College Name: Emerald Heights College For women

College Code: bru12

Team ID : NM2025TMID25140

Team members : 4

Team lead:

SAKTHI PRIYA R

Team members:

RAHILA FARATH S

REHANA A

SHAMLA NASRIN M

TITLE: CRM Application for Jewel Management (Developer)

Project Overview:

The Jewel Inventory System is a comprehensive software Solution designed to streamline and manage the inventory and sales processes of a jewellery store or a jewellery manufacturer. The system aims to provide an efficient and user-friendly solution to track and control the inventory of various jewellery items, maintain accurate records, and facilitate seamless sales transactions.

Objectives:

1. Enhance Customer Relationship Management

Build stronger, long-term relationships with customers by maintaining detailed customer profiles and interactions.

2. Streamline Sales and Order Management

Optimize the sales process from inquiry to order fulfilment for increased efficiency and accuracy.

3. Improve Inventory and Product Management

Ensure efficient handling of jewellery inventory and product details.

4. Enable Targeted Marketing and Campaign Management

Increase customer engagement and sales through data-driven marketing.

5. Boost Operational Efficiency

Reduce manual tasks and errors through automation and integration.

6. Provide Business Insights and Analytics

Use data to support strategic decisions and identify business trends.

7. Support Omnichannel Customer Experience

Provide a seamless experience to customers across all touchpoints.

8. Ensure Data Security and Compliance

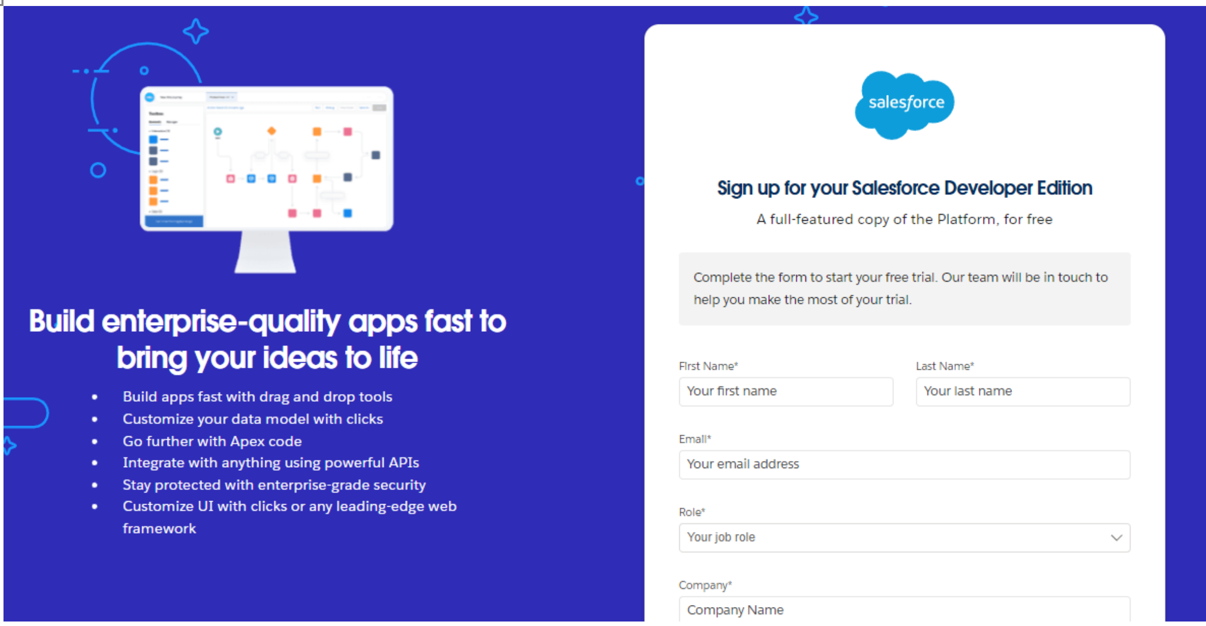
Protect sensitive customer and business data and ensure regulatory compliance.

Module: Salesforce

Activity 1: Creating Developer Account

Creating a developer org in salesforce.

1. Go to https://developer.salesforce.com/signup
2. On the Sign up form, enter the following details:



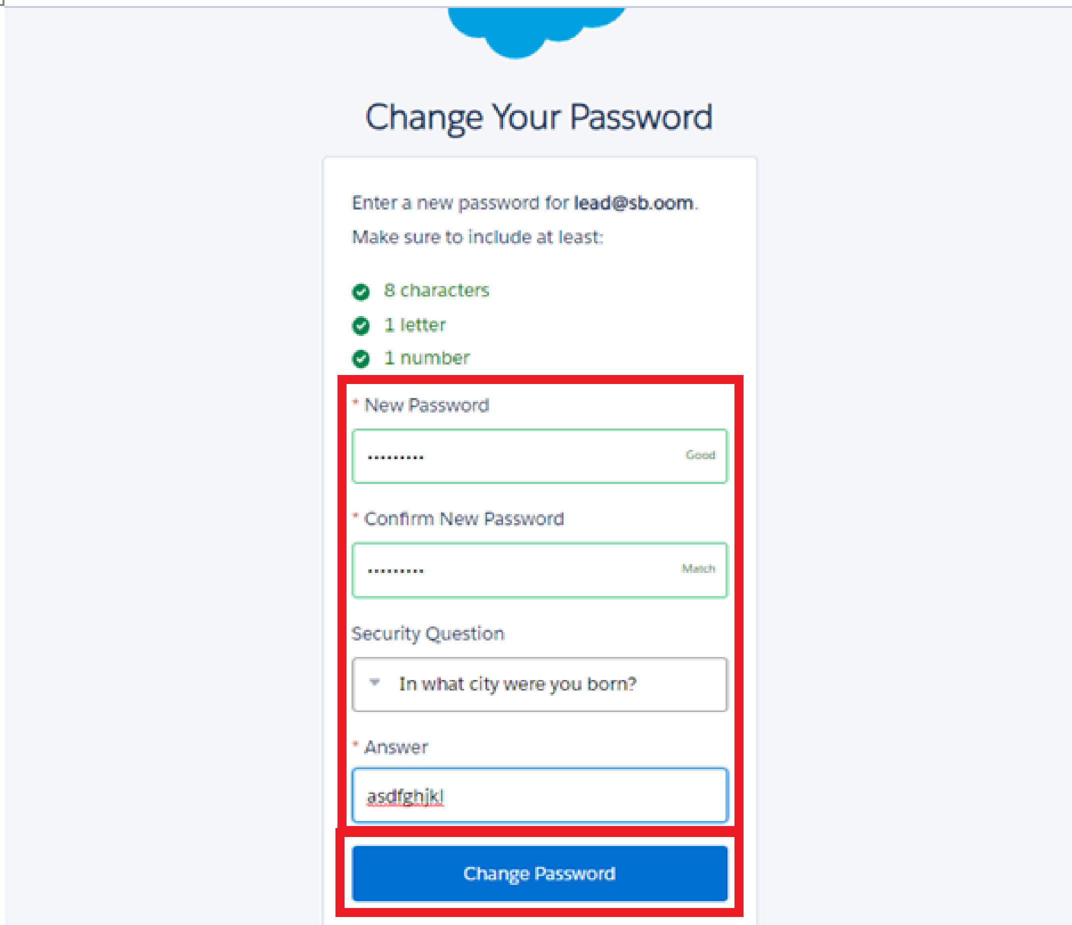
1. First name & Last name
2. Email
3. Role: Developer
4. Company: College Name
5. County: India
6. Postal Code: pin code
7. Username: should be a combination of your name and company

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

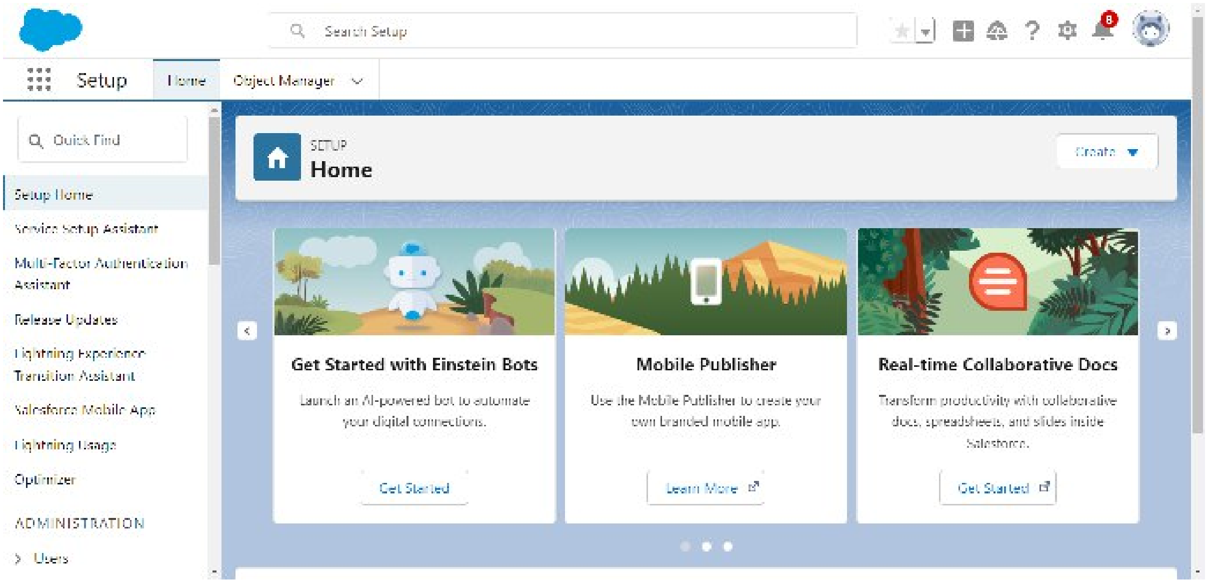
Click on sign me up after filling these.

Activity 2: Account Activation

1. Go to the inbox of the email that you used while signing up. Click on the Reset Password to activate your account. The email may take 5-10mins.
2. Click on Reset Password
3. Give a password and answer a security question and click on change password.



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

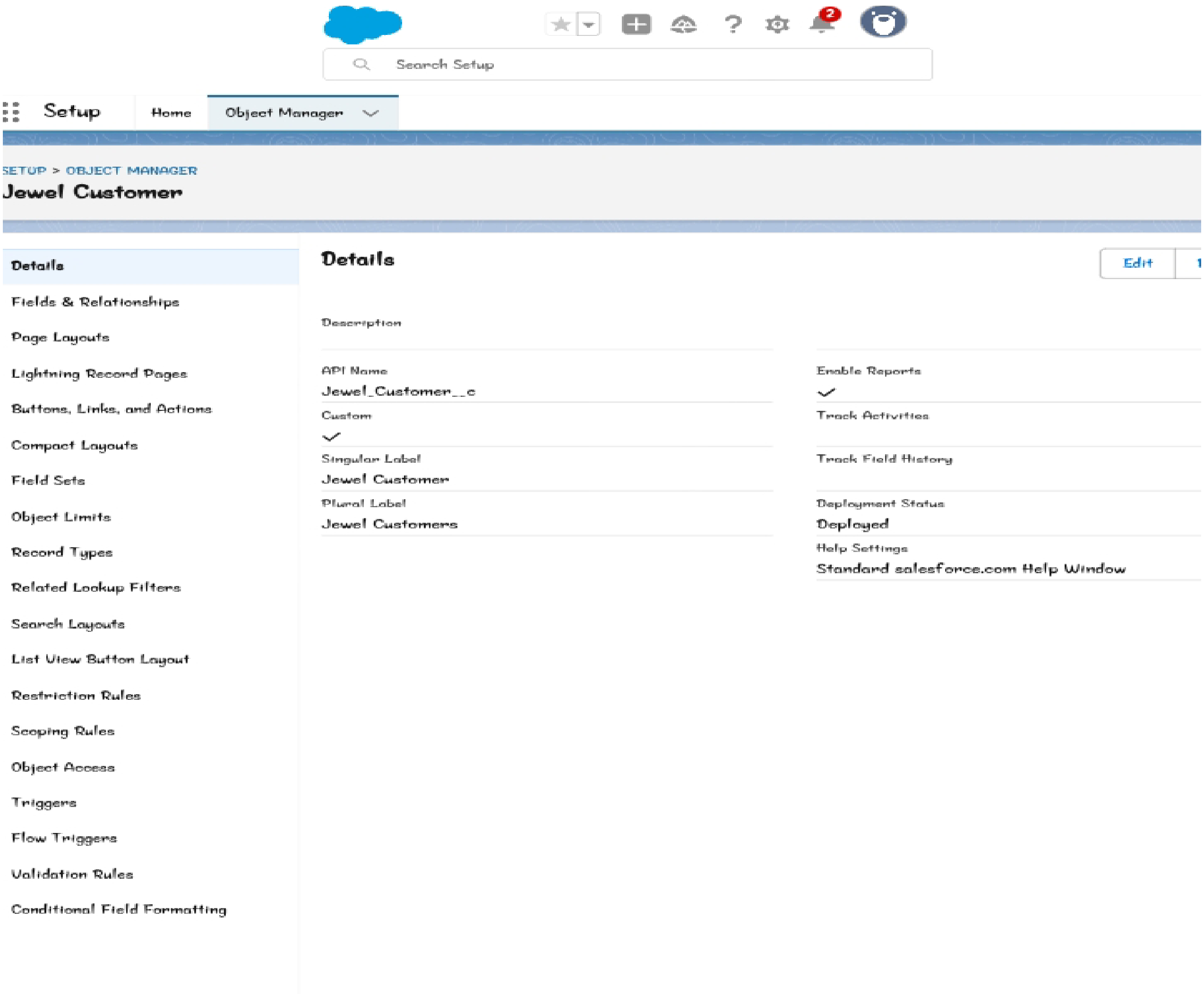


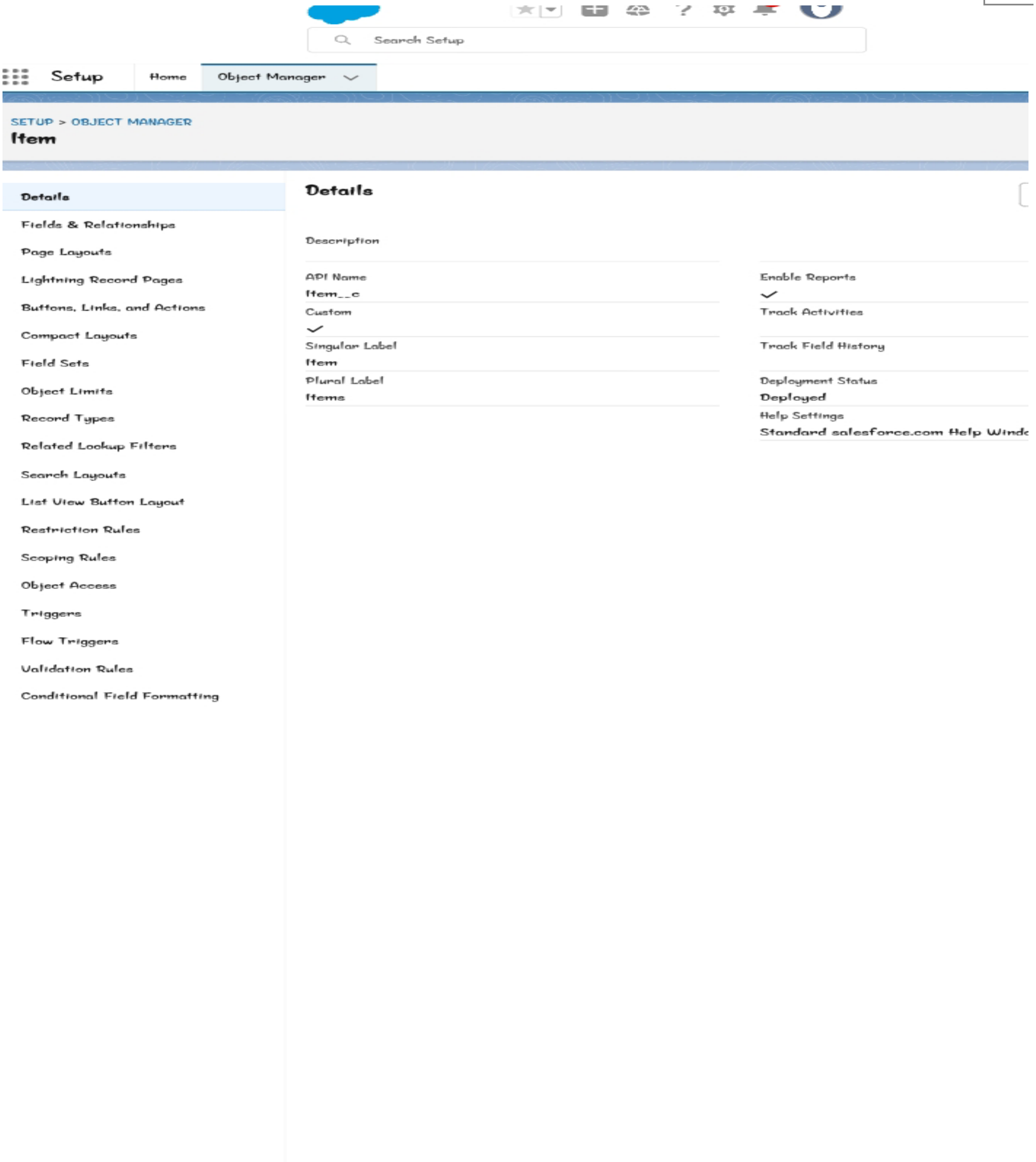
Module: Object

Activity 3: Create Jewel Customer Object

The purpose of creating a Jewel Customer custom object is to store and manage information about Customer.

To create an object:




Search Setup
Setup
Home
Object Manager
SETUP > OBJECT MANAGER
Item
Details
Fields & Relationships
Page Layouts
Lightning Record Pages
Buttons, Links, and Actions
Compact Layouts
Field Sets
Object Limits
Record Types
Related Lookup Filters
Search Layouts
List View Button Layout
Restriction Rules
Scoping Rules
Object Access
Triggers
Flow Triggers
Validation Rules
Conditional Field Formatting
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Description
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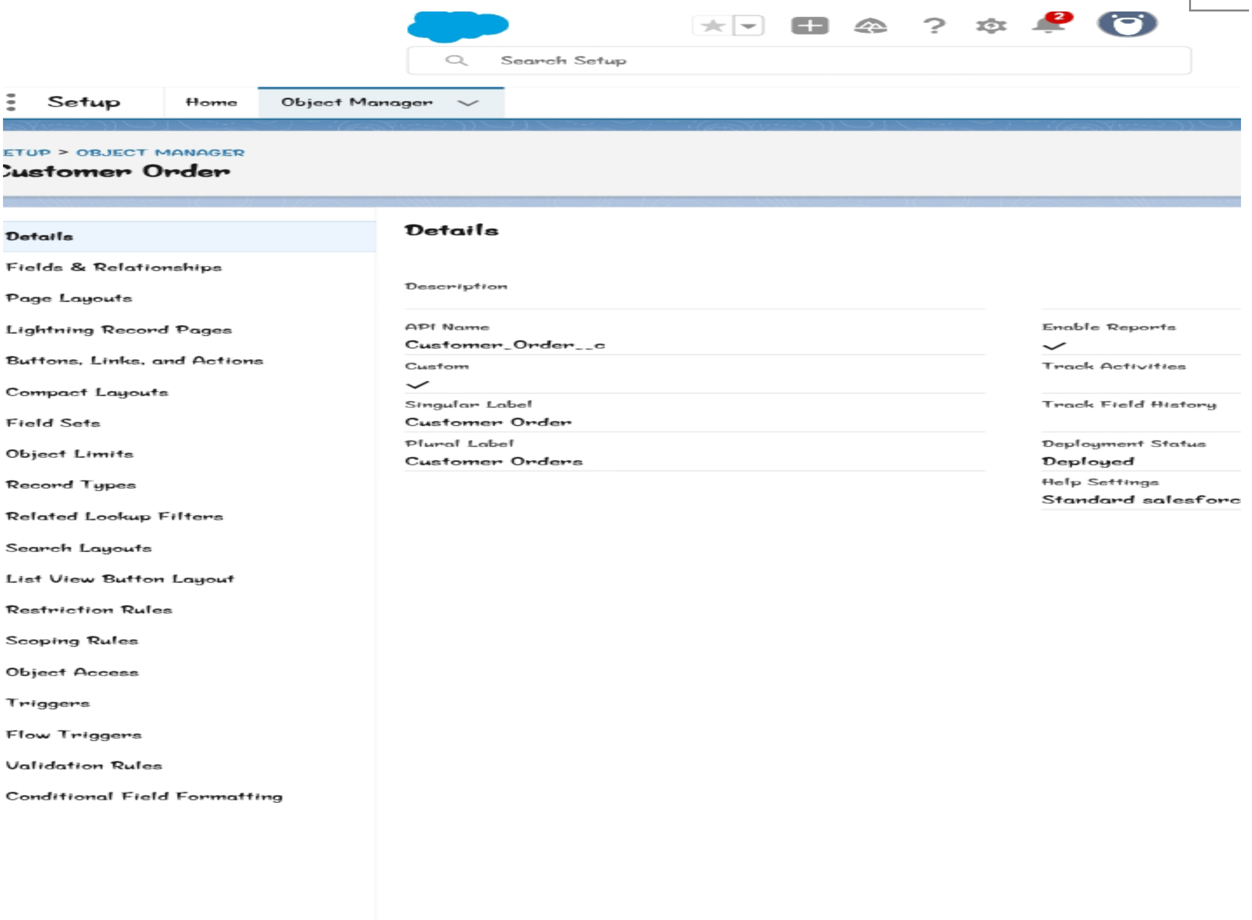
Search Setup
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Record Types
Related Lookup Filters
Search Layouts
List View Button Layout
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Object Access
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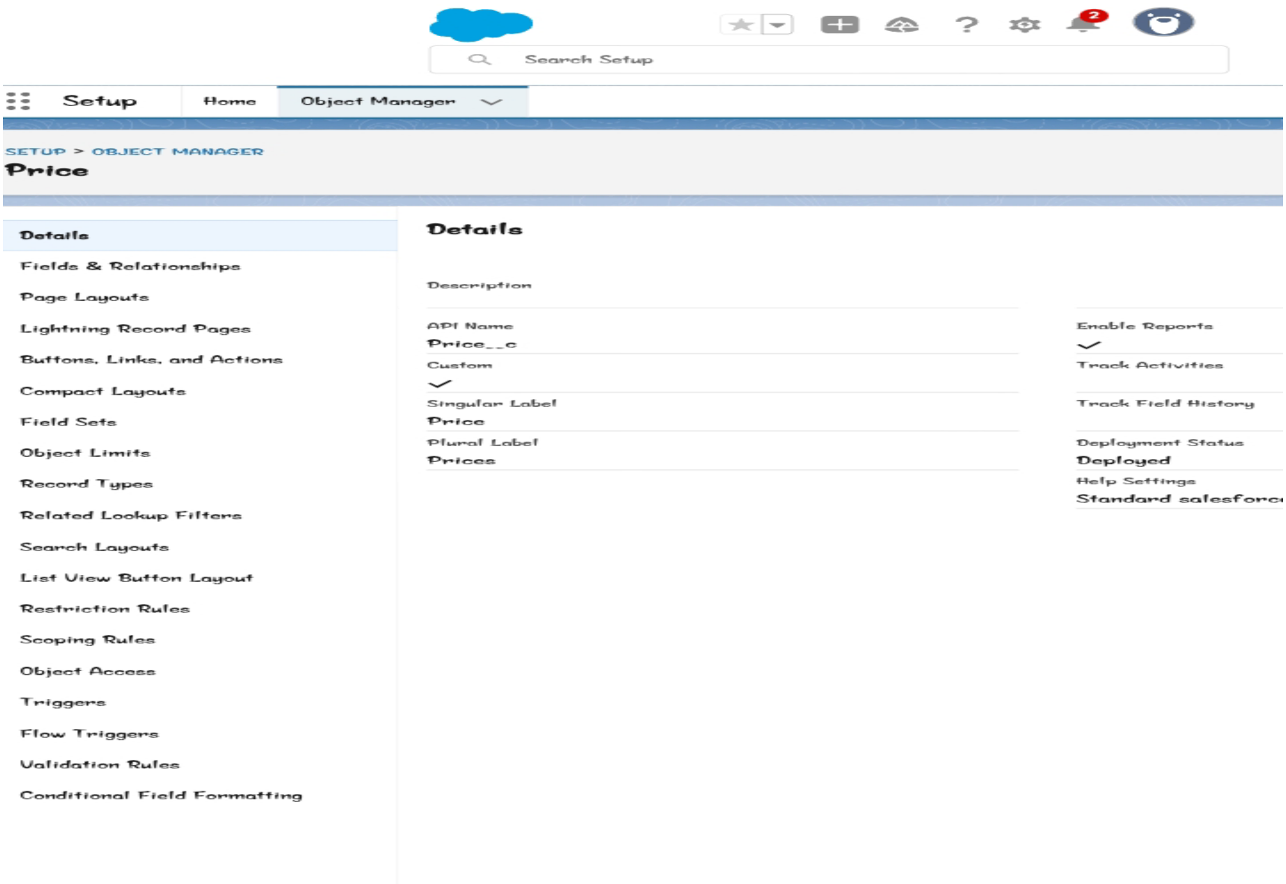
Search Setup
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SETUP > OBJECT MANAGER
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Object Limits
Record Types
Related Lookup Filters
Search Layouts
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Singular Label
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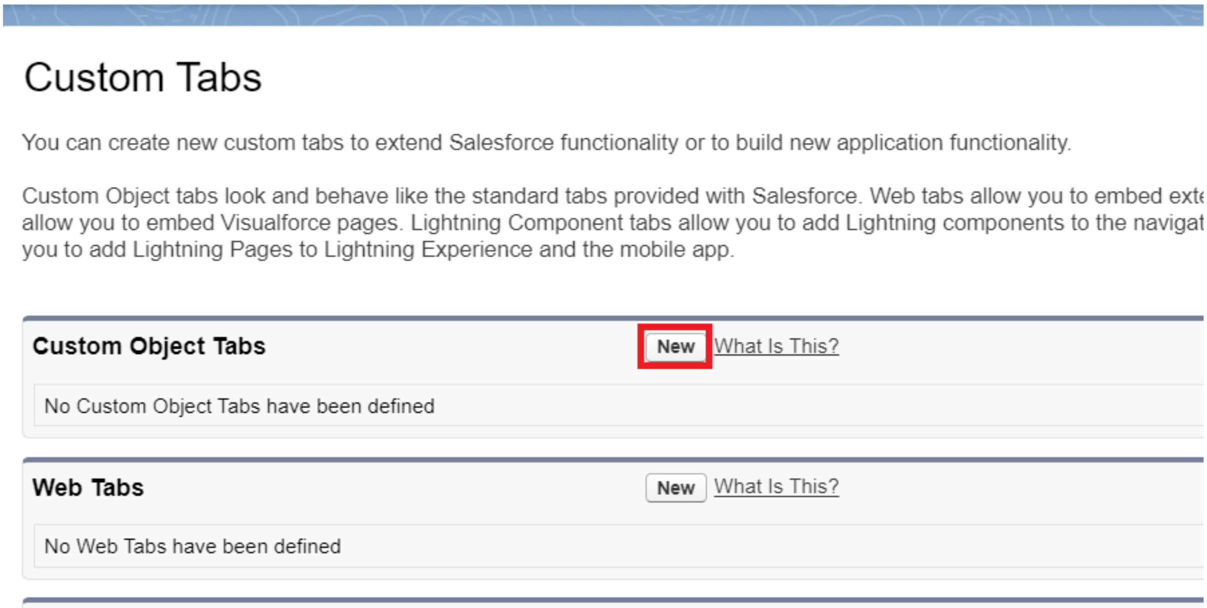
Plural Label
Prices
Enable Reports
Track Activities
Track Field History
Deployment Status
Deployed
Help Settings
Standard salesforc

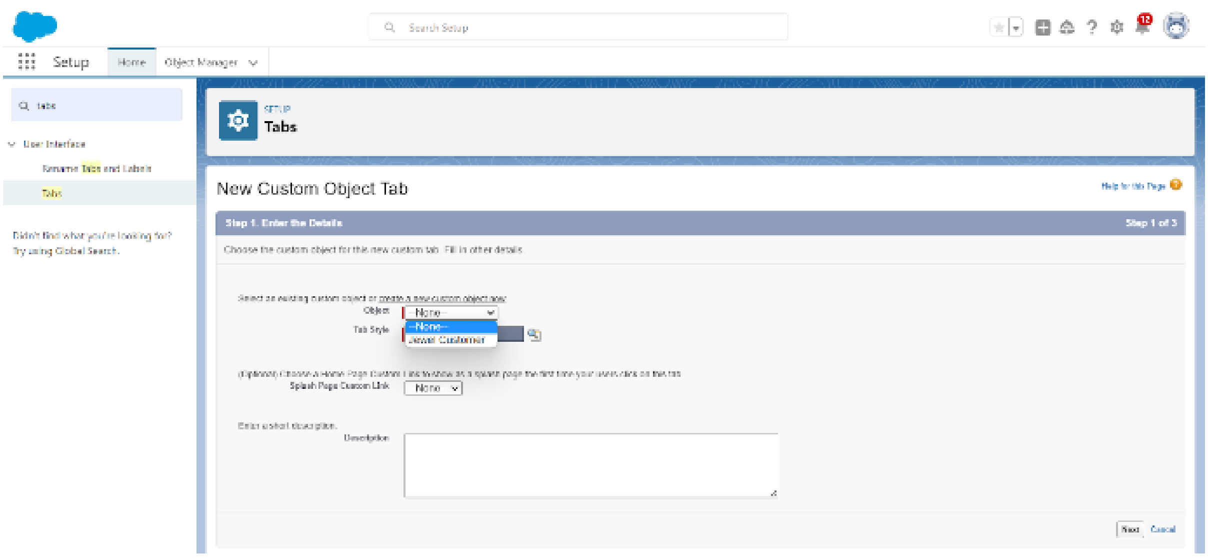
Activity 4: Creating a Custom Tab

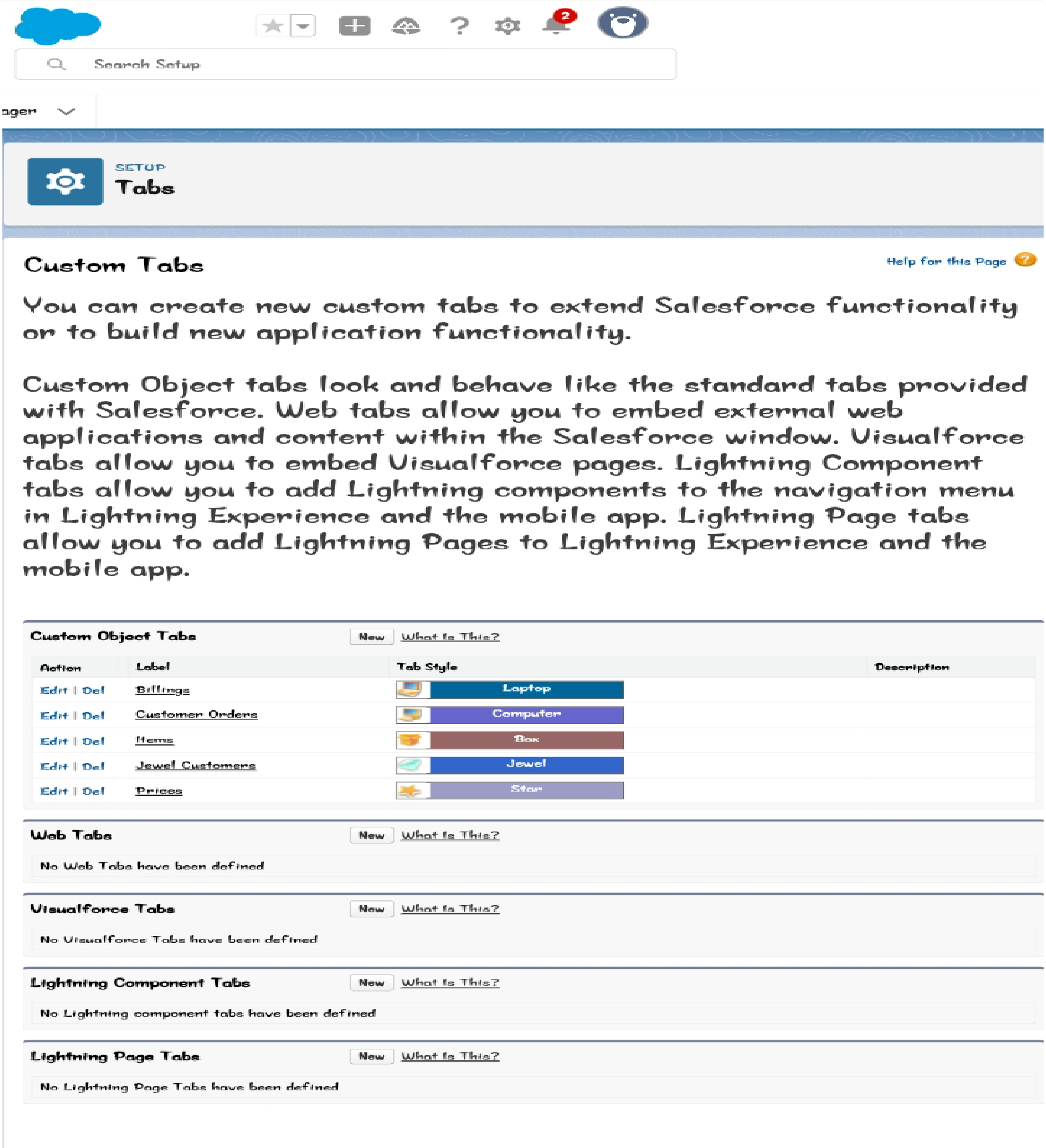
To create a Tab:(Customer)

1. Go to setup page >> type Tabs in Quick Find bar >> click on tabs >> New (under custom object tab)



2. Select Object (Jewel Customer) >> Select any tab style >> Next (Add to profiles page) keep it as default >> Next (Add to Custom App) keep it as default >> Save.





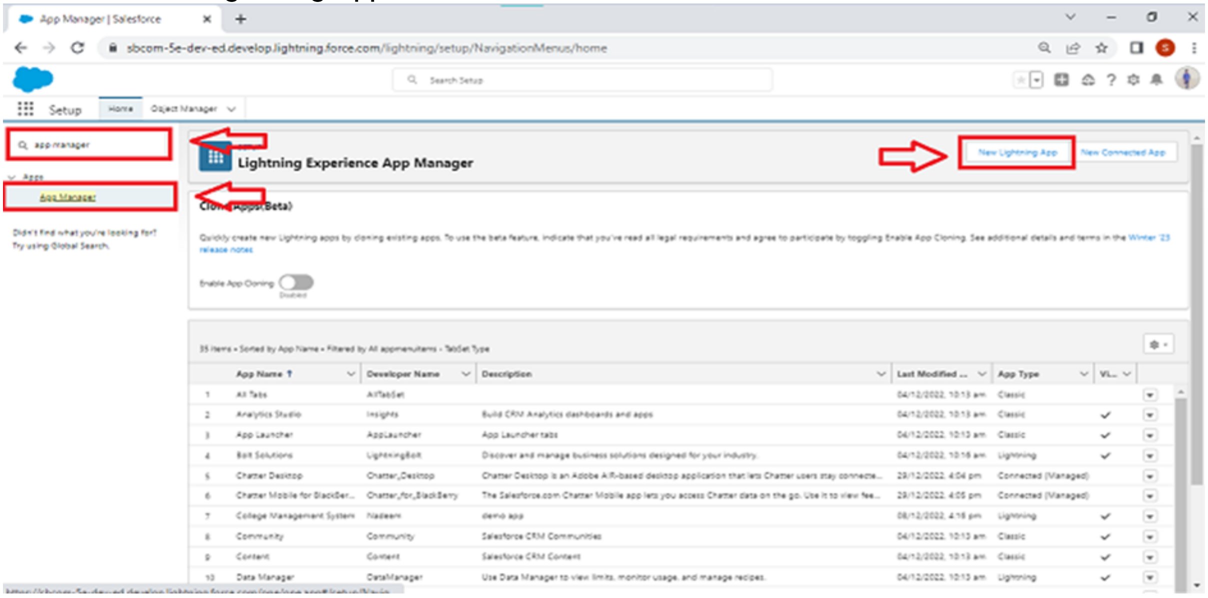
Module: The Lightning App

Activity 5: Create a Lightning App

To create a lightning app page:

1. Go to setup page >> search “app manager” in quick find >> select “app manager” >>

2. click on new lightning App.



3. Fill the app name in app details and branding as follow

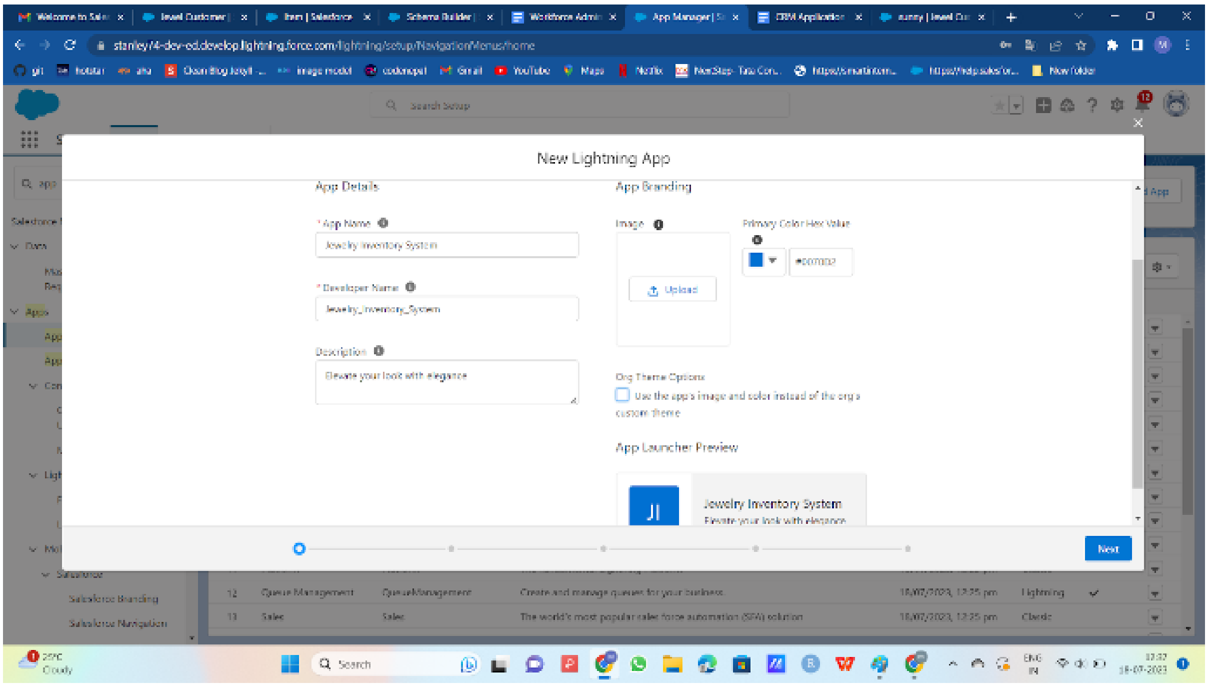
App Name: Jewellery Inventory System.

Developer Name: This will auto generate

Description: Elevate your look with elegance

Image: optional (if you want to give any image you can otherwise not mandatory)

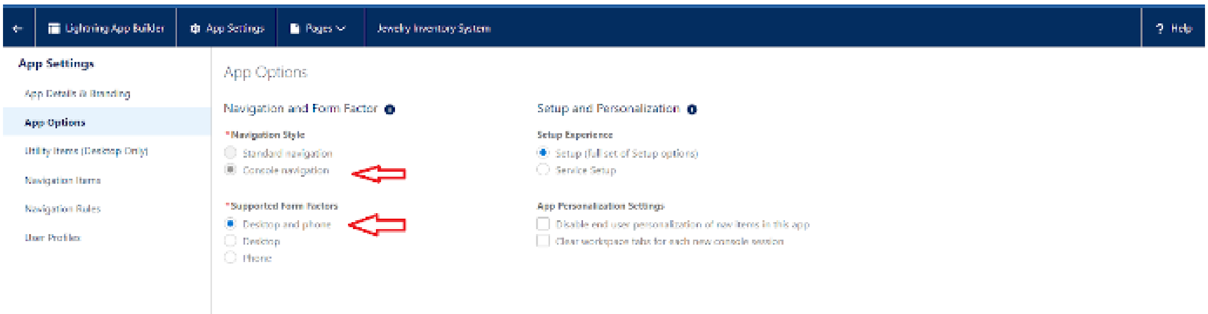
4. Primary colour hex value: keep this default.



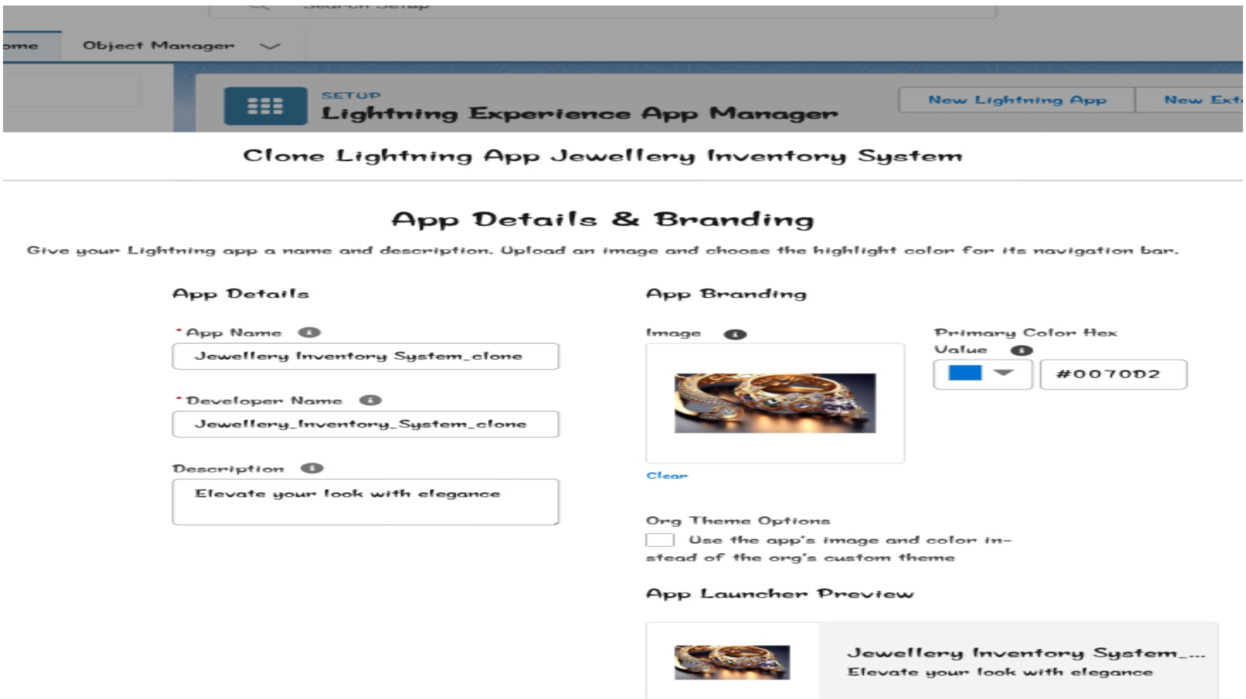
5. Then click Next >> (App option page) Set Navigation Style as Console

Navigation >> Next.

+



4. (Utility Items) keep it as default >> Next.

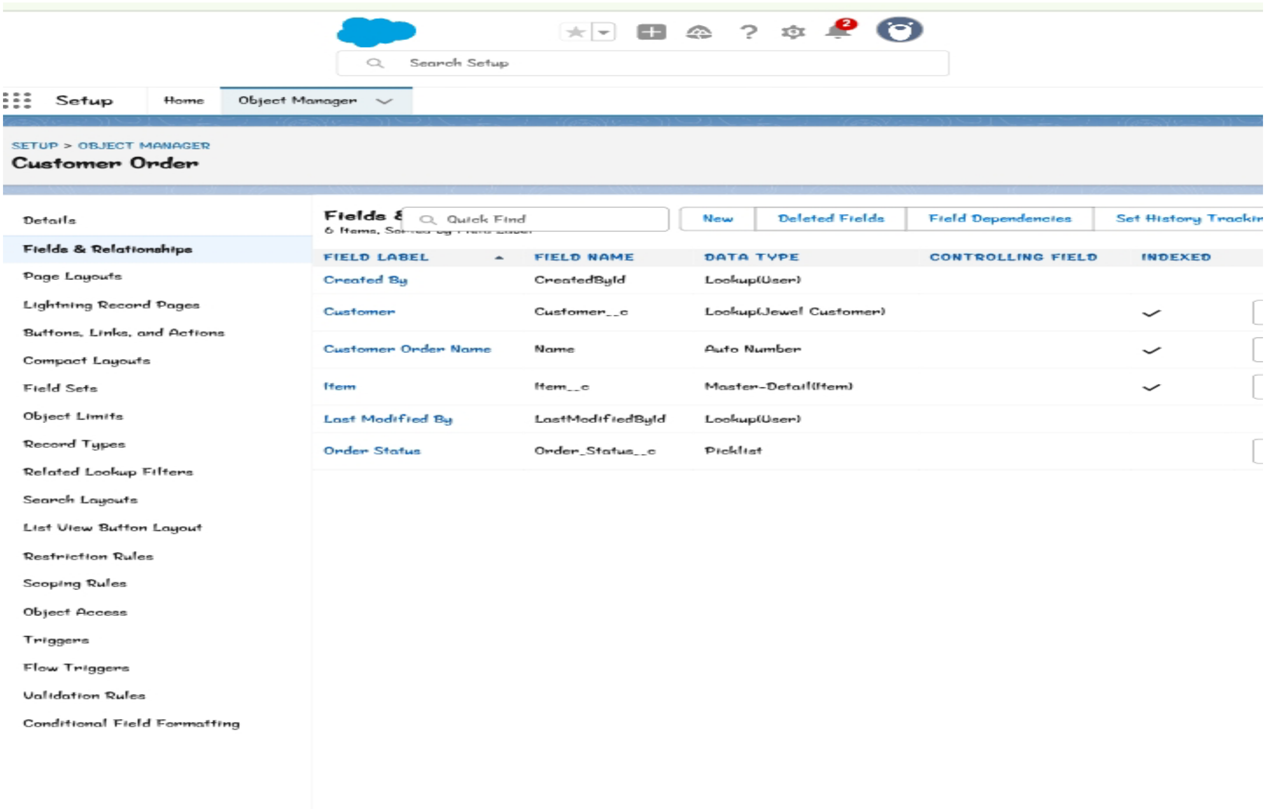


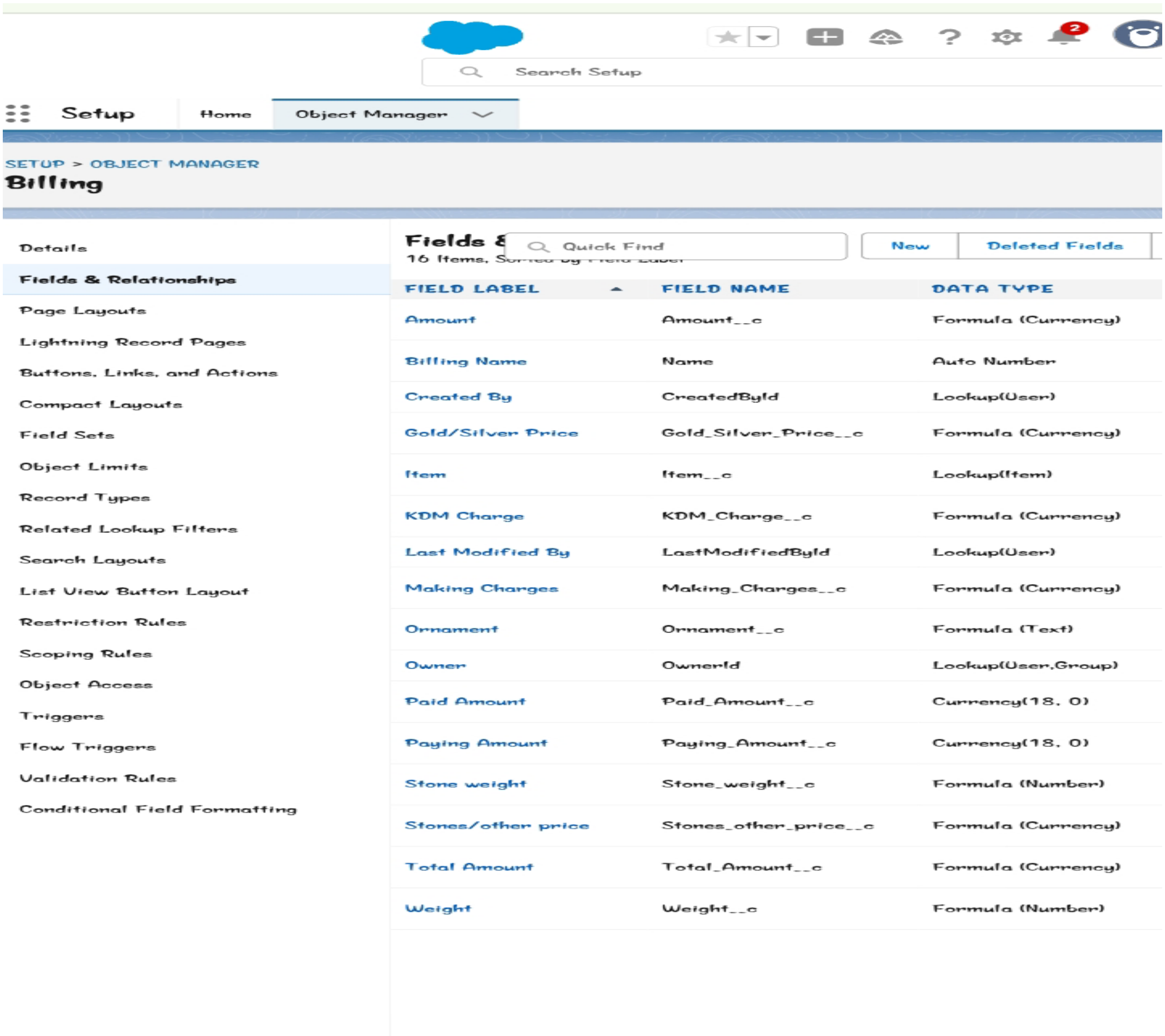
Module: Fields

Activity 6: Creating Lookup Relationship

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 between Jewel Customer & Customer Order Objects.




Search Setup
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Home
Object Manager
SETUP > OBJECT MANAGER
Billing
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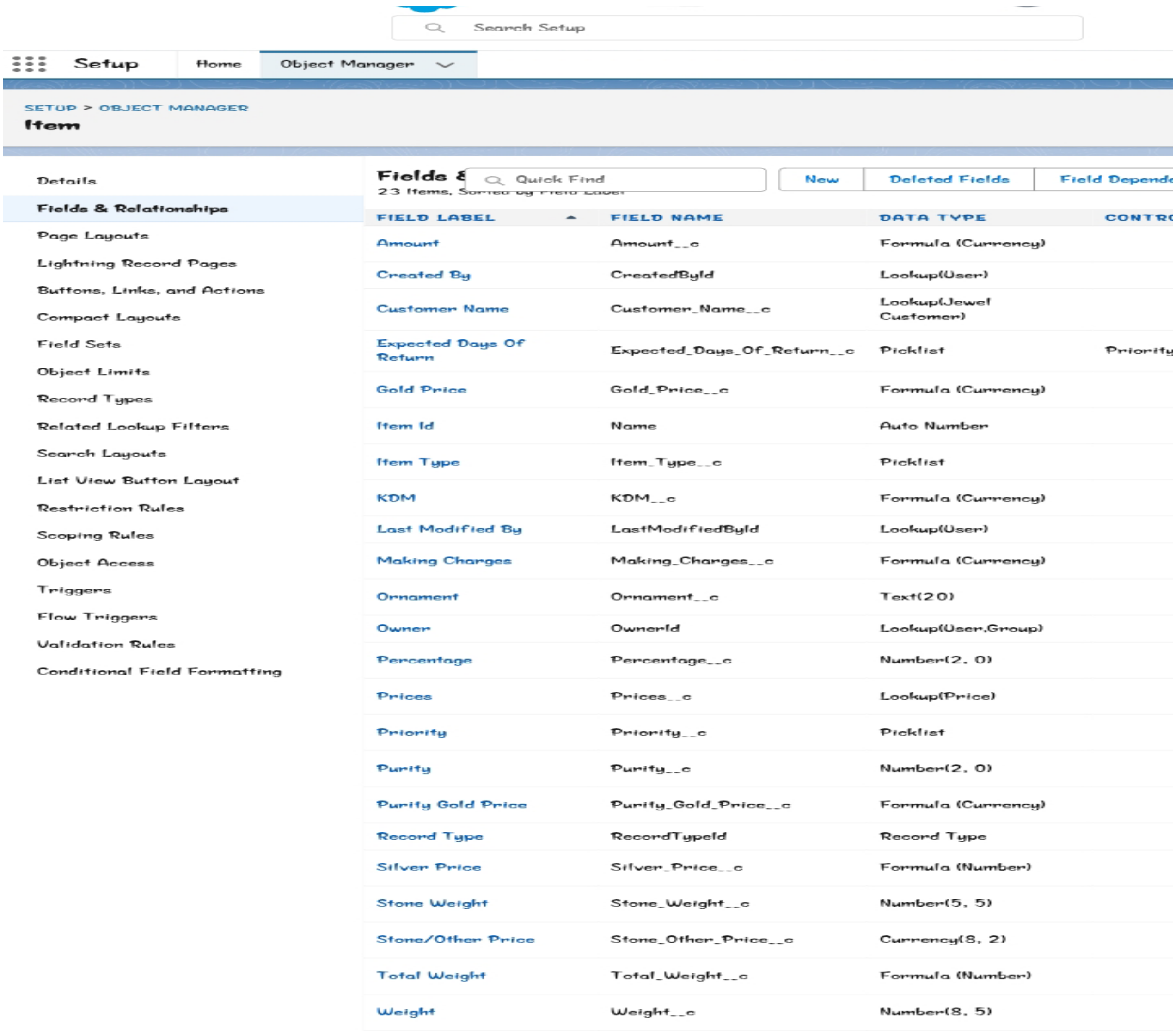
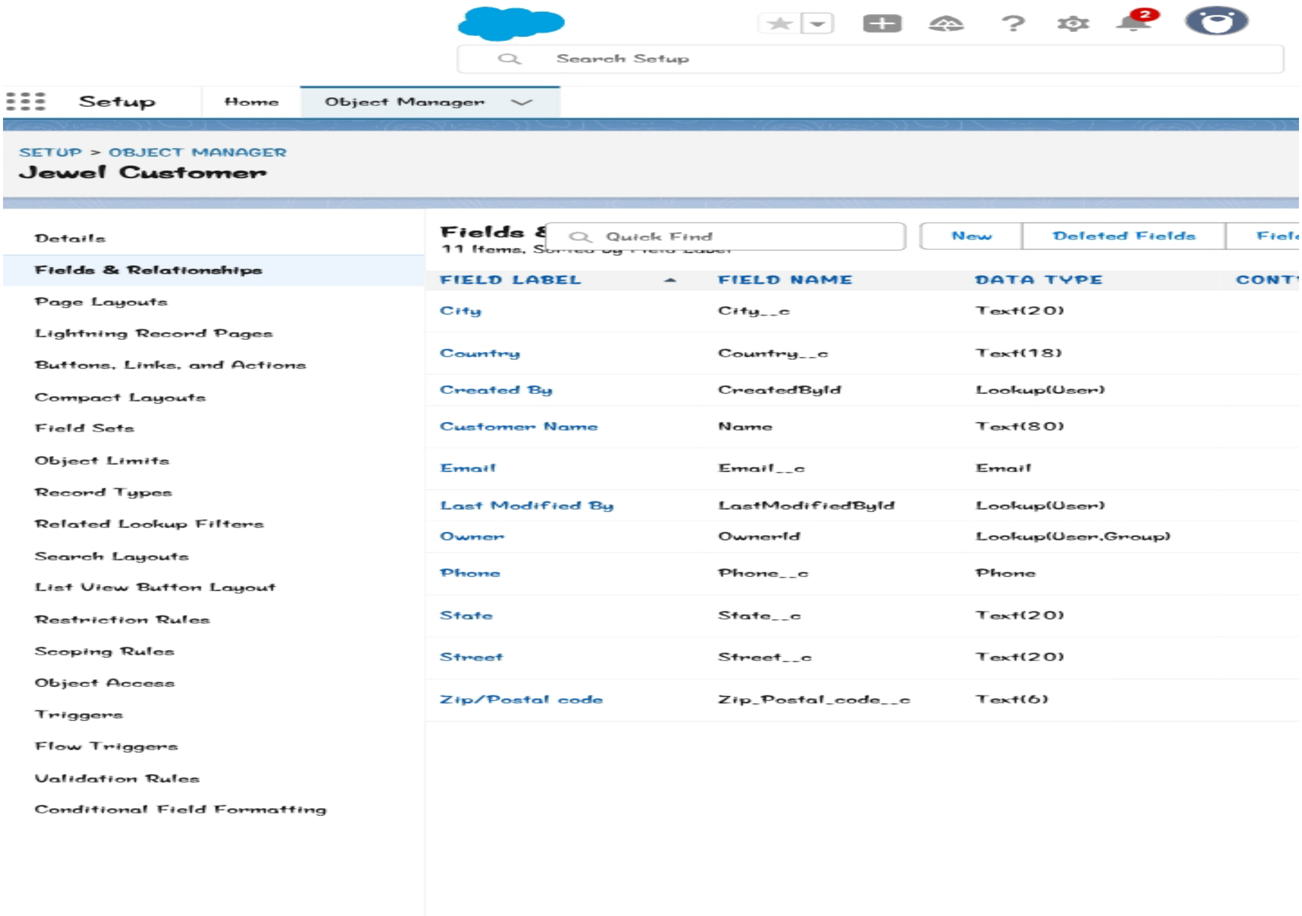
Fields & Relationships
Page Layouts
Lightning Record Pages
Buttons, Links, and Actions
Compact Layouts
Field Sets
Object Limits
Record Types
Related Lookup Filters
Search Layouts
List View Button Layout
Restriction Rules
Scoping Rules
Object Access
Triggers
Flow Triggers
Validation Rules
Conditional Field Formatting
Quick Find
New
Deleted Fields
FIELD LABEL
FIELD NAME
DATA TYPE
Amount
Amount__c
Formula (Currency)
Billing Name
Name
Auto Number
Created By
CreatedById
Lookup(User)
Gold/Silver Price
Gold_Silver_Price__c
Formula (Currency)
Item
Item__c
Lookup(Item)
KDM Charge
KDM_Charge__c
Formula (Currency)
Last Modified By
LastModifiedById
Lookup(User)
Making Charges
Making_Charges__c
Formula (Currency)
Ornament
Ornament__c
Formula (Text)
Owner
OwnerId
Lookup(User,Group)
Paid Amount
Paid_Amount__c
Currency(18, 0)
Paying Amount
Paying_Amount__c
Currency(18, 0)
Stone weight
Stone_weight__c
Formula (Number)
Stones/other price
Stones_other_price__c
Formula (Currency)
Total Amount
Total_Amount__c
Formula (Currency)
Weight
Weight__c
Formula (Number)

Activity 7: Creating the number field in Item object

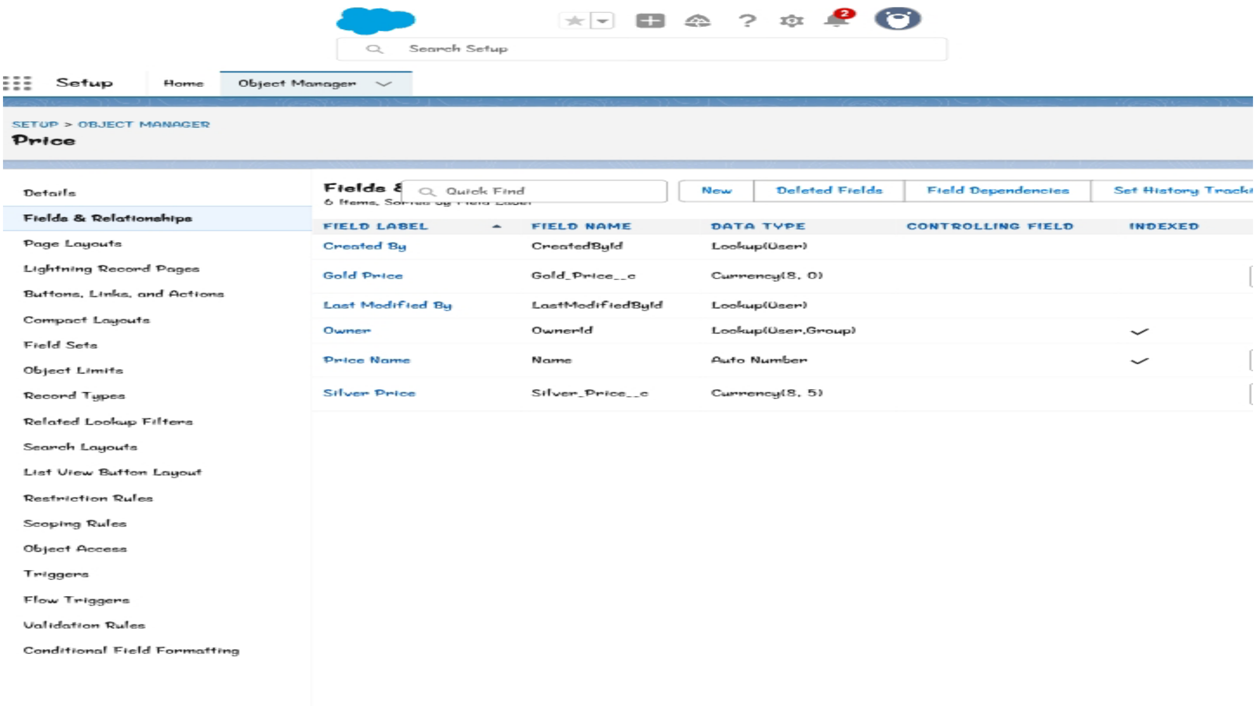


Activity 8: Creating Text Field in Jewel Customer Object



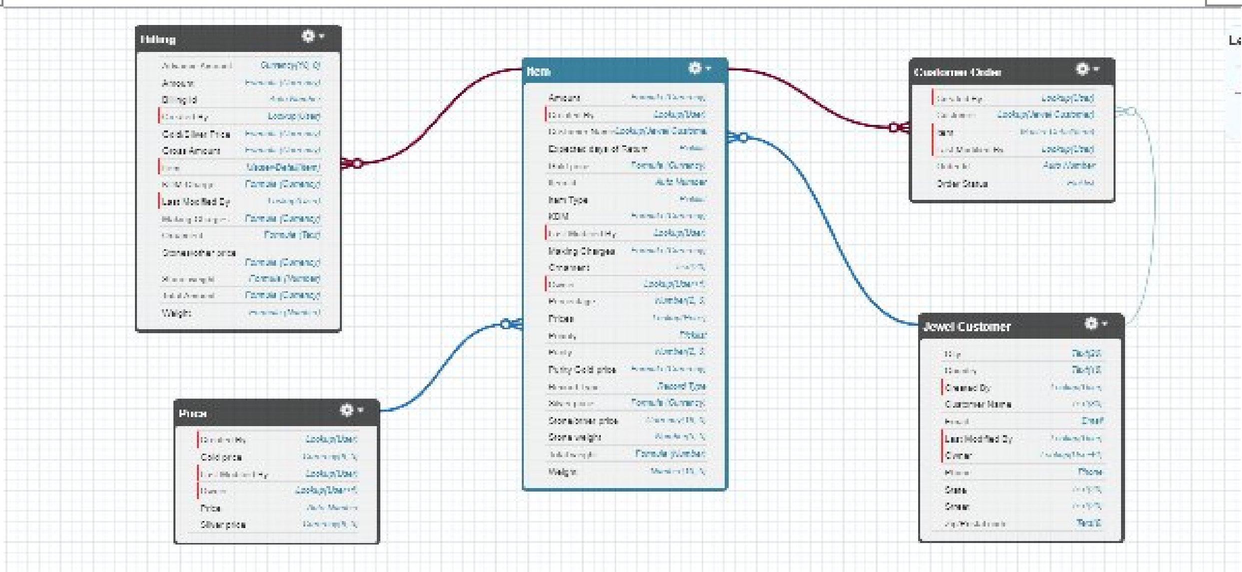
Activity 9: Creating Currency Field in Price Object

To create fields in an object:



Activity 10: Schema Builder

Schema Builder is a powerful tool within Salesforce that allows you to visualise, explore, and design the relationships between objects in your Salesforce organisation. It provides a graphical representation of the data model, making it easier to understand the structure and connections between different objects.

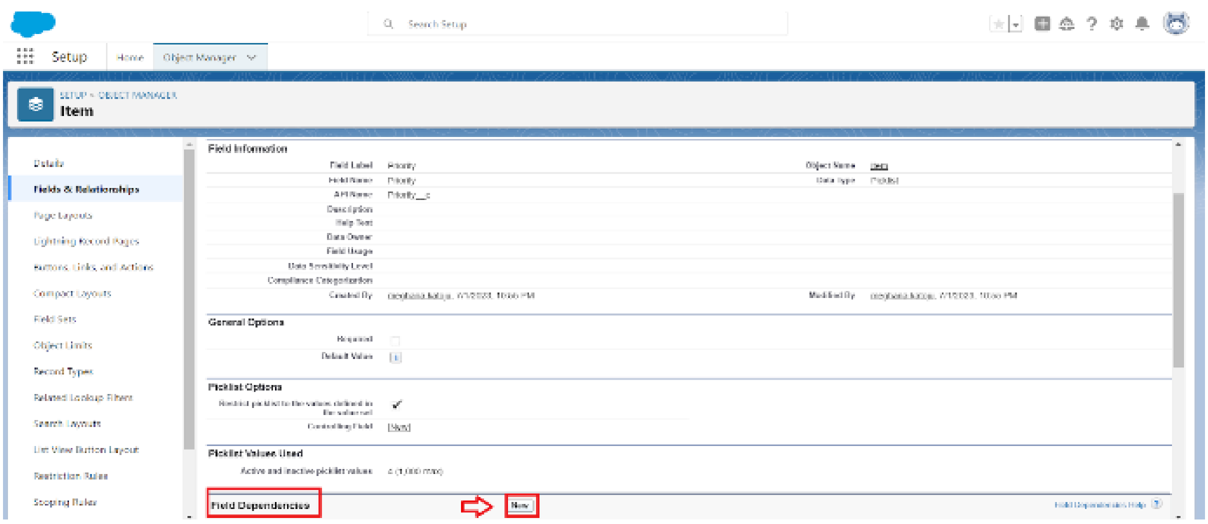


Activity 11: Creating the Field Dependencies

Use case:

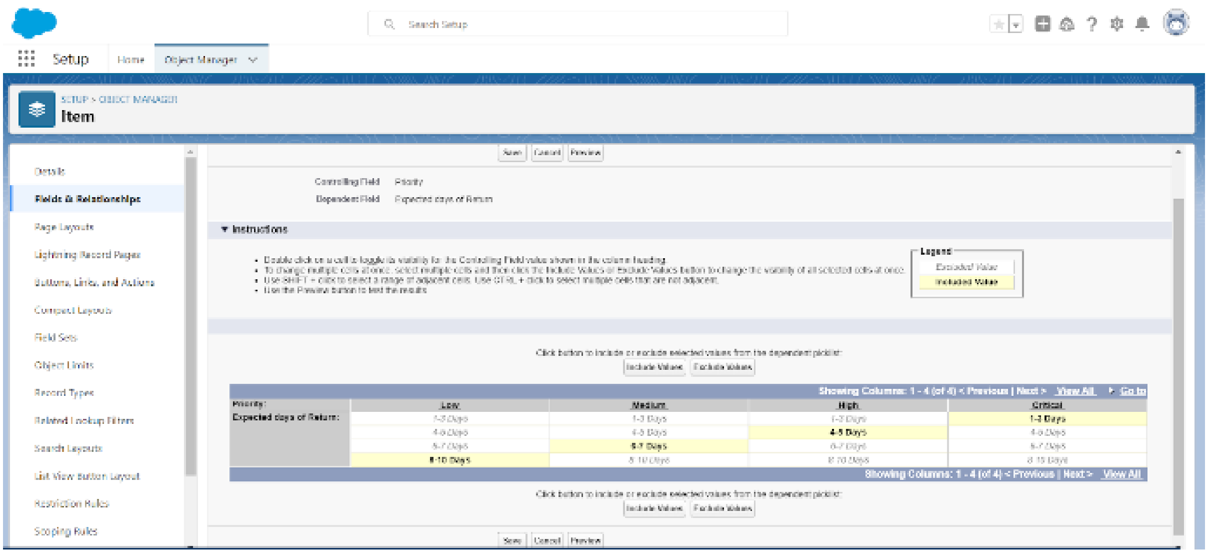
Field Dependencies are used to create relationships between fields within an object. They allow you to control the visibility and availability of fields based on the values selected in other fields.

1. Go to setup >> click on Object Manager >> type object name (Item) in quick find bar >> click on the object.
2. Click on Fields & Relationships and click on the Priority field.
3. Search for Field Dependencies and click on New.



4. Select Controlling Field as “Priority” and Depending field as “Expected Days of Return” >> Continue.

5. Select the "Expected Days of Return" values of related Priority values and Click on Include Values >> Save.

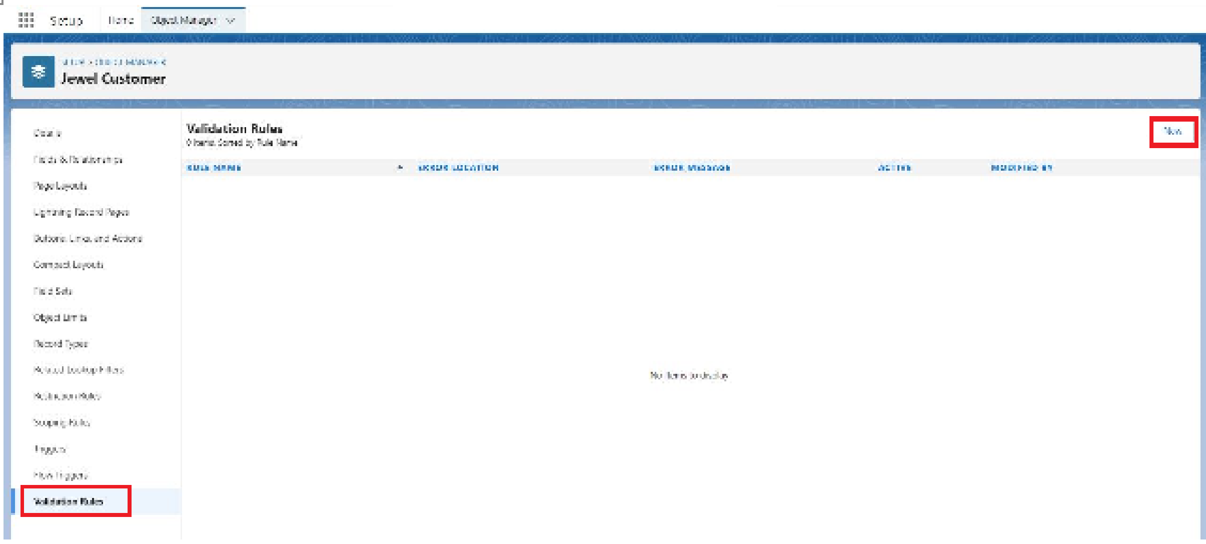


Activity 12: Creating the validation rule

Creating the validation rule for Postal Code field in Jewel Customer object

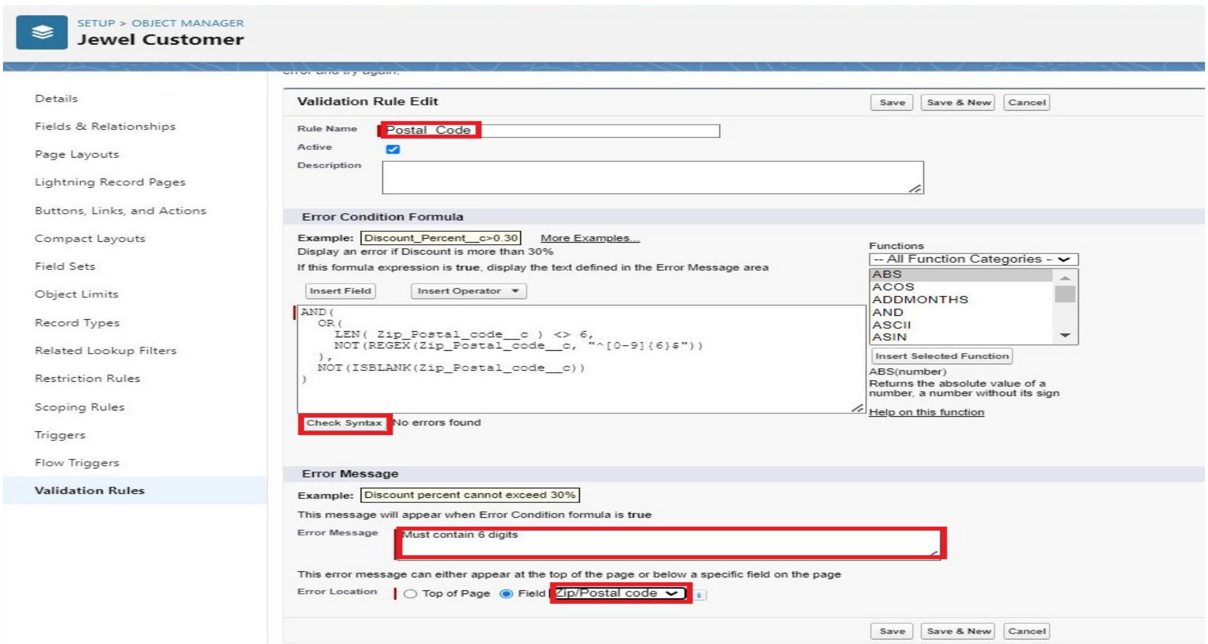
Note: check whether the fields mentioned in the formula field are created or not, if not go to activity 10 and create those fields mentioned in Jewel Customer object.

1. Go to setup >> click on Object Manager >> type object name (Jewel Customer) in quick find bar >> click on the object.
2. Click on the validation rule >> click New.



3. Enter the Rule name as “Postal Code “.
4. Insert the Error Condition Formula as :-

```
AND(
    OR(
        LEN( Zip_Postal_code__c ) <> 6, NOT(REGEX(Zip_Postal_code__c, "^[0-9]{6}$"))),
        NOT(ISBLANK(Zip_Postal_code__c))
    )
)
```



5. Enter the Error Message as “Must contain 6 digits”, select the Error location as Field and select the field as “Zip/Postal code”, and click Save.

NOTE:

Create One more Validation rule for Jewel Customer object.

1. Enter Rule name as “ValidationRule For JewelCustomer Object “.
2. Insert the Error Condition Formula as :-

   OR(ISBLANK(City__c) , ISBLANK(Country__c),ISBLANK(Phone__c),ISBLANK(State__c),ISBLANK(Street__c))

3. Enter the Error Message as “Please fill Required fields”, select the Error location as Top of Page and click Save.

Create Validation rule for Item object.

1. Enter Rule name as “ValidationRule For Item“.
2. Insert the Error Condition Formula as :-

   OR(ISBLANK(Amount__c) , ISBLANK(Customer_Name__c) ,ISBLANK(Gold_price__c),ISBLANK(KDM__c),ISBLANK(Ornament__c),ISBLANK(Percentage__c),ISBLANK(Making_Charges__c),ISBLANK(Prices__c),ISBLANK(Stone_weight__c),ISBLANK(Silver_price__c),ISBLANK(Stone_other_price__c),ISBLANK(Stone_weight__c),ISBLANK(Weight__c))

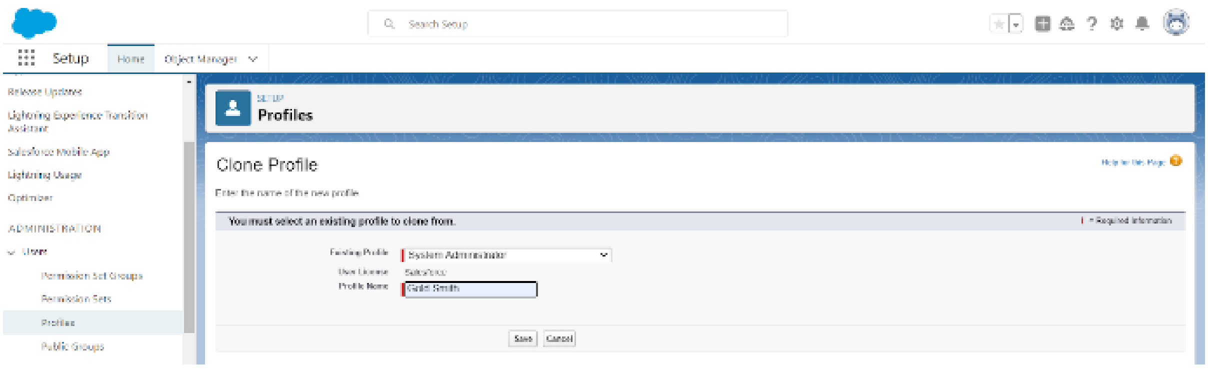
3. Enter the Error Message as “Please fill Required fields”, select the Error location as Top of Page and click Save.

Module: Profiles

Activity 13: Gold Smith Profile

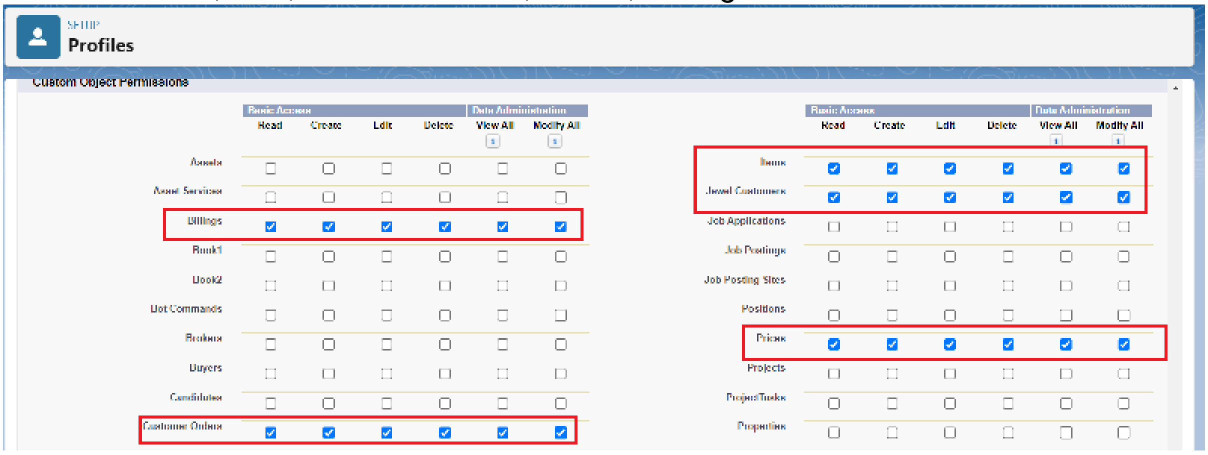
To create a new profile:

1. Go to setup >> type profiles in quick find box >>click on profiles? clone the desired profile (System Administrator) >> enter profile name (Gold Smith) >> Save.

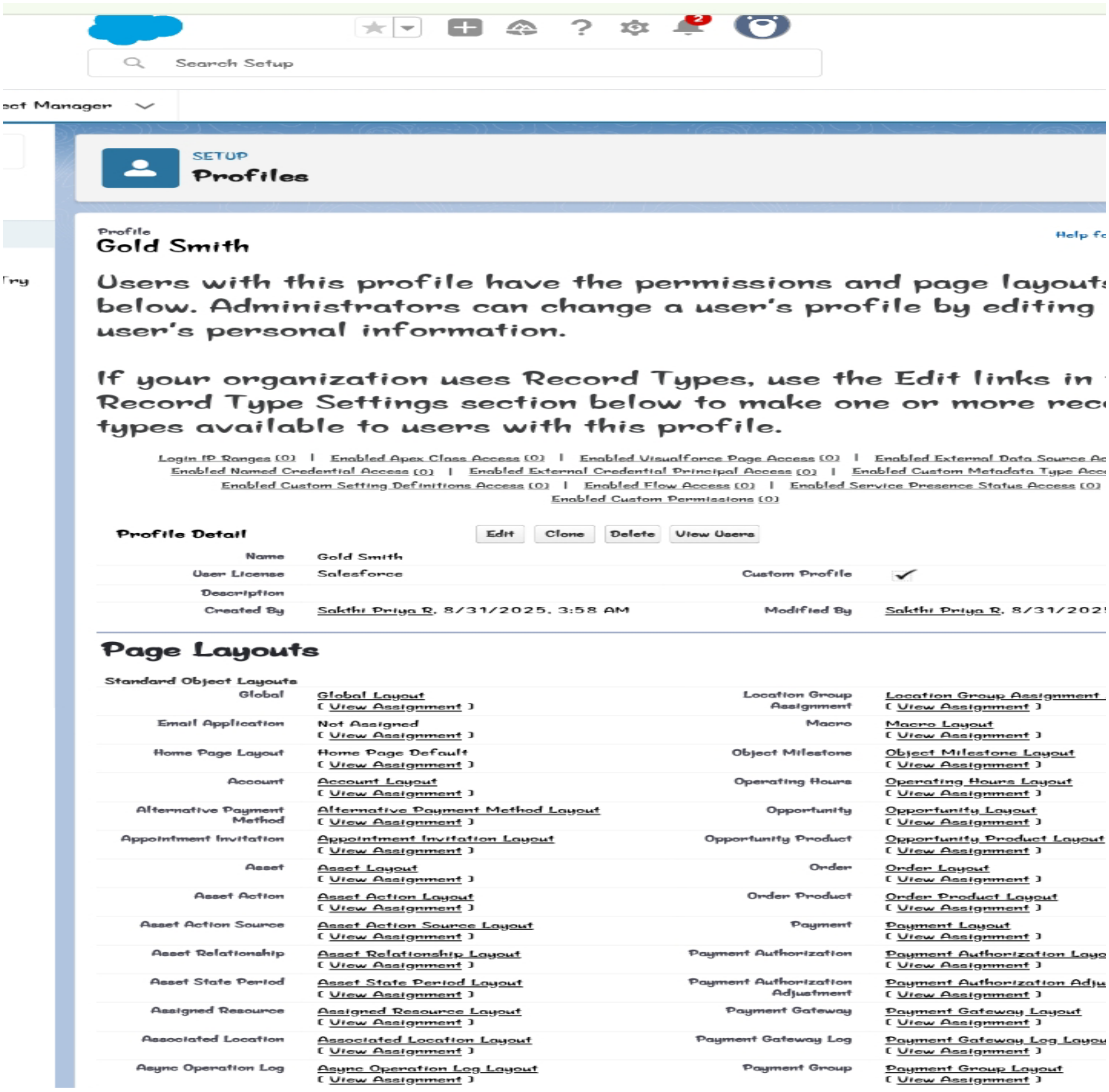


2. While still on the profile page, then click Edit.

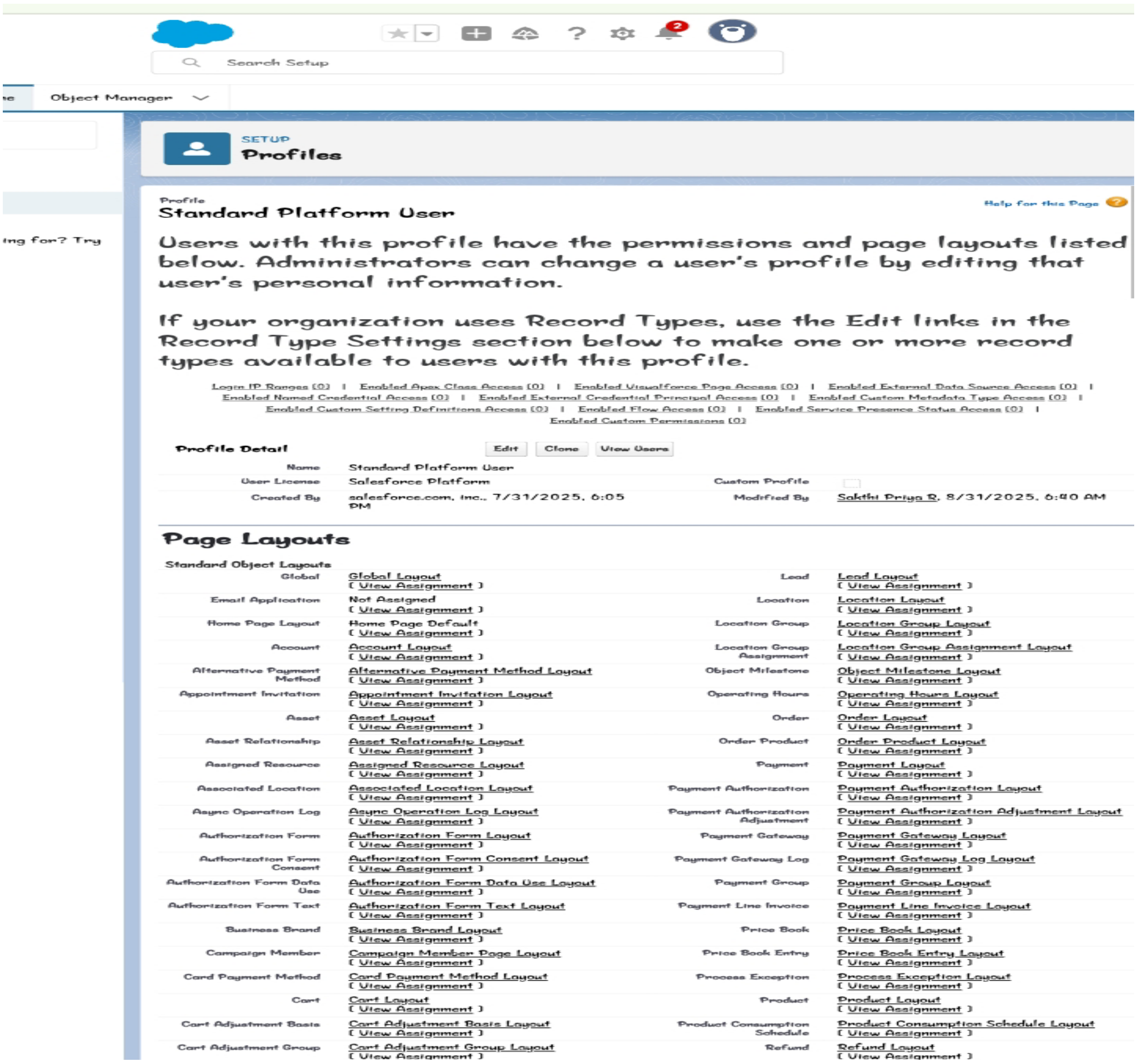
3. Scroll down to Custom Object Permissions and Give access permissions for Jewel Customer, Item, Customer Order, Prices, Billings.



4. Scroll down and Click on Save.



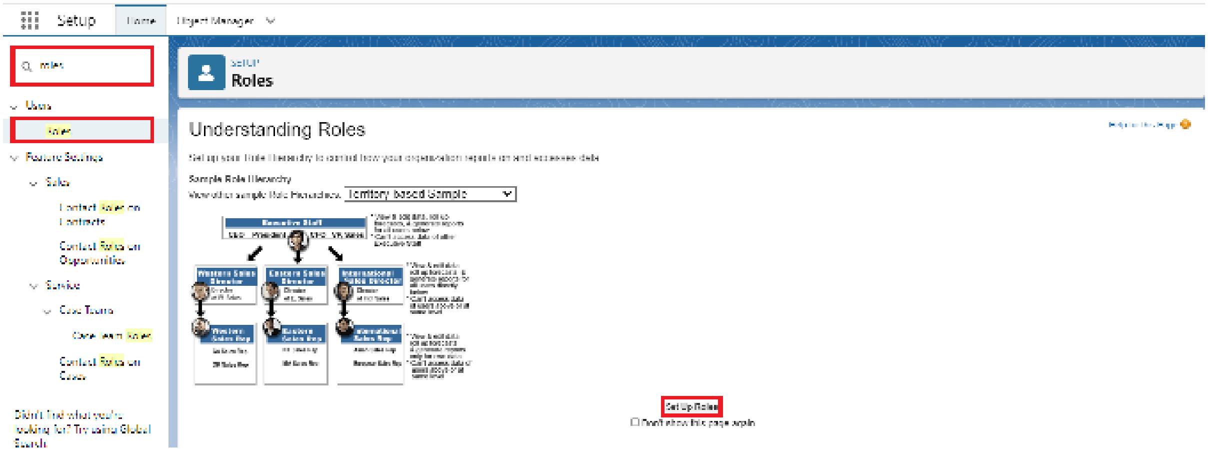
Activity 14: Worker Profile



Module: Roles

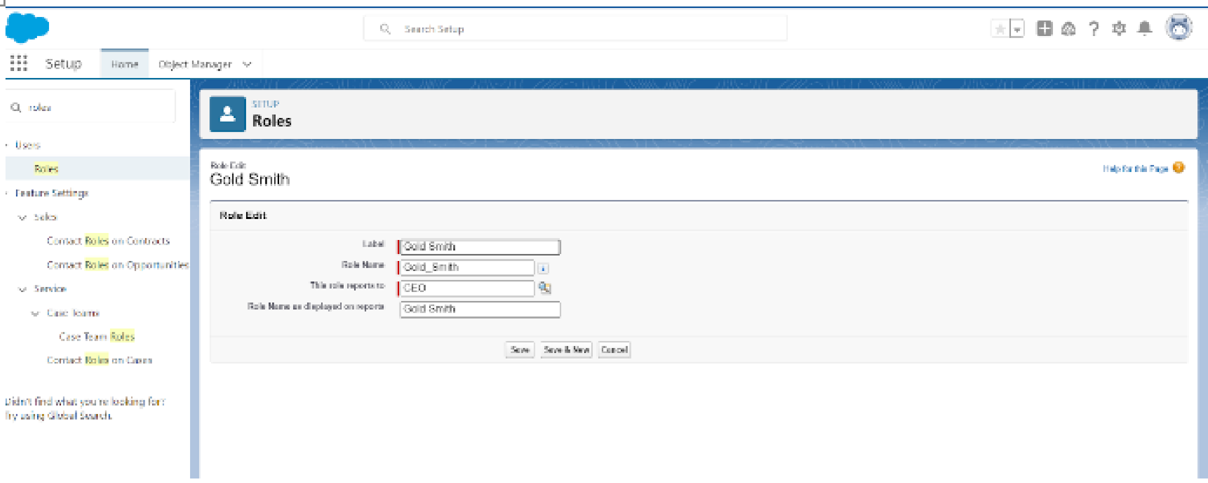
Activity 15: Creating Gold Smith Role

1. From setup, go to quick find >> Search for Roles >> click on set up roles.

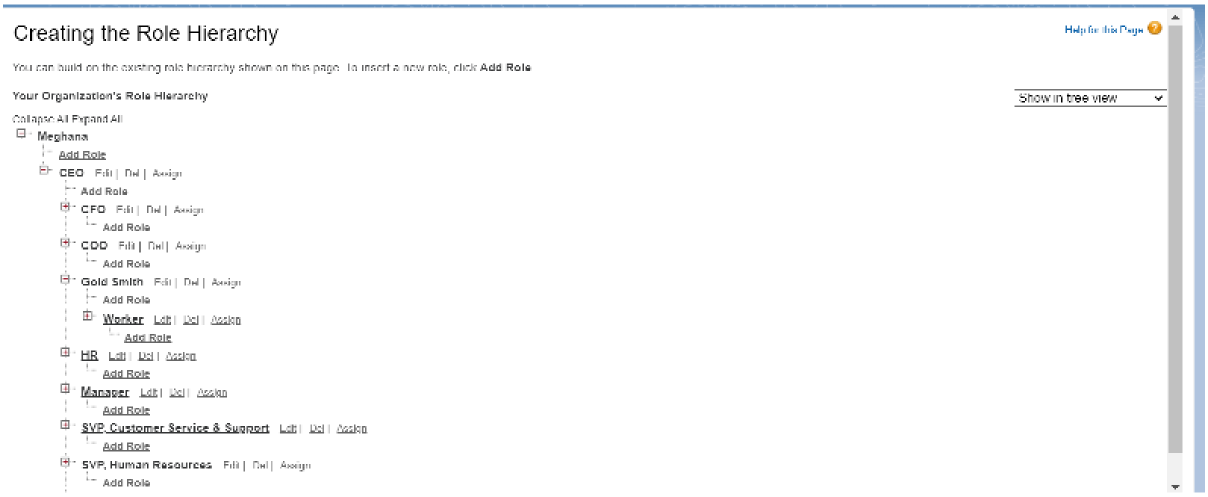


2. Click on Expand All and click on add role under whom this role works.

3. Give Label as “Gold Smith” and Role name gets auto populated. Check to whom this role (Gold Smith) reports. Then click on Save.



Activity 16: Create one more role as Worker which reports to Gold Smith

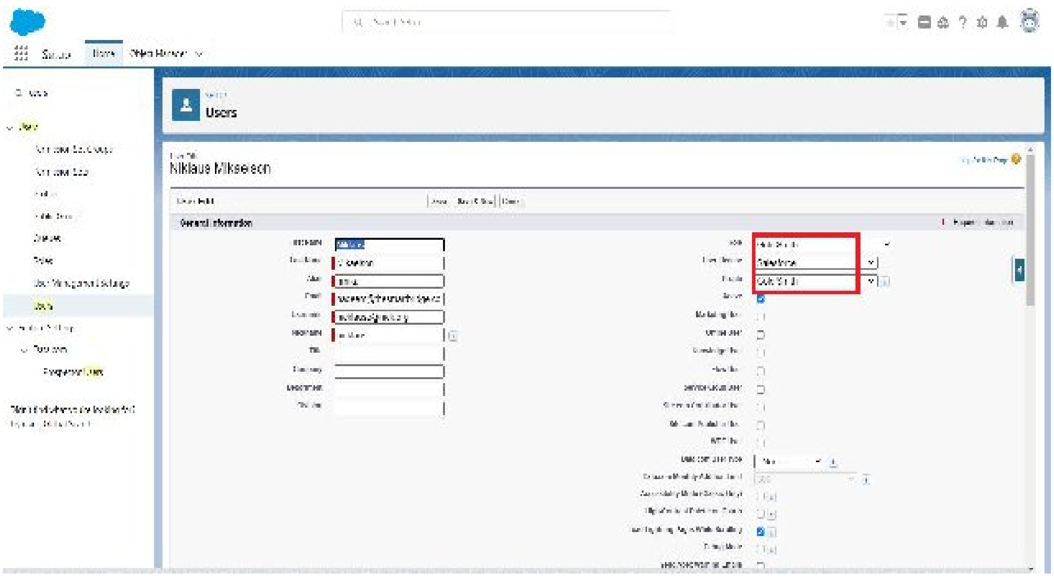


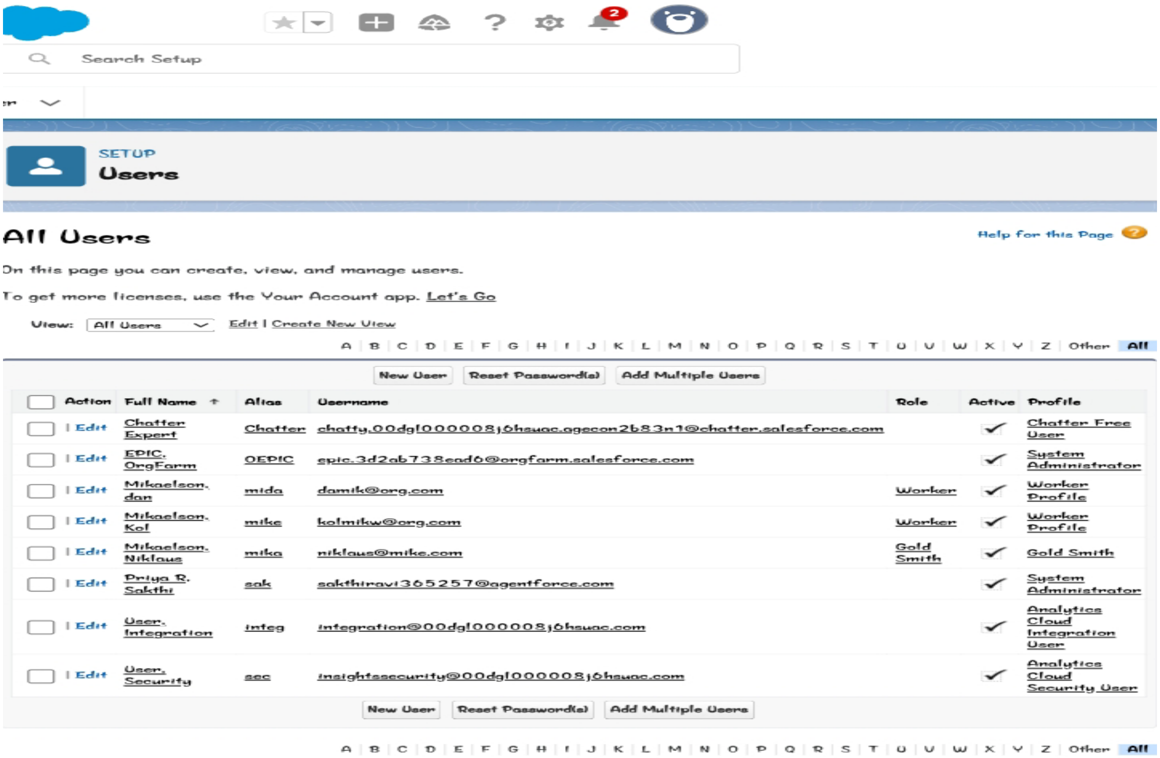
Module: Users

Activity 17: Create User

1. Go to setup >> type users in quick find box >> select users >> click new user.
2. Fill in the fields
1. First Name : Niklaus
2. Last Name : Mikaelson
3. Alias : Give a Alias Name

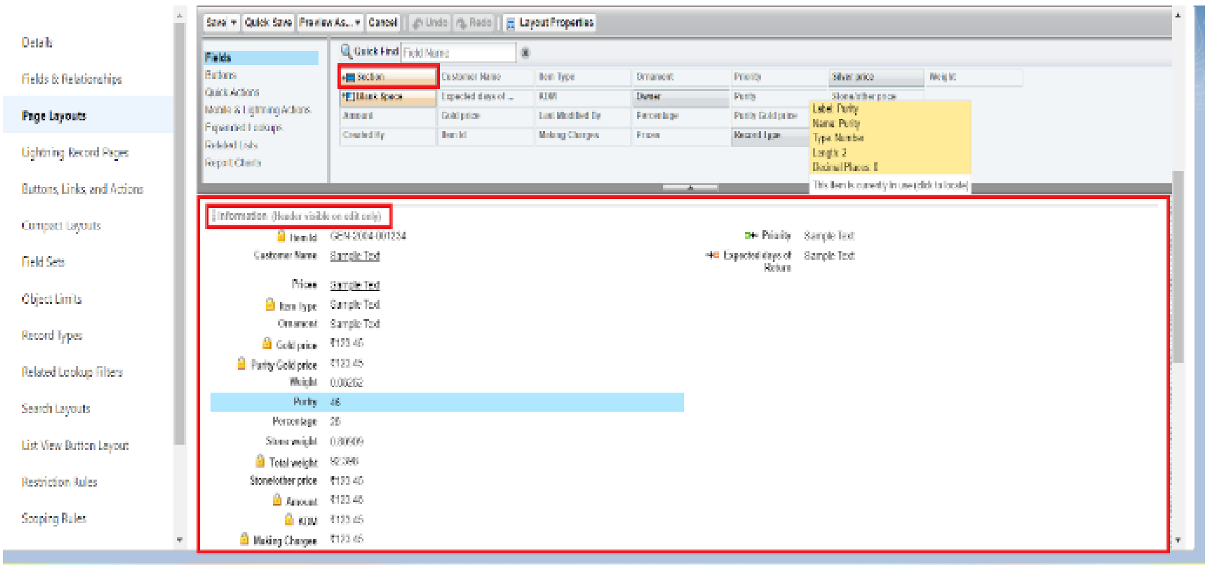
4. Email id : Give your Personal Email id
5. User name : User name should be in this form: text@text.text
6. Nick Name : Give a Nickname
7. Role : Gold Smith
8. User licence: Salesforce
9. Profiles : Gold Smith

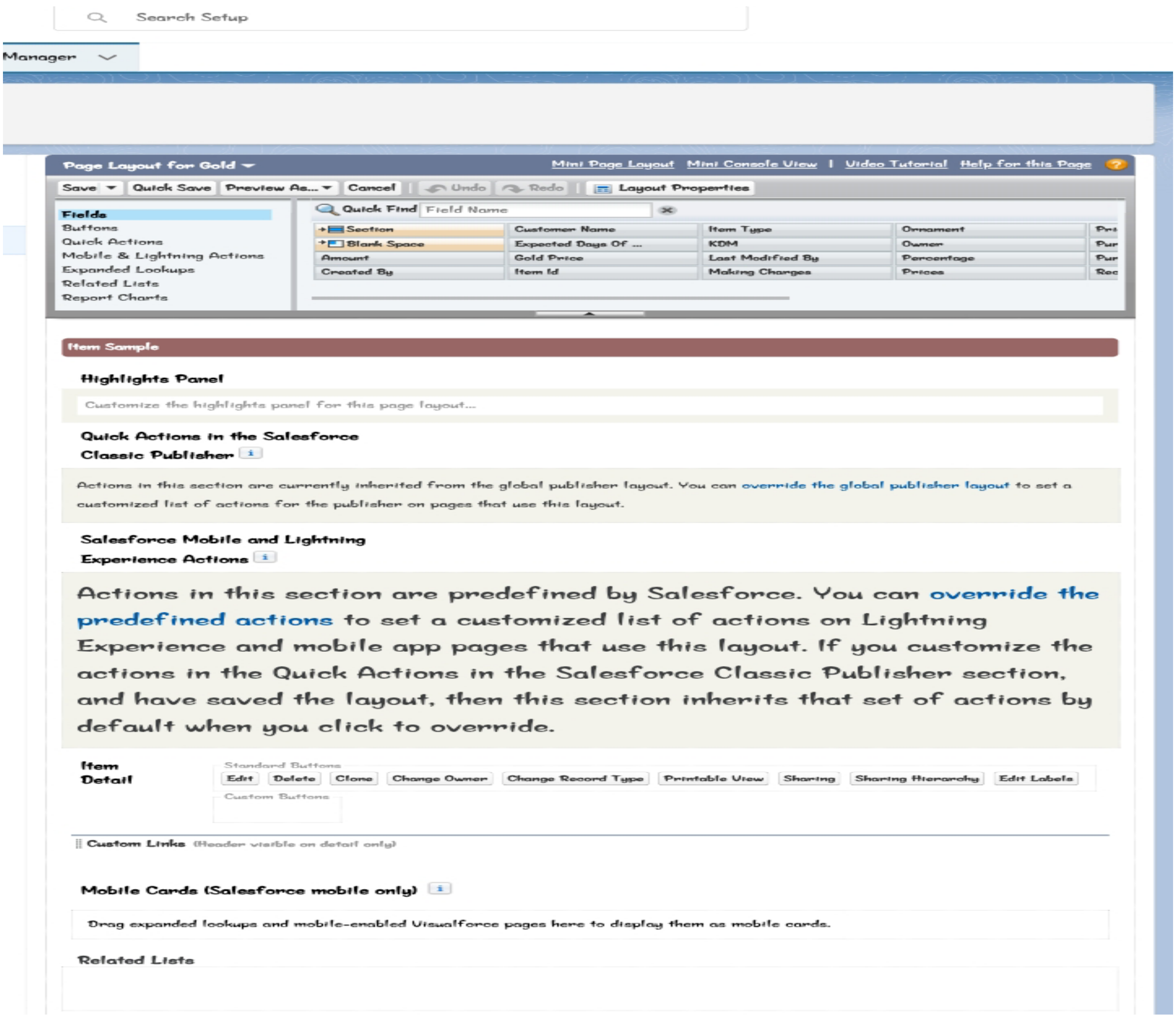




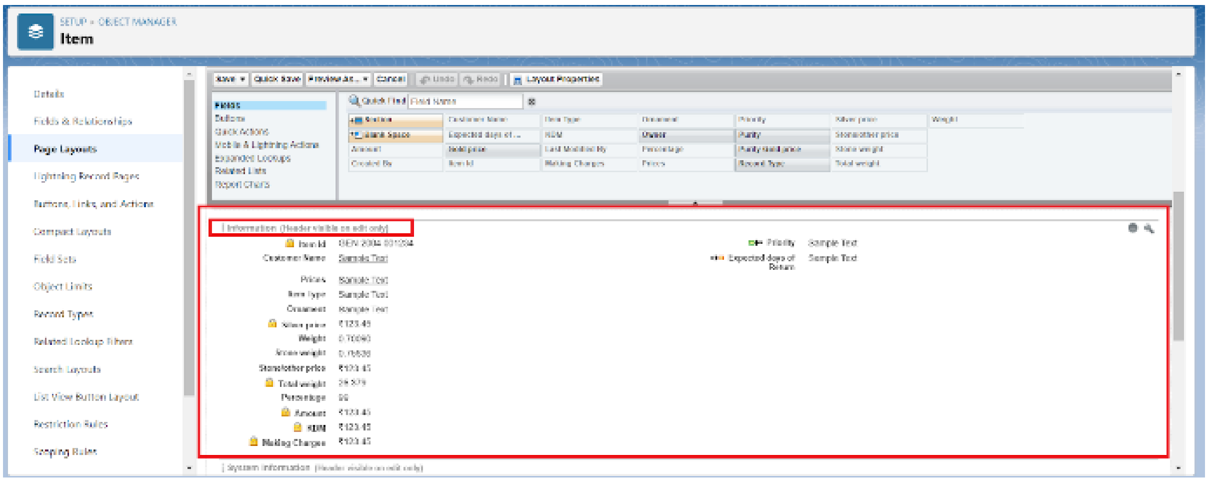
Module: Page layouts

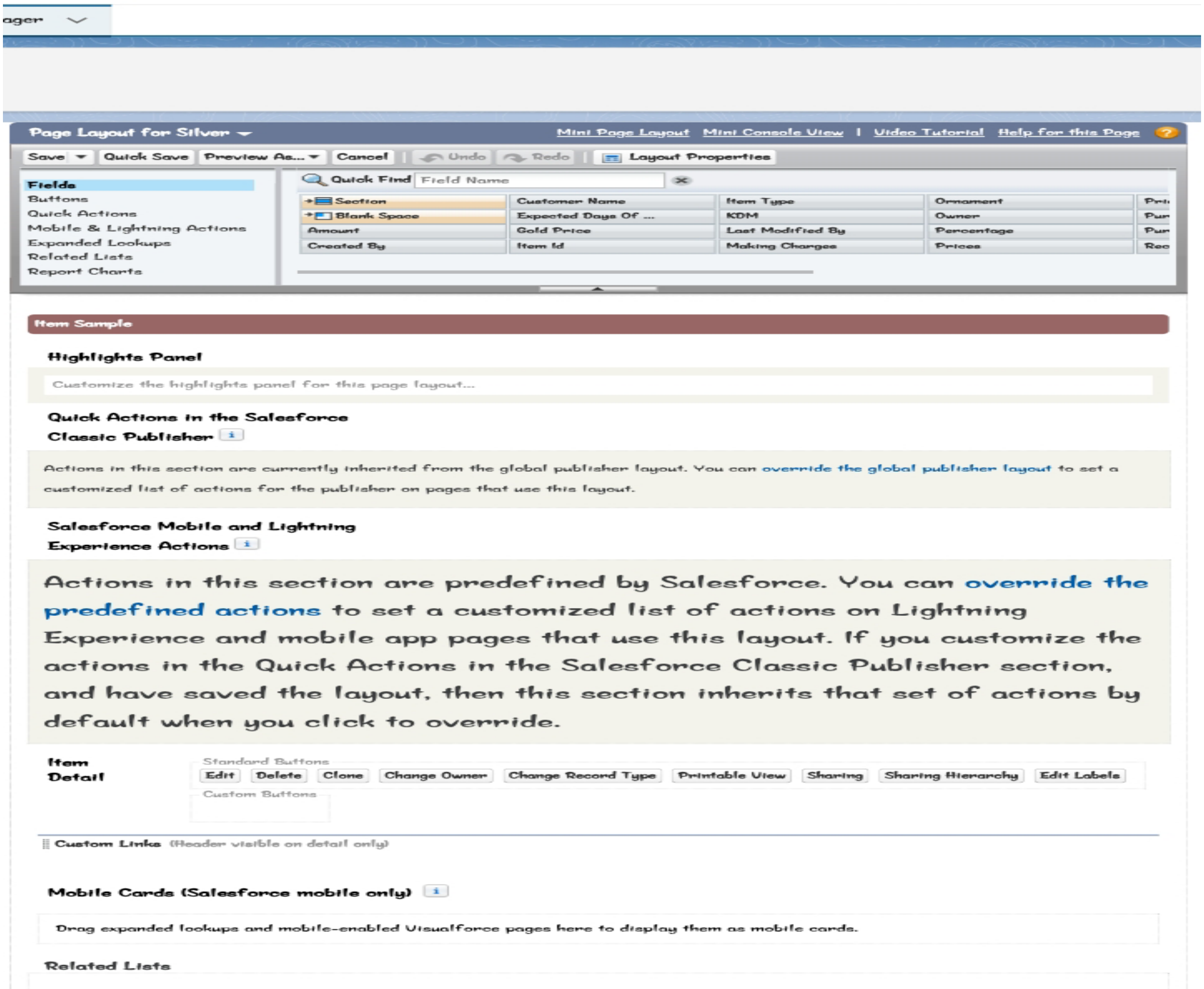
Activity 18: To Create a Gold Page layout





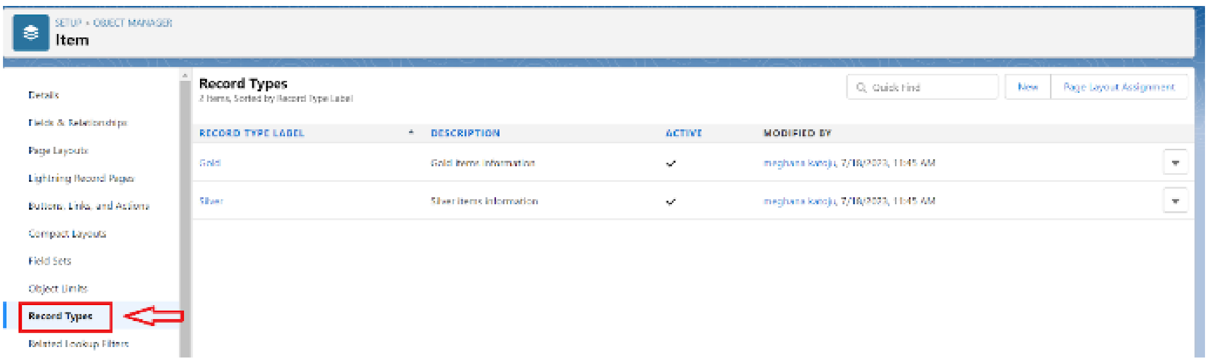
Activity 19: To Create a Silver Page layout

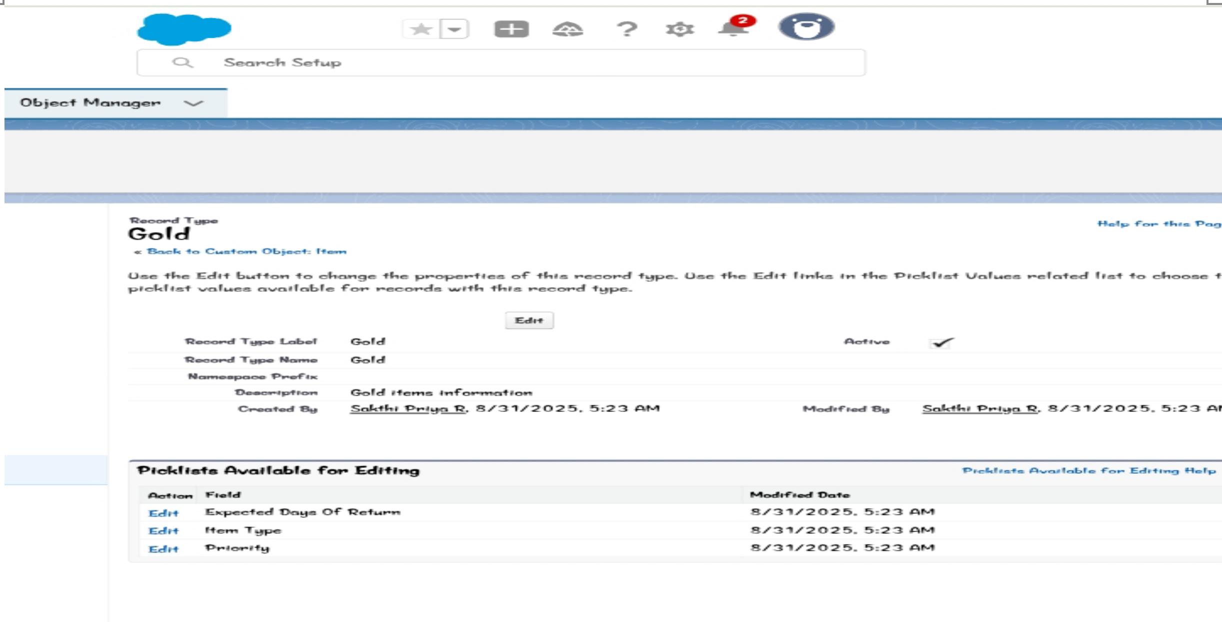


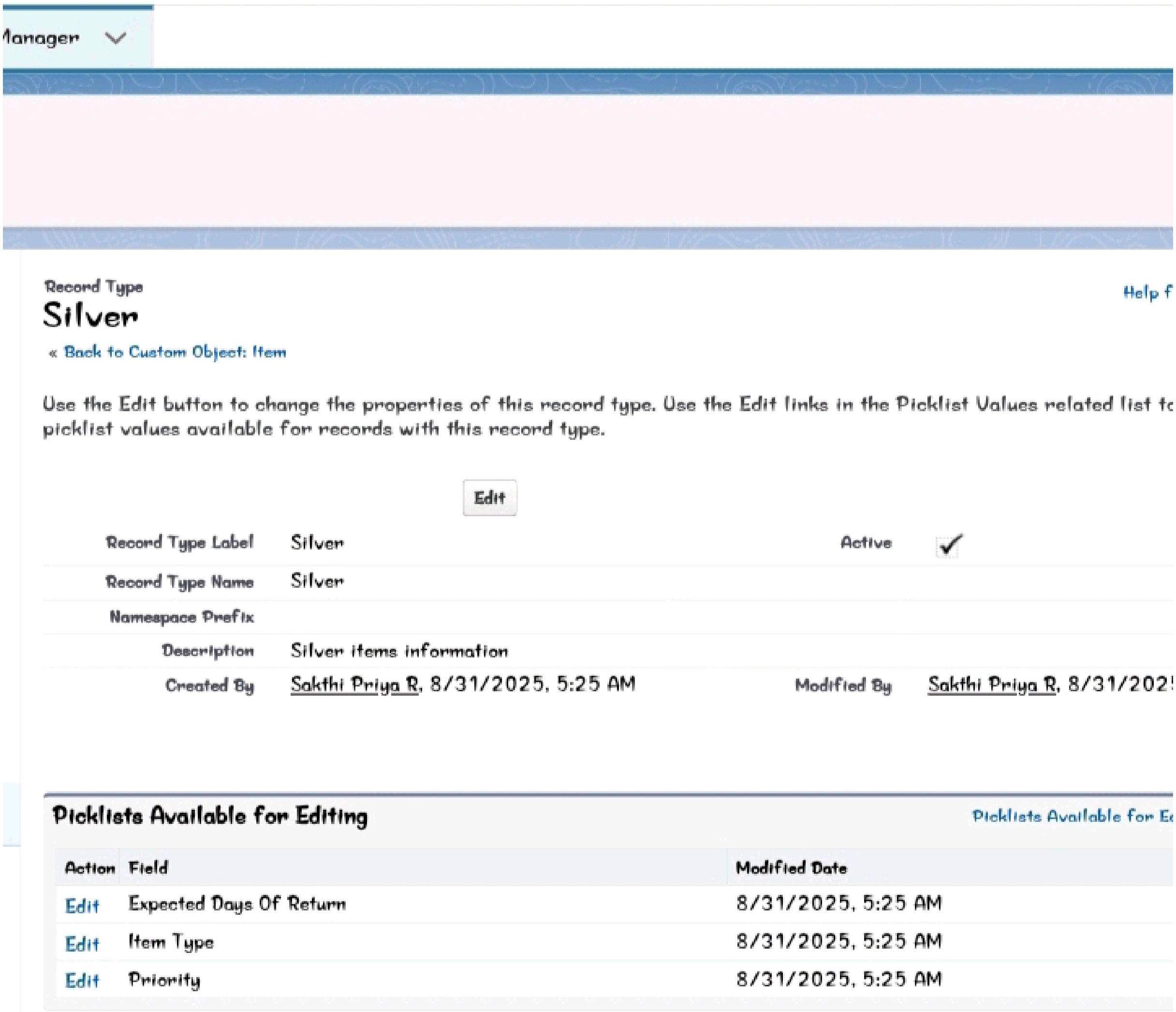


Module: Record Types

Activity 20: To create a Record Type




Search Setup
Object Manager
Record Type
Gold
« Back to Custom Object: Item
Help for this Pag
Use the Edit button to change the properties of this record type. Use the Edit links in the Picklist Values related list to choose t
picklist values available for records with this record type.
Edit
Record Type Label Gold
Active
Record Type Name Gold
Namespace Prefix
Description Gold items information
Created By Sakthi Priya R, 8/31/2025, 5:23 AM
Modified By Sakthi Priya R, 8/31/2025, 5:23 AI
Picklists Available for Editing
Picklists Available for Editing Help
Action Field Modified Date
Edit Expected Days Of Return 8/31/2025, 5:23 AM
Edit Item Type 8/31/2025, 5:23 AM
Edit Priority 8/31/2025, 5:23 AM

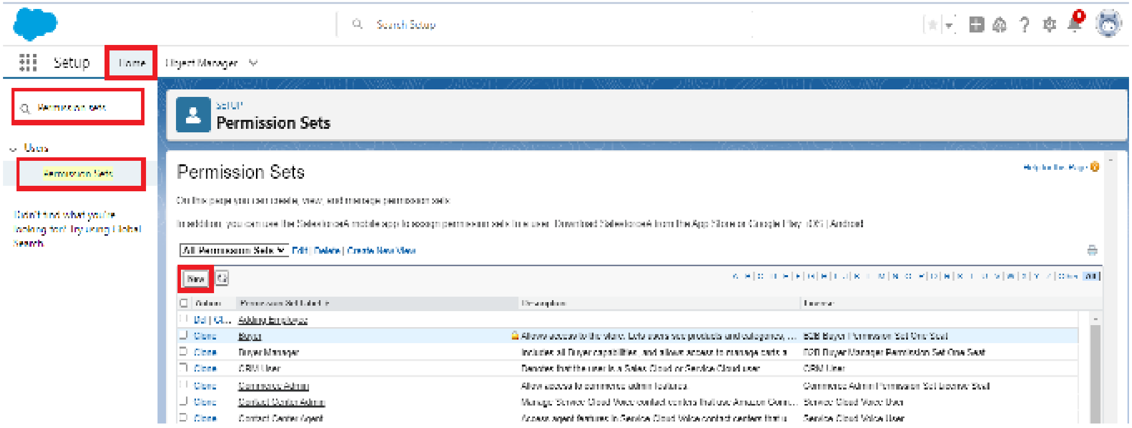


Module: Permission sets

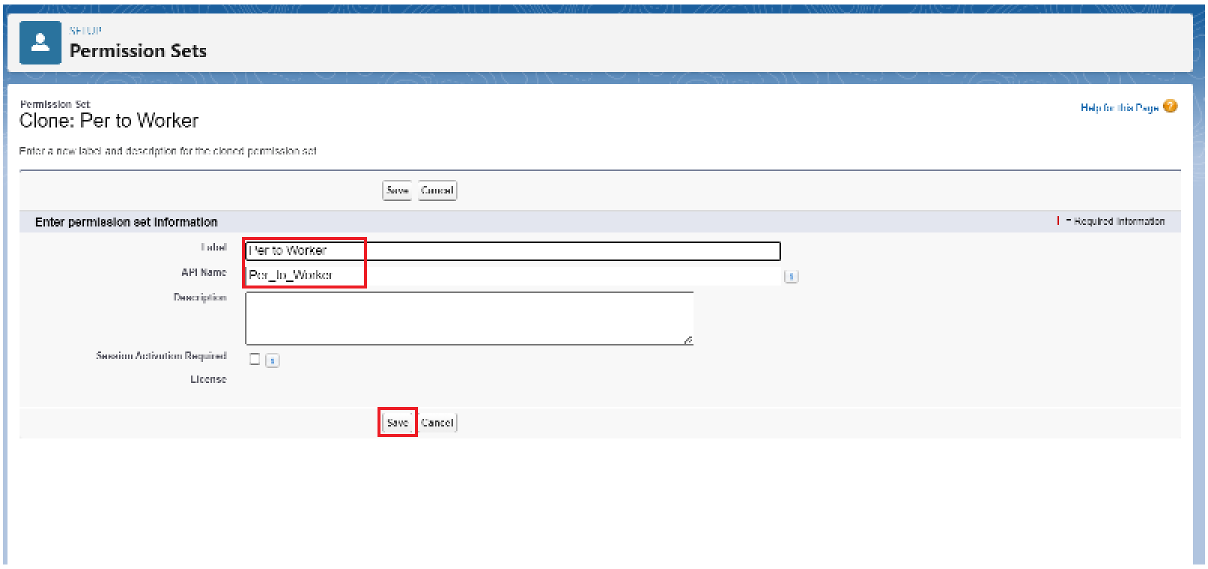
Activity 21: Creating permission set

A permission set is a collection of settings and permissions that give users access to various tools and functions. Permission sets extend users' functional access without changing their profiles. Users can have only one profile but, depending on the Salesforce edition, they can have multiple permission sets.

1. Go to setup >> type "permission sets" in quick search >> select permission sets >> New.

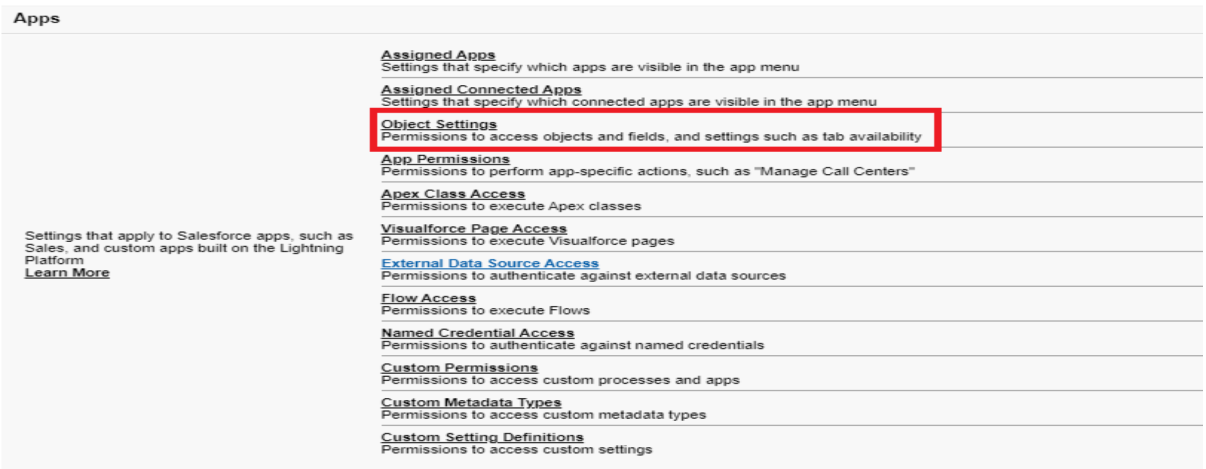


2. Enter the label name as “Per to Worker”, API will be auto populated? save.

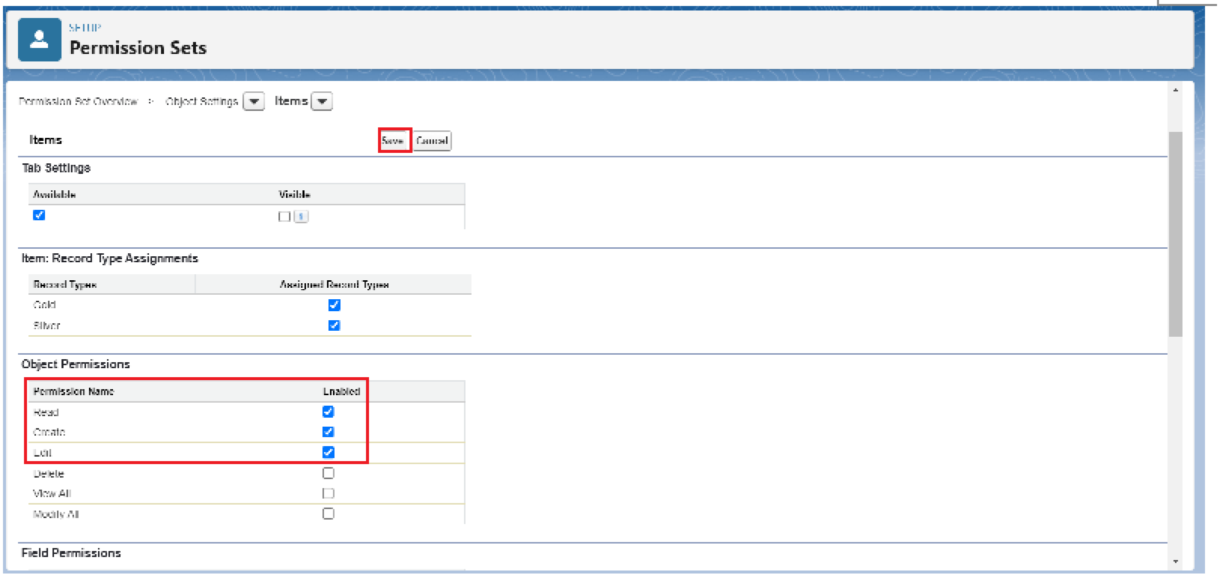


3.

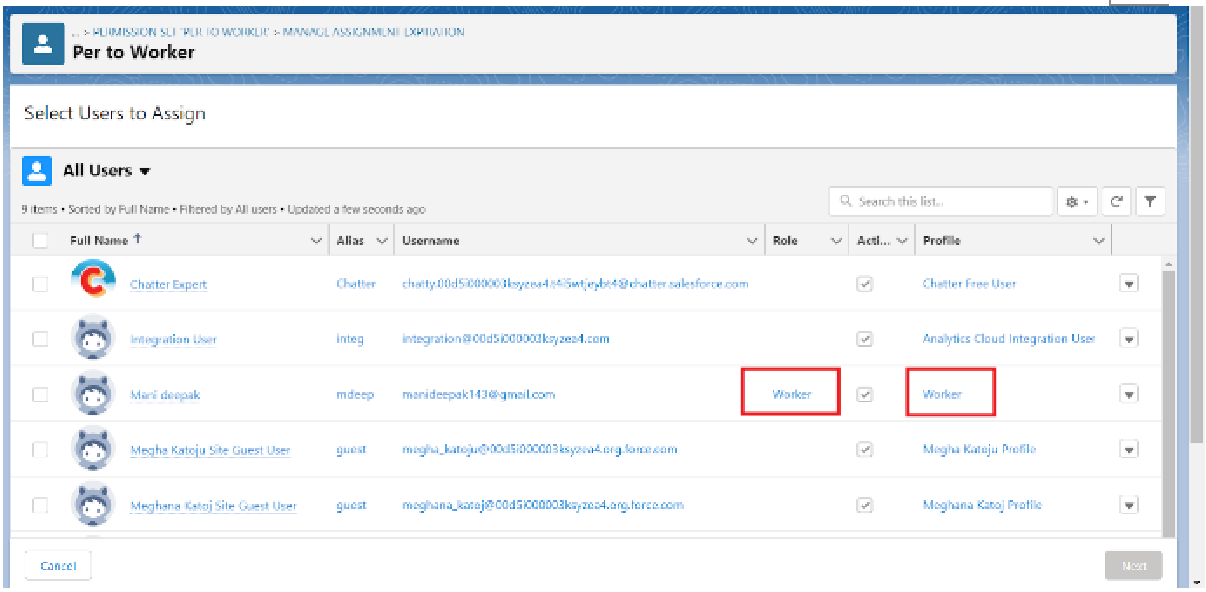
4. Under Apps Select object settings.



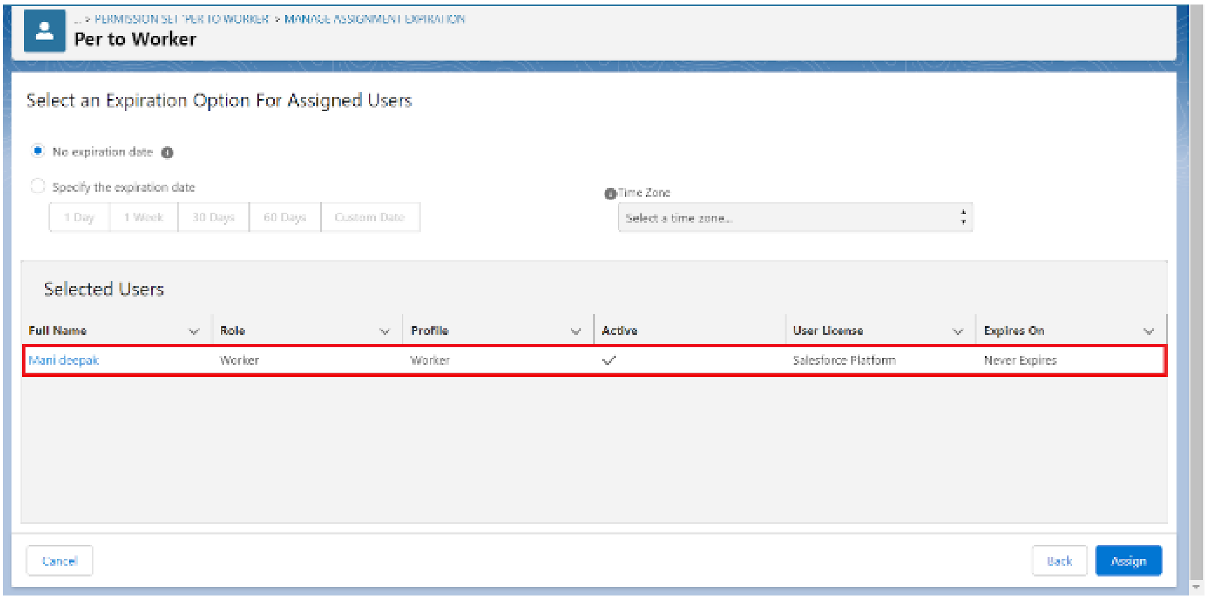
4. Click on Items object? click on Edit? under Item: Record Type Assignments, enable Gold, Silver? Object permission check for read, edit and create.

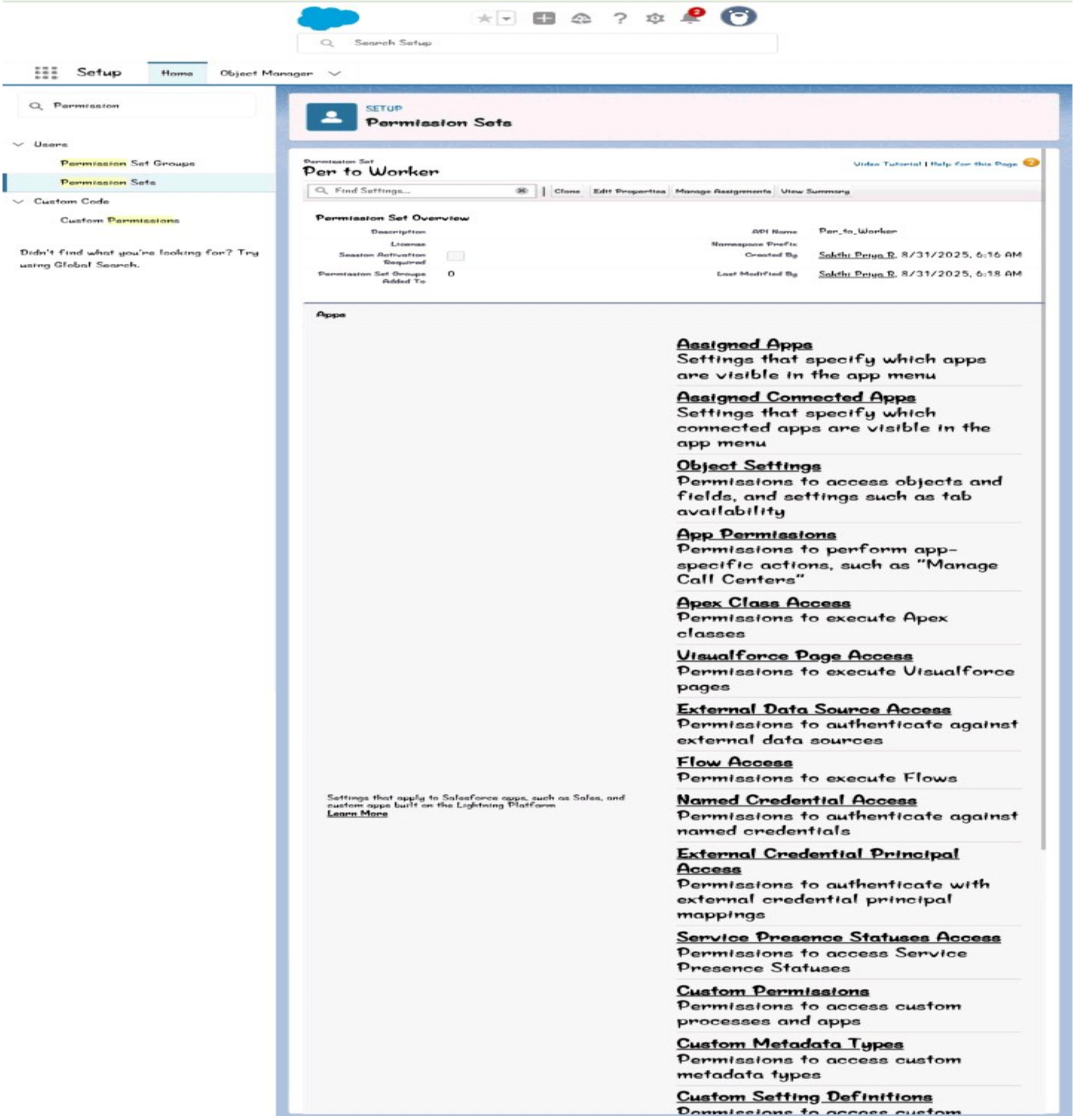


5. Click on Save.
6. After saving the permission click on the Manage assignment
7. Now click on the Add Assignment.



8. Now select the users which you have created in user milestone, using worker profile and click on Next? Assign? Done.





Module: Trigger

Activity 22: Create a Trigger Handler class

Trigger handler:

A trigger handler is a design pattern that organises trigger logic into separate classes. This helps in keeping code organised, reusable, and easier to maintain. The trigger handler class contains methods that handle the specific logic for different trigger events, improving code structure and readability. This approach is particularly useful for complex triggers or projects with multiple triggers, as it promotes modular coding practices and reduces the chances of code duplication.

CODE:

```
public class UpdatePaidAmountTriggerHandler {
    public static void handleBeforeInsert(List<Billing__c> newBillings) {
        for (Billing__c billing : newBillings) {
            billing.Paid_Amount__c = billing.Paying_Amount__c;
        }
    }

    public static void handleBeforeUpdate(Map<Id, Billing__c> oldBillingsMap,
List<Billing__c> updatedBillings) {
        for (Billing__c billing : updatedBillings) {
            Billing__c oldBilling = oldBillingsMap.get(billing.Id);
            Decimal oldPaidAmount = oldBilling.Paid_Amount__c;
            billing.Paid_Amount__c = oldPaidAmount + billing.Paying_Amount__c;
        }
    }
}
```

Activity 23: Create the trigger

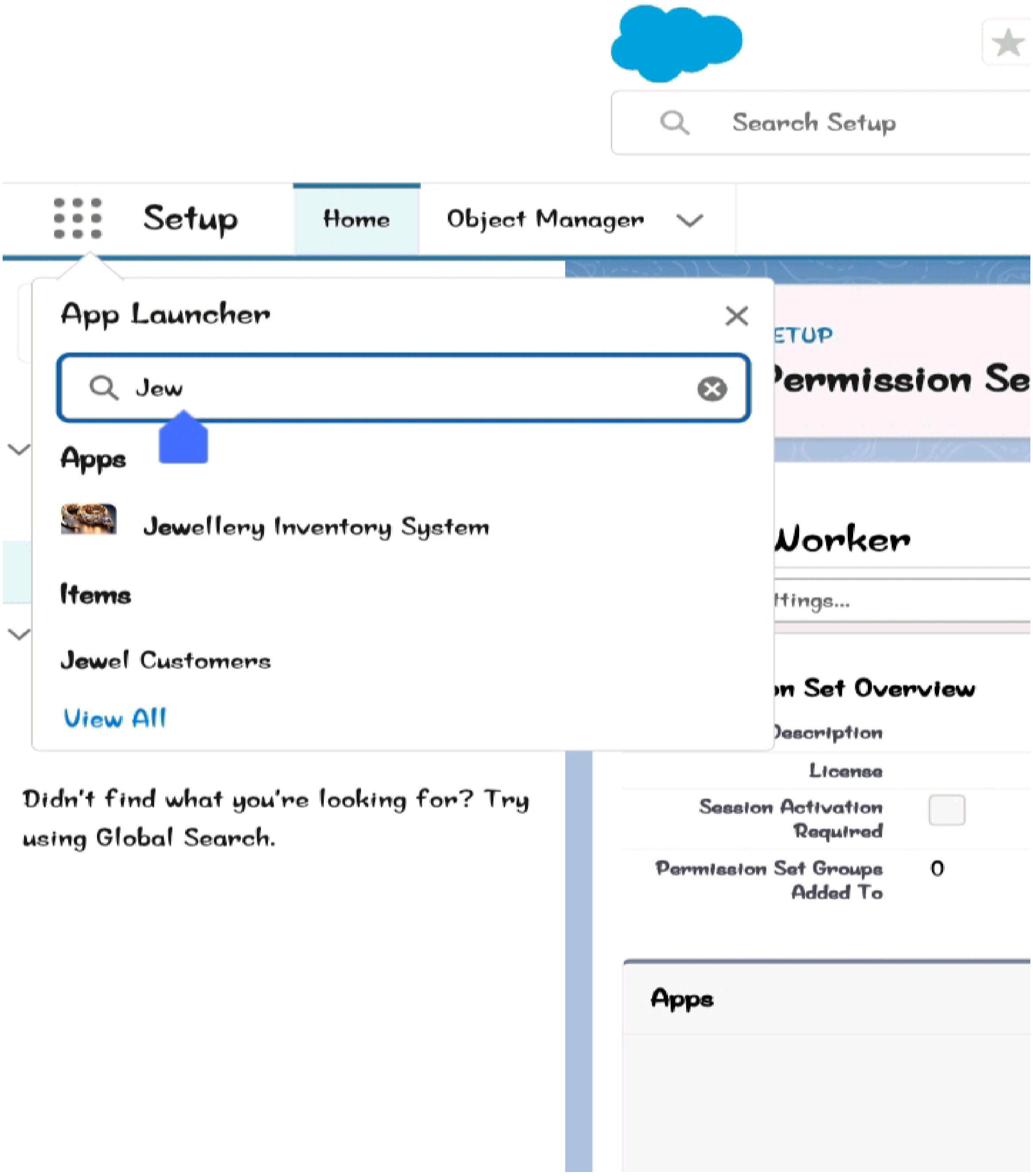
CODE:

```
trigger UpdatePaidAmountTrigger on Billing__c (before insert, before update) {
    if (Trigger.isInsert) {
        UpdatePaidAmountTriggerHandler.handleBeforeInsert(Trigger.new);
    } else if (Trigger.isUpdate) {
        UpdatePaidAmountTriggerHandler.handleBeforeUpdate(Trigger.oldMap,
Trigger.new);
    }
```

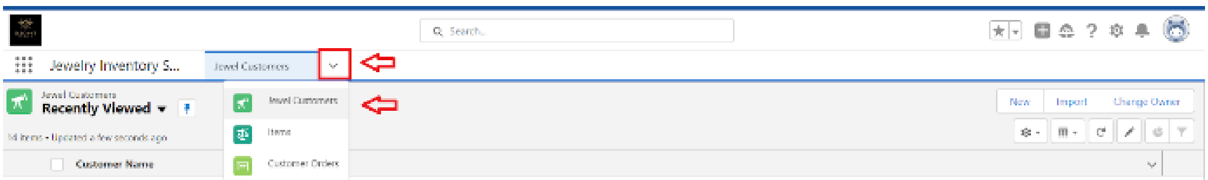
Module: User Adoption

Activity 24: Create a Record (Jewel Customer)

1. Click on App Launcher on the left side of the screen.
2. Search Jewellery Inventory System & click on it.



3. Click on Drop Down and Click on the Jewel Customer tab.
4. Click new.



5. Fill the Details and click on Save.

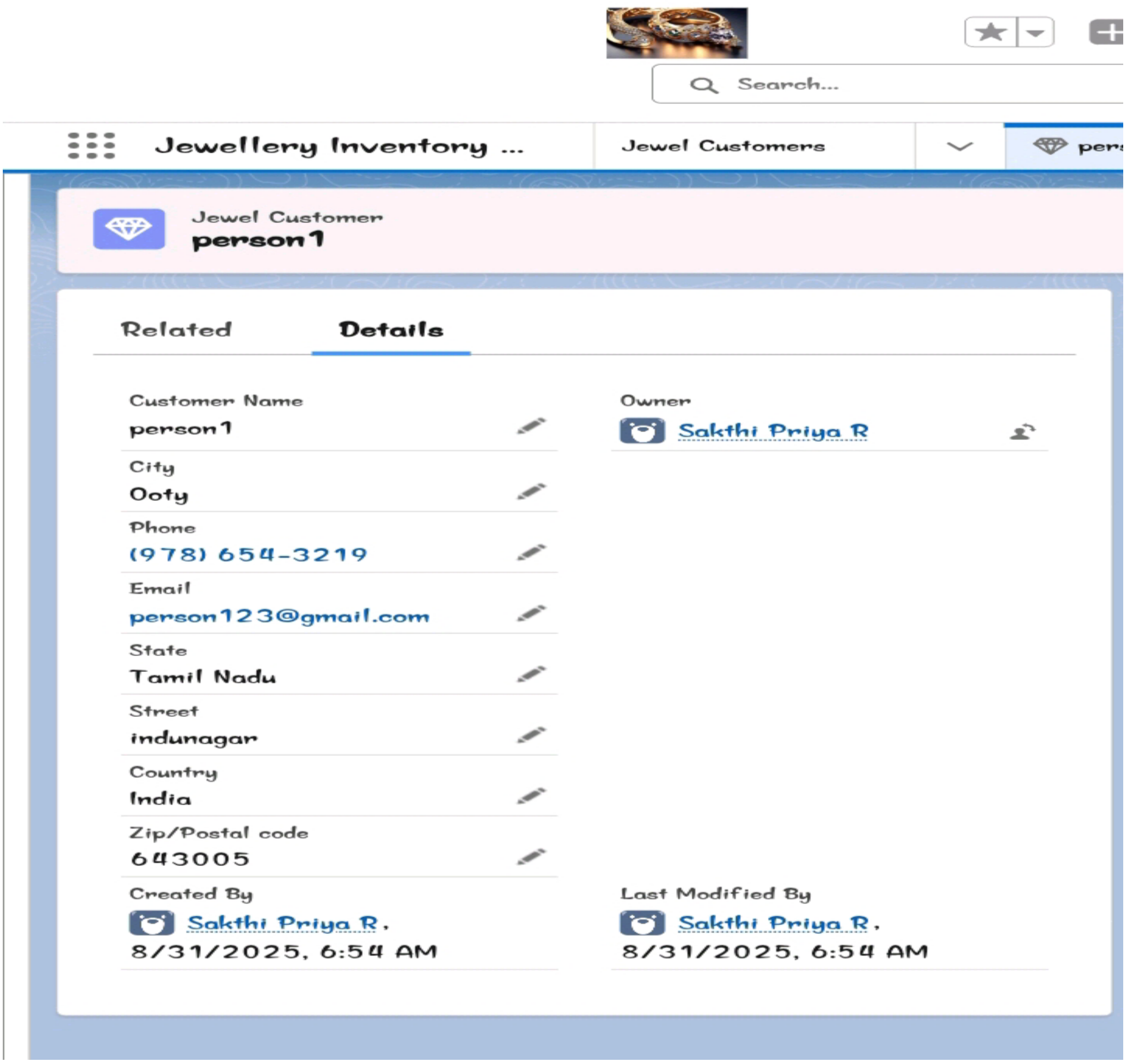
Activity 25: View a Record (Jewel Customer)

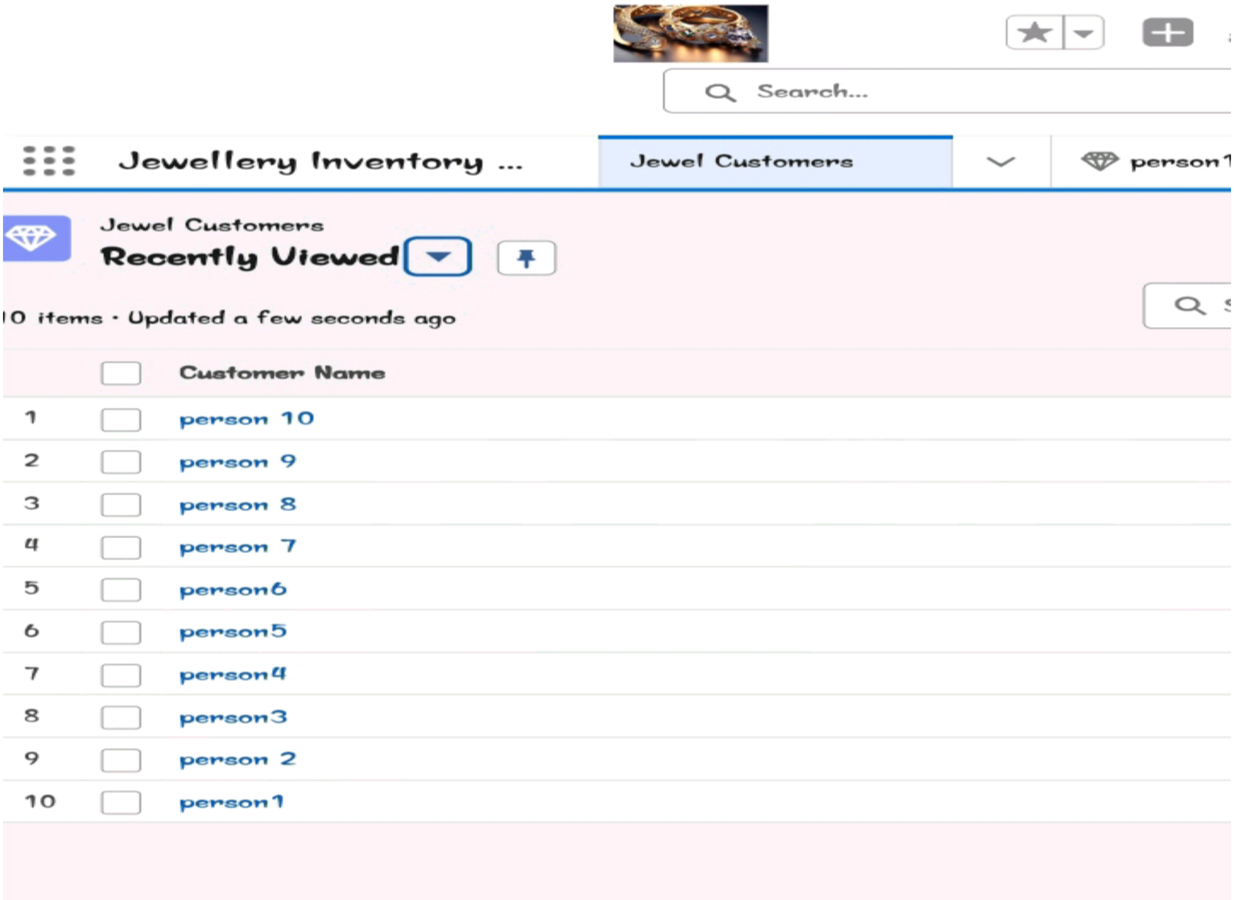
1. Click on App Launcher on the left side of the screen.
2. Search Jewellery Inventory System & click on it.
3. Click on the Jewel Customer Tab.
4. Click on any record name. you can see the details of the Jewel Customer.

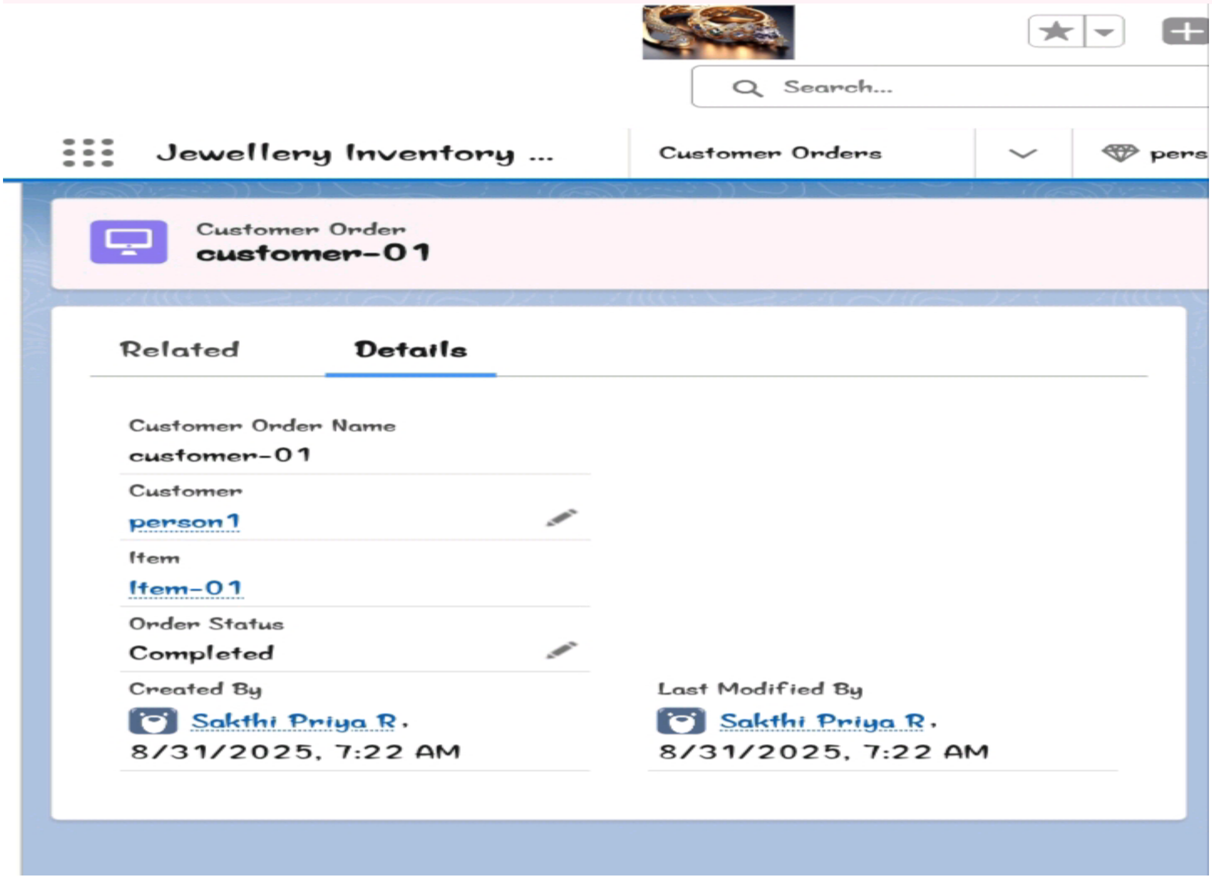
Activity 26: Delete a Record (Jewel Customer)

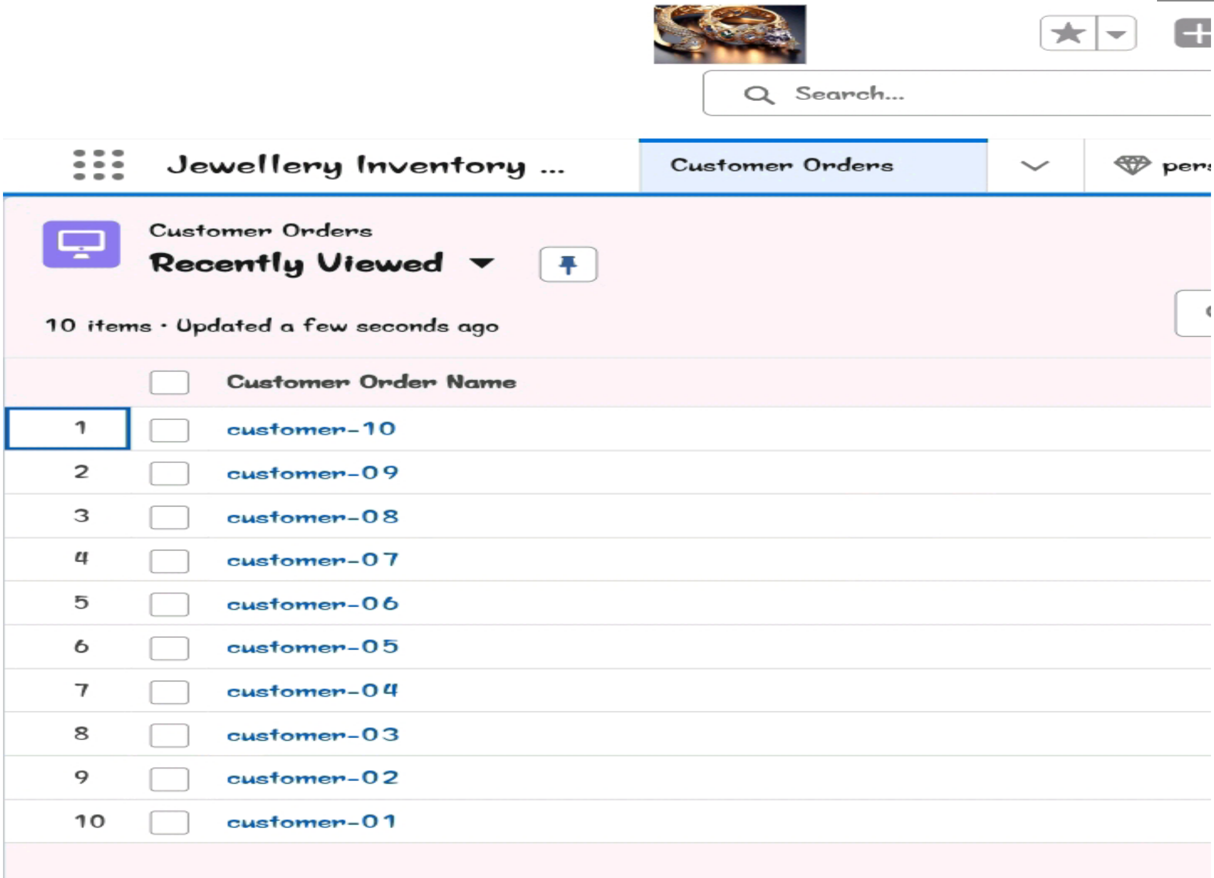
1. Click on App Launcher on the left side of the screen.
2. Search Jewellery Inventory System & click on it.
3. Click on the Jewel Customer Tab.
4. Click on Arrow at right hand side on that Particular record.
5. Click delete.

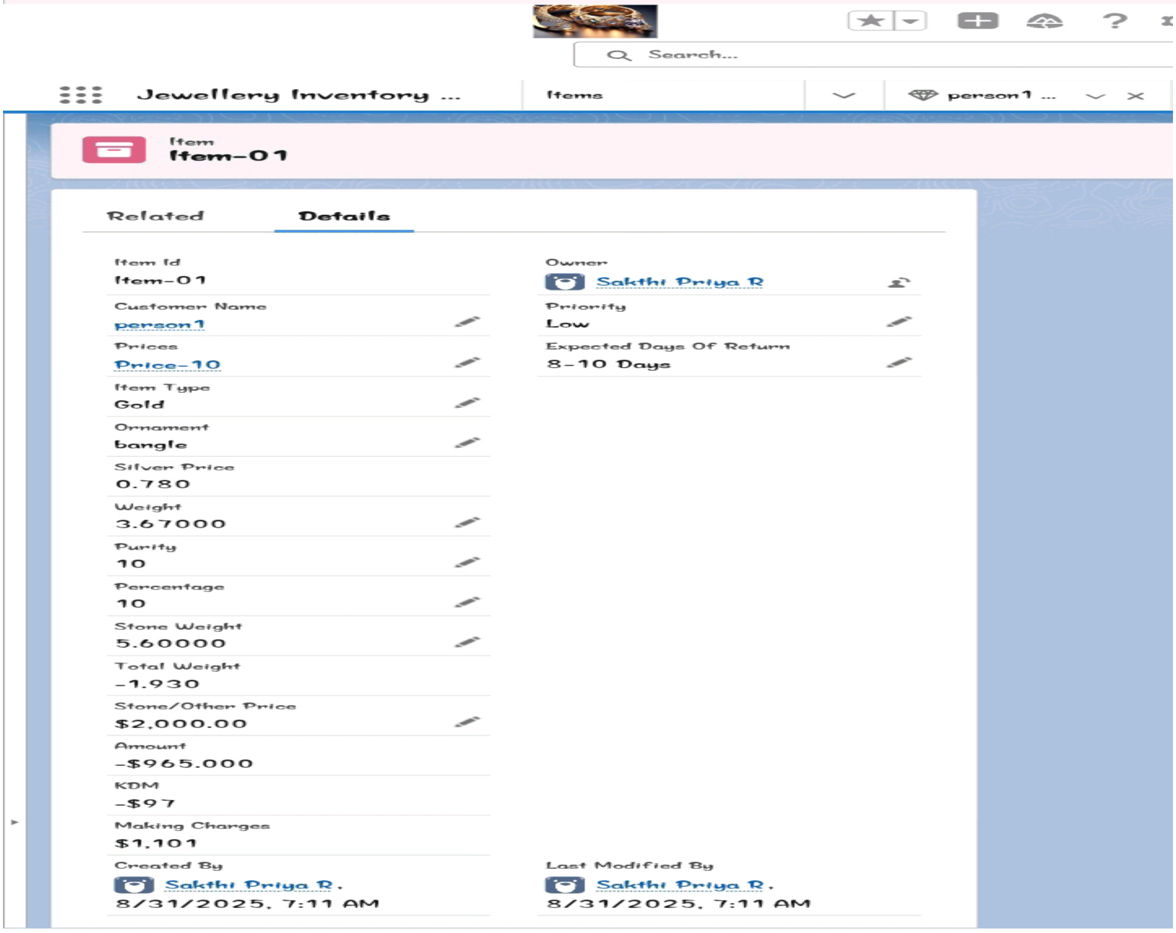
Note: Create at least 10 records for each of the objects: Jewel Customer, Price, Item, Customer Order and Billing.

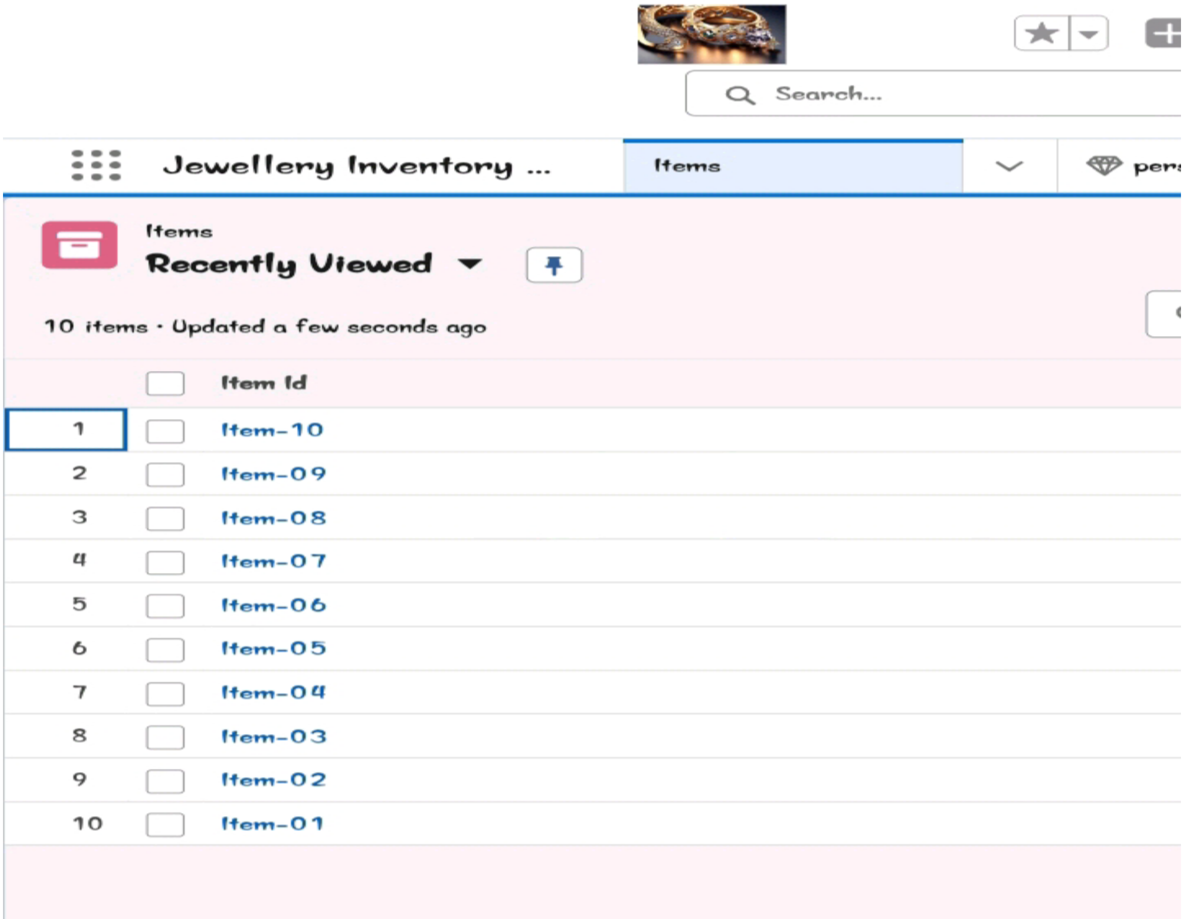


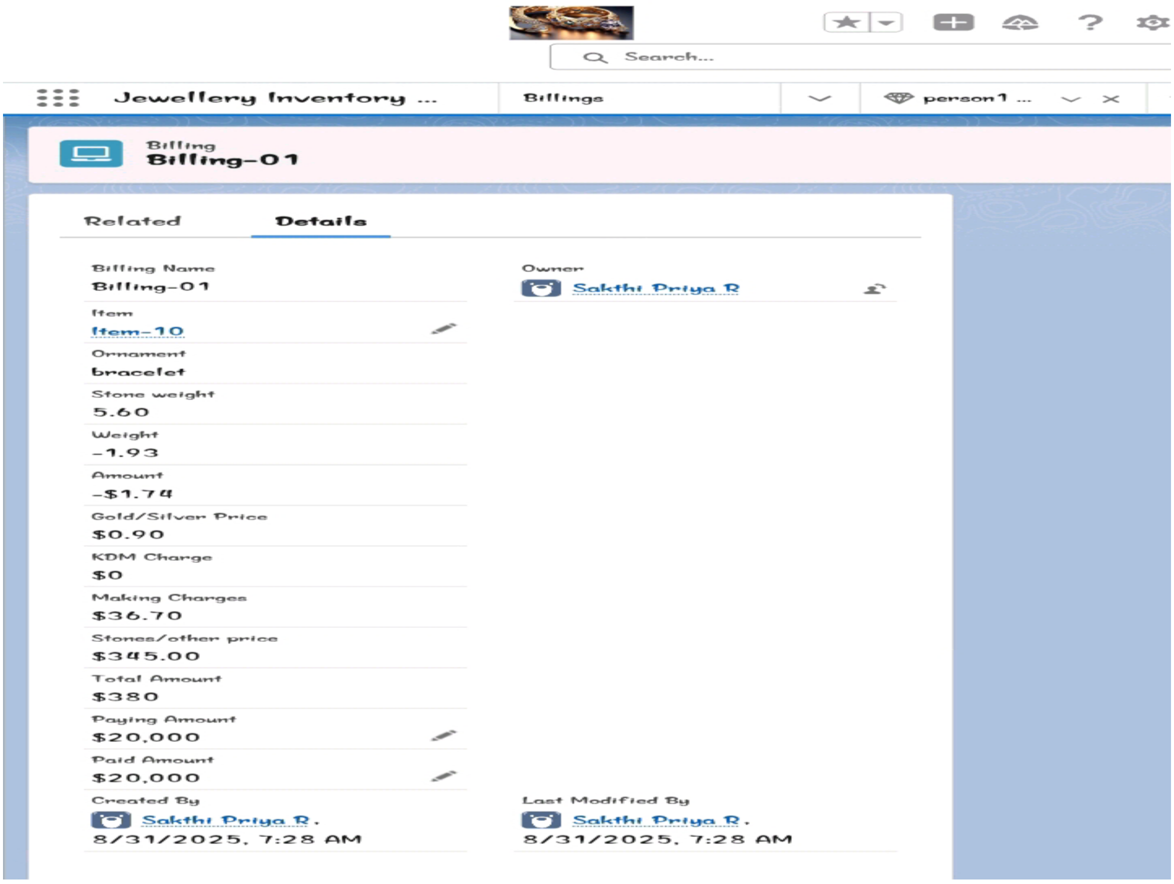

Search...
Jewellery Inventory ...
Jewel Customers
person1
Jewel Customers
Recently Viewed
10 items • Updated a few seconds ago
Customer Name
1 person 10
2 person 9
3 person 8
4 person 7
5 person6
6 person5
7 person4
8 person3
9 person 2
10 person1

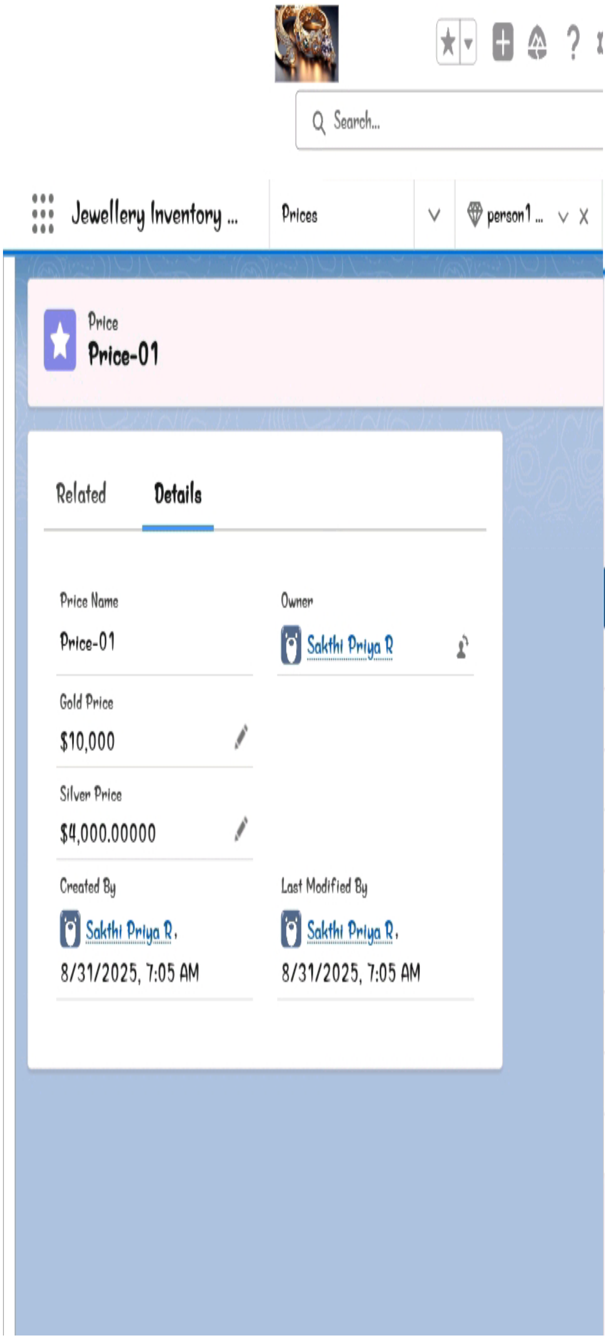

Search...
Jewellery Inventory ...
Customer Orders
Customer Order
customer-01
Related
Details
Customer Order Name
customer-01
Customer
person1
Item
Item-01
Order Status
Completed
Created By
Sakthi Priya R,
8/31/2025, 7:22 AM
Last Modified By
Sakthi Priya R,
8/31/2025, 7:22 AM

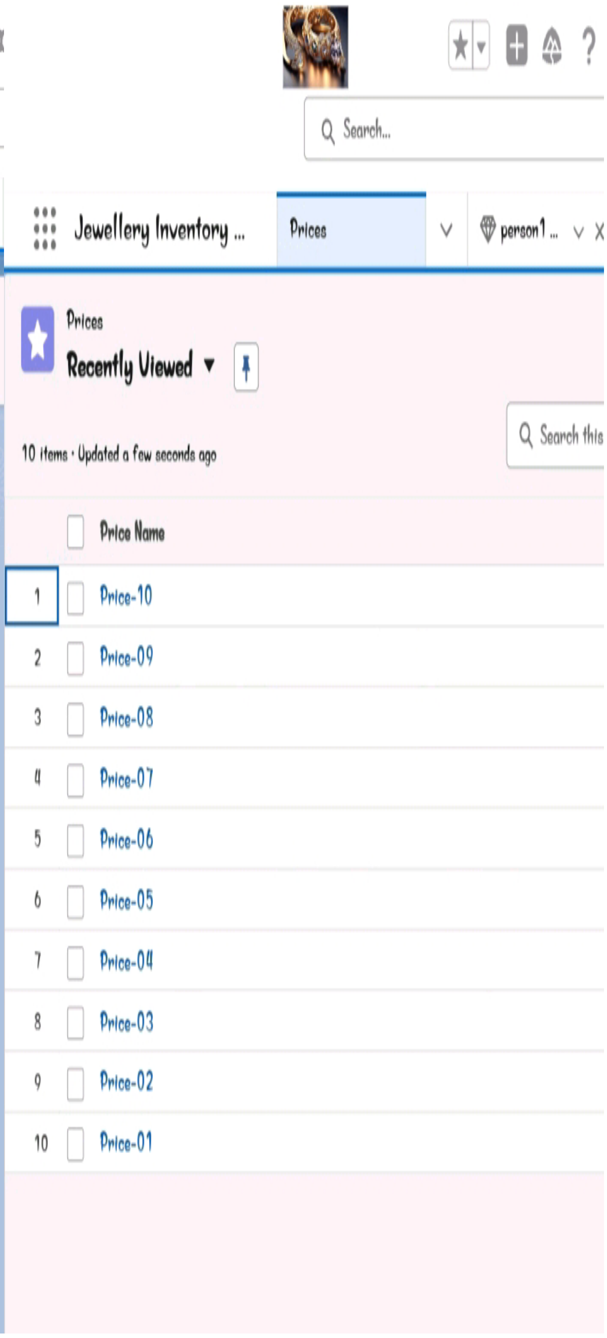

Search...
Jewellery Inventory ...
Customer Orders
pers
Customer Orders
Recently Viewed
10 items • Updated a few seconds ago
Customer Order Name
1 customer-10
2 customer-09
3 customer-08
4 customer-07
5 customer-06
6 customer-05
7 customer-04
8 customer-03
9 customer-02
10 customer-01

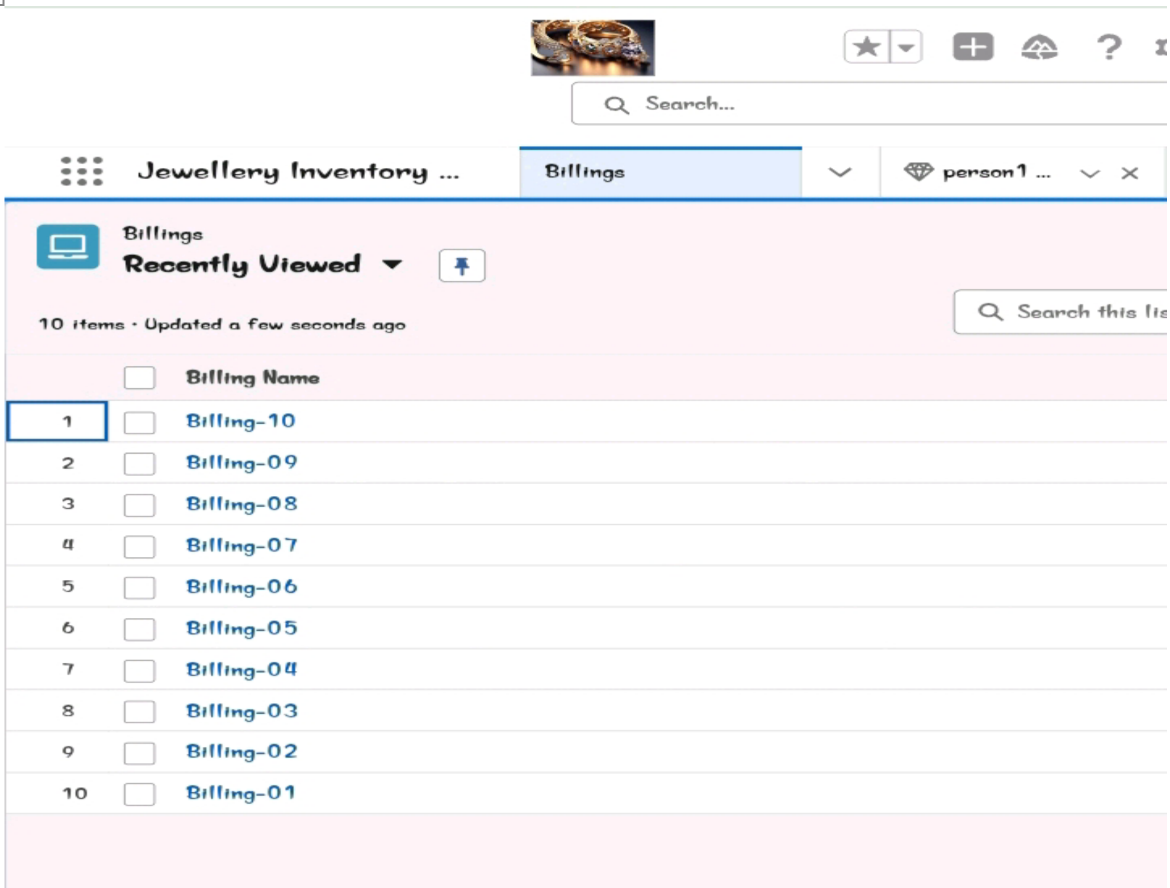

Search...
Jewellery Inventory ...
Items
person1 ...
Item
Item-01
Related
Details
Item Id
Item-01
Owner
Sakthi Priya R
Customer Name
person1
Priority
Low
Prices
Price-10
Expected Days Of Return
8-10 Days
Item Type
Gold
Ornament
bangle
Silver Price
0.780
Weight
3.67000
Purity
10
Percentage
10
Stone Weight
5.60000
Total Weight
-1.930
Stone/Other Price
$2,000.00
Amount
-$965.000
KDM
-$97
Making Charges
$1,101
Created By
Sakthi Priya R, 8/31/2025, 7:11 AM
Last Modified By
Sakthi Priya R, 8/31/2025, 7:11 AM


Search...
Jewellery Inventory ...
Items
pers
Items
Recently Viewed
10 items • Updated a few seconds ago
Item Id
1 Item-10
2 Item-09
3 Item-08
4 Item-07
5 Item-06
6 Item-05
7 Item-04
8 Item-03
9 Item-02
10 Item-01


Search...
Jewellery Inventory ...
Billings
person1 ...
Billing
Billing-01
Related
Details
Billing Name
Billing-01
Owner
Sakthi Priya R
Item
Item-10
Ornament
bracelet
Stone weight
5.60
Weight
-1.93
Amount
-$1.74
Gold/Silver Price
$0.90
KDM Charge
$0
Making Charges
$36.70
Stones/other price
$345.00
Total Amount
$380
Paying Amount
$20,000
Paid Amount
$20,000
Created By
Sakthi Priya R, 8/31/2025, 7:28 AM
Last Modified By
Sakthi Priya R, 8/31/2025, 7:28 AM


Search...
Jewellery Inventory ...
Prices
person1 ...
Price
Price-01
Related
Details
Price Name
Price-01
Owner
Sakthi Priya R
Gold Price
$10,000
Silver Price
$4,000.00000
Created By
Sakthi Priya R,
8/31/2025, 7:05 AM
Last Modified By
Sakthi Priya R,
8/31/2025, 7:05 AM

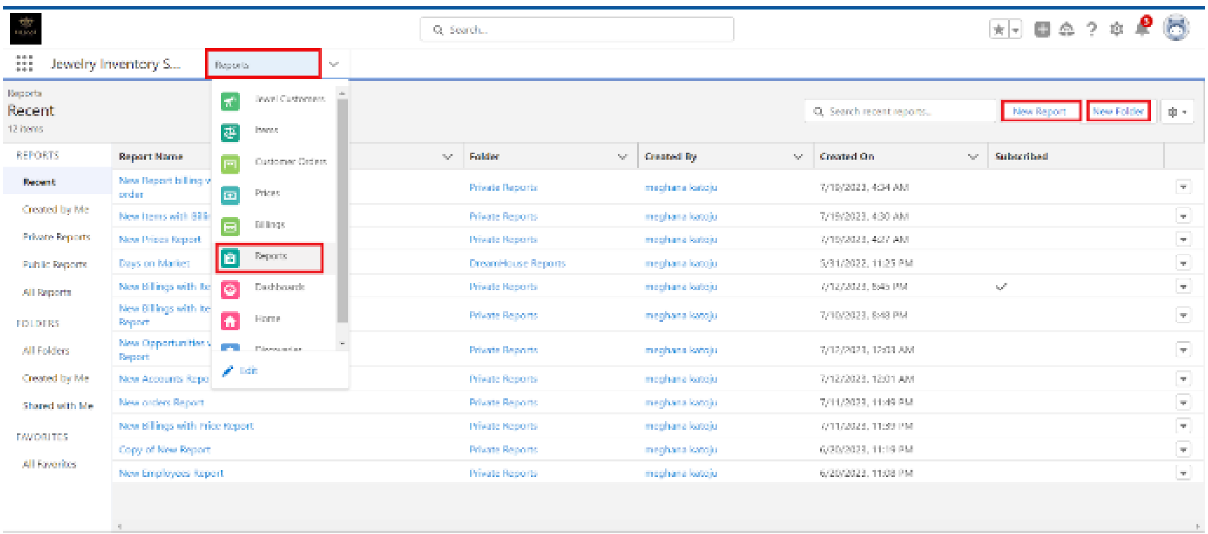

Search...
Jewellery Inventory ...
Prices
person1 ...
Prices
Recently Viewed
10 items • Updated a few seconds ago
Search this
Price Name
1 Price-10
2 Price-09
3 Price-08
4 Price-07
5 Price-06
6 Price-05
7 Price-04
8 Price-03
9 Price-02
10 Price-01

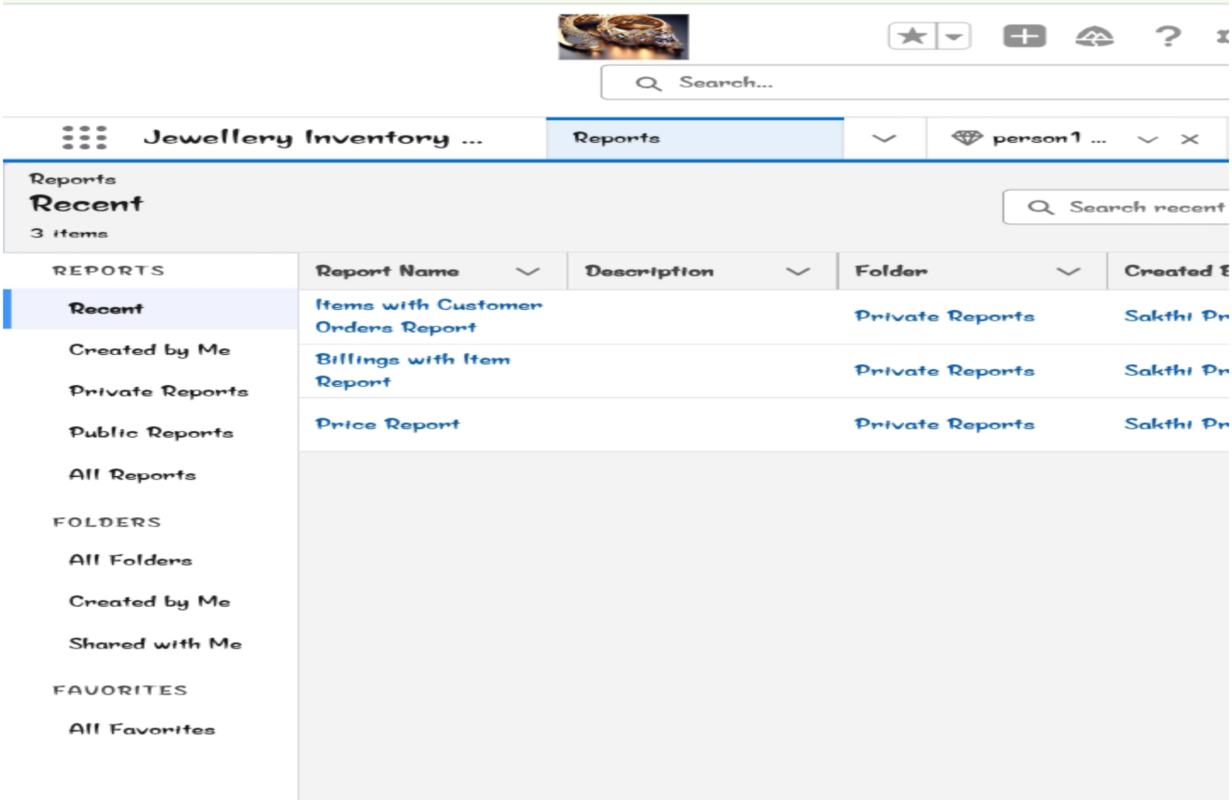


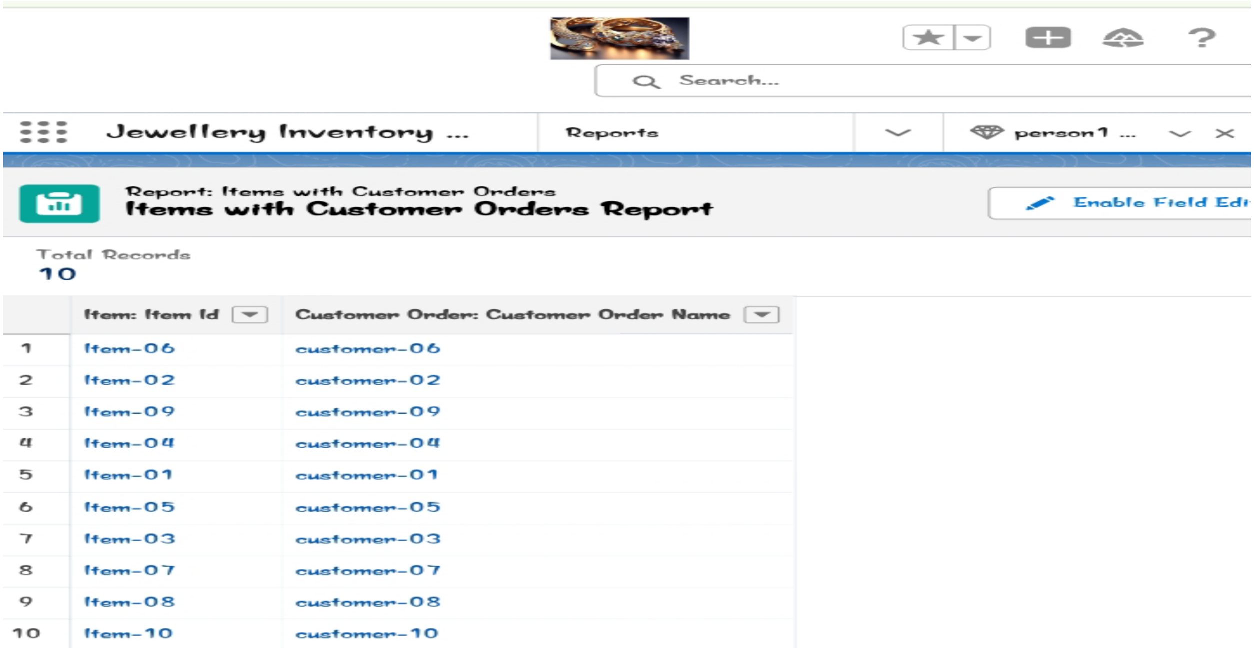
Module: Reports

Activity 27: Create Report

1. Go to the app >> click on the reports tab
2. Click New Report.





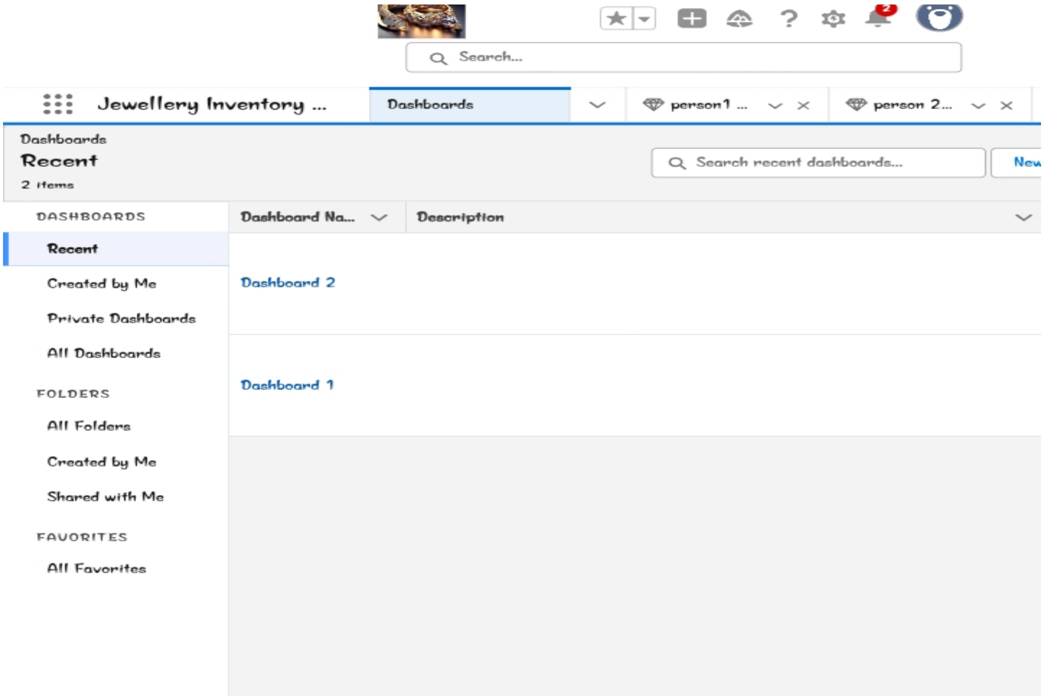


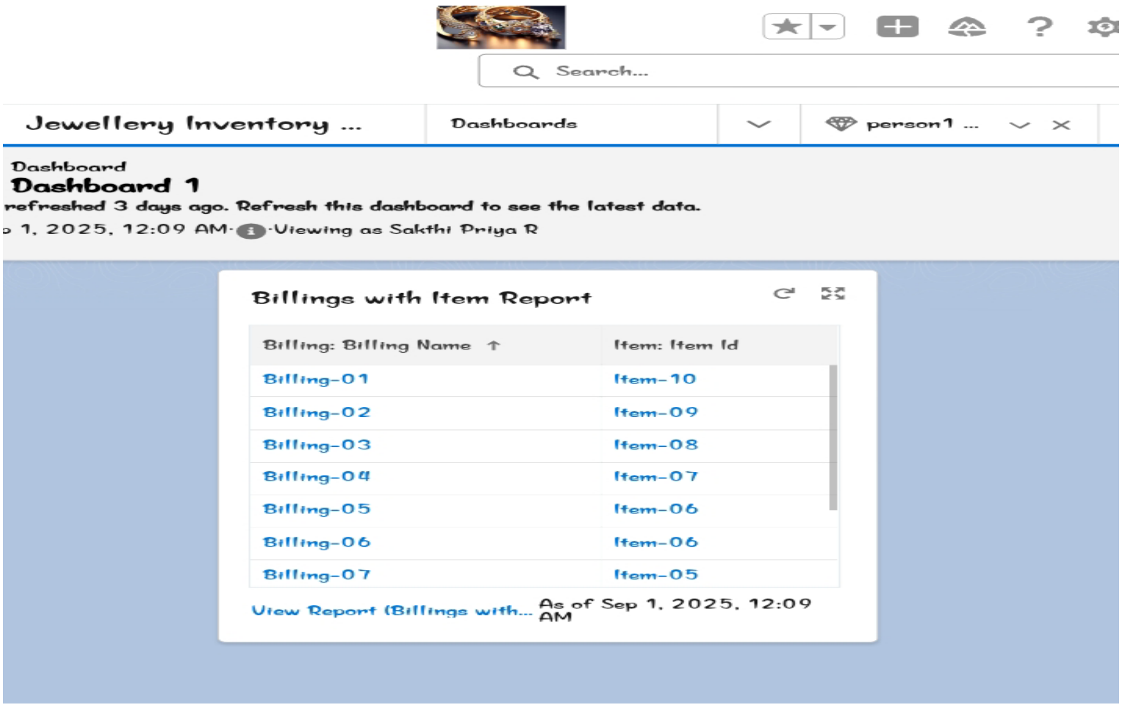
Module: Dashboards

Activity 28: Create Dashboard

1. Go to the app >> click on the dashboard tab

2. Click New dashboard.

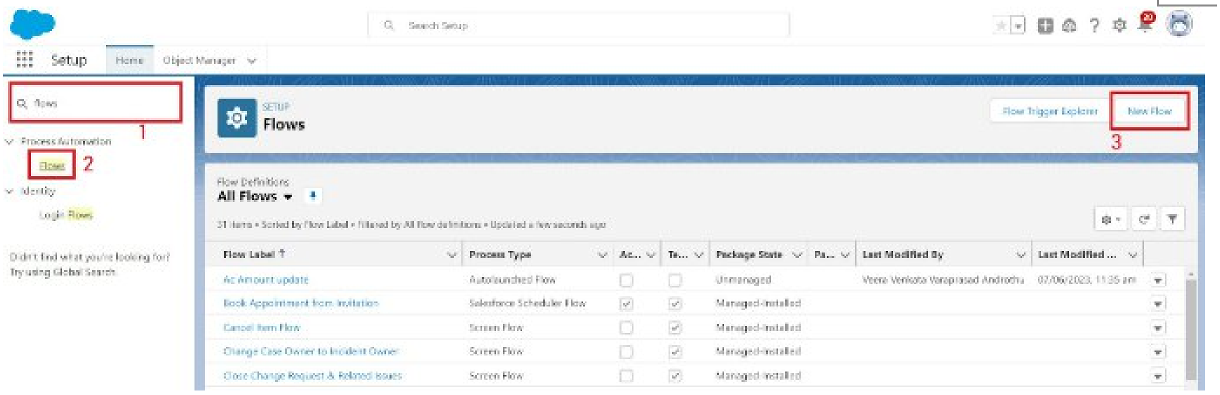




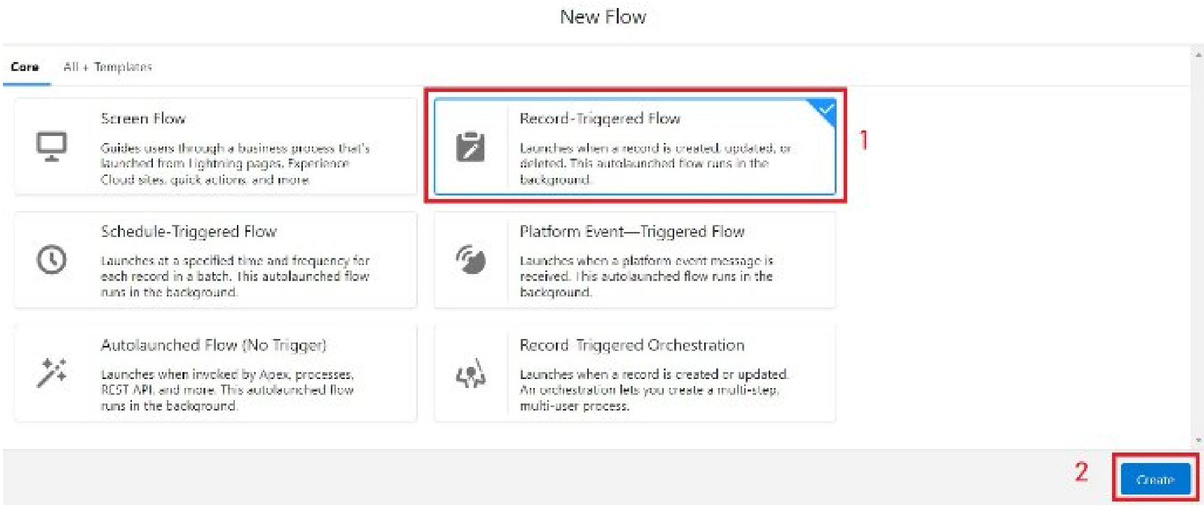
Module: Flows

Activity 29: Create a Flow

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



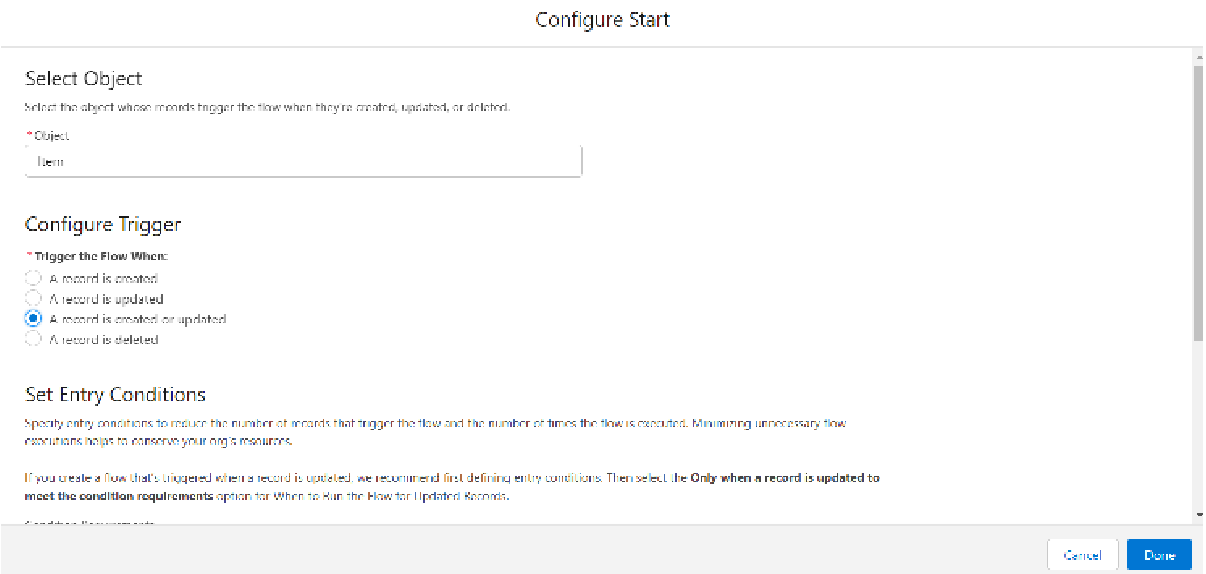
2. Select the Record-triggered flow and Click on Create.



3. Select the Object as a "Billing" in the drop down list.

4. Select the Trigger Flow when: "A record is Created or Updated".

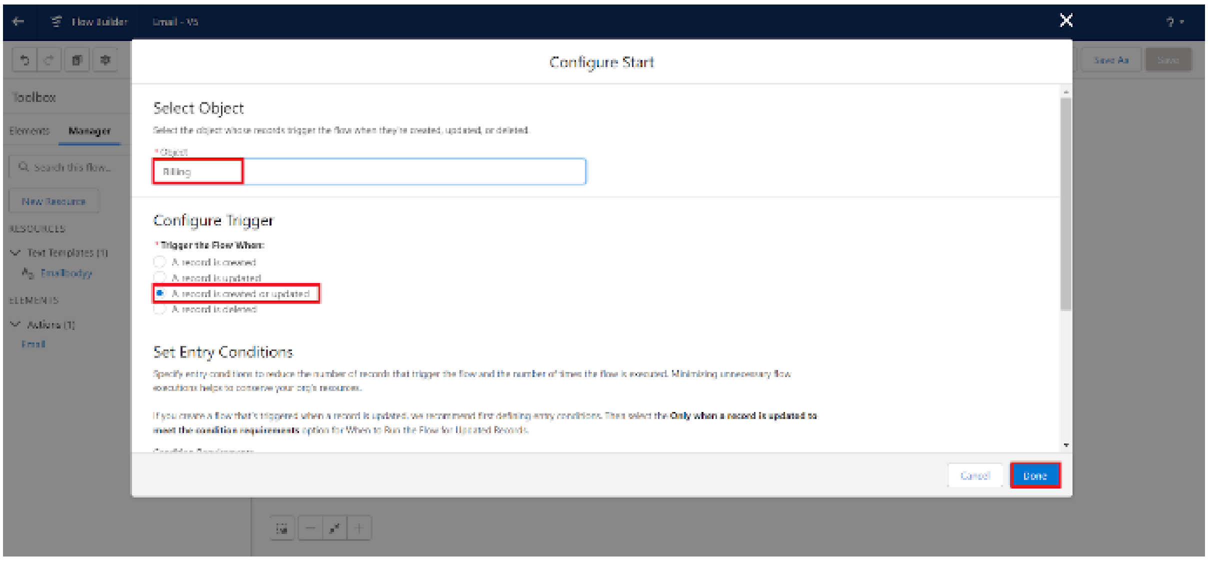
5. Select the Optimise the flow for: "Actions and Related Records" and Click on Done.

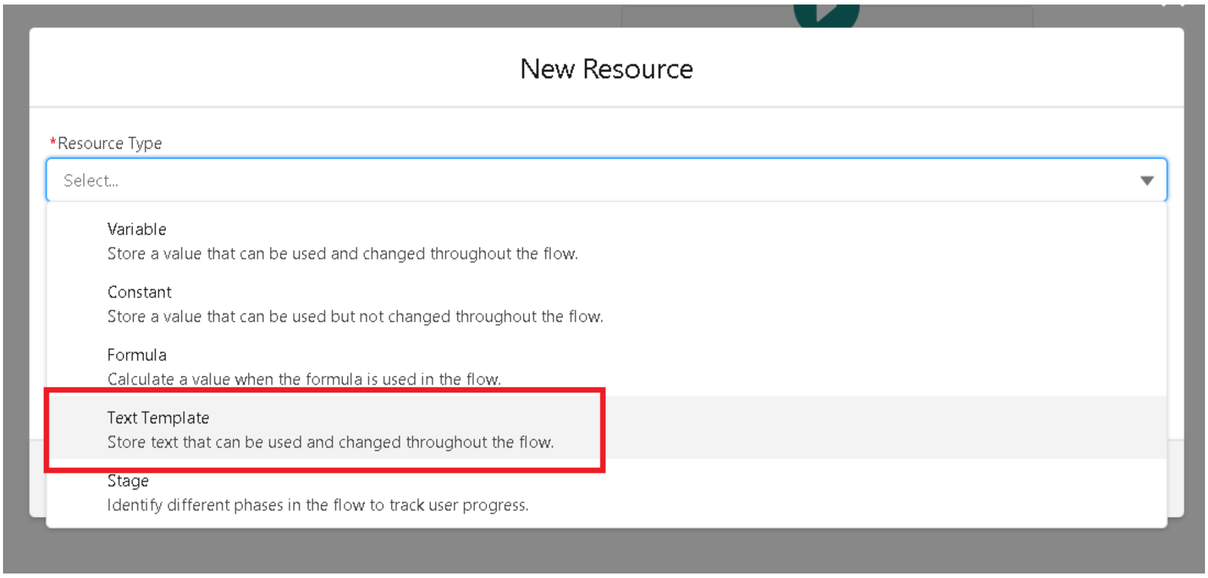


6. Now change the mode form Auto-layout to free-form.

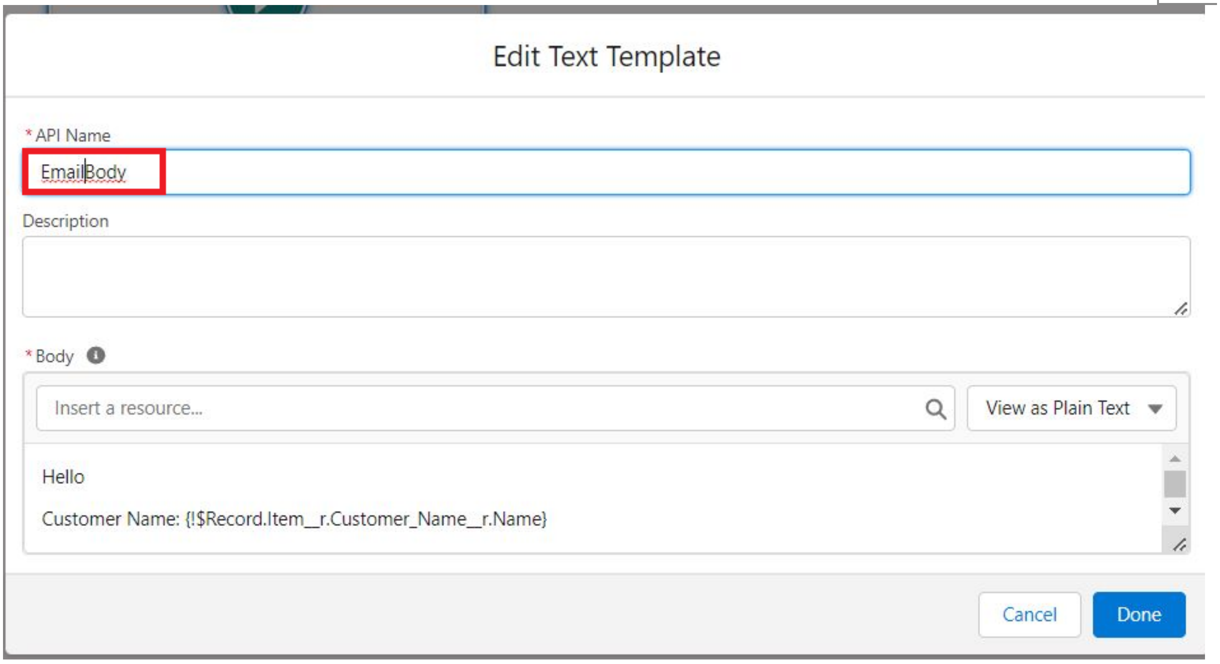
7. Now select the manger option in the toolbox, click new resource.

8. Select the resource type as text template.





9. Enter the API name as “Email body”.



10. Change the view as Rich Text? View to Plain Text.
11. In the body field paste the syntax that is given below.

Hello

Customer Name: {!$Record.Item__r.Customer_Name__r.Name}

Here are the details for the item you purchased with Jewellery Inventory System

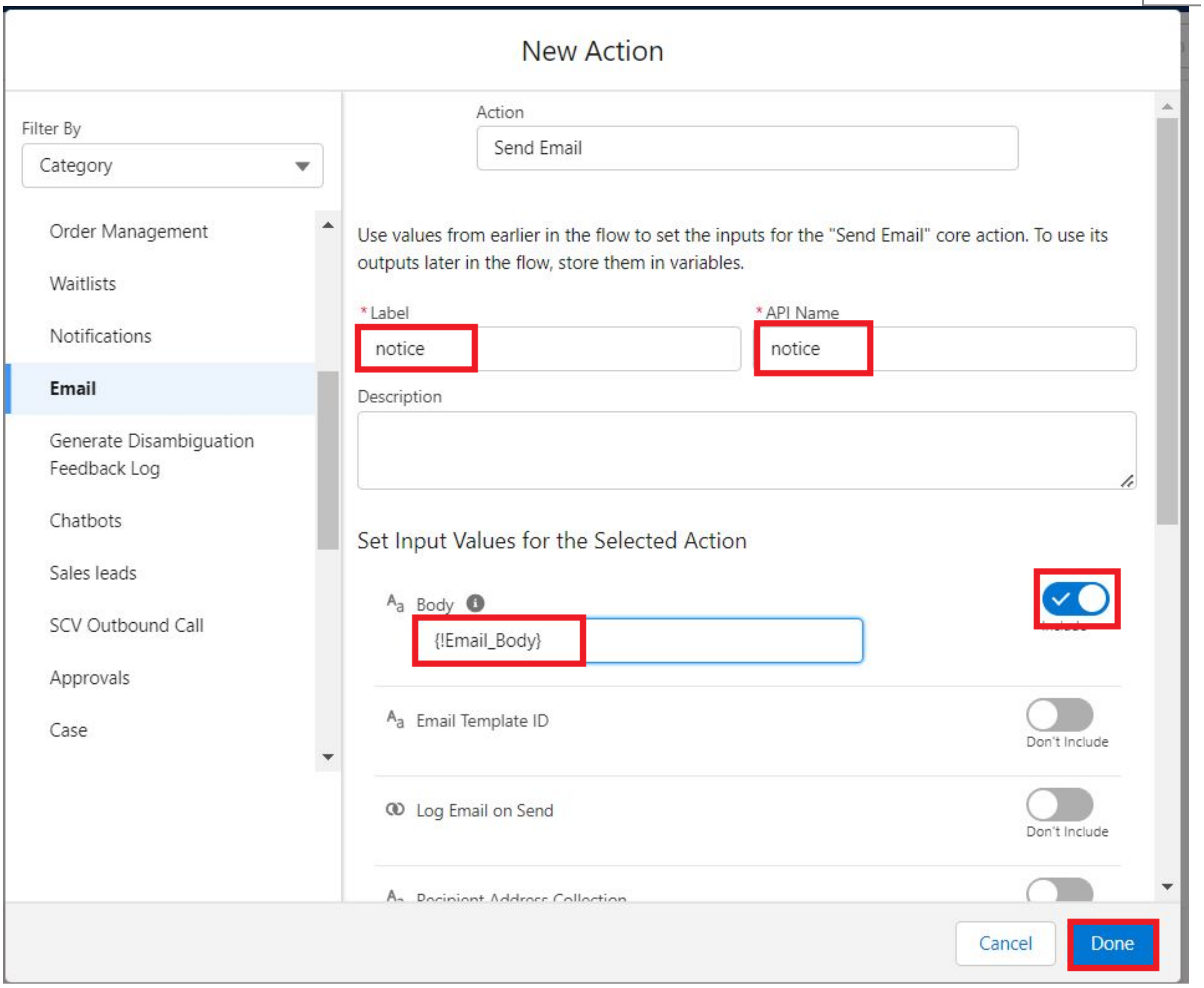
Item Type: {!$Record.Item__r.Item_Type__c}

Ornament: {!$Record.Ornament__c}

Weight: {!$Record.Weight__c}grams

Amount: {!$Record.Amount__c}

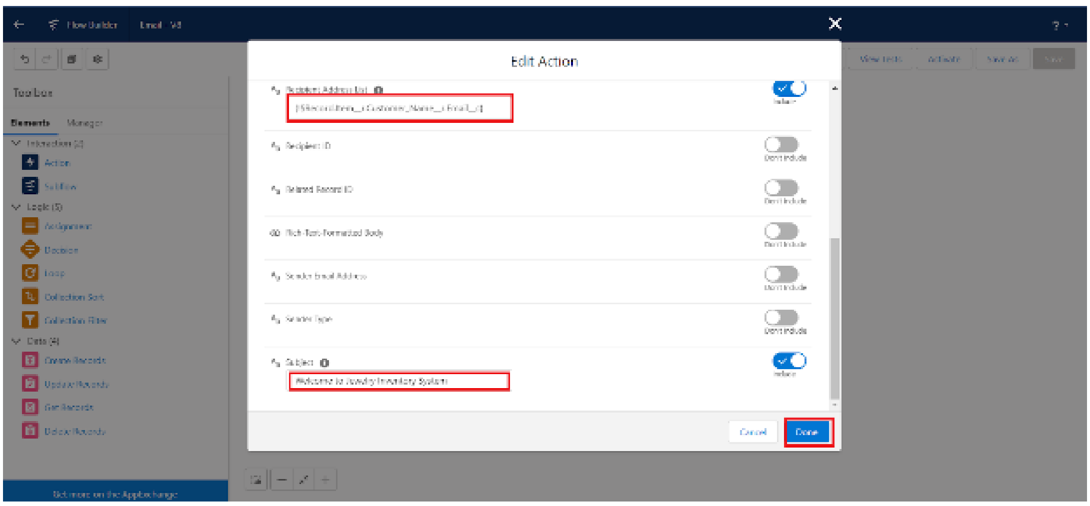
12. Click done.
13. Now click on elements, and drag the action element into the preview pane.
14. Their action bar will be opened in that search for “send email” and click on it.
15. Give the label name as “notice”
16. API name will be auto populated.
17. Enable the body in set input values for the selected action.
18. Select the text template that was created.



19. Include Recipient Address list, select the email form the record. ({!$Record.Item_r.Customer_Namer.Email_c})

20. Include the subject as “Welcome to Jewellery Inventory System”.

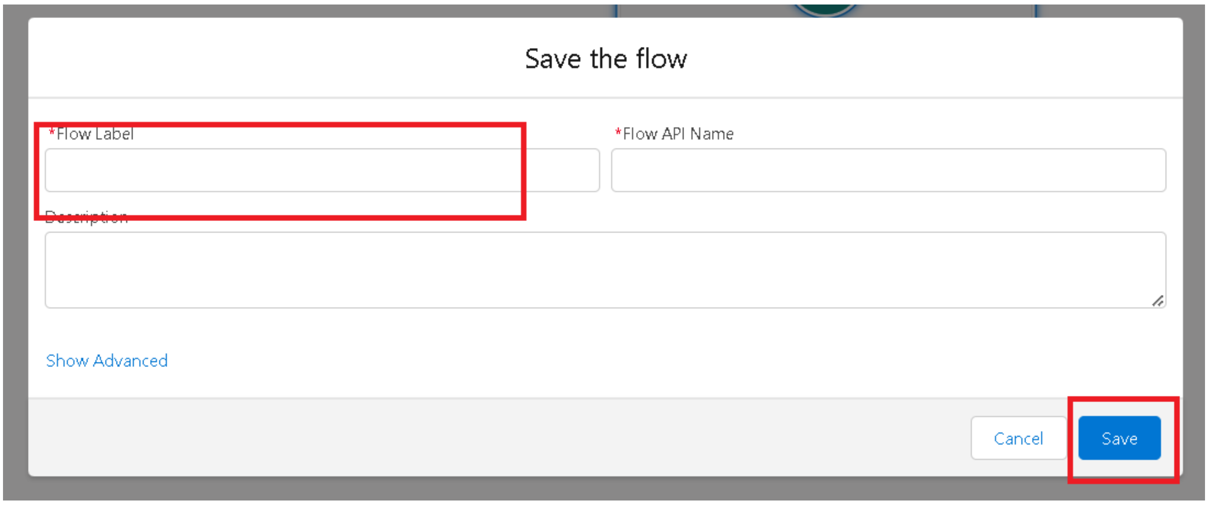
21. Click done.

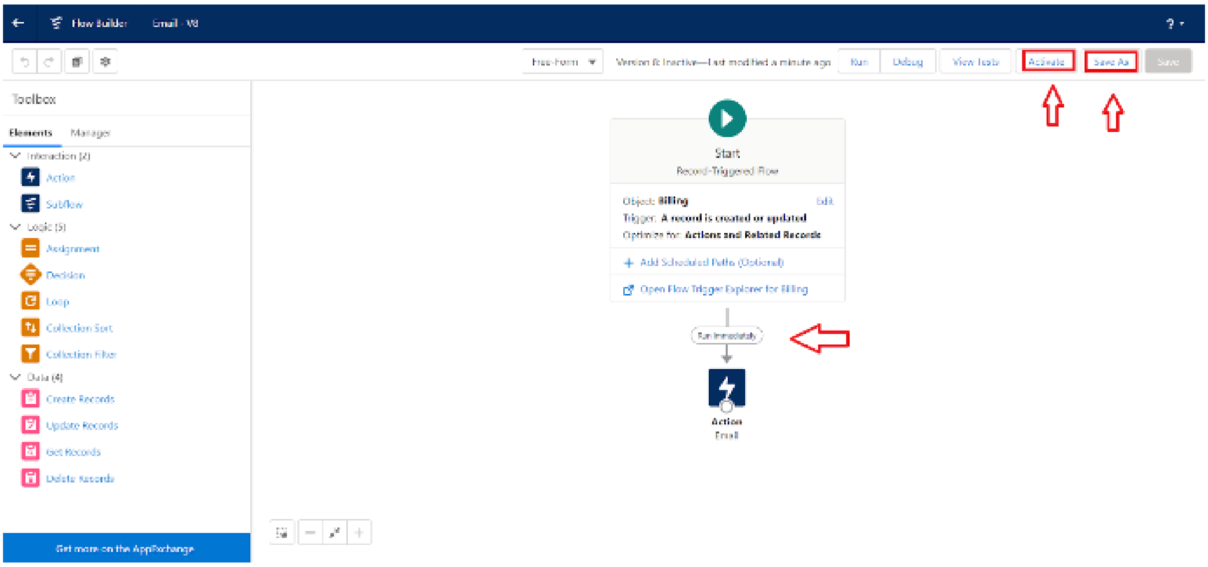


22. Now drag the path from the start to the action element.

23. Click on save. Given the Flow label, Flow Api name will be auto populated.

24. And click save, and click on activate.





Student Learning Outcomes

- Hands-on skills in Salesforce development and CRM customization.
- Improved problem-solving through real-time use case implementation.
- Team collaboration in handling requirement analysis, development, and testing.
- Exposure to industry-relevant tools and project lifecycle management.

System Requirements:

Hardware Requirements:

- Computer with min/sum 4 GB RAM, Dual-core processor
- Stable internet connection

Software Requirements:

- Salesforce Developer Edition Org
- Modern Web Browser (e.g., Google Chrome, Firefox)

Benefits of CRM in Jewellery Management

- Better customer satisfaction
- Increased repeat sales with loyalty programs
- Real-time tracking of stock and sales
- Automated promotions during peak seasons
- Improved decision-making with analytics

Conclusion

The CRM Application for Jewel Management successfully streamlines customer interactions, sales, inventory, and marketing in one integrated platform. It enhances customer experience, boosts operational efficiency, and provides valuable business insights. With a strong foundation now in place, the system is ready to scale and support future growth in a competitive jewellery market