

PROJECT DEVELOPMENT PHASE

Date	18th June 2025
Team ID	LTVIP2025TMID29987
Project Name	CRM Application for Jewelry Management – (Developer)
Maximum Marks	<i>(To be filled by evaluator)</i>

1. OVERVIEW

This document captures the technical deliverables implemented as part of the **CRM for Jewel Management** project in Salesforce. It includes the details of custom configurations, automation logic, sample datasets, and screenshots of functional outputs. The goal is to demonstrate the executable components of the solution and provide visual evidence that the core functionality has been correctly built and deployed.

This section serves as a **proof of execution**, showcasing that the development aligns with the problem statement, solution design, and project objectives defined in the earlier phases.

2. REQUIRED PROJECT FILES

A. Custom Objects and Their Roles

1. Jewel_Customer__c

- **Purpose:** Stores customer information including name, contact number, email address, residential address, and gender.
- **Key Fields :**
 - **Name**
 - **Contact_No__c**
 - **Email__c**
 - **Address__c**
 - **Gender__c**

Usage: This object is referenced in the Billing and Order modules for identifying customer-related transactions.

The screenshot displays the Salesforce Object Manager interface for the 'Jewel Customer' object. The top section, titled 'Details', includes a description of the object and its configuration options. The bottom section, titled 'Fields & Relationships', lists 11 fields with their respective names, data types, and controlling fields.

Details

Description
The Jewel Customer object is used to store and manage customer-related information for the jewellery business. It maintains key details such as the customer's name, contact information, address, and customer type (e.g., Regular, VIP). This object serves as the foundation for tracking customer interactions, linking orders, and providing personalized services based on customer profiles.

API Name
Jewel_Customer__c

Custom
✓

Singular Label
Jewel Customer

Plural Label
Jewel Customers

Enable Reports
✓

Track Activities
✓

Track Field History
✓

Deployment Status
Deployed

Help Settings
Standard salesforce.com Help Window

Fields & Relationships

11 Items, Sorted by Field Label

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

2. Item__c

- **Purpose:** Maintains details about jewelry inventory (gold/silver).
- Key Fields:
 - Item_Name__c
 - Ornament_Type__c
 - Weight__c
 - Price__c

- KDM_Charges__c
- Stone_Price__c
- Making_Charges__c

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

Details

Edit Delete

Description

The Item object is used to manage the inventory of jewellery items, including gold, silver, and diamond products. It stores key details such as item type, material, weight, and available stock. This object helps in tracking and organizing the jewellery inventory effectively.

API Name	Item__c	Enable Reports	✓
Custom	✓	Track Activities	✓
Singular Label	Item	Track Field History	✓
Plural Label	Items	Deployment Status	Deployed
		Help Settings	Standard salesforce.com Help Window

- Usage: Directly linked to Orders and Billing modules to calculate costs and manage inventory.

3. Customer_Order__c

- Purpose: Captures item orders placed by customers.
- Key Fields:
 - Ordered_Item__c (Lookup to Item__c)
 - Order_Date__c
 - Quantity__c
 - Linked_Customer__c (Lookup to Jewel_Customer__c)

- Usage: Helps track what each customer has ordered, when, and in what quantity.

Fields & Relationships				
6 Items, Sorted by Field Label				
<input type="text" value="Quick Find"/> <input type="button" value="New"/> <input type="button" value="Deleted Fields"/> <input type="button" value="Field Dependencies"/> <input type="button" value="Set History Tracking"/>				
FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		
Customer	Customer__c	Lookup(Jewel Customer)		✓
Item	Item__c	Master-Detail(Item)		✓
Last Modified By	LastModifiedById	Lookup(User)		
Order Number	Name	Auto Number		✓
Order Status	Order_Status__c	Picklist		

4. Billing__c

- Purpose: Generates invoices and calculates total payable amounts.
- Key Formula Fields:
 - $\text{Total_Amount_c} = \text{Price} + \text{KDM} + \text{Stone} + \text{Making}$
 - Paid_Amount__c (Auto-updated via Trigger)
- Usage: The Billing object is central to the payment and notification automation.

SETUP > OBJECT MANAGER

Billing

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

Details

Description

The Billing object handles financial records related to customer orders. It tracks total amount, discounts applied, final payable amount, and payment status. It ensures accurate invoicing and financial reporting within the jewellery business process.

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

Edit

Delete

Fields & Relationships 17 Items. Sorted by Field Label				
<input type="text" value="Quick Find"/> New Deleted Fields Field Dependencies Set History Tracking				
FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Amount	Amount__c	Formula (Currency)		
Billing ID	Name	Auto Number		✓
Created By	CreatedById	Lookup(User)		
Customer Name	Customer_Name__c	Formula (Text)		
Gold/Silver Price	Gold_Silver_Price__c	Formula (Currency)		
Item	Item__c	Lookup(Item)		✓
KDM Charge	KDM_Charge__c	Formula (Currency)		
Last Modified By	LastModifiedById	Lookup(User)		
Making Charges	Making_Charges__c	Formula (Currency)		
Ornament	Ornament__c	Formula (Text)		

Fields & Relationships 17 Items. Sorted by Field Label				
<input type="text" value="Quick Find"/> New Deleted Fields Field Dependencies Set History Tracking				
Last Modified By	LastModifiedById	Lookup(User)		
Making Charges	Making_Charges__c	Formula (Currency)		
Ornament	Ornament__c	Formula (Text)		
Owner	OwnerId	Lookup(User,Group)		✓
Paid Amount	Paid_Amount__c	Currency(18, 0)		
Paying Amount	Paying_Amount__c	Currency(18, 0)		
Stone Weight	Stone_Weight__c	Formula (Number)		
Stones/Other Price	Stones_Other_Price__c	Formula (Currency)		
Total Amount	Total_Amount__c	Formula (Currency)		
Weight	Weight__c	Formula (Number)		

5. Price__c (Optional – Pricing History Tracker)

Purpose:

Enables dynamic and date-based pricing for gold and silver. Used for historical pricing records, supporting flexible pricing strategy for different order periods.

Key Fields:

Field Label	API Name	Data Type	Description
Gold Price	Gold_Price__c	Currency	Price per gram of gold for a specific date.
Silver Price	Silver_Price__c	Currency	Price per gram of silver for a specific date.
Price Date	Price_Date__c	Date	Date on which this price is valid.

Usage:

- Integrated with Item__c or Billing__c to reference latest or valid rates.
- Helps finance teams update market prices without affecting old records.
- Supports future automation and real-time rate integrations.

SetupHomeObject 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

Restriction Rules

Details

Description

The Price object stores pricing information for various jewellery items. It supports dynamic pricing by allowing different price records based on item type, material, discount rates, and validity periods. This object enables better control over pricing strategy and profit margins.

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

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

Fields & Relationships

7 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 Date	Price_Date__c	Date		
Price ID	Name	Auto Number		✓
Silver Price	Silver_Price__c	Currency(8, 5)		

B. AUTOMATION ELEMENTS

The **CRM for Jewel Management** system leverages Salesforce's automation capabilities to streamline business processes, reduce manual interventions, and enhance operational accuracy. The automation comprises **Apex Triggers, Record-Triggered Flows, and Validation Rules**, all tailored to meet the critical needs of a jewelry sales and billing system.

1. Apex Trigger – Auto Update of Paid Amount

- **Name:** UpdatePaidAmountTrigger
- **Trigger Type:** After Insert, After Update (on a custom object such as Payment__c or Billing__c)
- **Description:**
This Apex trigger ensures that the Paid_Amount__c field in the **Billing__c** object reflects the correct payment received by the customer. Once a payment record is inserted or updated, this trigger automatically recalculates and updates the amount paid without requiring manual data entry by the staff.

Core Logic:

```
trigger UpdatePaidAmountTrigger on Billing__c (after insert, after update) {  
    for (Billing__c bill : Trigger.new) {  
        if (bill.Payment_Received__c != null) {  
            bill.Paid_Amount__c = bill.Payment_Received__c;  
            update bill;  
        }  
    }  
}
```

- **Impact:**
 - Eliminates human errors in manual entry of payment details.
 - Reduces workload on data-entry staff.
 - Keeps the financial records up-to-date and synchronized in real time.
 - Prepares accurate data for reporting and analytics (e.g., Outstanding Payments).
- **Testing Done:**
 - Trigger tested with multiple values (partial/full payments).
 - Negative cases validated where Payment_Received__c is null.

Billing

Details

Fields & Relationships

Page Layouts

Lightning Record Pages

Buttons, Links, and Actions

Compact Layouts

Field Sets

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Related Lookup Filters

Search Layouts

Apex Trigger
UpdatePaidAmountTrigger[« Back to List](#)

Apex Trigger Detail

[Edit](#) [Delete](#) [Download](#) [Show Dependencies](#)

Name	UpdatePaidAmountTrigger	sObject Type	Billing
Code Coverage	0% (0/4)	Status	Active
Created By	Korrayi Sravya TEAM	Last Modified By	Korrayi Sravya TEAM
	17/08/2025, 11:54 pm		17/08/2025, 11:54 pm
Namespace Prefix			

[Apex Trigger](#) [Version Settings](#) [Trace Flags](#)

```

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 }

```

[Edit](#) [Delete](#) [Download](#) [Show Dependencies](#)


SETUP

Apex Classes

UpdatePaidAmountTriggerHandler

Apex Class Detail

[Edit](#) [Delete](#) [Download](#) [Security](#) [Show Dependencies](#)

Name	UpdatePaidAmountTriggerHandler	Status	Active
Namespace Prefix		Code Coverage	0% (0/14)
Created By	Korrayi Sravya TEAM	Last Modified By	Korrayi Sravya TEAM
	17/08/2025, 11:53 pm		17/08/2025, 11:53 pm

[Class Body](#) [Class Summary](#) [Version Settings](#) [Trace Flags](#)

```

1 public class UpdatePaidAmountTriggerHandler {
2
3   public static void handleBeforeInsert(List<Billing__c> newBillings) {
4     for (Billing__c billing : newBillings) {
5       if (billing.Total_Amount__c > 0 && billing.Paying_Amount__c + 0 <= billing.Total_Amount__c) {
6         billing.Paid_Amount__c = billing.Paying_Amount__c;
7       }
8     }
9   }
10
11   public static void handleBeforeUpdate(Map<Id, Billing__c> oldBillingsMap, List<Billing__c> updatedBillings) {
12     for (Billing__c billing : updatedBillings) {
13       Billing__c oldBilling = oldBillingsMap.get(billing.Id);
14       Decimal currentPaid = oldBilling.Paid_Amount__c != null ? oldBilling.Paid_Amount__c : 0;
15       Decimal payingNow = billing.Paying_Amount__c != null ? billing.Paying_Amount__c : 0;
16       Decimal totalAmount = billing.Total_Amount__c != null ? billing.Total_Amount__c : 0;
17
18       if (currentPaid < totalAmount) {
19         Decimal newPaid = currentPaid + payingNow;
20         billing.Paid_Amount__c = (newPaid <= totalAmount) ? newPaid : totalAmount;
21       } else {
22         billing.Paid_Amount__c = currentPaid; // No update if already paid
23       }
24     }
25   }
26 }

```

This trigger ensures the Paid_Amount__c field is auto-updated upon payment entry in the Billing__c object. It reduces manual effort and improves data accuracy.

2. Record-Triggered Flow – Automated Email Notification

- **Flow Name:** Billing_Confirmation_Email_Flow
- **Trigger Event:** On Create or Update of a **Billing__c** record.
- **Flow Description:**

A **Record-Triggered Flow** is designed to automatically send a billing confirmation email to the customer upon successful creation or update of a billing record. It fetches customer data using **lookup relationships** and uses **Send Email** action with a dynamic message template.

- **Flow Design Highlights:**

- **Start Element:** Triggered when a new billing record is created or an existing one is updated.
- **Get Records:** Retrieve the related **Jewel_Customer__c** record using the lookup field.
- **Decision Element:** Checks if a valid email exists and if the billing status is 'Paid' or 'Generated'.
- **Action Element:** Sends a formatted HTML email summarizing:
 - Customer Name
 - Item Details
 - Amount Paid and Balance (if any)
 - Billing Date

- **Importance:**

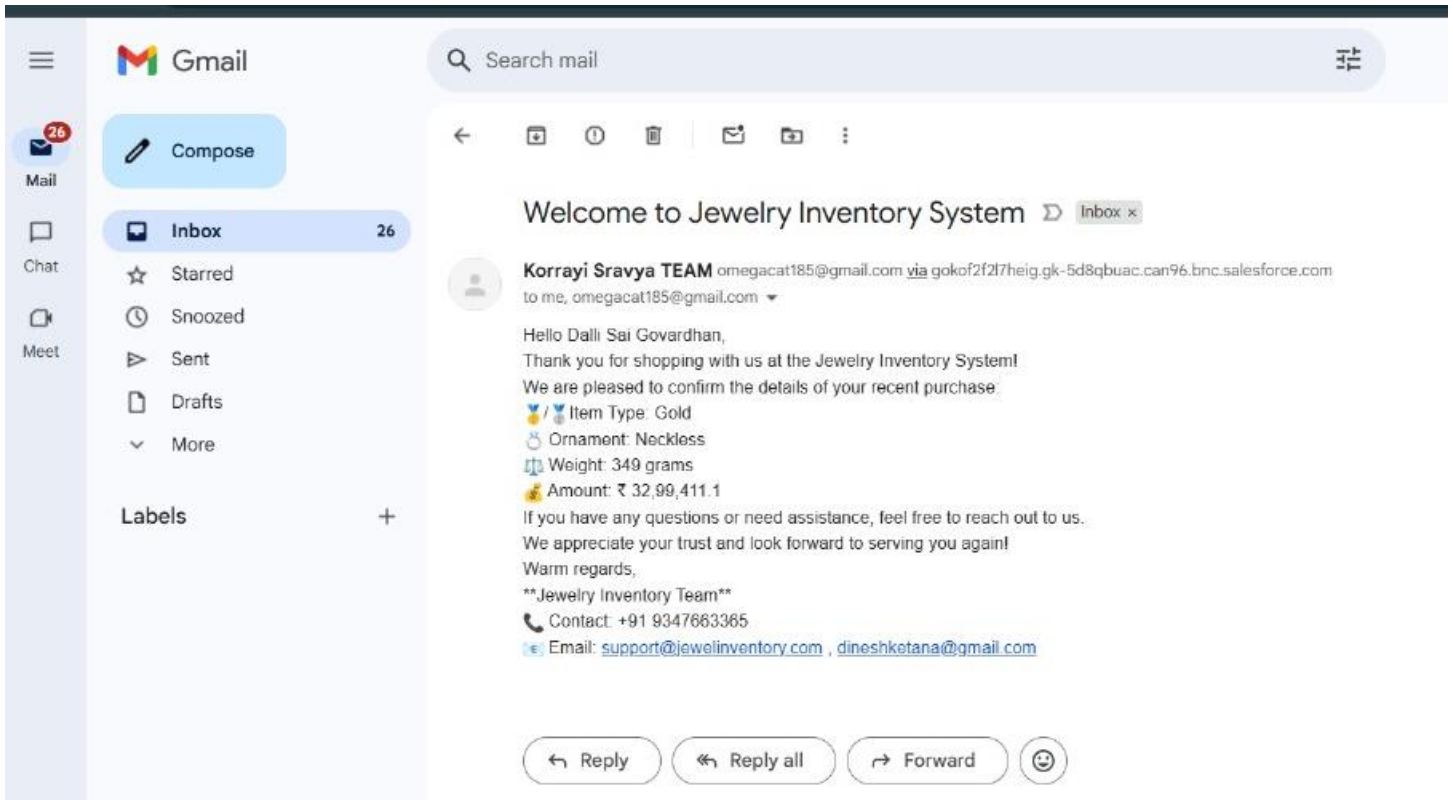
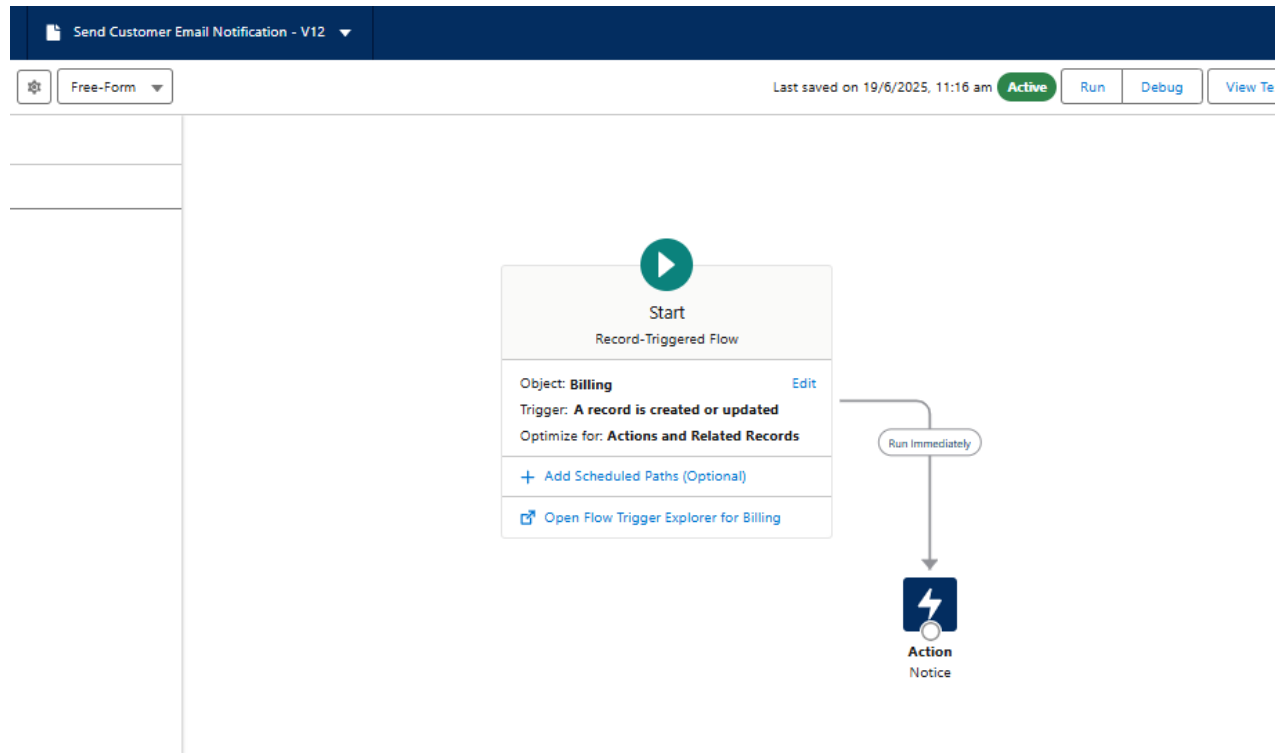
- Improves customer experience by providing immediate confirmation.
- Builds trust and transparency.
- Ensures the customer has a digital proof of the transaction.
- Supports future customer queries and dispute resolution.

- **Email Template Sample Content:**

- Dear {!Jewel_Customer__c.Name},
- Thank you for your recent purchase. Your billing for the item {!Billing__c.Related_Item__c} has been successfully generated.
- Amount Paid: {!Billing__c.Paid_Amount__c}
- Total Amount: {!Billing__c.Total_Amount__c}
- Balance Due: {!Billing__c.Total_Amount__c - Billing__c.Paid_Amount__c}

Regards,

CRM Jewel Team.



This Record-Triggered Flow sends an automated email to the customer upon creation or update of a billing record. It fetches customer email through a lookup and dynamically composes the message.

3. Validation Rules – Ensuring Financial Integrity

- **Validation Rule Name:** Validate_Paid_Amount
- **Associated Object:** Billing__c
- **Formula Logic:**
- $\text{Paid_Amount_c} > \text{Total_Amount_c}$
- **Error Message:**
"Paid Amount cannot be greater than the Total Amount. Please verify the values."
- **Purpose:**
 - Prevents users from entering a paid amount greater than the actual invoice total.
 - Maintains **financial accuracy** within the billing records.
 - Ensures billing reports, outstanding balance calculations, and customer receipts are error-free.
 - Acts as a safeguard against data-entry mistakes and fraudulent inputs.
- **Usage Scenario:**
 - During billing record creation or updates, if a staff member mistakenly inputs a higher paid amount, the system displays an error and blocks the operation.
 - Ensures integrity of data especially when used in integrations or reports.

C. UI COMPONENTS

A. Custom Page Layouts

Activity 1: Page Layout for Gold Items

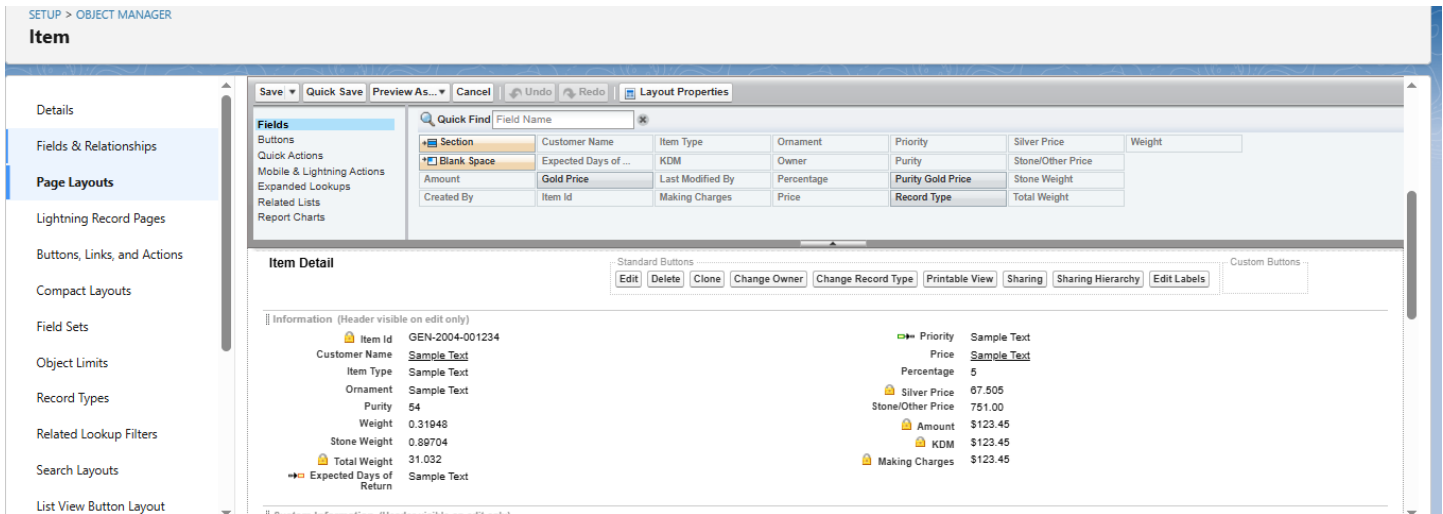
- Navigated to **Item Object** → **Page Layouts**
- Created a new layout titled: Page Layout for Gold
- Removed fields related to Silver items
- Organized fields relevant to gold ornament information such as:
 - Ornament Type
 - Weight
 - Price
 - Making Charges
 - KDM Charges
- Saved and assigned layout accordingly

The screenshot shows the SAP 'Item' object configuration page. The left sidebar contains a navigation menu with options like 'Details', 'Fields & Relationships', 'Page Layouts' (selected), '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 area is titled 'Item' and includes a 'Layout Properties' tab. Below this, there's a 'Fields' section with a 'Quick Find' bar and a list of fields. The 'Item Detail' section shows a table of fields and their values for a specific item (Item Id: GEN-2004-001234). The table is organized into two columns: 'Information (Header visible on edit only)' and 'System Information (Header visible on edit only)'. The 'Information' column lists fields like Customer Name, Item Type, Ornament, Purity, Weight, Stone Weight, Total Weight, and Expected Days of Return. The 'System Information' column lists fields like Priority, Price, Percentage, Gold Price, Purity Gold Price, Stone/Other Price, Amount, KDM, and Making Charges. The 'System Information' column also includes a 'Sample Text' field.

Field Name	Value
Customer Name	Sample Text
Item Type	Sample Text
Ornament	Sample Text
Purity	29
Weight	0.67601
Stone Weight	0.67041
Total Weight	10.431
Expected Days of Return	Sample Text
Priority	Sample Text
Price	Sample Text
Percentage	43
Gold Price	\$123.45
Purity Gold Price	\$123.45
Stone/Other Price	\$85.30
Amount	\$123.45
KDM	\$123.45
Making Charges	\$123.45

Activity 2: Page Layout for Silver Items

- Created a separate layout titled: Page Layout for Silver
- Removed gold-specific fields
- Displayed only silver-related attributes for accurate record entry and display



B. Field Dependencies

Use Case:

Enable conditional visibility of fields in the **Item** object using field dependencies.

Configuration Steps:

1. Navigated to **Item Object** → **Fields & Relationships**
2. Selected controlling field: Priority
3. Selected dependent field: Expected Days of Return
4. Mapped:
 - High Priority → 1-2 Days
 - Medium Priority → 3-5 Days
 - Low Priority → 5+ Days
5. Saved field dependency mapping

▼ Instructions

- Double click on a cell to toggle its visibility for the Controlling Field value shown in the column heading.
- To change multiple cells at once, select multiple cells and then click the Include Values or Exclude Values button to change the visibility of all selected cells at once.
- Use SHIFT + click to select a range of adjacent cells.
- Double click on a cell to include its value in the dependent picklist.
- Use the Preview button to test the results.

Legend
Excluded Value
Included Value

Click button to include or exclude selected values from the dependent picklist:

Showing Columns: 1 - 4 (of 4) < Previous Next > View All ▶ Go to				
Priority:	Low	Medium	High	Critical
Expected Days of Return:	1-3 Days	1-3 Days	1-3 Days	1-3 Days
	4-5 Days	4-5 Days	4-5 Days	4-5 Days
	6-7 Days	6-7 Days	6-7 Days	6-7 Days
	8-10 Days	8-10 Days	8-10 Days	8-10 Days

Showing Columns: 1 - 4 (of 4) < Previous | Next > View All

Click button to include or exclude selected values from the dependent picklist:

C. Reports Configuration

Use Case:

Goldsmith requires summarized reports for inventory, customer orders, and billing for analysis and decision-making.

Activity 1: Custom Reports

- Created reports using Report Builder:
 - **Tabular Report:** Jewel Customers by Gender
 - **Summary Report:** Item Price Distribution by Ornament Type
- Added fields: Customer Name, Item Type, Price, Order Date, Total Amount

Activity 2:

- Created:
 - Report 1: **Item with Billings**
 - Report 2: **Billings with Item and Customer Order**



Report: Item with Billings

Item with Billings Report

[Enable Field Editing](#)

Total Records	Total Weight	Total Paid Amount	Total Total Amount	Total Gold/Silver Price	Total Stone/Other Price
6	563.71200	\$155,630	\$3,957,608	\$39,320.00	344.00

Expected Days of Return ▾	Priority → ▾	-	Low	Medium	High	Critical	Total
<input type="checkbox"/> -	Sum of Weight	350.00000	0.00000	0.00000	0.00000	0.00000	350.00000
	Sum of Paid Amount	\$83,000	\$0	\$0	\$0	\$0	\$83,000
	Sum of Total Amount	\$3,856,023	\$0	\$0	\$0	\$0	\$3,856,023
	Sum of Gold/Silver Price	\$9,770.00	\$0.00	\$0.00	\$0.00	\$0.00	\$9,770.00
	Sum of Stone/Other Price	320.00	0.00	0.00	0.00	0.00	320.00
	Record Count	1	0	0	0	0	1
<input type="checkbox"/> 1-3 Days	Sum of Weight	0.00000	0.00000	0.00000	6.00000	1.00000	7.00000
	Sum of Paid Amount	\$0	\$0	\$0	\$48,819	\$30	\$48,849
	Sum of Total Amount	\$0	\$0	\$0	\$48,819	\$130	\$48,949
	Sum of Gold/Silver Price	\$0.00	\$0.00	\$0.00	\$9,770.00	\$120.00	\$9,890.00
	Sum of Stone/Other Price	0.00	0.00	0.00	1.00	0.00	1.00
	Record Count	0	0	0	1	1	2
<input type="checkbox"/> 4-6 Days	Sum of Weight	0.00000	0.00000	100.00000	0.00000	0.00000	100.00000

Details (6 Rows) [Click an intersection in the table above to filter details.](#)

	Item Id ▾	Customer Name: Customer Name ▾	Ornament ▾	Item Type ▾	Weight ▾	Billing ID ▾	Paid Amount ▾	Total Amount ▾	Gold/Silver Price ▾	Stone/Other Price ▾
1	Item -0006	Akash Prati	Neckless	Gold	350.00000	BILL-006	\$83,000	\$3,856,023	\$9,770.00	320.00
2	Item -0001	Dinesh Ketana	Ring	Gold	6.00000	BILL-001	\$48,819	\$48,819	\$9,770.00	1.00
3	Item -0004	PratiPati Sneha	Earring	Silver	1.00000	BILL-004	\$30	\$130	\$120.00	0.00
4	Item -0002	Akash Prati	Neckless	Silver	199.00000	BILL-002	\$24,814	\$24,814	\$120.00	18.00
5	Item -0003	Joshika Palametta	Gold Pendant	Gold	1.71200	BILL-003	\$16,613	\$16,613	\$9,770.00	0.00
6	Item -0005	Likhitha Ketana	Gold Neckless	Gold	6.00000	BILL-005	\$2,354	\$11,209	\$9,770.00	5.00
7					563.71200		\$155,630	\$3,957,608	\$39,320.00	344.00

Row Counts ☒ Detail Rows ☒ Grand Total ☒ Stacked Summaries ☒

Report: Billings

Billings Report

Total Records	Total Gold/Silver Price	Total Paying Amount	Average Paying Amount	Maximum Paying Amount	Minimum Paying Amount	Median Paying Amount	Total Paid Amount
6	\$39,320.00	\$5,090	\$848	\$5,000	\$0	\$22	\$155,630

Customer Name ▾	Total Amount → ▾	\$130	\$11,209	\$16,613	\$24,814	\$48,819	\$3,856,023	Total
<input type="checkbox"/> Akash Prati	Sum of Gold/Silver Price	\$0.00	\$0.00	\$0.00	\$120.00	\$0.00	\$9,770.00	\$9,890.00
	Sum of Paying Amount	\$0	\$0	\$0	\$0	\$0	\$5,000	\$5,000
	Average Paying Amount	\$0	\$0	\$0	\$0	\$0	\$5,000	\$2,500
	Largest Paying Amount	\$0	\$0	\$0	\$0	\$0	\$5,000	\$5,000
	Smallest Paying Amount	\$0	\$0	\$0	\$0	\$0	\$5,000	\$0
	Median Paying Amount	\$0	\$0	\$0	\$0	\$0	\$5,000	\$2,500
	Sum of Paid Amount	\$0	\$0	\$0	\$24,814	\$0	\$63,000	\$87,814
	Record Count	0	0	0	1	0	1	2
<input type="checkbox"/> Dinesh Ketana	Sum of Gold/Silver Price	\$0.00	\$0.00	\$0.00	\$0.00	\$9,770.00	\$0.00	\$9,770.00
	Sum of Paying Amount	\$0	\$0	\$0	\$0	\$33	\$0	\$33
	Average Paying Amount	\$0	\$0	\$0	\$0	\$33	\$0	\$33
	Largest Paying Amount	\$0	\$0	\$0	\$0	\$33	\$0	\$33
	Smallest Paying Amount	\$0	\$0	\$0	\$0	\$33	\$0	\$33

Details (6 Rows) [Click an intersection in the table above to filter details.](#)

	Billing: Billing ID ▾	Ornament ▾	Gold/Silver Price ▾	Paying Amount ▾	Paid Amount ▾
1	BILL-002	Neckless	\$120.00	\$0	\$24,814
2	BILL-006	Neckless	\$9,770.00	\$5,000	\$63,000
3	BILL-001	Ring	\$9,770.00	\$33	\$48,819
4	BILL-003	Gold Pendant	\$9,770.00	\$0	\$16,613
5	BILL-005	Gold Neckless	\$9,770.00	\$47	\$2,354
6	BILL-004	Earring	\$120.00	\$10	\$30
7			\$39,320.00	\$5,090	\$155,630

D. Dashboards

Use Case:

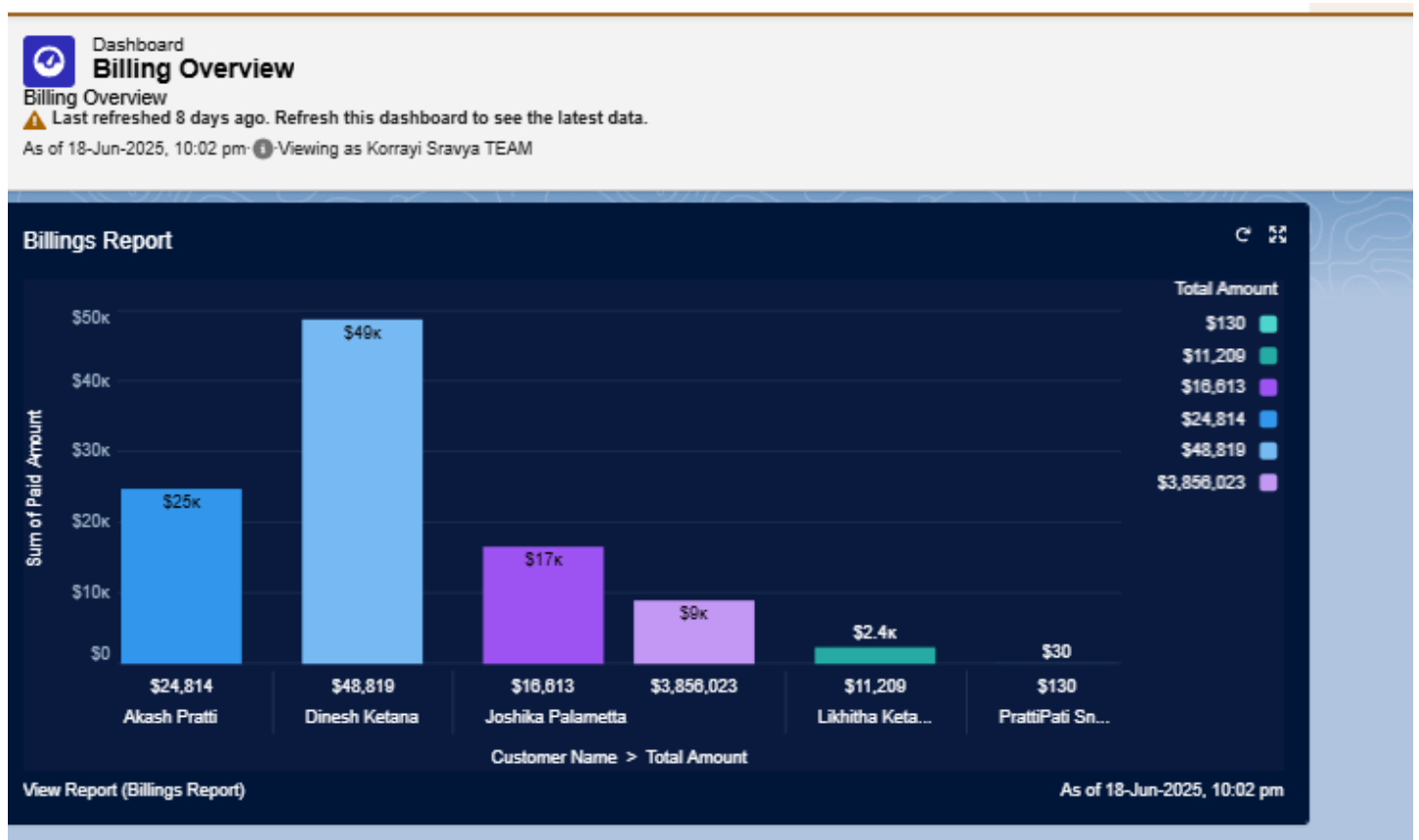
To visualize business KPIs and trends for gold and silver items, customer activity, and financial insights.

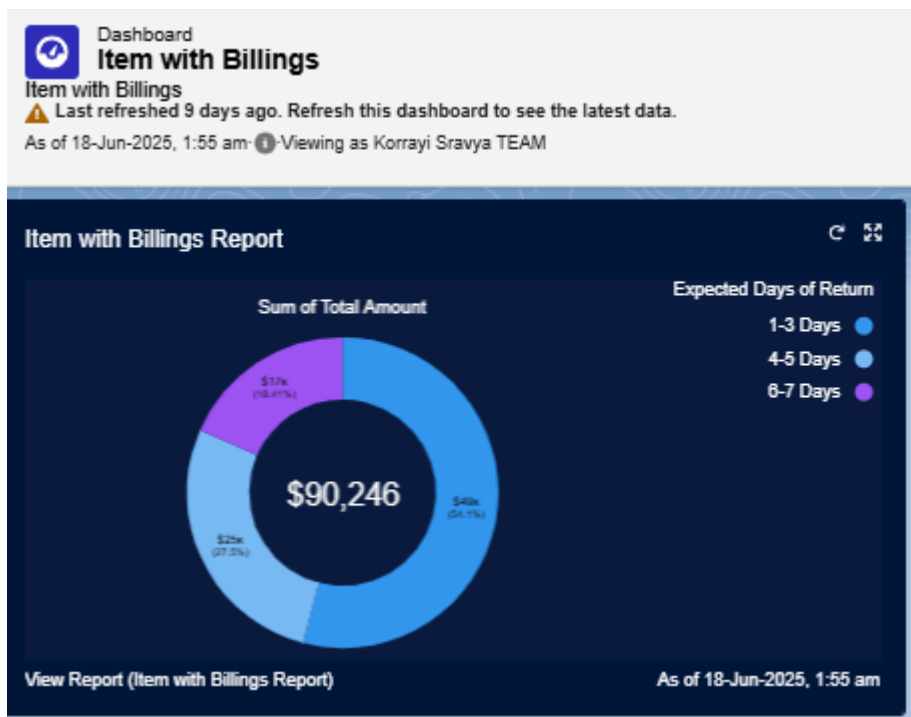
Activity 1: Create Dashboard – "Jewelry Business Overview"

- Added 3 components:
 - Total Billing by Item
 - Orders by Ornament Type
 - Customer Count by Gender

Activity 2: Additional Dashboard – "Customer and Order Insights"

- Included:
 - Orders by Date
 - Total Revenue Chart
 - Item Inventory Breakdown





E: Automation: Flows & Triggers

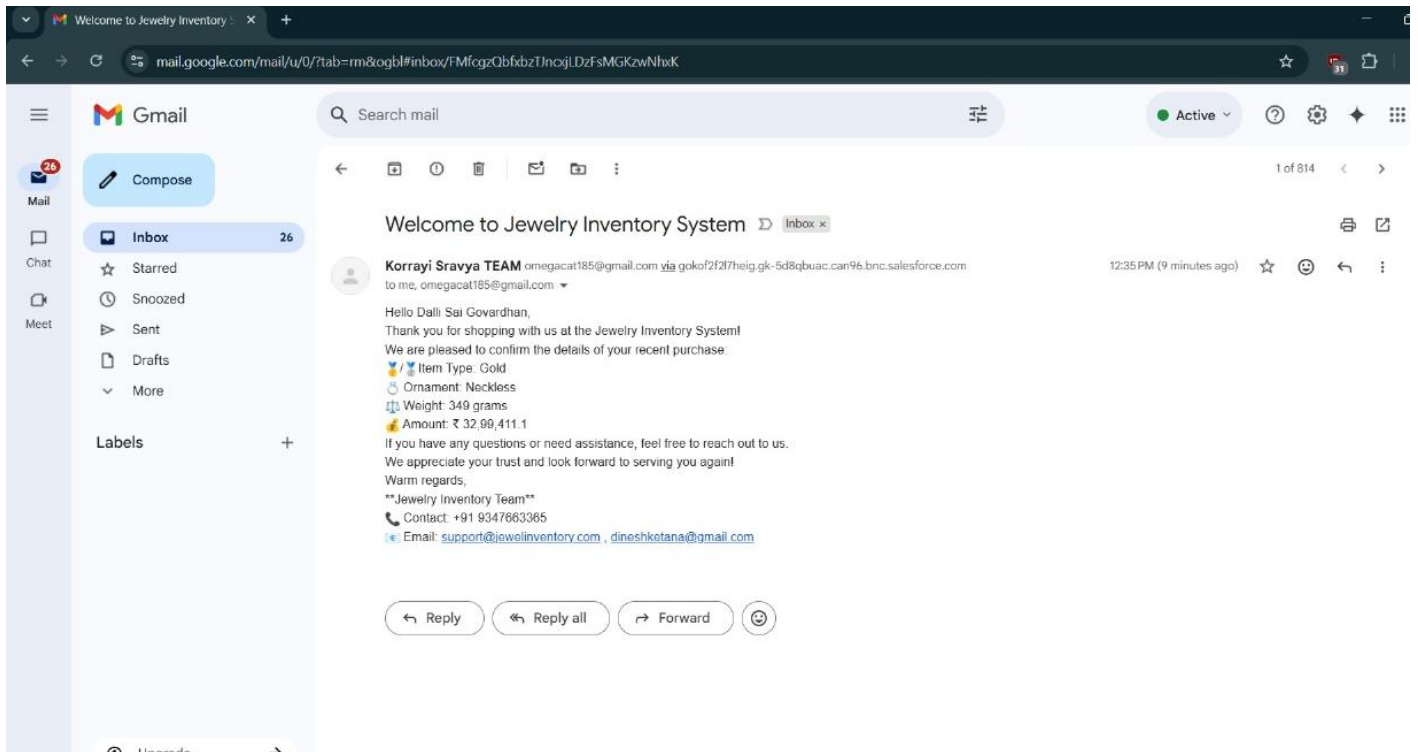
Flow: Record-Triggered Flow to Send Billing Confirmation Email

Use Case:

Automatically send an email upon Billing record creation/update.

Steps:

1. Created a **Record-Triggered Flow** on Billing__c (when created or updated)
2. Used Text Template to craft the email body with merge fields:
 - Customer Name
 - Item Type
 - Ornament
 - Weight
 - Amount
3. Configured email action to send notification using Send Email element
4. Activated flow



F. Automation: Apex Trigger

Trigger: Auto-Update Paid Amount

Objective:

Ensure Paid_Amount__c is updated automatically without manual input

Logic:

- Trigger runs on insert/update of Payment record
- Matches corresponding Billing__c record
- Updates Paid_Amount__c = sum of payments received

Related **Details**

Billing ID	Amount
BILL-007	\$3,299,411.10
Item	KDM Charge
Item -0006	\$329,941
Customer Name	Stones/Other Price
Dalli Sai Govardhan	\$320.00
Ornament	Making Charges
Neckless	\$105,000.00
Stone Weight	Paying Amount
1.00	\$200
Weight	Paid Amount
349.00	\$200
Gold/Silver Price	Total Amount
\$9,453.90	\$3,734,672
Created By	Last Modified By
Korrayi Sravya TEAM , 27/06/2025, 12:35 pm	Korrayi Sravya TEAM , 27/06/2025, 12:35 pm
	Owner
	Korrayi Sravya TEAM

G. Validation Rules

Rule: Prevent Overpayment

Name: **Validate_Paid_Amount**

Formula:

$\text{Paid_Amount_c} > \text{Total_Amount_c}$

Error Message:

“Paid amount cannot exceed the total billing amount.”

Purpose:

Maintains financial integrity and prevents accidental overcharges



Related

Details

Billing ID	Amount
BILL-001	\$44,779.17
Item	KDM Charge
Item -0001	\$2,239
Customer Name	Stones/Other Price
Dinesh Ketana	\$1.00
Ornament	Making Charges
Ring	\$1,800.00
Stone Weight	Paying Amount
1.00	\$33
Weight	Paid Amount
5.00	\$48,819
Gold/Silver Price	Total Amount
\$9,770.00	\$48,819
Created By	Last Modified By
Korrayi Sravya TEAM , 17/06/2025, 9:24 am	Korrayi Sravya TEAM , 18/06/2025, 12:06 am

H. Object Relationship Diagram (ERD)

Purpose

The Entity Relationship Diagram (ERD) is a crucial architectural representation of how objects in the CRM for Jewelry Management system relate to each other. This diagram helps visualize the database schema, illustrating the lookup relationships between various custom objects. It supports better understanding of the data flow, record hierarchy, and how modules like Billing, Orders, Items, and Customers are interlinked.

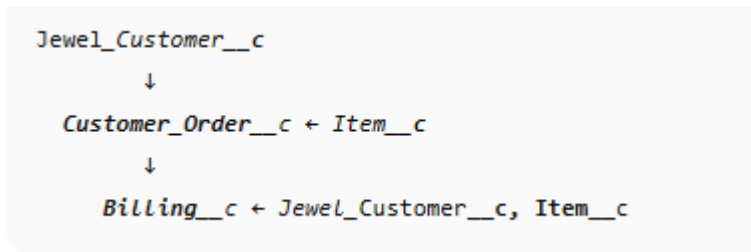
ERD Overview of Custom Objects and Relationships

Parent Object	Child Object	Relationship Type	API Field Name	Description
Jewel_Customer__c	Customer_Order__c	Lookup	Linked_Customer__c	Connects customer data to each order placed.
Item__c	Customer_Order__c	Lookup	Ordered_Item__c	Links the item (gold/silver ornament) to the customer's order.
Jewel_Customer__c	Billing__c	Lookup	Related_Customer__c (example)	Tracks the customer

				associated with each bill.
Item__c	Billing__c	Lookup	Related_Item__c (example)	Maps the jewelry item to its billing record.
Price__c	(Referenced in) Item__c / Billing__c	Lookup or Formula Reference	Gold_Price__c / Silver_Price__c	Not directly related via lookup, but referenced in formula fields for price use.

Relationship Flow Summary

The relationships can be summarized in this logical order:



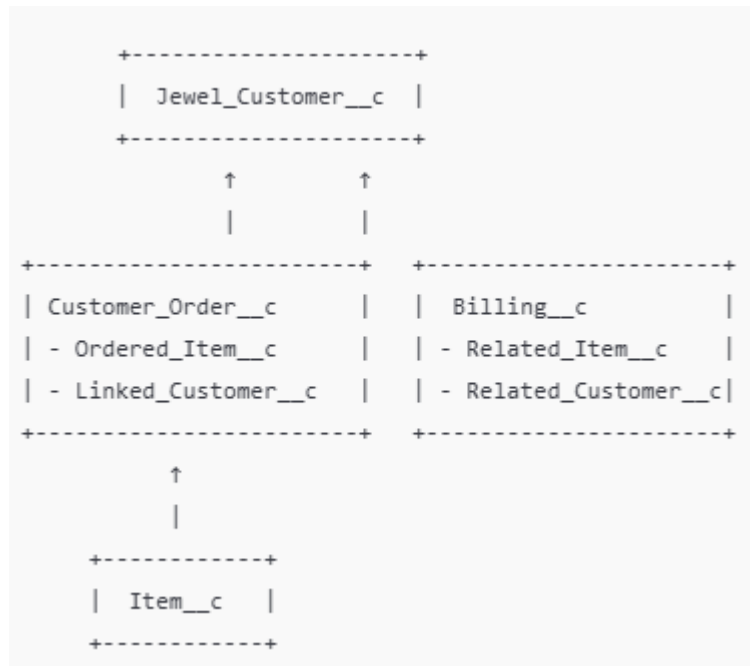
This implies:

- A customer places an order for a specific item
- A billing record is generated for that order, pulling customer and item details
- Price__c is used as a reference for gold/silver pricing in calculations

Visual ERD Illustration (Sample)

While this cannot display an actual image here, you should generate a diagram that looks like this in Draw.io or Lucidchart (example text for your doc):

“The diagram below shows the lookup relationships between core custom objects. Arrows point from child to parent.”



Use Case Explanation

Example Scenario:

Dinesh (Jewel_Customer__c) orders a Gold Necklace (Item__c). The system creates a Customer Order (Customer_Order__c) linking both the customer and item. Once the order is processed, a Billing record (Billing__c) is generated with references to the same customer and item. Pricing is calculated using fields and formula referencing values from Price__c (not directly related via lookup).

How You Can Create It Practically

Option 1: Schema Builder (Salesforce Native Tool)

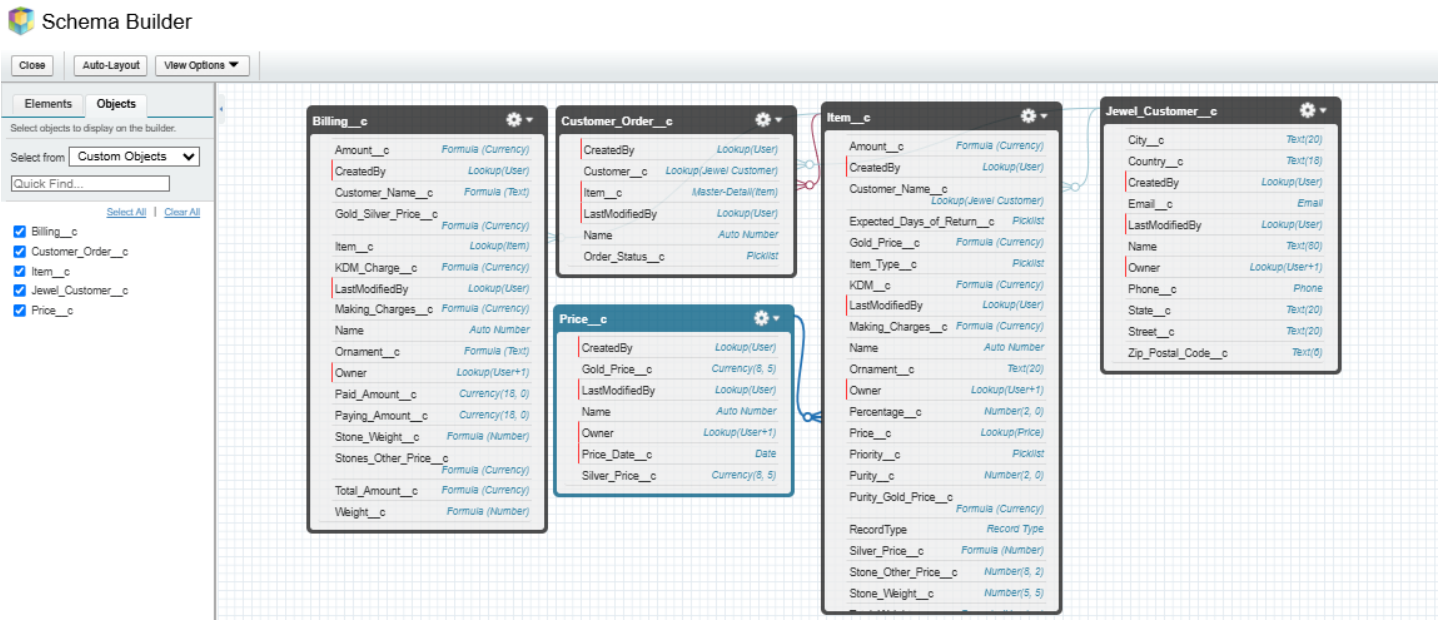
1. Go to Setup → Search Schema Builder
2. Drag your objects: Jewel_Customer__c, Customer_Order__c, Item__c, Billing__c, Price__c
3. View the lookup relationships visually
4. Take a screenshot and paste it into your document

Option 2: Draw.io / Lucidchart

1. Go to <https://draw.io> or <https://lucidchart.com>
2. Use Entity shapes to create object boxes
3. Use arrows with labels (e.g., "Lookup") to show relationships

4. Export as PNG or JPEG

5. Insert into your Word/PDF documentation under the “ERD” section



I. User Profiles and Permission Management

Overview:

Profiles in Salesforce determine the level of access and control that a user has over various features and data within the organization. They define permissions related to:

- Object-level access
- Field-level access
- Tab and App visibility
- Apex class and Visualforce page access
- Record Types, Page Layouts
- Login hours and IP restrictions

To ensure data security and task-based functionality for different users in the CRM for Jewel Management system, custom profiles were created and configured.

A. Types of Profiles in Salesforce

1. Standard Profiles (Predefined, cannot be deleted):

- System Administrator
- Standard User

- Read Only
- Marketing User
- Contract Manager
- Solutions Manager

These come with default permissions and are typically used for basic or administrative users.

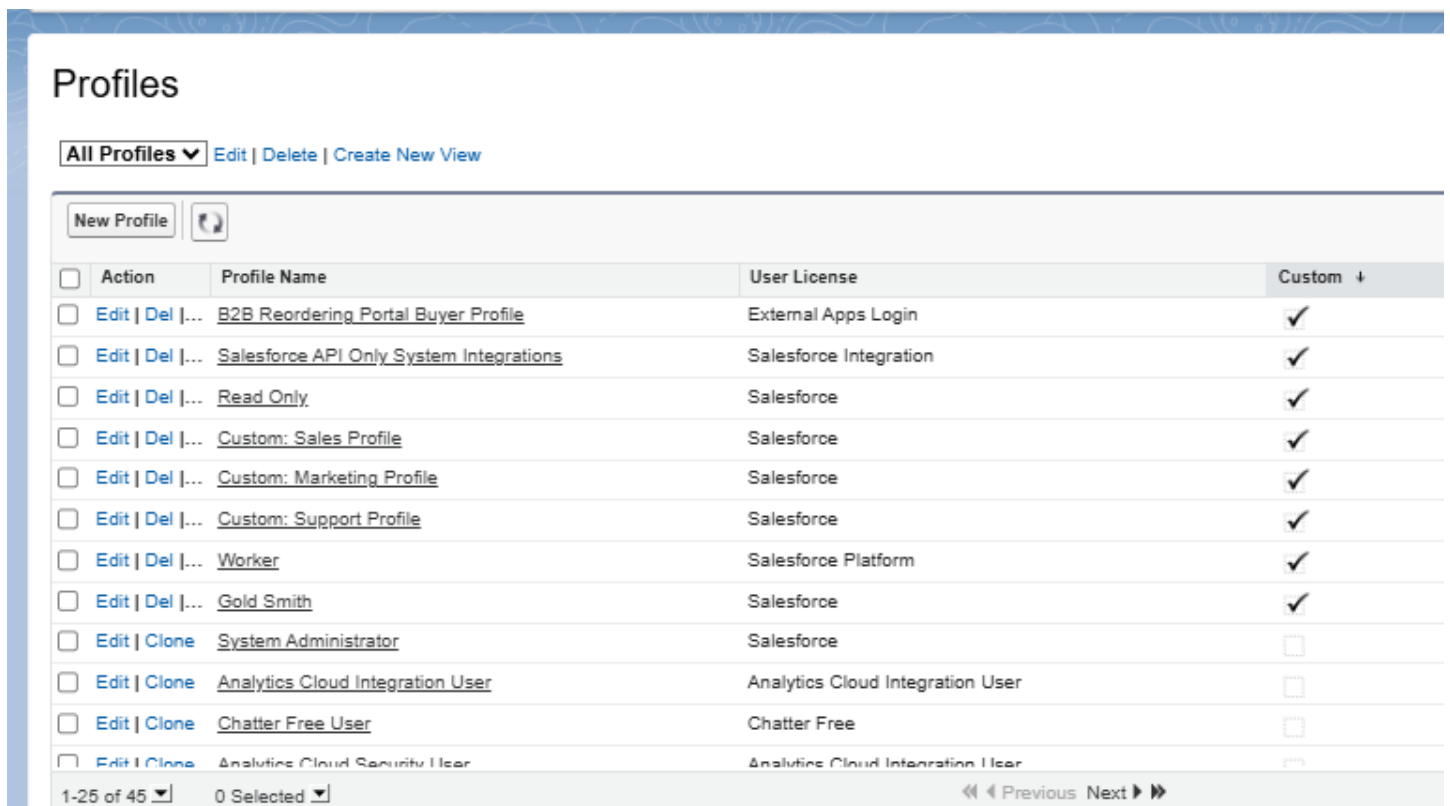
2. Custom Profiles (User-defined, can be deleted if not in use):

- Custom profiles were created to align with organizational roles such as Goldsmith and Worker to provide **role-based access control**.

B. Use Case Scenario: Role-Based Access

The Goldsmith (business owner) requested differentiated access for users based on their **role and responsibilities**:

- **Gold Smith:** Needs full access to manage customers, items, orders, pricing, and billing.
- **Worker:** Needs access to item management and order handling but **should not access sensitive customer or billing data**.



The screenshot shows the 'Profiles' page in Salesforce. At the top, there's a header 'Profiles' and a sub-header 'All Profiles' with links for 'Edit', 'Delete', and 'Create New View'. Below this is a 'New Profile' button and a table of profiles. The table has columns for 'Action', 'Profile Name', 'User License', and 'Custom'. The profiles listed are: B2B Reordering Portal Buyer Profile, Salesforce API Only System Integrations, Read Only, Custom: Sales Profile, Custom: Marketing Profile, Custom: Support Profile, Worker, Gold Smith, System Administrator, Analytics Cloud Integration User, Chatter Free User, and Analytics Cloud Security User. The 'Custom' column shows checkmarks for the first seven profiles and empty boxes for the last four.

Action	Profile Name	User License	Custom
<input type="checkbox"/> Edit Del ...	B2B Reordering Portal Buyer Profile	External Apps Login	✓
<input type="checkbox"/> Edit Del ...	Salesforce API Only System Integrations	Salesforce Integration	✓
<input type="checkbox"/> Edit Del ...	Read Only	Salesforce	✓
<input type="checkbox"/> Edit Del ...	Custom: Sales Profile	Salesforce	✓
<input type="checkbox"/> Edit Del ...	Custom: Marketing Profile	Salesforce	✓
<input type="checkbox"/> Edit Del ...	Custom: Support Profile	Salesforce	✓
<input type="checkbox"/> Edit Del ...	Worker	Salesforce Platform	✓
<input type="checkbox"/> Edit Del ...	Gold Smith	Salesforce	✓
<input type="checkbox"/> Edit Clone	System Administrator	Salesforce	
<input type="checkbox"/> Edit Clone	Analytics Cloud Integration User	Analytics Cloud Integration User	
<input type="checkbox"/> Edit Clone	Chatter Free User	Chatter Free	
<input type="checkbox"/> Edit Clone	Analytics Cloud Security User	Analytics Cloud Integration User	

1-25 of 45 0 Selected << Previous Next >>

C. Implementation Activities

1. Gold Smith Profile Creation

- **Objective:** To allow full access to all business-critical objects.
- **Steps:**
 1. Navigate to **Setup** → **Profiles**
 2. Clone the **System Administrator** profile
 3. Name the new profile: Gold Smith
 4. Save and then click **Edit**
 5. Under **Custom Object Permissions**, provide full CRUD access to:
 - Jewel Customer
 - Item
 - Customer Order
 - Price
 - Billing
 6. Click **Save** to confirm permissions
- **Outcome:** The Gold Smith user can create, edit, view, and delete records across all core objects.

The screenshot shows the Salesforce Setup interface for the 'Gold Smith' profile. The page is titled 'Profiles' and includes a 'Help for this Page' link. Below the title, there is a section for 'Profile Detail' with buttons for 'Edit', 'Clone', 'Delete', and 'View Users'. The profile details include: Name: Gold Smith, User License: Salesforce, Custom Profile: checked, Description: (empty), Created By: Korravi Sravya TEAM, 17/08/2025, 9:52 am, and Modified By: Korravi Sravya TEAM, 18/08/2025, 1:02 am. Below the profile details, there is a section for 'Page Layouts' with a table showing the layout assignments for various objects.

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

Custom Object Permissions							
	Basic Access				Data Administration		
	Read	Create	Edit	Delete	View All Records	Modify All Records	View All Fields
Billings	✓	✓	✓	✓	✓	✓	<input type="checkbox"/>
Customer Orders	✓	✓	✓	✓	✓	✓	<input type="checkbox"/>
Items	✓	✓	✓	✓	✓	✓	<input type="checkbox"/>
Session Settings							

2. Worker Profile Creation

- **Objective:** To limit access only to objects necessary for daily operations.
- **Steps:**
 1. Navigate to **Setup** → **Profiles**
 2. Clone the **Salesforce Platform User** profile
 3. Name the new profile: **Worker**
 4. Save and then click **Edit**
 5. Under **Custom Object Permissions**, grant access only to:
 - Item
 - Price
 - Customer Order
 6. Deny access to:
 - Jewel Customer
 - Billing
 7. Click **Save**

- **Outcome:** The Worker user can manage inventory and order processing without accessing sensitive financial or customer data.

Profile: Worker

Users with this profile have the permissions and page layouts listed below. Administrators can change a user's profile by editing that user's personal information.

If your organization uses Record Types, use the Edit links in the Record Type Settings section below to make one or more record types available to users with this profile.

[Login IP Ranges](#) |
 [Enabled Apex Class Access](#) |
 [Enabled Visualforce Page Access](#) |
 [Enabled External Data Source Access](#) |
 [Enabled Named Credential Access](#) |
 [Enabled External Credential Principal Access](#) |
 [Enabled Custom Metadata Type Access](#) |
 [Enabled Custom Setting Definitions Access](#) |
 [Enabled Flow Access](#) |
 [Enabled Service Presence Status Access](#) |
 [Enabled Custom Permissions](#)

Profile Detail [Edit](#) [Clone](#) [Delete](#) [View Users](#)

Name	Worker		
User License	Salesforce Platform	Custom Profile	✓
Description			
Created By	Korrayi Sravya TEAM, 17/06/2025, 9:56 am	Modified By	Korrayi Sravya TEAM, 18/06/2025, 1:02 am

Page Layouts

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

Custom Object Permissions

	Basic Access				Data Administration		
	Read	Create	Edit	Delete	View All Records	Modify All Records	View All Fields
Billings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Customer Orders	✓	<input type="checkbox"/>	✓	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Items	✓	<input type="checkbox"/>	✓	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Basic Access				Data Administration		
	Read	Create	Edit	Delete	View All Records	Modify All Records	View All Fields
Jewel Customers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Prices	✓	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Session Settings

Session Times Out After: 2 hours of inactivity

Session Security Level Required at Login

D. Benefits and Security Measures

- **Data Protection:** Ensures sensitive data like customer information and payment amounts are not accessible by junior staff.
- **Operational Efficiency:** Enables each role to access only the data and tools required for their job function.
- **Scalability:** Profiles can be reused and extended for new roles in the future.

Summary Table – Custom Profiles

Profile Name	Cloned From	Object Access Granted	Notes
Gold Smith	System Administrator	Jewel Customer, Item, Order, Billing, Price	Full Access
Worker	Salesforce Platform User	Item, Price, Customer Order	Restricted – no billing/customer

J. Role Hierarchy and Record-Level Access Control

Overview

In Salesforce, **Roles** are used to control **record-level access** based on a user's position in the organization. Unlike profiles (which control object-level permissions), roles determine **what records a user can see and share** based on the hierarchy. By assigning users to different roles, administrators can implement **data visibility control** that mimics the company's organizational structure.

A. Use Case: Role-Based Record Visibility

After successfully setting up profiles to control *permissions and object-level access*, the next step is to configure roles that determine *record visibility* within the organization.

Requirement:

The organization wants to implement a structure where:

- The **Gold Smith (Manager)** has visibility over all records under him.
- The **Worker (Subordinate)** only sees records they own or are explicitly shared with them.

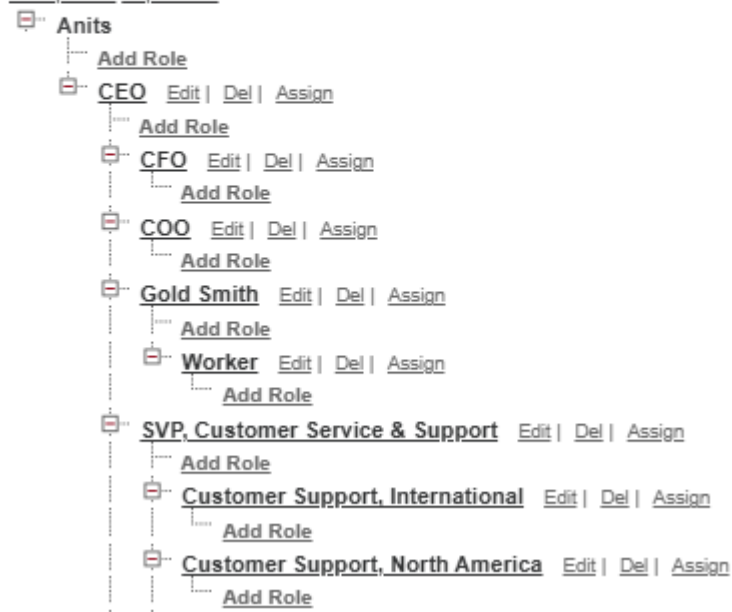
This ensures **secure and hierarchical data access**, improving data control and clarity.

Creating the Role Hierarchy

You can build on the existing role hierarchy shown on this page. To insert a new

Your Organization's Role Hierarchy

[Collapse All](#) [Expand All](#)



B. Implementation Steps

1. Create Role: Gold Smith

- **Navigation:**

Go to **Setup** → **Roles** → **Set Up Roles**

Alternatively, use Quick Find and type “Roles”.

- **Steps:**

1. Click on **Expand All** to view the default hierarchy.
2. Choose the appropriate parent (e.g., CEO or any top-level role).
3. Click **Add Role** under the selected parent.
4. Fill the following:
 - **Label:** Gold Smith
 - **Role Name:** (Auto-populated)
 - **This Role Reports To:** Select as per organization (e.g., CEO or another higher role)
5. Click **Save**

SETUP Roles

Role: **Gold Smith** [Help for this Page](#)

Below is the list of users assigned to this role. Click Edit to modify the role name. Click Assign Users to Role to assign existing users to this role. Click New User to create a user for this role.

Hierarchy: Anits » [CEO](#) » Gold Smith
 Siblings: [SVP, Sales & Marketing](#), [SVP, Customer Service & Support](#), [CEO](#), [SVP, Human Resources](#), [COO](#)

[Users in Gold Smith Role \(1\)](#)

Role Detail [Edit](#) [Delete](#)

Label	Gold Smith	Role Name	Gold_Smith
This role reports to	CEO	Role Name as displayed on reports	
Modified By	Korrayi Sravya_TEAM , 17/06/2025, 10:01 am	Sharing Groups	Role , Role and Internal Subordinates
Opportunity Access	Users in this role can edit all opportunities associated with accounts that they own, regardless of who owns the opportunities		
Case Access	Users in this role can edit all cases associated with accounts that they own, regardless of who owns the cases		

Users in Gold Smith Role [Assign Users to Role](#) [New User](#) [Users in Gold Smith Role Help](#)

Action	Full Name	Alias	Username	Active
Edit	Niklaus Mikaelson	N.Mika	niklaus@jewelcrm.com	✓

- **Outcome:**

The Gold Smith role is now part of the hierarchy and can be assigned to users responsible for managing inventory, billing, and customers.

2. Create Role: Worker


- **Steps:**

1. Under the **Gold Smith** role, click on **Add Role**.

2. Enter:

- **Label:** Worker
- **Role Name:** (Auto-populated)
- **This Role Reports To:** Gold Smith


3. Click **Save**

 **SETUP**
Roles

Role
Worker
Below is the list of users assigned to this role. Click Edit to modify the role name. Click Assign Users to Role to assign existing users to this role. Click New User to create a user for this role.
Hierarchy: Anits » [CEO](#) » [Gold Smith](#) » Worker
[Users in Worker Role \(2\)](#)

Role Detail Edit Delete

Label	Worker	Role Name	Worker
This role reports to	Gold Smith	Role Name as displayed on reports	
Modified By	Korrayi Sravya TEAM , 17/08/2025, 10:02 am	Sharing Groups	Role, Role and Internal Subordinates
Opportunity Access	Users in this role can edit all opportunities associated with accounts that they own, regardless of who owns the opportunities		
Case Access	Users in this role can edit all cases associated with accounts that they own, regardless of who owns the cases		

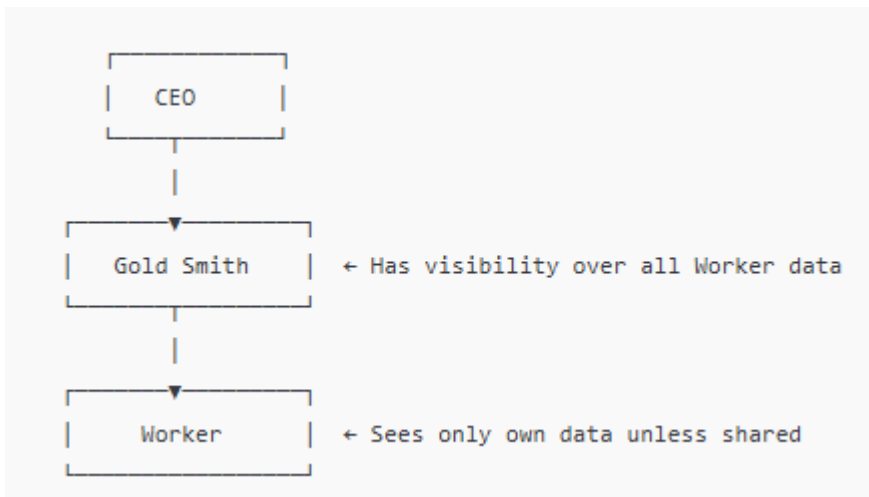
 **Users in Worker Role** Assign Users to Role New User [Users in Worker Role Help](#)

Action	Full Name	Alias	Username	Active
Edit	Kol Mikaelson	K.Mika	kol@jewelcrm.com	✓
Edit	Elijah Mikaelson	E.Mika	elijah@jewelcrm.com	✓

- **Outcome:**

Workers now fall directly under the Gold Smith in the role hierarchy and will only have access to records they own unless shared.

C. Visual Example of Role Hierarchy



D. Role Assignment to Users

Once roles are created, assign them to users based on their job role in the org:

1. Go to **Setup** → **Users** → **Users**
2. Edit the user record
3. Under **Role**, select either:
 - Gold Smith (for managers/owners)
 - Worker (for general staff)
4. Click **Save**

E. Benefits of Role Hierarchy

Feature	Benefit
Record-level visibility	Users can see only the data they need
Managerial oversight	Higher roles can access subordinate records
Secure sharing	Prevents unauthorized access to sensitive records
Collaboration	Enables efficient data flow between team levels

Role	Reports To	Visibility Scope	Assigned To
Gold Smith	CEO/Admin	Full access to all records under hierarchy	Owner, Admin, Supervisor
Worker	Gold Smith	Access to own records	Staff, Entry-level workers

K. User Creation and Access Configuration

Overview

Users in Salesforce are individuals who have a **login ID and profile** and are granted specific access to objects, records, and features. Each user must be assigned a **profile**, and optionally a **role**, to define **what they can see and do** in the system. In this CRM for Jewel Management project, users are created and configured to reflect the actual organizational hierarchy and job responsibilities.


A. Use Case

The Goldsmith requested that users be created for different positions such as managers and workers. These users must be provided with **appropriate access** (via profiles and roles) to perform their job functions, such as managing orders, inventory, and billing.

B. Key User Account Attributes

Each user account in Salesforce includes the following mandatory and configurable details:

Field	Description
First Name	User's first name (optional)
Last Name	User's last name (required)
Alias	Shortened identifier for the user
Email	Email address used for notifications and login
Username	Must be unique across all Salesforce orgs
Nickname	Displayed in the app UI (for communities, etc.)
User License	Determines available features and permissions
Profile	Determines object-level and field-level access
Role	Controls record visibility within the org


SETUP
Users

All Users Help for this Page

On this page you can create, view, and manage users.

To get more licenses, use the Your Account app. [Let's Go](#)

View: All Users Edit Create New View

A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Other | **All**

New User
Reset Password(s)
Add Multiple Users

<input type="checkbox"/> Action	Full Name *	Alias	Username	Role	Active	Profile
<input type="checkbox"/> Edit	Chatter Expert	Chatter	chatty.00d9k000005d8gbuac.edglikk4vovta@chatter.salesforce.com		✓	Chatter Free User
<input type="checkbox"/> Edit Login	EPIC, OrgFarm	OEPIE	epic.d49bb27fa778@orgfarm.com		✓	System Administrator
<input type="checkbox"/> Edit Login	Mikaelson, Elijah	E.Mika	elijah@jewelcrm.com	Worker	✓	Worker
<input type="checkbox"/> Edit Login	Mikaelson, Kol	K.Mika	kol@jewelcrm.com	Worker	✓	Worker
<input type="checkbox"/> Edit Login	Mikaelson, Niklaus	N.Mika	niklaus@jewelcrm.com	Gold Smith	✓	Gold Smith
<input type="checkbox"/> Edit	TEAM, Korrayi Sravya	KSDKBDAY	ketanadinesh.22.it402@agentforce.com		✓	System Administrator
<input type="checkbox"/> Edit	User, Integration	integ	integration@00d9k000005d8gbuac.com		✓	Analytics Cloud Integration User
<input type="checkbox"/> Edit	User, Security	sec	insightssecurity@00d9k000005d8gbuac.com		✓	Analytics Cloud Security User

New User
Reset Password(s)
Add Multiple Users


C. User Creation Activities

Activity 1: Create User – Gold Smith

- **Navigation:**
Setup → Users → Click **New User**
- **Input Details:**

Field	Value
First Name	Niklaus
Last Name	Mikaelson
Alias	n.mikaelson
Email	niklaus@email.com
Username	niklaus@email.com
Nickname	nick
User License	Salesforce
Profile	Gold Smith
Role	Gold Smith

- **Click: Save**


Users

User

Niklaus Mikaelson

[User Profile](#)
[Help for this Page](#)

[Permission Set Assignments](#) |
 [Permission Set Assignments: Activation Required](#) |
 [Permission Set Group Assignments](#) |
 [Permission Set License Assignments](#) |
 [Personal Groups](#) |
 [Public Group Membership](#) |
 [Queue Membership](#) |
 [Team](#) |
 [Managers in the Role Hierarchy](#) |
 [OAuth Apps](#) |
 [Third-Party Account Links](#) |
 [Installed Mobile Apps](#) |
 [Authentication Settings for External Systems](#) |
 [Login History](#) |
 [User Provisioning Accounts](#)

User Detail

[Edit](#)
[Sharing](#)
[Reset Password](#)
[Login](#)
[Freeze](#)
[View Summary](#)

Name	Niklaus Mikaelson	Role	Gold Smith
Alias	N.Mika	User License	Salesforce
Email	ketanadinesh.22.it@anits.edu.in Verify	Profile	Gold Smith
Username	niklaus@jewelcrm.com	Active	<input checked="" type="checkbox"/>
Nickname	nik.m i	Marketing User	<input type="checkbox"/>
Title		Offline User	<input type="checkbox"/>
Company		Knowledge User	<input type="checkbox"/>
Department		Flow User	<input type="checkbox"/>
Division		Service Cloud User	<input type="checkbox"/>
Address		Site.com Contributor User	<input type="checkbox"/>
Time Zone	(GMT-07:00) Pacific Daylight Time (America/Los_Angeles)	Site.com Publisher User	<input type="checkbox"/>
Locale	English (United States)	WDC User	<input type="checkbox"/>
Language	English	Mobile Push Registrations	View
Delegated Approver		Data.com User Type	i

Activity 2: Create User – Worker

- **Navigation:**
Setup → Users → Click **New User**

- **Input Details:**

Field	Value
First Name	Kol
Last Name	Mikaelson
Alias	k.mikaelson
Email	kol@email.com
Username	kol@email.com
Nickname	kolm
User License	Salesforce Platform
Profile	Worker
Role	Worker

- **Click: Save**

SETUP Users

User **Kol Mikaelson** [User Profile Help for this Page](#)

[Permission Set Assignments \(1\)](#) | [Permission Set Assignments: Activation Required \(0\)](#) | [Permission Set Group Assignments \(0\)](#) | [Permission Set License Assignments \(0\)](#) | [Personal Groups \(0\)](#) | [Public Group Membership \(0\)](#) | [Queue Membership \(0\)](#) | [Team \(0\)](#) | [Managers in the Role Hierarchy \(1\)](#) | [OAuth Apps \(0\)](#) | [Third-Party Account Links \(0\)](#) | [Installed Mobile Apps \(0\)](#) | [Authentication Settings for External Systems \(0\)](#) | [Login History \(0+\)](#) | [User Provisioning Accounts \(0\)](#)

User Detail [Edit](#) [Sharing](#) [Reset Password](#) [Login](#) [Freeze](#) [View Summary](#)

Name	Kol Mikaelson	Role	Worker
Alias	K.Mika	User License	Salesforce Platform
Email	ketanadinesh.22.ii@anits.edu.in Verify	Profile	Worker
Username	kol@jewelcrm.com	Active	<input checked="" type="checkbox"/>
Nickname	kol.m i	Marketing User	<input type="checkbox"/>
Title		Offline User	<input type="checkbox"/>
Company		Knowledge User	<input type="checkbox"/>
Department		Flow User	<input type="checkbox"/>
Division		Service Cloud User	<input type="checkbox"/>
Address		Site.com Contributor User	<input type="checkbox"/>
Time Zone	(GMT-07:00) Pacific Daylight Time (America/Los_Angeles)	Site.com Publisher User	<input type="checkbox"/>
Locale	English (United States)	WDC User	<input type="checkbox"/>
Language	English	Mobile Push Registrations	View
Delegated Approver		Data.com User Type	i

D. Activity 3: Create Additional Users

Following the same steps as above, create **two more users** using the **Worker** profile. Ensure:

- Different unique usernames (e.g., rebekah@email.com, elijah@email.com)
- Email IDs may be placeholders or real for demo purposes

- Assign both the **Worker profile** and **Worker role**

E. Summary of Users Created

User Name	Role	Profile	License
Niklaus Mikaelson	Gold Smith	Gold Smith	Salesforce
Kol Mikaelson	Worker	Worker	Salesforce Platform
Rebekah Mikaelson	Worker	Worker	Salesforce Platform
Elijah Mikaelson	Worker	Worker	Salesforce Platform

The screenshot shows the Salesforce 'Users' page. At the top, there's a 'SETUP Users' header. Below it, the user profile for 'Elijah Mikaelson' is displayed. The profile includes a navigation bar with links like 'Permission Set Assignments', 'Team', and 'Managers in the Role Hierarchy'. The main section is titled 'User Detail' and contains a table of user information. The table has two columns: 'Name' and 'Value'. The 'Name' column lists various attributes like Name, Alias, Email, Username, Nickname, Title, Company, Department, Division, Address, and Time Zone. The 'Value' column provides the corresponding values for these attributes. For example, the Name is 'Elijah Mikaelson', the Email is 'ketanadinesh.22.it@anits.edu.in', and the Username is 'elijah@jewelcrm.com'. The 'Role' is 'Worker' and the 'User License' is 'Salesforce Platform'. The 'Profile' is also 'Worker'. The 'Active' checkbox is checked. There are also checkboxes for 'Marketing User', 'Offline User', 'Knowledge User', 'Flow User', 'Service Cloud User', 'Site.com Contributor User', and 'Site.com Publisher User'. At the bottom, the 'Time Zone' is set to '(GMT-07:00) Pacific Daylight Time (America/Los_Angeles)'.

Name	Value
Name	Elijah Mikaelson
Alias	E.Mika
Email	ketanadinesh.22.it@anits.edu.in Verify
Username	elijah@jewelcrm.com
Nickname	elijah.m i
Title	
Company	
Department	
Division	
Address	
Time Zone	(GMT-07:00) Pacific Daylight Time (America/Los_Angeles)
Role	Worker
User License	Salesforce Platform
Profile	Worker
Active	<input checked="" type="checkbox"/>
Marketing User	<input type="checkbox"/>
Offline User	<input type="checkbox"/>
Knowledge User	<input type="checkbox"/>
Flow User	<input type="checkbox"/>
Service Cloud User	<input type="checkbox"/>
Site.com Contributor User	<input type="checkbox"/>
Site.com Publisher User	<input type="checkbox"/>

Benefits of User Management in Salesforce

- Enables **secure access control** tailored to user responsibilities.
- Ensures **data segregation** between managerial and operational roles.
- Supports **auditing, tracking, and accountability** for transactions.
- Simplifies **user-based automation**, email alerts, and workflow targeting.

L. Record Types Implementation

Overview

Record Types in Salesforce allow administrators to display **different page layouts, picklist values, and field-level requirements** for the same object. This feature helps organizations **customize data entry forms** based on user roles, record category (e.g., Gold vs Silver), or business process variations—all while using the same object model.

In the CRM for Jewel Management project, **Record Types** were created for **Gold** and **Silver** jewelry items to simplify the user experience, ensuring that users only see and input information relevant to the specific ornament type.

Use Case

The organization required **customized forms** for different types of items (Gold vs Silver). The GoldSmith requested that data entry should be simplified by showing only the relevant fields when creating or editing records. To solve this:

- A **Gold Record Type** was created using a layout optimized for gold-specific fields.
- A **Silver Record Type** was created using a layout optimized for silver-specific fields. This helps streamline data entry and avoid confusion.

Activity 1: Create Record Type – Gold

Steps:

1. **Navigate to Setup** → Object Manager → Search for **Item**
2. Click on **Record Types** under the Item object.
3. Click **New** to create a new Record Type.
4. Fill the following details:
 - **Existing Record Type:** Master
 - **Record Type Label:** Gold
 - **Record Type Name:** Auto-populated as Gold
 - **Description:** Gold items information
5. **Uncheck** “Make Available” for all profiles (to customize visibility).
6. **Check Access** for the following profiles only:
 - Gold Smith
 - Worker
 - System Administrator
7. Click **Next**
8. Choose: “**Apply a different layout for each profile**”
9. Assign the following layouts:
 - **Gold Smith** → Page Layout for Gold

- **Worker** → Page Layout for Gold
- **System Administrator** → Page Layout for Gold

10. Click **Save & New**

Record Type
Gold
[Back to Custom Object: Item](#)

Use the Edit button to change the properties of this record type. Use the Edit links in the Picklist Values related list to choose the picklist values available for records with this record type.

[Edit](#)

Record Type Label	Gold	Active	✓
Record Type Name	Gold		
Namespace Prefix			
Description	Gold items information		
Created By	Korrayi Sravya TEAM	Modified By	Korrayi Sravya TEAM
	17/06/2025, 10:26 am		17/06/2025, 10:26 am

Picklists Available for Editing [Picklists Available for Editing Help](#)

Action	Field	Modified Date
Edit	Expected Days of Return	17/06/2025, 10:26 am
Edit	Item Type	17/06/2025, 10:26 am
Edit	Priority	17/06/2025, 10:26 am

Activity 2: Create Record Type – Silver

Repeat the steps from Activity 1 with the following changes:

- **Record Type Label:** Silver
- **Description:** Silver items information
- Assign layout as **Page Layout for Silver** for all selected profiles (Gold Smith, Worker, System Administrator).

Record Type
Silver
[Back to Custom Object: Item](#)

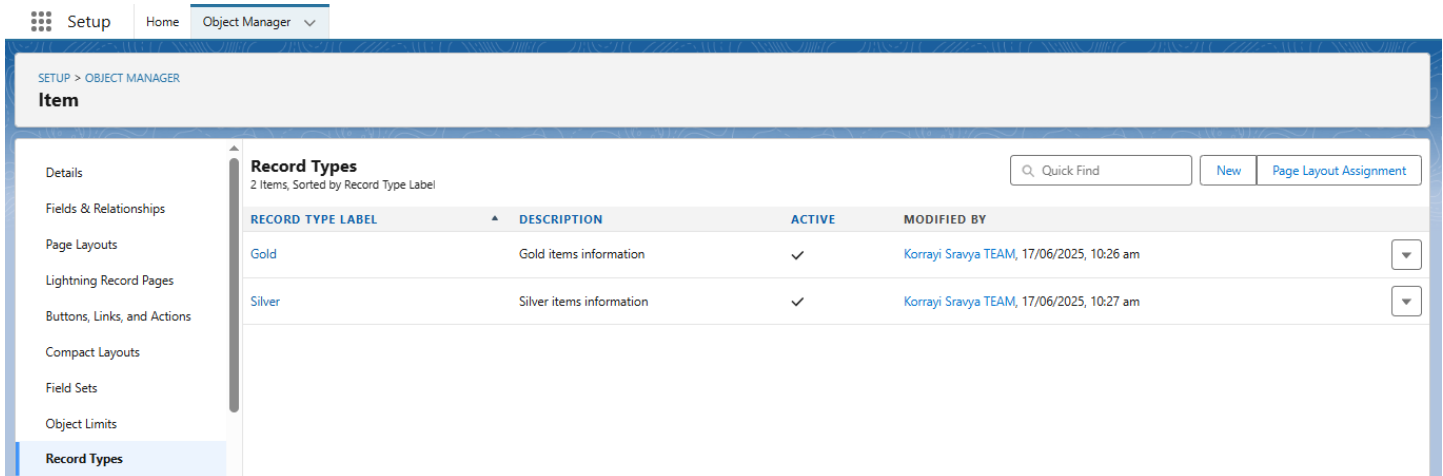
Use the Edit button to change the properties of this record type. Use the Edit links in the Picklist Values related list to choose the picklist values available for records with this record type.

[Edit](#)

Record Type Label	Silver	Active	✓
Record Type Name	Silver		
Namespace Prefix			
Description	Silver items information		
Created By	Korrayi Sravya TEAM	Modified By	Korrayi Sravya TEAM
	17/06/2025, 10:27 am		17/06/2025, 10:27 am

Picklists Available for Editing [Picklists Available for Editing Help](#)

Action	Field	Modified Date
Edit	Expected Days of Return	17/06/2025, 10:27 am
Edit	Item Type	17/06/2025, 10:27 am
Edit	Priority	17/06/2025, 10:27 am



Benefits of Using Record Types

- Customizes the **user interface** based on item category (Gold/Silver)
- Reduces **data entry errors** by showing only relevant fields
- Simplifies **training and onboarding** for workers and staff
- Improves **data accuracy and reporting** by segmenting records properly

M. Permission Sets Configuration

Overview

Permission Sets in Salesforce provide a way to grant users access to specific objects, fields, or functionality **without altering their profile**. Unlike profiles (which are limited to one per user), **multiple permission sets can be assigned** to users, allowing more flexible and scalable access management.

In the **CRM for Jewel Management** system, we used permission sets to **grant additional access rights to users with the Worker profile**. This ensures they can handle Gold and Silver item records while maintaining overall profile-based access restrictions.

Use Case

While users with the **Worker profile** had basic access, they also needed permissions to:

- View and work on **Gold** and **Silver** item records
- Create and update inventory items with appropriate record types

Instead of modifying the Worker profile, we created a **Permission Set** to grant this functionality without disrupting role-based access structure.



SETUP

Permission Sets

Permission Sets

[Help for this Page](#)

On this page you can create, view, and manage permission sets.

All Permission Sets | [Edit](#) | [Delete](#) | [Create New View](#)

[New](#)

[A](#) | [B](#) | [C](#) | [D](#) | [E](#) | [F](#) | [G](#) | [H](#) | [I](#) | [J](#) | [K](#) | [L](#) | [M](#) | [N](#) | [O](#) | [P](#) | [Q](#) | [R](#) | [S](#) | [T](#) | [U](#) | [V](#) | [W](#) | [X](#) | [Y](#) | [Z](#) | [Other](#)

<input type="checkbox"/> Action	Permission Set Name ↑	Description	License
<input type="checkbox"/> Clone	Partner Connect Partner Admin Setup	Set up Partner Connect from a partner org. Partner Connect is a Partn...	Salesforce
<input type="checkbox"/> Clone	Payments Administrator	Has all the user permissions to gate access to APIs that are available ...	Salesforce Payments Internal
<input type="checkbox"/> Del Clone	Per to Worker	Permission set for Worker profile to access Item object & Gold/Silver ...	
<input type="checkbox"/> Clone	Prompt Template Manager	Manage prompt templates using Prompt Builder and run them using g...	Einstein Prompt Templates
<input type="checkbox"/> Clone	Prompt Template User	Run prompt templates using generative AI features.	Einstein Prompt Templates
<input type="checkbox"/> Clone	PromptTemplatePermSet		Cloud Integration User
<input type="checkbox"/> Clone	Publish Suggested for You Nudges: Integration User	Access the Core Adoption Service and tenant orgs, which are used to ...	Cloud Integration User

Activity: Create and Assign Permission Set to Worker Users

Step 1: Create Permission Set

1. Go to **Setup** → search **Permission Sets** in Quick Find box → click **New**.
2. Enter the following:
 - **Label:** Per to Worker
 - **API Name:** (auto-filled)
3. Click **Save**



SETUP

Permission Sets

Permission Set

Per to Worker

[Video Tutorial](#) | [Help for this Page](#)

[Clone](#) [Edit Properties](#) [Manage Assignments](#) [View Summary](#)

Permission Set Overview

Description	Permission set for Worker profile to access Item object & Gold/Silver Record Types	API Name	Per_to_Worker
License		Namespace Prefix	
Session Activation Required	<input type="checkbox"/>	Created By	Korrayi Sravya TEAM, 17/06/2025, 11:29 am
Permission Set Groups Added To	0	Last Modified By	Korrayi Sravya TEAM, 17/06/2025, 11:31 am

Apps

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"

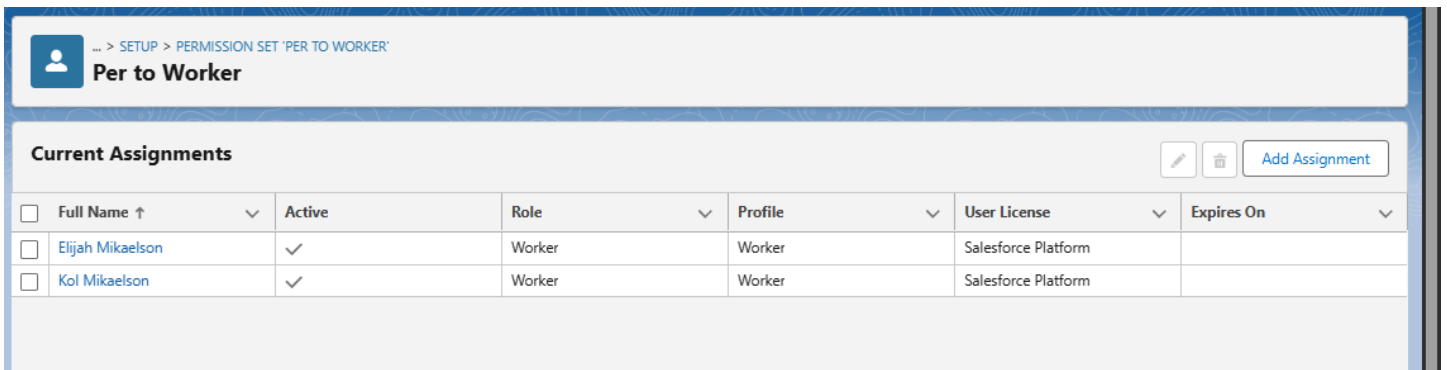
Apex Class Access

Step 2: Configure Object Permissions

1. On the Permission Set detail page, scroll down to **Apps** → click **Object Settings**.
2. Click on **Item** → then click **Edit**.
3. Under **Item: Record Type Assignments**, check both:
 - Gold
 - Silver
4. Under **Object Permissions**, enable:
 - **Read**
 - **Edit**
 - **Create**
5. Click **Save**

Step 3: Assign Permission Set to Users

1. Back on the Permission Set page, click **Manage Assignments**.
2. Click **Add Assignment**
3. From the user list, select users who are assigned the **Worker** profile (e.g., *Kol Mikaelson, any other Worker role users*)
4. Click **Next** → **Assign** → **Done**



... > SETUP > PERMISSION SET 'PER TO WORKER'							
Per to Worker							
Current Assignments							
<input type="checkbox"/>	Full Name ↑	Active	Role	Profile	User License	Expires On	
<input type="checkbox"/>	Elijah Mikaelson	✓	Worker	Worker	Salesforce Platform		
<input type="checkbox"/>	Kol Mikaelson	✓	Worker	Worker	Salesforce Platform		

Benefits of Using Permission Sets

- Extends access without compromising the **principle of least privilege**
- Ensures **Worker users** can manage both Gold and Silver items as needed
- Allows **granular control** over permissions without cloning or editing profiles

- **Future-proof:** Easily assign the same access to new users without editing the base profile

N. Lightning App Setup

Overview

A **Lightning App** in Salesforce provides a consolidated, branded workspace that allows users to access related tabs, objects, and features efficiently. For the *CRM for Jewel Management* project, a custom Lightning App was created to organize navigation and improve user productivity. It helps different users (e.g., Gold Smith, Worker) seamlessly interact with custom objects like Jewel Customer, Item, Billing, etc.

Use Case

After building a complete data model for jewelry management (objects, relationships, automation), it is essential that users can navigate the system easily. This Lightning App ensures that users can access only the relevant tabs they need to perform their roles effectively within the CRM system.

Steps to Create the Lightning App

Step 1: Access the App Manager

- Navigate to:
Setup → Quick Find → App Manager
- Click **New Lightning App**

Step 2: App Details & Branding

- **App Name:** Jewelry Inventory System
- **Developer Name:** Auto-populated

- **Description:** Elevate your look with elegance

←

Lightning App Builder

App Settings

Pages ▾

Jewelry Inventory System

App Settings

App Details & Branding

App Options

Utility Items (Desktop Only)

Navigation Items

User Profiles

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 ⓘ



Clear

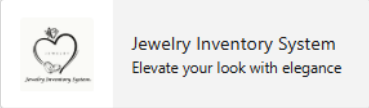
Primary Color Hex Value ⓘ

#986521

Org Theme Options

☐ Use the app's image and color instead of the org's custom theme

App Launcher Preview



- **Logo: (Optional)** Upload if branding image is available
- **Primary Color Hex Value:** Keep default or choose a brand color (e.g., #006DCC)

Click Next

Step 3: App Options

- **Navigation Style:** Console Navigation
 - Rationale: Allows multi-tabbed workspace for efficient multitasking
 - Click Next

←

Lightning App Builder

App Settings

Pages ▾

Jewelry Inventory System

App Settings

App Details & Branding

App Options

Utility Items (Desktop Only)

Navigation Items

User Profiles

App Options

Navigation and Form Factor ⓘ

* Navigation Style

☒ Standard navigation
 ☐ Console navigation

* Supported Form Factors

☒ Desktop and phone
 ☐ Desktop
 ☐ Phone

Setup and Personalization ⓘ

Setup Experience

☒ Setup (full set of Setup options)
 ☐ Service Setup
 ☐ Data Cloud Setup

App Personalization Settings

☐ Disable end user personalization of nav items in this app
 ☐ Disable temporary tabs for items outside of this app
 ☐ Use Omni-Channel sidebar

Step 4: Utility Items

- Leave utility items as default (*e.g., Recent Items, History*)

Click **Next**

Step 5: Navigation Items

- Use the left-hand **Available Items** list to search and add:
 - Jewel Customer
 - Item
 - Customer Order
 - Price
 - Billing
 - Reports
 - Dashboards
- Use the right arrow ➡ to move selected items into the **Selected Items** list
(*This defines the tabs visible to users in the app*)
- Click **Next**

The screenshot shows the 'Navigation Items' configuration screen in the Lightning App Builder. The top navigation bar includes 'Lightning App Builder', 'App Settings', 'Pages', and 'Jewelry Inventory System'. The left sidebar shows 'App Settings' with sub-items: 'App Details & Branding', 'App Options', 'Utility Items (Desktop Only)', 'Navigation Items' (selected), and 'User Profiles'. The main content area is titled 'Navigation Items' and contains a description: 'Choose the items to include in the app, and arrange the order in which they appear. Users can personalize the navigation to add or move items, but users can't remove or rename the items that you add. Some navigation items are available only for phone or only for desktop. These items are dropped from the navigation bar when the app is viewed in a format that the item doesn't support.' Below the description are two columns: 'Available Items' and 'Selected Items'. The 'Available Items' column has a search bar and a list of items: Accounts, Activation Targets, Activations, All Sites, Alternative Payment Methods, Analytics, App Launcher, Appointment Categories, and Appointment Invitations. The 'Selected Items' column has a list of items: Jewel Customers, Customer Orders, Items, Prices, Billings, Reports, and Dashboards. Arrows between the columns allow moving items from available to selected or vice versa.

Step 6: Assign User Profiles

- In the **Profile Assignment** step:
 - Search and select profiles like:

- System Administrator
 - Gold Smith
 - Worker
- Use the right arrow → to add selected profiles
 - Click **Save & Finish**

3. Deployment Process

All components were developed and tested in the Salesforce Sandbox environment and then deployed to the Production Org using the following steps:

- **Change Set Creation:**
A Change Set was created that included custom objects, fields, validation rules, flows, and triggers.
- **Component Validation:**
The components were validated in the target environment to ensure compatibility and no dependency conflicts.
- **Deployment Execution:**
The Change Set was deployed successfully with all components reflected in the live system.
- **Post-Deployment Testing:**
Manual testing and sample record creation were conducted to validate system behavior.

4. Dataset

Since no external datasets were used, the testing and demonstration were performed using sample data records entered into the Salesforce environment for each object.

Sample Data Records:

- **Customers:**
 - Dinesh Ketana, dinesh@gmail.com
 - Dalli Sai Govardhan, govardhan@gmail.com
- **Items:**
 - Gold Necklace – 20g – ₹1,20,000
 - Silver Ring – 10g – ₹8,000
- **Orders and Billing:**
 - Orders were placed for both items by both customers. , Bills were generated with taxes and other charges.