

# **CRM APPLICATION FOR JEWEL MANAGEMENT**

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UDHAGAMANDALAM**

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## **1.INTRODUCTION**

### **1.1 PROJECT OVERVIEW**

- ❖ Jewellery management in a CRM (Customer Relationship Management) system is specialized software designed for jewelry businesses to centralize customer data, manage interactions, and optimize sales and inventory.
- ❖ It helps jewelers understand customer preferences and purchase history to provide personalized service, automate follow-ups, and track sales and orders efficiently. By analyzing data, a jewelry CRM can also improve inventory management, suggest targeted marketing campaigns, and ultimately foster customer loyalty and drive business growth.



## 1.2 PURPOSE

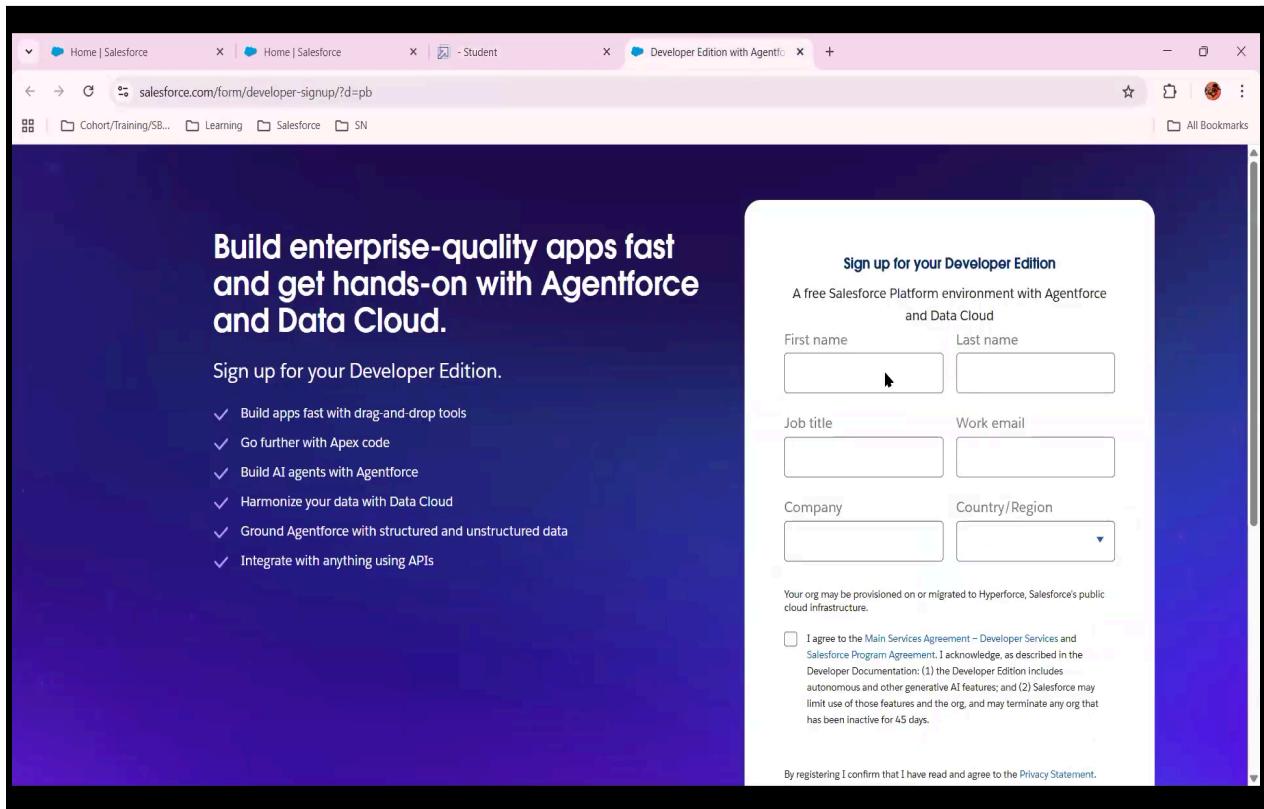
- ❖ The primary purpose of jewellery management in a CRM is to enhance customer satisfaction and loyalty by providing personalized service, tracking purchase history and preferences, and facilitating targeted marketing and engagement.

## 2.DEVELOPMENT PHASE

### 2.1 Salesforce Setup

CREATING DEVELOPER ACCOUNT :

BY USING THIS URL : <https://www.salesforce.com/form/developer-signup/>



### 2.2 Salesforce Setup Objects & Tabs

- ❖ Created custom objects (Jewel Customer, Item, Order, Billing).
- ❖ Created custom tabs for each object.

The screenshot shows the Seller Home dashboard in the Salesforce Sales Cloud. It features several key performance indicators (KPIs) and links:

- Close Deals:** Opportunities owned by me and closing this quarter. Includes a large circle showing \$0 Total Pipeline and three status boxes: \$0 Open (green), \$0 Won (blue), and \$0 Lost (red). Link: [View Opportunities](#).
- Plan My Accounts:** Accounts owned by me. Includes a large circle showing 0 Accounts and three activity status boxes: 0 Upcoming Activity (green), 0 Past Activity (blue), and 0 No Activity (red). Link: [View Accounts](#).
- Grow Relationships:** Contacts owned by me and created in the last 90 days. Includes a large circle showing 0 Contacts and three activity status boxes: 0 Upcoming Activity (green), 0 Past Activity (blue), and 0 No Activity (red). Link: [View Contacts](#).
- Build Pipeline:** Leads owned by me and created in the last 30 days. Includes a large circle showing 0 Leads and three activity status boxes: 0 Upcoming Activity (green), 0 Past Activity (blue), and 0 No Activity (red).
- My Goals:** Set personal weekly or monthly goals for emails, calls, and meetings. Includes a link to "Set personal weekly or monthly goals for emails, calls, and meetings."
- Today's Events:** Includes a small icon of a person at a desk.

At the bottom left, there is a link to "To Do List".

The screenshot shows the Object Manager setup page in the Salesforce Setup interface. The page displays a list of objects:

Label	API Name	Type	Description	Last Modified	Deployed
Account	Account	Standard Object			
Activity	Activity	Standard Object			
Address	Address	Standard Object			
Agent Work	AgentWork	Standard Object			
Alternative Payment Method	AlternativePaymentMethod	Standard Object			
API Anomaly Event Store	ApiAnomalyEventStore	Standard Object			
Appointment Category	AppointmentCategory	Standard Object			
Appointment Invitation	AppointmentInvitation	Standard Object			
Appointment Invitee	AppointmentInvitee	Standard Object			
Appointment Topic Time Slot	AppointmentTopicTimeSlot	Standard Object			
Approval Submission	ApprovalSubmission	Standard Object			
Approval Submission Detail	ApprovalSubmissionDetail	Standard Object			

At the top right, there are buttons for "Quick Find", "Schema Builder", and "Create".

The screenshot shows the Salesforce Object Manager page. At the top, there are three tabs: Home | Salesforce, Object Manager | Salesforce, and the current tab, - Student. The URL in the address bar is orgfarm-a01ed0511a-dev-ed.lightning.force.com/lightning/setup/ObjectManager/home. The page title is "Object Manager". A search bar at the top right contains the text "item". Below the title, it says "19 Items, Sorted by Label". There is a "Create" button with a dropdown arrow. The main content is a table with columns: LABEL, API NAME, TYPE, DESCRIPTION, LAST MODIFIED, and DEPLOYED. The table lists various objects:

LABEL	API NAME	TYPE	DESCRIPTION	LAST MODIFIED	DEPLOYED
Approval Work Item	ApprovalWorkitem	Standard Object			
Cart Item	CartItem	Standard Object			
Cart Item Price Adjustment	CartItemPriceAdjustment	Standard Object			
ChangeRequest Related Item	ChangeRequestRelatedItem	Standard Object			
Contract Line Item	ContractLineitem	Standard Object			
Duplicate Record Item	DuplicateRecordItem	Standard Object			
Fulfillment Order Item Adjustment	FulfillmentOrderItemAdjustment	Standard Object			
Fulfillment Order Item Tax	FulfillmentOrderItemTax	Standard Object			
Incident Related Item	IncidentRelatedItem	Standard Object			
Inventory Item Reservation	InventoryItemReservation	Standard Object			

## ❖ Configured fields and relationships

The screenshot shows the Salesforce Object Manager Details page for the "Jewel Customer" object. At the top, there are three tabs: Home | Salesforce, Jewel Customer | Salesforce, and the current tab, - Student. The URL in the address bar is orgfarm-a01ed0511a-dev-ed.lightning.force.com/lightning/setup/ObjectManager/01lgK000001owLB/Details/view. The page title is "Jewel Customer". On the left, there is a sidebar with a "Details" section and a list of configuration options: Fields & Relationships, Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, Related Lookup Filters, Search Layouts, List View Button Layout, and Restriction Rules. The main content area is titled "Details" and shows the following fields:

Description	
API Name	Jewel_Customer__c
Custom	✓
Singular Label	Jewel Customer
Plural Label	Jewel Customers
Enable Reports	
Track Activities	
Track Field History	
Deployment Status	Deployed
Help Settings	Standard salesforce.com Help Window

At the top right of the main content area, there are "Edit" and "Delete" buttons.

SETUP > OBJECT MANAGER

## Item

Details  
Fields & Relationships  
**Page Layouts**  
Lightning Record Pages  
Buttons, Links, and Actions  
Compact Layouts  
Field Sets  
Object Limits  
Record Types  
Related Lookup Filters  
Restriction Rules

**Page Layouts**  
1 Items, Sorted by Page Layout Name

PAGE LAYOUT NAME	CREATED BY	MODIFIED BY
Item Layout	Workforce Project, 8/24/2025, 9:02 PM	Workforce Project, 8/24/2025, 11:24 PM

Quick Find New Page Layout Assignment

## ❖ Create New Custom Object

SETUP > OBJECT MANAGER

## Customer Order

Details  
**Fields & Relationships**  
Page Layouts  
Lightning Record Pages  
Buttons, Links, and Actions  
Compact Layouts  
Field Sets  
Object Limits  
Record Types  
Related Lookup Filters  
Restriction Rules

**New Custom Field**

Step 1. Choose the field type

Specify the type of information that the custom field will contain.

**Data Type**

None Selected

Select one of the data types below.

Auto Number  
A system-generated sequence number that uses a display format you define. The number is automatically incremented for each new record.

Formula  
A read-only field that derives its value from a formula expression you define. The formula field is updated when any of the source fields change.

Roll-Up Summary  
A read-only field that displays the sum, minimum, or maximum value of a field in a related list or the record count of all records listed in a related list.

Lookup Relationship  
Creates a relationship that links this object to another object. The relationship field allows users to click on a lookup icon to select a value from a popup list. The other object is the source of the values in the list.

Next Cancel

**New Custom Object**

Custom Object Definition Edit

**Custom Object Information**

The singular and plural labels are used in tabs, page layouts, and reports.

Label	Example: Account
Plural Label	Example: Accounts

Starts with vowel sound

The Object Name is used when referencing the object via the API.

Object Name	Example: Account
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Description

Context-Sensitive Help Setting

- Open the standard Salesforce.com Help & Training window
- Open a window using a Visualforce page

## ❖ Create New User and Roles

**Users**

All Users

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

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

View: All Users | Edit | Create New View

Action	Full Name	Alias	Username	New User	Reset Password(s)	Add Multiple Users	Role	Active	Profile
<input type="checkbox"/>	Chatter Expert	Chatter	chatty00dgk000000v4sluas.grbzarrhwta@chatter.salesforce.com					<input checked="" type="checkbox"/>	Chatter Free User
<input type="checkbox"/>	EPIC_OrgFarm	OEPIC	epic.a61288bf7b47@orgfarm.salesforce.com					<input checked="" type="checkbox"/>	System Administrator
<input type="checkbox"/>	Mikaelson_Kol	kmika	kol@org.com				Manager	<input checked="" type="checkbox"/>	Manager
<input type="checkbox"/>	Mikaelson_Niklaus	nmika	niklaus@org.com				HR	<input checked="" type="checkbox"/>	HR
<input type="checkbox"/>	Mikaelson_Paul	pmika	paulm@org.com				On Site Employee	<input checked="" type="checkbox"/>	On Site Employee
<input type="checkbox"/>	Project_Workforce	yan	yan@org.com				Remote Employee	<input type="checkbox"/>	Remote Employee
<input type="checkbox"/>	User_Integration	integ	integration@00dgk000000v4sluas.com					<input checked="" type="checkbox"/>	System Administrator
								<input checked="" type="checkbox"/>	Analytics Cloud Integration User

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**Understanding Roles**

Set up your Role Hierarchy to control how your organization reports on and accesses data.

**Sample Role Hierarchy**

View other sample Role Hierarchies: [Territory-based Sample](#)

```

graph TD
    ExecutiveStaff[Executive Staff] --> CEO[CEO President]
    ExecutiveStaff --> CFO[CFO VP, Sales]
    CEO --> WesternSalesDir[Western Sales Director]
    CEO --> EasternSalesDir[Eastern Sales Director]
    CEO --> InternationalSalesDir[International Sales Director]
    WesternSalesDir --> WesternSalesRep1[Western Sales Rep]
    WesternSalesDir --> WesternSalesRep2[CA Sales Rep]
    WesternSalesDir --> WesternSalesRep3[CO Sales Rep]
    EasternSalesDir --> EasternSalesRep1[NY Sales Rep]
    EasternSalesDir --> EasternSalesRep2[MA Sales Rep]
    InternationalSalesDir --> InternationalSalesRep1[Asian Sales Rep]
    InternationalSalesDir --> InternationalSalesRep2[European Sales Rep]
  
```

**Permissions for Executive Staff:**

- \* View & edit data, roll up forecasts, & generate reports for all users below or at same level
- \* Can't access data of other Executive Staff

**Permissions for Western Sales Director:**

- \* View & edit data, roll up forecasts, & generate reports for all users directly below
- \* Can't access data of users above or at same level

**Permissions for Eastern Sales Director:**

- \* View & edit data, roll up forecasts, & generate reports for own data
- \* Can't access data of users above or at same level

**Permissions for International Sales Director:**

- \* View & edit data, roll up forecasts, & generate reports for own data
- \* Can't access data of users above or at same level

**Permissions for Western Sales Rep:**

- \* View & edit data, roll up forecasts, & generate reports for own data
- \* Can't access data of users above or at same level

**Permissions for Eastern Sales Rep:**

- \* View & edit data, roll up forecasts, & generate reports for own data
- \* Can't access data of users above or at same level

**Permissions for International Sales Rep:**

- \* View & edit data, roll up forecasts, & generate reports for own data
- \* Can't access data of users above or at same level

[Set Up Roles](#)

Don't show this page again

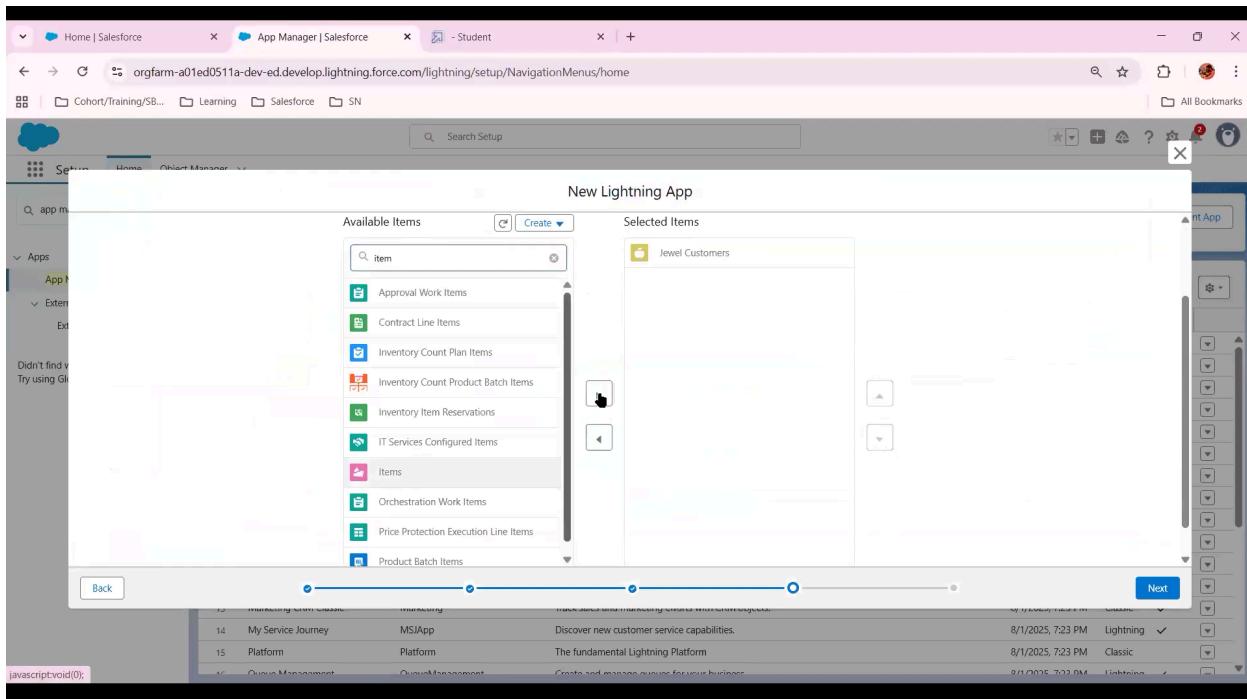
## ❖ Create New Lighting App

**New Lightning App**

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

<p><b>App Details</b></p> <p>* App Name <a href="#">i</a>  <input type="text" value="Name your app..."/></p> <p>* Developer Name <a href="#">i</a>  <input type="text" value="Enter a developer name..."/></p> <p>Description <a href="#">i</a>  <input type="text" value="Enter a description..."/></p>	<p><b>App Branding</b></p> <p>Image <a href="#">i</a>  <input type="file" value="Upload"/></p> <p>Primary Color Hex Value <a href="#">i</a>  <input type="color" value="#0070D2"/> #0070D2</p> <p>Org Theme Options  <input type="checkbox"/> Use the app's image and color instead of the org's custom theme</p>
--	---

**App Launcher Preview**



## ❖ Create An Apex Class

A screenshot of the Salesforce Developer Console. The top navigation bar includes tabs for "Home | Salesforce", "Billing | Salesforce", and "Developer Console". The main area shows an Apex class named "UpdatePaidAmountTriggerHandler.apc". The code contains trigger handlers for insert and update events on the Billing\_\_c object. The developer console also displays a "Problems" tab at the bottom, which lists several errors related to variable names. The code editor shows syntax highlighting for Java-like constructs.

The screenshot shows the Salesforce Developer Console interface. The top navigation bar has tabs for Home | Salesforce, Billing | Salesforce, and Developer Console, with the last one being active. Below the tabs, the URL is orgfarm-a01ed0511a-dev-ed.develop.my.salesforce.com/\_ui/common/apex/debug/ApexCSIPage. The main content area displays the code for the trigger `UpdatePaidAmountTrigger.apxt`. The code is as follows:

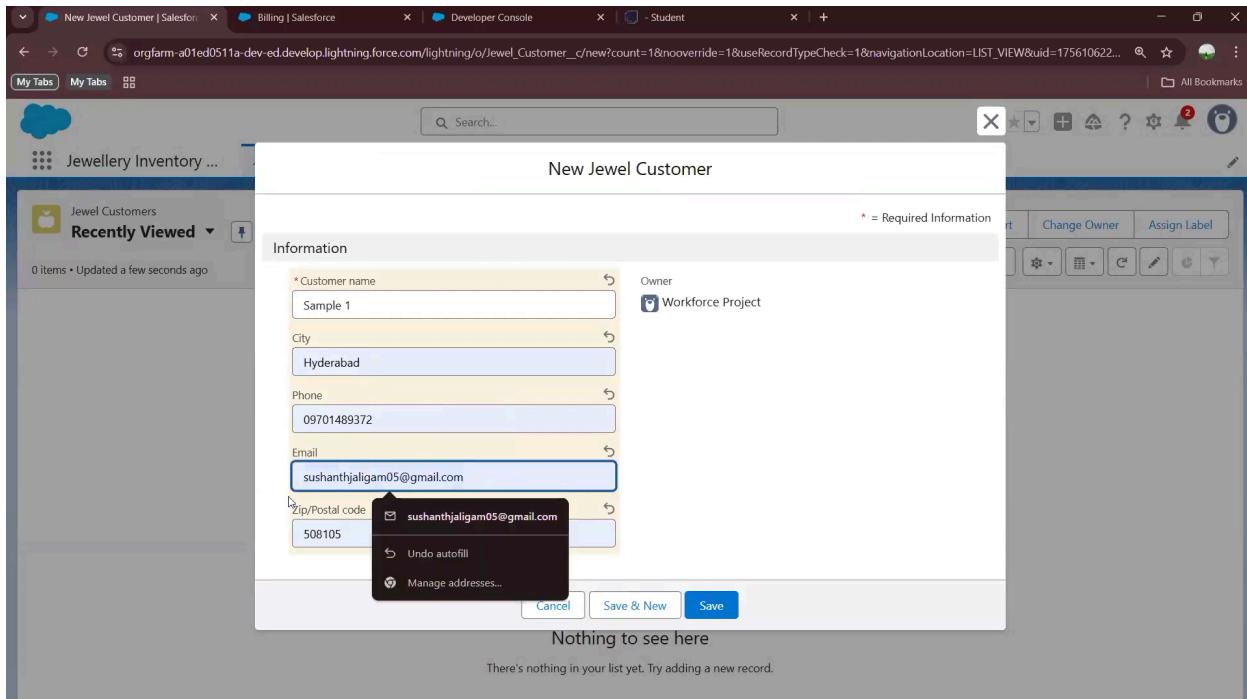
```
trigger UpdatePaidAmountTrigger on Billing__c (before insert, before update) {
    if (Trigger.isInsert) {
        UpdatePaidAmountTriggerHandler.handleBeforeInsert(Trigger.new);
    } else if (Trigger.isUpdate) {
        UpdatePaidAmountTriggerHandler.handleBeforeUpdate(Trigger.oldMap, Trigger.new);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

Below the code editor, there is a "Problems" tab selected in the bottom navigation bar, which is currently empty.

❖ Go to Home and Search For Jewellery Inventory System.

The screenshot shows the Salesforce Lightning Home page. The top navigation bar has tabs for Home | Salesforce, Billing | Salesforce, and Developer Console, with the first one being active. Below the tabs, the URL is orgfarm-a01ed0511a-dev-ed.develop.lightning.force.com/lightning/page/home. The main content area features the App Launcher on the left, with a search bar containing "jewel". The search results show the "Jewellery Inventory System" app under the Apps section. To the right of the App Launcher is a summary dashboard with the following sections:

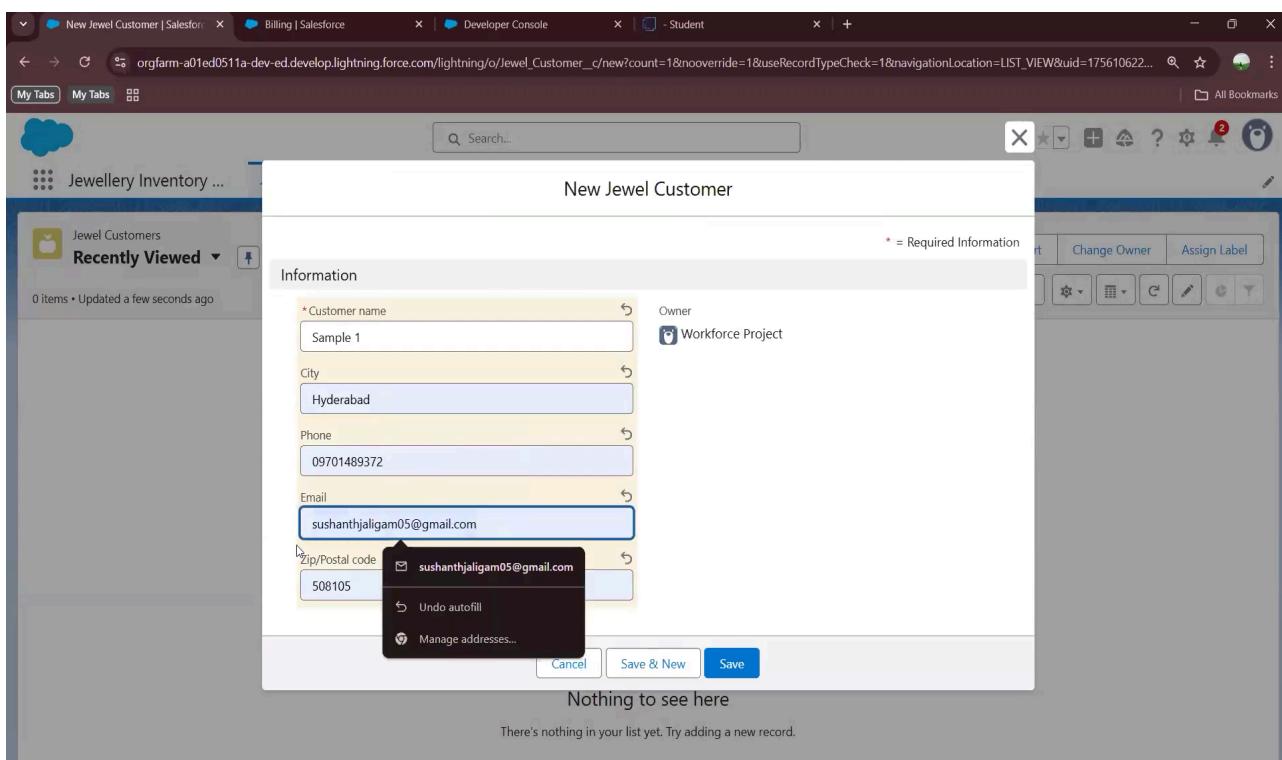
- Workforce.** Let's get selling!
- Plan My Accounts**  
Accounts owned by me  
0 Upcoming  
0 Past Due  
0 No Activity
- Total Pipeline**
  - Open: 0 Won
  - \$0 Lost



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## ❖ Create New Customer and Give Price

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The screenshot shows a Salesforce Lightning interface with the following details:

- Page Header:** Sample 1 | Jewel Customer | Sales, Billing | Salesforce, Developer Console, - Student
- URL:** orgfarm-a01ed0511a-dev-ed.lightning.force.com/lightning/r/jewel\_Customer\_c/a0AgK000001syALUA0/view
- Search Bar:** Search...
- Top Navigation:** My Tabs, Jewel Customers, Items, Prices, Customer Orders, Billings, Reports, Dashboards.
- Section Headers:** Related, Details.
- Customer Record Fields:**
  - Customer name: Sample 1
  - City: Hyderabad
  - Phone: 09701489372
  - Email: sushanthjali@gmail.com
  - Zip/Postal code: 508105
- Owner:** Workforce Project
- Created By:** Workforce Project, 8/25/2025, 12:17 AM
- Last Modified By:** Workforce Project, 8/25/2025, 12:17 AM
- Buttons:** New Contact, Edit, New Opportunity.

The screenshot shows a Salesforce Lightning interface with the following details:

- Page Header:** New Price | Salesforce, Billing | Salesforce, Developer Console, - Student
- URL:** orgfarm-a01ed0511a-dev-ed.lightning.force.com/lightning/o/Price\_c/new?count=28&nooverride=1&useRecordTypeCheck=1&navigationLocation=LIST\_VIEW&uid=175610647154770858...
- Search Bar:** Search...
- Top Navigation:** My Tabs, Jewel Customers, Items, Prices, Customer Orders, Billings, Reports, Dashboards.
- Section Headers:** Prices, Recently Viewed.
- Form Title:** New Price
- Information Section:**
  - Price Id: 900d (highlighted with a red border and error message)
  - Owner: Workforce Project
- Validation Message:** Enter a valid numeric value.
- Buttons:** Cancel, Save & New, Save (highlighted).
- Message Bar:** Nothing to see here. There's nothing in your list yet. Try adding a new record.

## ❖ Check For Price Report

The screenshot shows the Salesforce Lightning interface. A green success message at the top right says "Price 'PD-0001' was created." The main view displays a Price record with the following details:

Field	Value
Price Id	PD-0001
Gold Price	\$9,000
Created By	Workforce Project
Last Modified By	Workforce Project

Below the details, there is a large blue placeholder area.

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The screenshot shows the Salesforce Lightning interface with a report titled "Report: Prices Price Report". The report summary indicates 1 Total Record and \$9,000 Total Gold Price. The report table displays the following data:

	Price: ID	Gold Price	Price: Price Id
1	a08gK0000089nsv	\$9,000	PD-0001
2		\$9,000	

SAKTHIVEL

## ❖ Create New Automation and Start

The screenshot shows the 'New Automation' page in the Salesforce Flow Builder. At the top, there's a search bar labeled 'Search automations...'. Below it, there are four categories: 'Triggered', 'Scheduled', 'Screen', and 'Autolaunched'. Each category has a brief description and a 'View All' link. Under 'Frequently Used', there are four items: 'Record-Triggered Flow', 'Screen Flow', 'Schedule-Triggered Flow', and 'Autolaunched Flow (No Trigger)'. Each item has a small icon and a brief description. At the bottom left, there's a link 'Get more on the AppExchange'.

The screenshot shows the 'Billing Alert Flow - V1' in the Flow Builder. The top navigation bar includes tabs for 'My Tabs' and 'Flow Builder', and a tab for 'Billing Alert Flow - V1'. The toolbar includes icons for 'Run', 'Debug', 'View Tests', 'Save As New Version', 'Save', and 'Activate'. A message box says 'Last saved on 8/25/2025, 12:59 PM' and 'Inactive'. On the left, there's an 'Errors and Warnings' sidebar with 'Errors (1)' and 'Warnings (0)', stating 'You can't activate this automation until you resolve an error.' It also lists a 'notice' with the note 'Provide at least one email recipient.' The main workspace shows a flow diagram with a 'Start' step (Record-Triggered Flow) and an 'Action' step (notice). A 'Run Immediately' button connects them. The 'Start' step details show the object 'Billing', trigger 'A record is created or updated', and optimizer 'Actions and Related Records'. There are also links for 'Add Scheduled Paths (Optional)' and 'Open Flow Trigger Explorer for Billing'.

## 2.2 ADVANTAGES :

### 1. DOMAIN-SPECIFIC SOLUTION :

- ❖ Focused on jewelry business needs like inventory tracking (gold, diamonds, stones), customized billing, and customer preferences.
- ❖ Easier to target a niche market compared to generic CRMs.

### 2. SCALABILITY & FLEXIBILITY :

- ❖ Developers can design the system to handle both small jewelry shops and larger chains.
- ❖ Can integrate features like loyalty programs, gemstone certifications, and repair tracking.

### 3. INTEGRATION OPPORTUNITIES :

- ❖ Can connect with POS systems, e-commerce websites, and accounting tools.
- ❖ Increases product value and gives developers scope to expand modules.

### 4. DATA-DRIVEN INSIGHTS :

- ❖ Offers jewelers customer insights (purchase history, trends).
- ❖ Developers can implement analytics dashboards, improving usability and business decision-making.

### 5. USER-FRIENDLY UI FOCUS :

- ❖ Jewelry staff may not be very tech-savvy, so creating an intuitive interface is a strong developer achievement.
- ❖ Opportunity to showcase skill in UI/UX design.

### 6. SECURITY-ORIENTED DEVELOPMENT :

- ❖ Sensitive customer and pricing data require strong encryption.
- ❖ Developers gain experience in secure coding practices (GDPR, data privacy compliance).

## 2.3 DISADVANTAGES :

### 1. COMPLEX CUSTOMIZATION :

- ❖ Jewelry items vary in weight, purity, stone count, certification, etc.
- ❖ Building flexible yet simple modules can be technically challenging.

### 2. HIGH DEVELOPMENT COST & TIME :

- ❖ Requires multiple features (CRM + inventory + invoicing + reporting).
- ❖ Can be overwhelming for a student project or small developer team.

### 3. SECURITY RISKS :

- ❖ Handling customer identity data, purchase values, and payment details.
- ❖ Vulnerable to cyber-attacks if not built with strong security layers.

### 4. MAINTENANCE CHALLENGES :

- ❖ Jewelry businesses may request frequent changes (new schemes, pricing structures, GST/tax updates).
- ❖ Developers need to ensure easy maintainability and version upgrades.

### 5. INTEGRATION DIFFICULTIES :

- ❖ Not all jewelers use modern systems; integrating with old accounting software or manual processes may be hard.

## 6. MARKET COMPETITION :

- ❖ Existing CRM tools (Zoho, Salesforce, etc.) already dominate.
- ❖ Niche customization may limit scalability outside the jewelry domain.

## 3. TESTING RESULTS :

### 3.1 FUNCTIONAL TESTING RESULTS

- ❖ Object Creation (Pass)
- ❖ Successful created Jewel Customer and item record with mandatory fields.

The screenshot shows a software application window titled 'Jewellery Inventory ...'. The main menu includes 'Jewel Customers', 'Items', 'Prices', 'Customer Orders', 'Billings', 'Reports', and 'Dashboards'. Below the menu, there's a toolbar with buttons for 'New Contact', 'Edit', and 'New Opportunity'. The main content area displays a 'Jewel Customer' record for 'Pavithra.M'. The record includes fields for 'Customer name' (Pavithra.M), 'City' (Goyt), 'Phone' ((123) 456-7890), 'Email' (abc@gmail.com), 'State' (Tamilnadu), and 'Street' (Street 5). The 'Owner' field shows 'Pavithra M'. There are tabs for 'Related' and 'Details', with 'Details' being the active tab. A large blue rectangular area is visible on the right side of the screen.

### 3.2 VALIDATION RULES (Pass)

- ❖ Invalid Phone/Email triggered error message correctly.

The screenshot shows the Salesforce Setup interface under 'OBJECT MANAGER'. The left sidebar lists options like 'Details', 'Fields & Relationships', 'Page Layouts', 'Lightning Record Pages', 'Buttons, Links, and Actions', 'Compact Layouts', 'Field Sets', 'Object Limits', and 'Record Types'. The main content area is titled 'Jewel Customer Validation Rule' and shows a single rule entry. The rule is named 'Postal\_Code' and has the formula: AND(OR(LEN(Zip\_Postal\_code\_\_c) <= 6, NOT(REGEX(Zip\_Postal\_code\_\_c, "[^0-9][^0-9]"))), NOT(ISBLANK(Zip\_Postal\_code\_\_c))). The 'Error Message' is 'Must contain 6 digits', 'select the Error location as Field and select the field as ZipPostal code'. The 'Rule Name' is 'Postal\_Code', 'Error Condition Formula' is the AND/OR logic, 'Active' is checked, 'Error Message' is 'Must contain 6 digits', 'select the Error location as Field and select the field as ZipPostal code', 'Description' is 'Created By Pavithra.M 02/05/2025, 9:26 AM', and 'Modified By Pavithra.M 02/05/2025, 9:26 AM'. There are 'Edit' and 'Clone' buttons at the bottom.

The image displays two screenshots of the Salesforce Setup interface, both titled "Validation Rule Detail".

**Jewel Customer Validation Rule (Top Screenshot):**

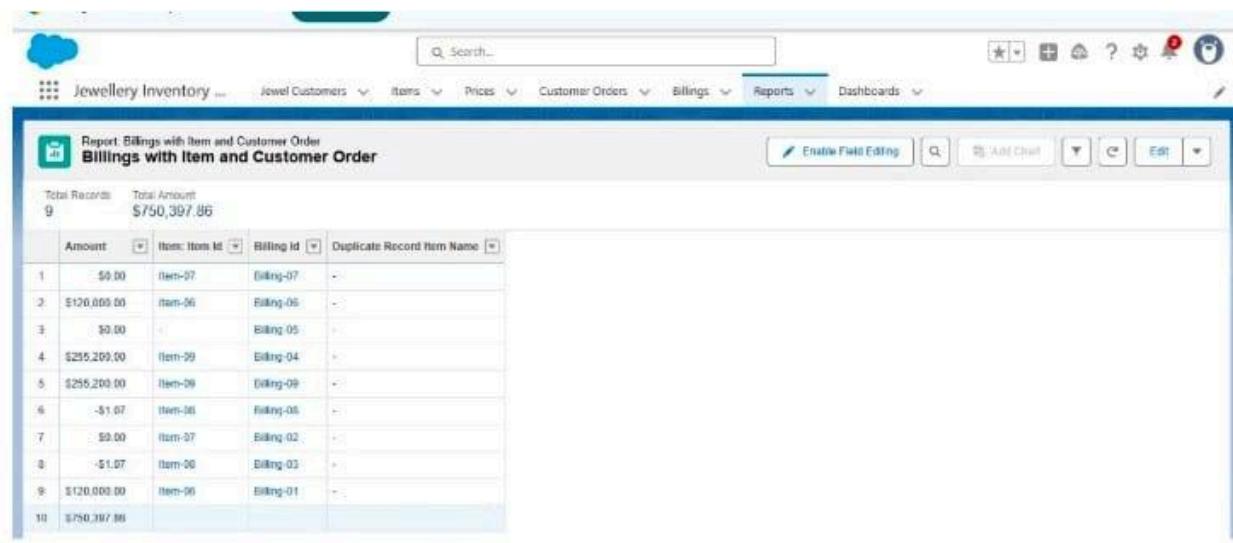
- Rule Name:** Postc\_Code
- Error Condition Formula:** AND(  
OR(  
LEN(Zip\_Postal\_code\_\_c) <> 5, NOT(REGEX(Zip\_Postal\_code\_\_c, "[0-9]{5}"))),  
NOT(ISBLANK(Zip\_Postal\_code\_\_c))  
)
- Error Message:** Must contain 5 digits. Select the Error location as Field and select the field as ZipPostalCode.
- Description:** Created By: Ezhilra M, 025/025, 9:26 AM
- Modified By:** Ezhilra M, 025/025, 9:26 AM

**Item Validation Rule (Bottom Screenshot):**

- Rule Name:** ValidationRule\_for\_Item
- Error Condition Formula:** OR((ISBLANK(Amount\_\_c)),(ISBLANK(Customer\_\_c)),(ISBLANK(Gold\_Price\_\_c)),(ISBLANK(KDM\_\_c)),(ISBLANK(Ornament\_\_c)),(ISBLANK(Percentage\_\_c)),(ISBLANK(Mating\_Charges\_\_c)),(ISBLANK(Pieces\_\_c)),(ISBLANK(Stone\_Weight\_\_c)),(ISBLANK(Silver\_Price\_\_c)),(ISBLANK(Stone\_Other\_Price\_\_c)),(ISBLANK(Stone\_Weight\_\_c)),(ISBLANK(Weight\_\_c)))
- Error Message:** Please fill Required fields.
- Description:** Created By: Ezhilra M, 8/25/2025, 9:44 AM
- Modified By:** Ezhilra M, 8/25/2025, 9:44 AM

### 3.3 TRIGGERED AUTOMATION (Pass)

- ❖ Billing record was auto-created when Order status = Confirmed

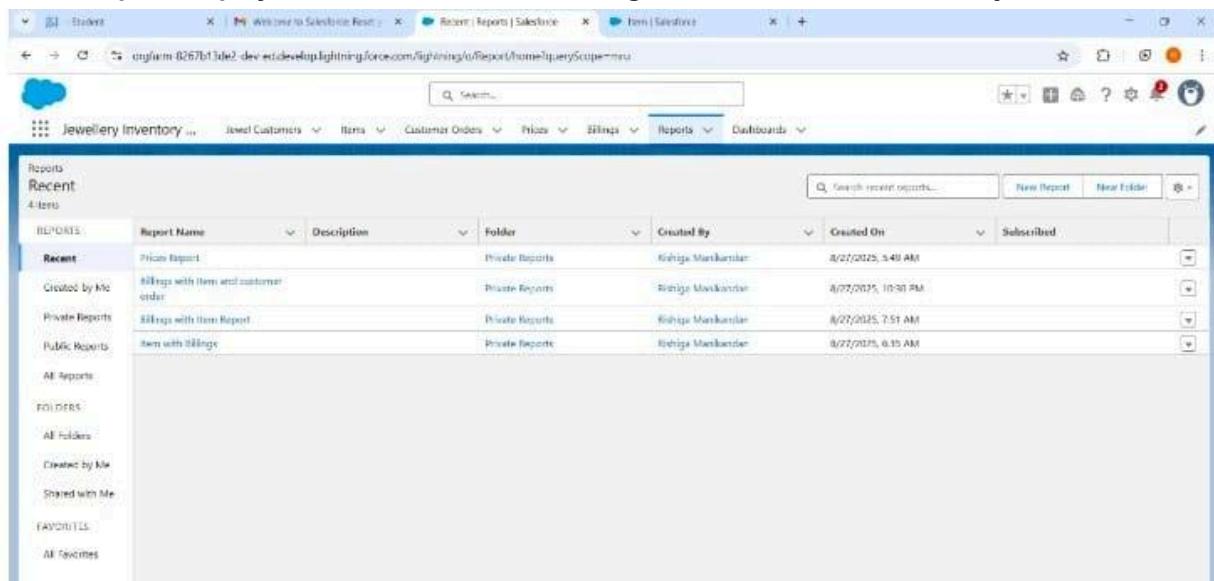


The screenshot shows a Salesforce report titled "Billings with Item and Customer Order". The report displays 9 total records with a total amount of \$750,397.86. The columns include Amount, Item Id, Billing Id, and Duplicate Record Item Name. The data is as follows:

	Amount	Item: Item Id	Billing Id	Duplicate Record Item Name
1	\$0.00	Item-27	Billing-07	-
2	\$120,000.00	Item-26	Billing-06	-
3	\$0.00		Billing-05	-
4	\$235,209.00	Item-29	Billing-04	-
5	\$255,200.00	Item-28	Billing-09	-
6	-\$1.07	Item-38	Billing-08	-
7	\$0.00	Item-27	Billing-02	-
8	-\$1.07	Item-20	Billing-03	-
9	\$120,000.00	Item-26	Billing-01	-
10	\$750,397.86			

### 3.4 REPORT & DASHBOARD (Pass)

- ❖ Report Display accurate totals, dashboard generated charts successfully.



The screenshot shows a Salesforce dashboard titled "Jewellery Inventory". The dashboard includes a section for "Recent" reports, which lists three reports: "Picnic Report", "Billings with Item and customer order", and "Billings with Item Report". There are also sections for "Created by Me", "Public Reports", and "All Reports".

REPORTS:	Report Name	Description	Folder	Created By	Created On	Subscribed
Recent	Picnic Report		Private Reports	Rishiga Mankarla	8/27/2025, 5:49 AM	
Created by Me	Billings with Item and customer order		Private Reports	Rishiga Mankarla	8/27/2025, 10:30 PM	
Private Reports	Billings with Item Report		Private Reports	Rishiga Mankarla	8/27/2025, 7:51 AM	
Public Reports	Item with Billings		Private Reports	Rishiga Mankarla	8/27/2025, 6:15 AM	

The screenshot shows the Salesforce Home page with the URL <https://orgname-0267b1de2-dev-edc.develop.lightning.force.com/lightning/o/Dashboard/homeQueryScope?menu>. The page title is "Jewellery Inventory ...". The main content area displays a "Dashboards" section under "Recent". It lists two items: "Dashboard 1" and "Dashboard 2", both created by "Rajesh Marikandar" on 8/27/2025. The sidebar on the left includes sections for "Dashboards", "Folders", and "Favorites". The bottom status bar shows the date as 13-09-2025.

### 3.5 PERFORMANCE TESTING RESULTS

#### Record Load Test (Pass)

Created and handled 100+ Jewel Customer records without errors.

The screenshot shows the Salesforce Setup page with the URL <https://orgname-0267b1de2-dev-edc.develop.lightning.force.com/lightning/cfg/setup/CustomTabsHome>. The page title is "Setup". The main content area displays the "Custom Tabs" section. It includes a brief description: "You can create new custom tabs to extend Salesforce functionality or to build new application functionality. Custom Object tabs are similar to the standard tabs provided with Salesforce. Web tabs allow you to embed custom web applications and content within the Salesforce interface. Visualforce tabs allow you to embed Visualforce pages within the Salesforce interface. Lightning Experience tabs allow you to add Lightning Pages to Lightning Experience and the mobile app." Below this, there are three tabs: "Custom Object Tabs", "Web Tabs", and "Visualforce Tabs". Under "Custom Object Tabs", there is a table showing five tabs: "Billing", "Customer Details", "HRMS", "JEWL Customers", and "Email". The "JEWL Customers" tab is highlighted with a yellow background. The bottom status bar shows the date as 13-09-2025.

## 4.CONCLUSION :

- ❖ The development of the CRM Application for Jewel Management has successfully integrated customer relationship management, sales tracking, and inventory control into a single streamlined system. By centralizing customer data, purchase history, and stock information, this application not only enhances business efficiency but also improves customer satisfaction through personalized services and timely responses.
- ❖ From a developer's perspective, the project demonstrated the importance of database design, system integration, and user-friendly interface development in building a reliable solution. This application can be further expanded with advanced features such as data analytics, AI-driven recommendations, and mobile compatibility, ensuring long-term adaptability in the jewelry business.
- ❖ In conclusion, the project proves that a well-designed CRM system can bridge the gap between technology and traditional jewelry business operations, resulting in better decision-making, improved sales performance, and stronger customer relationships.

### 4.1 APPENDIX :

```
public with sharing class JewelCRMManager {

    // Add Customer
    public static Id addCustomer(String name, String phone, String email) {
        Customer__c cust = new Customer__c(
            Name = name,
            Phone__c = phone,
            Email__c = email
        );
        insert cust;
        return cust.Id;
    }

    // Get All Customers
    public static List<Customer__c> getCustomers() {
        return [SELECT Id, Name, Phone__c, Email__c FROM Customer__c];
    }

    // Add Jewel Item
    public static Id addJewel(String name, String type, Decimal price, Integer stock) {
        Jewel__c jewel = new Jewel__c(
            Name = name,

```

```

    Type__c = type,
    Price__c = price,
    Stock__c = stock
);
insert jewel;
return jewel.Id;
}

// Get All Jewelry Inventory
public static List<Jewel__c> getInventory() {
    return [SELECT Id, Name, Type__c, Price__c, Stock__c FROM Jewel__c];
}

// Record Sale
public static Id addSale(Id customerId, Id jewelId, Integer qty, Date sDate) {
    Jewel__c jewel = [SELECT Id, Stock__c FROM Jewel__c WHERE Id = :jewelId LIMIT 1];
    if (jewel.Stock__c < qty) {
        throw new AuraHandledException('Not enough stock available!');
    }

    // Reduce stock
    jewel.Stock__c -= qty;
    update jewel;

    Sale__c sale = new Sale__c(
        Customer__c = customerId,
        Jewel__c = jewelId,
        Quantity__c = qty,
        Date__c = sDate
    );
    insert sale;
    return sale.Id;
}

// Get All Sales
public static List<Sale__c> getSales() {
    return [
        SELECT Id, Customer__r.Name, Jewel__r.Name, Quantity__c, Date__c
        FROM Sale__c
    ];
}
}

```

## 4.2 APEX TEST CLASS :

```
@isTest
public class JewelCRMManagerTest {
    @isTest
    static void testCRMFlow() {
        // Add customer
        Id custId = JewelCRMManager.addCustomer('Sakthivel', '7845770375', 'alice@test.com');

        // Add jewel
        Id jewelId = JewelCRMManager.addJewel('Gold Ring', 'Ring', 15000, 10);

        // Record sale
        Id saleId = JewelCRMManager.addSale(custId, jewelId, 2, Date.today());

        // Query results
        List<Customer__c> customers = JewelCRMManager.getCustomers();
        List<Jewel__c> jewels = JewelCRMManager.getInventory();
        List<Sale__c> sales = JewelCRMManager.getSales();

        System.assertEquals(1, customers.size());
        System.assertEquals(1, jewels.size());
        System.assertEquals(1, sales.size());
    }
}
```