

# **OXFORD ENGINEERING COLLEGE**

## **Department of B.TECH (INFORMATION TECHNOLOGY)**

**PROJECT TITLE:**  
**CRM APPLICATION FOR JEWEL  
MANAGEMENT**

**SUBMITTED BY:**

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**GUIDED BY:**

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**Platform: Salesforce Developer**

**Date of submission:05/11/2025**

## 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, Use Case 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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First name: Bobbadil Harshitha Last name: Team

Job title: Salesforce Developer Work email: bobbadiharshitha4@gmail.com

Company: Ideal Institute of Tech Country/Region: 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 

**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  
 In what city were you born?

\* 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

The screenshot shows the Salesforce Setup interface with the 'Object Manager' selected in the top navigation bar. The main title is 'Jewel Customer'. On the left, a sidebar lists various configuration options under '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 'Details' tab is selected. The main content area displays the 'Details' section for the 'Jewel Customer' object. It includes fields for Description, API Name (Jewel\_Customer\_\_c), Singular Label (Jewel Customer), Plural Label (Jewel Customers), and several checkboxes for setup features like Enable Reports (checked), Track Activities, Track Field History, Deployment Status (Deployed), and Help Settings. There are 'Edit' and 'Delete' buttons at the top right.

## 2. Item

The screenshot shows the Salesforce Setup interface with the 'Object Manager' selected in the top navigation bar. The main title is 'Item'. On the left, a sidebar lists various configuration options under '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 'Details' tab is selected. The main content area displays the 'Details' section for the 'Item' object. It includes fields for Description, API Name (Item\_\_c), Singular Label (Item), Plural Label (Items), and several checkboxes for setup features like Enable Reports (checked), Track Activities, Track Field History, Deployment Status (Deployed), and Help Settings. There are 'Edit' and 'Delete' buttons at the top right.

## 3. Customer Order

The screenshot shows the Salesforce Setup interface with the 'Object Manager' selected. The page title is 'Customer Order'. On the left, a sidebar lists various configuration options under 'Details'. The main area displays the 'Details' tab for the 'Customer Order' object. The API Name is set to 'Customer\_Order\_c'. Other settings include 'Enable Reports' checked, 'Track Activities' checked, 'Track Field History' unchecked, 'Deployment Status' set to 'Deployed', and 'Help Settings' pointing to the 'Standard salesforce.com Help Window'.

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

## 4. Price

The screenshot shows the Salesforce Setup interface with the 'Object Manager' selected. The page title is 'Price'. The left sidebar shows configuration options for 'Price'. The main area displays the 'Details' tab for the 'Price' object. The API Name is set to 'Price\_c'. Other settings include 'Enable Reports' checked, 'Track Activities' checked, 'Track Field History' unchecked, 'Deployment Status' set to 'Deployed', and 'Help Settings' pointing to the 'Standard salesforce.com Help Window'.

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

## 5. Billing

The screenshot shows the Salesforce Setup interface with the 'Object Manager' selected. Under the 'Billing' object, the 'Details' tab is active. The left sidebar lists various configuration options: 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 details pane shows the following information:

Description	
API Name	Billing_c
Custom	✓
Singular Label	Billing
Plural Label	Billings
Enable Reports	✓
Track Activities	
Track Field History	
Deployment Status	Deployed
Help Settings	Standard salesforce.com Help Window

Buttons at the top right of the details pane include 'Edit' and 'Delete'.

## 6.3 Creation of Tabs

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

### 1. Jewel Customer

The screenshot shows the Salesforce Setup interface with the 'Tabs' page selected under 'User Interface'. A search bar at the top left shows 'tabs'. The main content area displays a 'Custom Object Tab' for 'Jewel Customers'. The tab definition details are as follows:

Tab Label	Jewel Customers
Object	Jewel Customer
Description	
Created By	Dobbad Harshitha Team
Modified By	Dobbad Harshitha Team
Tab Style	Airplane
Splash Page Custom Link	

Buttons at the top right of the tab definition detail pane include 'Edit' and 'Delete'.

### 2. Item

Search Setup

User Interface

Rename Tabs and Labels

Tabs

Custom Object Tab

Items

Custom Tab Definition Detail

Tab Label	Object	Tab Style
Items	Item	Alarm clock

Created By: Bobbadi Harshitha Team 6/22/2025, 8:17 AM Modified By: Bobbadi Harshitha Team 6/22/2025, 8:17 AM

### 3. Customer Order

Search Setup

User Interface

Rename Tabs and Labels

Tabs

Custom Object Tab

Customer Orders

Custom Tab Definition Detail

Tab Label	Object	Tab Style
Customer Orders	Customer Order	Bell

Created By: Bobbadi Harshitha Team 6/22/2025, 8:19 AM Modified By: Bobbadi Harshitha Team 6/22/2025, 8:19 AM

### 4. Price

The screenshot shows the Salesforce Setup interface. In the left sidebar, under 'User Interface' > 'Tabs', there is a search bar with 'tabs' typed in. A message says 'Didn't find what you're looking for? Try using Global Search.' The main content area is titled 'SETUP Tabs'. It shows a 'Custom Object Tab' named 'Prices'. Below it, a 'Custom Tab Definition Detail' table lists the following information:

Tab Label	Prices
Object	Price
Description	
Created By	Bobbadi Harshitha Team 6/22/2025, 8:20 AM
Modified By	Bobbadi Harshitha Team 6/22/2025, 8:20 AM

On the right, there is a 'Tab Style' section with a 'Fan' button highlighted. A note says 'Splash Page Custom Link'.

## 5.Billing

The screenshot shows the Salesforce Setup interface. In the left sidebar, under 'User Interface' > 'Tabs', there is a search bar with 'tabs' typed in. A message says 'Didn't find what you're looking for? Try using Global Search.' The main content area is titled 'SETUP Tabs'. It shows a 'Custom Object Tab' named 'Billings'. Below it, a 'Custom Tab Definition Detail' table lists the following information:

Tab Label	Billings
Object	Billing
Description	
Created By	Bobbadi Harshitha Team 6/22/2025, 8:22 AM
Modified By	Bobbadi Harshitha Team 6/22/2025, 8:22 AM

On the right, there is a 'Tab Style' section with a 'Boat' button highlighted. A note says 'Splash Page Custom Link'.

So we get the required all custom tabs as below

**Custom Tabs**

You can create new custom tabs to extend Salesforce functionality or to build new application functionality.

Custom Object tabs look and behave like the standard tabs provided with Salesforce. Web tabs allow you to embed external web applications and content within the Salesforce window. Visualforce tabs allow you to embed Visualforce pages. Lightning Component tabs allow you to add Lightning components to the navigation menu in Lightning Experience and the mobile app. Lightning Page tabs allow you to add Lightning Pages to Lightning Experience and the mobile app.

Action	Label	Tab Style	Description
Edit   Del	Billings	Boat	
Edit   Del	Customer Orders	Ball	
Edit   Del	Items	Alarm clock	
Edit   Del	Jewel Customers	Airplane	
Edit   Del	Prices	Fan	

**Web Tabs**

No Web Tabs have been defined.

## 6.4 Creation of Lightning App

### App Name: Jewelry Inventory System

**App Details & Branding**

Give your Lightning app a name and description. Upload an image and choose the highlight color for its navigation bar.

**App Details**

\*App Name: jewelry Inventory System

\*Developer Name: jewelry\_Inventory\_System

Description: Elevate your look with elegance

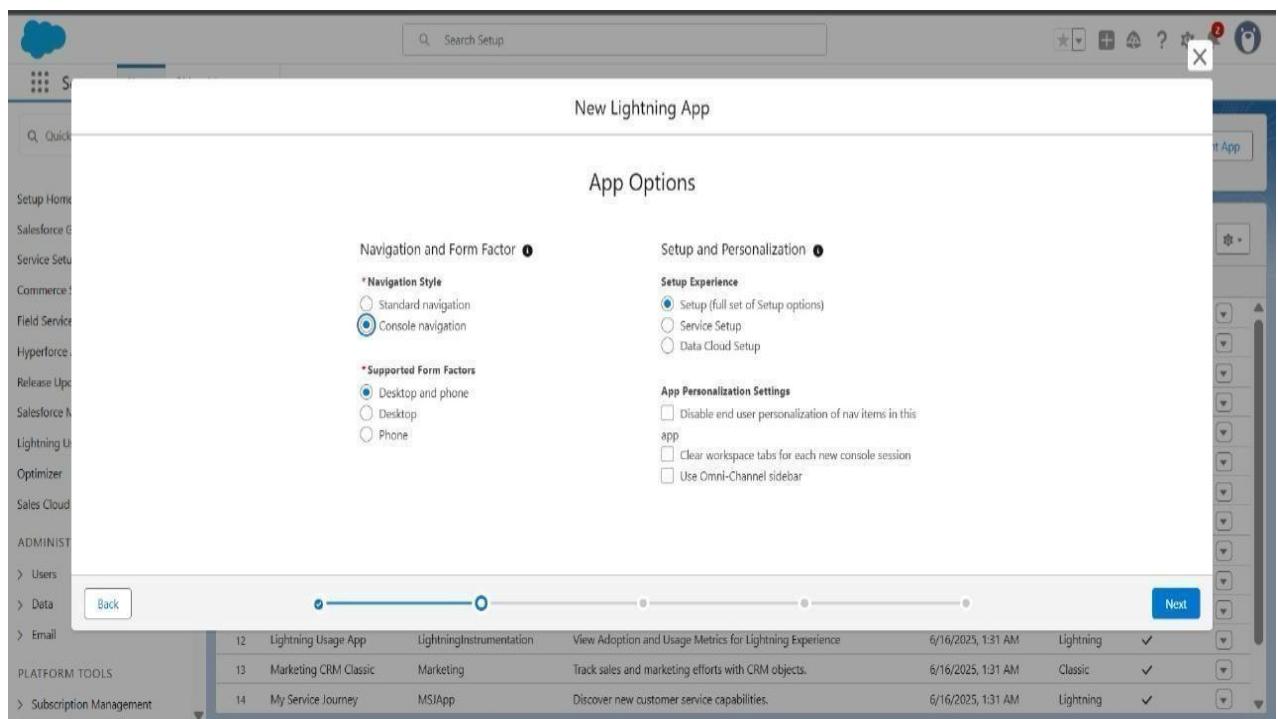
**App Branding**

Image:  Upload

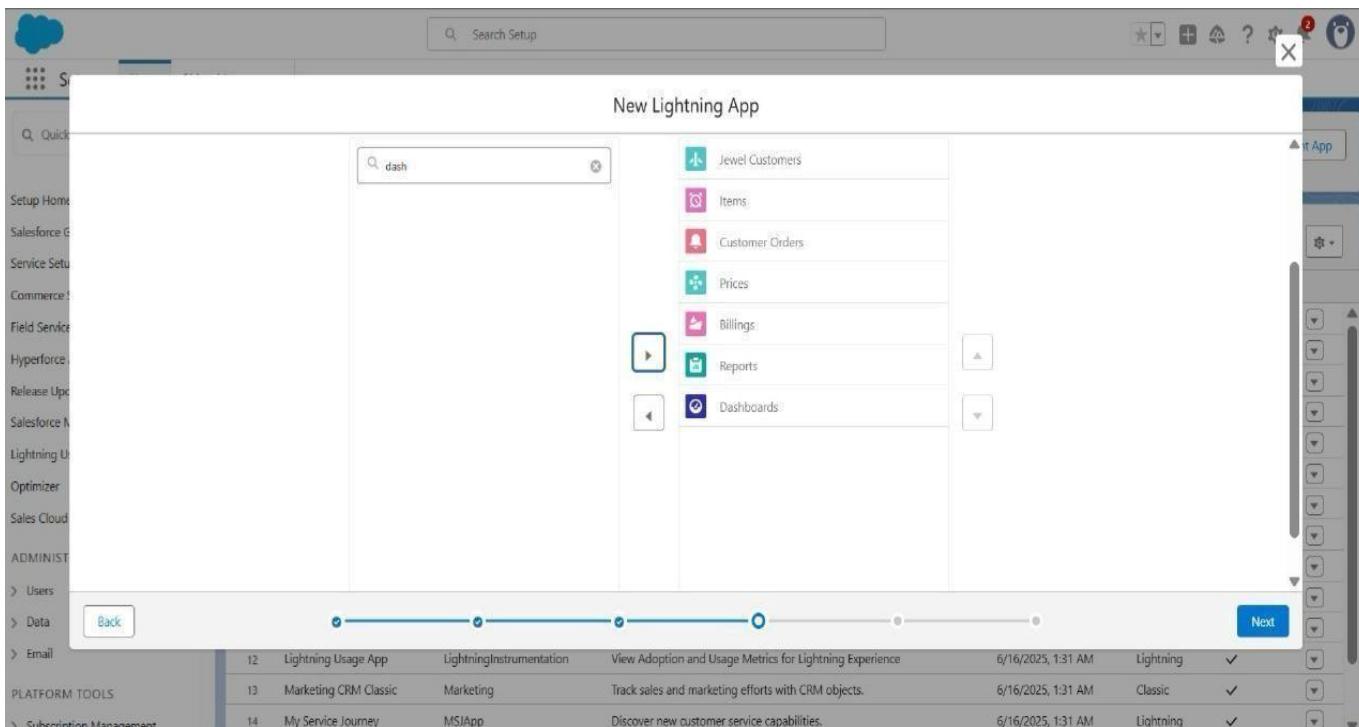
Primary Color Hex Value: #0070D2

Org Theme Options:  Use the app's image and color instead of the org's custom theme

**App Launcher Preview**



## 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. The top navigation bar includes 'Setup', 'Home', and 'Object Manager'. The main title is 'Customer Order' under 'SETUP > OBJECT MANAGER'. A sidebar on the left lists various setup options like Details, Fields & Relationships, Page Layouts, etc. The current step is 'Step 3. Enter the label and name for the lookup field' of a 'New Relationship' for the 'Customer Order' object. The form fields include:

- Field Label:** Customer
- Field Name:** Customer
- Description:** (empty)
- Help Text:** (empty)
- Child Relationship Name:** Customer\_Orders
- Required:**  Always require a value in this field in order to save a record  
 Clear the value of this field. You can't choose this option if you make this field required.  
 Don't allow deletion of the lookup record that's part of a lookup relationship.
- Auto add to custom report type:**  Add this field to existing custom report types that contain this entity

Buttons at the bottom right include 'Previous', 'Next', and 'Cancel'.

The screenshot shows the continuation of the relationship creation process. The title is 'Customer Order' under 'SETUP > OBJECT MANAGER'. The sidebar remains the same. The current step is 'Step 6. Add custom related lists' of the 'New Relationship' for the 'Customer Order' object. The form fields include:

- Field Label:** Customer
- Data Type:** Lookup
- Field Name:** Customer
- Description:** (empty)
- Related List Label:** Customer Orders

Below the form, instructions say: 'Specify the title that the related list will have in all of the layouts associated with the parent.' A section titled 'Add Related List' shows 'Page Layout Name' set to 'Jewel Customer Layout' with a checked checkbox. A note says: '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.' Buttons at the bottom right include 'Previous', 'Save & New', 'Save', and 'Cancel'.

## 2. Creating a Master-Detail Relationship

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

The screenshot shows the Salesforce Object Manager interface for creating a new relationship on the 'Customer Order' object. The left sidebar lists various customization options under 'Fields & Relationships'. The main panel displays 'Step 5. Add reference field to Page Layouts' with the following details:

- Field Label:** Item
- Data Type:** Master-Detail
- Field Name:** Item
- Description:** (empty)

A note states: "These are the page layouts that will include this field. Because this is a Master-Detail relationship, the field is required." A dropdown menu titled "Add Field" shows "Page Layout Name" selected, with "Customer Order Layout" checked. Navigation buttons at the bottom right include "Previous", "Next", and "Cancel".

The screenshot shows the Salesforce Object Manager interface for creating a new relationship on the 'Customer Order' object. The left sidebar lists various customization options under 'Fields & Relationships'. The main panel displays 'Step 6. Add custom related lists' with the following details:

- Field Label:** Item
- Data Type:** Master-Detail
- Field Name:** Item
- Description:** (empty)

A note states: "Specify the title that the related list will have in all of the layouts associated with the parent." A dropdown menu titled "Related List Label" shows "[Customer Orders]" selected. A note below says: "These are the page layouts that will include this field. Because this is a Master-Detail relationship, the field is required." A dropdown menu titled "Add Related List" shows "Page Layout Name" selected, with "Item Layout" checked. A checkbox labeled "Append related list to users' existing personal customizations" is checked. Navigation buttons at the bottom right include "Previous", "Save & New", "Save", and "Cancel".

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

Setup > Object Manager

### Jewel Customer

**New Custom Field**

Step 2 of 4

Field Label: City

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

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

Previous Next Cancel Help for this Page

Setup > Object Manager

### Jewel Customer

**New Custom Field**

Step 4 of 4

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 Help for this Page

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

The screenshot shows the Salesforce Setup interface for creating a new custom field. The object is 'Jewel Customer'. The field being created is named 'New Custom Field' and has the label 'Phone'. It is defined as a 'Phone' type field. The current step is 'Step 4. Add to page layouts'. Under 'Page Layout Name', 'Jewel Customer Layout' is selected. The status bar at the bottom right indicates 'Step 4 of 4'.

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

The screenshot shows the Salesforce Setup interface for creating a new custom field. The object is 'Jewel Customer'. The field being created is named 'New Custom Field' and has the label 'Email'. It is defined as an 'Email' type field. The current step is 'Step 4. Add to page layouts'. Under 'Page Layout Name', 'Jewel Customer Layout' is selected. The status bar at the bottom right indicates 'Step 4 of 4'.

## 6. Creating the number field in Item object

The screenshot shows the Salesforce Setup interface for creating a new custom field. The left sidebar is titled 'Fields & Relationships' and includes options like 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, and Scoping Rules. The main content area is titled 'New Custom Field' and shows the following details:

Field Label	Purity
Data Type	Number
Field Name	Purity
Description	

Below these details, there is a note: "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." Underneath this note is a checkbox labeled "Add Field" followed by "Page Layout Name". A second checkbox is also present. At the bottom of the screen, there are buttons for "Previous", "Save & New", "Save", and "Cancel".

## 7. Creating Picklist Field in Item Object

The screenshot shows the Salesforce Setup interface for creating a new custom field. The left sidebar is titled 'Fields & Relationships' and includes options like 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, and Scoping Rules. The main content area is titled 'New Custom Field' and shows the following details:

Field Label	Item Type
Data Type	Picklist
Field Name	Item_Type
Description	

Below these details, there is a note: "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." Underneath this note is a checkbox labeled "Add Field" followed by "Page Layout Name". A second checkbox is also present. At the bottom of the screen, there are buttons for "Previous", "Save & New", "Save", and "Cancel".

## 8. Creating Currency Field in Price Object

**Price**

**New Custom Field**

**Step 3. Establish field-level security** **Step 3 of 4**

Field Level Security for Profile	<input type="checkbox"/> Visible	<input type="checkbox"/> Read-Only
Analytics Cloud Integration User	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Analytics Cloud Security User	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Anypoint Integration	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Contract Manager	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Cross Org Data Proxy User	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Custom: Marketing Profile	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Custom: Sales Profile	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Custom: Support Profile	<input checked="" type="checkbox"/>	<input type="checkbox"/>

## 9. Creating Formula Field(Cross Object) in Item Object

**Item**

**Simple Formula** **Advanced Formula**

**Example:** Gross Margin = Amount - Cost  [More Examples...](#)

**Formula:** `Gross Margin = Gross Margin - Cost * Gold Price / 10`

**Functions:**

- All Function Categories -
- ABS
- ACOS
- ADDMONTHS
- AND
- ASCII
- ASIN

**Quick Tips:**

- Getting Started
- Operators & Functions

The screenshot shows the Salesforce Setup interface under the Object Manager for an 'Item' object. A sidebar on the left lists various setup categories like Details, Fields & Relationships, Page Layouts, and Lightning Record Pages. The main area is titled 'New Custom Field' and displays Step 5 of 5: 'Add to page layouts'. It shows the field details: Field Label 'Gold Price', Data Type 'Formula', Field Name 'Gold\_Price', and a Description section. Below this, it asks to select page layouts to include the field. Two checkboxes are checked: 'Add Field' (under Page Layout Name) and 'Item Layout'. A note says, 'When finished, click Save & New to create more custom fields, or click Save if you are done.' Buttons at the bottom include Previous, Save & New, Save, and Cancel.

## 10. Creating Remaining Fields in Objects

### Creating remaining fields in the objects

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

The screenshot shows the Salesforce Setup interface under the Object Manager for a 'Jewel Customer' object. A sidebar on the left lists various setup categories. The main area shows a table of fields with 11 items, sorted by Field Label. The columns are FIELD LABEL, FIELD NAME, DATA TYPE, CONTROLLING FIELD, and INDEXED. The fields listed are City, Country, Created By, Customer Name, Email, Last Modified By, Owner, and Phone. The 'Customer Name' field has an 'INDEXED' checkmark. Buttons at the top right include Global Actions, New, Deleted Fields, Field Dependencies, and Set History Tracking.

Fields & Relationships				
11 Items. Sorted by Field Label				
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		

#### 2.Price : Silver Price

SETUP > OBJECT MANAGER  
**Price**

**Fields & Relationships**  
6 Items. Sorted by Field Label

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 > OBJECT MANAGER  
**Item**

**Fields & Relationships**  
23 Items. Sorted by Field Label

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

The screenshot shows the Salesforce Object Manager for the 'Customer Order' object. The left sidebar lists various setup options like Details, Fields & Relationships, Page Layouts, etc. The main area displays the 'Fields & Relationships' section with 6 items. The table columns are FIELD LABEL, FIELD NAME, DATA TYPE, CONTROLLING FIELD, and INDEXED.

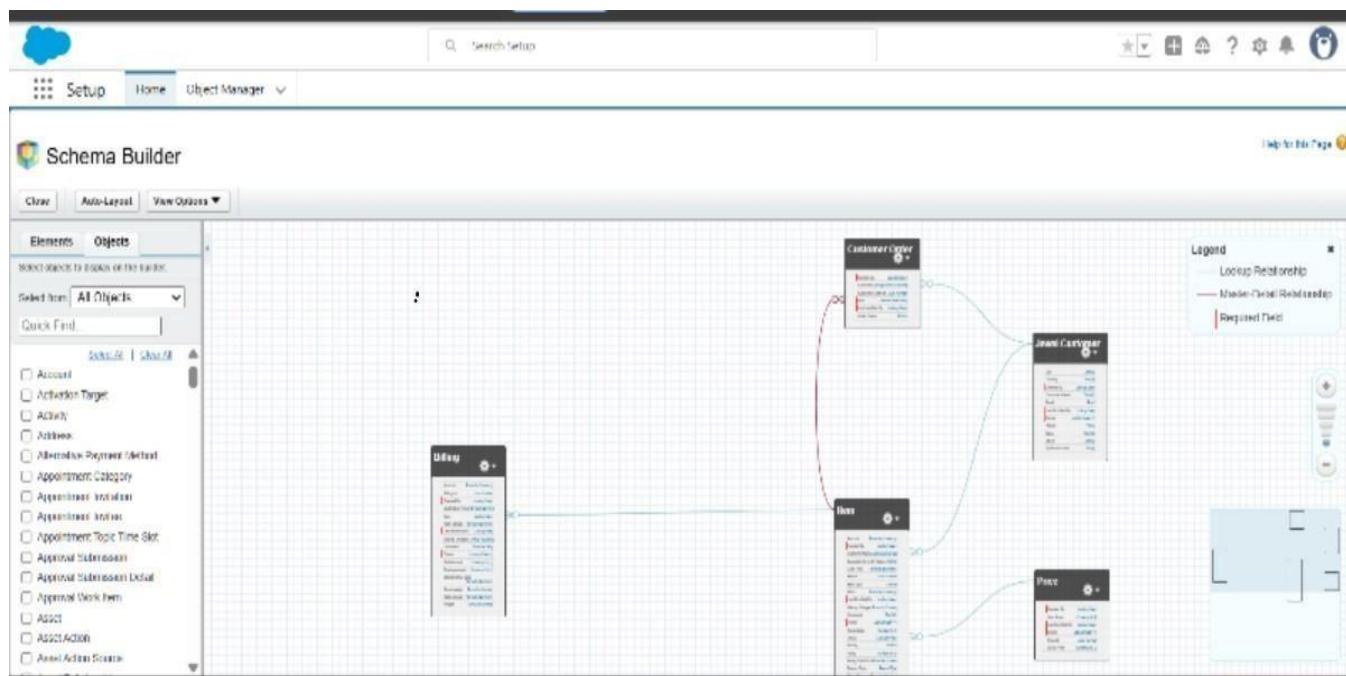
FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		
Customer	Customer_c	Lookup(Jewel Customer)		✓
Customer Order Id	Name	Auto Number		✓
Item	Item_c	Master-Detail(Item)		✓
Last Modified By	LastModifiedById	Lookup(User)		
Order Status	Order_Status__c	Picklist		

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

The screenshot shows the Salesforce Object Manager for the 'Billing' object. The left sidebar lists various setup options like Details, Fields & Relationships, Page Layouts, etc. The main area displays the 'Fields & Relationships' section with 16 items. The table columns are FIELD LABEL, FIELD NAME, DATA TYPE, CONTROLLING FIELD, and INDEXED.

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Amount	Amount_c	Formula (Currency)		
Billing Id	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)		

## 11. Creation of Schema Builder



## 12. Creation of Field Dependencies

Action	Controlling Field	Dependent Field	Modified By
Edit   Del	Priority	Expected Days Of Return	Bobbadi Harshitha Team, 6/23/2025, 6:53 AM

## 13. Creation of Validation Rules

The screenshot shows the Salesforce Object Manager interface. The left sidebar lists various object configurations: 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 displays the 'Jewel Customer Validation Rule' detail page. The validation rule is named 'Postal\_Code' and is active. The error condition formula is defined as AND(OR(LEN(Zip\_Postal\_code\_\_c) <= 6, NOT(REGEX(Zip\_Postal\_code\_\_c, "[0-9]{6}"))), NOT(ISBLANK(Zip\_Postal\_code\_\_c))). The error message is 'Must contain 6 digits' and the error location is 'Zip/Postal code'. The rule was created by 'Bobbadi Harshitha Team' on 6/23/2025, 6:58 AM.

This screenshot shows the same validation rule configuration as the previous one, but with a different error condition formula. The formula is OR(ISBLANK(City\_\_c), ISBLANK(Country\_\_c), ISBLANK(Phone\_\_c), ISBLANK(State\_\_c), ISBLANK(Street\_\_c)). The error message is 'Please fill Required fields' and the error location is 'Top of Page'. All other details remain the same, including the active status and creation information.

## 6.6 Creation of Profiles

We create the goldsmith profile and the worker profile

The screenshot shows the Salesforce Setup interface with the 'Profiles' tab selected. The page title is 'Worker Profile'. The 'Profile Detail' section shows the profile name is 'Worker Profile', user license is 'Salesforce Platform', and it is a 'Custom Profile'. The 'Page Layouts' section shows assignments for various objects like Global, Email Application, Home Page Layout, and Account.

Object	Assignment	Object	Assignment
Global	Global Layout [View Assignment]	Lead	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 with the 'Roles' tab selected. The page title is 'Ideal Institute of Technology'. The 'Collapsible All' section shows a hierarchy of roles: CEO, CFO, COO, Gold Smith, Worker, SVP, Customer Service & Support, Customer Support, International, and Customer Support, North America. Each role has 'Edit | Del | Assign' buttons.

- Ideal Institute of Technology
  - CEO
  - CFO
  - COO
  - Gold Smith
    - Worker
  - SVP, Customer Service & Support
  - Customer Support, International
  - Customer Support, North America

## 6.8 Creation of Users

The screenshot shows the Salesforce Setup interface with the 'Users' tab selected under 'ADMINISTRATION'. The main area displays a table titled 'All Users' with columns for Action, Full Name, Alias, Username, Role, Active, and Profile. The table lists several users, including Chatter Farmer, OEPIC, Mikael, Nikson, bob, integ, and sec, each with their respective details and profile status.

Action	Full Name	Alias	Username	Role	Active	Profile
<input type="checkbox"/> Edit	Chatter Farmer	Chatter	chatty@0dg00000vnguo.azwsgppm@chatter.salesforce.com		<input checked="" type="checkbox"/>	Chatter Free User
<input type="checkbox"/> Edit	OEPIC	OEPIC	epic.41b2c97a@52.orgfarm.com		<input checked="" type="checkbox"/>	System Administrator
<input type="checkbox"/> Edit	Mikael	Mikael	mikael@gmail.com		<input checked="" type="checkbox"/>	Worker Profile
<input type="checkbox"/> Edit	Nikson	Nikson	nmikson@gmail.com	Worker	<input checked="" type="checkbox"/>	Gold Smith
<input type="checkbox"/> Edit	Team Bobbadil Harshtika	bob	bobbadilharshtika1974@agentforce.com	Gold Smith	<input checked="" type="checkbox"/>	System Administrator
<input type="checkbox"/> Edit	User Integration	integ	integration@00dg00000vnguo.com		<input checked="" type="checkbox"/>	Analytics Cloud Integration User
<input type="checkbox"/> Edit	User Security	sec	insightsecurity@00dg00000vnguo.com		<input checked="" type="checkbox"/>	Analytics Cloud Security User

## 6.9 Creation of Page Layouts

We create the page layouts for gold and silver items

The screenshot shows the Salesforce Setup interface with the 'Page Layouts' tab selected under 'Object Manager'. The main area displays the 'Page Layout for Gold' configuration screen. It includes sections for Fields (Buttons, Quick Actions, Mobile & Lightning Actions, etc.), Layout Properties (with a table for fields like Customer Name, Item Type, Ornament, Priority, Silver Price, Weight, etc.), Highlights Panel, Quick Actions in the Salesforce Classic Publisher, and Salesforce Mobile and Lightning Experience Actions.

Section	Customer Name	Item Type	Ornament	Priority	Silver Price	Weight
Blank Space	Expected Days Of ...	KDM	Owner	Purity	Stone/Other Price	
Amount	Gold Price	Last Modified By	Percentage	Purity Gold Price	Stone Weight	
Created By	Item Id	Making Charges	Prices	Record Type	Total Weight	



## 6.10 Record Types

We create the gold an silver records

The screenshot shows the Salesforce Setup interface with the 'Object Manager' tab selected. On the left, a sidebar lists various setup categories, with 'Record Types' currently highlighted. The main content area displays a table titled 'Record Types' with two items: 'Gold' and 'Silver'. The 'Gold' record is described as 'Gold items information' and was modified by 'Bobbadil Harshitha Team' on 6/25/2025, 4:27 AM. The 'Silver' record is described as 'Silver items information' and was modified by 'Bobbadil Harshitha Team' on 6/23/2025, 12:15 PM.

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

## 6.11 Creation of Permission Sets

The screenshot shows the Salesforce Setup interface with the 'Permission Sets' page open. The permission set is named 'Per to Worker'. The 'Permission Set Overview' section shows the API name 'Per\_to\_Worker', created by 'Bobbadil Harshitha Team' on 6/23/2025, 12:18 PM, and last modified by 'Bobbadil Harshitha Team' on 6/23/2025, 12:22 PM. The 'Apps' section lists several settings under 'Assigned Apps', 'Assigned Connected Apps', 'Object Settings', 'App Permissions', and 'Apex Class Access'.

Trigger

## 6.12 Creation of

The screenshot shows the Salesforce IDE interface with the code editor open. The file is named `UpdatePaidAmountTriggerHandler.apxc`. The code implements a trigger handler for the `Billing__c` object. It contains a static method `handleBeforeInsert` that loops through a list of new `Billing__c` records and updates the `Paid_Amount__c` field to match the `Paying_Amount__c` field.

```
1 public class UpdatePaidAmountTriggerHandler {  
2     public static void handleBeforeInsert(List<Billing__c> newBillings) {  
3         for (Billing__c billing : newBillings) {  
4             billing.Paid_Amount__c = billing.Paying_Amount__c;  
5         }  
6     }  
7 }
```

The screenshot shows the Salesforce Developer Console in Google Chrome. The URL is `orgfarm-bf8eee1d18-dev-ed.develop.my.salesforce.com/_ui/common/apex/debug/ApexCSIPage`. The code editor displays the trigger definition for `UpdatePaidAmountTrigger` on the `Billing__c` object, which handles insert and update events. The trigger logic calls the `handleBeforeInsert` and `handleBeforeUpdate` methods of the `UpdatePaidAmountTriggerHandler` class.

```
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 }
```

## 6.13 Creation of

### User Adoption

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

The screenshot shows a software application window titled "jewelry Inventory Sy...". The main content area displays a list of "Recently Viewed" items under the "Prices" category. The list contains 10 items, each with a checkbox and a price ID. The items are numbered 1 through 10, and their IDs are: Price-10, Price-09, Price-08, Price-07, Price-06, Price-05, Price-04, Price-03, Price-02, and Price-01. The interface includes a search bar at the top right, a toolbar with various icons, and a navigation bar with tabs like "New", "Import", "Change Owner", and "Assign Label".

Price Id
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

## 6.14 Creation of

The screenshot shows a SharePoint list titled "Jewel Customers". The list contains 10 items, each with a checkbox and a name: Arjun, Joshua, Anand, Krishna, Sita, Nani, Shyamala, Manasa, Ravi, and Devi. The list has a header row with columns for "Customer Name" and a "Select" column. The interface includes a search bar at the top, a ribbon menu, and various navigation and action buttons.

Customer Name
1 Arjun
2 Joshua
3 Anand
4 Krishna
5 Sita
6 Nani
7 Shyamala
8 Manasa
9 Ravi
10 Devi

## Reports

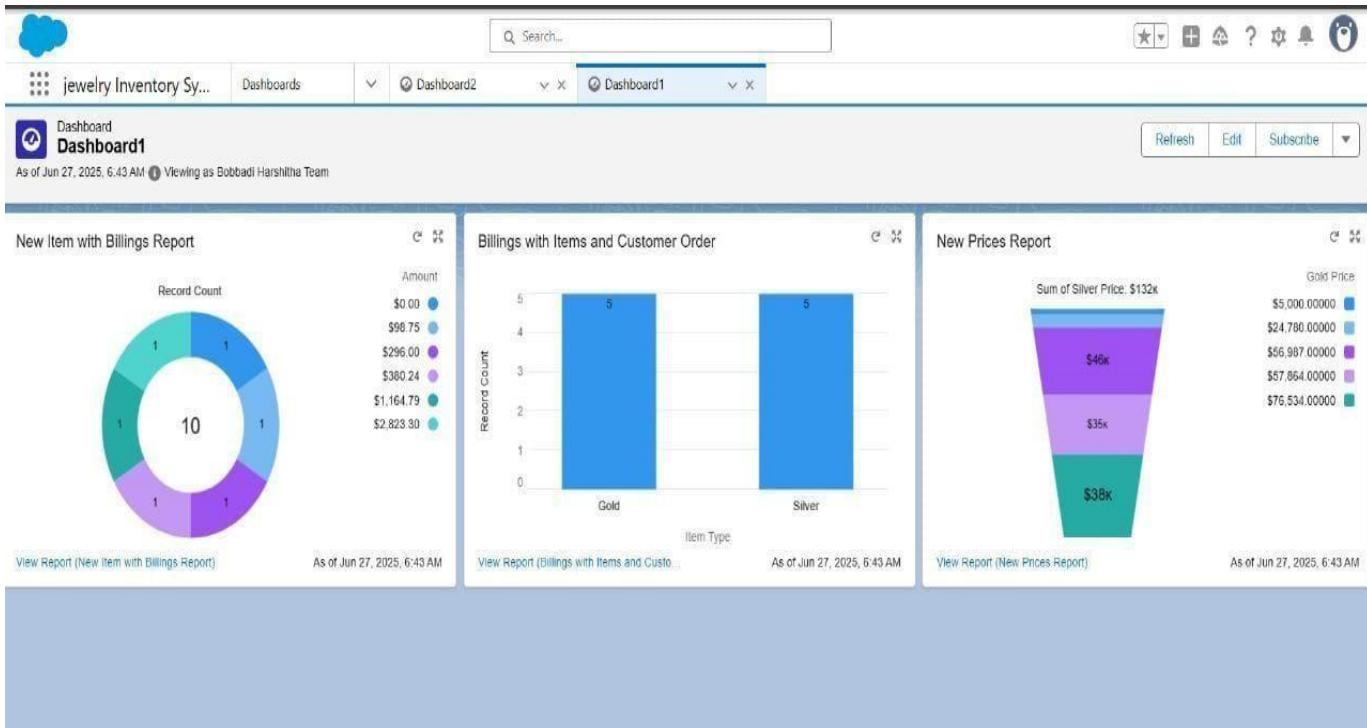
The screenshot shows a SharePoint Reports page. On the left, there is a navigation pane with sections for Reports, Recent, and various report categories like Recent, Created by Me, Private Reports, Public Reports, All Reports, Folders, and Favorites. The main area displays a table of recent reports with columns for Report Name, Description, Folder, Created By, Created On, and Subscribed. The table contains three entries: "Billings with Items and Customer Order" (Private Reports, Bobbadi Harshitha Team, 6/25/2025, 10:44 AM), "New Item with Billings Report" (Private Reports, Bobbadi Harshitha Team, 6/25/2025, 10:43 AM), and "New Prices Report" (Private Reports, Bobbadi Harshitha Team, 6/25/2025, 9:56 AM).

Report Name	Description	Folder	Created By	Created On	Subscribed
Billings with Items and Customer Order	Private Reports	Bobbadi Harshitha Team	6/25/2025, 10:44 AM		
New Item with Billings Report	Private Reports	Bobbadi Harshitha Team	6/25/2025, 10:43 AM		
New Prices Report	Private Reports	Bobbadi Harshitha Team	6/25/2025, 9:56 AM		

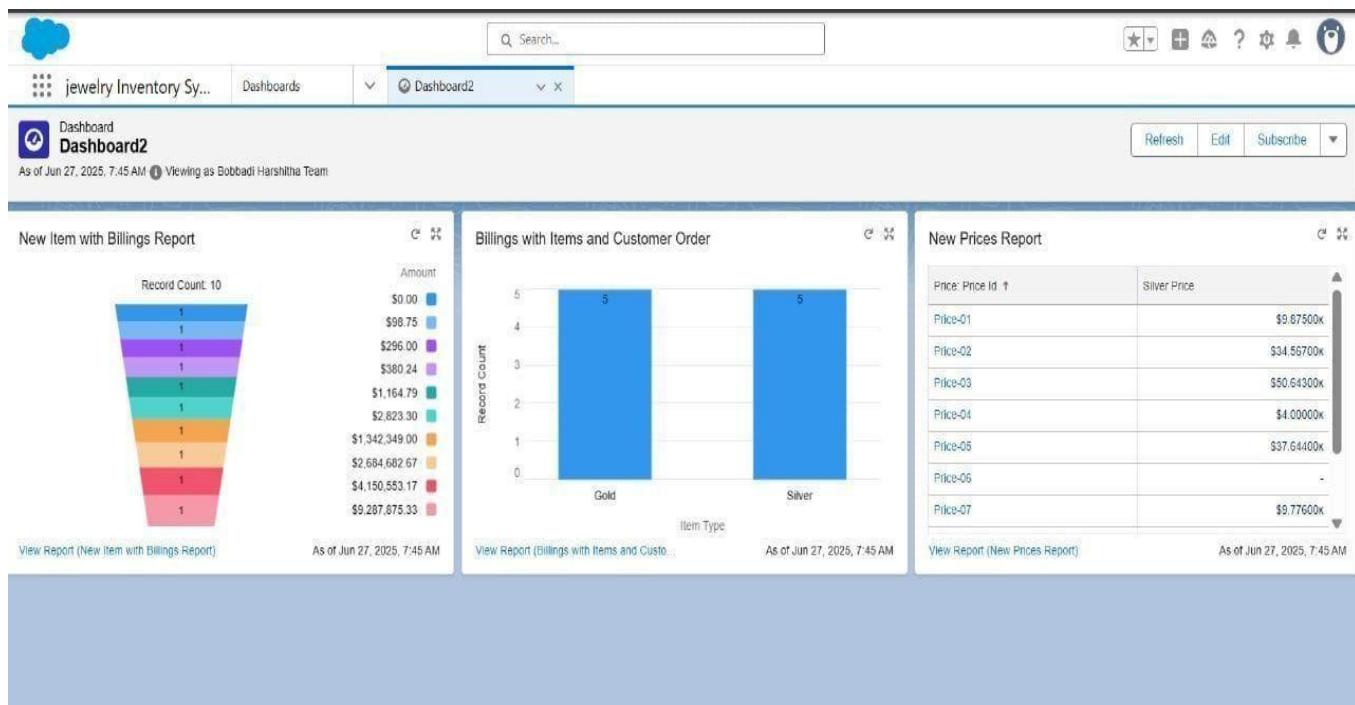
## 6.15 Creation of Dashboards

### Dashboard 1

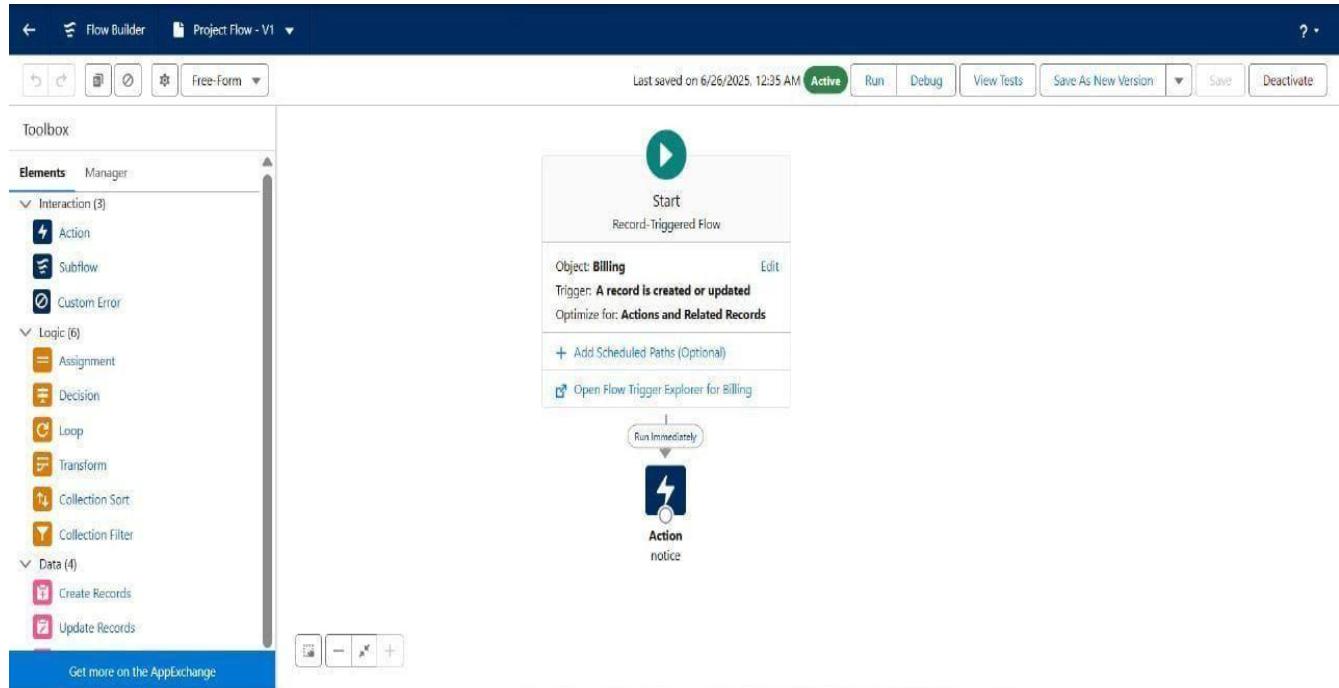
## 6.15 Creation of



## Dashboard 2

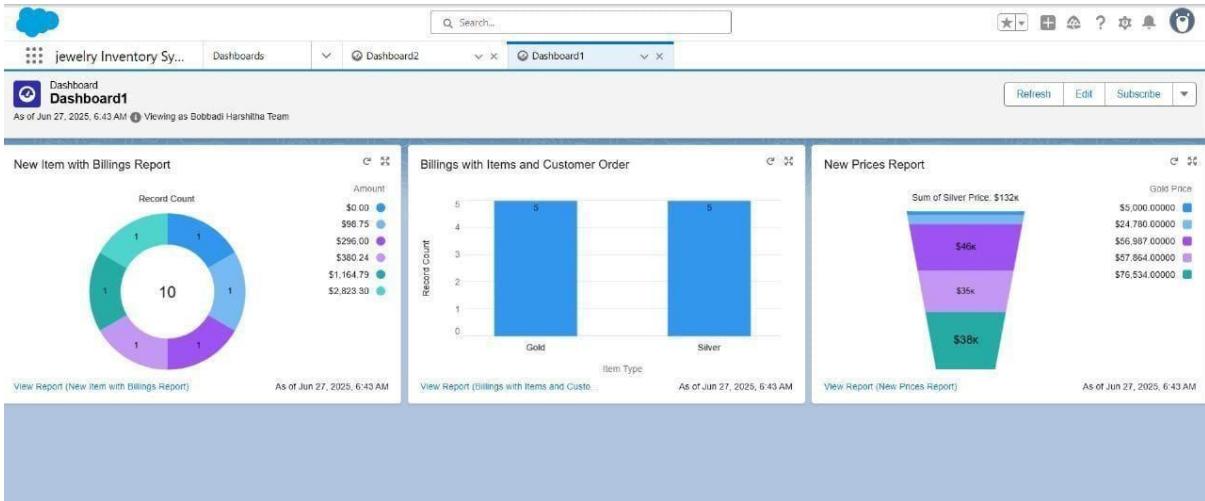


## 6.16 Creation of Flows



## 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.

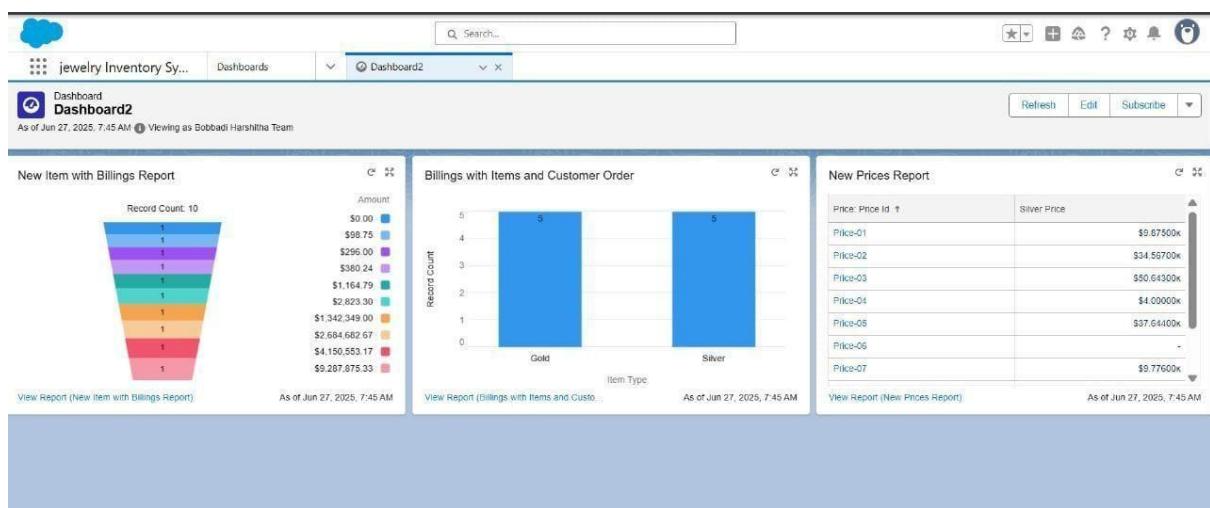
## **2. Enhance Customer Order Management:**

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:

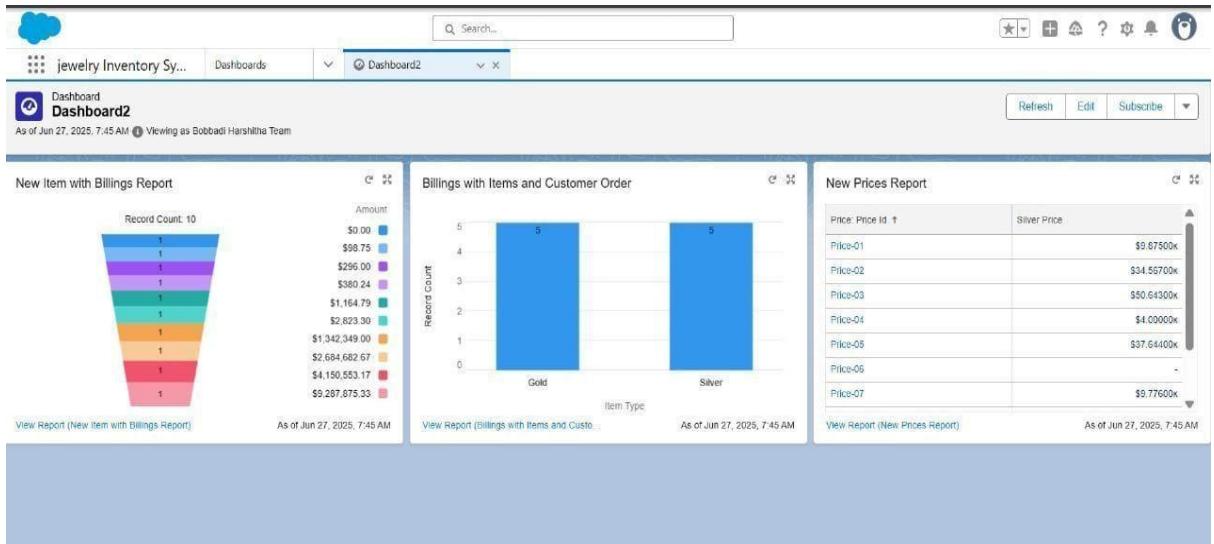
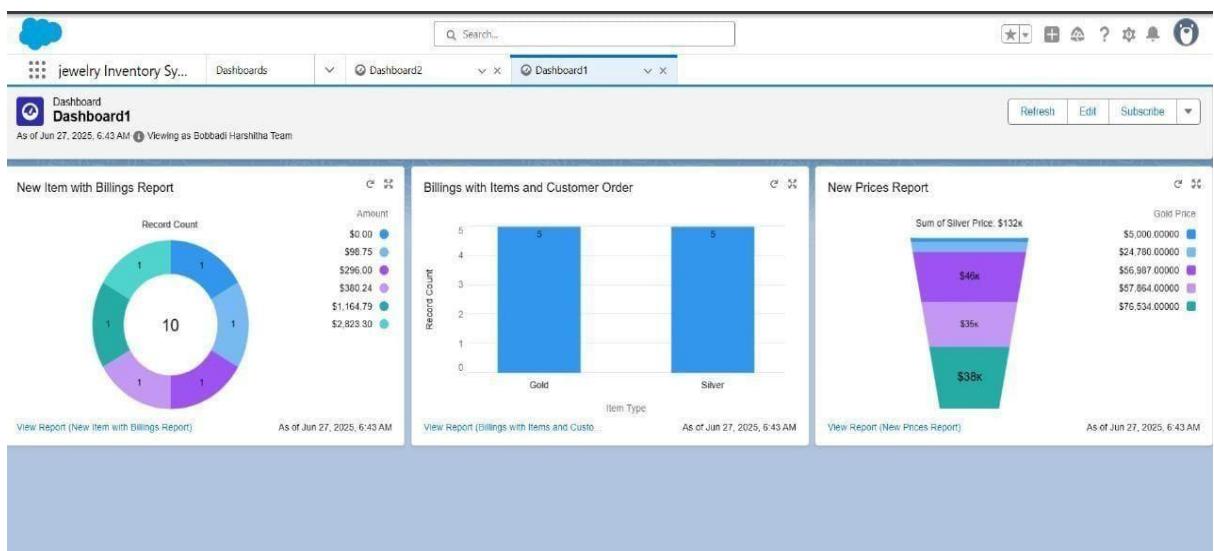
- Product Addition Requests
  - New products require manager approval before appearing in inventory
- Stock Reorder Requests

- Approval triggered when reorder level is reached

## ● Notifications

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

## Dashboards:



## Reports:

jewelry Inventory Sy... Reports New Prices Report

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

Gold Price	Price: Price Id	Silver Price
\$0.00 (1)	Price-06	\$0.00000
<b>Subtotal</b>		
\$0.0000.0000 (1)	Price-04	\$4,000.00000
<b>Subtotal</b>		\$4,000.00000
\$24,780.00000 (1)	Price-01	\$9,875.00000
<b>Subtotal</b>		\$9,875.00000
\$68,987.00000 (1)	Price-09	\$45,670.00000
<b>Subtotal</b>		\$45,670.00000
\$7,864.00000 (1)	Price-02	\$34,567.00000
<b>Subtotal</b>		\$34,567.00000
\$78,554.00000 (1)	Price-06	\$37,644.00000
<b>Subtotal</b>		\$37,644.00000
\$85,538.00000 (1)	Price-08	\$40,857.00000
<b>Row Counts</b>	<b>Detail Rows</b>	<b>Subtotals</b>
		<b>Grand Total</b>

jewelry Inventory Sy... Reports New Prices Report New Item with Billin...

Total Records: 10

Amount	Item Id	Billing Id
\$0.00 (1)	Item-08	Billing-06
<b>Subtotal</b>		
\$98.75 (1)	Item-02	Billing-03
<b>Subtotal</b>		
\$298.00 (1)	Item-09	Billing-04
<b>Subtotal</b>		
\$380.24 (1)	Item-04	Billing-07
<b>Subtotal</b>		
\$1,164.79 (1)	Item-06	Billing-09
<b>Subtotal</b>		
\$2,823.30 (1)	Item-10	Billing-02
<b>Subtotal</b>		
\$1,342,349.00 (1)	Item-01	Billing-01
<b>Row Counts</b>	<b>Detail Rows</b>	<b>Subtotals</b>
		<b>Grand Total</b>

**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-05	Billing-08
	Item-07	Billing-10
<b>Subtotal</b>		
Silver (5)	Item-10	Billing-02
	Item-02	Billing-03
	Item-09	Billing-04
	Item-04	Billing-07
	Item-06	Billing-09
<b>Subtotal</b>		
<b>Total (10)</b>		

## Flows:

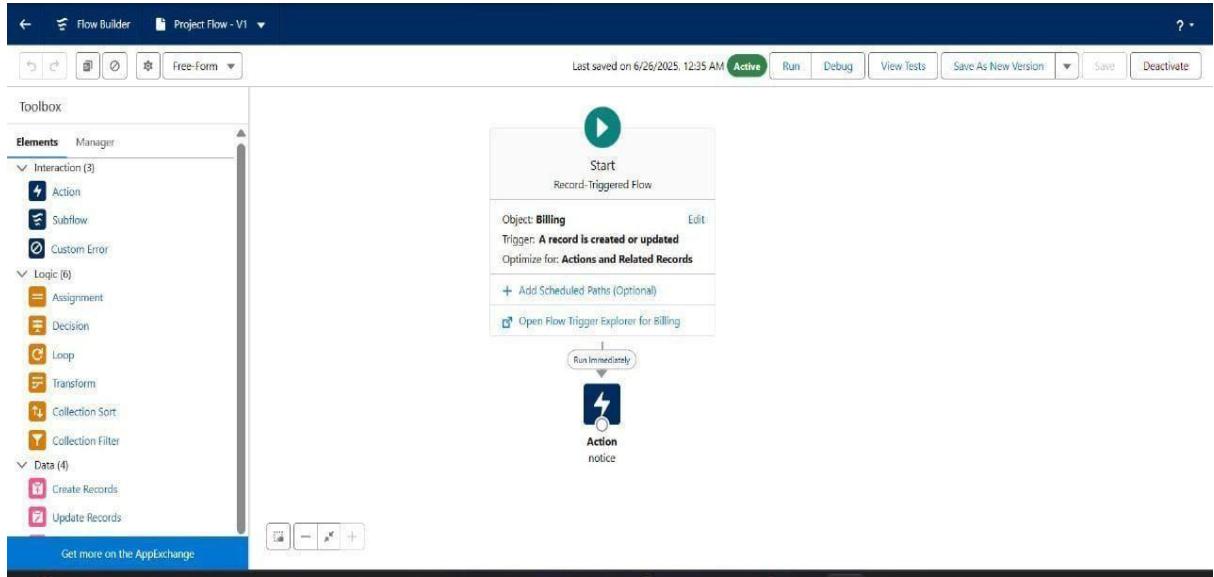
**Flow**  
**Project Flow**

Type: Record—Run After Save      Associated Record:      Progress Status: Activated      Last Modified Date: 6/25/2025, 12:05 PM      Flow Owner: Robbadi Harshitha Team

**Related**    **Details**

**Information**

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



## Triggers:

The screenshot shows the Salesforce Setup interface under 'Object Manager' for the 'Billing' object. The top navigation bar includes 'Setup', 'Home', and 'Object Manager'. A search bar says 'Search Setup' and various global buttons are on the right. The main content area shows a table titled 'Triggers' with one item listed: 'UpdatePaidAmountTrigger'. The table has columns for 'LABEL', 'API VERSION', 'SIZE WITHOUT COMMENTS', and 'MODIFIED BY'. The 'LABEL' column shows 'UpdatePaidAmountTrigger', 'API VERSION' shows '640', 'SIZE WITHOUT COMMENTS' shows '310', and 'MODIFIED BY' shows 'Bobbadi Harshitha Team, 6/24/2025, 10:48 AM'. On the left, a sidebar lists other object manager sections: 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 screenshot shows the Salesforce Setup interface with the 'Object Manager' tab selected. Under the 'Billing' object, the 'Apex Trigger' section is displayed. The trigger is named 'UpdatePaidAmountTrigger'. The details pane shows the trigger's 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);
    }
}
```

## 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 autosyncing 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.