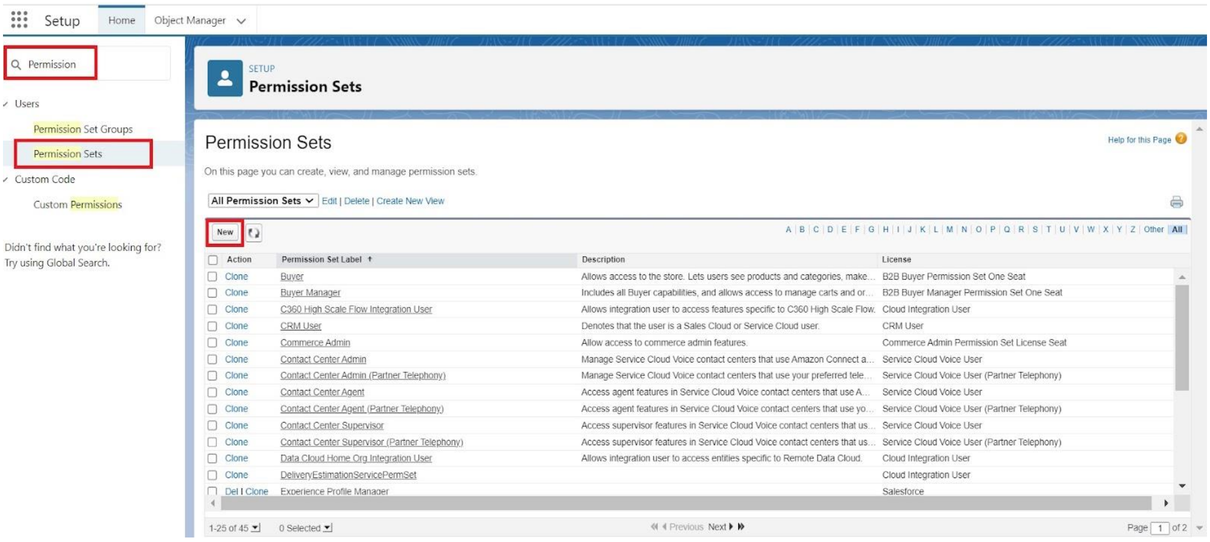


2. Click on Expand All and click on add role under SVP, Sales & Marketing role.
3. Give Label as "Purchasing Manager" and Role name gets auto populated. Then click on Save.

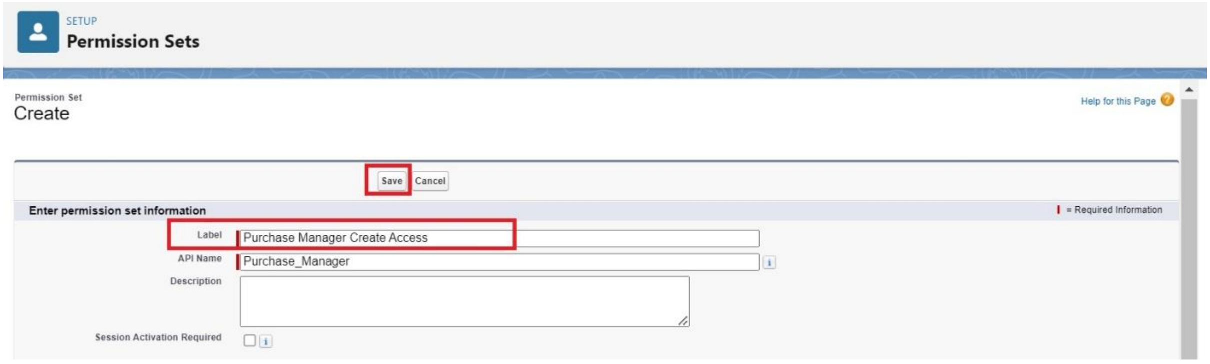


PERMISSION SETS:

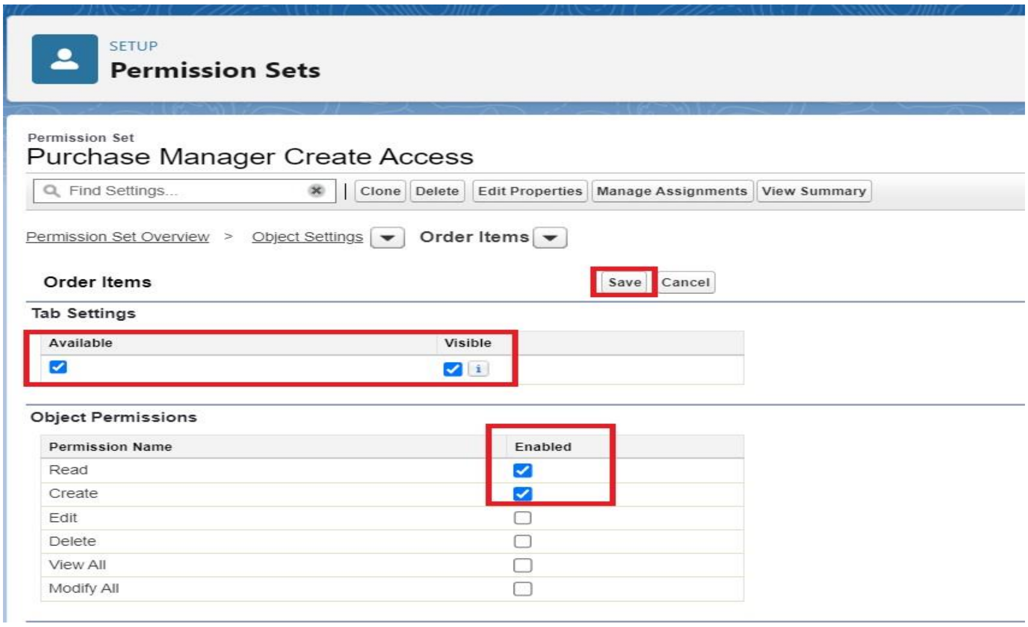
1. Go to setup >> type Permission in quick find box >> Select Permission Set >> click on New.



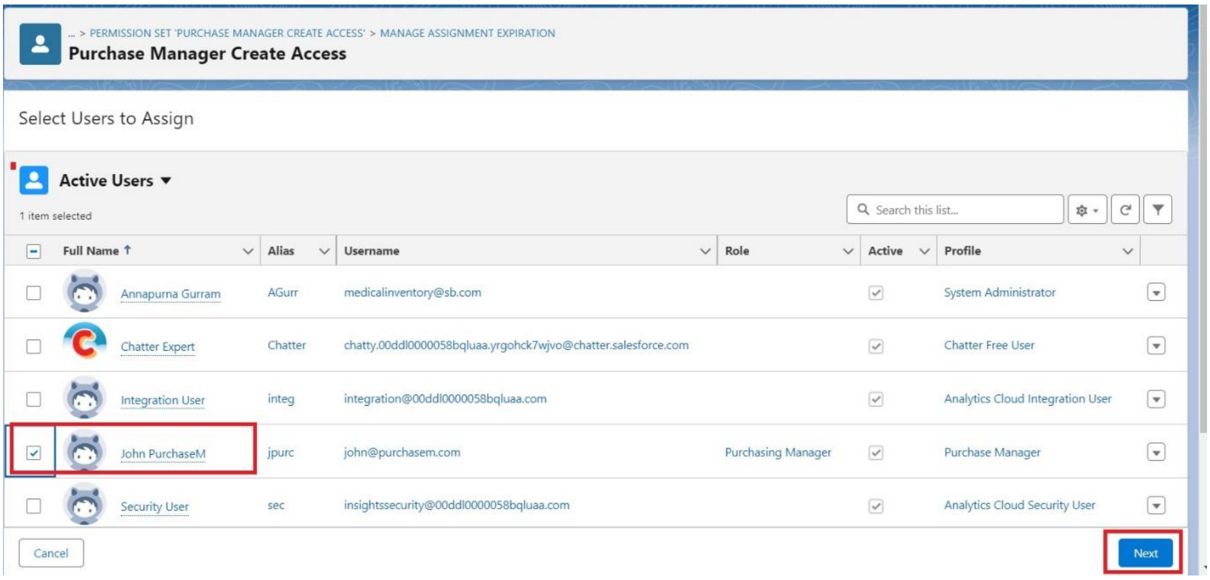
2. Enter Label as Purchase Manager Create Access >> Click on Save.



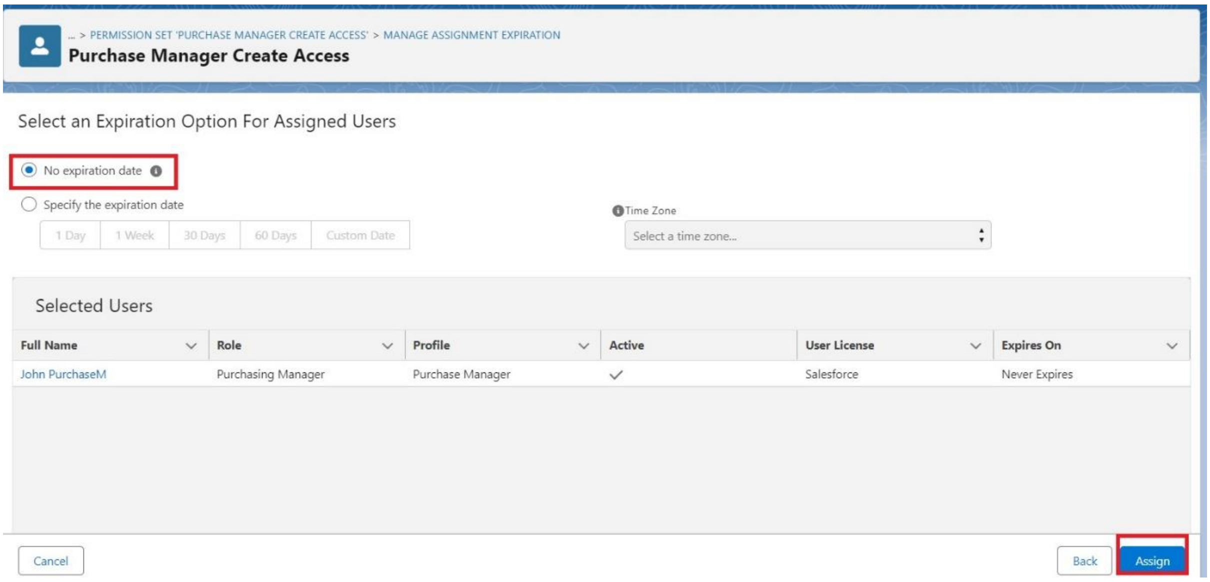
3. From Object Settings >> Select Order Item >> Enable for both Tab Available and Visible >> Enable Read and Create in Object Permissions >> Click on Save.



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.

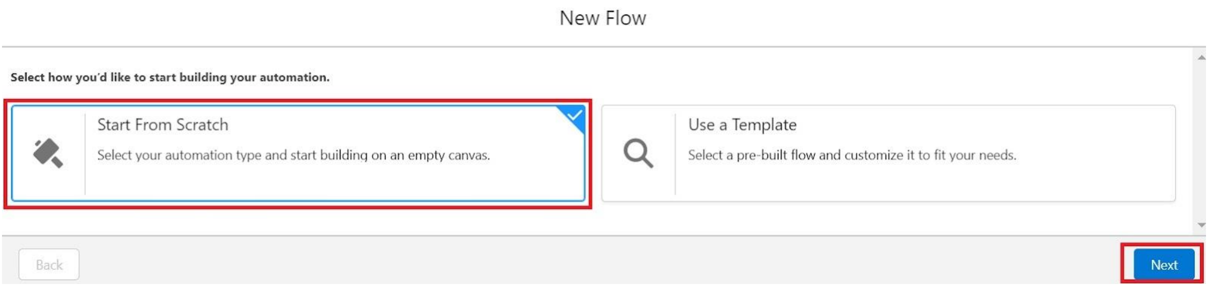


5. Select No Expiration date >> Click on Assign.

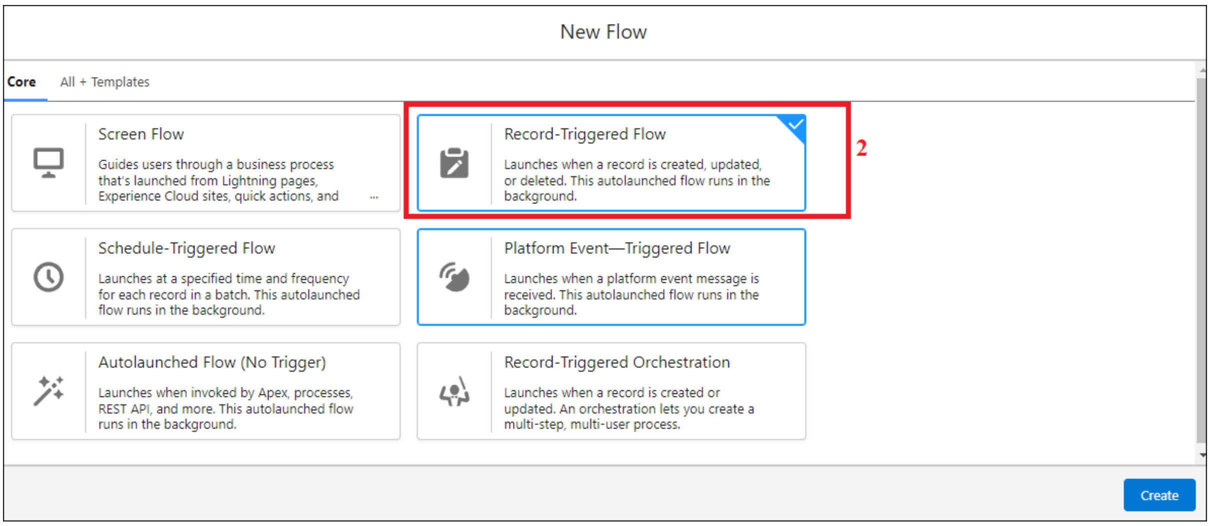

... > PERMISSION SET 'PURCHASE MANAGER CREATE ACCESS' > MANAGE ASSIGNMENT EXPIRATION
Purchase Manager Create Access
Select an Expiration Option For Assigned Users
No expiration date
Specify the expiration date
1 Day
1 Week
30 Days
60 Days
Custom Date
Time Zone
Select a time zone...
Selected Users
Full Name
Role
Profile
Active
User License
Expires On
John PurchaseM
Purchasing Manager
Purchase Manager
Salesforce
Never Expires
Cancel
Back
Assign

FLOWS:

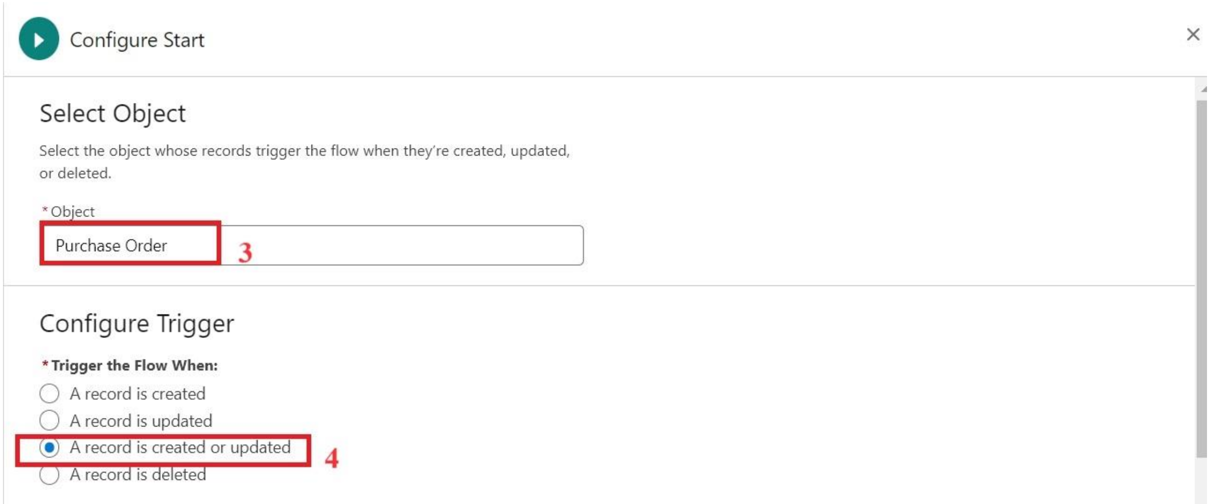
1. Go to setup >> type Flow in quick find box >> Click on the Flow and Select the New Flow >> Start From Scratch .



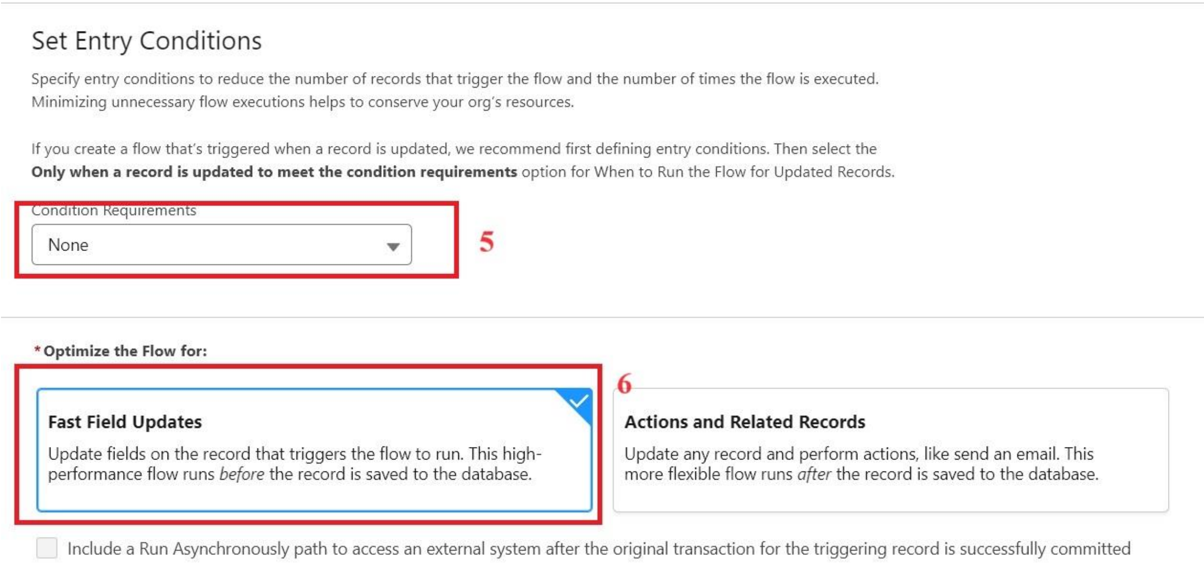
2. Select the record Triggered flow.Click on create.



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



5. Set Entry Conditions : None
6. Select Fast Field Updates and click on Done



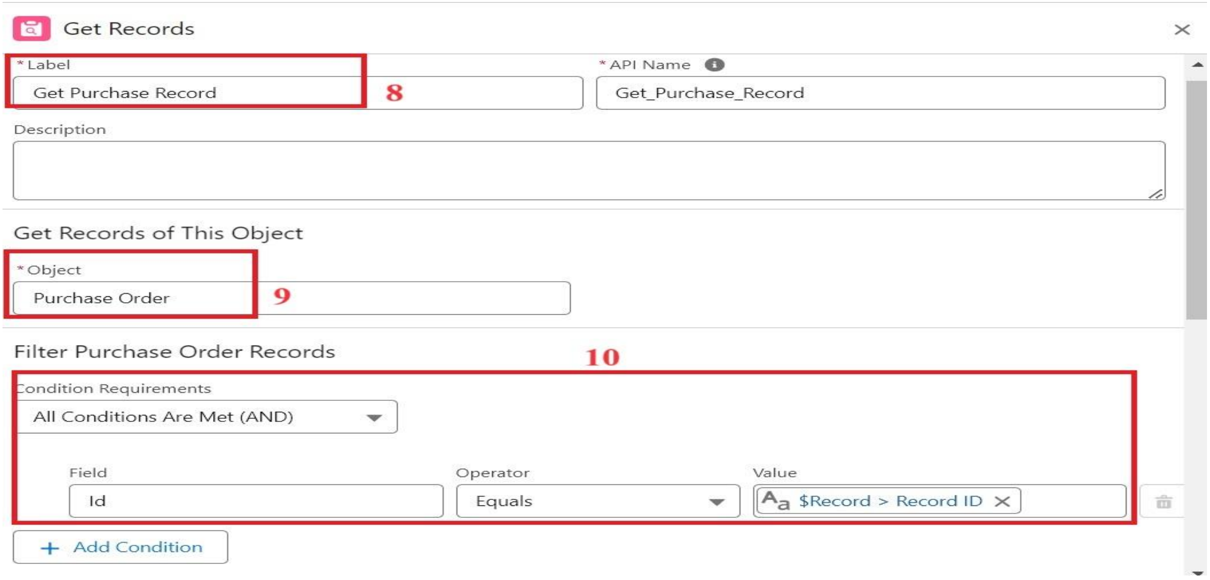
7. Under the record trigger flow click on the "+" icon and select Get Records.
8. Enter Label as " Get Purchase Record ".
9. For Object select Purchase Order.
10. For Condition Requirements , select All Conditions are Met(AND)

For the first condition select as follows:

Field: Id

Operator: Equals

Value: {!$Record.Id}



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.

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.

15. From the Toolbox drag and drop Assignment element.
16. Enter the label as “Assignment”.
17. Set Variable Values:

    a) Variable : {!ActualDeliveryDate}

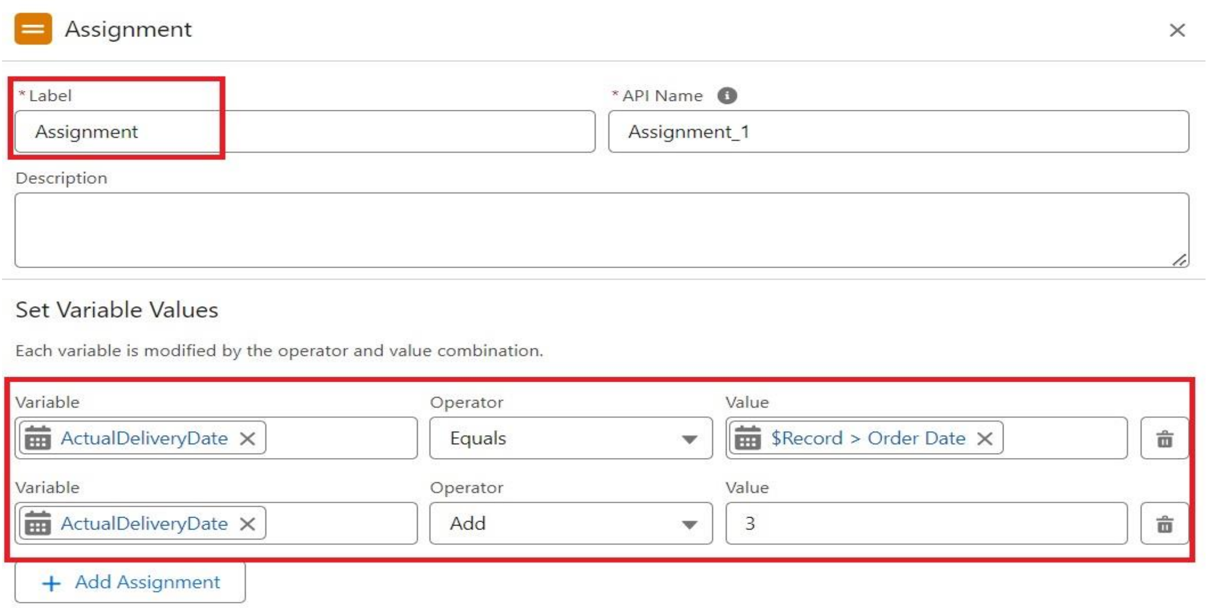
       Operator : Equals

       Value : {!$Record.Order_Date__c}

    b) Variable : {!ActualDeliveryDate}

       Operator : Add

       Value : 3

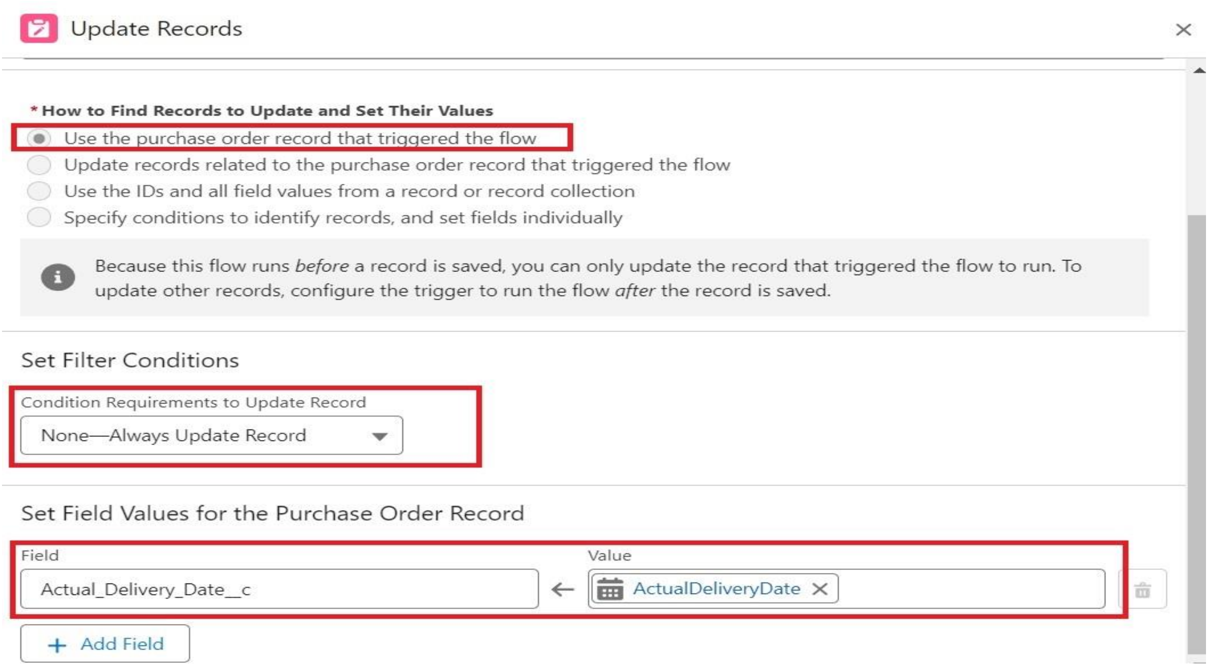


18. Click Done
19. From the Toolbox drag and drop Update Records element and connect to the Assignment element.
20. Enter the label as “Updating Purchasing Order”.
21. How to Find Records to Update and Set Their Values : Use the Purchase Order record that triggered the flow
22. Set Filter Conditions : None -Always Update Record

23. Set Field Values for the Trip Record as

Field : Actual_Delivery_Date__c

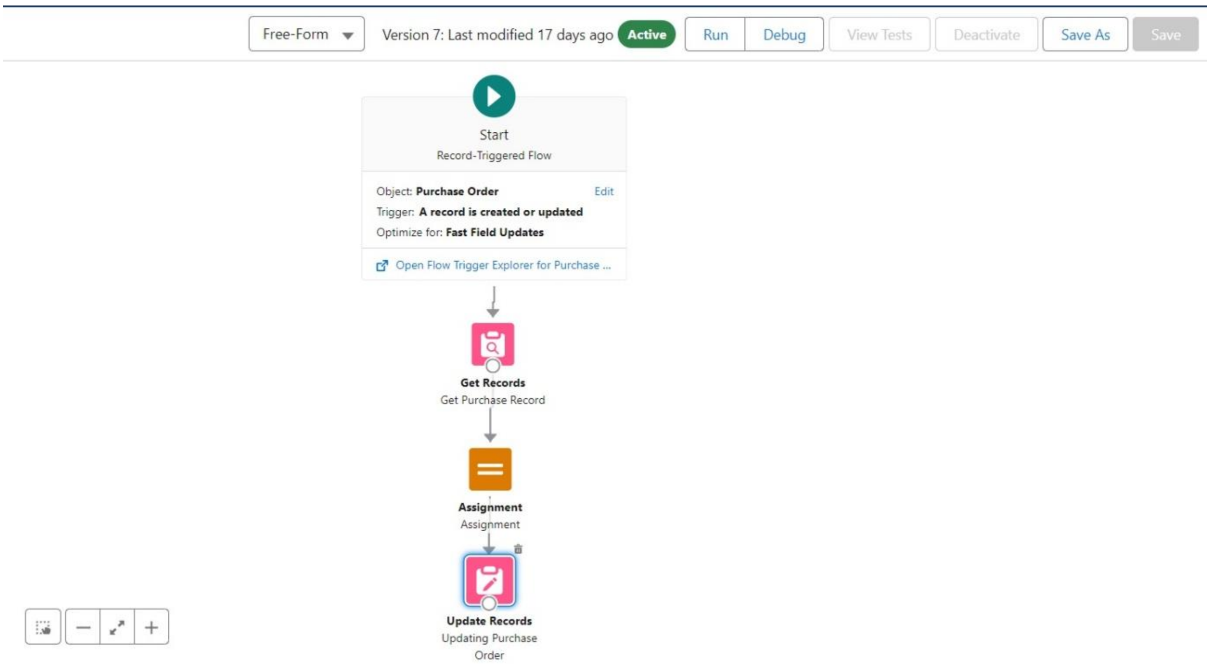
Value : {!ActualDeliveryDate}



24. Click Done

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

26. Activate the flow.



TRIGGERS:

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.

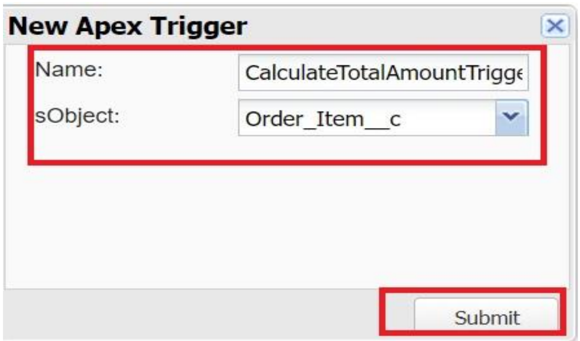
ii)Click on Developer Console: Click on the "Developer Console" option from the Setup menu. This will open the Developer Console in a new browser tab or window.

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
```

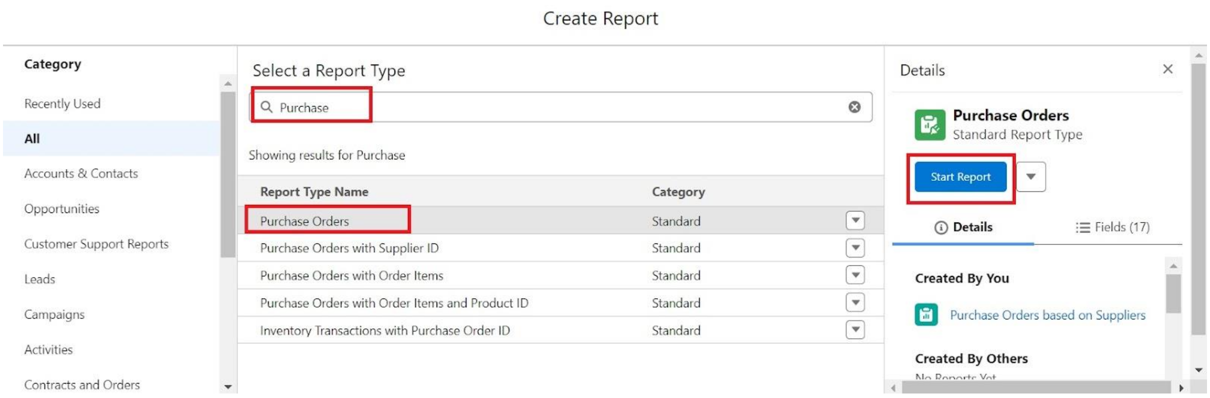
```
    if (isInsert || isUpdate || isUndelete) {
        for (Order_Item__c ordItem : newItems) {
            parentIds.add(ordItem.Purchase_Order_Id__c);
        }
    }

    // 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;
            }
        }
    }
}
```

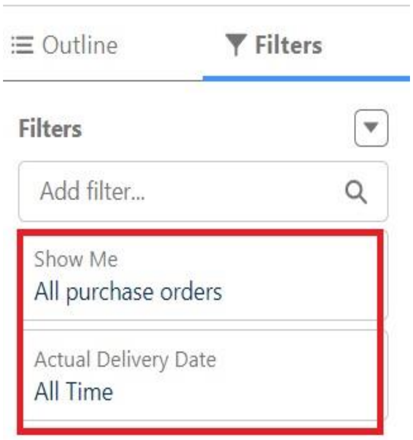
Save it.

REPORTS:

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

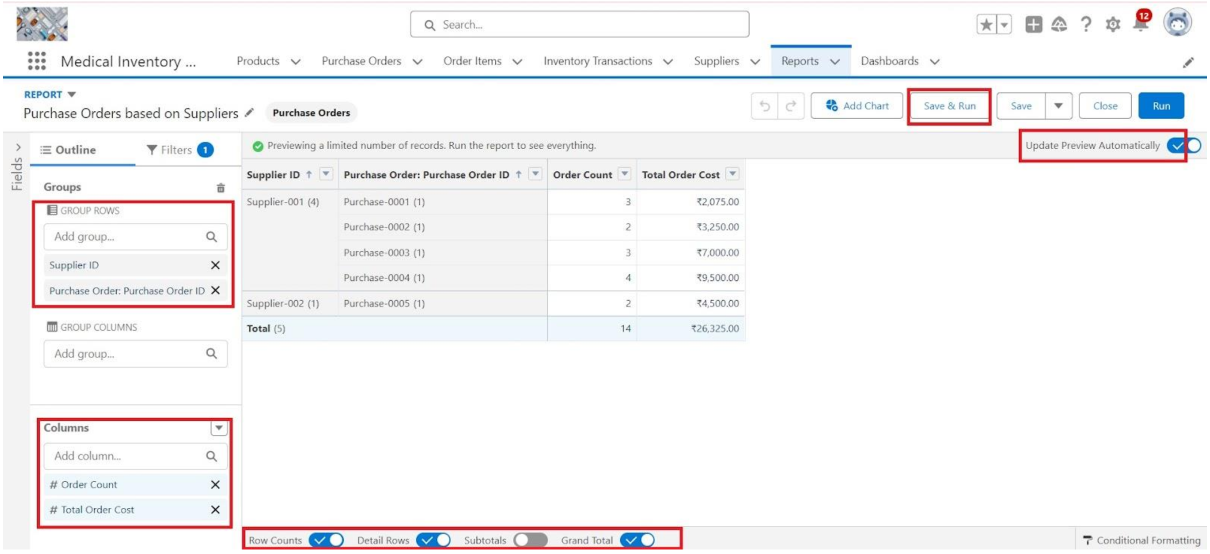


7. Customize your report, in group rows select – Supplier ID, Purchase Order: Purchase Order ID, for columns Order Count, Total Order Cost (In this way we are making a Summary Report).

8. Click save and run
9. Give report name – Purchase Orders based on Suppliers.
10. Click Save

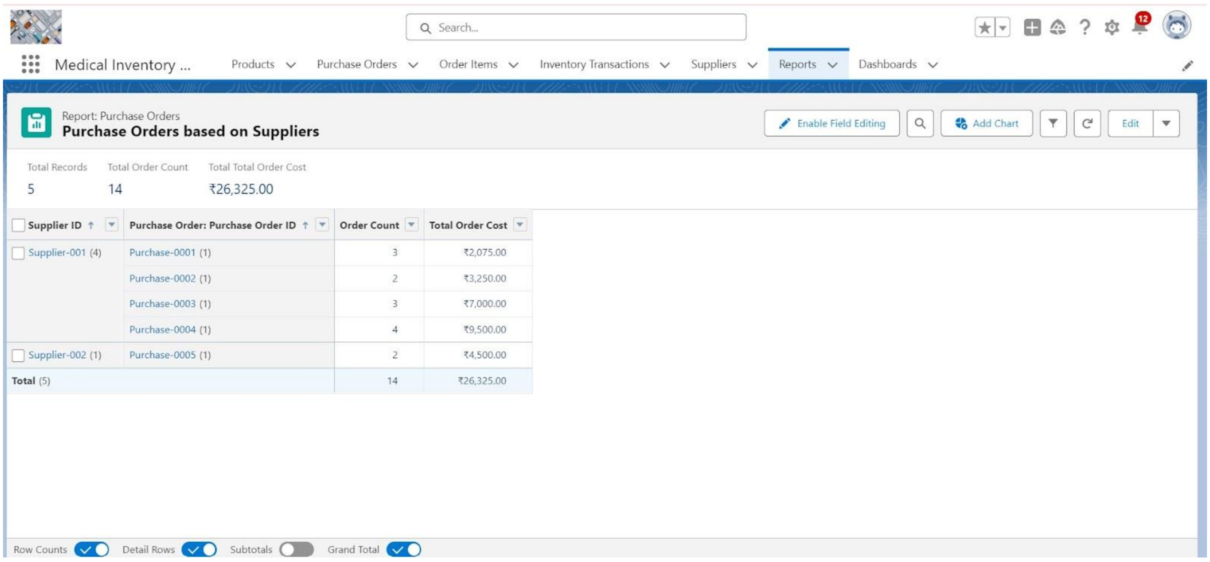
NOTE: In this report you can see your all record of the object you selected for reporting

(What you selects in “Select a report type option”)



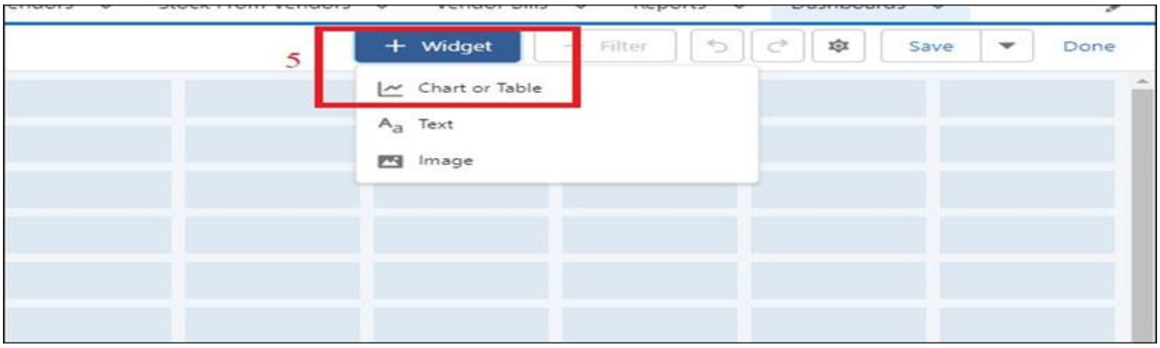
View Report

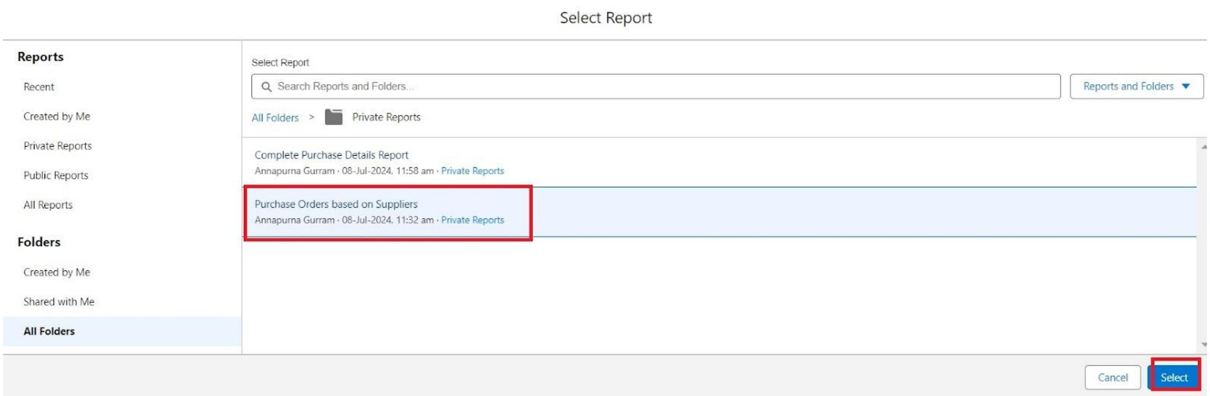
1. Click on App Launcher on the left side of the screen.
2. Search Medical Inventory Management App & click on it.
3. Click on Reports Tab.
4. Click on Purchase Orders based on Suppliers and see records.

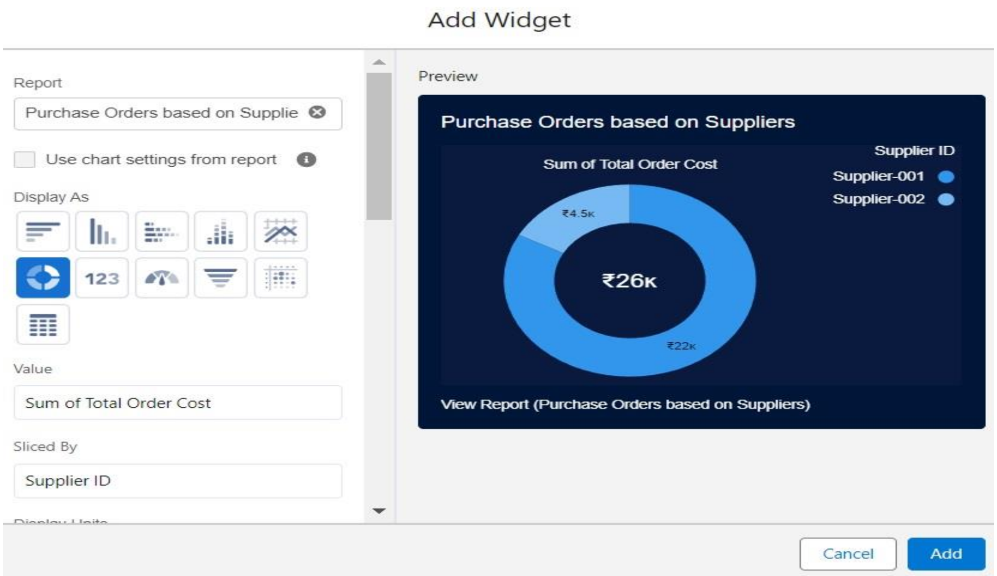


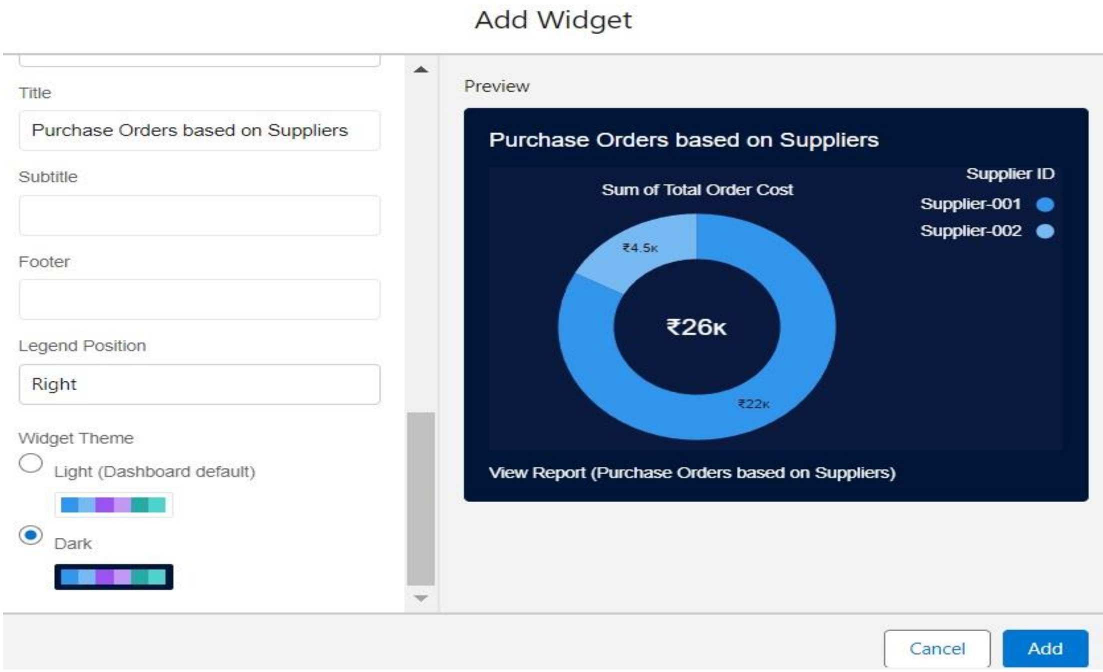
DASHBOARDS:

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.






Add Widget
Report
Purchase Orders based on Supplie
Use chart settings from report
Display As
123
Value
Sum of Total Order Cost
Sliced By
Supplier ID
Preview
Purchase Orders based on Suppliers
Sum of Total Order Cost
Supplier ID
Supplier-001
Supplier-002
₹4.5K
₹26K
₹22K
View Report (Purchase Orders based on Suppliers)
Cancel
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
₹4.5K
₹26K
₹22K
View Report (Purchase Orders based on Suppliers)
Cancel
Add