CRM Application for Jewel Management

College Name: Shree Venkateshwara Arts & Science College

TEAM MEMBERS:

- **Team LeaderName: VASANTH K**

  Email: vasanth2023bca@gmail.com

- **Team Member 1: BHARANI V**

  Email: bharaniv2023bca@gmail.com

- **Team Member 2: NAVEEN E**

  Email: naveene2023bca@gmail.com

- **Team Member 3: LOGESHWARAN S**

  Email: slogeshwaran07@gmail.com

- **Team Member 4: GUGAN R**

  Email: gugandavidgugan@gmail.com

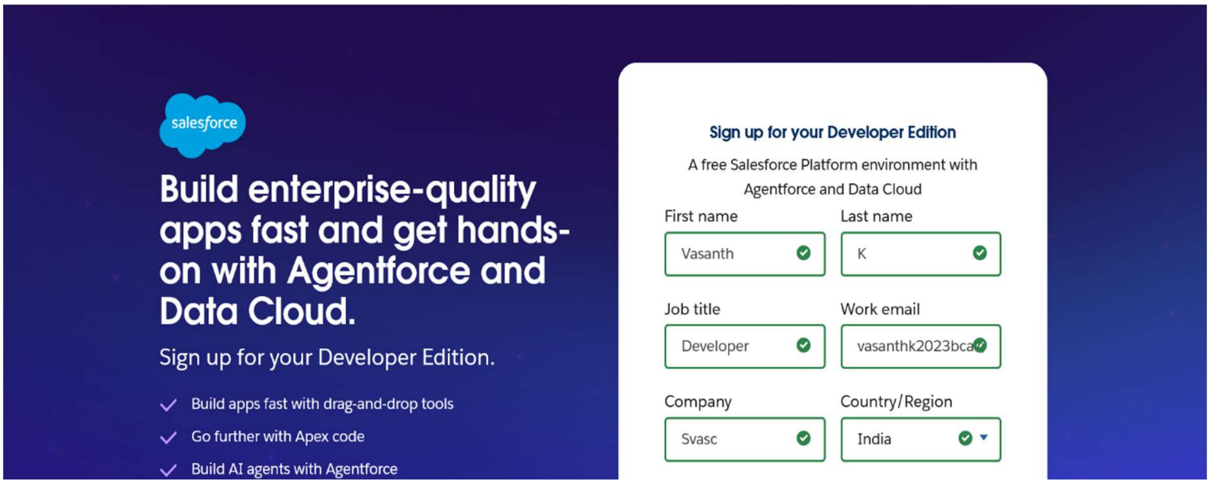
Introduction :

This project is about developing a Jewellery Inventory CRM system using Salesforce. It helps to manage customers, items, orders, prices, and billing in an easy way. The system improves data management, automates billing processes, and reduces manual work. It also provides useful reports and dashboards for business analysis.

Module 1: Salesforce Setup & Objects

Step 1: Create Developer Account

1. Go to https://developer.salesforce.com/signup



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

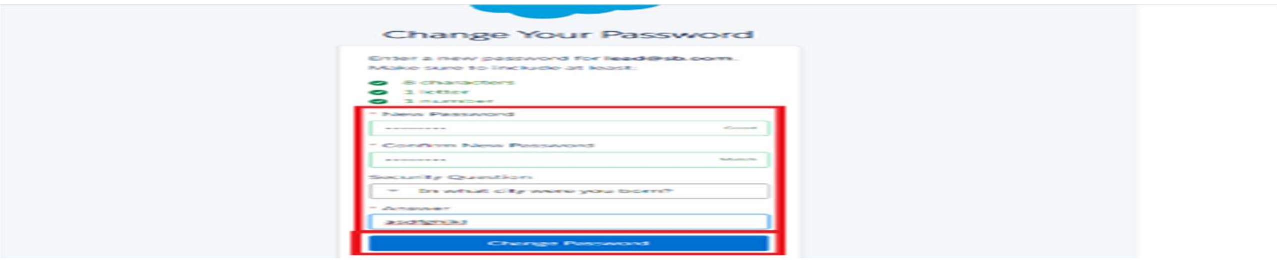
This need not be an actual email id, you can give anything in the format : username@organization.com

Click on sign me up after filling these.

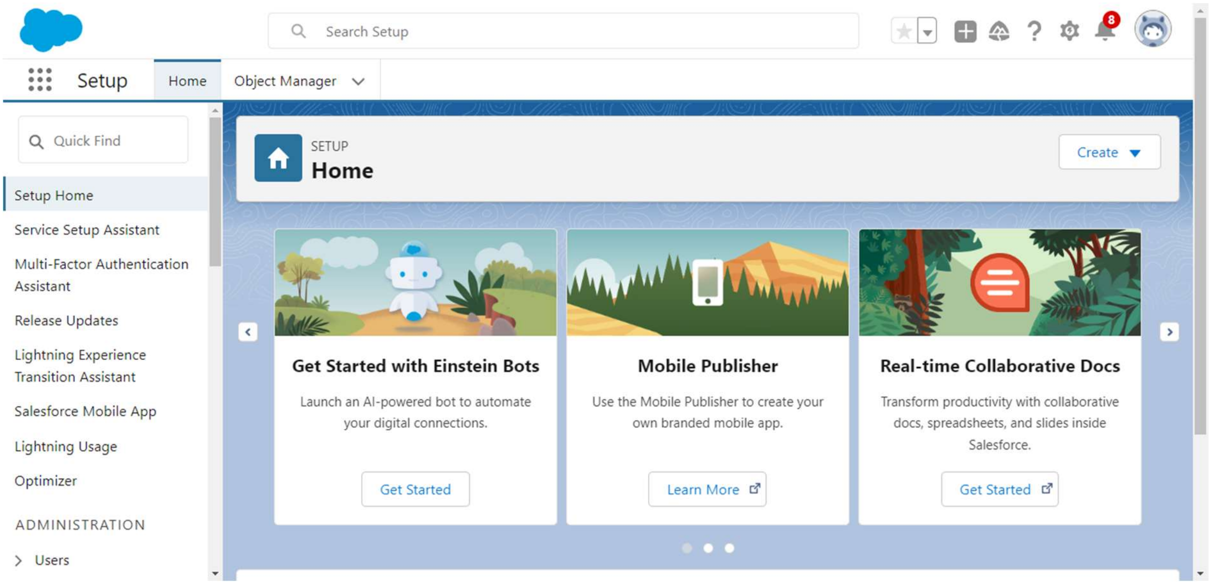
Account Activation

Step 2: Activate Account

1. Open your email → click **Reset Password**.
2. Set a new password & security question.
3. You’ll be redirected to Salesforce Setup page.



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



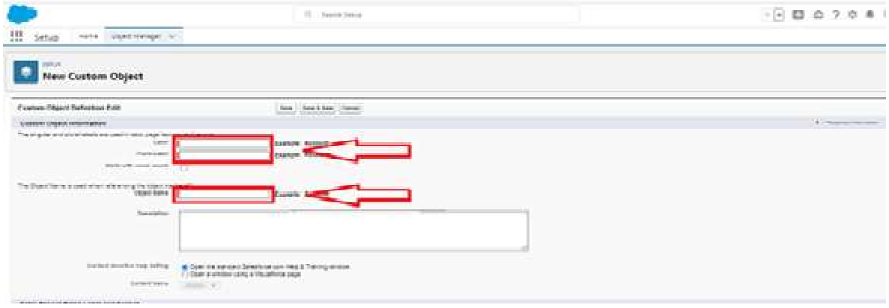
Create Jewel Customer Object

- Go to **Setup** → **Object Manager** → **Create** → **Custom Object**.

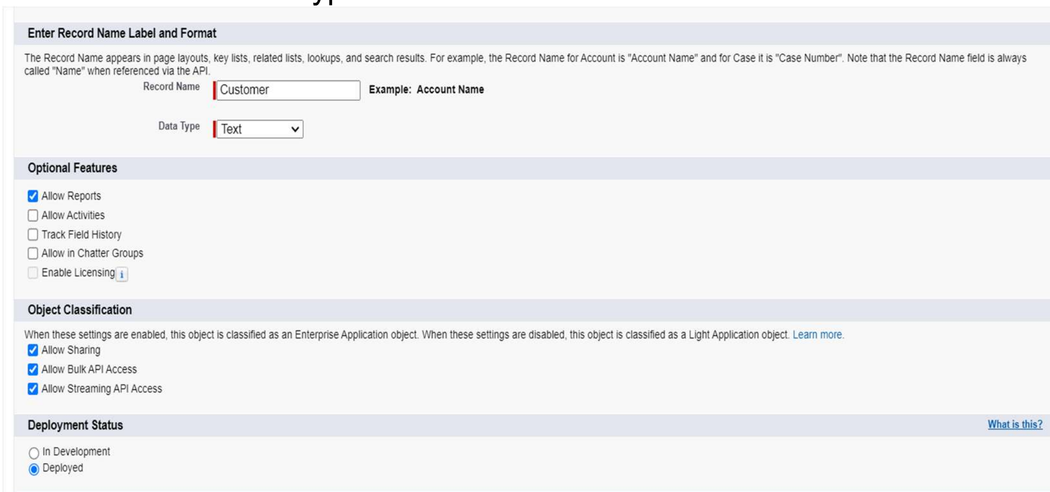
- Create **Jewel Customer Object**

  - Label: Jewel Customer
  - Record Name: Customer Name (Text)
  - Enable Reports & Search → Save.

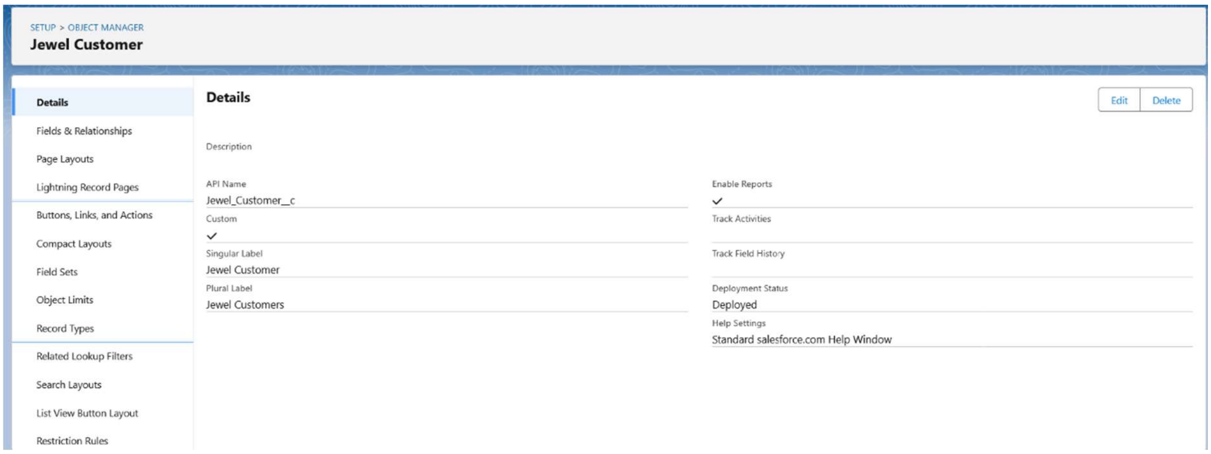
1. Enter the label name : Jewel Customer
2. Plural label name : Jewel Customers



3. Enter Record Name Label and Format
    - Record Name >> Customer name
    - Data Type >> Text

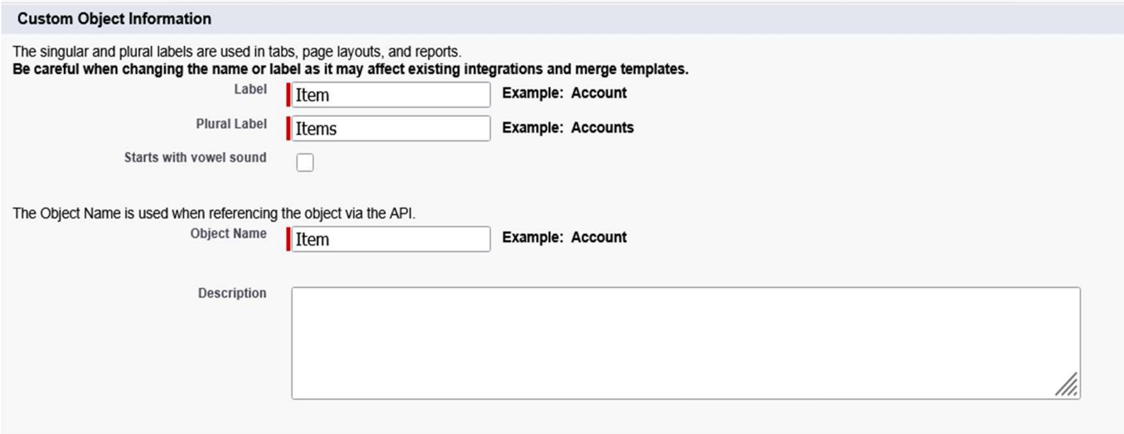


2. Click on Allow reports.
3. Allow search and click Save.



Jewl_Customer Object Is Created .

Create **Item Object**

- Label: Item
- Record Name: Item ID (Auto Number, format: Item-{00}, start: 1)
- 

Enable Reports & Search → Save.

Create 3 more objects (same steps):

- **Customer Order** (Auto Number)
- **Price** (Auto Number)
- **Billing** (Auto Number)

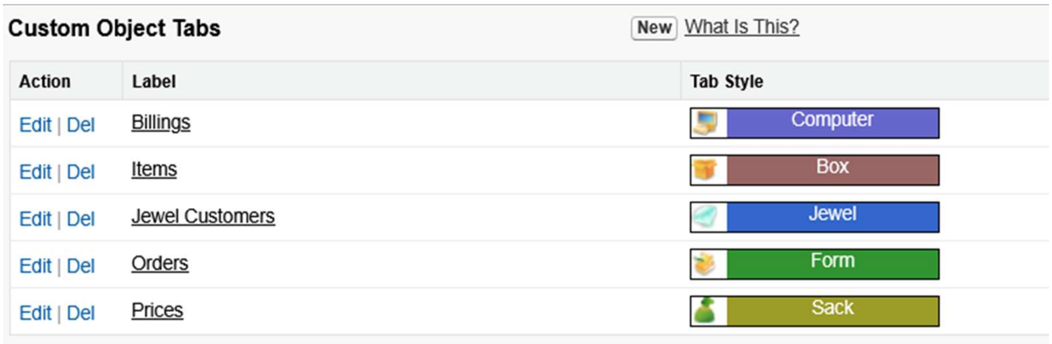
LABEL	API NAME
Billing	Billing__c
Price	Price__c
Jewel Customer	Jewel_Customer__c
Item	Item__c
Order	Order__c

Module 2: Tabs & Lightning App

Step 1: Create Tabs

1. Go to **Setup** → **Quick Find** → **Tabs** → **New (Custom Object Tab)**.

2. Create Tab for each object:
   - Jewel Customer
   - Item
   - Customer Order
   - Price
   - Billing



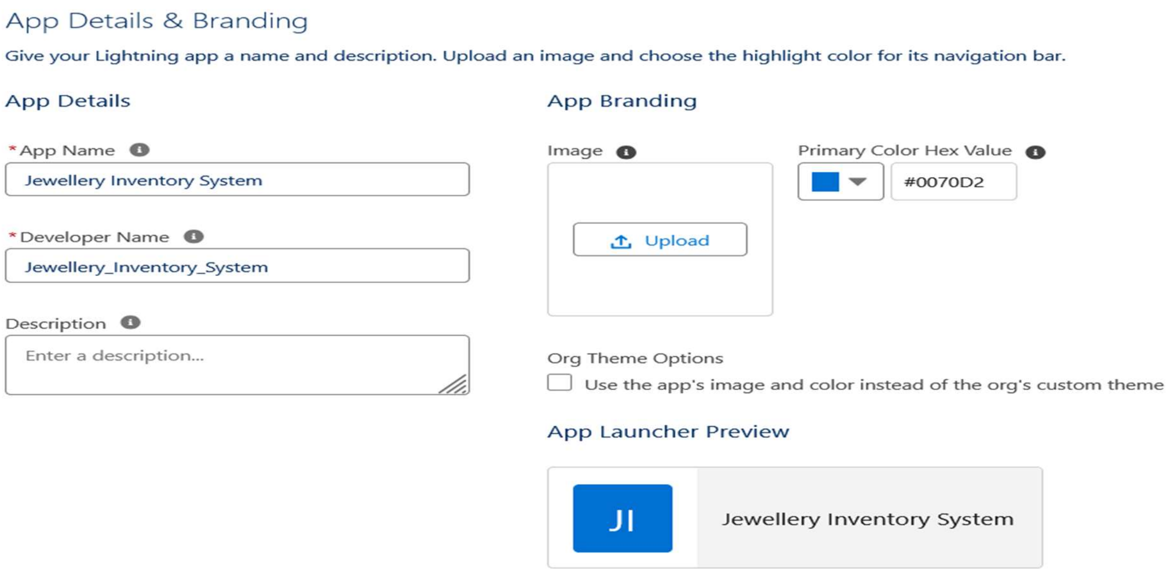
Custom Object Tabs New What Is This?

Action	Label	Tab Style
Edit | Del	Billings	Computer
Edit | Del	Items	Box
Edit | Del	Jewel Customers	Jewel
Edit | Del	Orders	Form
Edit | Del	Prices	Sack

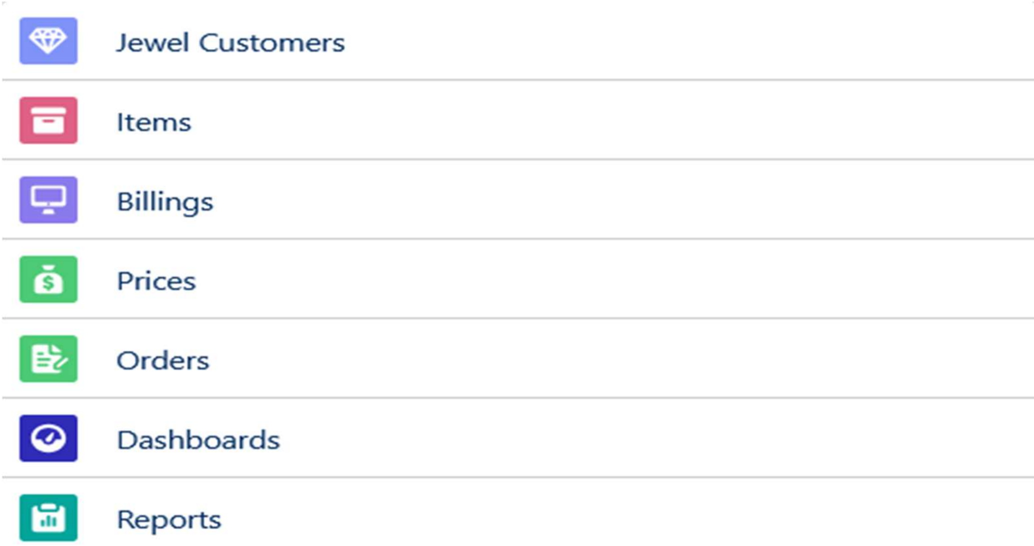
3. Select a tab style → keep default settings → Save.

Step 2: Create Lightning App

1. Go to **Setup** → **Quick Find** → **App Manager** → **New Lightning App**.
2. Fill details:



   - App Name: **Jewellery Inventory System**
   - Description: *Elevate your look with elegance*
   - Keep default branding & color.
3. Set Navigation Style = **Console Navigation** → Next.
4. Keep Utility Items default → Next.



5. Add Navigation Items: **Jewel Customer, Item, Customer Order, Price, Billing, Reports, Dashboard** → Next.
6. Add User Profiles: Select **System Administrator** → Save & Finish.

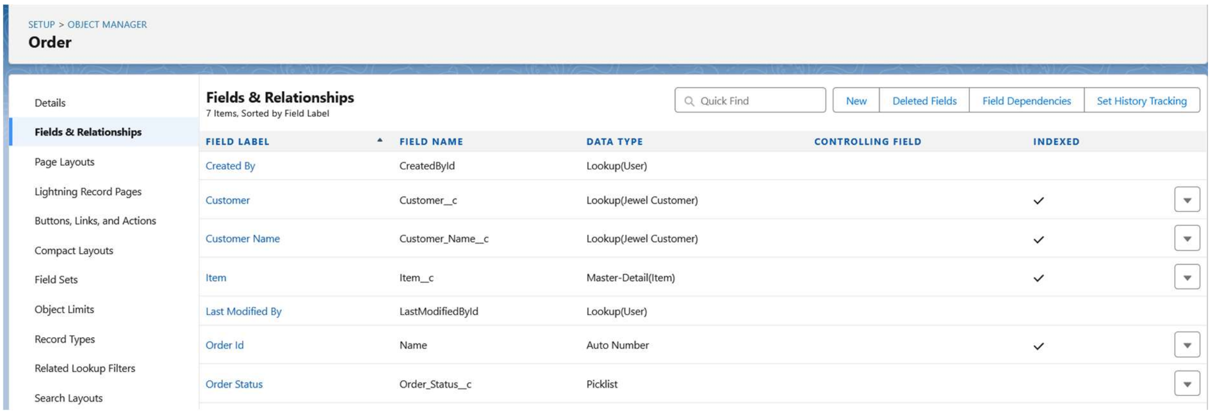
Module 3: Relationships & Fields

Step 1: Create Lookup Relationship
(Connect Jewel Customer ↔ Customer Order)

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		
Customer	Customer__c	Lookup(Jewel Customer)		✓

1. Go to **Setup** → **Object Manager** → **Customer Order**.
2. Click **Fields & Relationships** → **New**.
3. Select **Lookup Relationship** → Next.
4. Related Object = **Jewel Customer**.
5. Field Label = Customer → Next → Save.

Step 2: Create Master-Detail Relationship
(Connect Item ↔ Customer Order)



SETUP > OBJECT MANAGER

Order

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

Fields & Relationships

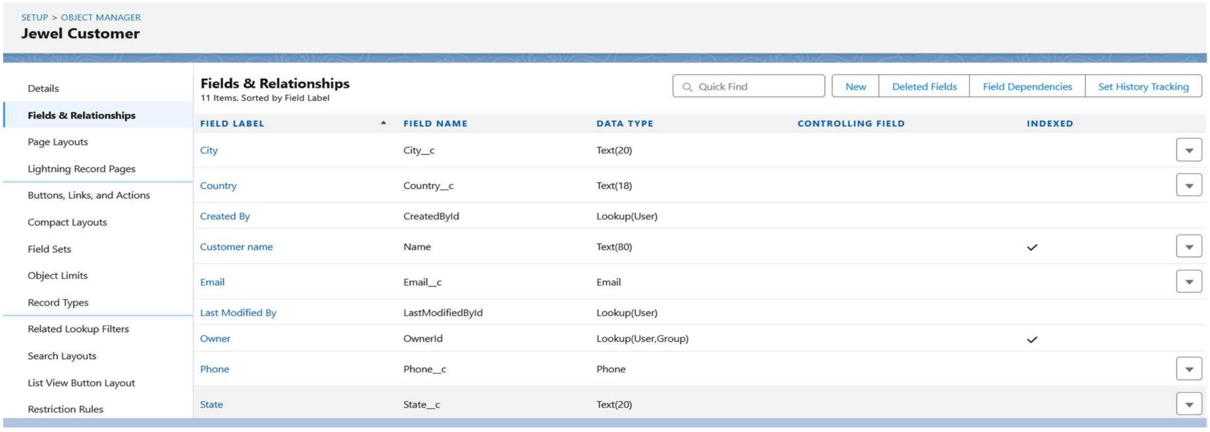
7 Items, Sorted by Field Label

Quick Find · New · Deleted Fields · Field Dependencies · Set History Tracking

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		
Customer	Customer__c	Lookup(Jewel Customer)		✓
Customer Name	Customer_Name__c	Lookup(Jewel Customer)		✓
Item	Item__c	Master-Detail(Item)		✓
Last Modified By	LastModifiedById	Lookup(User)		
Order Id	Name	Auto Number		✓
Order Status	Order_Status__c	Picklist		

1. Go to **Setup → Object Manager → Customer Order**.
2. Click **Fields & Relationships → New**.
3. Select **Master-Detail Relationship** → Next.
4. Related Object = **Item**.
5. Field Label = Item → Next → Save.

Step 3: Create Fields in Jewel Customer Object



SETUP > OBJECT MANAGER

Jewel Customer

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

Fields & Relationships

11 Items, Sorted by Field Label

Quick Find · New · Deleted Fields · Field Dependencies · Set History Tracking

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
City	City__c	Text(20)		
Country	Country__c	Text(18)		
Created By	CreatedById	Lookup(User)		
Customer name	Name	Text(80)		✓
Email	Email__c	Email		
Last Modified By	LastModifiedById	Lookup(User)		
Owner	OwnerId	Lookup(User,Group)		✓
Phone	Phone__c	Phone		
State	State__c	Text(20)		

1. City → Text(20)
2. Phone → Phone

Step 4: Create Fields in Item Object

Priority	Priority__c	Picklist
Item Type	Item_Type__c	Picklist

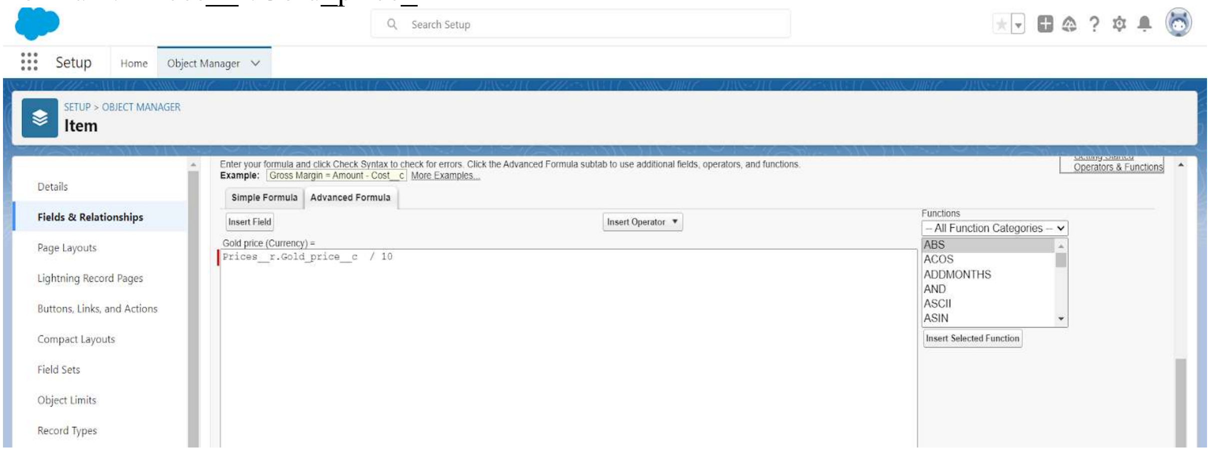
1. Purity → Number(2)
2. Item Type → Picklist (Values: Gold, Silver)

Step 5: Create Fields in Price Object

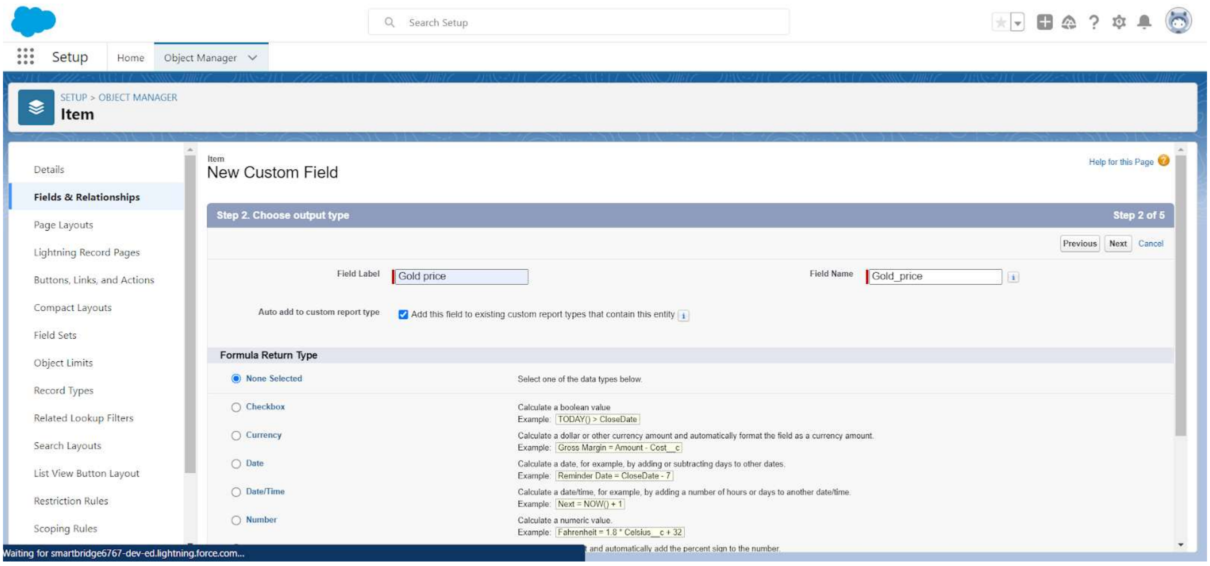
1. Gold Price → Currency(8,0)

Step 6: Create Formula Field in Item Object

1. Lookup Relationship: Item ↔ Price (Field Name: Prices).
2. Create Formula Field: Gold Price → Formula Return Ty pe = Currency.
3. Formula: Prices__r.Gold_price_



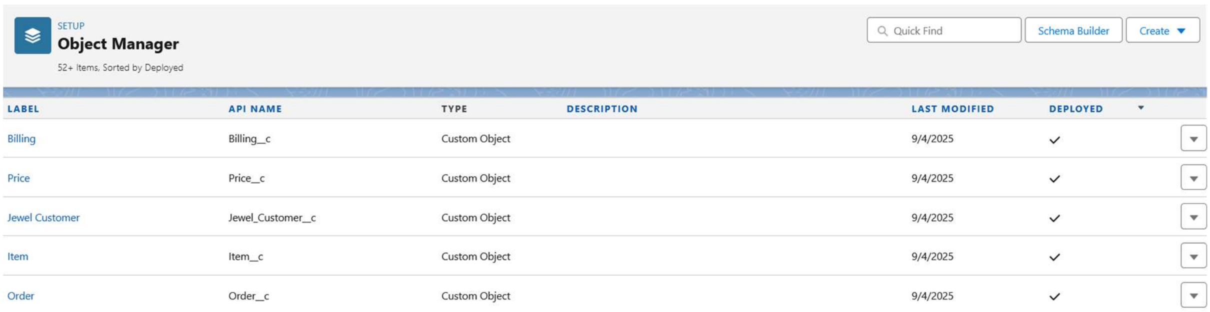
_c / 10



click “Check Syntax” and Next >> Next >> Save & New.

Module 4: Remaining Fields & Validation Rules

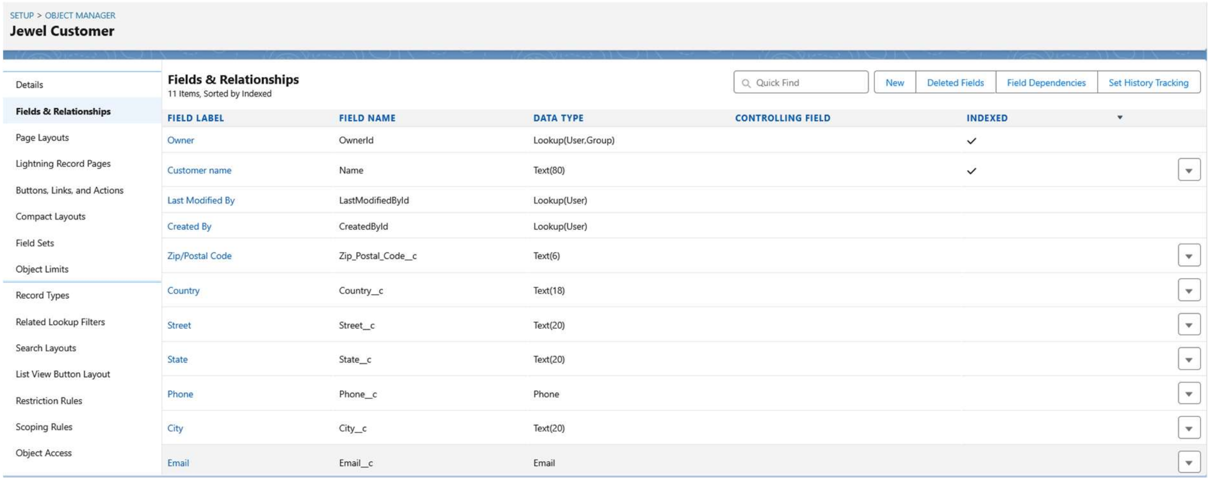
Step 1: Add Remaining Fields



LABEL	API NAME	TYPE	DESCRIPTION	LAST MODIFIED	DEPLOYED
Billing	Billing__c	Custom Object		9/4/2025	✓
Price	Price__c	Custom Object		9/4/2025	✓
Jewel Customer	Jewel_Customer__c	Custom Object		9/4/2025	✓
Item	Item__c	Custom Object		9/4/2025	✓
Order	Order__c	Custom Object		9/4/2025	✓

◆ Jewel Customer Object

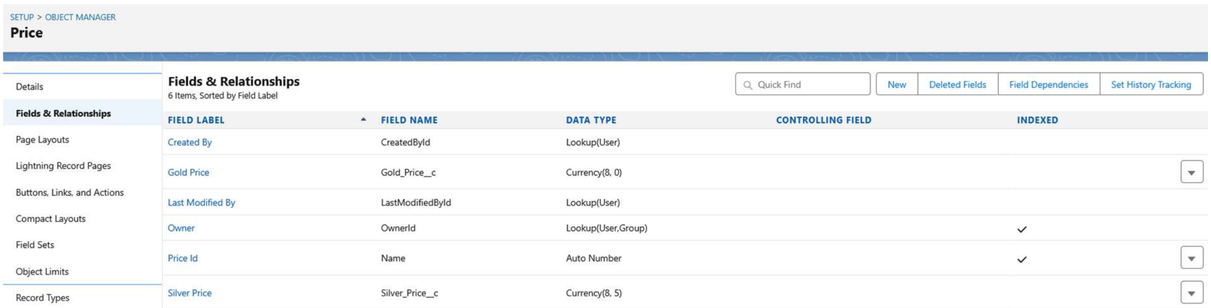
- State → Text(20)
- Street → Text(20)
- Country → Text(18)
- Zip/Postal Code → Text(6)



FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Owner	OwnerId	Lookup(User,Group)		✓
Customer name	Name	Text(80)		✓
Last Modified By	LastModifiedById	Lookup(User)		
Created By	CreatedById	Lookup(User)		
Zip/Postal Code	Zip_Postal_Code__c	Text(6)		
Country	Country__c	Text(18)		
Street	Street__c	Text(20)		
State	State__c	Text(20)		
Phone	Phone__c	Phone		
City	City__c	Text(20)		
Email	Email__c	Email		

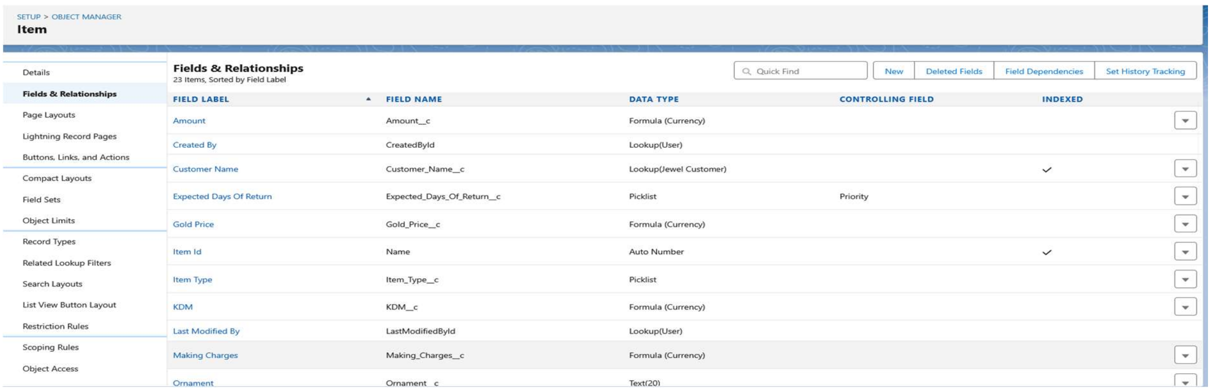
◆ Price Object

- Silver Price → Currency(8,5)



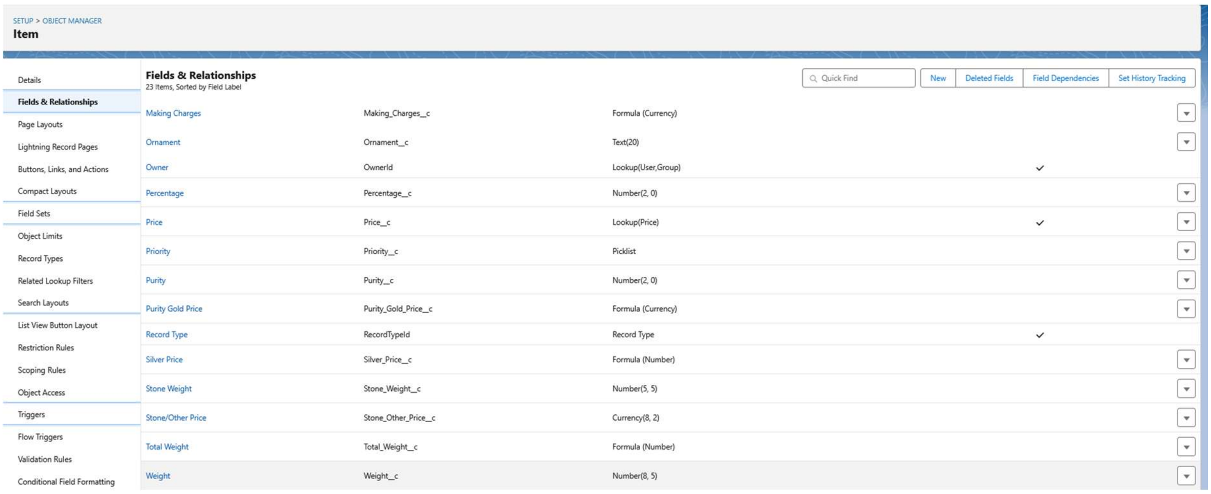
FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		
Gold Price	Gold_Price__c	Currency(8, 0)		
Last Modified By	LastModifiedById	Lookup(User)		
Owner	OwnerId	Lookup(User,Group)		✓
Price Id	Name	Auto Number		✓
Silver Price	Silver_Price__c	Currency(8, 5)		

◆ Item Object



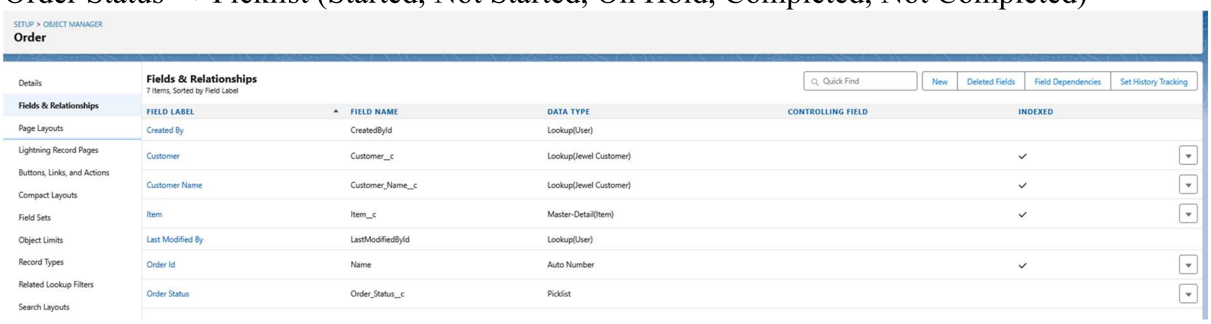
FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Amount	Amount__c	Formula (Currency)		
Created By	CreatedById	Lookup(User)		
Customer Name	Customer_Name__c	Lookup(Jewel Customer)		✓
Expected Days Of Return	Expected_Days_Of_Return__c	Picklist	Priority	
Gold Price	Gold_Price__c	Formula (Currency)		
Item Id	Name	Auto Number		✓
Item Type	Item_Type__c	Picklist		
KDM	KDM__c	Formula (Currency)		
Last Modified By	LastModifiedById	Lookup(User)		
Making Charges	Making_Charges__c	Formula (Currency)		
Ornament	Ornament__c	Text(20)		

- Customer Name → Lookup (Jewel Customer)
- Ornament → Text(20)
- Weight → Number(8,5)
- Stone Weight → Number(5,5)
- Percentage → Number(2,0)
- Stone/Other Price → Currency(8,2)
- Expected Days of Return → Picklist (1-3, 4-5, 6-7, 8-10 Days)
- Priority → Picklist (Low, Medium, High, Critical)
- Silver Price Formula → (Prices__r.Silver_price__c / 1000)
- Purity Gold Price Formula → ((Prices__r.Gold_price__c * Purity__c) / 24) / 10
- Total Weight Formula → (Weight__c - Stone_weight__c)
- Amount Formula → IF(Gold, Total_weight * Purity_Gold_price, Total_weight * Silver_price)
- KDM Formula → (Amount * Percentage / 100)
- Making Charges Formula → IF(Gold, Weight * 300, Weight * 10)



❖ Customer Order Object

- Order Status → Picklist (Started, Not Started, On Hold, Completed, Not Completed)



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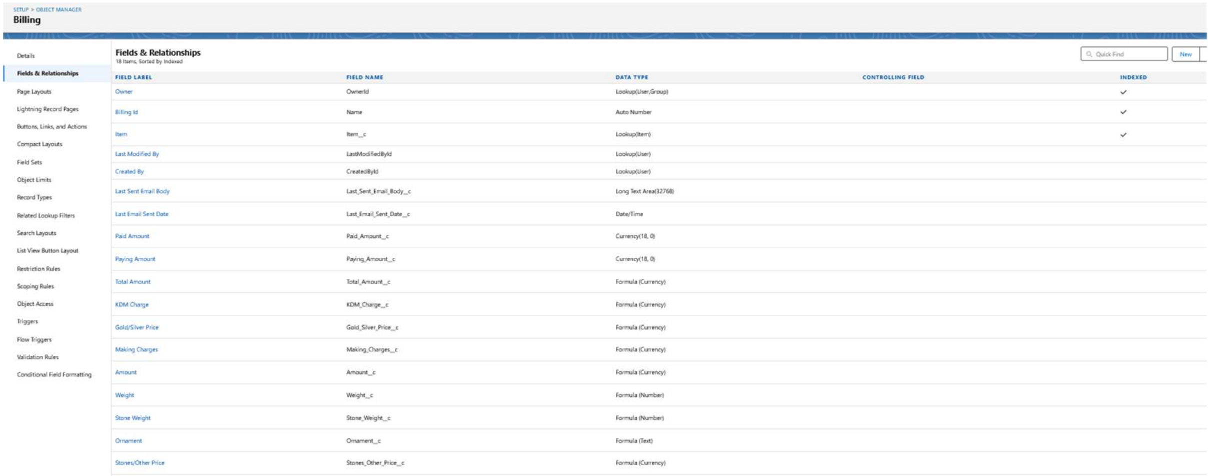
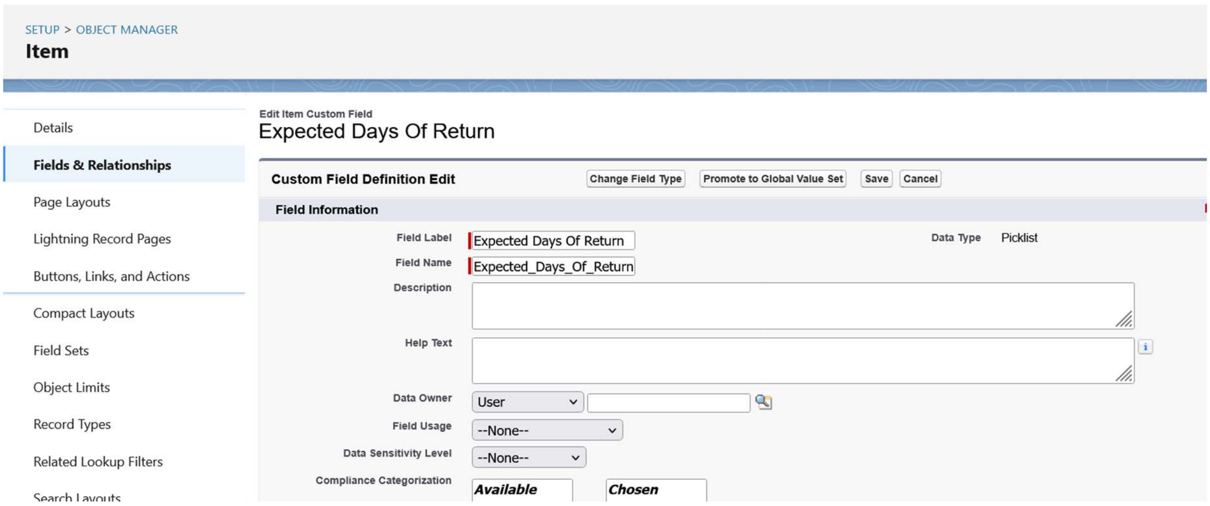
❖ Billing Object

- Lookup to Item
- Formulas (Ornament, Weight, Amount, Gold/Silver Price, KDM, Making Charges, Stone/Other Price, Total Amount)



Step 2: Field Dependencies



- Go to **Setup → Object Manager → Item → Priority field → Field Dependencies → New**.
- Controlling Field = **Priority**
- Dependent Field = **Expected Days of Return**
- Map values accordingly → Save.

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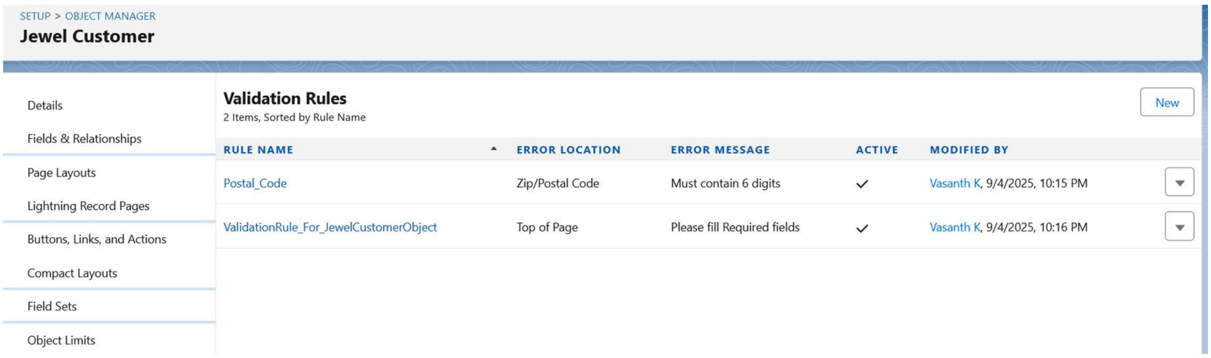
step 3: Validation Rules

❖ Jewel Customer Object

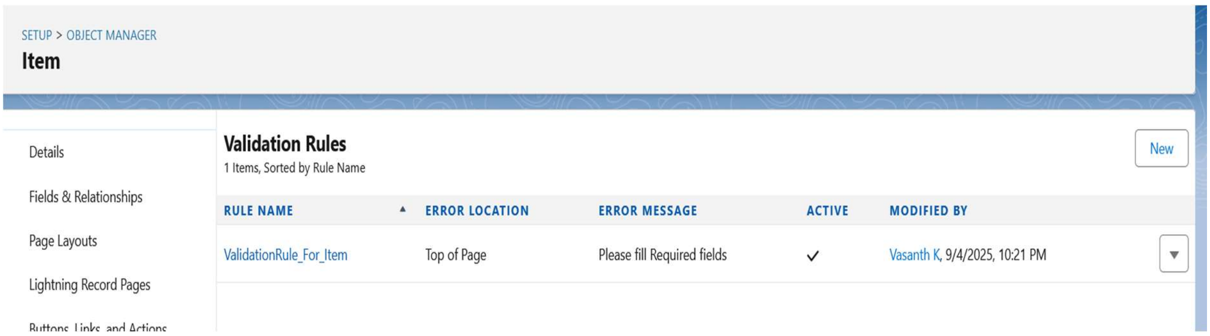
1. Postal Code must be 6 digits :
   AND(OR(LEN(Zip_Postal_code__c) <> 6,
   NOT(REGEX(Zip_Postal_code__c,"^[0-9]{6}$"))),
   NOT(ISBLANK(Zip_Postal_code__c)))

2. Mandatory Fields (City, Country, Phone, State, Street) :
   OR(ISBLANK(City__c), ISBLANK(Country__c), ISBLANK(Phone__c),
   ISBLANK(State__c), ISBLANK(Street__c))



Item Object

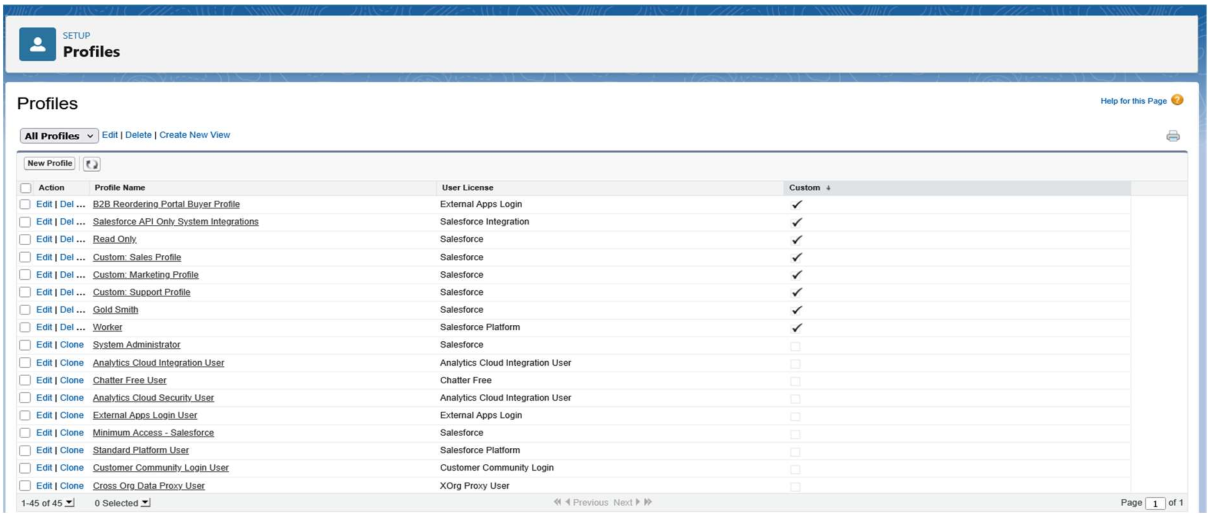
- Required Fields Validation :
  OR(ISBLANK(Amount__c), ISBLANK(Customer_Name__c),
  ISBLANK(Gold_price__c), ISBLANK(KDM__c), ISBLANK(Ornament__c),
  ISBLANK(Percentage__c), ISBLANK(Making_Charges__c), ISBLANK(Prices__c),
  ISBLANK(Stone_weight__c), ISBLANK(Silver_price__c),
  ISBLANK(Stone_other_price__c), ISBLANK(Weight__c))



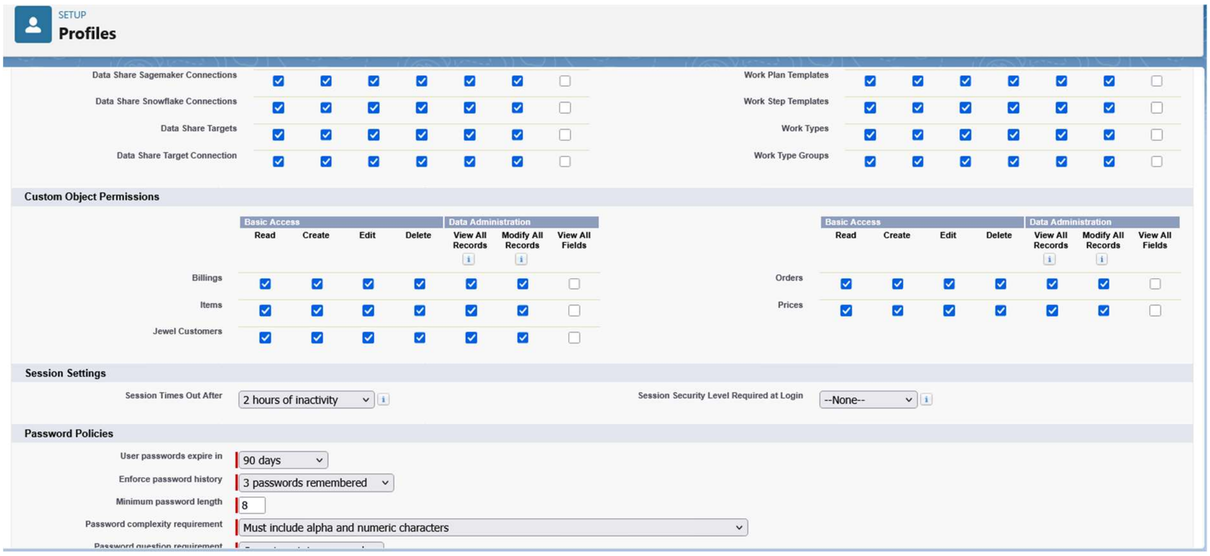
Module 5: Profiles, Roles & Users

Step 1: Create Gold Smith Profile

1. Go to **Setup** → **Quick Find** → **Profiles**.



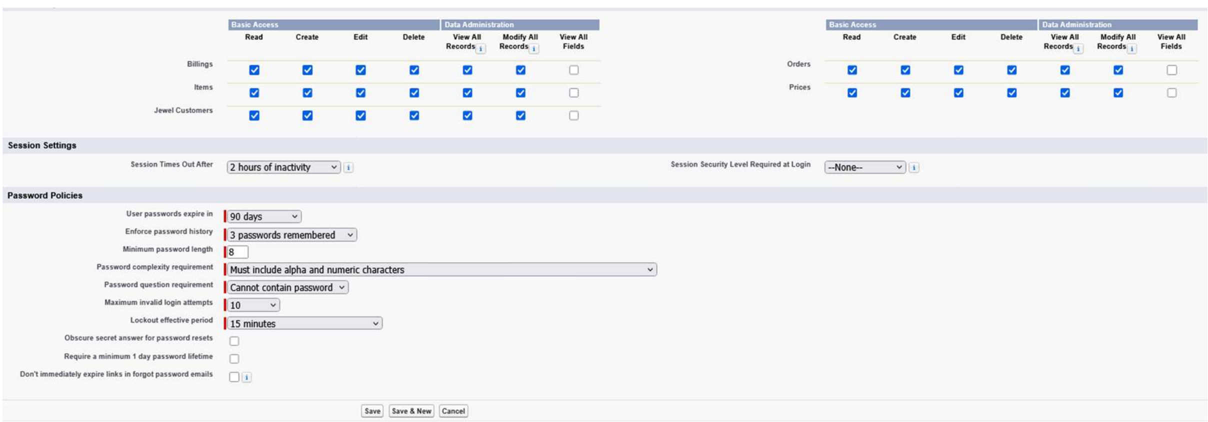
2. Clone **System Administrator** → Name it **Gold Smith** → Save.
3. Edit Profile → Scroll to **Custom Object Permissions** → Give access to:
   - Jewel Customer
   - Item
   - Customer Order
   - Price
   - Billing



4. Save.

Step 2: Create Worker Profi

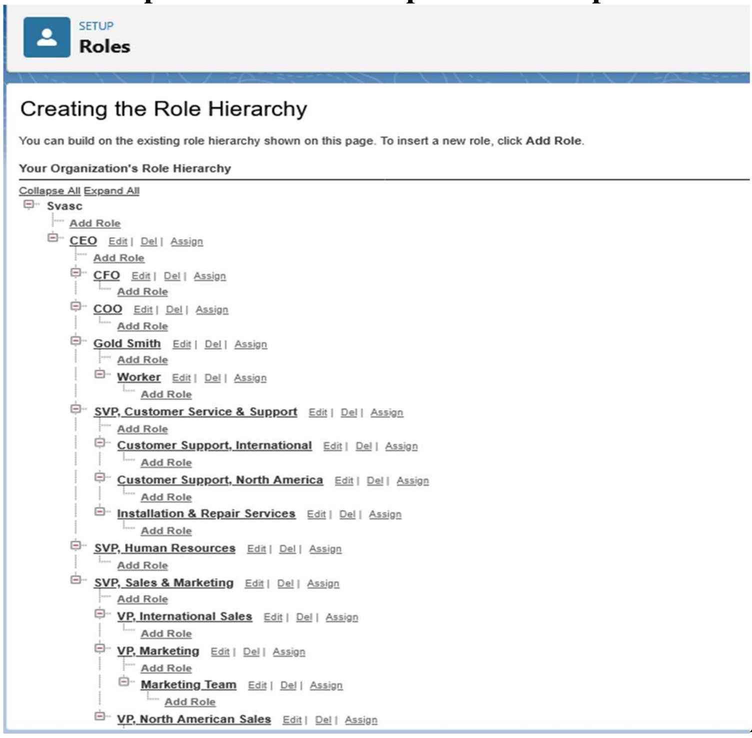
1. Go to **Setup** → **Profiles**.
2. Clone **Salesforce Platform User** → Name it **Worker** → Save.



3. Edit Profile → Give access to:
   - Item
   - Price
   - Customer Order
4. Save.

Step 3: Create Roles

1. Go to **Setup → Roles → Set Up Roles → Expand All**.



2. Add Role:
   - **Gold Smith** (Reports to higher role if needed).
   - **Worker** (Reto Gold Smith).
3. Save

Step 4: Create Users

❖ Gold Smith User

- First Name: Niklaus
- Last Name: Mikaelson
- Alias, Email, Username: any valid format
- Role: Gold Smith
- User License: Salesforce
- Profile: Gold Smith

❖ Worker User

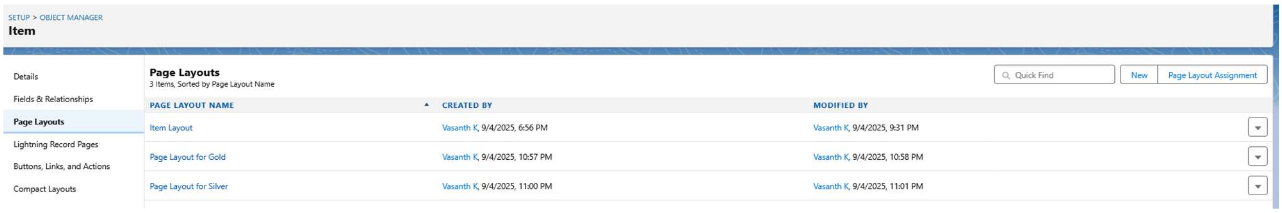
- First Name: Kol
- Last Name: Mikaelson
- Alias, Email, Username: any valid format
- Role: Worker
- User License: Salesforce Platform
- Profile: Worker

(Note: Create 2 more Worker users using same profile)

Step 5: Create Page Layouts & Record Types

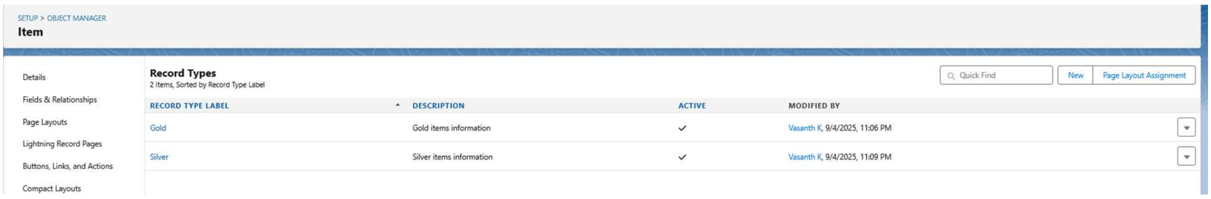
❖ Page Layouts

1. Go to **Setup → Object Manager → Item → Page Layouts → New**.
   - Page Layout for Gold → Keep gold-related fields only.
   - Page Layout for Silver → Keep silver-related fields only.



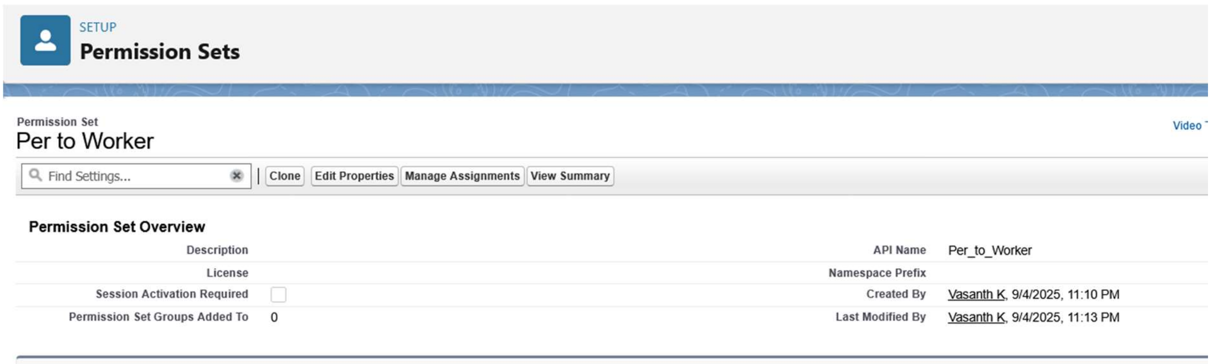
❖ Record Types

1. Go to **Object Manager → Item → Record Types → New**.
   - Record Type: **Gold** → Use “Page Layout for Gold”.
   - Record Type: **Silver** → Use “Page Layout for Silver”.



Step 6: Create Permission Set

1. Go to **Setup → Permission Sets → New**.
2. Label: **Per to Worker** → Save.
3. Under Object Settings → Items → Edit →
   - Enable Record Types: Gold, Silver.
   - Permissions: Read, Edit, Create.
4. Save.



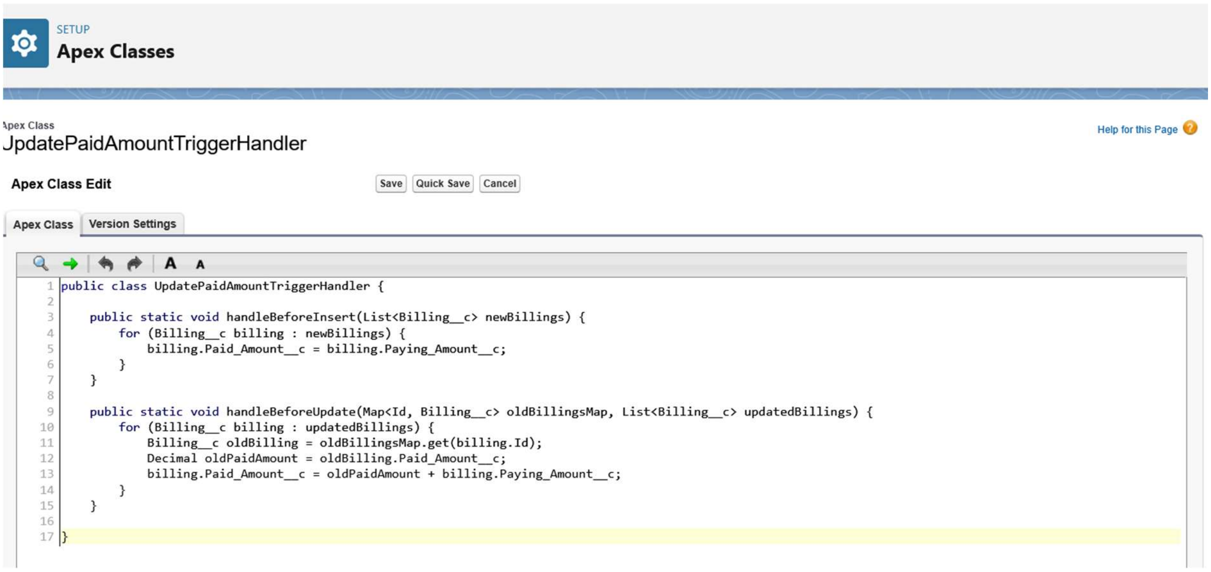
5. Assign this permission set to **Worker Users**.

Module 6: Triggers, Flow, Reports & Dashboards

Step 1: Create Trigger Handler Class

1. Go to **Developer Console → New Apex Class**.
2. Name: `UpdatePaidAmountTriggerHandler`.
3. Paste 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;

        }

    }

}
```



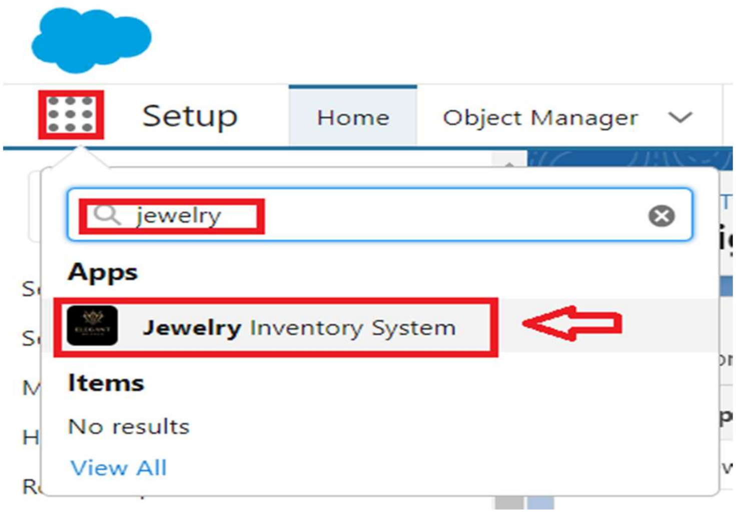
Step 2: Create Trigger

1. Go to Setup → Object Manager → Billing → Triggers → New.
2. Name: `UpdatePaidAmountTrigger`.
3. Paste the code and Save.

```
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);

  }

}
```

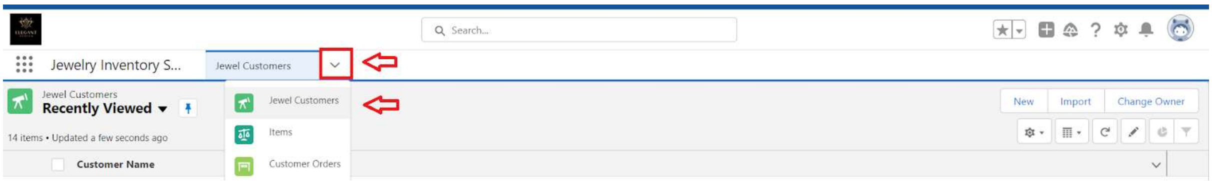
Step 3: Create Records

1. Open App Launcher → Jewellery



2. Inventory System.

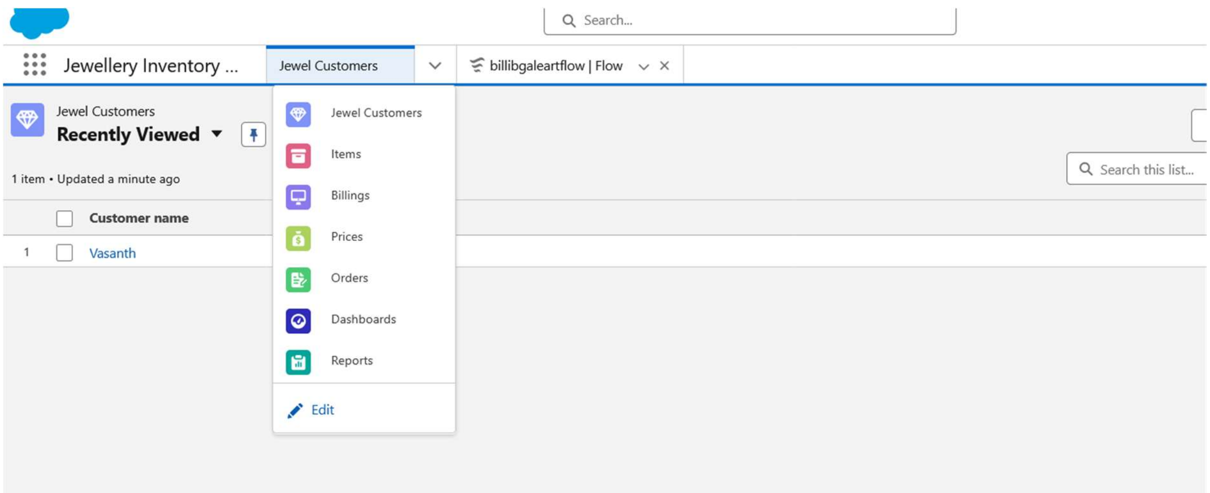
3. Create minimum 10 records for each object: Jewel Customer, Price, Item, Customer Order, Billing.
4. • Click on Drop Down and Click on the Jewel Customer tab.
5. • Click New.

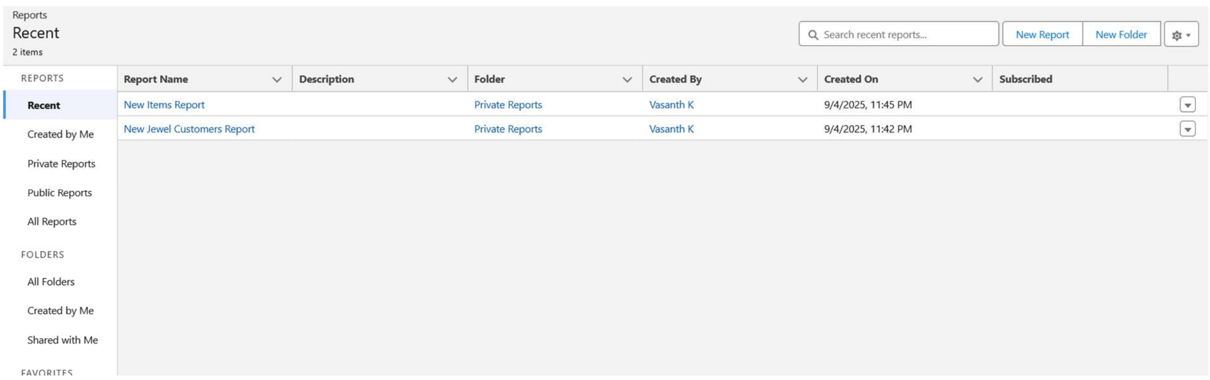


6. • Fill the Details and click on Save.

Step 4: Create Reports

1. Go to Reports tab → New Report.
2. Select Report Type → Start Report.
3. Add fields → Save/Run.
4. Example reports:

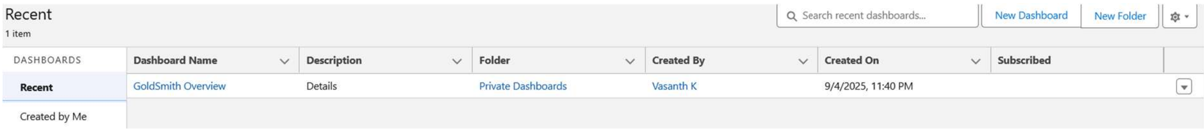




- Items with Billings
- Billings with Item & Customer Order

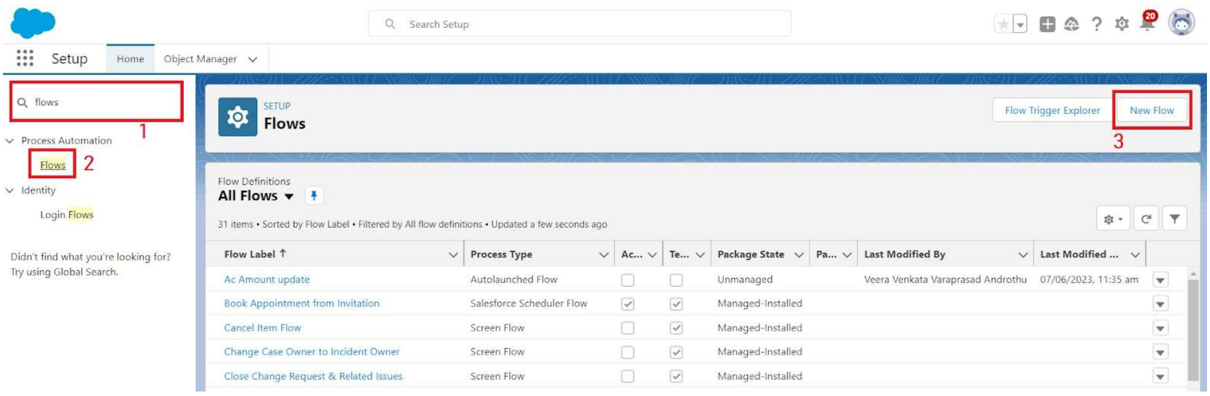
Step 5: Create Dashboard

1. Go to Dashboards tab → New Dashboard.
2. Enter name → Create.
3. Add Component → Select Report → Save & Done.
4. Create at least 2 dashboards.

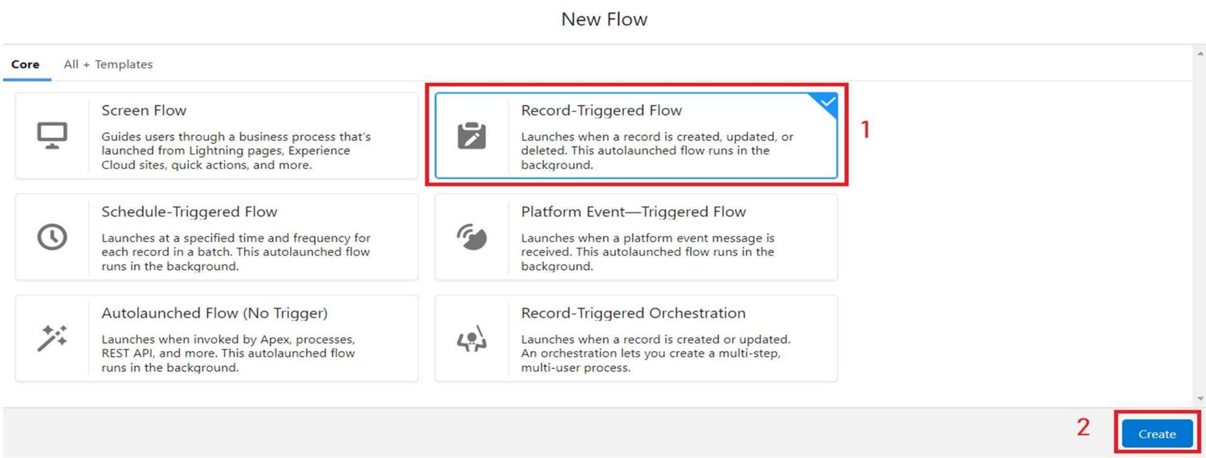


Step 6: Create Flow (Email Automation)

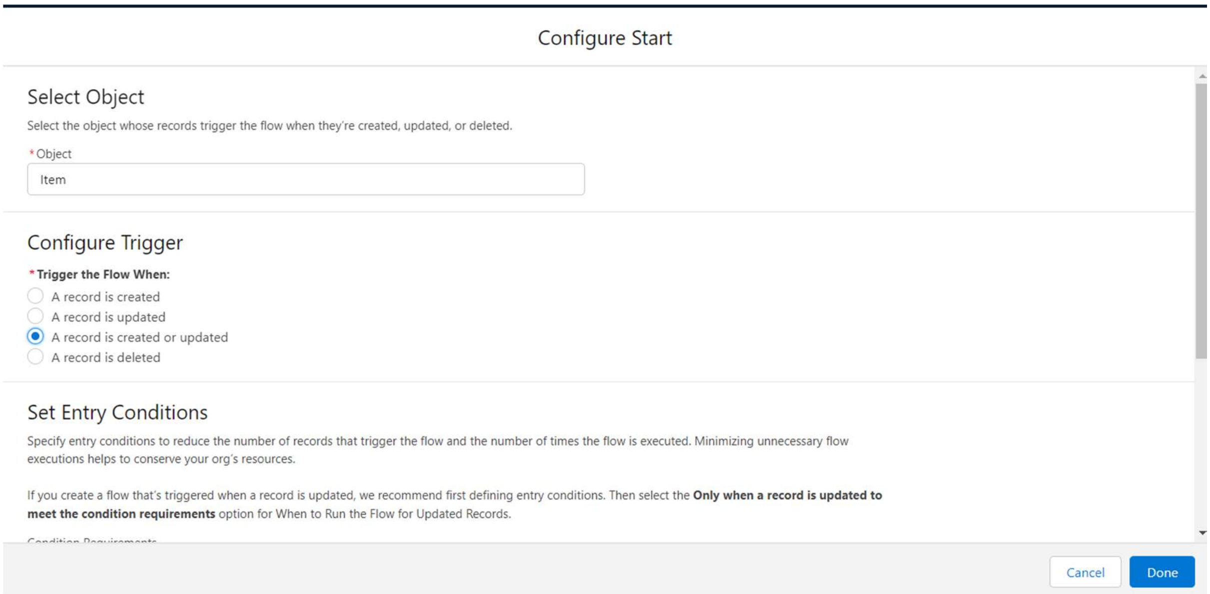
1. Setup → Flows → New Flow.



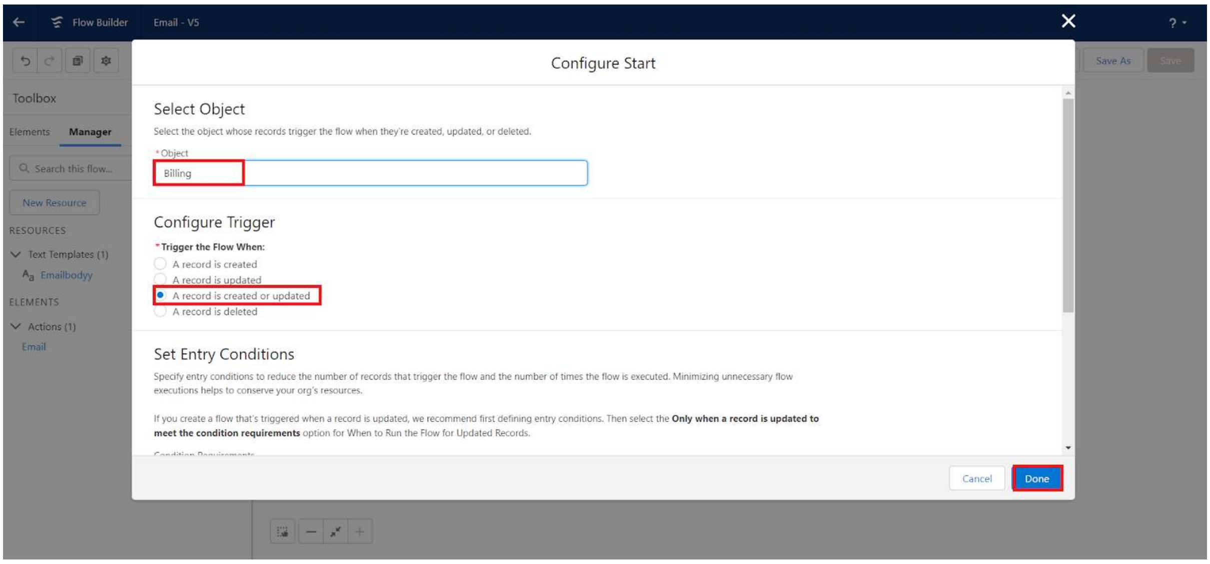
2. Select Record-Triggered Flow.

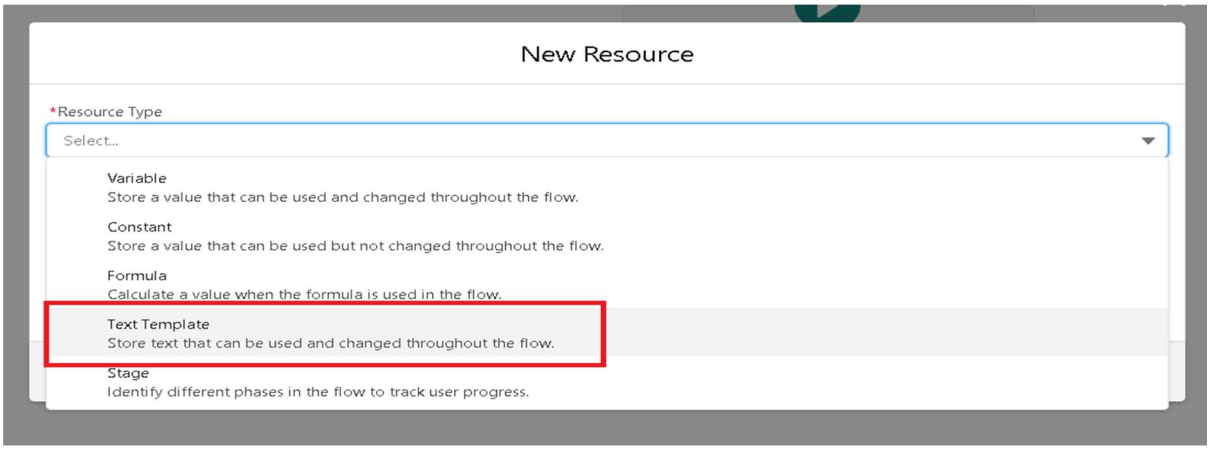


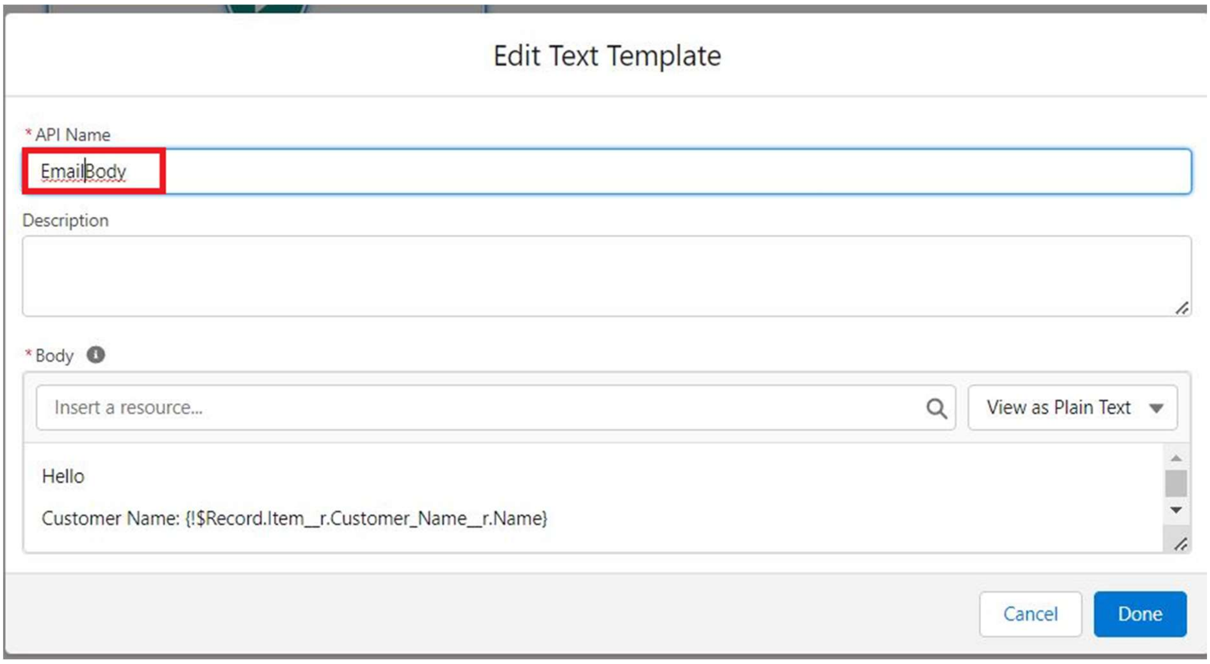
3. Object = Billing → Trigger = Created/Updated.



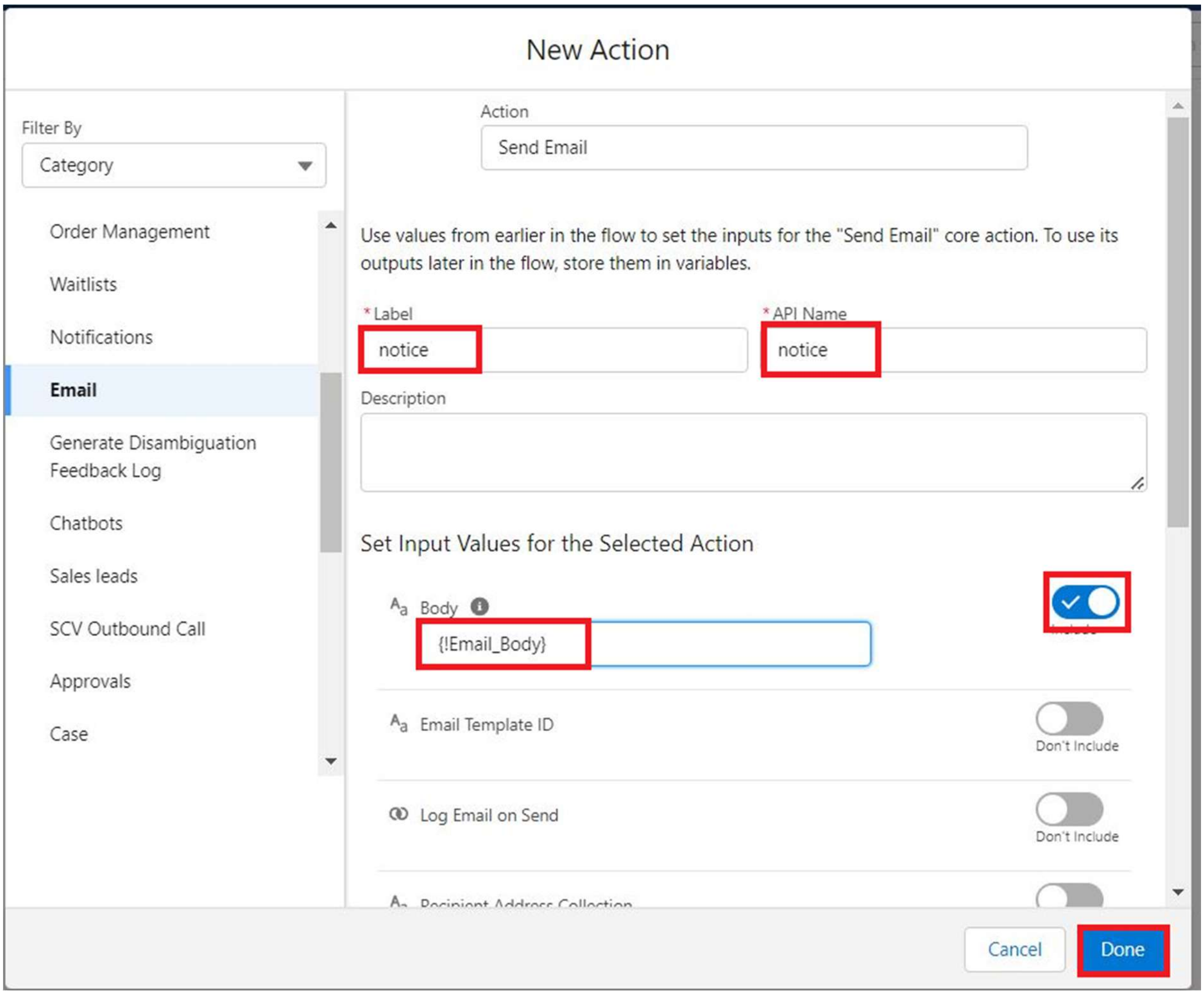
4. Add Text Template → Email Body.

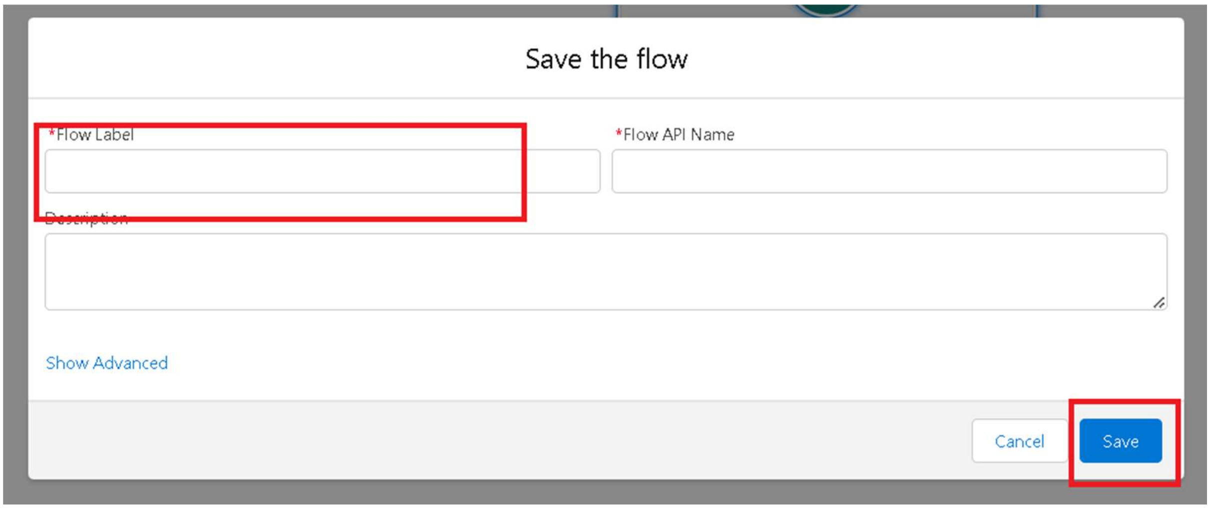




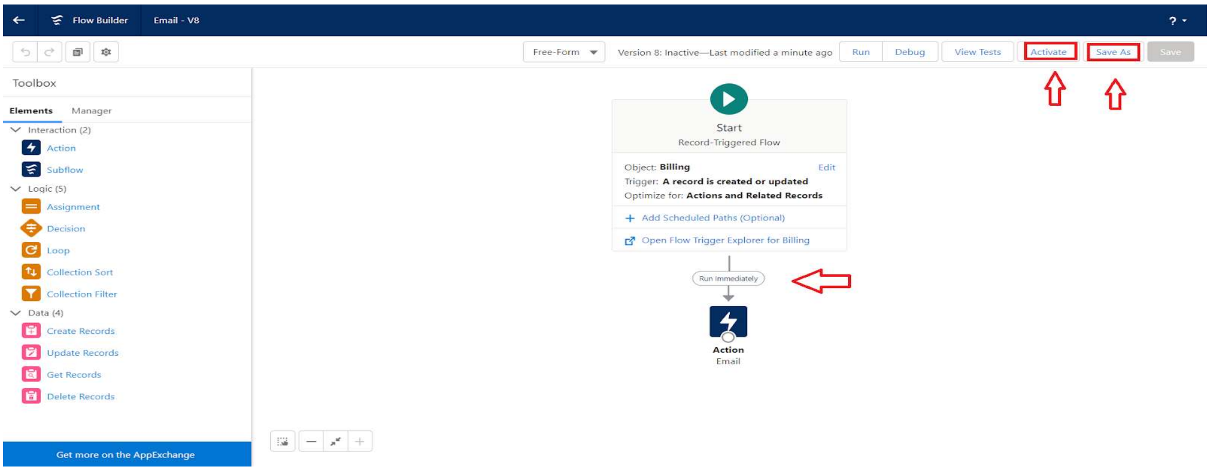


5. Add Action → Send Email → Fill subject, body, recipient.

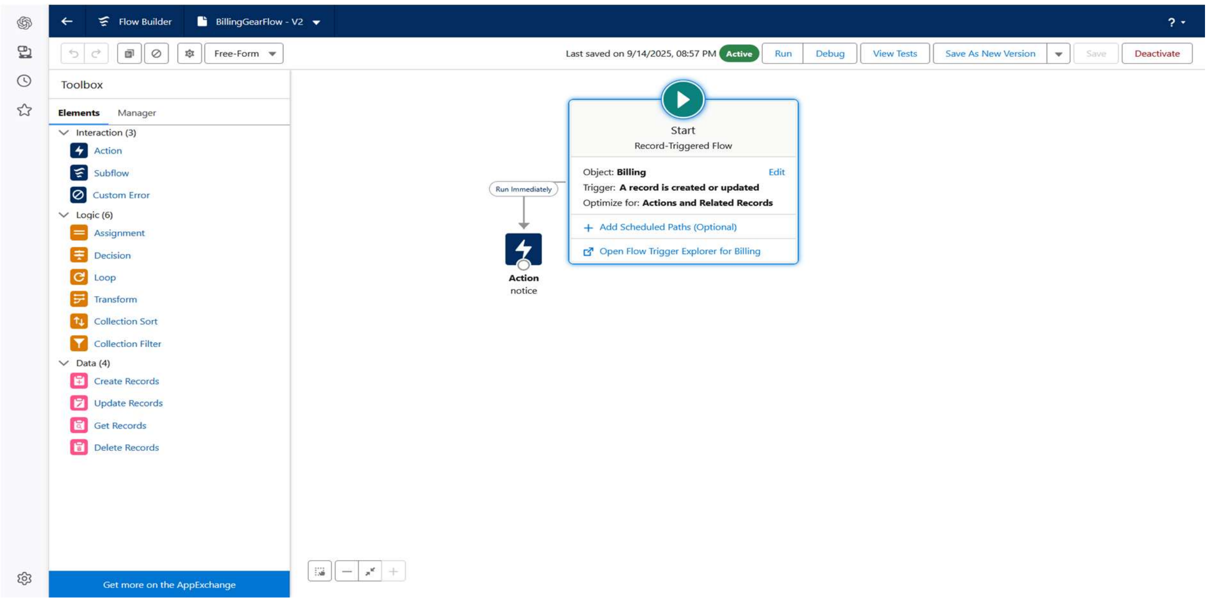




6. Connect elements → Save → Activate.



Flow Is Activated :



Conclusion

By completing this project, we learned the practical use of Salesforce. We created objects, fields, relationships, and validation rules to manage data correctly. We also implemented triggers, flows, and dashboards to automate tasks and analyze information. This project gave us hands-on experience to apply CRM solutions in real-world business needs.