

# **CRM Application for Jewel Management**

**COLLEGE : KG COLLEGE OF ARTS AND SCIENCE**

**TEAM ID : NM2025TMID23715**

**TEAM SIZE : 4**

## **TEAM MEMBERS DETAILS:**

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# 1.INTRODUCTION

## 1.1 Project Overview:

This project involves the development of a CRM-based Jewel Management System using Salesforce. It streamlines operations like inventory tracking, price updates, billing, and customer management for a jewellery business. The project leverages Salesforce Lightning Platform to design custom objects, automate processes using Flows, and generate actionable insights via dashboards and reports.

## 1.2 Purpose:

The purpose is to replace manual processes with an automated, cloud-based Salesforce CRM that enables real-time stock updates, dynamic pricing, customer billing, and order tracking. The system enhances customer experience, operational accuracy, and business decision-making.

The purpose of this project is to design and implement a Salesforce-based CRM solution specifically for jewel businesses to:

- Centralize customer information and communication.
- Track and manage jewellery inventory (gold and silver).
- Enable personalized marketing and offers.
- Facilitate efficient order processing and billing.
- Improve customer retention through engagement automation.
- Generate detailed reports on sales, trends, and staff performance.

# 2. IDEATION PHASE

## 2.1 Problem Statement:

Traditional jewellery shops face problems like manual stock maintenance, lack of customer records, and inefficiencies in pricing and billing. There's also no integrated view of customer interactions. This leads to errors, delayed decision-making, and customer dissatisfaction.

Many small to mid-sized jewellery retailers struggle with managing customer relationships, tracking sales, handling special orders, and maintaining inventory. Current manual systems or generic software often fall short of addressing the industry's unique needs.

## **2.2 Empathy Map Canvas:**

### **Think & Feel**

- “Are we missing out on leads because we’re not following up?”
- “I need to know who our high-value customers are.”

### **Hear**

- “The customer wasn’t happy with the delay in their custom order.”
- “Can we send reminders for anniversaries and birthdays?”

### **See**

- Registers with scribbled orders.
- Multiple Excel sheets for billing and inventory.

### **Say & Do**

- “Call them about the pendant order tomorrow.”
- “Print out last year’s top customers list.”

### **Pain**

- Losing customers due to lack of follow-up.
- No real-time inventory tracking.

### **Gain**

- Higher customer satisfaction.
- More repeat purchases via automation.

## **2.3 Brainstorming:**

The brainstorming phase focused on collecting diverse ideas from stakeholders—including jewel store owners, sales representatives, developers, and end-users—to define potential solutions and functionalities required in the CRM application. This collaborative ideation process aimed to understand the operational bottlenecks in the jewelry business and how Salesforce's cloud ecosystem could streamline them.

Ideas collected during brainstorming:

- Use of custom objects for Items, Billing, Orders, and Customers.
- Automate stock management with flows.
- Dashboard for daily performance insights.
- Notifications for low inventory.
- Implement record-triggered and scheduled flows.
- Introduce validation rules to prevent data inconsistencies.
- Plan separate dashboards for different roles (sales, inventory, admin).

## **3. Requirement Analysis:**

### **3.1 Customer Journey Map:**

The customer journey map outlines the stages a customer experiences, from the first interaction to post-purchase engagement. It helps identify gaps and opportunities where the CRM can automate and enhance customer experience.

#### **Awareness Stage**

- Customer browses website or social media.
- CRM captures leads using Web-to-Lead forms.

#### **Consideration Stage**

- Customer visits the store or requests a catalog.
- Salesforce auto-assigns a sales representative.
- Email/SMS with product recommendations is triggered.

#### **Purchase Stage**

- Customer places an order (in-store or online).
- CRM logs order and creates a sales opportunity.
- Invoice is generated using built-in templates.

### **Delivery Stage**

- Customer receives order.
- CRM sends order tracking notifications and confirmations.

### **Post-Purchase Stage**

- Customer receives feedback form.
- Loyalty points are updated.
- Follow-up reminders for anniversaries, birthdays, etc.

## **3.2 Solution Requirements:**

Defines both the functional (what the system should do) and non-functional (how the system performs) needs to fulfill business goals.

- Real-time item stock tracking
- Dynamic pricing management
- Billing with automated tax calculations
- Comprehensive dashboards and reports
- Data security and accessibility
- Integration with communication tools (email/SMS)
- Record ownership for audit and traceability

## **3.3 Data Flow Diagrams:**

DFD illustrates how data moves between the system's components. This helps developers visualize dependencies and database interaction points.

### **Main Entities & Data Flow Points:**

1. Customer submits a product inquiry.

2. Data flows to CRM Interface (Form or App).
3. CRM creates or updates Customer Object.
4. CRM logs sale and updates Sales Record.
5. Inventory count is adjusted in the Inventory Object.
6. Reports are updated to reflect real-time sales and stock.

### 3.4 Technology Stack:

Defines the tools and platforms used to develop, deploy, and manage the CRM system in Salesforce.

- Platform: Salesforce Lightning Experience.
- Logic: Apex Triggers, Validation Rules, Flow Builder.
- UI: Lightning Tabs, Pages, Reports, Dashboards.
- Database: Salesforce Standard & Custom Objects.
- Integration: Email Templates, Scheduled Flows, Approval Processes.

## 4.PROJECT DESIGN

### 4.1 Problem Solution Fit:

**Problem:** Manual processes and lack of centralized tracking

**Solution:** Salesforce CRM system automating every major jewelry workflow

### 4.2 Proposed Solution:

**Five major custom objects:** Item\_\_c, Price\_\_c, Jewel\_Customer\_\_c, Customer\_Order\_\_c, Billing\_\_c

- Lightning app with navigation tabs
- Automated flows for inventory, billing, and notifications
- Dashboards visualizing sales, stock, and revenue performance

### 4.3: Solution Architecture:

**Objects and Relationships:**

- Jewel\_Customer\_\_c ↔ Customer\_Order\_\_c ↔ Billing\_\_c ↔ Item\_\_c ↔ Price\_\_c
- Lookup and Master-Detail fields used to link records
- Formula fields for auto-calculations (e.g., total billing amount)
- Validation rules for quantity and price limits
- Record Types to distinguish Gold, Silver, and Diamond workflows

## **5. PROJECT PLANNING AND SCHEDULING**

### **5.1 Project Planning:**

The planning and scheduling phase involves defining the project's timeline, scope, team responsibilities, tools, and milestones. It ensures the project stays on track and aligns with business goals while delivering the CRM application in an efficient, scalable, and phased manner.

- Week 1: Requirement gathering, Usecase and ER Diagrams
- Week 2: Custom object creation, Page Layouts and Tab Setup
- Week 3: Flows and Automation Setup, Validation Rules
- Week 4: Reports and Dashboards, Testing and Review
- Week 5: Final Deployment, Documentation and User Training


## **6. PROJECT DEVELOPMENT PHASE - SALESFORCE GUIDED PROJECT**

The development phase is the backbone of the CRM application, where core functionalities were implemented using Salesforce's declarative tools and programmatic capabilities. This phase was conducted in iterative sprints, following Agile methodology, and broken into several key activities.

### **6.1 Developer Environment Setup:**

- Create Salesforce Developer Org via [developer.salesforce.com/signup](https://developer.salesforce.com/signup)


Fill the required information, verify email, set password, and access Salesforce Setup.



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

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Work email

Salesforce Developer

bobbadiharshitha4@

Company

Country/Region

Ideal Institute of Tec


India

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


☒ I agree to the Main Services Agreement – Developer Services and Salesforce Program Agreement. I acknowledge, as described in the Developer Documentation: (1) the Developer Edition includes autonomous and other generative AI features; and (2) Salesforce may limit use of those features and the org, and may terminate any org that has been inactive for 45 days.

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☒ I'm not a robot

  
reCAPTCHA  
Privacy - Terms


Sign Me Up



Ready for a new password?

Reset Password





## Change Your Password

Enter a new password for **streetcause178@sb.com**.  
Make sure to include at least:

- ✓ 8 characters
- ✓ 1 letter
- ✓ 1 number

\* New Password

Good

\* Confirm New Password

\* Security Question

\* Answer

\*=required

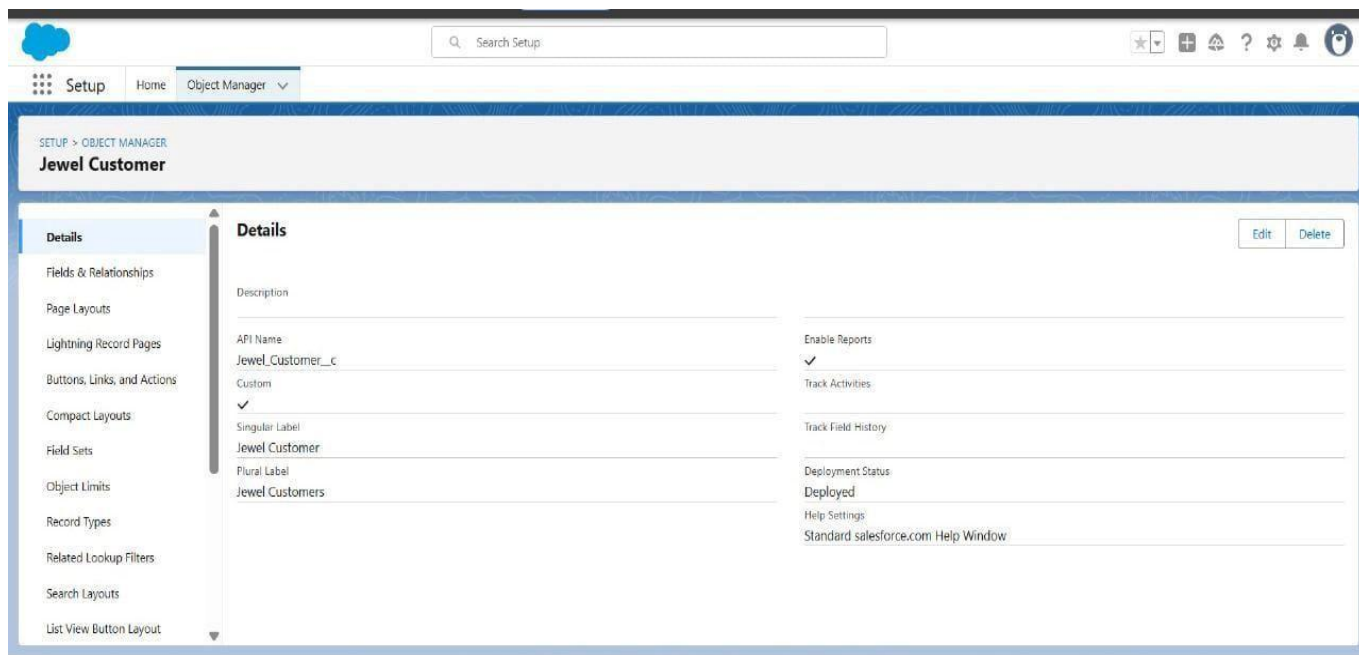
Change Password

Password was last changed on 6/20/2025, 3:59 AM.

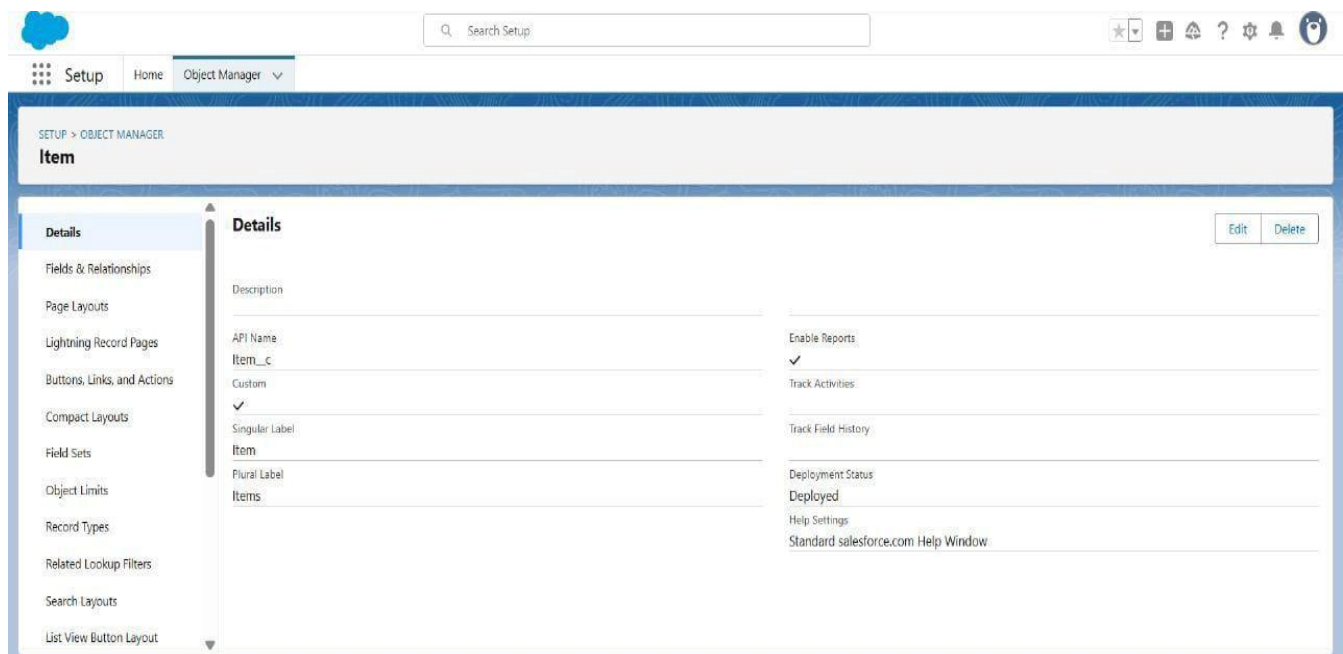
## 6.2 Custom Object Creation:

We create five main custom objects for Jewel Customer, Item, Customer Order, Price, Billing.


### 1. Jewel Customer



## 2. Item



## 3. Customer Order



Setup
 Home
 Object Manager

SETUP > OBJECT MANAGER  
**Customer 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  
List View Button Layout

Details

Description

API Name

Customer\_Order\_\_c

Custom

✓

Singular Label

Customer Order

Plural Label

Customer Orders

Enable Reports

✓

Track Activities

Track Field History

Deployment Status


Deployed

Help Settings

Standard salesforce.com Help Window

EditDelete

## 4. Price



Setup
 Home
 Object Manager

SETUP > OBJECT MANAGER  
**Price**

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

Details

Description

API Name

Price\_\_c

Custom

✓

Singular Label

Price

Plural Label

Prices

Enable Reports

✓

Track Activities

Track Field History

Deployment Status

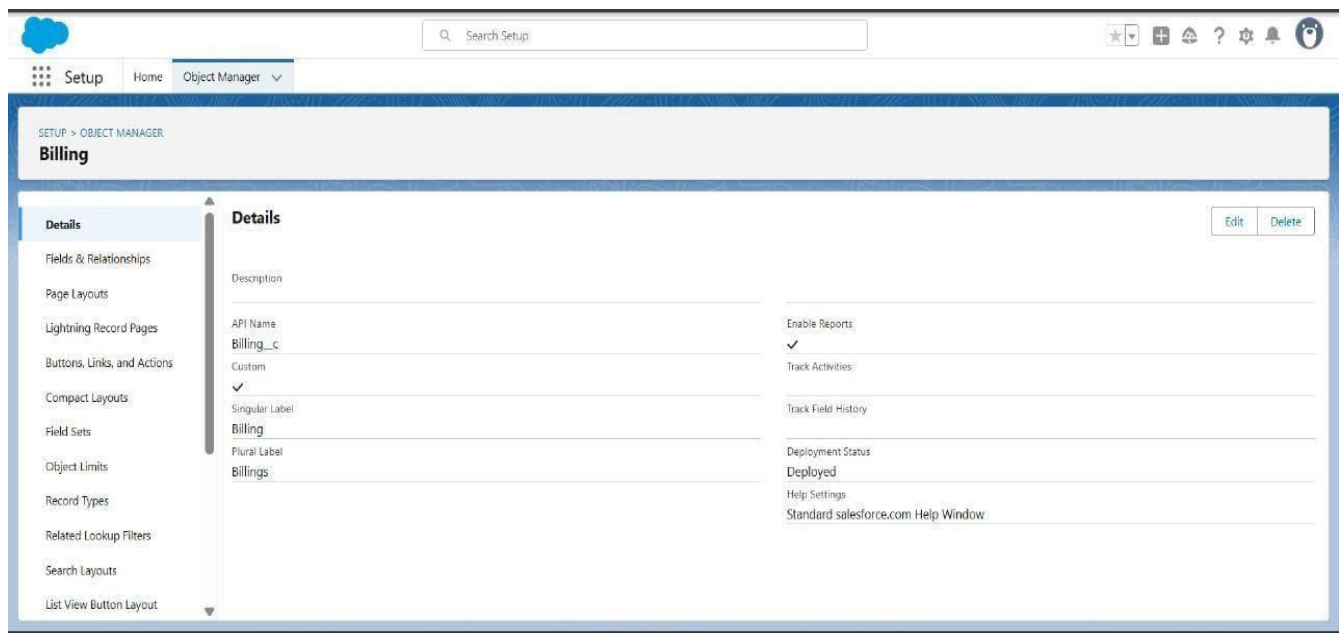
Deployed

Help Settings

Standard salesforce.com Help Window

EditDelete

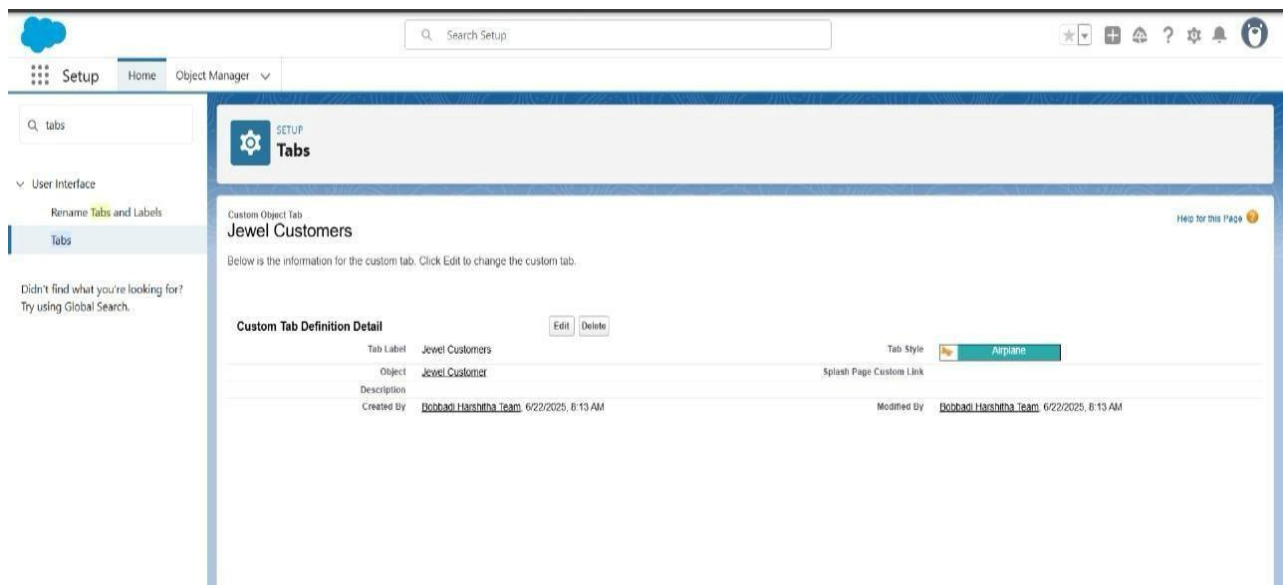
## 5. Billing



## 6.3 Creation of Tabs

We create five main custom tabs for Jewel Customer, Item, Customer Order, Price, Billing.

### 1. Jewel Customer



### 2. Item

Cloud logo | Search Setup | Setup | Home | Object Manager

Search tabs

User Interface

Rename Tabs and Labels

Tabs

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

### SETUP Tabs

Custom Object Tab: Items [Help for this Page](#)

Below is the information for the custom tab. Click Edit to change the custom tab.

Custom Tab Definition Detail		Edit	Delete
Tab Label	Items		
Object	Item		
Description			
Created By	Bobbad Harshitha Team 6/22/2025, 8:17 AM		
Modified By	Bobbad Harshitha Team 6/22/2025, 8:17 AM		

Tab Style: Alarm clock

Splash Page Custom Link

### 3. Customer Order

Cloud logo | Search Setup | Setup | Home | Object Manager

Search tabs

User Interface

Rename Tabs and Labels

Tabs

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

### SETUP Tabs

Custom Object Tab: Customer Orders [Help for this Page](#)

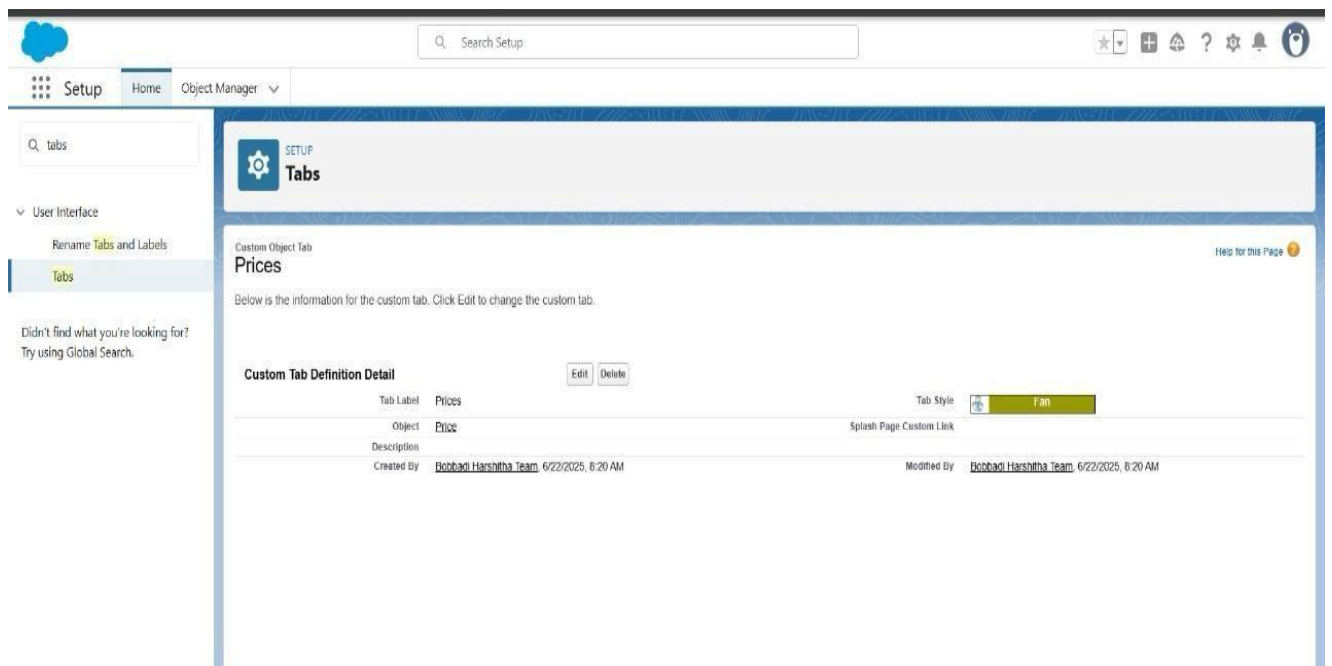
Below is the information for the custom tab. Click Edit to change the custom tab.

Custom Tab Definition Detail		Edit	Delete
Tab Label	Customer Orders		
Object	Customer Order		
Description			
Created By	Bobbad Harshitha Team 6/22/2025, 8:19 AM		
Modified By	Bobbad Harshitha Team 6/22/2025, 8:19 AM		

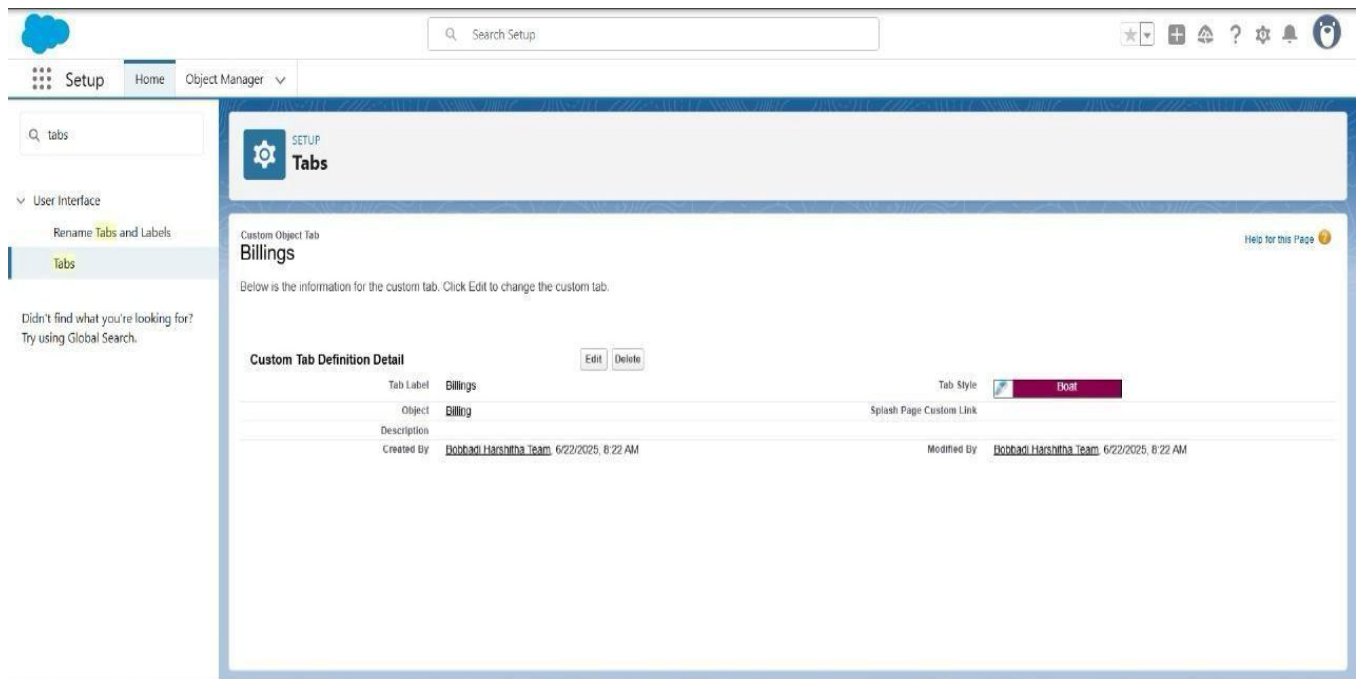
Tab Style: (Set)

Splash Page Custom Link

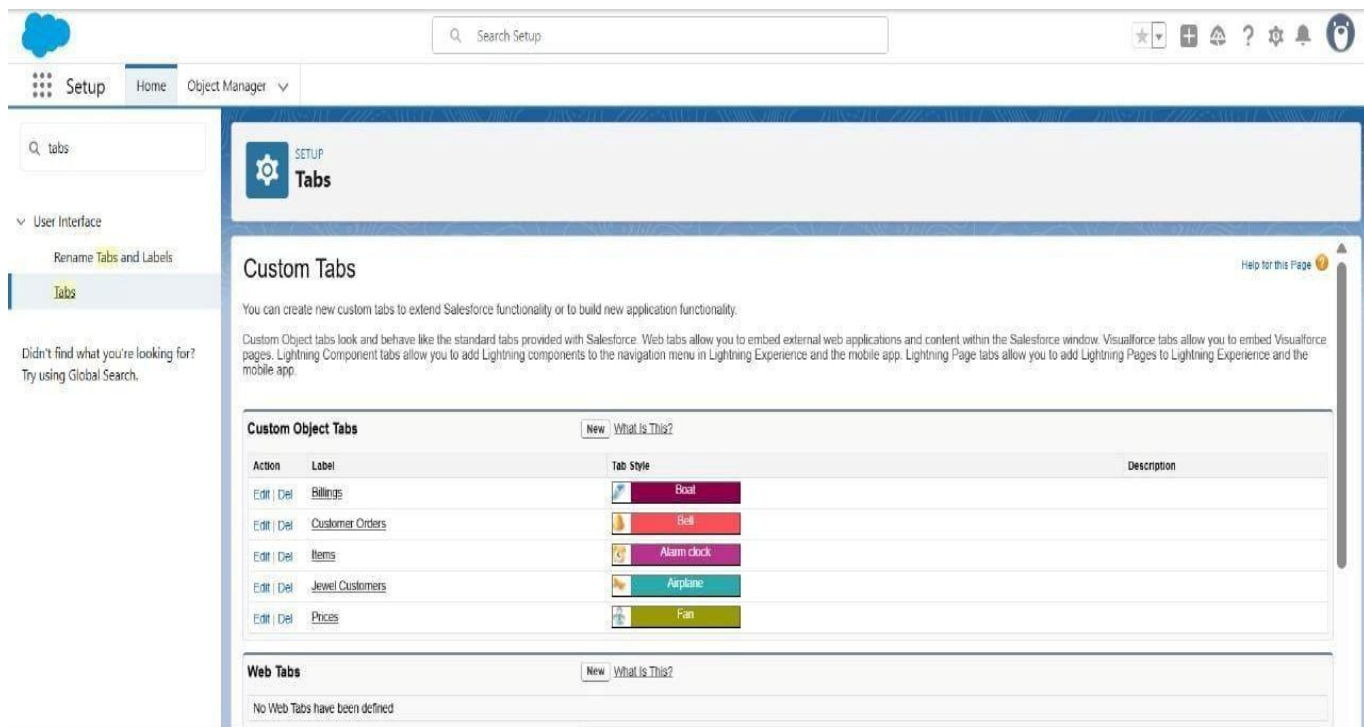
### 4. Price



## 5.Billing

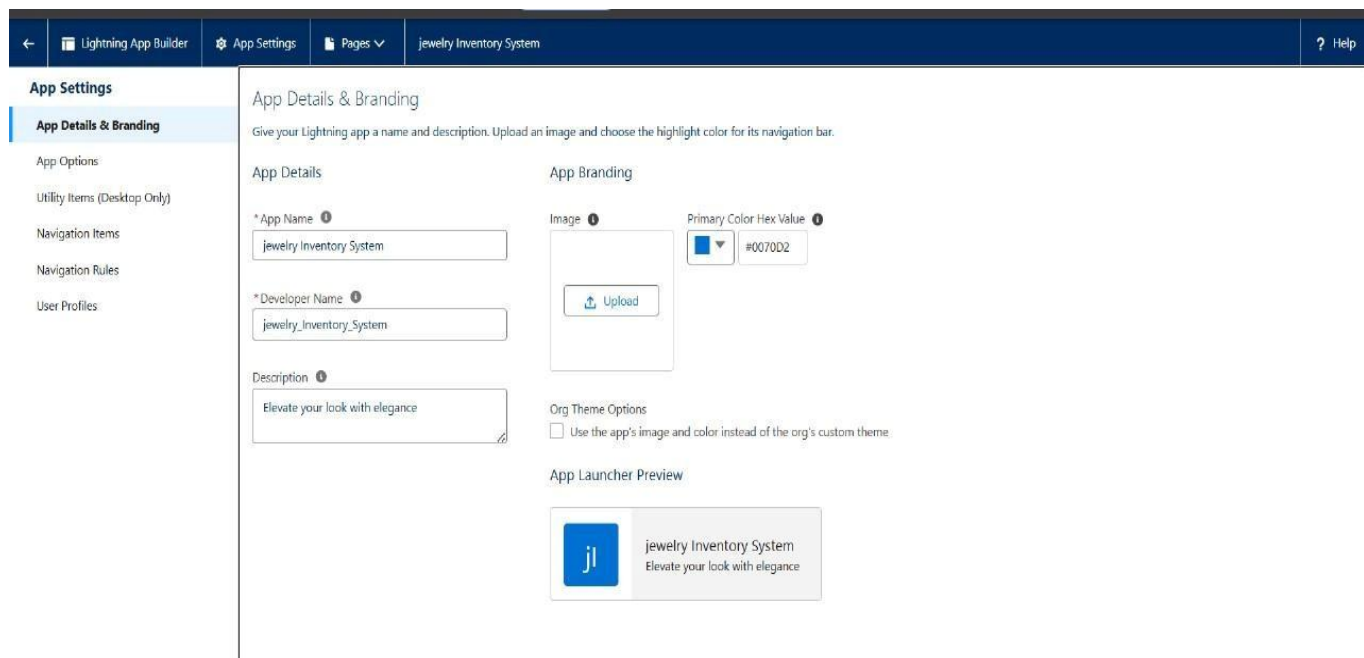


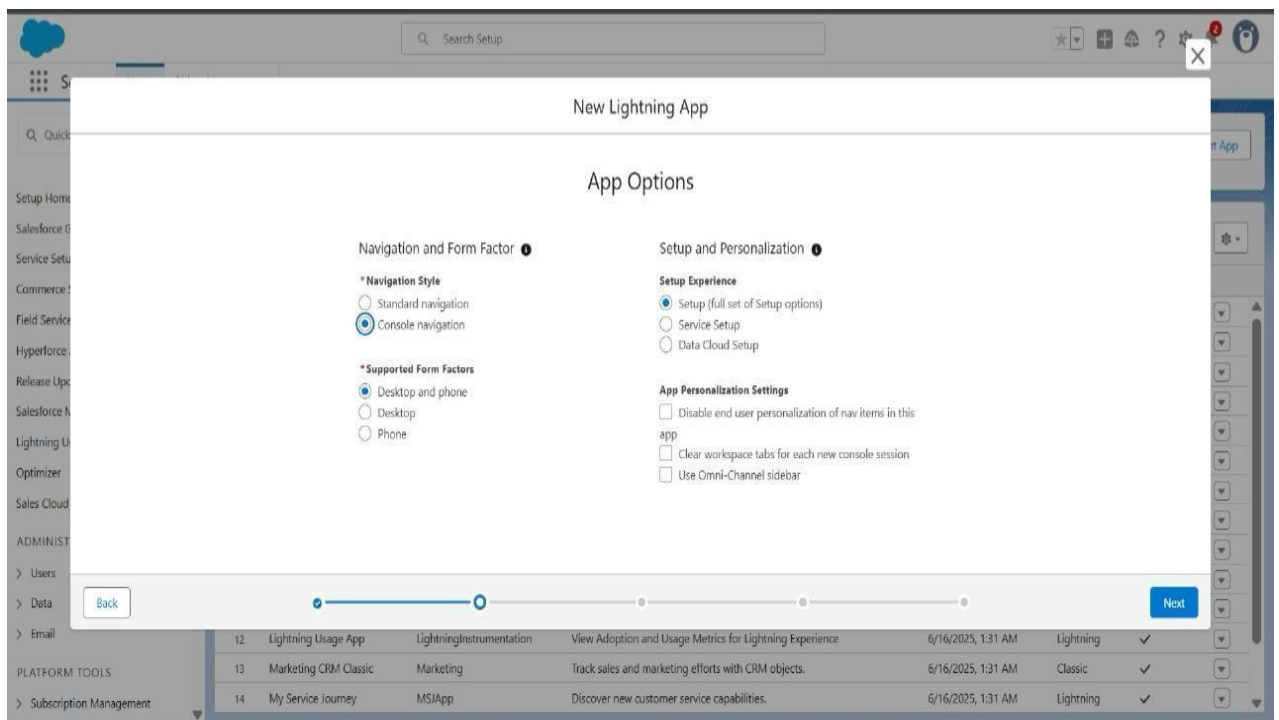
So we get the required all custom tabs as below



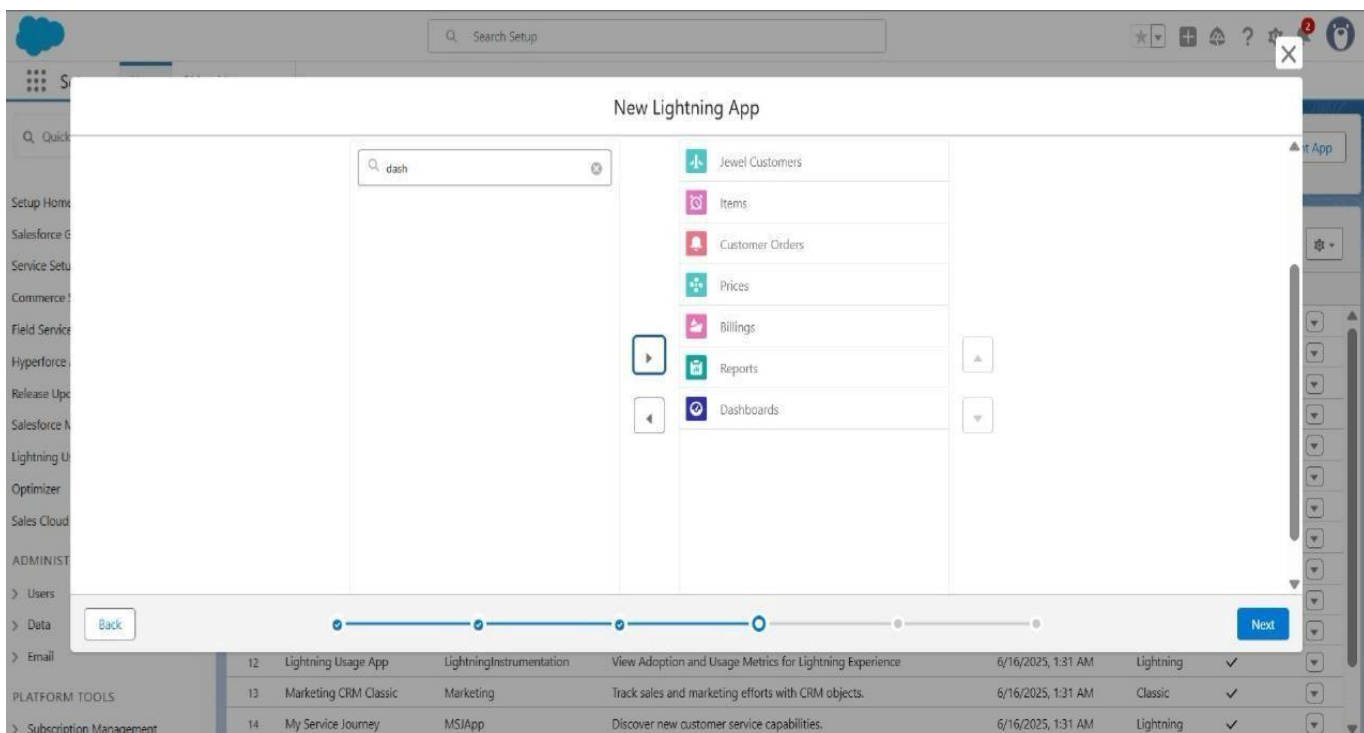
## 6.4 Creation of Lightning App

**App Name: Jewelry Inventory System**





## Navigation Items



## 6.5 Creation of Fields



## 1. Creating lookup relationship

To Create a relationship between Jewel Customer & Customer Order Objects.

The screenshot shows the Salesforce Setup interface for creating a new relationship for the Customer Order object. The left sidebar lists various setup options, with 'Fields & Relationships' selected. The main content area is titled 'New Relationship' and shows 'Step 3 of 6: Enter the label and name for the lookup field'. The form includes fields for 'Field Label' (Customer), 'Field Name' (Customer), 'Description', and 'Help Text'. Below these, there are options for 'Child Relationship Name' (Customer\_Orders), 'Required' (unchecked), and 'What to do if the lookup record is deleted?' (Clear the value of this field). The 'Auto add to custom report type' checkbox is checked.

Customer Order  
New Relationship

Step 3 of 6: Enter the label and name for the lookup field

Field Label: Customer

Field Name: Customer

Description:

Help Text:

Child Relationship Name: Customer\_Orders

Required: ☐

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.

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

The screenshot shows the Salesforce Setup interface for creating a new relationship for the Customer Order object. The left sidebar lists various setup options, with 'Fields & Relationships' selected. The main content area is titled 'New Relationship' and shows 'Step 6 of 6: Add custom related lists'. The form includes fields for 'Field Label' (Customer), 'Data Type' (Lookup), 'Field Name' (Customer), and 'Description'. Below these, there are options for 'Related List Label' (Customer Orders), 'Specify the title that the related list will have in all of the layouts associated with the parent', and 'Select the page layouts that should include this field'. The 'Add Related List' checkbox is checked, and the 'Append related list to users' existing personal customizations' checkbox is also checked.

Customer Order  
New Relationship

Step 6 of 6: Add custom related lists

Field Label: Customer

Data Type: Lookup

Field Name: Customer

Description:

Related List Label: Customer Orders

Specify the title that the related list will have in all of the layouts associated with the parent:

Select the page layouts that should include this field. The field will be added as the last field in the first 2-column section of these page layouts. The field will not appear on any pages if you do not select a layout.

To change the location of this field on the page, you will need to customize the page layout.

Add Related List: ☒ Append related list to users' existing personal customizations

## 2. Creating a Master-Detail Relationship

Creating Master-Detail Relationship between Item & Customer Order Object.

Setup

Home

Object Manager

SETUP > OBJECT MANAGER

Customer 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

List View Button Layout

Restriction Rules

Scoping Rules

Customer Order

New Relationship

Help for this Page

Step 5. Add reference field to Page Layouts

Step 5 of 6

Previous Next Cancel

Previous

Field Label	Item
Data Type	Master-Detail
Field Name	Item
Description	

These are the page layouts that will include this field. Because this is a Master-Detail relationship, the field is required.

Add Field	Page Layout Name
<input checked="" type="checkbox"/>	Customer Order Layout

Previous Next Cancel

Setup

Home

Object Manager

SETUP > OBJECT MANAGER

Customer Order

Details

Fields & Relationships

Page Layouts

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Field Sets

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Related Lookup Filters

Search Layouts

List View Button Layout

Restriction Rules

Scoping Rules

Customer Order

New Relationship

Help for this Page

Step 6. Add custom related lists

Step 6 of 6

Previous Save & Now Save Cancel

Field Label	Item
Data Type	Master-Detail
Field Name	Item
Description	

Specify the title that the related list will have in all of the layouts associated with the parent.

Related List Label

These are the page layouts that will include this field. Because this is a Master-Detail relationship, the field is required.

Add Related List	Page Layout Name
<input checked="" type="checkbox"/>	Item Layout

☒ Append related list to users' existing personal customizations

Previous Save & Now Save Cancel

### 3. Creating Text Field in Jewel Customer Object

Setup

Home

Object Manager

Search Setup

SETUP > OBJECT MANAGER

Jewel Customer

Details

Fields & Relationships

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Lightning Record Pages

Buttons, Links, and Actions

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Restriction Rules

Scoping Rules

Jewel Customer

New Custom Field

Help for this Page

Step 2. Enter the details

Step 2 of 4

Previous

Next

Cancel

Field Label

City

Please enter the maximum length for a text field below.

Length

20

Field Name

City

Description

Help Text

Required

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

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

Setup

Home

Object Manager

Search Setup

SETUP > OBJECT MANAGER

Jewel Customer

Details

Fields & Relationships

Page Layouts

Lightning Record Pages

Buttons, Links, and Actions

Compact Layouts

Field Sets

Object Limits

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Related Lookup Filters

Search Layouts

List View Button Layout

Restriction Rules

Scoping Rules

Jewel Customer

New Custom Field

Help for this Page

Step 4. Add to page layouts

Step 4 of 4

Previous

Save & New

Save

Cancel

Field Label

City

Data Type

Text

Field Name

City

Description

Select the page layouts that should include this field. The field will be added as the last field in the first 2-column section of these page layouts. The field will not appear on any pages if you do not select a layout.

To change the location of this field on the page, you will need to customize the page layout.

☒ Add Field

☒ Page Layout Name

Jewel Customer Layout

When finished, click Save & New to create more custom fields, or click Save if you are done.

Previous

Save & New

Save

Cancel

## 4. Creating the Phone field in object Jewel Customer

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  
Scoping Rules

Jewel Customer  
**New Custom Field**

Step 4. Add to page layouts Step 4 of 4

Field Label	Phone
Data Type	Phone
Field Name	Phone
Description	

Select the page layouts that should include this field. The field will be added as the last field in the first 2-column section of these page layouts. The field will not appear on any pages if you do not select a layout.

To change the location of this field on the page, you will need to customize the page layout.

☒ Add Field **Page Layout Name**

☒ Jewel Customer Layout

When finished, click Save & New to create more custom fields, or click Save if you are done.

Previous Save & New Save Cancel

## 5. Creating the Email field in object Jewel Customer

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  
Scoping Rules

Jewel Customer  
**New Custom Field**

Step 4. Add to page layouts Step 4 of 4

Field Label	Email
Data Type	Email
Field Name	Email
Description	

Select the page layouts that should include this field. The field will be added as the last field in the first 2-column section of these page layouts. The field will not appear on any pages if you do not select a layout.

To change the location of this field on the page, you will need to customize the page layout.

☒ Add Field **Page Layout Name**

☒ Jewel Customer Layout

When finished, click Save & New to create more custom fields, or click Save if you are done.

Previous Save & New Save Cancel

## 6. Creating the number field in Item object

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

Item  
**New Custom Field**
[Help for this Page](#)

Step 4. Add to page layouts
Step 4 of 4

Field Label	Purity
Data Type	Number
Field Name	Purity
Description	

Select the page layouts that should include this field. The field will be added as the last field in the first 2-column section of these page layouts. The field will not appear on any pages if you do not select a layout.

To change the location of this field on the page, you will need to customize the page layout.

☒ Add Field

Page Layout Name	
Item Layout	

When finished, click Save & New to create more custom fields, or click Save if you are done.

Previous
Save & New
Save
Cancel

## 7. Creating Picklist Field in Item Object

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

Item  
**New Custom Field**
[Help for this Page](#)

Step 4. Add to page layouts
Step 4 of 4

Field Label	Item Type
Data Type	Picklist
Field Name	Item_Type
Description	

Select the page layouts that should include this field. The field will be added as the last field in the first 2-column section of these page layouts. The field will not appear on any pages if you do not select a layout.

To change the location of this field on the page, you will need to customize the page layout.

☒ Add Field

Page Layout Name	
Item Layout	

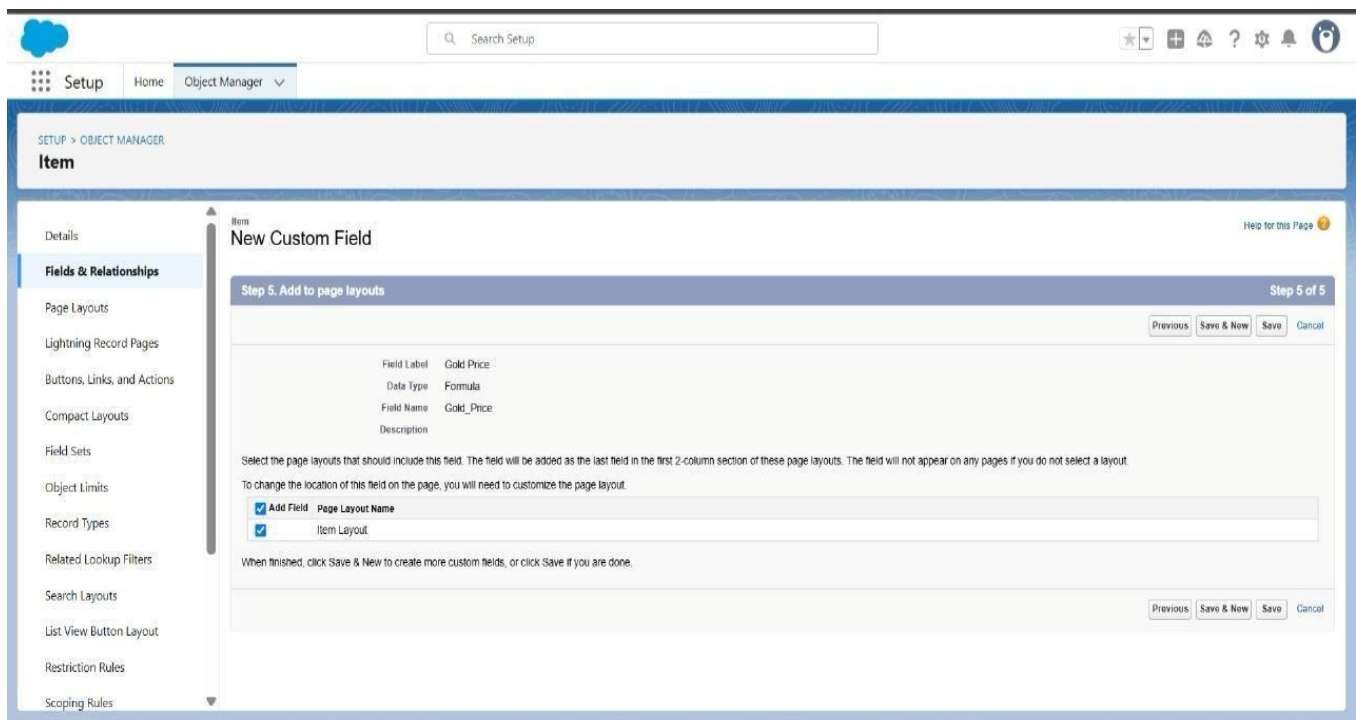
When finished, click Save & New to create more custom fields, or click Save if you are done.

Previous
Save & New
Save
Cancel

## 8. Creating Currency Field in Price Object



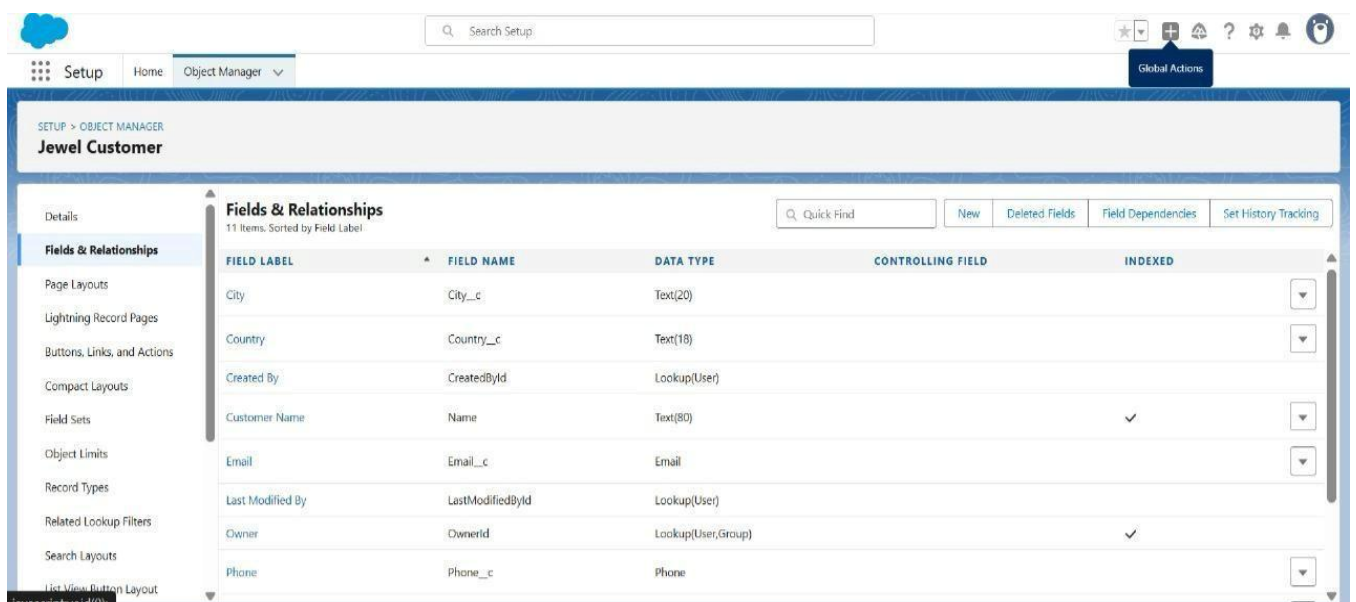




## 10. Creating Remaining Fields in Objects

Creating remaining fields in the objects

1. Jewel Customer : State, Street, Country, Zip/Postal code



2. Price : Silver Price

Setup

Home

Object Manager

Search Setup

SETUP > OBJECT MANAGER

Price

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

Fields & Relationships

6 Items, Sorted by Field Label

Quick Find

NewDeleted FieldsField DependenciesSet History Tracking

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

3.Item : Field Label-Customer Name, Ornament, Weight, Stone Weight, Percentage, Stone/Other Price, Expected Days of Return, Priority, Silver Price, Purity Gold Price, Total weights, Amount, KDM, Making Charges.

Setup

Home

Object Manager

Search Setup

SETUP > OBJECT MANAGER

Item

Details

Fields & Relationships

Page Layouts

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Buttons, Links, and Actions

Compact Layouts

Field Sets

Object Limits

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Related Lookup Filters

Search Layouts

List View Button Layout

Fields & Relationships

23 Items, Sorted by Field Label

Quick Find

New

Deleted Fields

Field Dependencies

Set History Tracking

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)		

4.Customer Order: Order Status



Setup

Home

Object Manager

Search Setup

Star

Plus

Refresh

Help

Settings

Notifications

Profile

SETUP > OBJECT MANAGER

Customer Order

Details

Fields & Relationships

Page Layouts

Lightning Record Pages

Buttons, Links, and Actions

Compact Layouts

Field Sets

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Search Layouts

List View Button Layout

Fields & Relationships

6 Items, Sorted by Field Label

Quick Find

NewDeleted FieldsField DependenciesSet History Tracking

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

5.Billing: Field Label-Item, Ornament, Stone Weight, Weight, Amount, Gold/Silver Price, KDM Charge, Making Charges,Stone/Other Price, Total Amount.

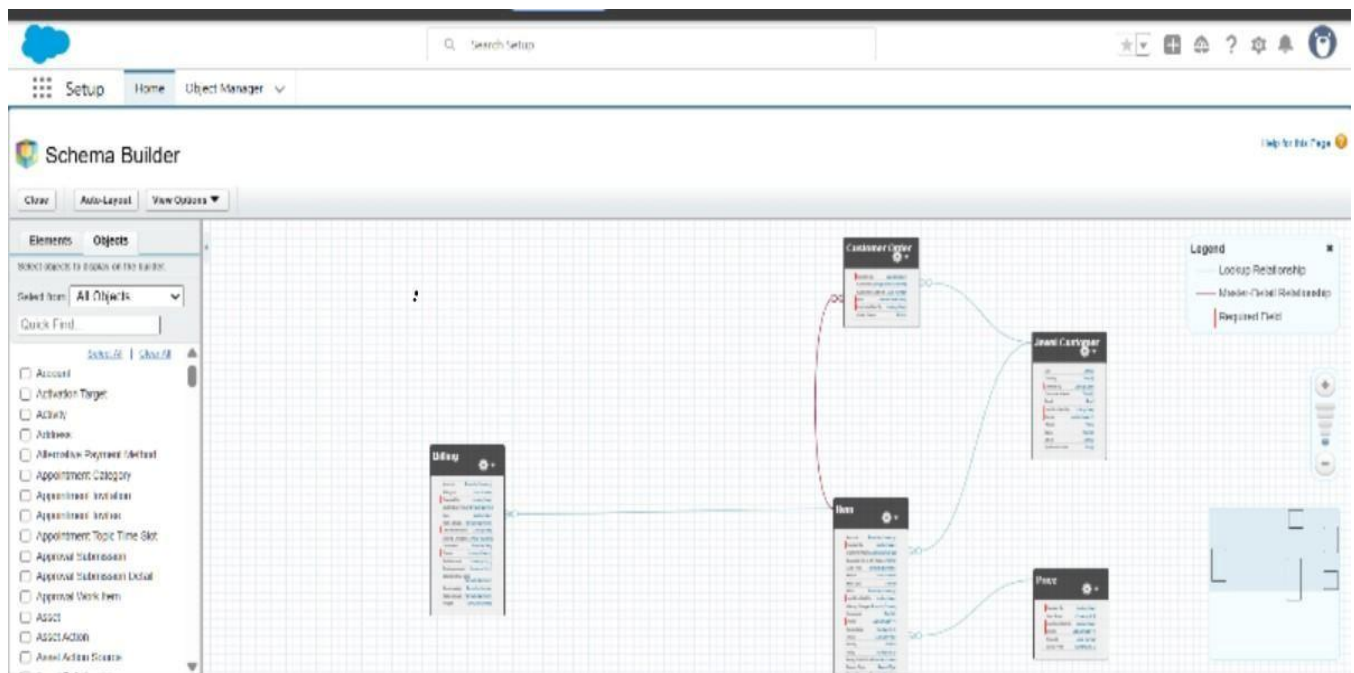
Setup

Home

Object Manager

Search Setup

## 11. Creation of Schema Builder



## 12. Creation of Field Dependencies

The screenshot shows the 'Item Field Dependencies' configuration page. The page title is 'Item Field Dependencies' with a back link to 'Custom Object: Item'. Below the title, a description states: 'This page allows you to define dependencies between fields (e.g., dependent picklists)'. A table titled 'Field Dependencies' contains one entry:

Action	Controlling Field	Dependent Field	Modified By
<a href="#">Edit</a>   <a href="#">Del</a>	Priority	Expected Days Of Return	Bobbari Harshitha Team, 6/23/2025, 6:53 AM

The left sidebar shows a navigation menu with options: Details, Fields & Relationships (selected), Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, Related Lookup Filters, Search Layouts, and List View Button Layout.

## 13. Creation of Validation Rules

Setup Home Object Manager

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

### Jewel Customer Validation Rule

[Back to Jewel Customer](#)

**Validation Rule Detail** [Edit](#) [Clone](#)

Rule Name	Postal_Code	Active	✓
Error Condition Formula	AND( OR( LEN(Zip_Postal_code__c) <= 5, NOT(REGEX(Zip_Postal_code__c, "[0-9]{6}")) ) NOT(ISBLANK(Zip_Postal_code__c)) )		
Error Message	Must contain 6 digits	Error Location	Zip/Postal code
Description			
Created By	<a href="#">Rohbadi Harshitha Team</a> 6/23/2025, 6:58 AM	Modified By	<a href="#">Rohbadi Harshitha Team</a> 6/23/2025, 6:58 AM

[Edit](#) [Clone](#)

Setup Home Object Manager

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

### Jewel Customer Validation Rule

[Back to Jewel Customer](#)

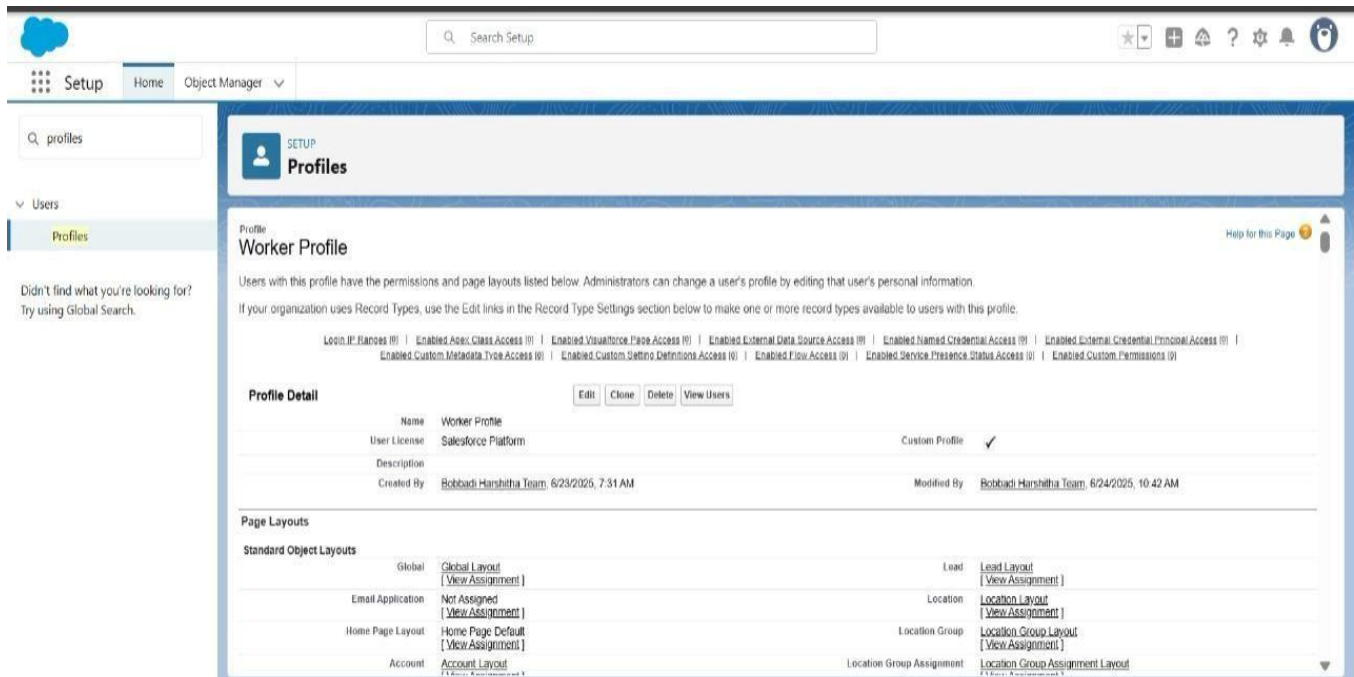
**Validation Rule Detail** [Edit](#) [Clone](#)

Rule Name	ValidationRule_For_JewelCustomerObject	Active	✓
Error Condition Formula	OR( ISBLANK( City__c ) , ISBLANK( Country__c ) , ISBLANK( Phone__c ) , ISBLANK( State__c ) , ISBLANK( Street__c ) )		
Error Message	Please fill Required fields	Error Location	Top of Page
Description			
Created By	<a href="#">Rohbadi Harshitha Team</a> 6/23/2025, 7:00 AM	Modified By	<a href="#">Rohbadi Harshitha Team</a> 6/23/2025, 7:00 AM

[Edit](#) [Clone](#)

## 6.6 Creation of Profiles

We create the goldsmith profile and the worker profile



The screenshot shows the Salesforce Setup interface for the 'Profiles' section. The left sidebar contains a search bar with 'profiles' and a navigation menu with 'Users' and 'Profiles' (selected). The main content area is titled 'SETUP Profiles' and includes a 'Profile' section for 'Worker Profile'. Below this, there is a 'Profile Detail' section with fields for Name, User License, Description, Created By, and Modified By. The 'Page Layouts' section is also visible, showing a table of standard object layouts.

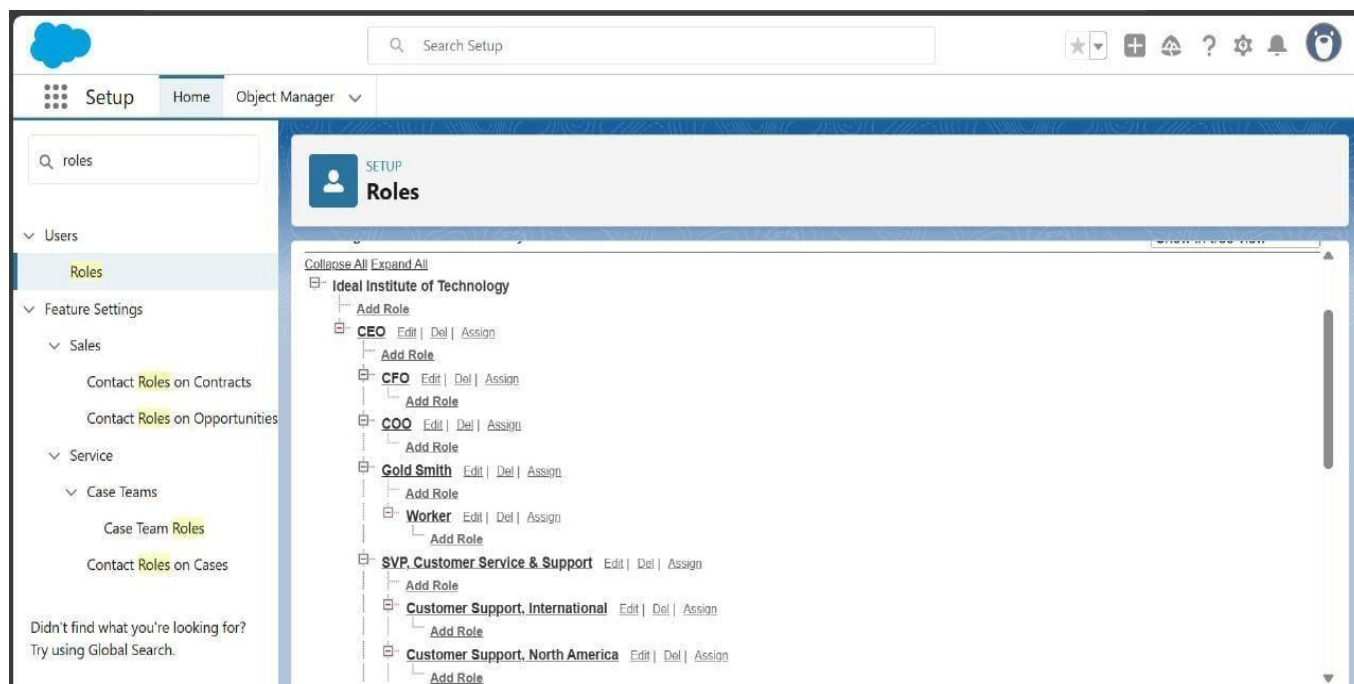
**Profile Detail**

Name	Worker Profile		
User License	Salesforce Platform	Custom Profile	<input checked="" type="checkbox"/>
Description			
Created By	Robbadi Harshitha Team	6/23/2025, 7:31 AM	Modified By: Robbadi Harshitha Team, 6/24/2025, 10:42 AM

**Page Layouts**

Standard Object Layouts	Global	Lead
Global	Global Layout [View Assignment]	Lead Layout [View Assignment]
Email Application	Not Assigned [View Assignment]	Location Location Layout [View Assignment]
Home Page Layout	Home Page Default [View Assignment]	Location Group Location Group Layout [View Assignment]
Account	Account Layout [View Assignment]	Location Group Assignment Location Group Assignment Layout [View Assignment]

## 6.7 Creation of Roles

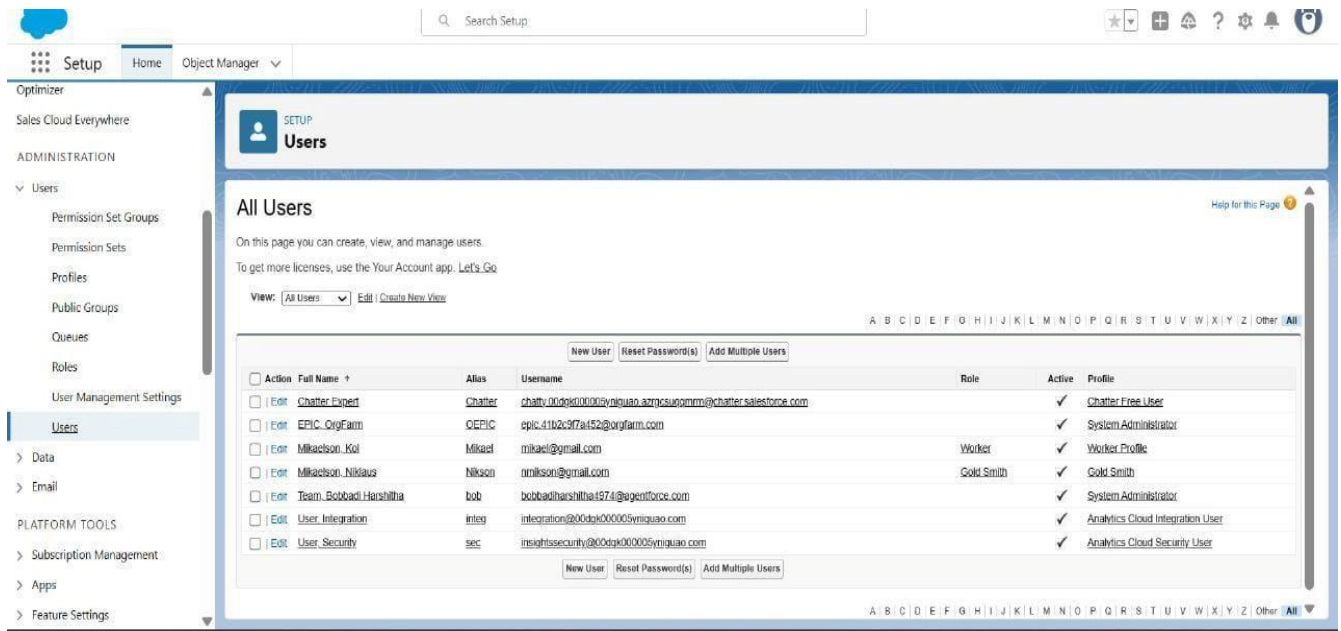


The screenshot shows the Salesforce Setup interface for the 'Roles' section. The left sidebar contains a search bar with 'roles' and a navigation menu with 'Users' and 'Roles' (selected). The main content area is titled 'SETUP Roles' and displays a hierarchical tree structure of roles. The roles are organized under 'Ideal Institute of Technology' and include 'CEO', 'CFO', 'COO', 'Gold Smith', 'Worker', 'SVP, Customer Service & Support', 'Customer Support, International', and 'Customer Support, North America'.

**Roles**

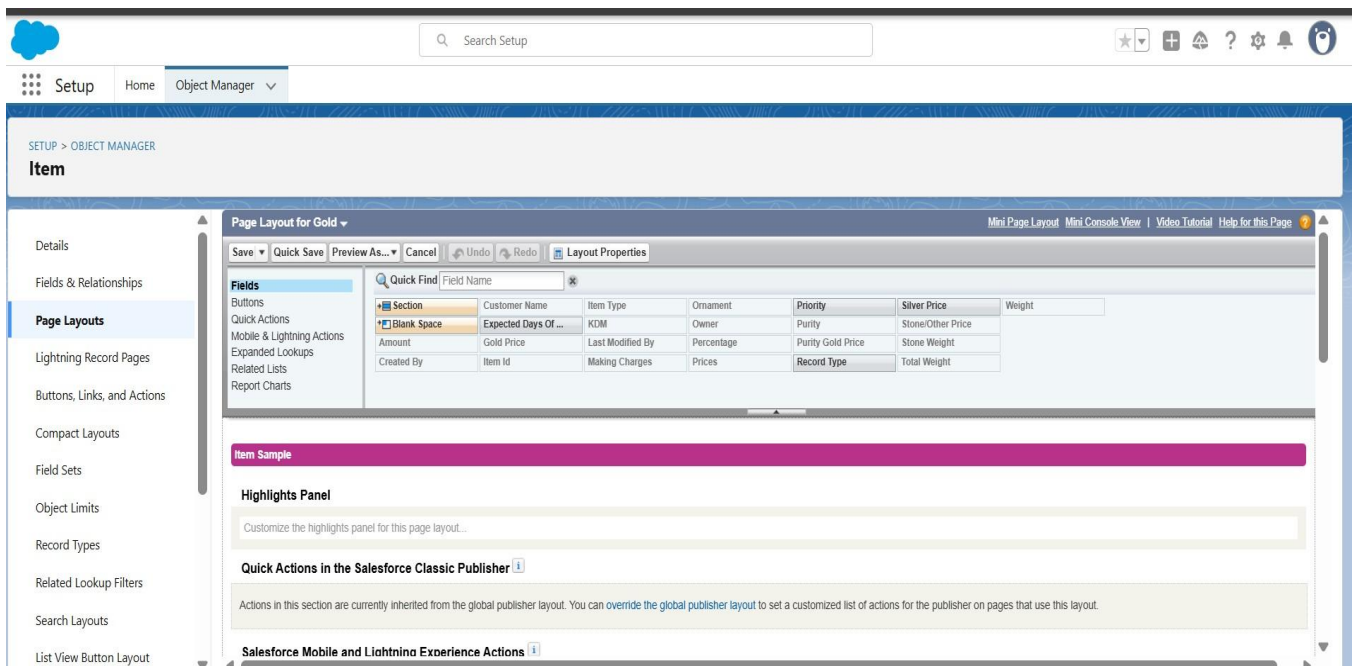
- Ideal Institute of Technology**
  - CEO** [Edit] [Del] [Assign]
    - Add Role**
  - CFO** [Edit] [Del] [Assign]
    - Add Role**
  - COO** [Edit] [Del] [Assign]
    - Add Role**
  - Gold Smith** [Edit] [Del] [Assign]
    - Add Role**
  - Worker** [Edit] [Del] [Assign]
    - Add Role**
  - SVP, Customer Service & Support** [Edit] [Del] [Assign]
    - Add Role**
  - Customer Support, International** [Edit] [Del] [Assign]
    - Add Role**
  - Customer Support, North America** [Edit] [Del] [Assign]
    - Add Role**

## 6.8 Creation of Users



## 6.9 Creation of Page Layouts

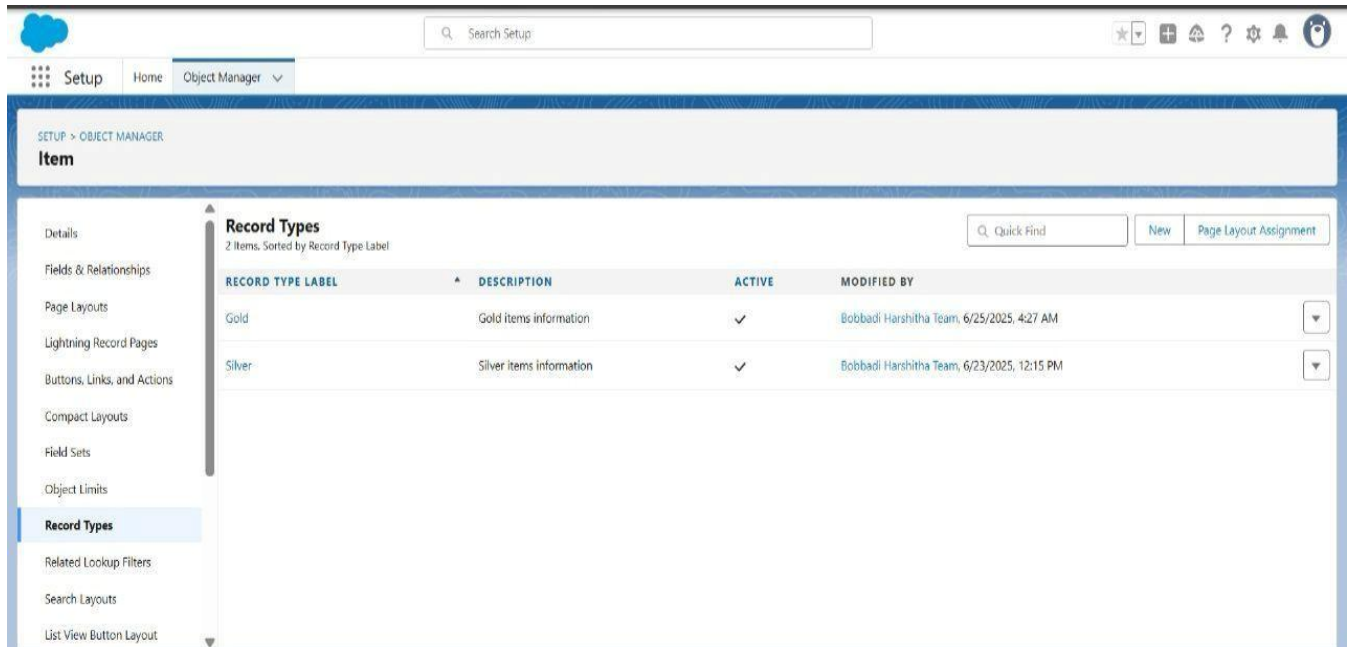
We create the page layouts for gold and silver items





## 6.10 Creation of Record Types

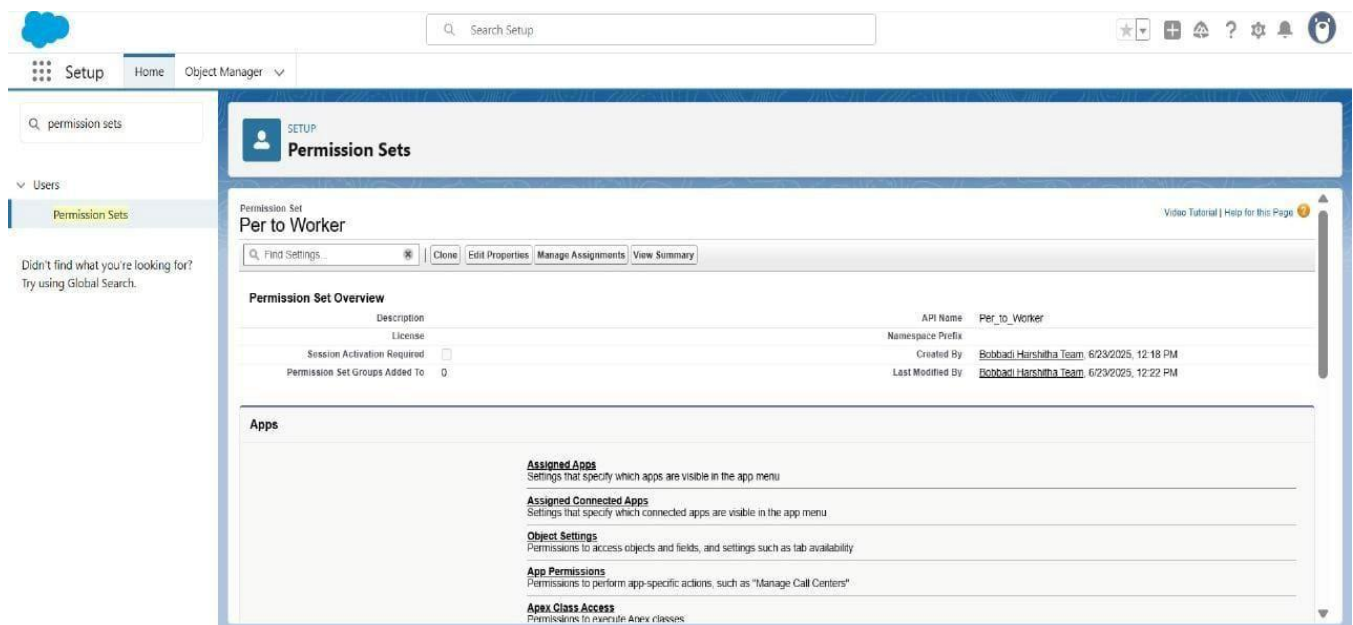
We create the gold and silver records



The screenshot shows the Salesforce Setup interface. The left sidebar contains a navigation menu with options like Details, Fields & Relationships, Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types (selected), Related Lookup Filters, Search Layouts, and List View Button Layout. The main content area is titled 'Item' and 'Record Types'. It shows a table with 2 items, sorted by Record Type Label. The table has columns for Record Type Label, Description, Active status, and Modified By. The 'Gold' record type is active and was modified by Bobbaadi Harshitha Team on 6/25/2025 at 4:27 AM. The 'Silver' record type is also active and was modified by Bobbaadi Harshitha Team on 6/23/2025 at 12:15 PM.

RECORD TYPE LABEL	DESCRIPTION	ACTIVE	MODIFIED BY
Gold	Gold items information	✓	Bobbaadi Harshitha Team, 6/25/2025, 4:27 AM
Silver	Silver items information	✓	Bobbaadi Harshitha Team, 6/23/2025, 12:15 PM

## 6.11 Creation of Permission Sets



The screenshot shows the Salesforce Setup interface for creating a Permission Set. The left sidebar shows a search for 'permission sets' and a list of users. The main content area is titled 'Permission Sets' and shows the 'Per to Worker' permission set. The 'Permission Set Overview' section displays the following information:

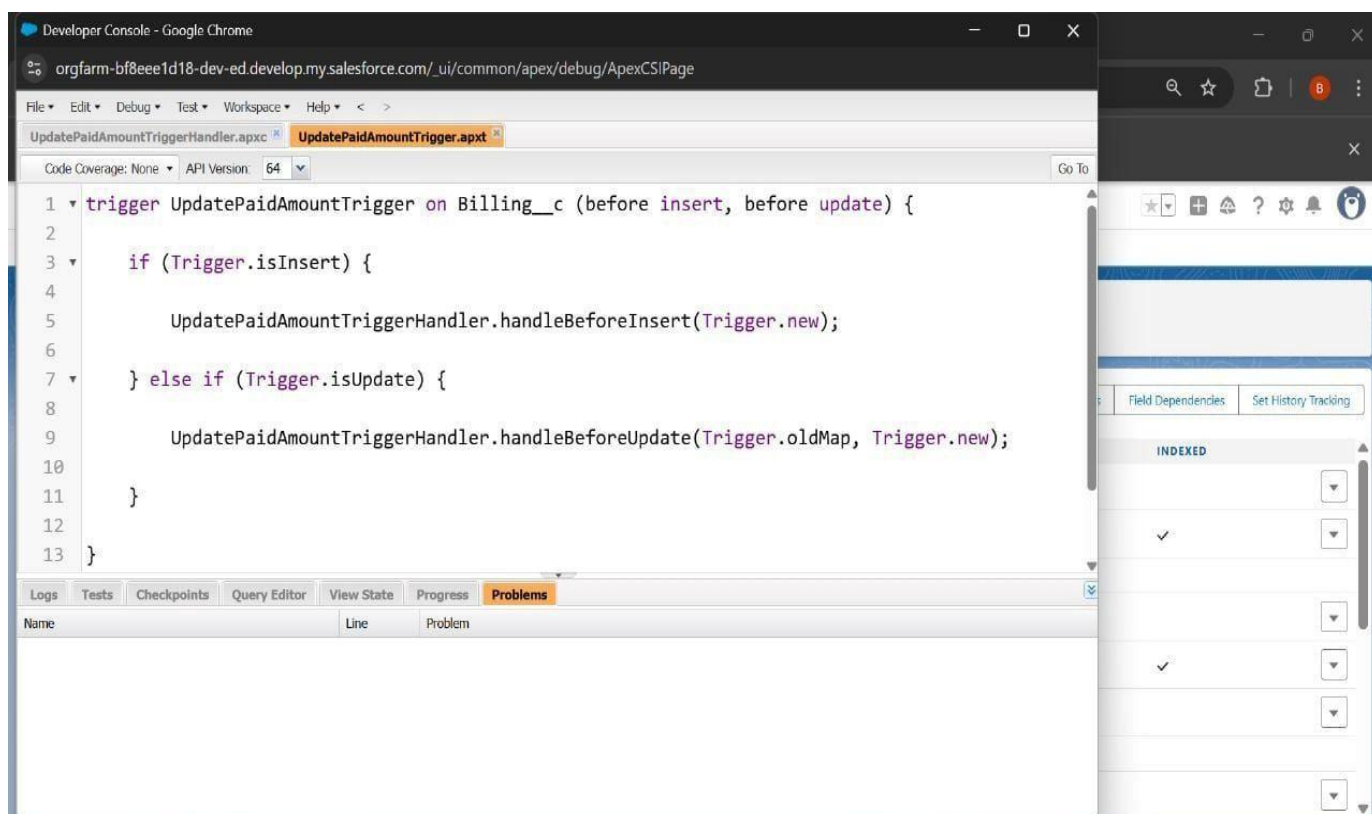
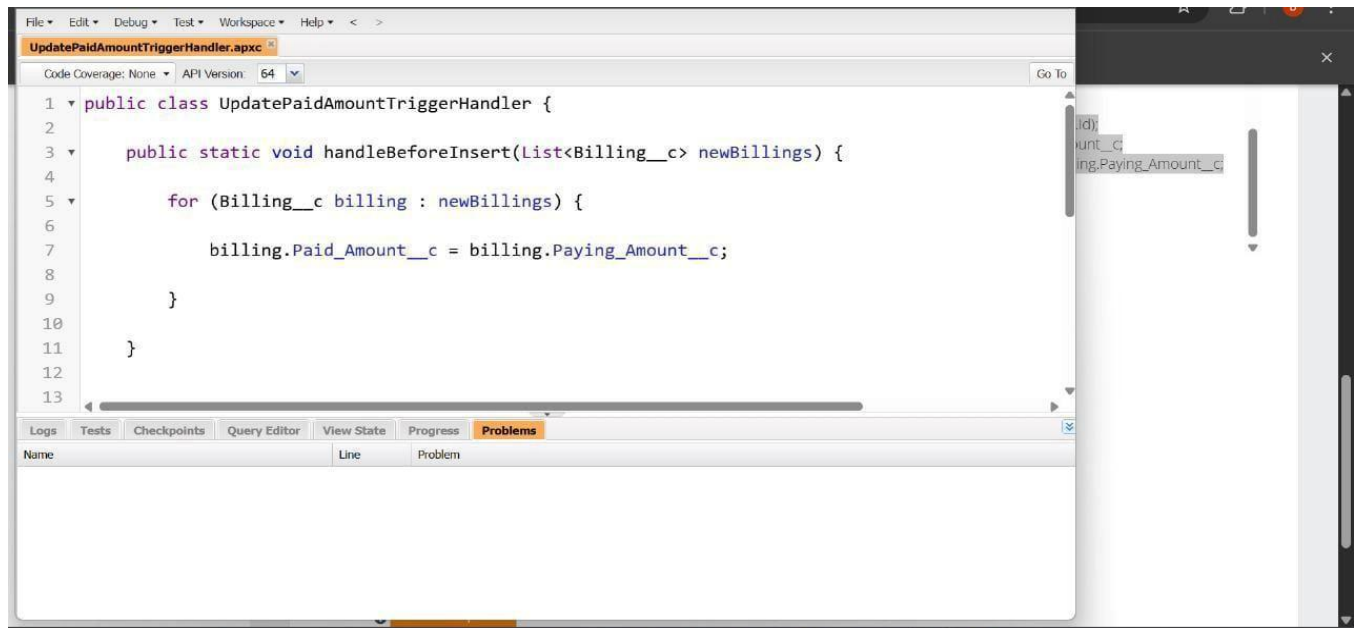
Field	Value
Description	Per to Worker
License	
Session Activation Required	<input type="checkbox"/>
Permission Set Groups Added To	0
API Name	Per_to_Worker
Namespace Prefix	
Created By	Bobbaadi Harshitha Team, 6/23/2025, 12:18 PM
Last Modified By	Bobbaadi Harshitha Team, 6/23/2025, 12:22 PM

The 'Apps' section lists the following settings:

- Assigned Apps**: Settings that specify which apps are visible in the app menu.
- Assigned Connected Apps**: Settings that specify which connected apps are visible in the app menu.
- Object Settings**: Permissions to access objects and fields, and settings such as tab availability.
- App Permissions**: Permissions to perform app-specific actions, such as "Manage Call Centers".
- Apex Class Access**: Permissions to execute Apex classes.

Trigger

## 6.12 Creation of



## User Adoption

## 6.13 Creation of

We create item,price,customer orders,jewel customers and billing

	<input type="checkbox"/>	Price Id	
1	<input type="checkbox"/>	Price-10	
2	<input type="checkbox"/>	Price-09	
3	<input type="checkbox"/>	Price-08	
4	<input type="checkbox"/>	Price-07	
5	<input type="checkbox"/>	Price-06	
6	<input type="checkbox"/>	Price-05	
7	<input type="checkbox"/>	Price-04	
8	<input type="checkbox"/>	Price-03	
9	<input type="checkbox"/>	Price-02	
10	<input type="checkbox"/>	Price-01	

	<input type="checkbox"/>	Customer Name	
1	<input type="checkbox"/>	Arjun	
2	<input type="checkbox"/>	Joshina	
3	<input type="checkbox"/>	Anand	
4	<input type="checkbox"/>	Krishna	
5	<input type="checkbox"/>	Sita	
6	<input type="checkbox"/>	Nani	
7	<input type="checkbox"/>	Shyamala	
8	<input type="checkbox"/>	Manasa	
9	<input type="checkbox"/>	Ravi	
10	<input type="checkbox"/>	Devi	

## Reports



## 6.14 Creation of

jewelry Inventory Sy...

Search...

★

+

🏠

?

⚙️

🔔

👤

Reports

Recent

3 items

Q Search recent reports...

New Report

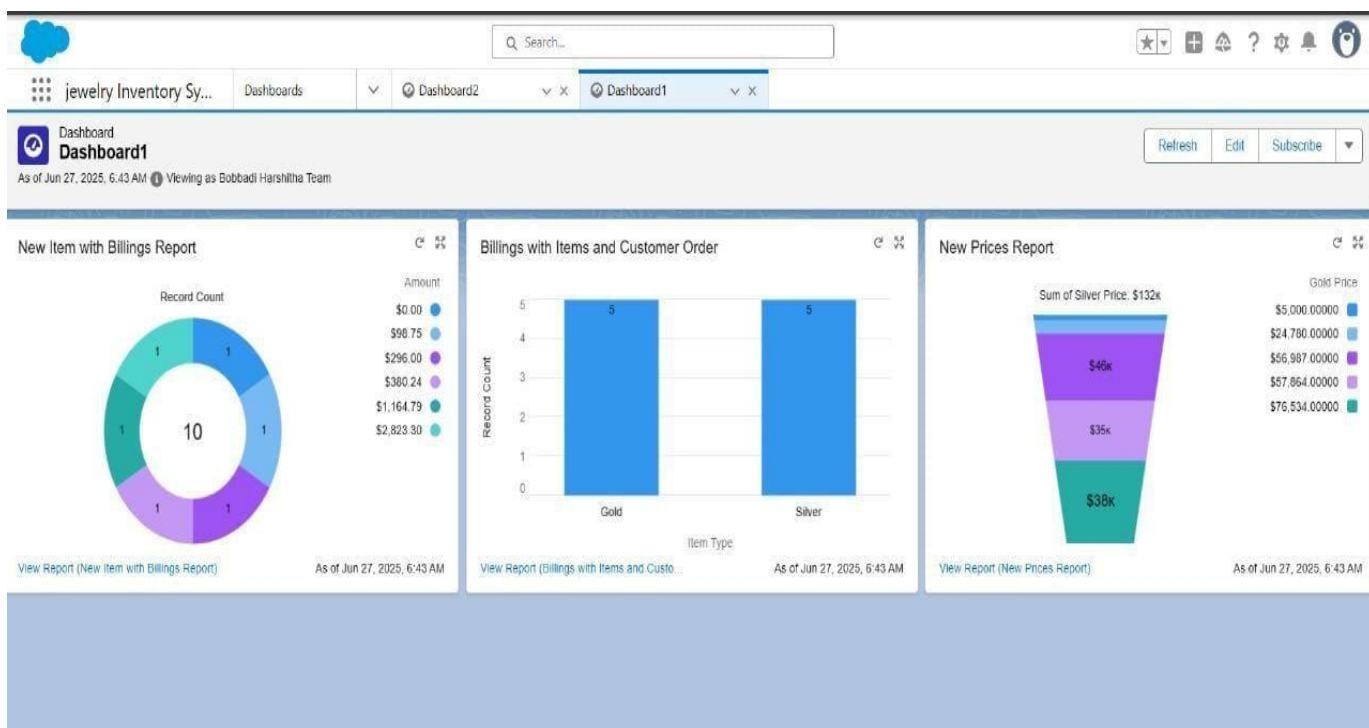
New Folder

⚙️

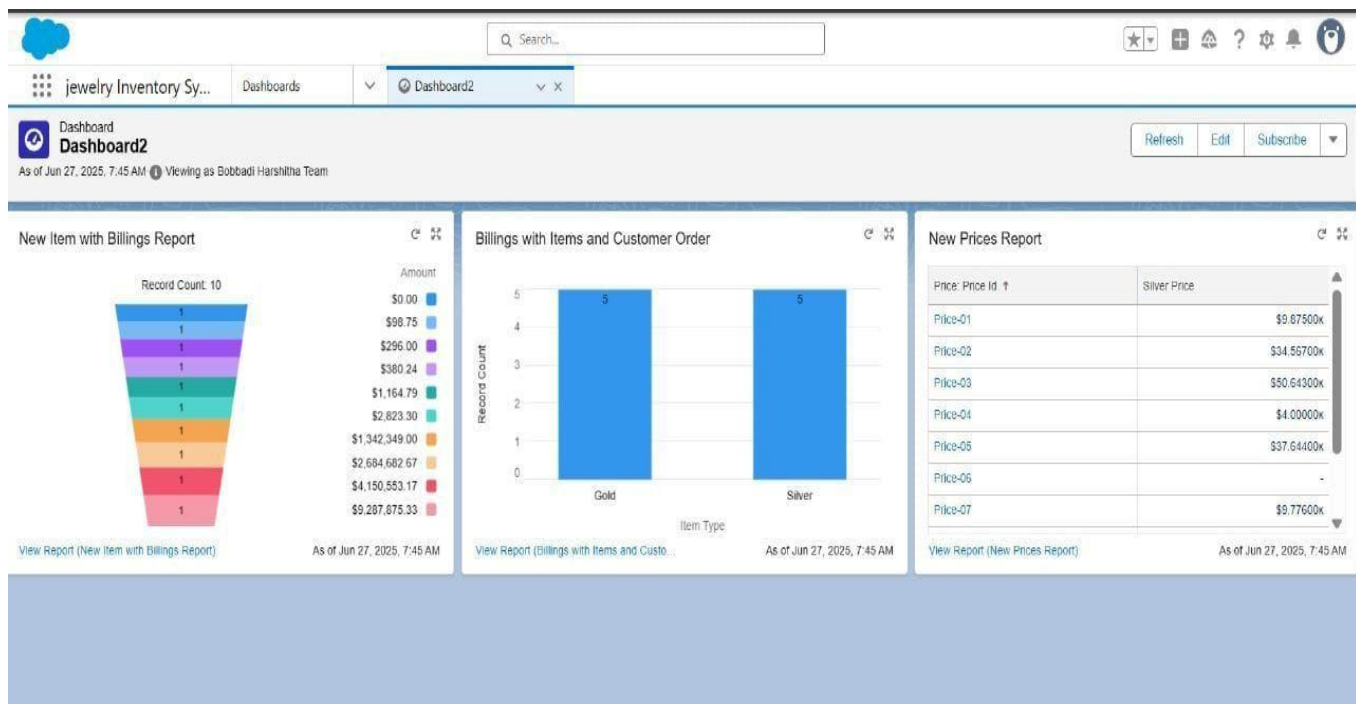
REPORTS	Report Name	Description	Folder	Created By	Created On	Subscribed
Recent	Billings with Items and Customer Order		Private Reports	Bobbadi Harshitha Team	6/25/2025, 10:44 AM	📄
Created by Me	New Item with Billings Report		Private Reports	Bobbadi Harshitha Team	6/25/2025, 10:43 AM	📄
Private Reports	New Prices Report		Private Reports	Bobbadi Harshitha Team	6/25/2025, 9:56 AM	📄
Public Reports						
All Reports						
FOLDERS						
All Folders						
Created by Me						
Shared with Me						
FAVORITES						
All Favorites						

## 6.15 Creation of Dashboards

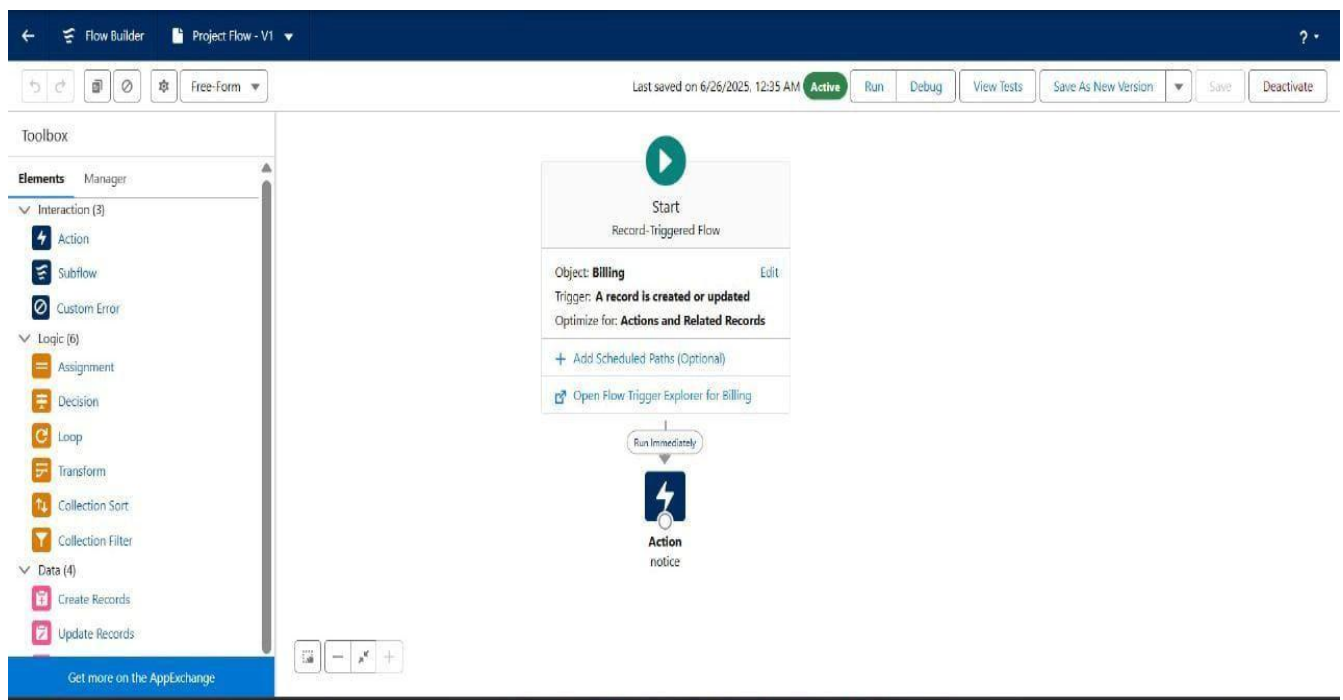
### Dashboard 1



## Dashboard 2

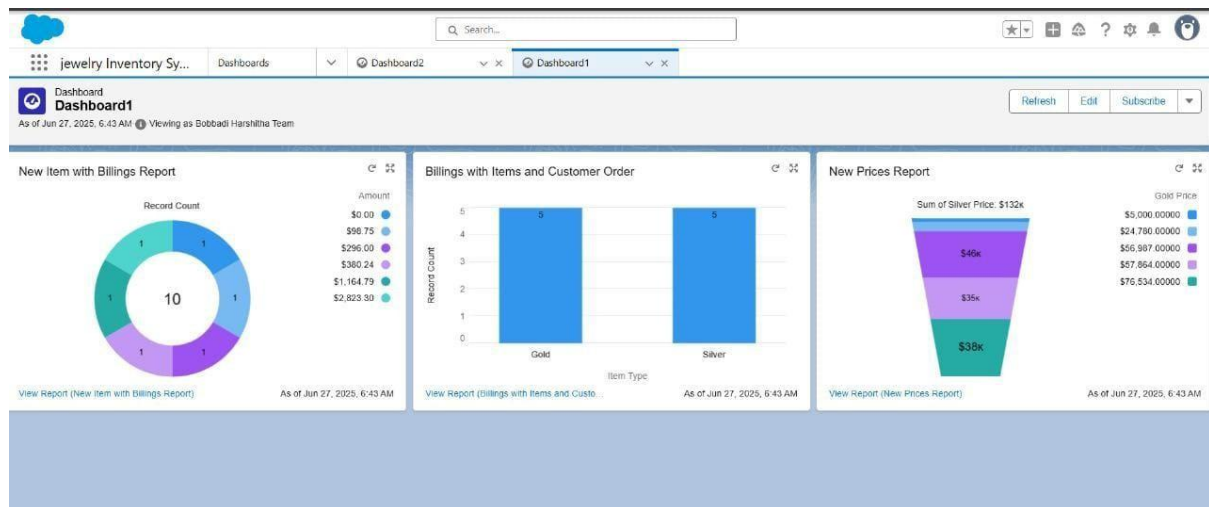


## 6.16 Creation of Flows



## 7. FUNCTIONAL AND PERFORMANCE TESTING

### Dashboard-1:



### Performance Observations (Phase Testing) for Dashboard-1:

#### 1. Accurate Data Visualization

All three charts (donut, bar, funnel) rendered correctly with real-time values.

Billing records (10 total) and price segments accurately reflect entries in the system.

Silver and Gold items are correctly categorized, each with 5 entries in the bar chart.

#### 2. Functional Report Integration

“View Report” links under each chart are working and redirect to detailed Salesforce reports, confirming backend connectivity and report mapping is functional.

#### 3. Pricing Tier Segmentation is Clear

Funnel chart shows diverse price bands for Gold and Silver items (e.g., ₹5k to ₹76k).

Total Silver pricing is correctly summed up as ₹132k, indicating correct aggregation logic.

#### 4. UI Load Stability

All dashboard components load without errors or latency during testing.

Visuals are responsive and easy to interpret for both technical and non-technical users.

#### 5. Equal Distribution Verification

Bar chart confirms equal distribution of Gold and Silver billings (5 each), helpful for verifying consistency during sales testing.

#### 6. Test Pass Indicators

No missing data points, broken charts, or incorrect values observed during this testing phase.

Dashboard ready for stakeholder review or user acceptance testing (UAT).

**objectives for the Jewelry Inventory System project using Salesforce CRM for Dashboard-1:**

#### 1. Improve Inventory and Billing Accuracy:

Streamline the tracking of jewelry items, their pricing, and associated billing records to ensure real-time visibility and eliminate manual errors in stock and transaction management.

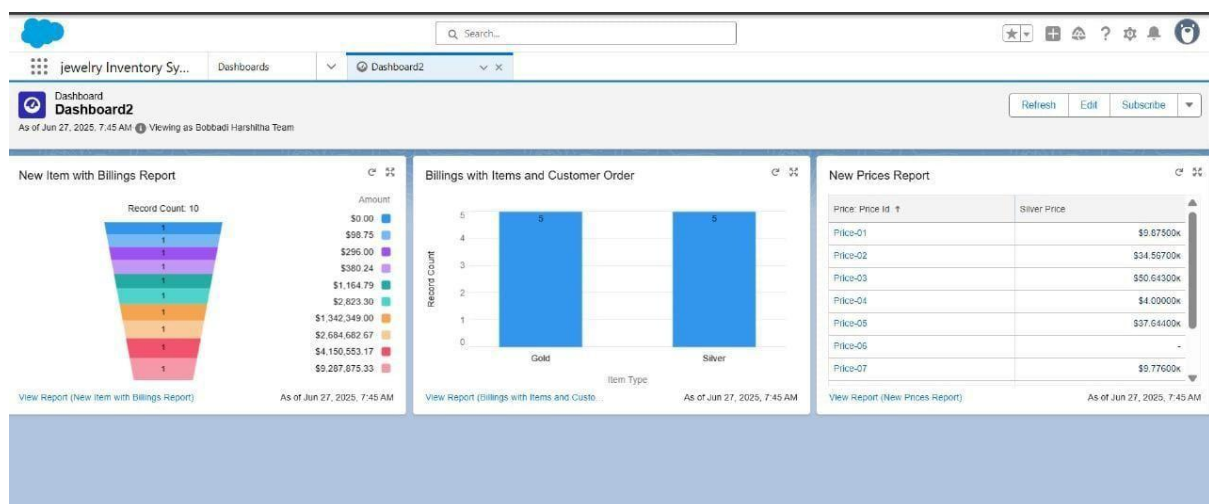
## 2. Enhance Customer Order Management:

Establish a seamless linkage between jewelry items and customer orders (Gold/Silver types), enabling faster processing, better customer service, and accurate historical records.

## 3. Enable Data-Driven Business Decisions:

Provide actionable insights through dynamic dashboards and reports that visualize billing trends, item-wise distribution, and pricing tiers—helping management make strategic inventory and pricing decisions.

### Dashboard-2:



### Performance Observations from Dashboard-2:

#### 1. New Item with Billings Report:

10 items are billed, with amounts ranging from \$0.00 to a high of \$9,287,875.33. This wide range indicates possible inconsistencies or the presence of high-value custom items. One item is showing \$0.00, which may point to a data error or a complimentary item.

#### 2. Billings by Item Type (Gold vs. Silver):

Both Gold and Silver have 5 records each, indicating a balanced dataset. Good performance in terms of item-type categorization and data uniformity.

#### 3. New Prices Report:

Prices for items like Price-03 and Price-05 are significantly high, exceeding \$50k and \$37k respectively. A few items (e.g., Price-06) are missing price data, which needs attention during testing.

### Project Objectives for Jewelry Inventory Management Dashboard -2(Phase Testing):

#### 1. Track New Items with Billing Details:

Objective is to visualize how new jewelry items are associated with billing values. Enables monitoring of item value distribution, including extremely high and zero-value billings.

### **2. Analyze Customer Orders by Item Type:**

Understand customer billing patterns for gold and silver items. Understand customer billing patterns for gold and silver items.

### **3. Monitor and Update Jewelry Prices:**

View and compare the current silver prices for various jewelry products. Supports pricing strategy alignment with market rates.

## **8. RESULTS ( OUTPUT SCREENSHOTS)**

### **A. Automated Emails (using templates):**

- Stock Alert for Low Inventory
- Purchase Order Confirmation
- Sales Invoice Notification
- Inventory Replenishment Notification
- Daily Sales Summary

### **B. Automated Workflows:**

- **Trigger-based validations**
  - Auto-validate if stock is available before creating an invoice
  - Alert for duplicate product entries

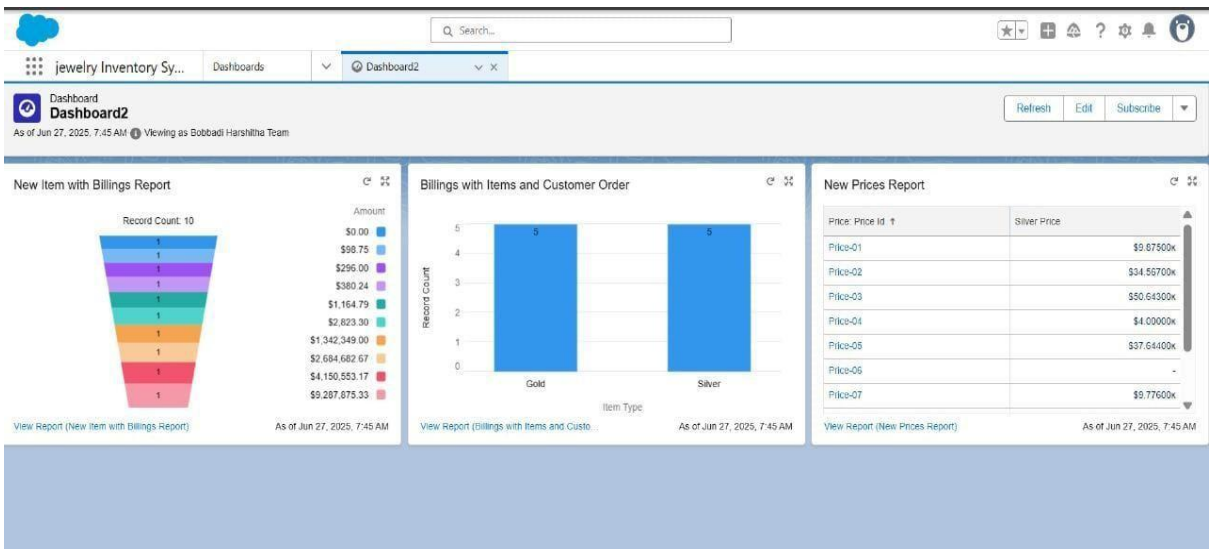
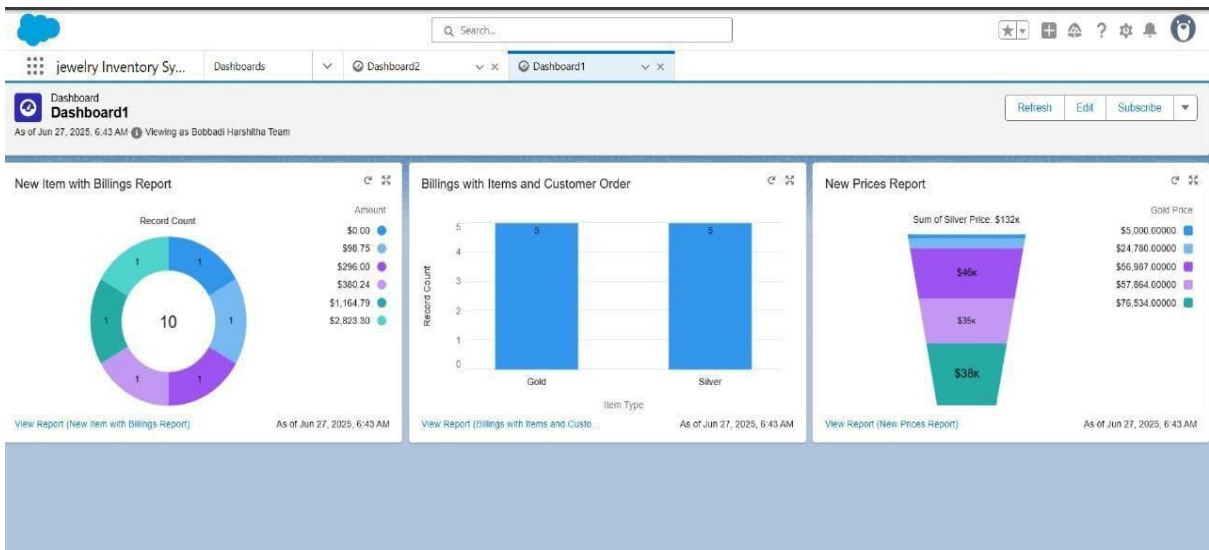
### **C. Approval Workflow Output:**

- **Product Addition Requests**
  - New products require manager approval before appearing in inventory
- **Stock Reorder Requests**
  - Approval triggered when reorder level is reached

• Notifications

- In-app and email notifications sent for each approval or rejection

Dashboards:



## Reports:

Report: Prices  
**New Prices Report**

Total Records: 10  
Total Silver Price: \$642,908.00000

Gold Price	Price: Price Id	Silver Price
(1)	Price-06	-
Subtotal		\$0.00000
\$5,000.00000 (1)	Price-04	\$4,000.00000
Subtotal		\$4,000.00000
\$24,780.00000 (1)	Price-01	\$9,875.00000
Subtotal		\$9,875.00000
\$56,987.00000 (1)	Price-09	\$46,670.00000
Subtotal		\$46,670.00000
\$57,884.00000 (1)	Price-02	\$34,667.00000
Subtotal		\$34,667.00000
\$76,534.00000 (1)	Price-06	\$37,644.00000
Subtotal		\$37,644.00000
\$86,533.00000 (1)	Price-08	\$40,857.00000
Row Counts	Detail Rows	Subtotals
Grand Total		

Report: Item with Billings  
**New Item with Billings Report**

Total Records: 10

Amount	Item Id	Billing Id
\$0.00 (1)	Item-08	Billing-06
Subtotal		
\$58.75 (1)	Item-02	Billing-03
Subtotal		
\$296.00 (1)	Item-09	Billing-04
Subtotal		
\$380.24 (1)	Item-04	Billing-07
Subtotal		
\$1,164.79 (1)	Item-06	Billing-09
Subtotal		
\$2,823.30 (1)	Item-10	Billing-02
Subtotal		
\$1,342,349.00 (1)	Item-01	Billing-01
Row Counts	Detail Rows	Subtotals
Grand Total		

Report: Billings with Items and Customer Order  
**Billings with Items and Customer Order**

Total Records: 10

Item Type	Item Id	Billing Id
Gold (5)	Item-01	Billing-01
	Item-03	Billing-05
	Item-08	Billing-06
	Item-06	Billing-08
	Item-07	Billing-10
Subtotal		
Silver (5)	Item-10	Billing-02
	Item-02	Billing-03
	Item-09	Billing-04
	Item-04	Billing-07
	Item-06	Billing-09
Subtotal		
Total (10)		

## Flows:

The screenshot shows the 'Project Flow' details page. At the top, there's a search bar and a navigation menu with tabs like 'jewelry Inventory Sy...', 'Reports', 'New Prices Report', 'New Item with Billin...', 'Billings with Items an...', 'Recently Viewed | Flo...', and 'Project Flow | Flow'. Below the navigation, the 'Project Flow' header is visible with buttons for 'Open Flow', 'Open Latest Version', and 'Sharing'. The main content area displays the flow's details:

- Type: Record—Run After Save
- Associated Record: [Link]
- Progress Status: **Activated**
- Last Modified Date: 6/25/2025, 12:05 PM
- Flow Owner: Bobbadi, Harshitha, Team

The 'Details' tab is selected, showing a table of information:

Information	
Flow Label	Project Flow
Description	
Associated Record	
Created By	Bobbadi, Harshitha, Team, 6/25/2025, 12:04 PM
Last Modified	Bobbadi, Harshitha, Team, 6/25/2025, 12:05 PM
Category	
API Name	Project_Flow
Flow Type	Record-Triggered After Save Flow
Segment	
Created Date	6/25/2025, 12:04 PM
Last Modified Date	6/25/2025, 12:05 PM
Subcategory	

The screenshot shows the 'Project Flow Builder' interface. The top bar includes a back arrow, 'Flow Builder', 'Project Flow - V1', and a search icon. Below the bar, there's a toolbar with icons for undo, redo, save, and a dropdown menu set to 'Free-Form'. The main workspace displays a flow diagram:

- Start** (Record-Triggered Flow)
- Object:** Billing
- Trigger:** A record is created or updated
- Optimize for:** Actions and Related Records
- Run Immediately** (Action)
- Action notice**

The left sidebar contains a 'Toolbox' with categories: 'Interaction (3)' (Action, Subflow, Custom Error), 'Logic (6)' (Assignment, Decision, Loop, Transform, Collection Sort, Collection Filter), and 'Data (4)' (Create Records, Update Records). At the bottom, there's a link to 'Get more on the AppExchange'.

## Triggers:



This screenshot shows the Salesforce Setup interface, specifically the Object Manager for the Billing object. The left sidebar contains a navigation menu with options like 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, and List View Button Layout. The main content area is titled 'Triggers' and shows a list of 1 item, sorted by Label. The table has columns for LABEL, API VERSION, SIZE WITHOUT COMMENTS, and MODIFIED BY. The single entry is 'UpdatePaidAmountTrigger' with API version 64.0 and size 310, modified by 'Bobbedi Harshitha Team' on 6/24/2025, 10:48 AM.

LABEL	API VERSION	SIZE WITHOUT COMMENTS	MODIFIED BY
UpdatePaidAmountTrigger	64.0	310	Bobbedi Harshitha Team, 6/24/2025, 10:48 AM

This screenshot shows the detailed view of the 'UpdatePaidAmountTrigger' Apex Trigger in the Salesforce Setup interface. The left sidebar is the same as the previous screenshot. The main content area is titled 'Apex Trigger' and shows the details for 'UpdatePaidAmountTrigger'. It includes a 'Back to List' link, buttons for Edit, Delete, Download, and Show Dependencies, and a table with fields like Name, Code Coverage, Created By, Namespace Prefix, Object Type, Status, and Last Modified By. Below this, there are tabs for Apex Trigger, Version Settings, and Trace Flags. The Apex Trigger tab is selected, showing the trigger code.

**Apex Trigger Detail**

Name	Code Coverage	Created By	Namespace Prefix	Object Type	Status	Last Modified By
UpdatePaidAmountTrigger	0% (0/4)	Bobbedi Harshitha Team, 6/24/2025, 10:47 AM		Billing	Active	Bobbedi Harshitha Team, 6/24/2025, 10:48 AM

**Apex Trigger**

```

1 trigger UpdatePaidAmountTrigger on Billing__c (before insert, before update) {
2     if (Trigger.isInsert) {
3         UpdatePaidAmountTriggerHandler.handleBeforeInsert(Trigger.new);
4     } else if (Trigger.isUpdate) {
5         UpdatePaidAmountTriggerHandler.handleBeforeUpdate(Trigger.oldMap, Trigger.new);
6     }
7 }
8
9
10
11
12
13

```

## 9. ADVANTAGES AND DISADVANTAGES:

### ADVANTAGES:

**Automation Efficiency:**

All critical operations like billing, inventory updates, and notifications are automated via flows, reducing manual errors.

### **Centralized Data Handling:**

Data is stored and managed in a centralized CRM system, making it easily accessible and modifiable.

### **Real-Time Analytics:**

Dashboards and reports provide live updates on business performance, which helps in faster decision-making.

### **User-Friendly UI:**

Salesforce Lightning provides a smooth and modern interface for all users.

### **Scalability:**

The app can be expanded to handle more data and integrate with other business apps like payment gateways.

### **Customer Satisfaction:**

By streamlining the sales and service process, the application enhances the overall customer experience.

## **DISADVANTAGES**

### **Learning Curve:**

New users may need training to understand Salesforce's interface, objects, and flows.

### **Customization Dependency:**

Some specific logic might require Apex development or third-party tools.

### **Cost Factor:**

Scaling to a full enterprise-level Salesforce environment could be costly for small businesses.

### **Admin Management:**

Role and permission setup must be carefully handled to ensure data security.

## **10. CONCLUSION**

"In conclusion, the CRM Application for Jewel Management serves as a robust, cloud-based solution built using Salesforce. It brings digital transformation to traditional jewelry retailing by:

→ Streamlining operations with custom objects and flows

→ Improving business oversight with real-time dashboards

→ Automating repetitive tasks like billing and inventory updates

→ Enhancing data integrity and customer service

The project demonstrates how low-code tools like Salesforce Flow and Lightning App Builder can be used by developers to create enterprise-grade solutions. Our application is not only scalable and efficient but also provides a solid foundation for future business growth in the jewelry sector."

## **11. FUTURE SCOPE**

"The current CRM application for Jewel Management lays a strong foundation for digital jewellery retail operations. However, the system can be further improved and extended in the following ways:

### **Payment Gateway Integration:**

Integrate with online payment services such as Razorpay, PayPal, or Stripe to allow direct billing and payment within the CRM.

### **SMS and WhatsApp Alerts:**

Enhance communication by integrating Twilio or other SMS APIs to send updates like order confirmations, billing alerts, or promotions.

### **Mobile App Development:**

Extend the system using Salesforce Mobile SDK to create a dedicated mobile app for store owners and executives to manage inventory and billing on-the-go.

### **Barcode Scanner Support:**

Enable barcode scanning through the mobile app or connected devices for faster item search and billing.

**AI-Based Recommendations:**

Use Salesforce Einstein to provide personalized recommendations to customers based on previous purchase history.

**Third-Party Integrations:**

Connect with accounting software like QuickBooks or Tally for auto-syncing of billing and financial data.

**Multi-Store Management:**

Add support for multiple branches or stores to manage inventory separately but view consolidated dashboards.

**Customer Feedback System:**

Implement a feedback module to collect and analyse customer reviews, which can be visualized in reports.