

CRM APPLICATION FOR JEWEL MANAGEMENT

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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.



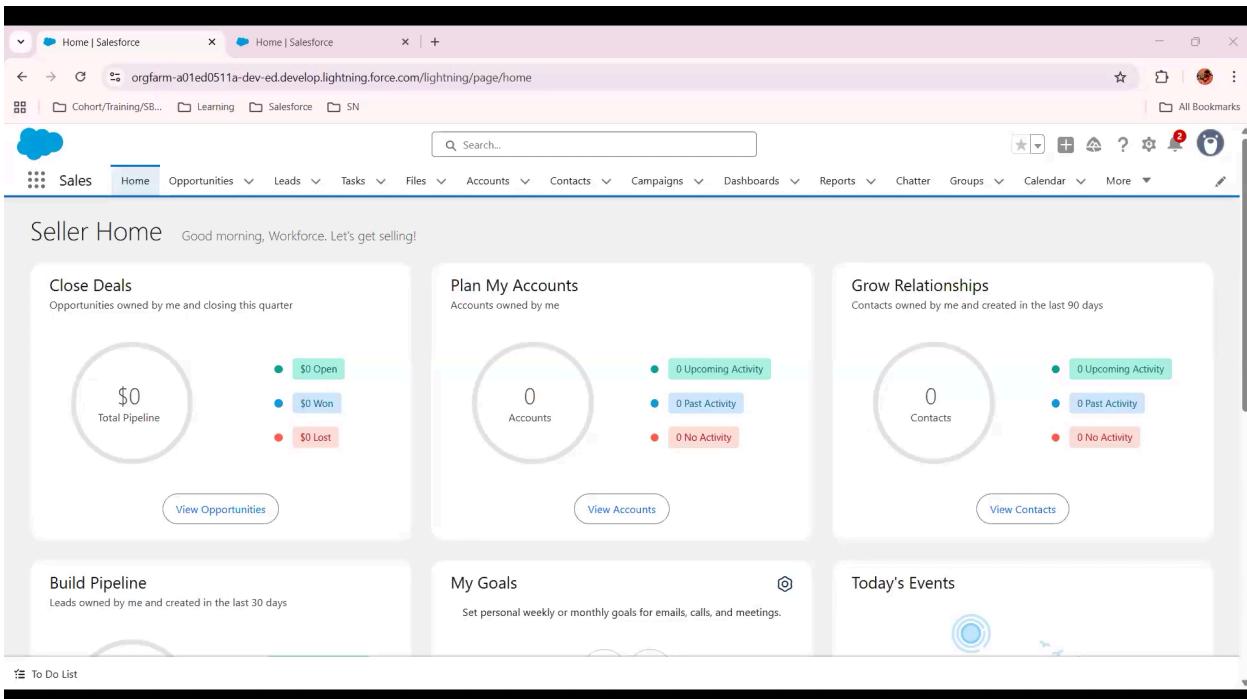
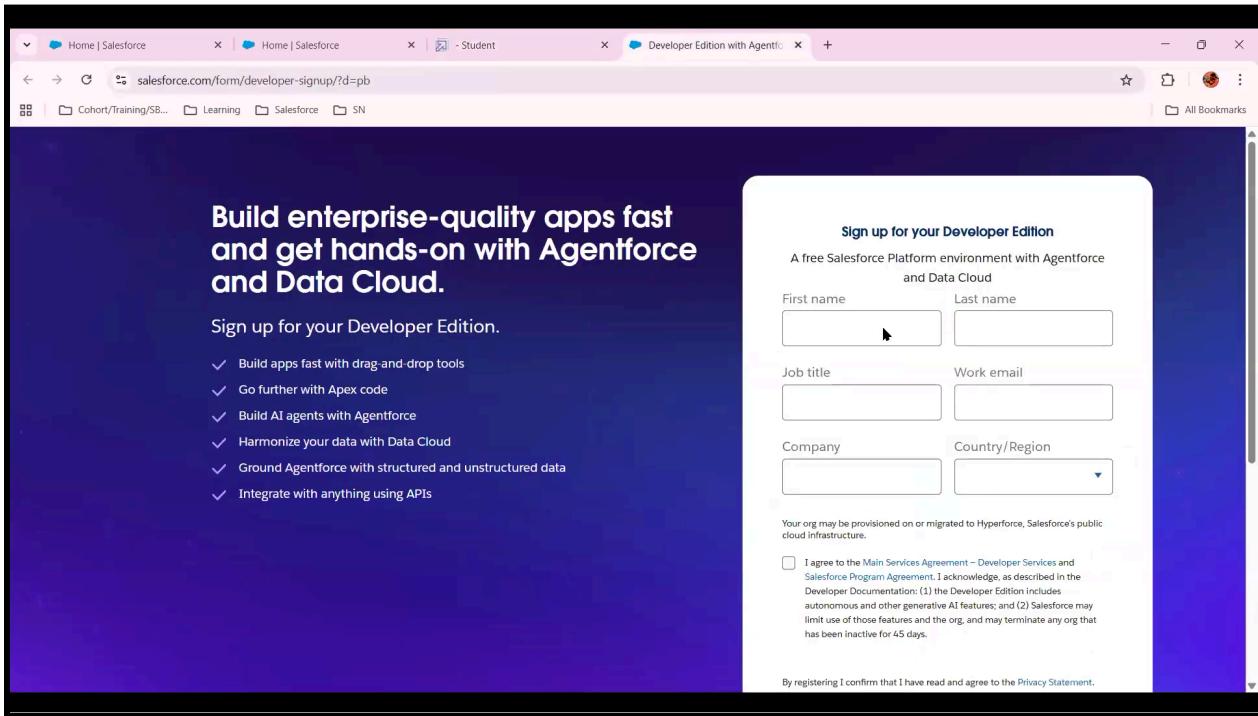
1.2 PURPOSE

- ❖ 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.

DEVELOPMENT PHASE

CREATING DEVELOPER ACCOUNT :

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



❖ **Created objects: Jewel customers, Items**

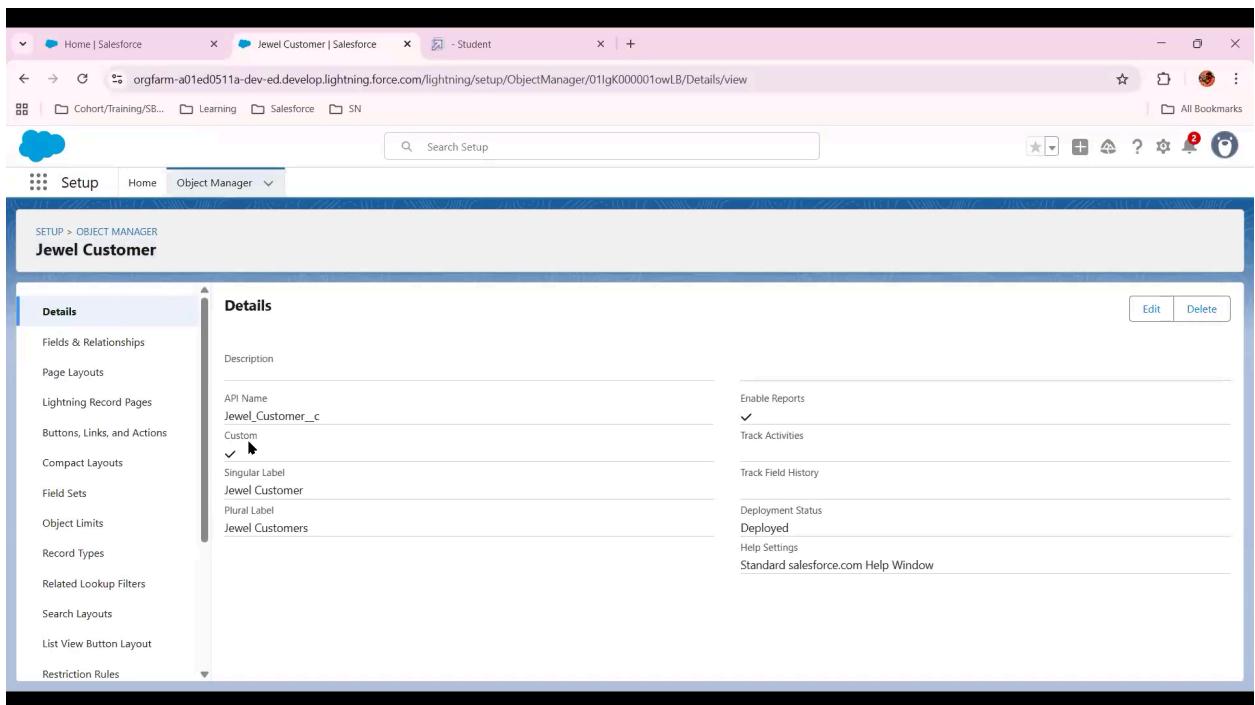
The screenshot shows the Salesforce Object Manager page. The URL is <https://orgfarm-a01ed0511a-dev-ed.lightning.force.com/lightning/setup/ObjectManager/home>. The page title is "Object Manager". A search bar at the top right contains "Search Setup". Below the search bar are buttons for "Quick Find", "Schema Builder", and "Create". The main area displays a table 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			

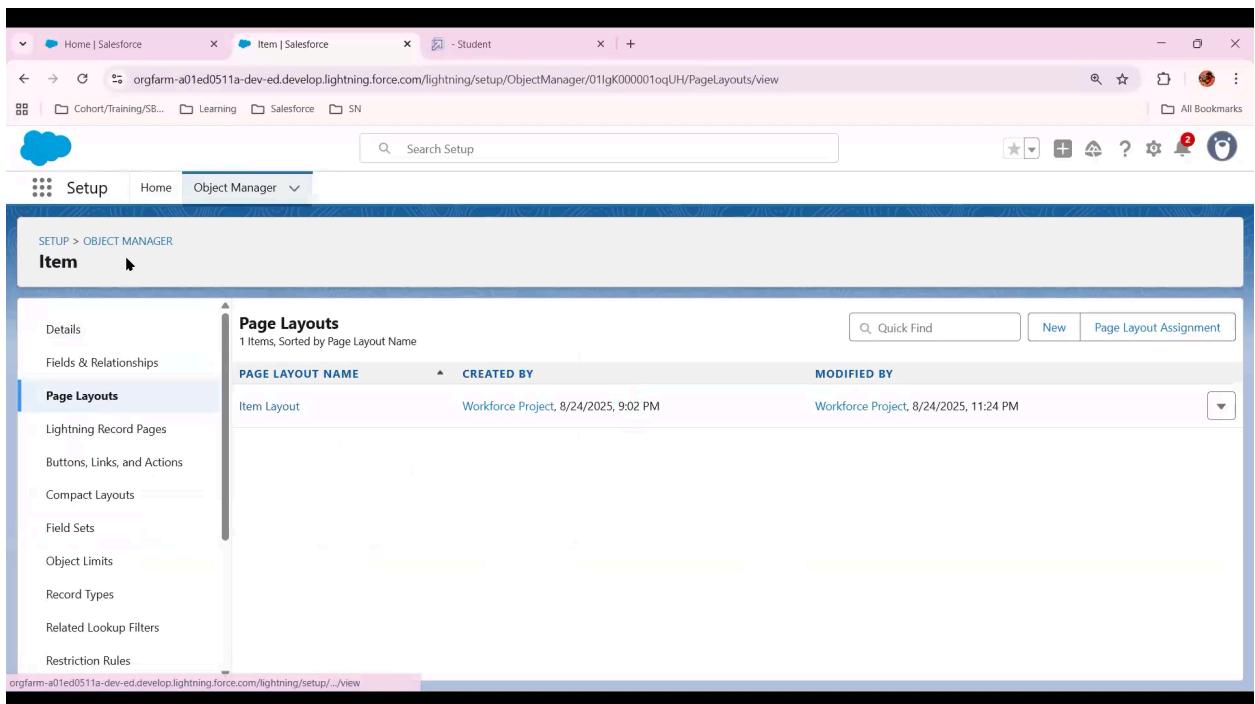
The screenshot shows the Salesforce Object Manager page with a search filter applied. The search bar at the top right contains "item". The page title is "Object Manager". A search bar at the top right contains "Search Setup". Below the search bar are buttons for "Quick Find", "Schema Builder", and "Create". The main area displays a table of 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			
Change Request 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 Setup interface for the 'Object Manager' section. The object being configured is 'Jewel Customer'. On the left, a sidebar lists various configuration options: Fields & Relationships, Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, Related Lookup Filters, Search Layouts, List View Button Layout, and Restriction Rules. The main panel displays the 'Details' for the 'Jewel Customer' object. It includes fields for Description, API Name (set to 'Jewel_Customer__c'), Singular Label ('Jewel Customer'), and Plural Label ('Jewel Customers'). Other settings shown include Enable Reports (checked), Track Activities (checked), Track Field History, Deployment Status (set to 'Deployed'), and Help Settings. At the top right of the main panel are 'Edit' and 'Delete' buttons.



The screenshot shows the Salesforce Setup interface for the 'Object Manager' section. The object being configured is 'Item'. On the left, a 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, and Restriction Rules. The main panel displays the 'Page Layouts' section for the 'Item' object. It shows a table titled 'Page Layouts' with one item: 'Item Layout'. The table has columns for 'PAGE LAYOUT NAME', 'CREATED BY', and 'MODIFIED BY'. The 'Item Layout' row shows 'Workforce Project' in all three columns. There are also 'Quick Find', 'New', and 'Page Layout Assignment' buttons at the top right of the table area.

❖ Create New Custom Object

The screenshot shows the Salesforce Setup interface. The top navigation bar includes tabs for Home, Object Manager, and a search bar. The main content area is titled "Customer Order" under "SETUP > OBJECT MANAGER". A sidebar on the left lists various setup categories like Details, Fields & Relationships, Page Layouts, and Record Types. The current step is "Step 1. Choose the field type" for a "New Custom Field" on the "Customer Order" object. The "Data Type" section is open, showing options: "None Selected" (selected), "Auto Number", "Formula", "Roll-Up Summary", and "Lookup Relationship". Each option has a brief description. A "Help for this Page" link is at the top right of the step panel.

The screenshot shows the Salesforce Setup interface. The top navigation bar includes tabs for Home, Object Manager, and a search bar. The main content area is titled "New Custom Object" under "SETUP > NEW CUSTOM OBJECT". A message at the top states: "Permissions for this object are disabled for all profiles by default. You can enable object permissions in permission sets or by editing custom profiles." Below this is a "Custom Object Definition Edit" form. The "Custom Object Information" section requires filling in the "Label" (set to "Account") and "Plural Label" (set to "Accounts"). A note says "Starts with vowel sound" with an unchecked checkbox. The "Object Name" field is set to "Account". The "Description" field is empty. At the bottom, there are "Context-Sensitive Help Setting" options: "Open the standard Salesforce.com Help & Training window" (selected) and "Open a window using a Visualforce page".

❖ Create New User and Roles

Users

All Users

This page allows you to manage users. You can create, view, and edit users. To get more licenses, use the Your Account app. [Let's Go](#)

Action **Full Name** **Alias** **Username** **Role** **Active** **Profile**

Action	Full Name	Alias	Username	Role	Active	Profile
<input type="checkbox"/> Edit	Chatter Expert	Chatter	chatty00dgk00000v4sluas.orbzarrhwta@chatter.salesforce.com		<input checked="" type="checkbox"/>	Chatter Free User
<input type="checkbox"/> Edit	EPIC_OrgFarm	OEPIIC	spic.a61286bf7b47@orgfarm.salesforce.com		<input checked="" type="checkbox"/>	System Administrator
<input type="checkbox"/> Edit	Mikaelson_Kol	kmika	kol@org.com	Manager	<input checked="" type="checkbox"/>	Manager
<input type="checkbox"/> Edit	Mikaelson_Niklaus	nmika	niklaus@org.com	HR	<input checked="" type="checkbox"/>	HR
<input type="checkbox"/> Edit	Mikaelson_Paul	pmika	pmaul@org.com	On Site Employee	<input checked="" type="checkbox"/>	On Site Employee
<input type="checkbox"/> Edit	Mikaelson_Van	vmika	van@org.com	Remote Employee	<input type="checkbox"/>	Remote Employee
<input type="checkbox"/> Edit	Project_Workforce	nad	nadeem816@agentforce.com		<input checked="" type="checkbox"/>	System Administrator
<input type="checkbox"/> Edit	User_Integration	integ	integration@00dgk000000v4sluas.com		<input checked="" type="checkbox"/>	Analytics Cloud Integration User

Roles

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](#)

* View & edit data, roll up forecasts, & generate reports for all users below
* Can't access data of other Executive Staff

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

* View & edit data, roll up forecasts, & generate reports only 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

The screenshot shows the 'App Manager | Salesforce' interface with the title 'New Lightning App'. The page is titled 'New Lightning App' and has a sub-instruction: 'Give your Lightning app a name and description. Upload an image and choose the highlight color for its navigation bar.' It is divided into two main sections: 'App Details' and 'App Branding'.

App Details:

- * App Name: A text input field with placeholder 'Name your app...'. A tooltip icon (info) is present.
- * Developer Name: A text input field with placeholder 'Enter a developer name...'. A tooltip icon (info) is present.
- Description: A text input field with placeholder 'Enter a description...'. A tooltip icon (info) is present.

App Branding:

- Image: A placeholder box with an 'Upload' button. A tooltip icon (info) is present.
- Primary Color Hex Value: A color swatch with a dropdown arrow and the hex code '#0070D2'. A tooltip icon (info) is present.
- Org Theme Options: A checkbox labeled 'Use the app's image and color instead of the org's custom theme'. A tooltip icon (info) is present.

App Launcher Preview:

A large black rectangular area representing the preview of the app in the App Launcher.

The screenshot shows the 'Setup' interface with the title 'New Lightning App'. The page displays a 'Selected Items' list containing 'Jewel Customers'.

Available Items:

- Approval Work Items
- Contract Line Items
- Inventory Count Plan Items
- Inventory Count Product Batch Items
- Inventory Item Reservations
- IT Services Configured Items
- Items
- Orchestration Work Items
- Price Protection Execution Line Items
- Product Batch Items

Selected Items:

- Jewel Customers

At the bottom, there are 'Back' and 'Next' buttons, and a progress bar indicating the current step is 13 of 15.

❖ Create An Apex Class

```
1 public class UpdatePaidAmountTriggerHandler {
2     public static void handleBeforeInsert(List<Billing__c> newBillings) {
3         for (Billing__c billing : newBillings) {
4             billing.Paid_Amount__c = billing.Paying_Amount__c;
5         }
6     }
7
8 }
9
10
11
12
13
14 public static void handleBeforeUpdate(Map<Id, Billing__c> oldBillingsMap, List<Billing__c> updatedBillings) {
15     for (Billing__c billing : updatedBillings) {
16         Billing__c oldBilling = oldBillingsMap.get(billing.Id);
17
18         billing.Paid_Amount__c = oldBilling.Paying_Amount__c;
19     }
}
20
21
22 }
```

Logs Tests Checkpoints Query Editor View State Progress Problems

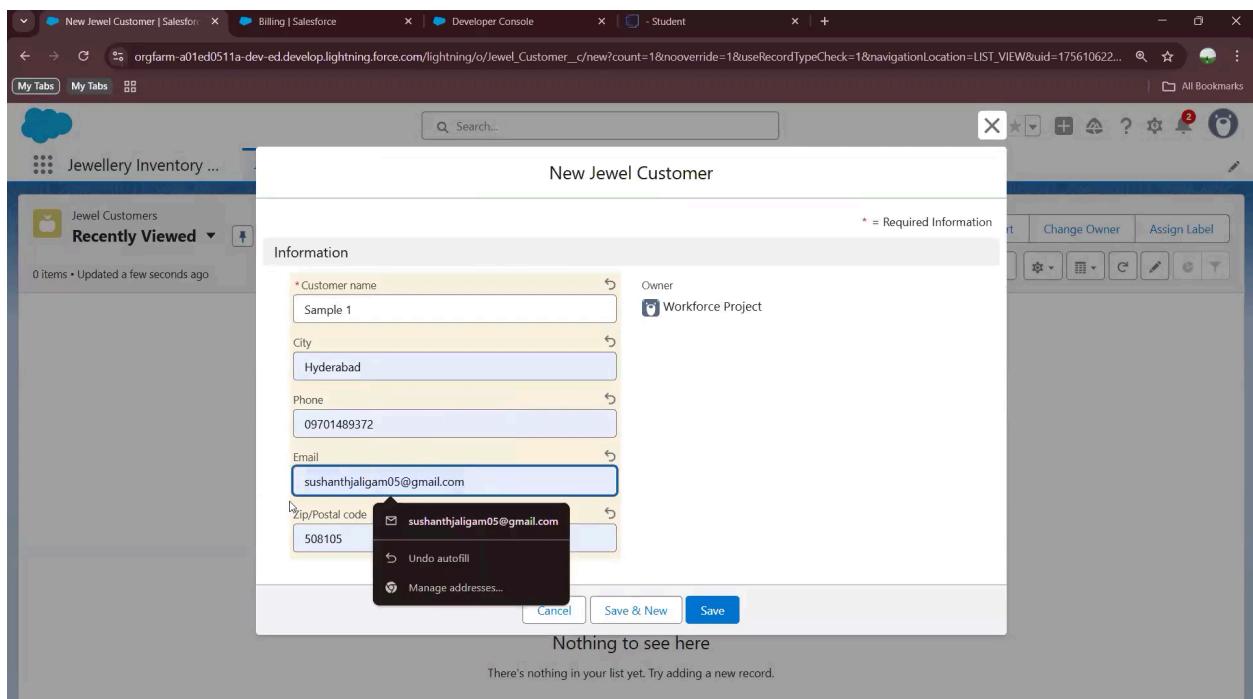
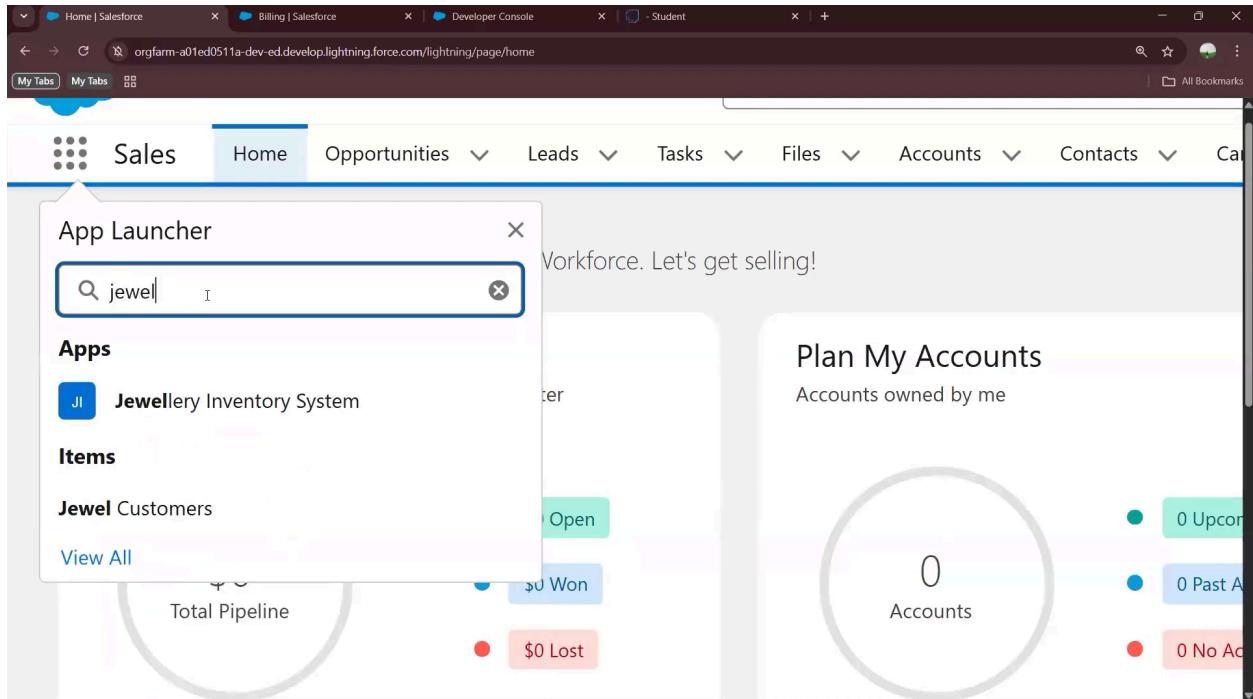
Name	Line	Problem
UpdatePaidAmountTriggerHandler	6	Variable does not exist: Paying_Amount__c
UpdatePaidAmountTriggerHandler	6	Variable does not exist: Paid_Amount__c
UpdatePaidAmountTriggerHandler	20	Variable does not exist: Paid_Amount__c
UpdatePaidAmountTriggerHandler	22	Variable does not exist: Paying_Amount__c
UpdatePaidAmountTriggerHandler	22	Variable does not exist: Paid_Amount__c

The screenshot shows the Salesforce Developer Console interface. The top navigation bar includes tabs for Home | Salesforce, Billing | Salesforce, and Developer Console, along with a Student badge. Below the navigation is a toolbar with My Tabs, File, Edit, Debug, Test, Workspace, Help, and a Go To button. The main area displays the code for the trigger `UpdatePaidAmountTrigger.apxt`. The code is as follows:

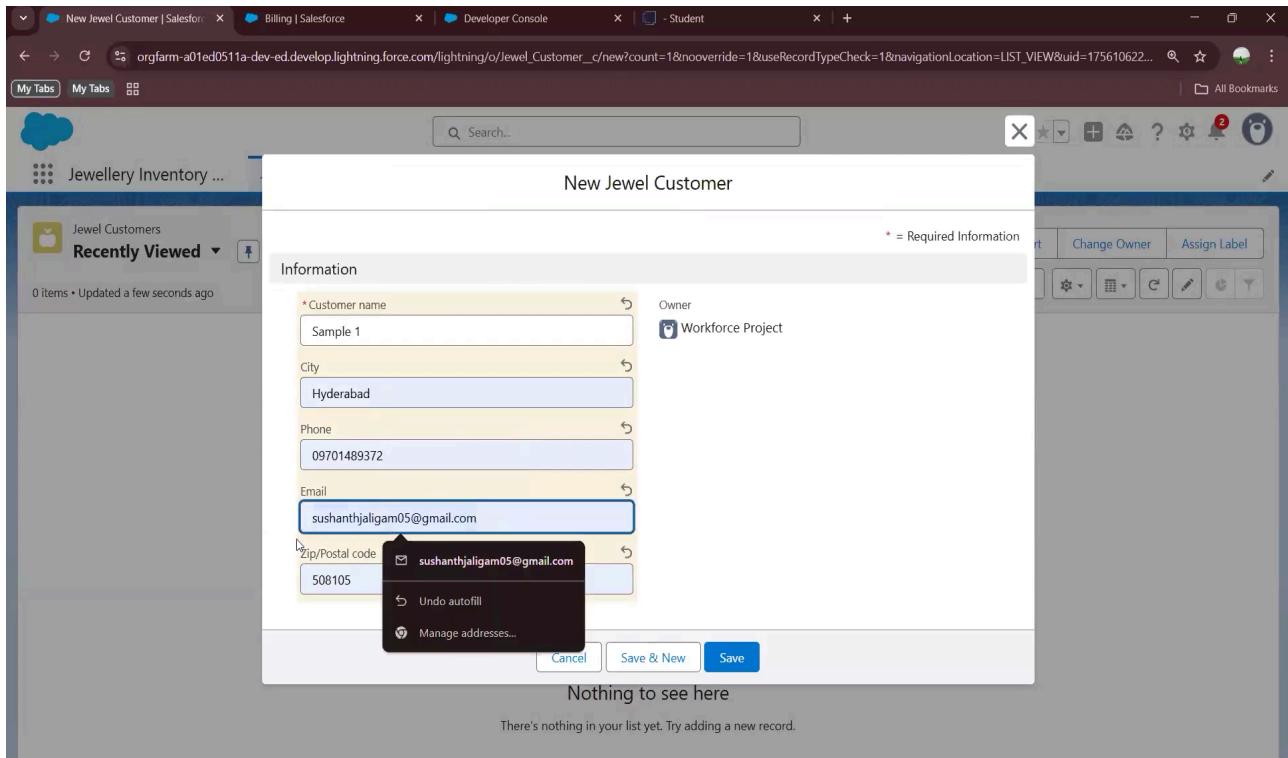
```
trigger UpdatePaidAmountTrigger on Billing__c (before insert, before update) {
    if (Trigger.isInsert) {
        UpdatePaidAmountTriggerHandler.handleBeforeInsert(Trigger.new);
    } else if (Trigger.isUpdate) {
        UpdatePaidAmountTriggerHandler.handleBeforeUpdate(Trigger.oldMap, Trigger.new);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

At the bottom, there are tabs for Logs, Tests, Checkpoints, Query Editor, View State, Progress, and Problems, with Problems being the active tab. A search bar labeled "Name" and filters for Line and Problem are also present.

❖ Go to Home and Search For Jewellery Inventory System



❖ Create New Customer and Give Price



Screenshot of a Salesforce Lightning interface showing a customer record for "Sample 1".

The page title is "Jewellery Inventory ... Jewel Customer Sample 1".

The "Details" tab is selected, displaying the following fields:

- Customer name: Sample 1
- City: Hyderabad
- Phone: 09701489372
- Email: sushanthjali@gmail.com
- Zip/Postal code: 508105

Owner: Workforce Project

Last Modified By: Workforce Project, 8/25/2025, 12:17 AM

Buttons at the top right: New Contact, Edit, New Opportunity.

Screenshot of a Salesforce Lightning interface showing a new price record creation.

The page title is "Jewellery Inventory ... Prices New Price".

The "Information" section contains the following fields:

- Price Id: Gold Price (highlighted with a red border and error message)
- Owner: Workforce Project

The error message "Enter a valid numeric value." is displayed below the Price Id field.

Buttons at the bottom: Cancel, Save & New, Save (highlighted).

The status bar at the bottom says "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 area displays a "Details" tab for a Price record with ID PD-0001. The record shows a Gold Price of \$9,000. The Owner is listed as "Workforce Project". The Created By and Last Modified By fields both show "Workforce Project, 8/25/2025, 12:21 AM". Navigation tabs include "Related" and "Details". Top navigation includes "Jewellery Inventory ...", "Prices", "Customer Orders", "Billings", "Reports", and "Dashboards".

The screenshot shows the Salesforce Lightning interface. A report titled "Report: Prices" is displayed, specifically the "Price Report". It shows 1 total record with a Total Gold Price of \$9,000. The report table has columns: Price: ID, Gold Price, and Price: Price Id. Two rows are shown: one with Price: ID a08gK0000089nsv, Gold Price \$9,000, and Price: Price Id PD-0001; and another row below it with the same values. The report interface includes buttons for "Enable Field Editing", "Add Chart", and "Edit". Top navigation includes "Jewellery Inventory ...", "Prices", "Customer Orders", "Billings", "Reports", and "Dashboards".

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

❖ Create New Automation and Start

The screenshot shows the 'New Automation' screen in the Flow Builder. At the top, there's a search bar with the placeholder '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 examples: 'Record-Triggered Flow', 'Screen Flow', 'Schedule-Triggered Flow', and 'Autolaunched Flow (No Trigger)'. A 'View All' link is also present here. At the bottom left, there's a link to 'Get more on the AppExchange'.

The screenshot shows a specific automation flow named 'Billing Alert Flow - V1'. The flow is currently 'Inactive'. It starts with a 'Record-Triggered Flow' trigger (Object: Billing, Trigger: A record is created or updated). This triggers an 'Action' step (notice), which then has a 'Run Immediately' option. The flow builder interface includes tabs for 'My Tabs' and 'Flow Builder', and various buttons like 'Run', 'Debug', 'View Tests', 'Save As New Version', 'Save', and 'Activate'.

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).

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.

TESTING RESULTS

FUNCTIONAL TESTING RESULTS

Object Creation (Pass)

Successful created Jewel Customer and item record with mandatory fields.

VALIDATION RULES (Pass)

Invalid Phone/Email triggered error message correctly.

SETUP > OBJECT MANAGER

Jewel Customer

Details
Jewel Customer Validation Rule
Help for this Page 🎉

[Back to Jewel Customer](#)

Validation Rule Detail
Rule Name: Poste_Code Error Condition Formula: AND(OR(LEN(Zip_Postal_code__c) <= 8, NOT(REGEX(Zip_Postal_code__c, "(0-9){8}"))), NOT(ISBLANK(Zip_Postal_code__c))) Error Message: Must contain 5 digits*. Select the Error location as Field and select the field as ZipPostal code. Description: Created By: Editha M. 8/25/2025, 9:26 AM Created By: Editha M. 8/25/2025, 9:26 AM Modified By: Editha M. 8/25/2025, 9:26 AM

Related Lookup Filters: [Google Chrome only](#) [Your browser](#) [Set as Default](#)

SETUP > OBJECT MANAGER

Item

Details
Item Validation Rule
Help for this Page 🎉

[Back to Item](#)

Validation Rule Detail
Rule Name: ValidationRule_For_Item Error Condition Formula: OR((ISBLANK(Amount__c), ISBLANK(Customer__c), ISBLANK(Old_Price__c), ISBLANK(KDM__c), ISBLANK(Ornament__c), ISBLANK(Percentage__c), ISBLANK(Making_Charges__c), ISBLANK(Prices__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: Editha M. 8/25/2025, 9:44 AM Created By: Editha M. 8/25/2025, 9:44 AM Modified By: Editha M. 8/25/2025, 9:44 AM

Related Lookup Filters: [Google Chrome only](#) [Your browser](#)

TRIGGERED AUTOMATION (Pass)

Billing record was auto-created when Order status = Confirmed

Jewellery Inventory ... Jewel Customers Items Prices Customer Orders Billings Reports Dashboards

Report: Billings with Item and Customer Order
Billings with Item and Customer Order

	Amount	Item: Item Id	Billing Id	Duplicate Record Item Name
1	\$0.00	Item-07	Billing-07	-
2	\$120,000.00	Item-06	Billing-06	-
3	\$0.00	-	Billing-05	-
4	\$255,200.00	Item-09	Billing-04	-
5	\$258,200.00	Item-09	Billing-09	-
6	-\$1.07	Item-08	Billing-08	-
7	\$0.00	Item-07	Billing-02	-
8	-\$1.07	Item-00	Billing-03	-
9	\$120,000.00	Item-06	Billing-01	-
10	\$750,397.86			

REPORT & DASHBOARD (Pass)

Report Display accurate totals, dashboard generated charts successfully.

Student Welcome to Salesforce Recent Reports | Salesforce Item | Salesforce

Jewellery Inventory ... Jewel Customers Items Customer Orders Prices Billings Reports Dashboards

Reports Recent 4 items

Report Name	Description	Folder	Created By	Created On	Subscribed
Prices Report		Private Reports	Kritja Markandar	8/27/2025, 5:40 AM	
Billings with Item and customer order		Private Reports	Kritja Markandar	8/27/2025, 10:38 PM	
Billings with Item Report		Private Reports	Kritja Markandar	8/27/2025, 7:51 AM	
Item with Billings		Private Reports	Kritja Markandar	8/27/2025, 6:15 AM	

Welcome to Salesforce Beta

Recent | Dashboards | Salesforce

Jewellery Inventory ... Jewel Customers Items Customer Orders Prices Billings Reports Dashboards

Search... ...

Recent

2 item

DASHBOARDS

Dashboard Name	Description	Folder	Created By	Created On	Subscribed
Dashboard 1		Private Dashboards	Rishabh Manikandan	8/27/2025, 8:40 AM	
Dashboard 2		Private Dashboards	Rishabh Manikandan	8/27/2025, 10:01 PM	

Recent

Created by Me

Private Dashboards

All Dashboards

FOLDERS

All Folders

Created by Me

Shared with Me

FAVORITES

All Favorites

https://orgname-0267b1de2-dev-ed.lightning.force.com/lightning/homequeryScope?menu

Search ...

Home Dashboard New Item

13:00 ENG IN 13-09-2025

PERFORMANCE TESTING RESULTS

Record Load Test (Pass)

Created and handled 100+ Jewel Customer records without errors.

Setup Home Object Manager

Customize Tabs

Custom Tabs

You can create new custom tabs to extend Salesforce functionality or to build new application functionality. Custom Object tabs look and behave like the standard tabs provided with Salesforce. Web tabs allow you to embed custom web applications and content within the Salesforce interface. Visualforce tabs allow you to embed Visualforce components directly into the navigation menu in Lightning Experience and the mobile app. Lightning Page tabs allow you to add Lightning Pages in Lightning Experience and the mobile app.

Custom Object Tabs

Action	Label	Tab Style	Description
Edit	Billings	Cusp	
Edit	Customer Details	Card	
Edit	PRMS	Lightning	
Edit	Jewel Customers	Apple	
Edit	Elara	Blurred	

Web Tabs

No Visualforce tabs have been defined.

Visualforce Tabs

No Visualforce tabs have been defined.

13:00 ENG IN 13-09-2025

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.

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;  
    }  
}
```

```

    );
    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
    ];
}
}

```

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());
    }
}
```