

# **NAAN MUDHALVAN PROJECT REPORT**

## **CRM APPLICATION FOR JEWEL MANAGEMENT**

### **(DEVELOPER)**

**COLLEGE NAME:** SRI KRISHNA ADITHYA COLLEGE OF ARTS AND SCIENCE

**COLLEGE CODE:** bruag

**TEAM ID:** NM2025TMID22818

#### **TEAM MEMBERS:**

Team Leader Name: DHANISH AHAMED

Email: [23bsds112dhanishahamedm@skacas.ac.in](mailto:23bsds112dhanishahamedm@skacas.ac.in)

Team Member 1: BOOMIJA C B

Email: [23bsds109boomijacb@skacas.ac.in](mailto:23bsds109boomijacb@skacas.ac.in)

Team Member 2: BAVANI G

Email: [23bsds108bavanig@skacas.ac.in](mailto:23bsds108bavanig@skacas.ac.in)

Team Member 3: HASAN MUHAMMAD Z

Email: [23bsds118hasanmuhammadz@skacas.ac.in](mailto:23bsds118hasanmuhammadz@skacas.ac.in)

## **1.INTRODUCTION**

### **1.1 PROJECT OVERVIEW**

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

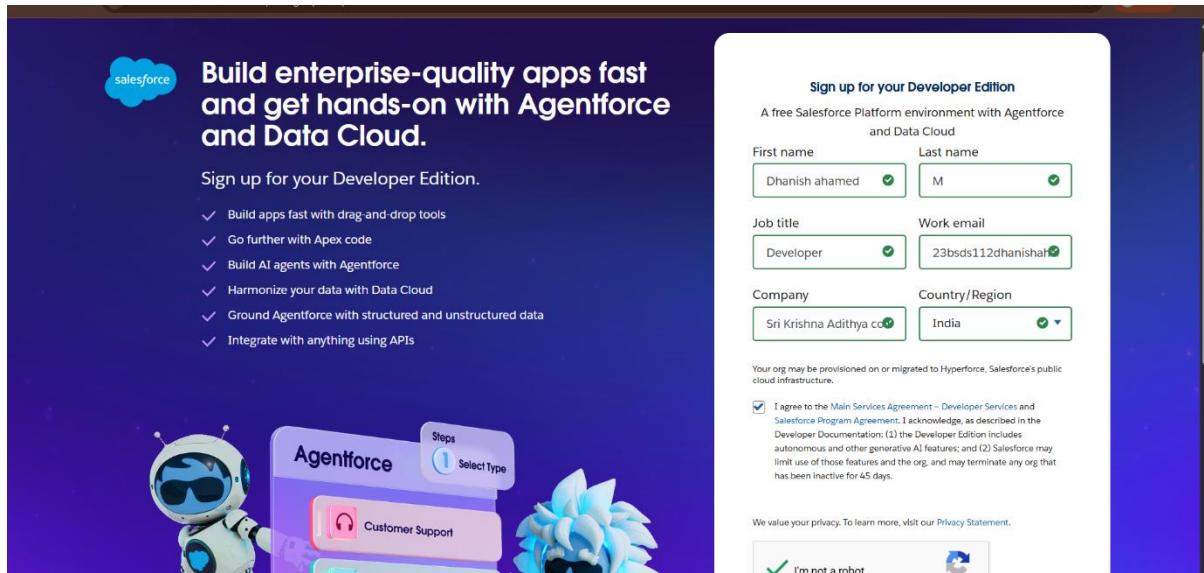
### **1.2 PURPOSE**

The purpose of the Jewel Inventory System is to provide an integrated, user-friendly platform that enables jewelry stores and manufacturers to efficiently manage inventory, track item movement, ensure accurate stock records, and streamline sales operations. It aims to reduce manual errors, enhance operational visibility, and support better decision-making through real-time data and reporting.

## DEVELOPMENT PHASE

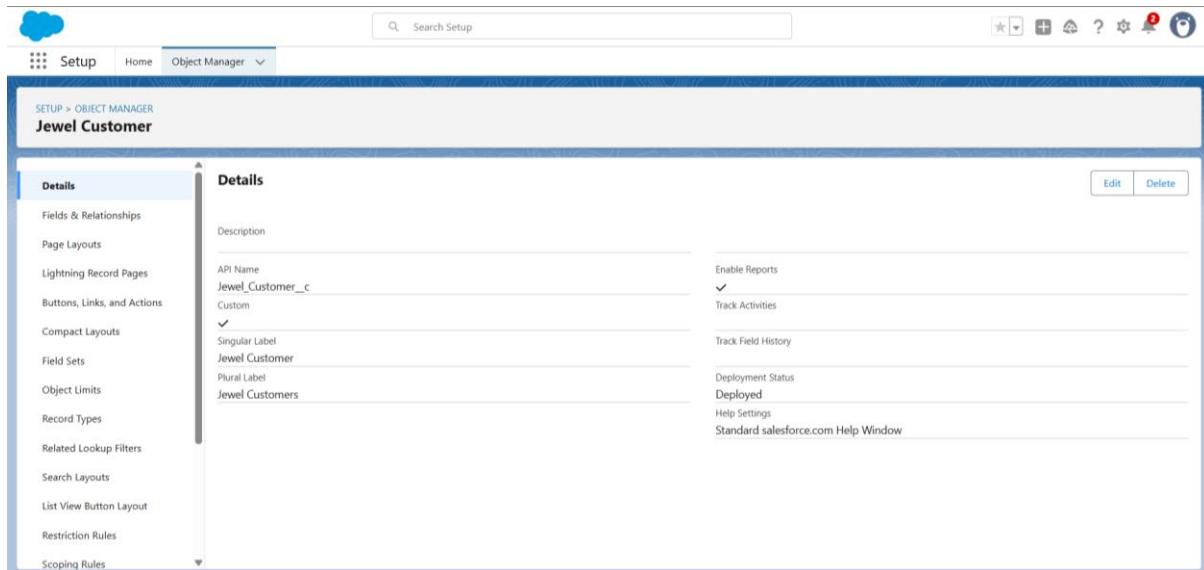
### Creating a developer account

By using this url: <https://www.salesforce.com/form/developer-signup/?d=pb>



## Created Objects

### Jewel Customer



## Customer Order

The screenshot shows the Salesforce Setup interface for the 'Customer Order' object. The top navigation bar includes 'Setup', 'Home', and 'Object Manager'. The main title is 'SETUP > OBJECT MANAGER Customer Order'. On the left, a sidebar lists various configuration tabs: Details, Fields & Relationships, Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, Related Lookup Filters, Restriction Rules, Scoping Rules, Object Access, and Triggers. The 'Details' tab is selected. The main content area displays the following details:

Field	Value
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

At the bottom right of the main content area are 'Edit' and 'Delete' buttons.

## Item

The screenshot shows the Salesforce Setup interface for the 'Item' object. The top navigation bar includes 'Setup', 'Home', and 'Object Manager'. The main title is 'SETUP > OBJECT MANAGER Item'. On the left, a sidebar lists various configuration tabs: Details, Fields & Relationships, Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, Related Lookup Filters, Restriction Rules, Scoping Rules, Object Access, and Triggers. The 'Details' tab is selected. The main content area displays the following details:

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

At the bottom right of the main content area are 'Edit' and 'Delete' buttons.

## Price

The screenshot shows the Salesforce Object Manager interface for the 'Price' object. The top navigation bar includes 'Setup', 'Home', and 'Object Manager'. A search bar says 'Search Setup'. On the right are standard setup icons. The main area has a header 'SETUP > OBJECT MANAGER' and 'Price'. On the left is a sidebar with 'Details' selected and a list of tabs: Fields & Relationships, Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, Related Lookup Filters, Restriction Rules, Scoping Rules, Object Access, and Triggers. The main content area shows the 'Details' tab for the 'Price' object. It contains fields for Description, API Name (Price\_\_c), Custom (✓), Singular Label (Price), Plural Label (Prices), and various status and help settings. Buttons for 'Edit' and 'Delete' are at the top right.

## Billing

The screenshot shows the Salesforce Object Manager interface for the 'Billing' object. The top navigation bar includes 'Setup', 'Home', and 'Object Manager'. A search bar says 'Search Setup'. On the right are standard setup icons. The main area has a header 'SETUP > OBJECT MANAGER' and 'Billing'. On the left is a sidebar with 'Details' selected and a list of tabs: Fields & Relationships, Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, Related Lookup Filters, Restriction Rules, Scoping Rules, Object Access, and Triggers. The main content area shows the 'Details' tab for the 'Billing' object. It contains fields for Description, API Name (Billing\_\_c), Custom (✓), Singular Label (Billing), Plural Label (Billings), and various status and help settings. Buttons for 'Edit' and 'Delete' are at the top right.

## Custom Tabs

Billings, Customer Orders, Items, Jewel Customers, Prices

The screenshot shows the Salesforce Setup interface with the 'Tabs' page selected. The left sidebar has 'User Interface' expanded, with 'Tabs' selected. A search bar at the top right contains 'Search Setup'. The main content area is titled 'Custom Tabs' and includes a 'Help for this Page' link. It displays sections for 'Custom Object Tabs', 'Web Tabs', and 'Visualforce Tabs'. Under 'Custom Object Tabs', there is a table with columns 'Action', 'Label', 'Tab Style', and 'Description'. The table rows are:

Action	Label	Tab Style	Description
Edit   Del	Billings	Alarm clock	
Edit   Del	Customer Orders	Bell	
Edit   Del	Items	Boat	
Edit   Del	Jewel Customers	Apple	
Edit   Del	Prices	Balls	

Below this, the 'Web Tabs' and 'Visualforce Tabs' sections both show 'No [Type] Tabs have been defined'.

## Developing Lightning App with relevant tabs

The screenshot shows the Lightning App Builder interface with the 'App Details & Branding' tab selected. The left sidebar lists 'App Settings', 'App Details & Branding' (selected), 'App Options', 'Utility Items (Desktop Only)', 'Navigation Items', and 'User Profiles'. The main content area is titled 'App Details & Branding' and includes sections for 'App Details' and 'App Branding'. In 'App Details', fields include 'App Name' (Jewellery Inventory System), 'Developer Name' (Jewellery.Inventory\_System), and 'Description' (Elevate your look with elegance). In 'App Branding', there is an 'Image' section with a logo for 'ELEGANCE' and a 'Primary Color Hex Value' field (#0070D2). Below these, under 'Org Theme Options', is a checkbox for 'Use the app's image and color instead of the org's custom theme'. At the bottom, there is an 'App Launcher Preview' section showing a preview card for 'Jewellery Inventory System' with the logo and description. A 'Cancel' and 'Save' button are at the bottom right.

Lightning App Builder | App Settings | Pages | Jewellery Inventory System | ? Help

**App Settings**

**Navigation Items**

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.

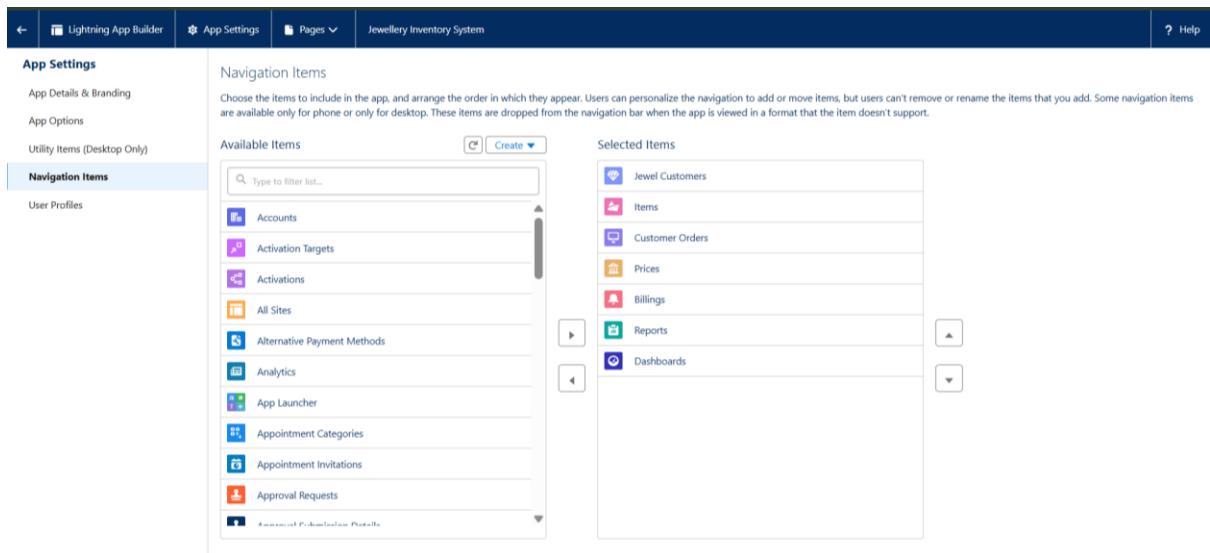
**Available Items**

Type to filter list... Create ▾

- Accounts
- Activation Targets
- Activations
- All Sites
- Alternative Payment Methods
- Analytics
- App Launcher
- Appointment Categories
- Appointment Invitations
- Approval Requests
- Advanced Automation Patterns

**Selected Items**

- Jewel Customers
- Items
- Customer Orders
- Prices
- Billing
- Reports
- Dashboards



Lightning App Builder | App Settings | Pages | Jewellery Inventory System | ? Help

**App Settings**

**User Profiles**

Choose the user profiles that can access this app.

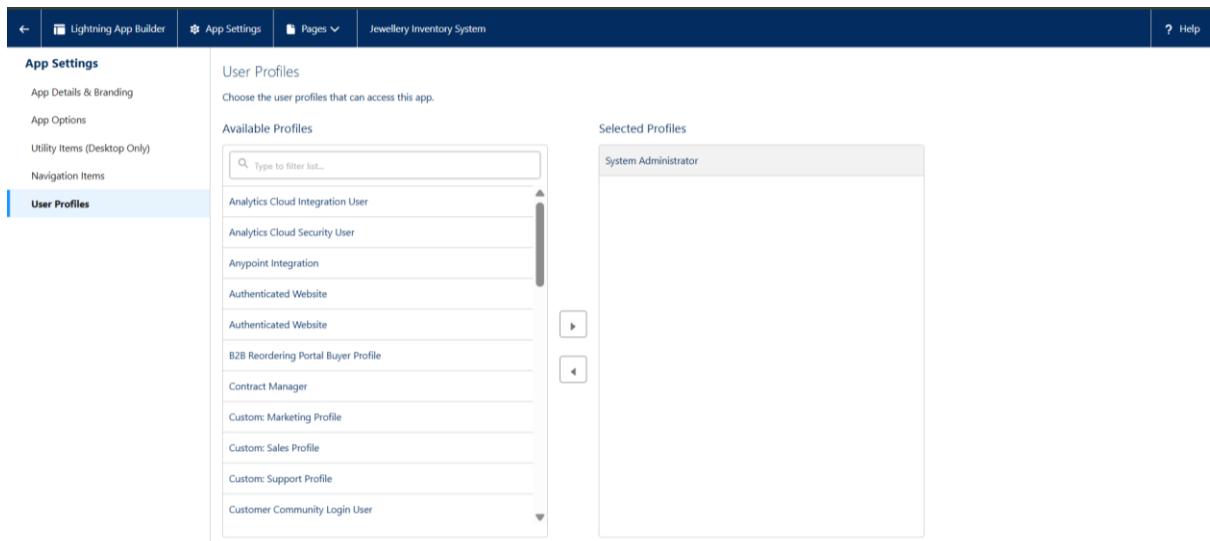
**Available Profiles**

Type to filter list...

- Analytics Cloud Integration User
- Analytics Cloud Security User
- Anypoint Integration
- Authenticated Website
- Authenticated Website
- B2B Reordering Portal Buyer Profile
- Contract Manager
- Custom: Marketing Profile
- Custom: Sales Profile
- Custom: Support Profile
- Customer Community Login User

**Selected Profiles**

System Administrator



## Configure fields and relationships

The screenshot shows the Salesforce Setup interface with the following details:

- Header: Cloud icon, Setup, Home, Object Manager.
- Breadcrumbs: SETUP > OBJECT MANAGER.
- Title: Jewel Customer.
- Left sidebar: Details, Fields & Relationships (selected), Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, Related Lookup Filters, Search Layouts, List View Button Layout, Restriction Rules, Scoping Rules.
- Main content: Fields & Relationships table with 11 items. The table has columns: FIELD LABEL, FIELD NAME, DATA TYPE, CONTROLLING FIELD, and INDEXED.

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

The screenshot shows the Salesforce Setup interface with the following details:

- Header: Cloud icon, Setup, Home, Object Manager.
- Breadcrumbs: SETUP > OBJECT MANAGER.
- Title: Customer Order.
- Left sidebar: Details, Fields & Relationships (selected), Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, Related Lookup Filters, Search Layouts, List View Button Layout, Restriction Rules, Scoping Rules.
- Main content: Fields & Relationships table with 6 items. The table has columns: 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		

Setup Home Object Manager

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)		
Last Modified By	LastModifiedById	Lookup(User)		

Setup Home Object Manager

SETUP > OBJECT MANAGER Item

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

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Last Modified By	LastModifiedById	Lookup(User)		
Making Charges	Making_Charges__c	Formula (Currency)		
Ornament	Ornament__c	Text(20)		
Owner	OwnerId	Lookup(User,Group)		✓
Percentage	Percentage__c	Number(2, 0)		
Prices	Prices__c	Lookup(Price)		
Priority	Priority__c	Picklist		
Purity	Purity__c	Number(2, 0)		
Purity Gold Price	Purity_Gold_Price__c	Formula (Currency)		
Record Type	RecordTypeId	Record Type		✓

Item			
Fields & Relationships		Actions	
Prices	Prices_c	Lookup(Price)	▼
Priority	Priority_c	Picklist	▼
Purity	Purity_c	Number(2, 0)	▼
Purity Gold Price	Purity_Gold_Price_c	Formula (Currency)	▼
Record Type	RecordTypeId	Record Type	▼
Silver Price	Silver_Price_c	Formula (Number)	▼
Stone Weight	Stone_Weight_c	Number(5, 5)	▼
Stone/Other Price	Stone_Other_Price_c	Currency(8, 2)	▼
Total Weight	Total_Weight_c	Formula (Number)	▼
Weight	Weight_c	Number(8, 5)	▼

Price				
Fields & Relationships		Actions		
Created By	CreatedBy	Lookup(User)	▼	
Gold Price	Gold_Price_c	Currency(8, 0)	▼	
Last Modified By	LastModifiedById	Lookup(User)	▼	
Owner	OwnerId	Lookup(User;Group)	✓	
Price Id	Name	Auto Number	✓	
Silver Price	Silver_Price_c	Currency(8, 5)	▼	

Setup Home Object Manager

SETUP > OBJECT MANAGER  
**Billing**

Fields & Relationships

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)		
Ornament	Ornament_c	Formula (Text)		

Details  
Fields & Relationships  
Page Layouts  
Lightning Record Pages  
Buttons, Links, and Actions  
Compact Layouts  
Field Sets  
Object Limits  
Record Types  
Related Lookup Filters  
Search Layouts  
List View Button Layout  
Restriction Rules  
Scoping Rules

Quick Find New Deleted Fields Field Dependencies Set History Tracking

Setup Home Object Manager

SETUP > OBJECT MANAGER  
**Billing**

Fields & Relationships

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
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)		

Details  
Fields & Relationships  
Page Layouts  
Lightning Record Pages  
Buttons, Links, and Actions  
Compact Layouts  
Field Sets  
Object Limits  
Record Types  
Related Lookup Filters  
Search Layouts  
List View Button Layout  
Restriction Rules  
Scoping Rules

Quick Find New Deleted Fields Field Dependencies Set History Tracking

# Field Dependency

The screenshot shows the Salesforce Setup interface with the following details:

- Left Sidebar:** Shows the navigation menu under "Setup".
  - Hyperforce Assistant
  - Users
  - Profiles
  - Data
    - Mass Transfer Approval Requests
  - Feature Settings
    - Approval Settings
    - Data.com
      - Prospector Preferences
      - Prospector Users
    - Functions
    - Marketing
      - Lead Processes
    - Sales
      - Products
        - Asset Settings
        - Product Schedules
- Current Page:** "Edit Field Dependency" under "SETUP".
- Form Fields:**
  - Controlling Field: Priority
  - Dependent Field: Expected Days Of Return
- Instructions:** A section with instructions and a legend:
  - 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
- Picklist:** A grid showing priority levels and their corresponding expected days of return.

Priority:	Low	Medium	High	Critical
Expected Days Of Return:	1-3 Days	4-5 Days	4-5 Days	1-3 Days
	4-5 Days	6-7 Days	6-7 Days	4-5 Days
	6-7 Days	8-10 Days	8-10 Days	6-7 Days
	8-10 Days			8-10 Days
- Buttons:** Save, Cancel, Preview.

# Validation Rule

## Jewel Customer

The screenshot shows the Salesforce Object Manager with the following details:

- Left Sidebar:** Shows the navigation menu under "SETUP > OBJECT MANAGER".
  - Details
  - Fields & Relationships
  - Page Layouts
  - Lightning Record Pages
  - Buttons, Links, and Actions
  - Compact Layouts
  - Field Sets
  - Object Limits
  - Record Types
  - Related Lookup Filters
  - Search Layouts
  - List View Button Layout
  - Restriction Rules
  - Scoping Rules
- Current Page:** "Validation Rule Edit" for "Jewel Customer".
- Form Fields:**
  - Role Name: Postal\_Code
  - Active:
  - Description: (empty)
- Error Condition Formula:**

```
Example: [Discount_Percent__c<0.30] More Examples...  
Display an error if Discount is more than 30%  
If this formula expression is true, display the text defined in the Error Message area  
AND ( OR ( LEN( Zip_Postal_code__c ) <> 6,  
NOT( REGEX( Zip_Postal_code__c, "[^0-9]{6}$" ) ),  
NOT( ISBLANK( Zip_Postal_code__c ) ) )  
)
```
- Functions:** A list of available functions:
  - All Function Categories
  - ABS
  - ACOS
  - ADDMONTHS
  - AND
  - ASCII
  - ASIN
- Buttons:** Save, Save & New, Cancel.

Setup Home Object Manager

### Jewel Customer

If this formula expression is true, display the text defined in the Error Message area

```
AND(
    OR(
        LEN(Sip_Postal_code_c) <> 6,
        NOT(REGEX(Sip_Postal_code_c, "^\d{0-9}\{6\}$"))
    ),
    NOT(ISBLANK(Sip_Postal_code_c))
)
```

**Error Message**

Example: Discount percent cannot exceed 30%  
This message will appear when Error Condition formula is true  
Error Message Must contain 6 digits

This error message can either appear at the top of the page or below a specific field on the page  
Error Location Top of Page Field Zip/Postal code

Save Save & New Cancel

Setup Home Object Manager

### Jewel Customer

#### Jewel Customer Validation Rule

Help for this Page

Define a validation rule by specifying an error condition and a corresponding error message. The error condition is written as a Boolean formula expression that returns true or false. When the formula expression returns true, the save will be aborted and the error message will be displayed. The user can correct the error and try again.

**Validation Rule Edit**

Rule Name ValidationRule\_For\_JewelCustomerObject  
Active   
Description

**Error Condition Formula**

Example: Discount\_Percent\_c<0.30 More Examples...  
Display an error if Discount is more than 30%  
If this formula expression is true, display the text defined in the Error Message area

```
OR(ISBLANK(City_c), ISBLANK(Country_c), ISBLANK(Phone_c),
   ISBLANK(State_c), ISBLANK(Street_c))
```

Functions

- ABS
- ACOS
- ADDMONTHS
- AND
- ASCII
- ASIN

Insert Selected Function  
ABS(number)  
Returns the absolute value of a number; a number without its sign

Setup Home Object Manager

### Jewel Customer

If this formula expression is true, display the text defined in the Error Message area

```
OR(ISBLANK(City_c), ISBLANK(Country_c), ISBLANK(Phone_c),
   ISBLANK(State_c), ISBLANK(Street_c))
```

**Error Message**

Example: Discount percent cannot exceed 30%  
This message will appear when Error Condition formula is true  
Error Message Please fill Required fields

This error message can either appear at the top of the page or below a specific field on the page  
Error Location Top of Page Field

Save Save & New Cancel

## Item

The screenshot shows the 'Validation Rule Edit' screen for an 'Item' object in the Salesforce Setup. The 'Validation Rule Edit' window has the following details:

- Validation Rule Edit** (Tab)
- Save**, **Save & New**, **Cancel** buttons
- Rule Name:** ValidationRule\_For\_Item
- Active:** Checked
- Description:** (Empty text area)
- Error Condition Formula:** (Text area containing the formula: OR( ISBLANK( Amount\_\_c ), ISBLANK( Customer\_Name\_\_c ), ISBLANK( Gold\_Price\_\_c ), ISBLANK( KDN\_\_c ), ISBLANK( Ornament\_\_c ), ISBLANK( Percentage\_\_c ), ISBLANK( Making\_Charges\_\_c ), ISBLANK( PZ\_\_c ), ISBLANK( Stone\_Stone\_Weight\_\_c ), ISBLANK( Silver\_Price\_\_c ), ISBLANK( Stone\_Other\_Price\_\_c ), ISBLANK( Stone\_Weight\_\_c ), ISBLANK( Weight\_\_c ) ))
- Functions:** A sidebar showing available functions like ABS, COS, ADDMONTHS, AND, ASCII, ASIN, etc.
- Check Syntax:** Button
- Error Message:** (Text area containing the message: Example: [Discount\_percent cannot exceed 30%]. This message will appear when Error Condition formula is true.)
- Error Message:** (Text area containing the message: Please fill required fields.)
- Help on this function:** Link
- Quick Tips:** Operators & Functions

The screenshot shows the 'Validation Rule Edit' screen for an 'Item' object in the Salesforce Setup. The 'Validation Rule Edit' window has the following details:

- Validation Rule Edit** (Tab)
- Save**, **Save & New**, **Cancel** buttons
- If this formula expression is true, display the text defined in the Error Message area:** (Text area containing the formula: OR( ISBLANK( Amount\_\_c ), ISBLANK( Customer\_Name\_\_c ), ISBLANK( Gold\_Price\_\_c ), ISBLANK( KDN\_\_c ), ISBLANK( Ornament\_\_c ), ISBLANK( Percentage\_\_c ), ISBLANK( Making\_Charges\_\_c ), ISBLANK( PZ\_\_c ), ISBLANK( Stone\_Stone\_Weight\_\_c ), ISBLANK( Silver\_Price\_\_c ), ISBLANK( Stone\_Other\_Price\_\_c ), ISBLANK( Stone\_Weight\_\_c ), ISBLANK( Weight\_\_c ) ))
- Functions:** A sidebar showing available functions like ABS, COS, ADDMONTHS, AND, ASCII, ASIN, etc.
- Check Syntax:** Button
- Error Message:** (Text area containing the message: Example: [Discount percent cannot exceed 30%]. This message will appear when Error Condition formula is true.)
- Error Message:** (Text area containing the message: Please fill required fields.)
- This error message can either appear at the top of the page or below a specific field on the page:** (Text area)
- Error Location:** (Radio buttons for Top of Page or Field)

# Profiles

Gold smith

Custom Object Permissions

	Basic Access					User Administration		
	Read	Create	Edit	Delete	View All Records	Modify All Records	View All Fields	
Billing	<input checked="" type="checkbox"/>	<input type="checkbox"/>						
Customer Orders	<input checked="" type="checkbox"/>	<input type="checkbox"/>						
Items	<input checked="" type="checkbox"/>	<input type="checkbox"/>						
Jewel Customers	<input checked="" type="checkbox"/>	<input type="checkbox"/>						
Prices	<input checked="" type="checkbox"/>	<input type="checkbox"/>						

Session Settings

Session Times Out After: 2 hours of inactivity

Session Security Level Required at Login: None

Password Policies

User passwords expire in:	90 days
Enforce password history:	3 passwords remembered
Minimum password length:	8
Password complexity requirement:	Must include alpha and numeric characters
Password question requirement:	Cannot contain password
Maximum invalid login attempts:	10
Lockout effective period:	15 minutes
Obfuscate secret answer for password resets:	<input type="checkbox"/>
Require a minimum 1 day password lifetime:	<input type="checkbox"/>

Worker

Custom Object Permissions

	Basic Access					User Administration		
	Read	Create	Edit	Delete	View All Records	Modify All Records	View All Fields	
Billing	<input type="checkbox"/>	<input type="checkbox"/>						
Customer Orders	<input checked="" type="checkbox"/>	<input type="checkbox"/>						
Items	<input checked="" type="checkbox"/>	<input type="checkbox"/>						
Jewel Customers	<input type="checkbox"/>	<input type="checkbox"/>						
Prices	<input checked="" type="checkbox"/>	<input type="checkbox"/>						

Session Settings

Session Times Out After: 2 hours of inactivity

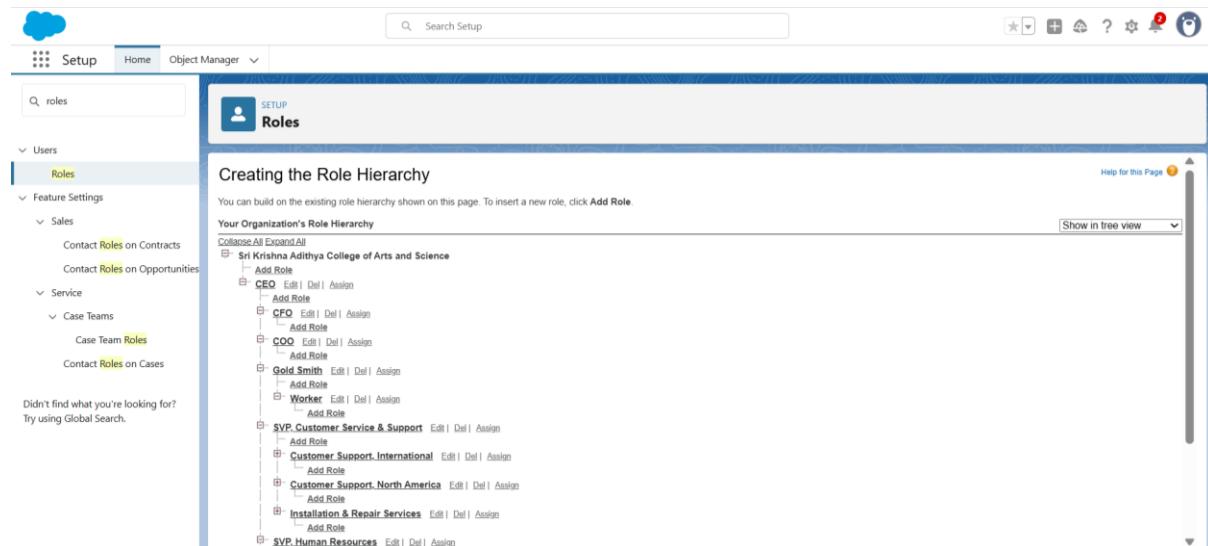
Session Security Level Required at Login: None

Password Policies

User passwords expire in:	90 days
Enforce password history:	3 passwords remembered
Minimum password length:	8
Password complexity requirement:	Must include alpha and numeric characters
Password question requirement:	Cannot contain password
Maximum invalid login attempts:	10
Lockout effective period:	15 minutes
Obfuscate secret answer for password resets:	<input type="checkbox"/>
Require a minimum 1 day password lifetime:	<input type="checkbox"/>

## Roles

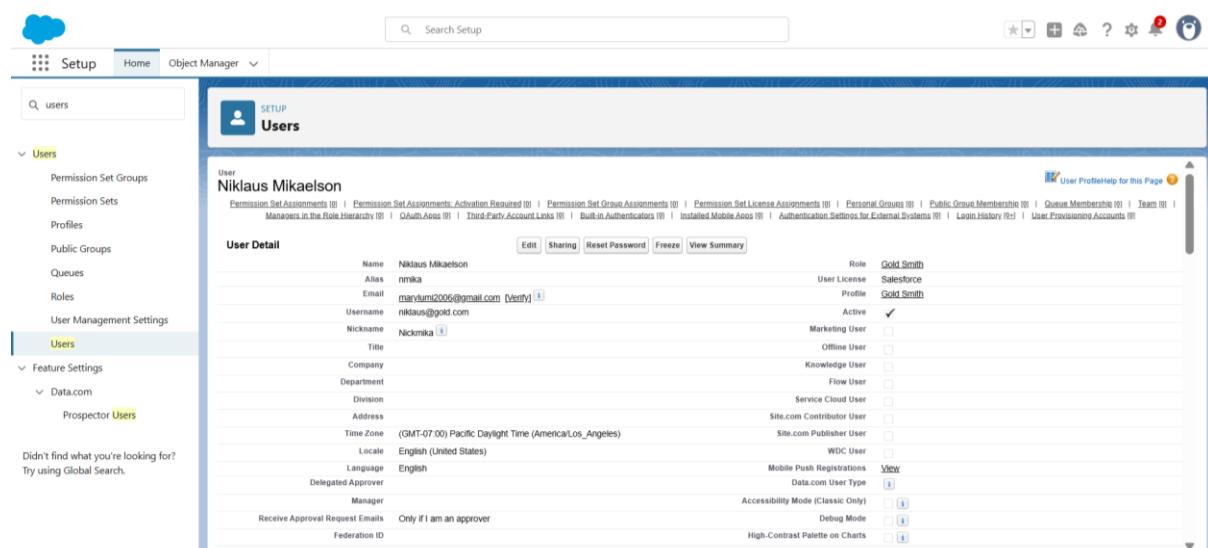
### Gold Smith and Worker



The screenshot shows the 'Roles' section in the Salesforce Setup. On the left, a sidebar lists categories like 'Users', 'Feature Settings', 'Sales', 'Service', and 'Case Teams'. The 'Roles' category is selected. The main area displays the 'Creating the Role Hierarchy' page. It shows a tree view of roles under 'Your Organization's Role Hierarchy'. The hierarchy includes 'Sri Krishna Adithya College of Arts and Science' at the top, followed by 'CEO', 'CFO', 'COO', 'Gold Smith' (which is expanded to show 'Worker'), 'SVP, Customer Service & Support', 'Customer Support, International', 'Customer Support, North America', 'Installation & Repair Services', and 'SVP, Human Resources'. Each role node has 'Edit | Del | Assign' buttons. A search bar at the top right says 'Search Setup'.

## Created Users

### Gold Smith



The screenshot shows the 'Users' section in the Salesforce Setup. The left sidebar shows 'Users' selected under 'User Management Settings'. The main area displays the 'User Detail' page for a user named 'Niklaus Mikaelson'. The user's details include Name: Niklaus Mikaelson, Alias: nmika, Email: manvam2006@gmail.com, Username: niklaus@gold.com, Nickname: Nickmka, Title: , Company: , Department: , Division: , Address: , Time Zone: (GMT-07:00) Pacific Daylight Time (America/Los\_Angeles), Locale: English (United States), Language: English, Delegated Approver: , Manager: , Receive Approval Request Emails: Only if I am an approver, Federation ID: , and a note about two-factor authentication. The user has a 'Role' of 'Gold Smith' and a 'User License' of 'Salesforce'. The 'Profile' is set to 'Gold Smith'. Under 'Active', there is a checked checkbox. Other checkboxes for various user types like Marketing User, Offline User, Knowledge User, Flow User, Service Cloud User, Site.com Contributor User, Site.com Publisher User, WDC User, Mobile Push Registrations, Data.com User Type, Accessibility Mode (Classic Only), Debug Mode, and High-Contrast Palette on Charts are shown but not checked. A 'User Profile Help for this Page' link is visible at the top right. A note at the bottom says 'Didn't find what you're looking for? Try using Global Search.'

## Worker

**User Detail**

**Kol Mikaelson**

Name: Kol Mikaelson  
Alias: kmika  
Email: maryam2005@gmail.com (Verify)  
Username: kolmika@work.com  
Nickname: Kolmika  
Title:  Marketing User  
 Offline User  
 Knowledge User  
 Flow User  
 Service Cloud User  
 Site.com Contributor User  
 Site.com Publisher User  
 WDC User  
 Mobile Push Registrations  
 Data.com User Type  
 Accessibility Mode (Classic Only)  
 Debug Mode  
 High-Contrast Palette on Charts

Role: Worker  
User License: Salesforce Platform  
Profile: Worker1  
Active:

Delegated Approver: Manager:  Receive Approval Request Emails: Only if I am an approver  
Federation ID:

**Rebekah Mikaelson**

Name: Rebekah Mikaelson  
Alias: mikka  
Email: maryam2005@gmail.com (Verify)  
Username: rebekha@work.com  
Nickname: Rebekhamika  
Title:  Marketing User  
 Offline User  
 Knowledge User  
 Flow User  
 Service Cloud User  
 Site.com Contributor User  
 Site.com Publisher User  
 WDC User  
 Mobile Push Registrations  
 Data.com User Type  
 Accessibility Mode (Classic Only)  
 Debug Mode  
 High-Contrast Palette on Charts

Role: Worker  
User License: Salesforce Platform  
Profile: Worker3  
Active:

Delegated Approver: Manager:  Receive Approval Request Emails: Only if I am an approver  
Federation ID:

**Elijah Mikaelson**

Name: Elijah Mikaelson  
Alias: emika  
Email: maryam2005@gmail.com (Verify)  
Username: elijah@test.com  
Nickname: ElijahMika  
Title:  Marketing User  
 Offline User  
 Knowledge User  
 Flow User  
 Service Cloud User  
 Site.com Contributor User  
 Site.com Publisher User  
 WDC User  
 Mobile Push Registrations  
 Data.com User Type  
 Accessibility Mode (Classic Only)  
 Debug Mode  
 High-Contrast Palette on Charts

Role: Worker  
User License: Salesforce Platform  
Profile: Worker2  
Active:

Delegated Approver: Manager:  Receive Approval Request Emails: Only if I am an approver  
Federation ID:

# Page Layout

## Gold Page Layout

The screenshot shows the 'Item' page layout configuration in the Salesforce Setup Object Manager. The layout includes a header with 'Save', 'Quick Save', 'Preview As...', 'Cancel', 'Undo', 'Redo', and 'Layout Properties' buttons. A search bar is at the top right. The main area has tabs for 'Details', 'Fields & Relationships', and 'Page Layouts', with 'Page Layouts' currently selected. On the left, a sidebar lists various setup categories like Buttons, Quick Actions, Mobile & Lightning Actions, etc. The main content area displays a table of fields and their properties. A 'Blank Space' section is highlighted in yellow. The table includes columns for Field Name, Customer Name, Item Type, Ornament, Priority, Silver Price, and Weight. Other fields listed include Expected Days Of Return, Gold Price, Last Modified By, Percentage, Purify Gold Price, Stone/Other Price, Stone Weight, Record Type, Created By, Item Id, Making Charges, Prices, and Total Weight.

## Silver Page Layout

The screenshot shows the 'Item' page layout configuration in the Salesforce Setup Object Manager. The layout structure is identical to the Gold layout, with a header, search bar, and sidebar. The 'Page Layouts' tab is selected. The main content area shows the same table of fields and properties. In this version, the 'Blank Space' section is not highlighted. The table includes fields such as Customer Name, Item Type, Ornament, Priority, Silver Price, Weight, and so on. The data values for the fields are slightly different from the Gold layout, reflecting a different configuration or record.

## Record Types

The screenshot shows the Salesforce Setup interface for managing Object Manager. The left sidebar is titled "Item" and includes options like Details, Fields & Relationships, Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, and Record Types (which is selected). The main content area is titled "Record Type Gold". It displays the Record Type Label (Gold), Record Type Name (Gold), Namespace Prefix, Description (Gold items information), and Created By (Mary Lumina Fernando M) and Modified By (Mary Lumina Fernando M) with a timestamp of 9/3/2025, 10:19 PM. Below this is a section titled "Picklists Available for Editing" which lists three fields: Expected Days Of Return, Item Type, and Priority, each with an "Edit" link and a modified date of 9/3/2025, 10:19 PM.

This screenshot shows the Salesforce Setup interface for managing Object Manager, specifically for the Record Type "Silver". The left sidebar is titled "Item" and includes the same set of options as the previous screenshot. The main content area is titled "Record Type Silver". It displays the Record Type Label (Silver), Record Type Name (Silver), Namespace Prefix, Description (Silver items information), and Created By (Mary Lumina Fernando M) and Modified By (Mary Lumina Fernando M) with a timestamp of 9/4/2025, 8:34 AM. Below this is a section titled "Picklists Available for Editing" which lists the same three fields as the Gold record type, each with an "Edit" link and a modified date of 9/4/2025, 8:34 AM.

# Permission Sets

The screenshot shows the Salesforce Setup interface with the following details:

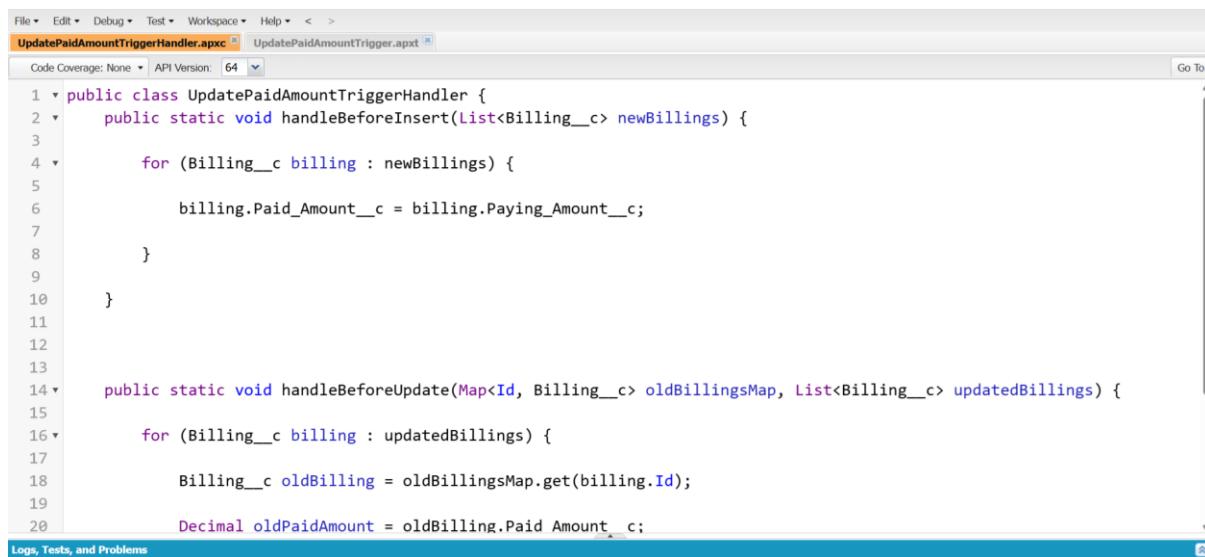
- Left Navigation Bar:** Shows the 'Setup' icon, 'Home', and 'Object Manager'. The 'Users' section is expanded, with 'Permission Set Groups' and 'Permission Sets' selected.
- Search Bar:** Contains the text 'per'.
- Main Content Area:** Title 'Permission Sets'. Subtitle 'Permission Set Overview > Object Settings > Items'.
- Tab Settings:** Available (checkbox checked), Visible (checkbox unchecked).
- Item: Record Type Assignments:** Shows 'Record Types' (Gold, Silver) and 'Assigned Record Types' (both checked).
- Object Permissions:** Shows permissions for 'Read', 'Create', 'Edit', 'Delete', 'View All Records', 'Modify All Records', and 'View All Fields'. Most permissions have checkboxes checked.
- Buttons:** Save, Cancel.

The screenshot shows the Salesforce Setup interface with the following details:

- Left Navigation Bar:** Shows the 'Setup' icon, 'Home', and 'Object Manager'. The 'Users' section is expanded, with 'Permission Set Groups' and 'Permission Sets' selected.
- Search Bar:** Contains the text 'per'.
- Main Content Area:** Title 'Per to Worker'. Subtitle '... > SETUP > PERMISSION SET 'PER TO WORKER''.
- Current Assignments:** A table titled 'Current Assignments' with columns: Full Name, Active, Role, Profile, User License, and Expires On. It lists two assignments:

Full Name	Active	Role	Profile	User License	Expires On
Kol Mikaelson	✓	Worker	JWorker1	Salesforce Platform	
Rebekah Mikaelson	✓	Worker	JWorker3	Salesforce Platform	
- Buttons:** Add Assignment.

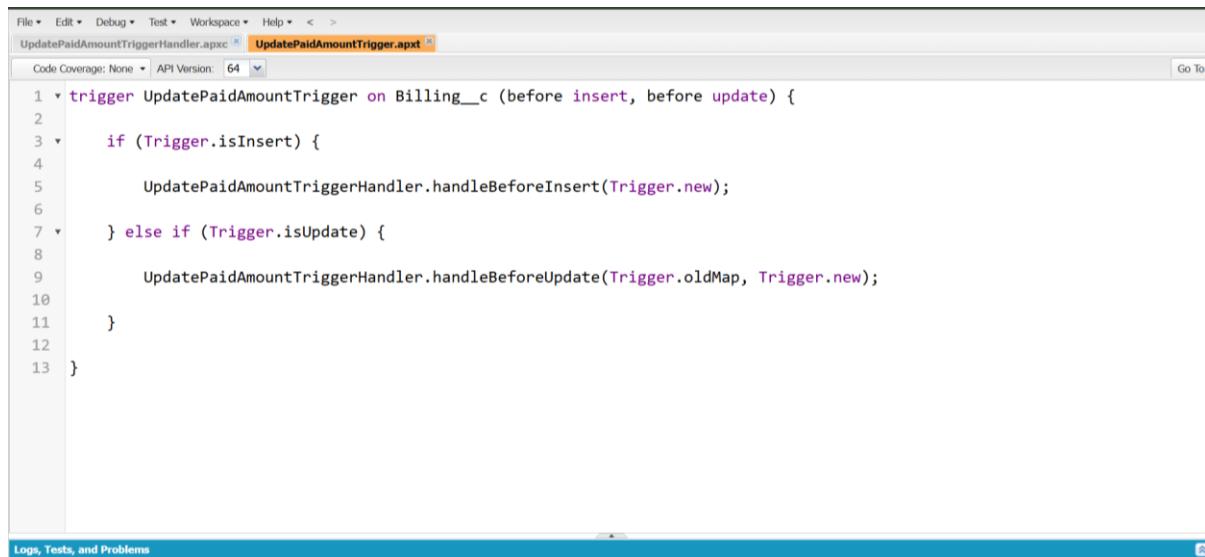
## Creating Apex Trigger handler Class



The screenshot shows the Salesforce IDE interface with the file `UpdatePaidAmountTriggerHandler.apxc` open. The code implements a trigger handler for the `Billing__c` object. It contains two static methods: `handleBeforeInsert` and `handleBeforeUpdate`. The `handleBeforeInsert` method iterates through a list of new `Billing__c` records and sets the `Paid_Amount__c` field to match the `Paying_Amount__c` field. The `handleBeforeUpdate` method iterates through a list of updated `Billing__c` records, retrieves the old record from a map, and updates the `Paid_Amount__c` field.

```
File ▾ Edit ▾ Debug ▾ Test ▾ Workspace ▾ Help ▾ < ▾ >
UpdatePaidAmountTriggerHandler.apxc [ UpdatePaidAmountTrigger.apxt ]
Code Coverage: None | API Version: 64 | Go To
1 public class UpdatePaidAmountTriggerHandler {
2     public static void handleBeforeInsert(List<Billing__c> newBillings) {
3
4         for (Billing__c billing : newBillings) {
5
6             billing.Paid_Amount__c = billing.Paying_Amount__c;
7
8         }
9
10    }
11
12
13
14    public static void handleBeforeUpdate(Map<Id, Billing__c> oldBillingsMap, List<Billing__c> updatedBillings) {
15
16        for (Billing__c billing : updatedBillings) {
17
18            Billing__c oldBilling = oldBillingsMap.get(billing.Id);
19
20            Decimal oldPaidAmount = oldBilling.Paid_Amount__c;
21
22        }
23
24    }
}
Logs, Tests, and Problems
```

## Creating Apex Trigger



The screenshot shows the Salesforce IDE interface with the file `UpdatePaidAmountTrigger.apxt` open. It defines a trigger named `UpdatePaidAmountTrigger` that runs before insert or update on the `Billing__c` object. The trigger logic calls the `handleBeforeInsert` and `handleBeforeUpdate` methods of the `UpdatePaidAmountTriggerHandler` class.

```
File ▾ Edit ▾ Debug ▾ Test ▾ Workspace ▾ Help ▾ < ▾ >
UpdatePaidAmountTriggerHandler.apxc [ UpdatePaidAmountTrigger.apxt ]
Code Coverage: None | API Version: 64 | Go To
1 trigger UpdatePaidAmountTrigger on Billing__c (before insert, before update) {
2
3     if (Trigger.isInsert) {
4
5         UpdatePaidAmountTriggerHandler.handleBeforeInsert(Trigger.new);
6
7     } else if (Trigger.isUpdate) {
8
9         UpdatePaidAmountTriggerHandler.handleBeforeUpdate(Trigger.oldMap, Trigger.new);
10
11    }
12
13 }
```

# Created Records

## Jewel Customers

The screenshot shows a list of 10 recently viewed customers. The columns include Customer name and a checkbox column. The data is as follows:

	Customer name
1	Rajesh Khanna
2	Meera Joseph
3	Adithya Varma
4	Neha Singh
5	Priya Reddy
6	Arjun Sharma
7	Anjali Mehta
8	Sneha Nair
9	Karthik
10	Rohan Kapoor

## Items

The screenshot shows a list of 10 recently viewed items. The columns include Item Id and a checkbox column. The data is as follows:

	Item Id
1	Item-03
2	Item-10
3	Item-09
4	Item-08
5	Item-07
6	Item-06
7	Item-05
8	Item-04
9	Item-02
10	Item-01

## Customer Orders

The screenshot shows the 'Customer Orders' page in a web-based application. The top navigation bar includes links for Jewel Customers, Items, Customer Orders (selected), Prices, Billings, Reports, and Dashboards. A search bar and various toolbar icons are also present. The main content area displays a list titled 'Recently Viewed' with 10 items, each showing a checkbox and a 'Customer Order Id'. The list includes entries from 1 to 10, with 'CustomerOrder-06' being the most recent.

Customer Order Id
1 CustomerOrder-06
2 CustomerOrder-01
3 CustomerOrder-10
4 CustomerOrder-09
5 CustomerOrder-08
6 CustomerOrder-07
7 CustomerOrder-05
8 CustomerOrder-04
9 CustomerOrder-03
10 CustomerOrder-02

## Prices

The screenshot shows the 'Prices' page in the same web-based application. The top navigation bar is identical to the Customer Orders page. The main content area displays a list titled 'Recently Viewed' with 10 items, each showing a checkbox and a 'Price Id'. The list includes entries from 1 to 10, with 'Price-10' being the most recent.

Price Id
1 Price-10
2 Price-02
3 Price-09
4 Price-08
5 Price-07
6 Price-06
7 Price-05
8 Price-04
9 Price-03
10 Price-01

## Billings

Billings

Recently Viewed

10 items • Updated a few seconds ago

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

## Created Reports

### Reports

Report: Prices

Prices Report

Total Records	Total Gold Price	Total Silver Price
10	₹2,06,500	₹3,060.00000

	Price: Price Id	Gold Price	Silver Price
1	Price-01	₹8,000	₹100.00000
2	Price-05	₹20,000	₹340.00000
3	Price-10	₹30,000	₹410.00000
4	Price-07	₹27,000	₹350.00000
5	Price-03	₹15,000	₹300.00000
6	Price-02	₹10,000	₹200.00000
7	Price-04	₹17,000	₹250.00000
8	Price-06	₹22,000	₹340.00000
9	Price-08	₹28,500	₹370.00000
10	Price-09	₹29,000	₹400.00000
11		₹2,06,500	₹3,060.00000

## Billings with Items and Customer Orders

Report: Items with Customer Orders and Customer Billings with items and customer order

Expected Days Of Return	Ornament	Item: Item Id
4-5 Days (5)	Chain (1)	Item-07
	<b>Subtotal</b>	
	Gold Chain (1)	Item-04
	<b>Subtotal</b>	
	Necklace (2)	Item-01
		Item-09
	<b>Subtotal</b>	
	Ring (1)	Item-08
	<b>Subtotal</b>	
Subtotal		
6-7 Days (4)	bangle (3)	Item-03
		Item-10
		Item-06
	<b>Subtotal</b>	
	Ring (1)	Item-02
	<b>Subtotal</b>	
<b>Subtotal</b>		

Row Counts  Detail Rows  Subtotals  Grand Total

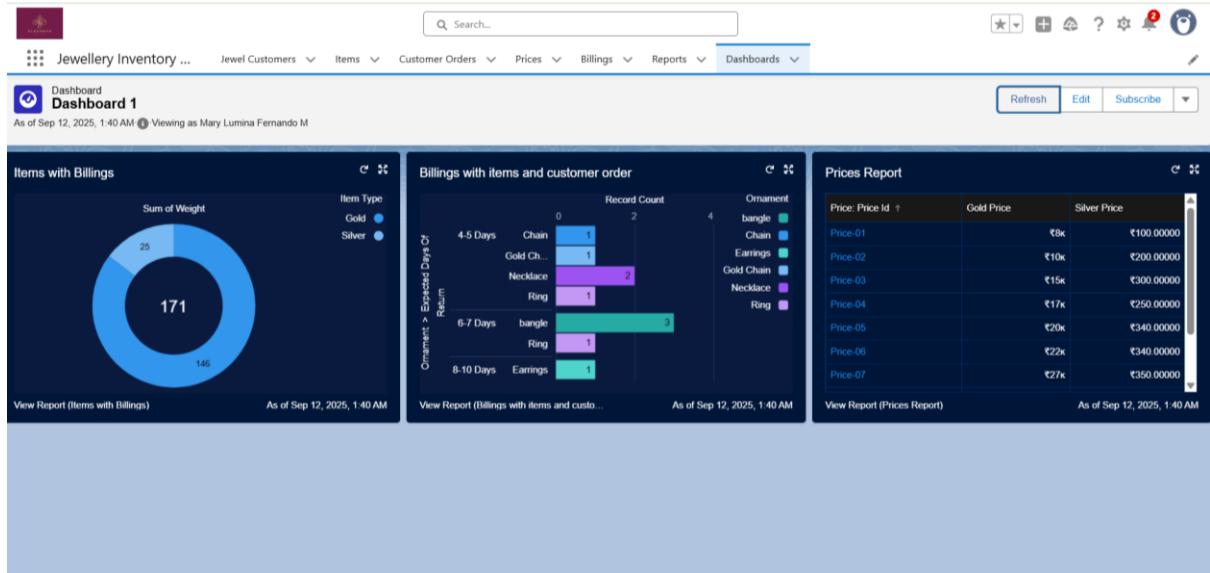
## Items with Billings

Report: Items with Billings

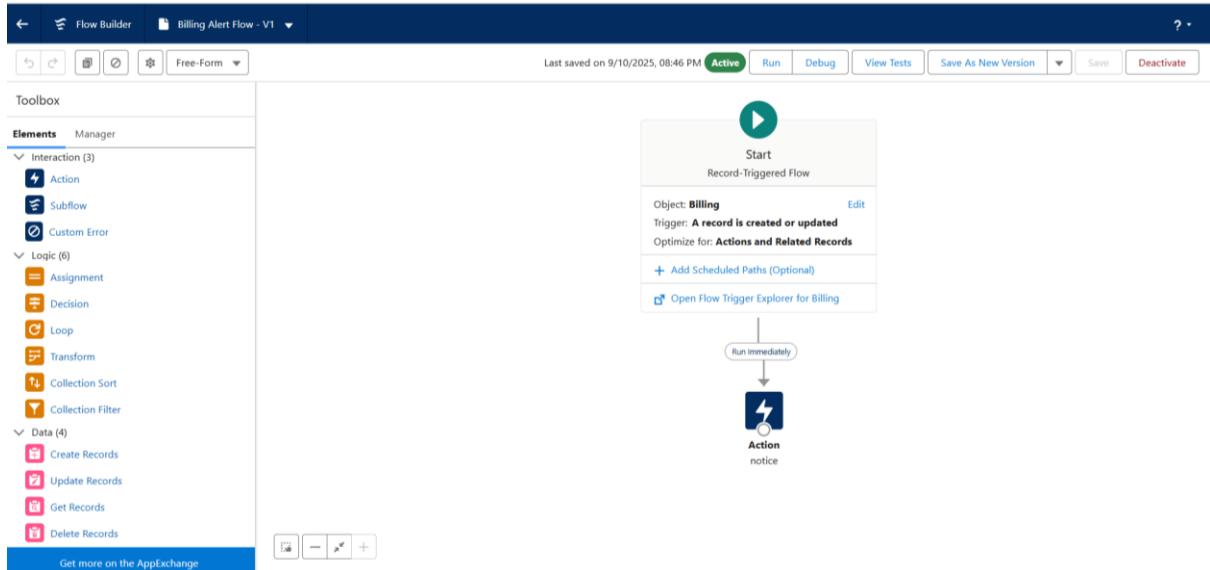
Total Records	Total Weight	
10	171.00000	
<input type="checkbox"/> Item Type	<input type="checkbox"/> Ornament	<input type="checkbox"/> Weight
Gold (7)	Gold Chain	15.00000
	Necklace	25.00000
	bangle	20.00000
	Necklace	30.00000
	bangle	28.00000
	Chain	10.00000
	bangle	18.00000
<b>Subtotal</b>		146.00000
Silver (3)	Ring	9.00000
	Ring	8.00000
	Earrings	8.00000
<b>Subtotal</b>		25.00000
<b>Total (10)</b>		171.00000

Row Counts  Detail Rows  Subtotals  Grand Total

## Created Dashboard



## Created Flow



## CONCLUSION

The CRM application for Jewel Management provides a comprehensive and efficient platform to manage customer relationships, streamline sales operations, and enhance overall business performance. By integrating features such as customer data management, order tracking, billing, and personalized communication, the system enables jewel businesses to maintain strong customer engagement and loyalty. The automation of routine tasks reduces manual effort and minimizes errors, while real-time insights into customer preferences and purchase history support better decision-making. This application not only improves operational efficiency but also creates opportunities for targeted marketing, improved customer satisfaction, and sustainable business growth. Ultimately, the CRM for Jewel Management serves as a valuable tool that bridges the gap between business processes and customer expectations, helping jewel businesses stay competitive in an increasingly digital marketplace.

## APPENDIX

### **UpdatePaidAmountTriggerHandler.apxc**

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

## **UpdatePaidAmountTrigger.apxt**

```
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);  
    }  
}
```