



CRM APPLICATION FOR JEWEL MANAGEMENT

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1.INTRODUCTION

1.1 Project Overview:

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

1.2 Purpose:

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

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

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

PHASE 1 : IDEATION PHASE:

1.1 Problem Statement:

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

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

1.2 Objectives:

✓ **Customer Data Management:** To maintain a centralized database of customer profiles, including personal details, purchase history, and preferences, to enable personalized services.

✓ **Sales Tracking and Lead Management:** To automate the process of capturing leads, tracking sales activities, and converting potential customers into loyal buyers through Salesforce tools.

✓ **Product and Inventory Management** To manage detailed information about jewelry products, including type, purity, weight, price, and stock availability, ensuring transparency and control.

✓ **Billing and Order Processing:** To simplify the billing process by automating invoice generation, payment tracking, and sales reporting for each transaction.

1.3 Ideas collected during brainstorming:

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

PHASE 2 : REQUIREMENT ANALYSIS:

2.1. Functional and Non-Functional Requirements:

2.1.1 Functional Requirements

1. Customer Data Management:

- * Maintain a centralized database of customer details (name, contact, preferences, purchase history).
- * Enable segmentation of customers based on purchase behavior and preferences.
- * Provide personalized recommendations and follow-ups.

2. Lead and Sales Management:

- * Capture and track leads from various sources (walk-ins, website, referrals, events).
- * Automate lead scoring, assignment, and conversion workflows.
- * Track each stage of the sales pipeline (lead → opportunity → quotation → order → invoice).

3. Product and Inventory Management:

- * Store detailed jewelry product information (type, metal, purity, weight, design, price).
- * Track stock availability and automatically update inventory after each sale.
- * Enable real-time synchronization between sales and inventory records.

4. Billing and Order Processing:

- * Automate invoice generation after sales confirmation.
- * Track payments and update customer records accordingly.
- * Generate daily, weekly, and monthly sales reports for performance analysis.

5. User Management and Access Control:

- * Define roles for sales executives, inventory managers, finance officers, and administrators.
- * Restrict access to sensitive data based on user roles and responsibilities.

2.1.2 Non-Functional Requirements:

- * **Performance:** The system should handle concurrent users efficiently with minimal latency.
- * **Scalability:** The system must support the addition of new products, users, and stores without performance degradation.
- * **Security:** Customer and payment data must be encrypted and protected according to Salesforce security standards.
- * **Usability:** The interface must be intuitive and easily navigable for users with minimal training.
- * **Reliability:** The system should maintain 99.9% uptime and ensure data integrity during transactions.
- * **Maintainability:** System configurations and workflows should be easily updatable through Salesforce's declarative tools.

2.2. Object Relationships, Automations, and User Roles

Object Relationships

- * Customer → Lead → Opportunity → Order → Invoice
- * Product → Inventory → Order Line Items → Invoice
- * User (Sales Rep / Manager) → Assigned Leads, Opportunities, and Orders

Automations

- * **Lead Assignment Rule:** Automatically assigns leads to sales reps based on location or product interest.
- * **Workflow Rules:** Trigger follow-up emails and reminders for pending opportunities.
- * **Inventory Update:** Automatically reduce stock quantity upon successful order completion.
- * **Approval Process:** Approval workflow for discount or high-value jewelry orders.

- * **Reports and Dashboards:** Auto-refresh daily to show key KPIs (sales, top products, customer growth).

User Roles

- * **Admin:** Full control over all modules and system settings.
- * **Sales Executive:** Access to leads, opportunities, and customer profiles.
- * **Inventory Manager:** Manage product catalog and update stock details.

2.3. Documentation and Traceability

- * All requirements are documented in a **Requirement Traceability Matrix (RTM)** linking each functional requirement to corresponding design components, workflows, and test cases.
- * Salesforce objects, fields, and flows are mapped to business requirements for traceability throughout the project lifecycle.
- * Any changes in scope or configuration are version-controlled and reviewed during sprint retrospectives.

2.4. Dependencies and System Constraints

Dependencies:

- * Integration with external payment gateways (e.g., Razorpay, PayPal).
- * Access to product catalog and pricing database.
- * Stable internet connection for Salesforce access.
- * User licenses and appropriate Salesforce editions (Sales Cloud, Service Cloud).

System Constraints:

- * Limited customization within certain Salesforce managed packages.
- * Data storage limits depending on Salesforce edition.
- * System performance depends on Salesforce API call limits and governor limits.

PHASE 3: PROJECT DESIGN

3.1 Problem Solution Fit:

Problem: Manual processes and lack of centralized tracking

Solution: Salesforce CRM system automating every major jewelry workflow

3.2 Proposed Solution:

Five major custom objects: Item__c, Price__c, Jewel_Customer__c, Customer_Order__c, Billing__c

- Lightning app with navigation tabs
- Automated flows for inventory, billing, and notifications

3.3 Solution Architecture:

Objects and Relationships:

- Jewel_Customer__c ↔ Customer_Order__c ↔ Billing__c ↔ Item__c
↔ Price__c
- Lookup and Master-Detail fields used to link records
- Formula fields for auto-calculations (e.g., total billing amount)
- Validation rules for quantity and price limits
- Record Types to distinguish Gold, Silver, and Diamond workflows

3.4 Key Design Components:

- **Entity-Relationship (ER) Design:**

All major entities—**Customer, Lead, Opportunity, Product, Order, Invoice, and Inventory**—are defined with clear relationships. The design ensures seamless data flow from lead capture to final billing.

- Modular Architecture
- Workflow and Automation Design
- Security and Access Design

3.5 User Experience (UX) Considerations

- Intuitive Navigation
- Responsive Design
- Visual Dashboards

PHASE 4: PROJECT DEVELOPMENT - SALESFORCE GUIDED PROJECT

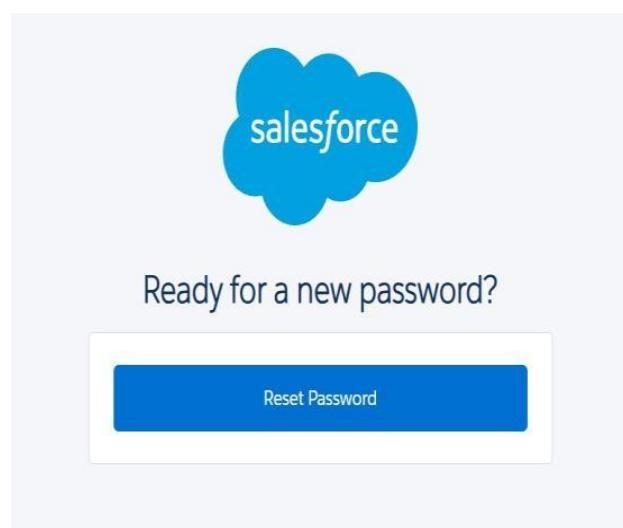
The development phase is the backbone of the CRM application, where core functionalities were implemented using Salesforce's declarative tools and programmatic capabilities. This phase was conducted in iterative sprints, following Agile methodology, and broken into several key activities.

4.1 Developer Environment Setup:

- Create Salesforce Developer Org via developer.salesforce.com/signup

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

The screenshot shows the 'Sign up for your Developer Edition' form on the Salesforce website. The page features a dark blue header with the Salesforce logo and a large purple background image featuring a white robot and the text 'Build enterprise-quality apps fast and get hands-on with Agentforce and Data Cloud.' Below the header, there's a list of benefits: 'Build apps fast with drag-and-drop tools', 'Go further with Apex code', 'Build AI agents with Agentforce', 'Harmonize your data with Data Cloud', 'Ground Agentforce with structured and unstructured data', and 'Integrate with anything using APIs'. The main form fields include 'First name' (Harinipriya), 'Last name' (S), 'Job title' (Developer), 'Work email' (priyasekar1305@gmail.com), 'Company' (University college of e), and 'Country/Region' (India). A checkbox for agreeing to the 'Main Services Agreement – Developer Services and Salesforce Program Agreement' is checked. At the bottom, a note states: 'Your org may be provisioned on or migrated to Hyperforce, Salesforce's public cloud infrastructure.' Below the form, a link to the Privacy Statement is provided.



Account Activation:

Change Your Password

Enter a new password for
priyasekar1305690@agentforce.com. Make sure to include at least:

- 8 characters
- 1 letter
- 1 number

* New Password

Good

* Confirm New Password

Match

New Security Question

▼In what city were you born?

New Answer

MaduraiGood

* =required

4.2 Custom Object Creation:

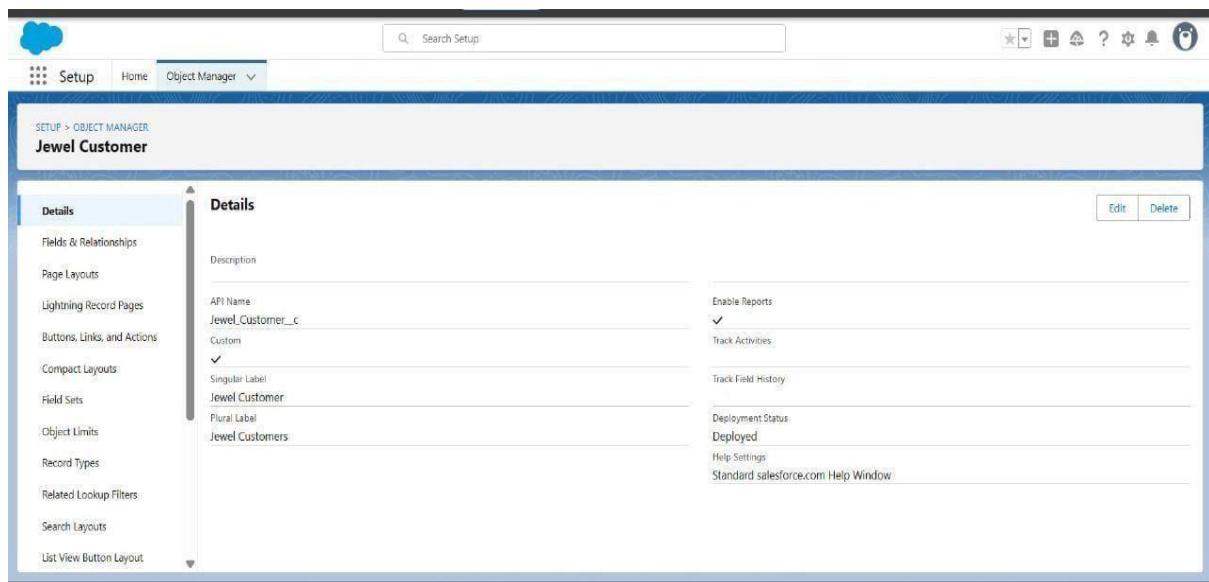
We create five main custom objects for

- Jewel Customer
- Item,
- Customer Order,
- Price,
- Billing.

From the setup page >> Click on Object Manager >> Click on Create >> Click on Custom Object.

1. Enter the label name: Jewel Customer
2. Plural label name: Jewel Customers
3. Enter Record Name Label and Format
 - * Record Name >> Customer name
 - * Data Type >> Text

1.Jewel Customer



Activity 2: Create Item Object

1. From the setup page >> Click on Object Manager >> Click on Create >> Click on Custom Object.
 1. Enter the label name >> Item
 2. Plural label name >> Items
 3. Enter Record Name Label and Format
 - * Record Name >> Item Id
 - * Data Type >> Auto Number
 - * Display Format >> Item- {00}
 - * Starting Number >> 1
 2. Click on Allow reports.
 3. Allow search >> Save.
- Note: Create 3 more objects with label names as Customer order, Price, Billing

2.Item

The screenshot shows the Salesforce Setup interface with the 'Object Manager' selected. The left sidebar lists various configuration options: Details, Fields & Relationships, Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, Related Lookup Filters, Search Layouts, and List View Button Layout. The main content area is titled 'Item' and shows the 'Details' tab. It includes fields for Description, API Name (Item__c), Singular Label (Item), Plural Label (Items), and several checkboxes for Reports, Activities, Field History, and Deployment Status (all checked). Buttons for Edit and Delete are at the top right.

3.Customer Order

The screenshot shows the Salesforce Setup interface with the 'Object Manager' selected. The left sidebar lists various configuration options: Details, Fields & Relationships, Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, Related Lookup Filters, Search Layouts, and List View Button Layout. The main content area is titled 'Customer Order' and shows the 'Details' tab. It includes fields for Description, API Name (Customer_Order__c), Singular Label (Customer Order), Plural Label (Customer Orders), and several checkboxes for Reports, Activities, Field History, and Deployment Status (all checked). Buttons for Edit and Delete are at the top right.

4.Price

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

Object Manager: Price

Details Tab:

- Description: [Empty]
- API Name: Price_c
- Custom: ✓
- Singular Label: Price
- Plural Label: Prices

Enable Reports: ✓

Track Activities: [Empty]

Track Field History: [Empty]

Deployment Status: Deployed

Help Settings: Standard salesforce.com Help Window

Buttons: Edit, Delete

Left Sidebar: 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.

5.Billing

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

Object Manager: Billing

Details Tab:

- Description: [Empty]
- API Name: Billing_c
- Custom: ✓
- Singular Label: Billing
- Plural Label: Billings

Enable Reports: ✓

Track Activities: [Empty]

Track Field History: [Empty]

Deployment Status: Deployed

Help Settings: Standard salesforce.com Help Window

Buttons: Edit, Delete

Left Sidebar: 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.

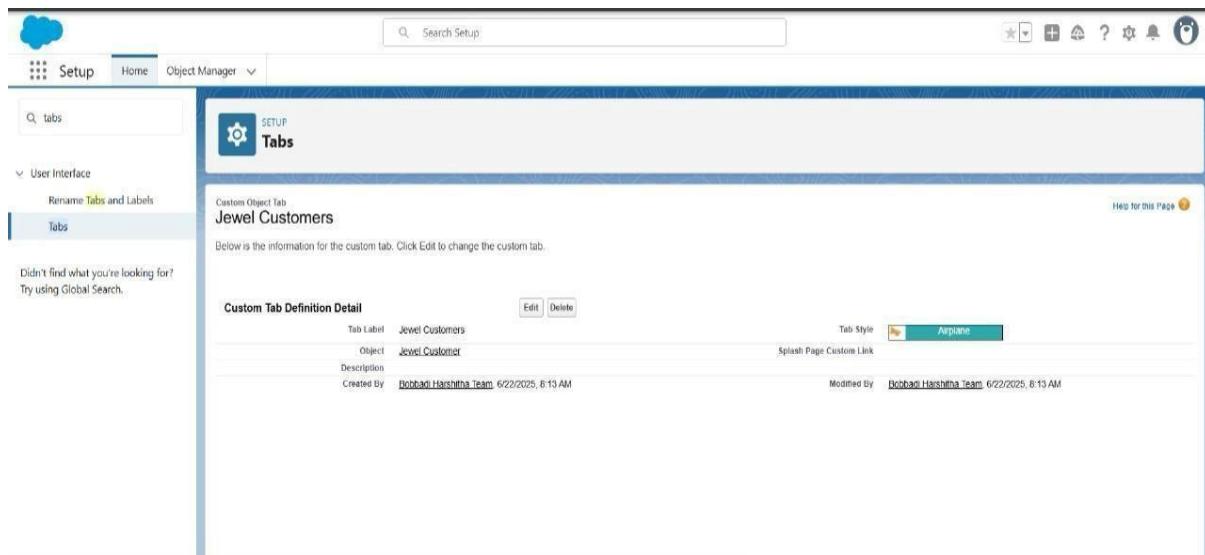
4.3 Creation of Tabs

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

Activity 1: Creating a Custom Tab

1. Go to setup page >> type Tabs in Quick Find bar >> click on tabs >> New (under custom object tab).
2. Select Object (Jewel Customer) >> Select any tab style >> Next (Add to profiles page) keep it as default >> Next (Add to Custom App) keep it as default >> Save.

Jewel Customer



Activity 2: To Create a Tab (Item, Customer Order, Price, Billing)

1. Go to setup page >> type Tabs in Quick Find bar >> click on tabs >> New (under custom object tab)
2. Select Object (Item) >> Select the tab style >> Next (Add to profiles page) keep it as default >> Next (Add to Custom App) keep it as default >> Save.

2.Item

The screenshot shows the Salesforce Setup interface. The left sidebar has 'User Interface' expanded, with 'Tabs' selected. The main content area is titled 'Custom Object Tab Items'. It displays a table with one row for the 'Item' tab:

Tab Label	Items	Tab Style
Item		Splash Page Custom Link

Details for the tab include:
Created By: Bobbadi Harshitha Team 6/22/2025, 8:17 AM
Modified By: Bobbadi Harshitha Team 6/22/2025, 8:17 AM

3.Customer Order

The screenshot shows the Salesforce Setup interface. The left sidebar has 'User Interface' expanded, with 'Tabs' selected. The main content area is titled 'Custom Object Tab Customer Orders'. It displays a table with one row for the 'Customer Order' tab:

Tab Label	Customer Orders	Tab Style
Customer Order		Splash Page Custom Link

Details for the tab include:
Created By: Bobbadi Harshitha Team 6/22/2025, 8:19 AM
Modified By: Bobbadi Harshitha Team 6/22/2025, 8:19 AM

4.Price

The screenshot shows the Salesforce Setup interface. The left sidebar has 'User Interface' expanded, with 'Tabs' selected. The main content area displays a 'Custom Object Tab' for 'Prices'. The tab definition details are as follows:

Tab Label	Prices
Object	Price
Description	Below is the information for the custom tab. Click Edit to change the custom tab.
Created By	Bobbari Hashitha Team 6/22/2025, 8:20 AM
Modified By	Bobbari Hashitha Team 6/22/2025, 8:20 AM

The 'Tab Style' is set to 'Fan'.

5.Billing

The screenshot shows the Salesforce Setup interface. The left sidebar has 'User Interface' expanded, with 'Tabs' selected. The main content area displays a 'Custom Object Tab' for 'Billings'. The tab definition details are as follows:

Tab Label	Billings
Object	Billing
Description	Below is the information for the custom tab. Click Edit to change the custom tab.
Created By	Bobbari Hashitha Team 6/22/2025, 8:22 AM
Modified By	Bobbari Hashitha Team 6/22/2025, 8:22 AM

The 'Tab Style' is set to 'Dot'.

So we get the required all custom tabs as below

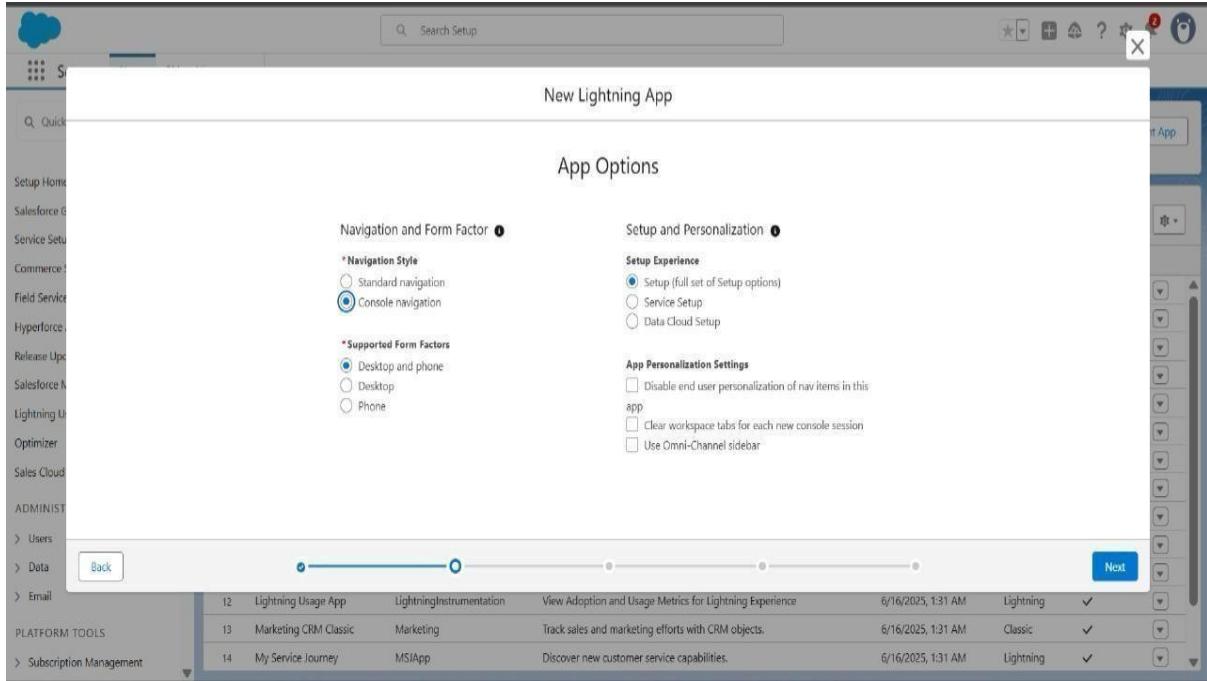
The screenshot shows the Salesforce Setup interface. In the left sidebar, under 'User Interface', the 'Tabs' section is selected. The main content area is titled 'Custom Tabs' and contains a table for 'Custom Object Tabs' with columns for Action, Label, Tab Style, and Description. There are five rows in the table, each with a 'Edit | Del' link. The labels are Billings, Customer Orders, Items, Jewel Customers, and Prices. The tab styles include Boat, Bell, Alarm clock, Airplane, and Fan. Below this is a section for 'Web Tabs' which states 'No Web Tabs have been defined'.

4.4 Creation of Lightning App

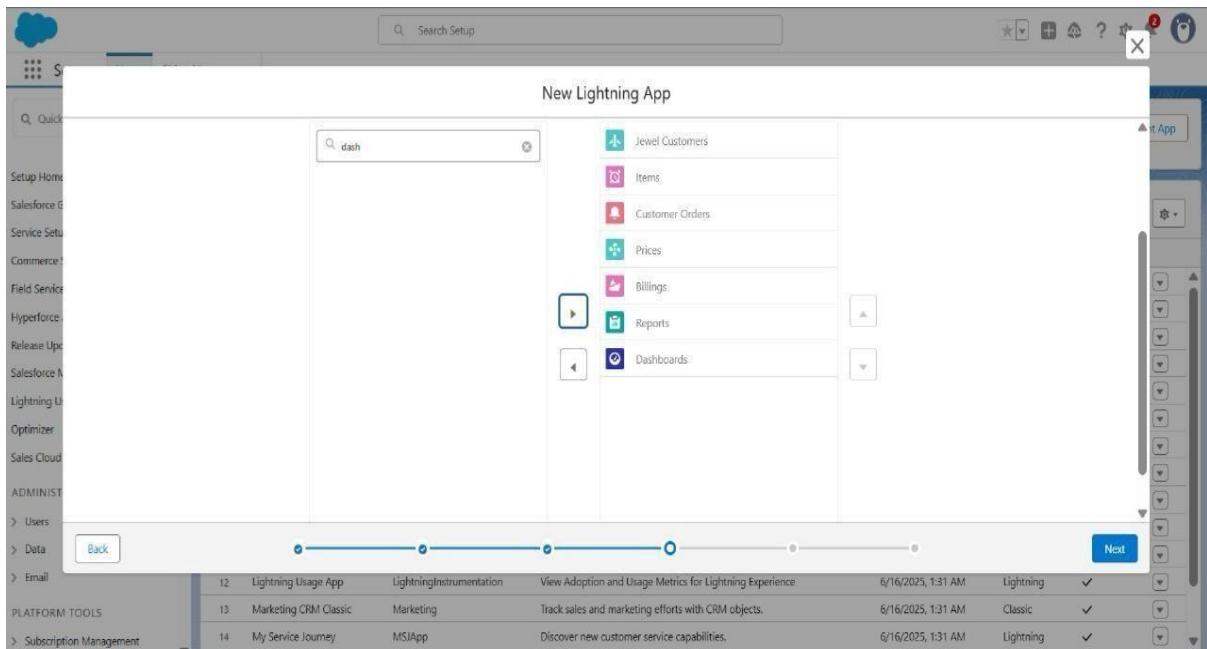
Activity 1: Create A Lightning App

1. Go to setup page >> search “app manager” in quick find >> select “app manager” >>
2. Click on New lightning App.
3. Fill the app name in app details and branding as follow:
 App Name: Jewellery Inventory System.
 Developer Name: This will auto populated
 Description: Elevate your look with elegance

The screenshot shows the 'Lightning App Builder' interface with the 'App Details & Branding' tab selected. On the left, there's a sidebar with 'App Settings' and 'App Details & Branding' selected. The main area has sections for 'App Details' (App Name: jewelry Inventory System, Developer Name: jewelry_Inventory_System, Description: Elevate your look with elegance) and 'App Branding' (Image upload field, Primary Color Hex Value: #0070D2). At the bottom, there's an 'Org Theme Options' checkbox and an 'App Launcher Preview' section showing a blue icon with 'jl' and the app details.



Navigation Items



4.5 Creation of Fields

1.Creating lookup relationship

Activity 1: Creating Lookup Relationship

1. Go to the setup page >> click on object manager >> type object name (Customer Order) in the quick find bar >> click on the object.
2. Click on fields & relationship >> click on New.
3. Select “Lookup relationship” as data type and click Next.
4. Select the related object “Jewel Customer ”
5. Give Field Label as “Customer” and click Next >> Next >> Next >> Save.

Customer Order
New Relationship
Step 3 of 6

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

Customer Order
New Relationship
Step 6 of 6

Field Label: Customer
Data Type: Lookup
Field Name: Customer
Description:
Specify the title that the related list will have in all of the layouts associated with the parent.
Related List Label: Customer Orders
Select the page layouts that should include this field. The field will be added as the last field in the first 2-column section of these page layouts. The field will not appear on any pages if you do not select a layout.
Add Related List: Page Layout Name: Jewel Customer Layout
 Append related list to users' existing personal customizations.

2. Creating a Master-Detail Relationship

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

Activity 2: Creating a Master-Detail Relationship

1. Go to the setup page >> click on object manager >> type object name (Customer Order) in the quick find bar >>
2. Click on fields & relationships >> click on New.
3. Select “Master-Detail relationship” as data type and click Next.
4. Select the related object “Item”
5. Give Field Label as “Item” and click Next >> Next >> Next >> Save.

The image contains two screenshots of the Salesforce Setup interface, illustrating the process of creating a Master-Detail relationship between the Customer Order and Item objects.

Screenshot 1: Step 5, Add reference field to Page Layouts

This screenshot shows the "Step 5, Add reference field to Page Layouts" page. The "Field Label" is set to "Item", "Data Type" is "Master-Detail", and "Field Name" is "Item". The "Description" field is empty. Below the form, a note states: "These are the page layouts that will include this field. Because this is a Master-Detail relationship, the field is required." A table lists "Add Field" and "Page Layout Name" with a checked checkbox for "Customer Order Layout". Navigation buttons at the bottom right include "Previous", "Next", and "Cancel".

Screenshot 2: Step 6, Add custom related lists

This screenshot shows the "Step 6, Add custom related lists" page. The "Field Label" is "Item", "Data Type" is "Master-Detail", and "Field Name" is "Item". The "Description" field is empty. Below the form, a note states: "Specify the title that the related list will have in all of the layouts associated with the parent." A table lists "Related List Label" with a value of "Customer Orders" and "Add Related List" with a checked checkbox for "Item Layout". A checkbox for "Append related list to users' existing personal customizations" is also present. Navigation buttons at the bottom right include "Previous", "Save & New", "Save", and "Cancel".

3. Creating Text Field in Jewel Customer Object

1. Go to setup >> click on Object Manager >> type object name (Jewel Customer) in quick find bar >> click on the object.
2. Now click on “Fields & Relationships” >> New
3. Select Data type as “Text”.
4. Click on Next

The screenshot shows the 'New Custom Field' page in the Salesforce Setup interface. The left sidebar is titled 'Fields & Relationships' and includes options like Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, Related Lookup Filters, Search Layouts, List View Button Layout, Restriction Rules, and Scoping Rules. The main panel is titled 'Step 2. Enter the details' and shows the following fields:

- Field Label:** City
- Length:** 20
- Field Name:** City
- Description:** (empty)
- Help Text:** (empty)
- Required:** Always require a value in this field in order to save a record
- Unique:** Do not allow duplicate values
 - Treat "ABC" and "abc" as duplicate values (case insensitive)
 - Treat "ABC" and "abc" as different values (case sensitive)
- External ID:** Set this field as the unique record identifier from an external system
- Auto add to custom report type:** Add this field to existing custom report types that contain this entity

The screenshot shows the 'New Custom Field' page in the Salesforce Setup interface, specifically Step 4: Add to page layouts. The left sidebar is identical to the previous screenshot. The main panel is titled 'Step 4. Add to page layouts' and shows the following configuration:

- Field Label:** City
- Data Type:** Text
- Field Name:** City
- Description:** (empty)
- Select the page layouts that should include this field:** A note states: 'The field will be added as the last field in the first 2-column section of these page layouts. The field will not appear on any pages if you do not select a layout.' Below this, there is a list of page layouts:
 - Add Field
 - Page Layout Name
 - Jewel Customer Layout
- When finished, click Save & New to create more custom fields, or click Save if you are done.**

4. Creating the Phone field in object Jewel Customer

1. Go to setup >> click on Object Manager >> type object name (Jewel Customer) in quick find bar >> click on the object.
2. Now click on “Fields & Relationships” >> New
3. Select Data type as “Phone” and click Next.
4. Given the Field Label as “Phone”.
5. Field Name will be auto populated, and click on Next >> Next >> Save & new

Jewel Customer
New Custom Field
Step 4. Add to page layouts
Field Label: Phone
Data Type: Phone
Field Name: Phone
Description:
Select the page layouts that should include this field. The field will be added as the last field in the first 2-column section of these page layouts. The field will not appear on any pages if you do not select a layout.
To change the location of this field on the page, you will need to customize the page layout.
 Add Field Page Layout Name
 Jewel Customer Layout
When finished, click Save & New to create more custom fields, or click Save if you are done.
Step 4 of 4

5. Creating the Email field in object Jewel Customer

Jewel Customer
New Custom Field
Step 4. Add to page layouts
Field Label: Email
Data Type: Email
Field Name: Email
Description:
Select the page layouts that should include this field. The field will be added as the last field in the first 2-column section of these page layouts. The field will not appear on any pages if you do not select a layout.
To change the location of this field on the page, you will need to customize the page layout.
 Add Field Page Layout Name
 Jewel Customer Layout
When finished, click Save & New to create more custom fields, or click Save if you are done.
Step 4 of 4

6. Creating the number field in Item object

The screenshot shows the Salesforce Setup interface for creating a new custom field. The left sidebar is titled 'Object Manager' and lists various setup categories like Details, Fields & Relationships, Page Layouts, and Lightning Record Pages. The main area is titled 'Item' and 'New Custom Field'. The step being completed is 'Step 4. Add to page layouts'. The field configuration includes:

Field Label	Purity
Date Type	Number
Field Name	Purity
Description	(empty)

The help text indicates that the field will be added as the last field in the first 2-column section of selected page layouts. Under 'Add Field Page Layout Name', 'Item Layout' is selected. At the bottom, there are buttons for 'Previous', 'Save & New', 'Save', and 'Cancel'.

7. Creating Picklist Field in Item Object

The screenshot shows the Salesforce Setup interface for creating a new custom field. The left sidebar is titled 'Object Manager' and lists various setup categories. The main area is titled 'Item' and 'New Custom Field'. The step being completed is 'Step 4. Add to page layouts'. The field configuration includes:

Field Label	Item Type
Date Type	Picklist
Field Name	Item_Type
Description	(empty)

The help text indicates that the field will be added as the last field in the first 2-column section of selected page layouts. Under 'Add Field Page Layout Name', 'Item Layout' is selected. At the bottom, there are buttons for 'Previous', 'Save & New', 'Save', and 'Cancel'.

8. Creating Currency Field in Price Object

Setup > OBJECT MANAGER
Price

New Custom Field

Step 3. Establish field-level security

Field Label: Gold Price
Data Type: Currency
Field Name: Gold_Price
Description:

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

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

Setup > OBJECT MANAGER
Item

Enter your formula and click Check Syntax to check for errors. Click the Advanced Formula subtab to use additional fields, operators, and functions.

Example: `Gross Margin - Amount - Cost / 10` | More Examples...

Simple Formula | Advanced Formula

Gold Price (Currency) = `Gross Margin - Amount - Cost / 10`

Insert Field | Insert Operator ▾

Quick Tips

- Getting Started
- Operators & Functions

Functions

- All Function Categories -

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

Insert Selected Function

The screenshot shows the Salesforce Setup interface under the Object Manager for the 'Item' object. A new custom field is being created, specifically a formula field named 'Gold Price'. The 'Fields & Relationships' tab is selected. Step 5 of 5 is shown, titled 'Add to page layouts'. The field details are: Field Label: Gold Price, Data Type: Formula, Field Name: Gold_Price. The description notes that the field will be added as the last field in the first 2-column section of page layouts. A checkbox for 'Add Field' is checked, and 'Page Layout Name' is set to 'Item Layout'. Buttons at the bottom include 'Previous', 'Save & New', 'Save', and 'Cancel'.

10. Creating Remaining Fields in Objects

Creating remaining fields in the objects

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

The screenshot shows the Salesforce Setup interface under the Object Manager for the 'Jewel Customer' object. The 'Fields & Relationships' tab is selected, displaying 11 items sorted by Field Label. The table shows the following fields:

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

2.Price : Silver Price

The screenshot shows the Salesforce Setup interface for the 'Price' object. The left sidebar includes options like Details, Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, Related Lookup Filters, Search Layouts, and List View Button Layout. The main content area displays the 'Fields & Relationships' section with 6 items. The table columns are FIELD LABEL, FIELD NAME, DATA TYPE, CONTROLLING FIELD, and INDEXED.

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

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

The screenshot shows the Salesforce Setup interface for the 'Item' object. The left sidebar includes options like Details, Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, Related Lookup Filters, Search Layouts, and List View Button Layout. The main content area displays the 'Fields & Relationships' section with 23 items. The table columns are FIELD LABEL, FIELD NAME, DATA TYPE, CONTROLLING FIELD, and INDEXED.

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

4.Customer Order: Order Status

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

- Header: Search Setup, Setup, Home, Object Manager.
- Breadcrumb: SETUP > OBJECT MANAGER, 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.
- Main content: Fields & Relationships table with 6 items, sorted by Field Label.

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

5.Billing: FieldLabelItem,Ornament,Stone,Weight,Weight,Amount, Gold/Silver Price, KDM Charge, Making Charges,Stone/Other Price, Total Amount.

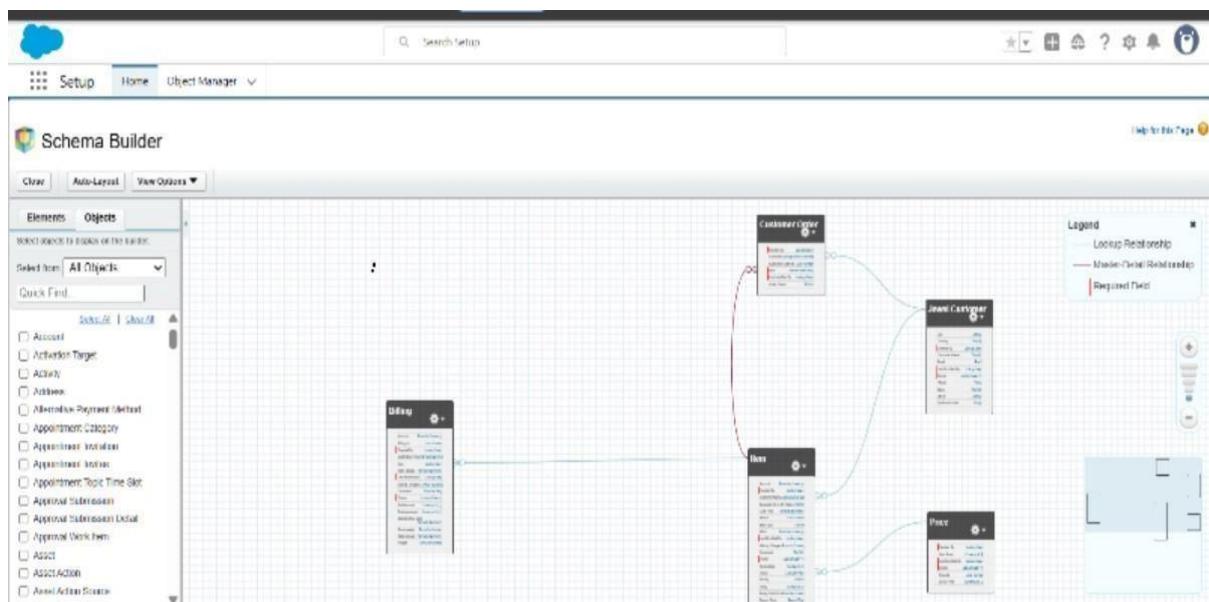
The screenshot shows the Salesforce Setup interface with the following details:

- Header: Search Setup, Setup, Home, Object Manager.
- Breadcrumb: SETUP > OBJECT MANAGER, Billing.
- 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.
- Main content: Fields & Relationships table with 16 items, sorted by Field Label.

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Amount	Amount_c	Formula (Currency)		
Billing Id	Name	Auto Number		
Created By	CreatedBy	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	LastModifiedBy	Lookup(User)		
Making Charges	Making_Charges_c	Formula (Currency)		

11.Creation of Schema Builder

Schema Builder is a powerful tool within Salesforce that allows you to visualise, explore, and design the relationships between objects in your Salesforce organisation. It provides a graphical representation of the data model, making it easier to understand the structure and connections between different objects.



12.Creation of Field Dependencies

1. Go to setup >> click on Object Manager >> type object name(Item) in quick find bar >> click on the object.
2. Click on Fields & Relationships and click on the Priority field.
3. Search for Field Dependencies and click on New.
4. Select Controlling Field as “Priority” and Depending field as “Expected Days of Return” >> Continue.

13. Creation of Validation Rules

The screenshot shows the Salesforce Setup interface for creating a Validation Rule. The object being modified is 'Jewel Customer'. The validation rule is titled 'Jewel Customer Validation Rule'. The 'Validation Rule Detail' section shows the following configuration:

- Rule Name:** Postal_Code
- Error Condition Formula:** AND(
 - LEN(Zip_Postal_code__c) <= 6,
 - NOT(REGEX(Zip_Postal_code__c, "[0-9]{5}\$")),
 - NOT(ISBLANK(Zip_Postal_code__c)))
- Error Message:** Must contain 6 digits
- Description:** Created by Bobbadi Harshita Team
- Created Date:** 6/23/2025, 6:58 AM
- Error Location:** Zip/Postal code
- Modified By:** Bobbadi Harshita Team
- Modified Date:** 6/23/2025, 6:58 AM

The screenshot shows the Salesforce Setup interface for defining field dependencies. The object being modified is 'Item'. The 'Fields & Relationships' section is selected. The 'Field Dependencies' section shows the following dependency:

Action	Controlling Field	Dependent Field	Modified By
Edit Del	Priority	Expected Days Of Return	Bobbadi Harshita Team

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

- Header:** Search Setup, Home, Object Manager.
- Breadcrumbs:** SETUP > OBJECT MANAGER > Jewel Customer.
- Page Title:** Jewel Customer Validation Rule
- Left Sidebar:** 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.
- Main Content:**
 - Validation Rule Detail:** Active checked.
 - Rule Name:** ValidationRule_For_JewelCustomerObject
 - Error Condition Formula:** OR(ISBLANK(City_c), ISBLANK(Country_c), ISBLANK(Phone_c), ISBLANK(State_c), ISBLANK(Street_c))
 - Error Message:** Please fill Required fields
 - Description:** (empty)
 - Created By:** Pabbadi Harshima Team (6/23/2025, 7:00 AM)
 - Modified By:** Pabbadi Harshima Team (6/23/2025, 7:00 AM)
- Buttons:** Edit, Clone.

4.6 Creation of Profiles

We create the goldsmith profile and the worker profile

1. Go to setup >> type profiles in quick find box >>click on profiles ? clone the desired profile (System Administrator) >> enter profile name (Gold Smith) >> Save.
2. While still on the profile page, then click Edit.
3. Scroll down to Custom Object Permissions and Give access permissions for Jewel Customer, Item, Customer Order, Price, Billings.

4. Scroll down and Click on Save.

Profile Detail

Name	Worker Profile	Custom Profile	<input checked="" type="checkbox"/>
User License	Salesforce Platform		
Description			
Created By	Bobadi Harshitha Team	Modified By	Bobadi Harshitha Team

Page Layouts

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

4.7 Creation of Roles

Collapse All Expand All

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

4.8 Creation of Users

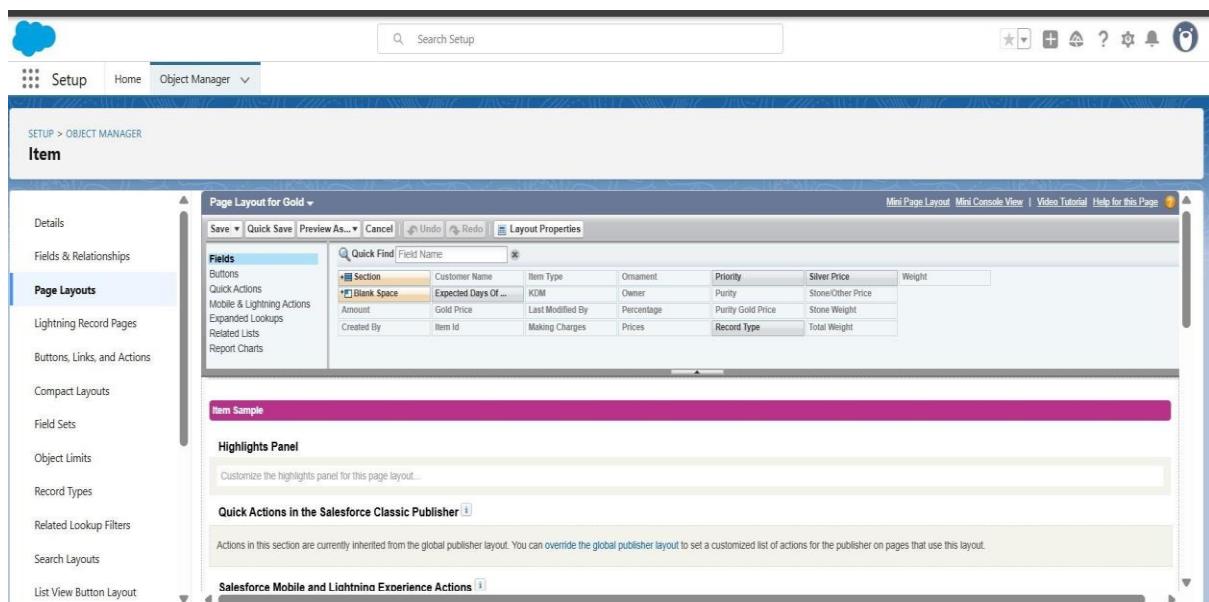
All Users

Action	Full Name	Alias	Username	Role	Active	Profile
<input type="checkbox"/>	Chatter_Priyad	Chatter	priyad@00pd0005vngqao.com		<input checked="" type="checkbox"/>	Chatter Free User
<input type="checkbox"/>	EPIC_OrgFarm	EPIC	epic@112x97a@52.orgfarm.com		<input checked="" type="checkbox"/>	System Administrator
<input type="checkbox"/>	Mikael_Kol	Mikael	mikael@gmail.com	Worker	<input checked="" type="checkbox"/>	Worker Profile
<input type="checkbox"/>	Mikaelson_Niklaus	Niklaus	niklaus@gmail.com	Gold_Smith	<input checked="" type="checkbox"/>	Gold Smith
<input type="checkbox"/>	Team_Bobadi_Harshitha	bob	bob@badiharshitha1974@gmail.com		<input checked="" type="checkbox"/>	System Administrator
<input type="checkbox"/>	User_Integration	integ	integration@00pd0005vngqao.com		<input checked="" type="checkbox"/>	Analytics Cloud Integration User
<input type="checkbox"/>	User_Security	sec	insightssecurity@00pd0005vngqao.com		<input checked="" type="checkbox"/>	Analytics Cloud Security User

4.9 Creation of Page Layouts

We create the page layouts for gold and silver items

1. Go to Setup >> Click on Object Manager >> Search for the object (Item)
>> From drop down click on Edit.
2. Click on Page layout >> Click on New.
3. Give Page layout Name as “Page Layout for Gold” and click on Save.
4. Arrange the field as shown in the Information Section, remove fields which are related to Silver and click Ok.



4.10 Creation of Record Types

1. Go to setup >> click on Object Manager >> type object name (Item) in quick find bar? click on the object.
2. Click on the Record Types >> click New.
3. Select Existing Record as “Master”, Record type Label as “Gold”, Description as “Gold items information”.

Setup > OBJECT MANAGER

Item

Record Types
2 Items. Sorted by Record Type Label

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

4.11 Creation of Permission Sets

1. Go to setup >> type “permission sets” in quick search >> select permission sets >> New.
2. Enter the label name as “Per to Worker”, API will be auto populated >> save.
3. Click on Save.
4. After saving the permission click on the Manage assignment
5. Now click on the Add Assignment.

Q. permission sets

Users

Permission Sets

Permission Set
Per to Worker

Find Settings | Close | Edit Properties | Manage Assignments | View Summary

Permission Set Overview

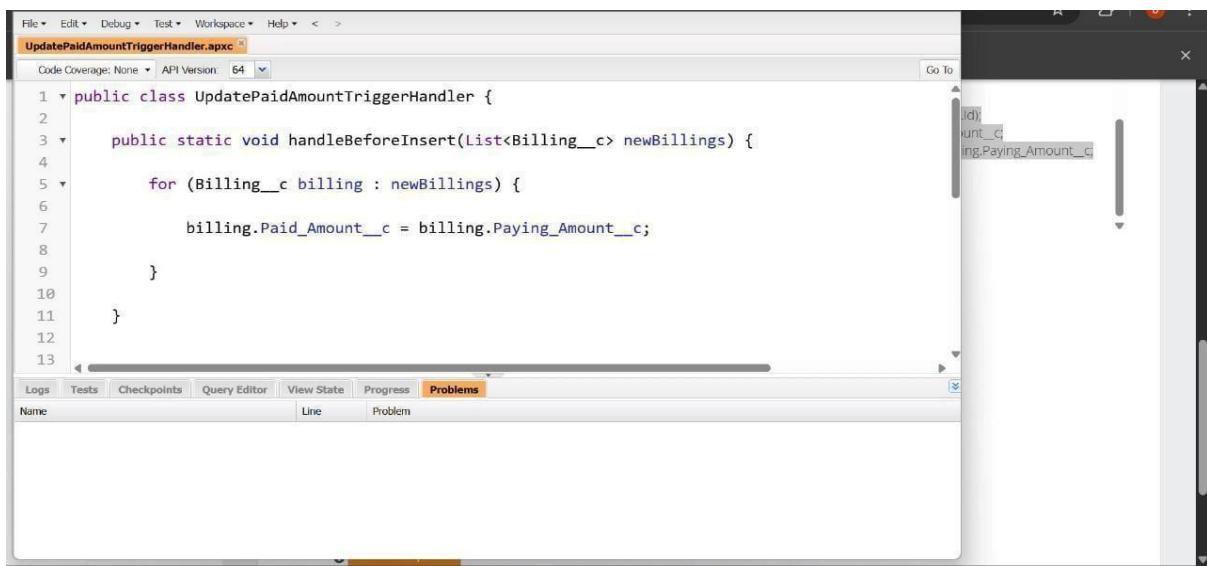
Description	API Name:	Per_to_Worker
License	Namespace Prefix:	Per_to_Worker
Session Activation Required	Created By:	Bobbadi Harshitha Team, 6/23/2025, 12:18 PM
Permission Set Groups Added To: 0	Last Modified By:	Bobbadi Harshitha Team, 6/23/2025, 12:22 PM

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: Permissions to execute Apex classes

4.12 Creation of Trigger

- * A trigger handler is a design pattern that organises trigger logic into separate classes.
- * This helps in keeping code organised, reusable, and easier to maintain.
- * The trigger handler class contains methods that handle the specific logic for different trigger events, improving code structure and readability.
- * This approach is particularly useful for complex triggers or projects with multiple triggers, as it promotes modular coding practices and reduces the chances of code duplication.



The screenshot shows the Salesforce IDE interface. The top menu bar includes File, Edit, Debug, Test, Workspace, Help, and various toolbars. The main window displays the code for 'UpdatePaidAmountTriggerHandler.apxc'. The code is a Apex class named 'UpdatePaidAmountTriggerHandler' with a static method 'handleBeforeInsert' that iterates through a list of Billing__c records and updates the Paid_Amount__c field to match the Paying_Amount__c field. The code editor has syntax highlighting and a scroll bar. Below the editor is a toolbar with tabs for Logs, Tests, Checkpoints, Query Editor, View State, Progress, and Problems, with 'Problems' selected. To the right of the editor is a 'Go To' search bar and a vertical navigation pane.

```
1 public class UpdatePaidAmountTriggerHandler {  
2  
3     public static void handleBeforeInsert(List<Billing__c> newBillings) {  
4         for (Billing__c billing : newBillings) {  
5             billing.Paid_Amount__c = billing.Paying_Amount__c;  
6         }  
7     }  
8 }  
9  
10  
11  
12  
13
```

CODE:

```
trigger UpdatePaidAmountTrigger on Billing__c (before insert, before update) {  
    if (Trigger.isInsert) {  
        UpdatePaidAmountTriggerHandler.handleBeforeInsert(Trigger.new);  
    } else if (Trigger.isUpdate) {  
        UpdatePaidAmountTriggerHandler.handleBeforeUpdate(Trigger.oldMap,  
Trigger.new);  
    }  
}
```

```

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);
    }
}

```

4.13 Creation of User Adoption

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

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

Jewel Customers

Recently Viewed

10 items • Updated a few seconds ago

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

4.14 Creation of Reports

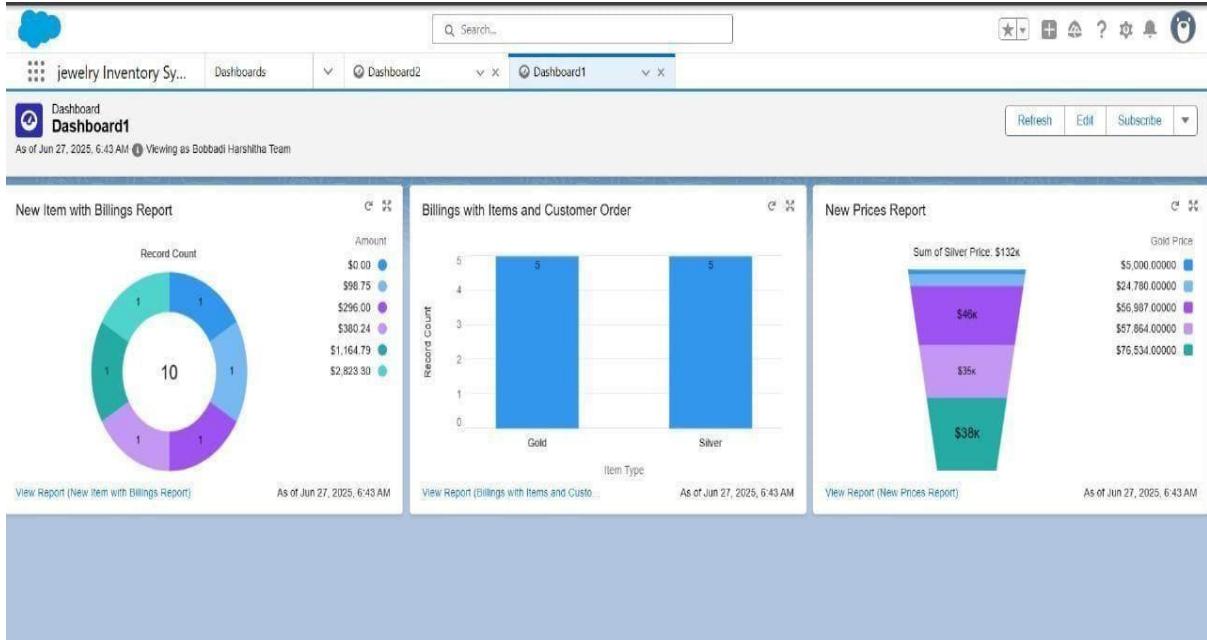
Go to the app >> click on the reports tab

2. Click New Report.
3. Select report type from category or from report type panel or from search panel >> Click on start report.
4. Customise your report5. Save or run it.

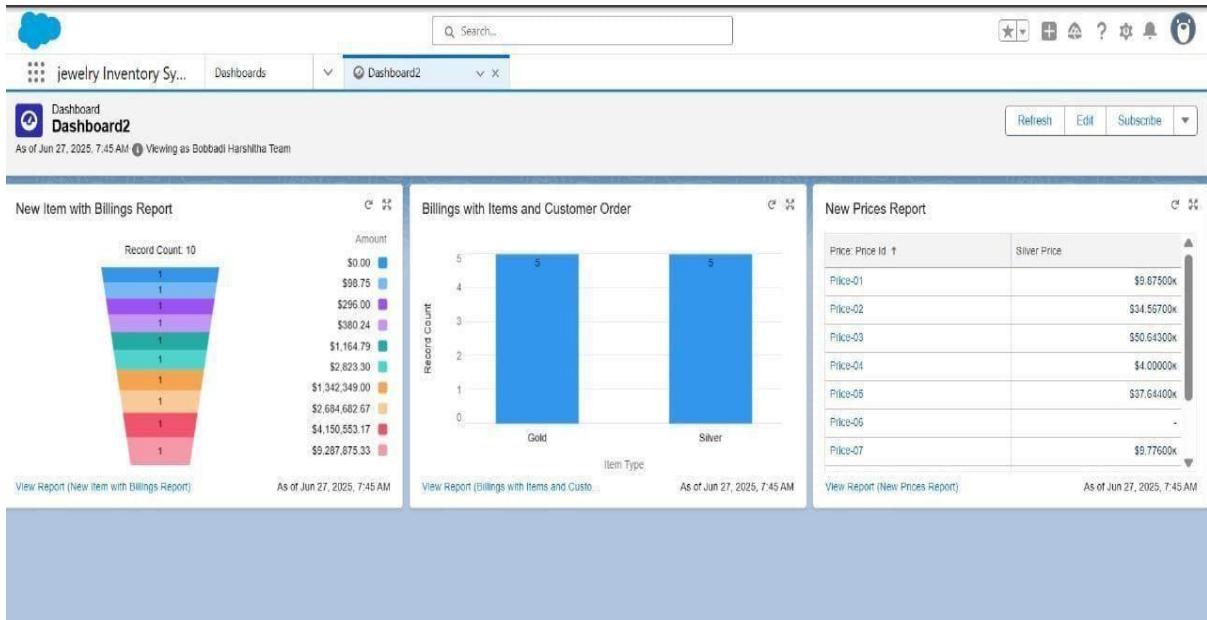
Report Name	Description	Folder	Created By	Created On	Subscribed
Billing with Items and Customer Order	Private Reports	Bobbadhi Harshitha Team	6/25/2025, 10:44 AM		
New Item with Billing Report	Private Reports	Bobbadhi Harshitha Team	6/25/2025, 10:43 AM		
New Prices Report	Private Reports	Bobbadhi Harshitha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

4.15 Creation of Dashboards

Dashboard 1



Dashboard 2



4.16 Creation of Flows

- 1.Go to setup >> type Flow in quick find box >> Click on the Flow and Select the New Flow.
- 2.Select the Record-triggered flow and Click on Create. Select the Object as a “Billing” in the Drop down list.
3. Select the Trigger Flow when: “A record is Created or Updated”.
4. Select the Optimise the flow for: “Actions and Related Records” and Click on Done.

Now change the mode form Auto-layout to free-form.

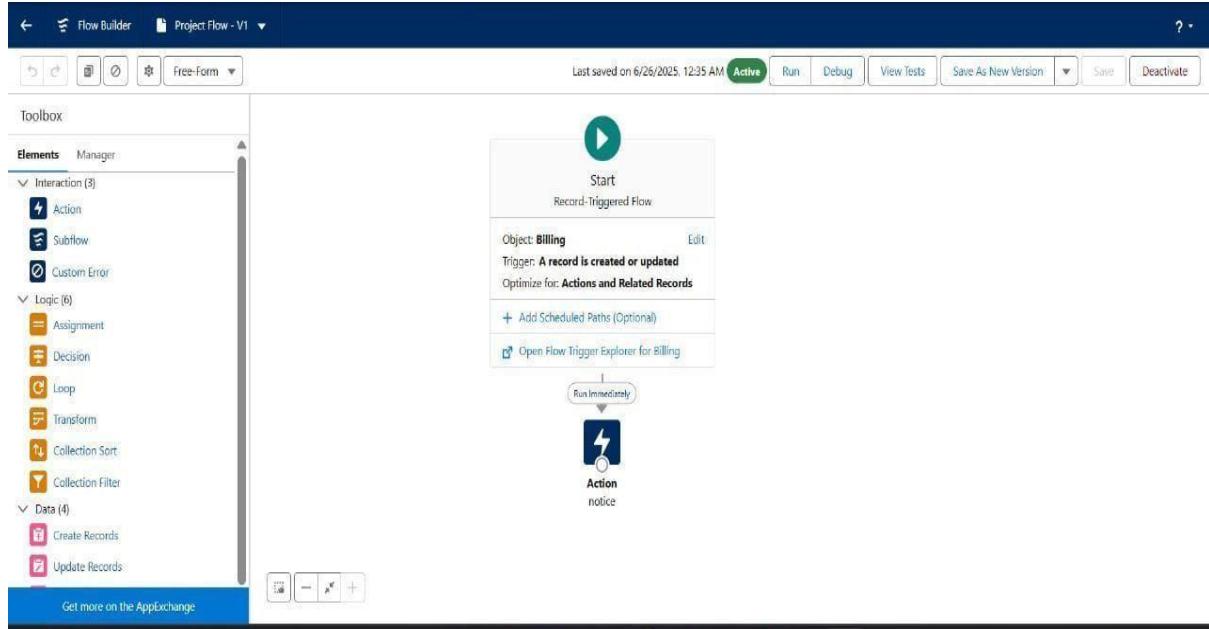
6. Now select the manger option in the toolbox, click New resource.
7. Select the resource type as text template. Click done.
8. Now click on elements, and drag the action element into the preview pane.
9. In the body field paste the syntax that is given below.

Hello

Customer Name: {!\$Record.Item__r.Customer_Name__r.Name}

Here are the details for the item you purchased with Jewellery Inventory System

- 10.Give the label name as “notice”. Now drag the path from the start to the action element.
- 11.Include Recipient Address list, select the email form the record.
- 12.Click on save. Given the Flow label , Flow Api name will be auto populated.
- 13.And click save, and click on activate.



PHASE 5: DEPLOYMENT & MAINTENANCE

- ✓ Once the CRM application was fully tested and validated, it was deployed in the Salesforce production environment for real-time use.
- ✓ All essential modules — including Customer, Jewelry Item, Customer Order, Billing, and Price — were activated and integrated.
- ✓ Dashboards and reports were shared with management for monitoring business performance and customer engagement.
- ✓ Maintenance involves regular updates, system monitoring, and performance optimization.

TESTING SUMMARY

- ❖ Unit Testing: Verified each module like Customer, Item, Order, Billing, and Price individually.
- ❖ Integration Testing: Checked data flow between related objects.
- ❖ User Acceptance Testing: Ensured system meets user expectations and is easy to use.
- ❖ Performance Testing: Confirmed fast loading and smooth operation.

- ❖ Security Testing: Validated access control and data protection.

TESTING AND DEBUGGING

Testing and debugging played a crucial role in ensuring the reliability, accuracy, and performance of the **CRM Application for Jewelry Management**. Multiple testing phases were conducted to verify that all modules — including customer data management, sales tracking, inventory control, and billing — functioned correctly and met the project requirements.

Functional Testing was carried out to validate each feature against the defined use cases. Modules such as lead conversion, order processing, and invoice generation were tested using different input scenarios to ensure that the workflows performed as expected.

Integration Testing ensured seamless data flow between interconnected objects like Customer, Product, Order, and Invoice, confirming that information remained consistent across the system.

User Acceptance Testing (UAT) was performed with sample users such as sales executives and store managers to evaluate the system's usability and performance in real business conditions. Their feedback helped refine layouts, validation rules, and automation flows.

LIMITATIONS

- ❖ Requires a stable internet connection for cloud access.
- ❖ Limited offline functionality in Salesforce.
- ❖ Custom UI design options are restricted within the Salesforce platform.
- ❖ Integration with external billing or ERP systems may need additional APIs.

FUTURE OUTCOMES

- ❖ Technical Improvements: Integration with AI and machine learning to predict customer preferences and buying trends.
- ❖ Business Outcomes: Increased brand loyalty through rewards, offers, and better customer engagement.
- ❖ Long-Term Goals: Expansion of CRM features to support multiple branches or franchises. Use of data analytics and forecasting for strategic business planning.

CONCLUSION

The **CRM Application for Jewelry Management** successfully streamlines and automates various operations of a jewelry business through the Salesforce platform. The system centralizes all customer-related information, product details, and sales transactions, ensuring that data is easily accessible and well-organized. By maintaining a comprehensive database of customers, purchase history, and preferences, the system enables the delivery of personalized services and builds stronger customer relationships.

This project effectively integrates multiple business functions—such as sales, lead management, inventory control, billing, and reporting—into one cohesive system. Through Salesforce's powerful tools, it automates repetitive processes like lead tracking, order management, and invoice generation, significantly reducing manual work and human errors. The automated workflows ensure consistency in business operations, while real-time dashboards and reports provide valuable insights into sales trends and performance metrics.

One of the major achievements of this CRM application is its ability to enhance **transparency and accuracy**. The inclusion of automated pricing calculations, stock updates, and approval processes ensures that all business data is reliable and up to date. Additionally, role-based access control and secure data management practices safeguard sensitive business and customer information, which is crucial in a competitive industry like jewelry retail.

From a business perspective, the project demonstrates how **Salesforce CRM** can be tailored to meet the unique needs of the jewelry industry. It shows how technology can drive efficiency, improve decision-making, and strengthen relationships with both new and existing customers. The use of cloud-based architecture allows the system to be accessible anytime and anywhere, providing flexibility for managers and employees across different branches or departments.

In conclusion, the **CRM Application for Jewelry Management** stands as an effective example of how Salesforce technology can be implemented to achieve higher efficiency, better transparency, and improved customer satisfaction. It paves the way for jewelry businesses to embrace smart, data-driven operations and build long-term success in a rapidly evolving marketplace.

REFERNECES:

https://trailhead.salesforce.com/content/crm_application_for_jewel_management/create_custom_objects

https://trailhead.salesforce.com/content/crm_application_for_jewel_management/schema_builder

https://trailhead.salesforce.com/content/crm_application_for_jewel_management/field_dependencies

https://trailhead.salesforce.com/content/crm_application_for_jewel_management/profiles

https://trailhead.salesforce.com/content/crm_application_for_jewel_management/users

https://trailhead.salesforce.com/content/crm_application_for_jewel_management/triggers