CRM APPLICATION FOR JEWEL MANAGEMENT

COLLEGE NAME : GOVERNMENT ARTS COLLEGE UDHAGAMANDALAM

COLLEGE CODE : BRU11

TEAM ID : NM2025TMID27256
TEAM MEMBERS : 4

TEAM LEADER NAME : SANJANA

E-MAIL : sanjanasanjay1717@gmail.com

TEAM MEMBER 1 : MANOJ

E-MAIL : manojkamalakanan1010@gmail.com

TEAM MEMBER : SAKTHIVEL

E-MAIL : sakthivelkadarkarai1@gmail.com

TEAM MEMBER : ARIF

E-MAIL : mm8686716@gmail.com

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.**

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1.2 PURPOSE

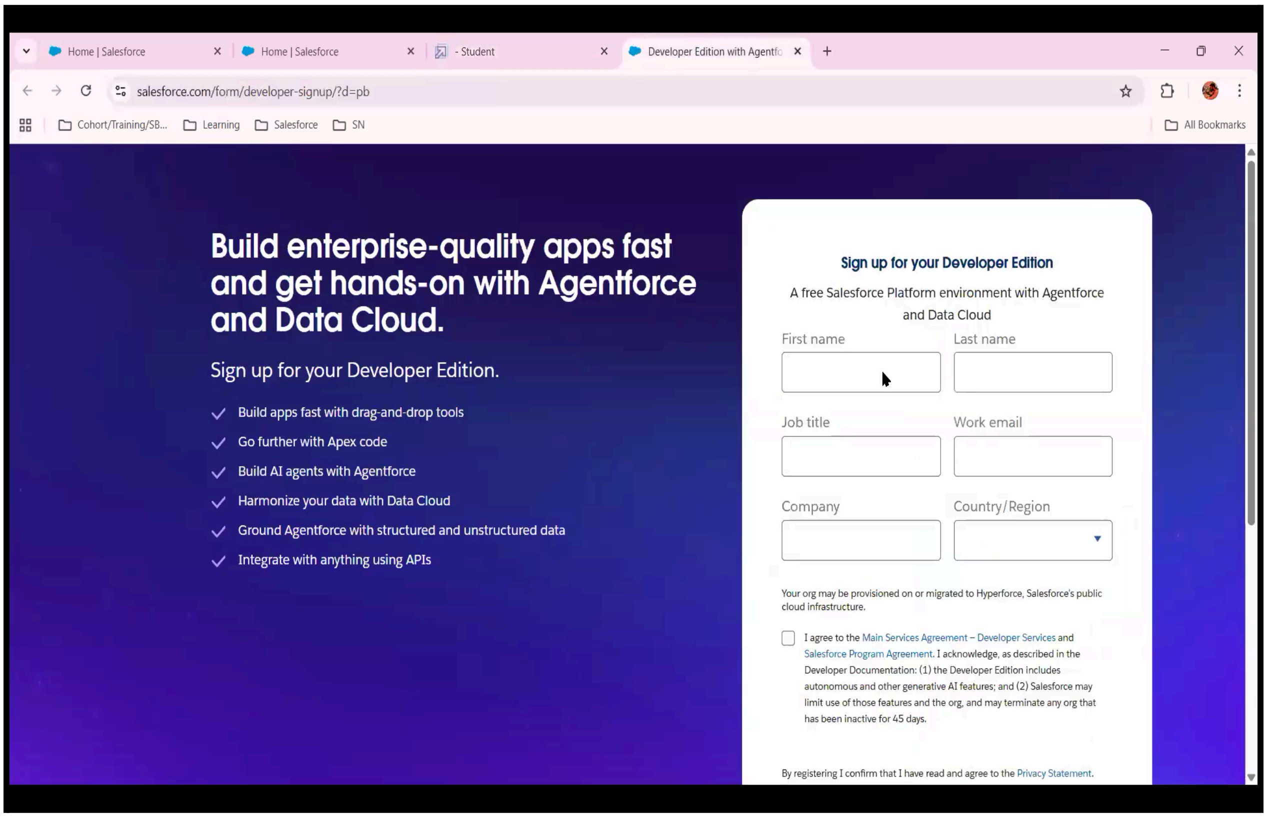
- **The primary purpose of jewellery management in a CRM is to enhance customer satisfaction and loyalty by providing personalized service, tracking purchase history and preferences, and facilitating targeted marketing and engagement.**

2.DEVELOPMENT PHASE

2.1 Salesforce Setup

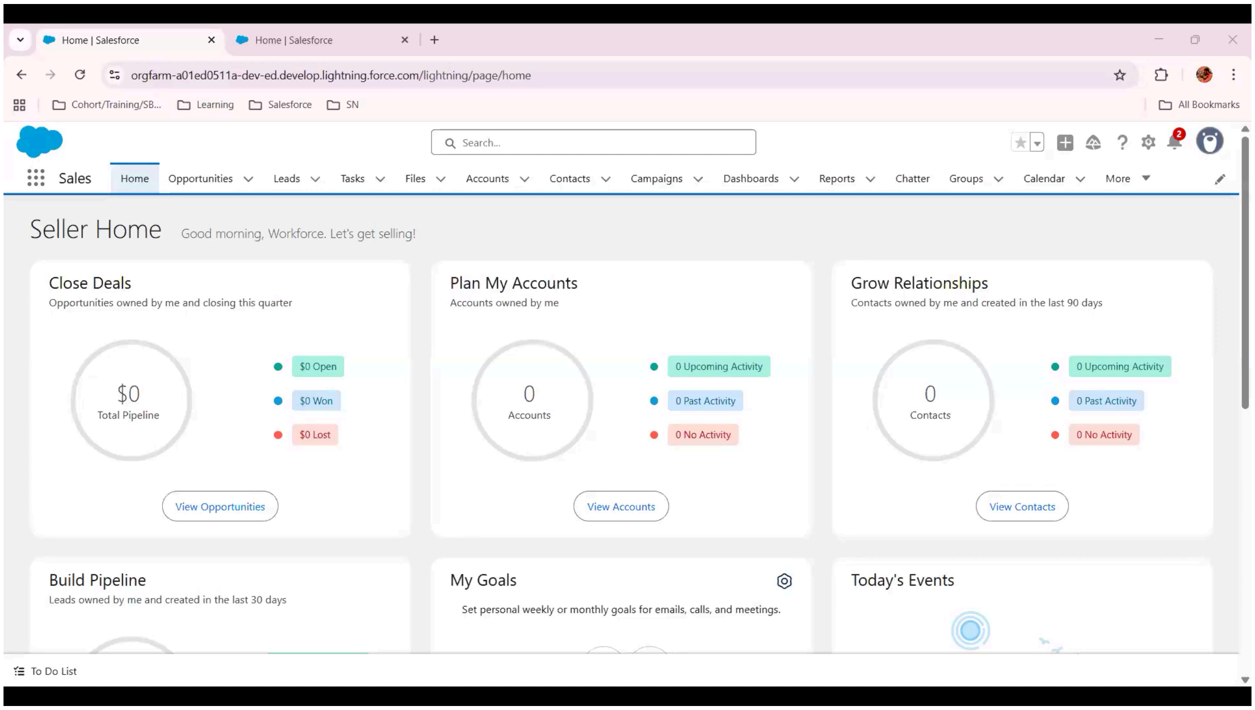
CREATING DEVELOPER ACCOUNT :

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.**


Home | Salesforce
Home | Salesforce
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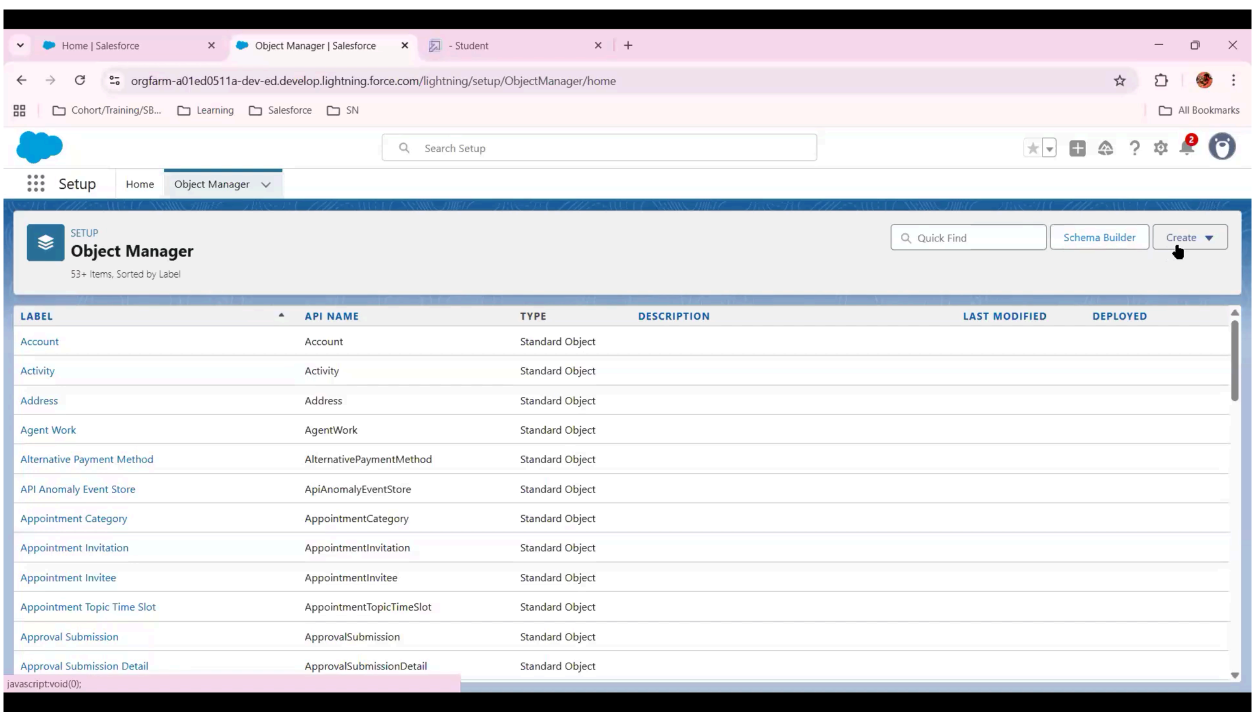
Cohort/Training/SB...
Learning
Salesforce
SN
All Bookmarks
Search...
Sales
Home
Opportunities
Leads
Tasks
Files
Accounts
Contacts
Campaigns
Dashboards
Reports
Chatter
Groups
Calendar
More
Seller Home
Good morning, Workforce. Let's get selling!
Close Deals
Opportunities owned by me and closing this quarter
$0
Total Pipeline
$0 Open
$0 Won
$0 Lost
View Opportunities
Plan My Accounts
Accounts owned by me
0
Accounts
0 Upcoming Activity
0 Past Activity
0 No Activity
View Accounts
Grow Relationships
Contacts owned by me and created in the last 90 days
0
Contacts
0 Upcoming Activity
0 Past Activity
0 No Activity
View Contacts
Build Pipeline
Leads owned by me and created in the last 30 days
My Goals
Set personal weekly or monthly goals for emails, calls, and meetings.
Today's Events
To Do List


Home | Salesforce
Object Manager | Salesforce
- Student
orgfarm-a01ed0511a-dev-ed.develop.lightning.force.com/lightning/setup/ObjectManager/home
Cohort/Training/SB...
Learning
Salesforce
SN
All Bookmarks
Search Setup
Setup
Home
Object Manager
SETUP
Object Manager
53+ Items, Sorted by Label
Quick Find
Schema Builder
Create
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
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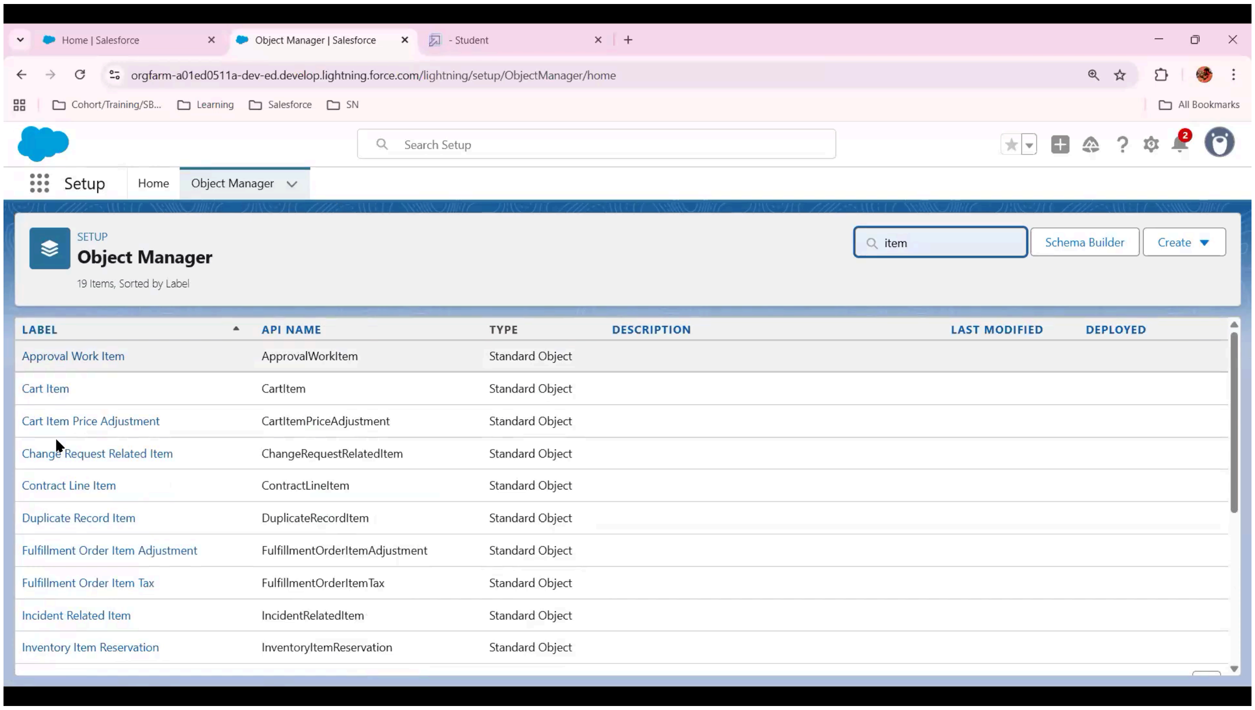
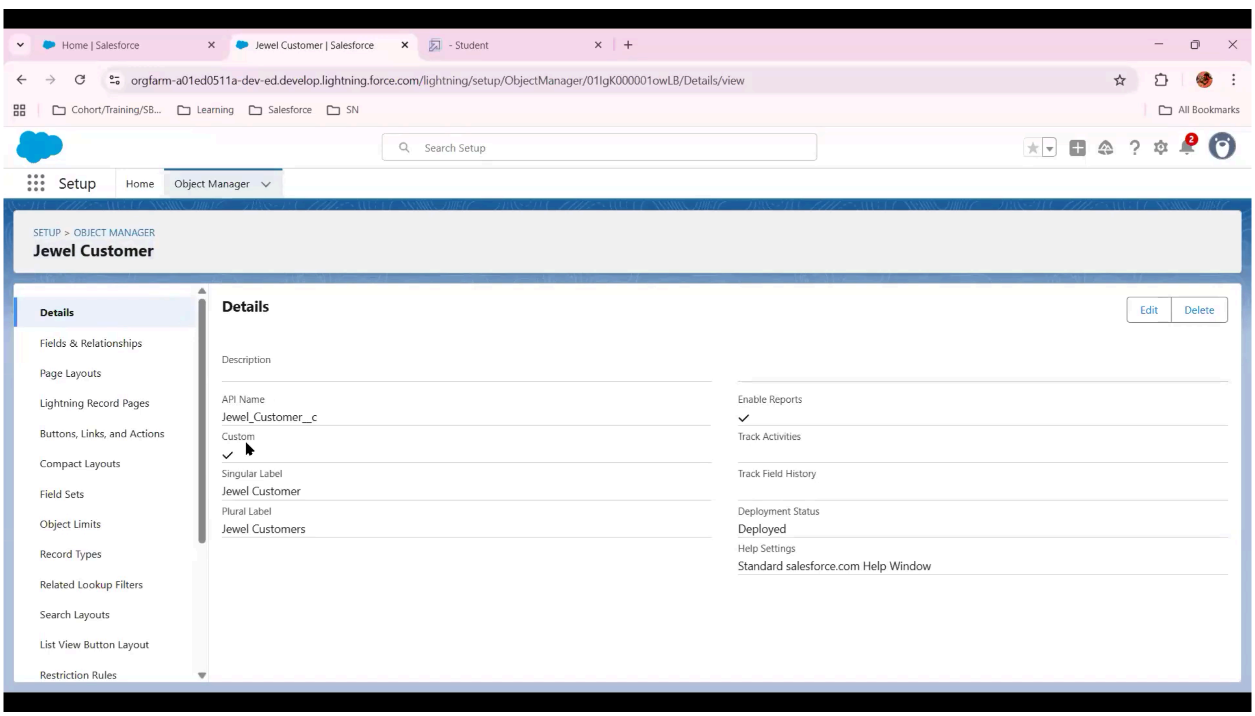
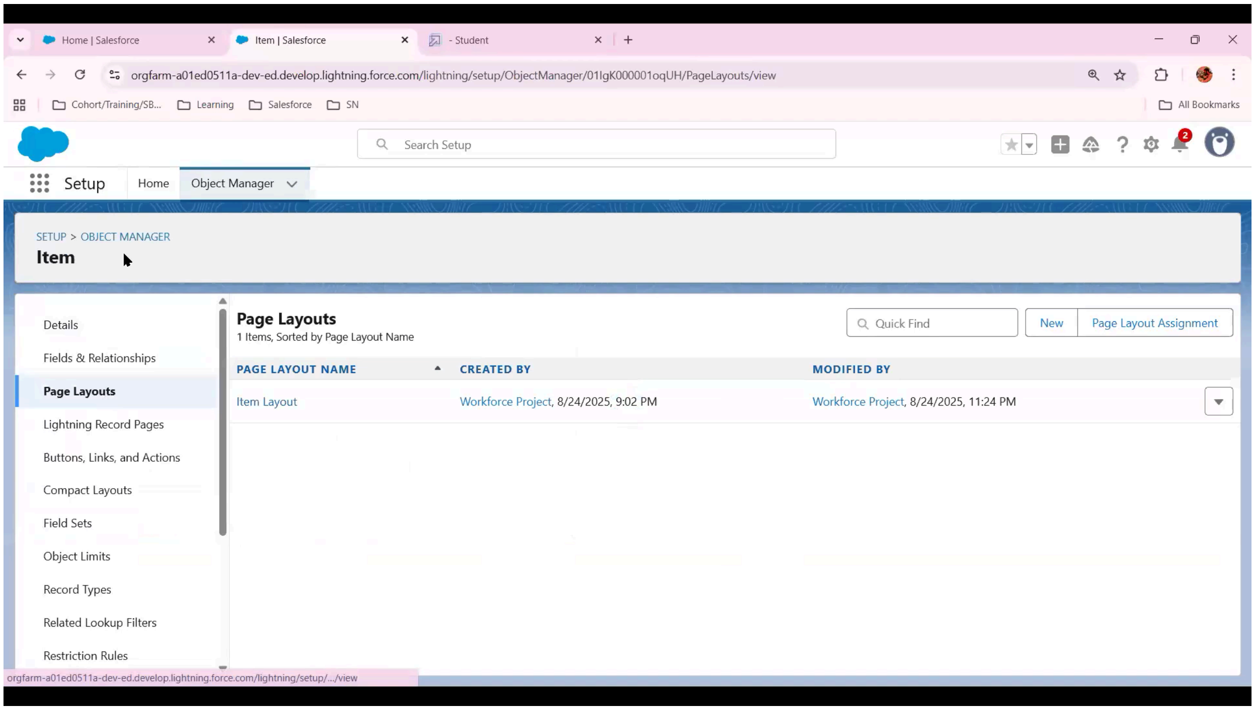
Approval Submission
ApprovalSubmission
Standard Object
Approval Submission Detail
ApprovalSubmissionDetail
Standard Object
javascript:void(0);

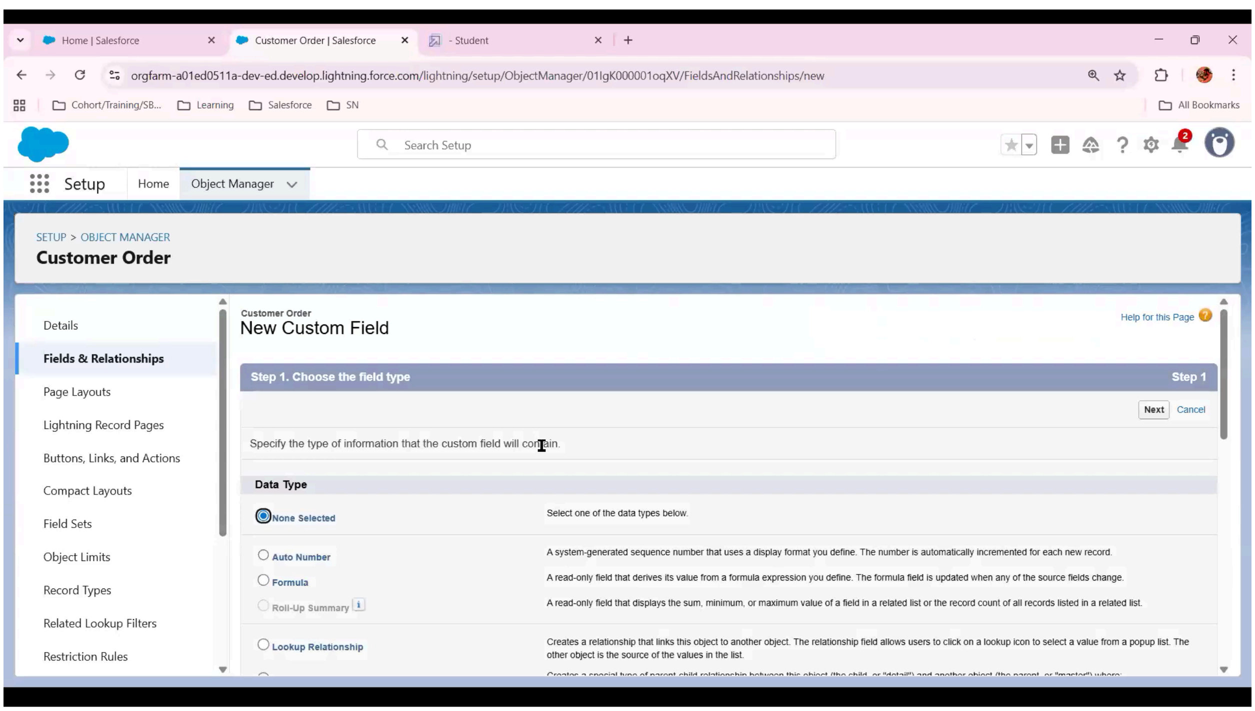


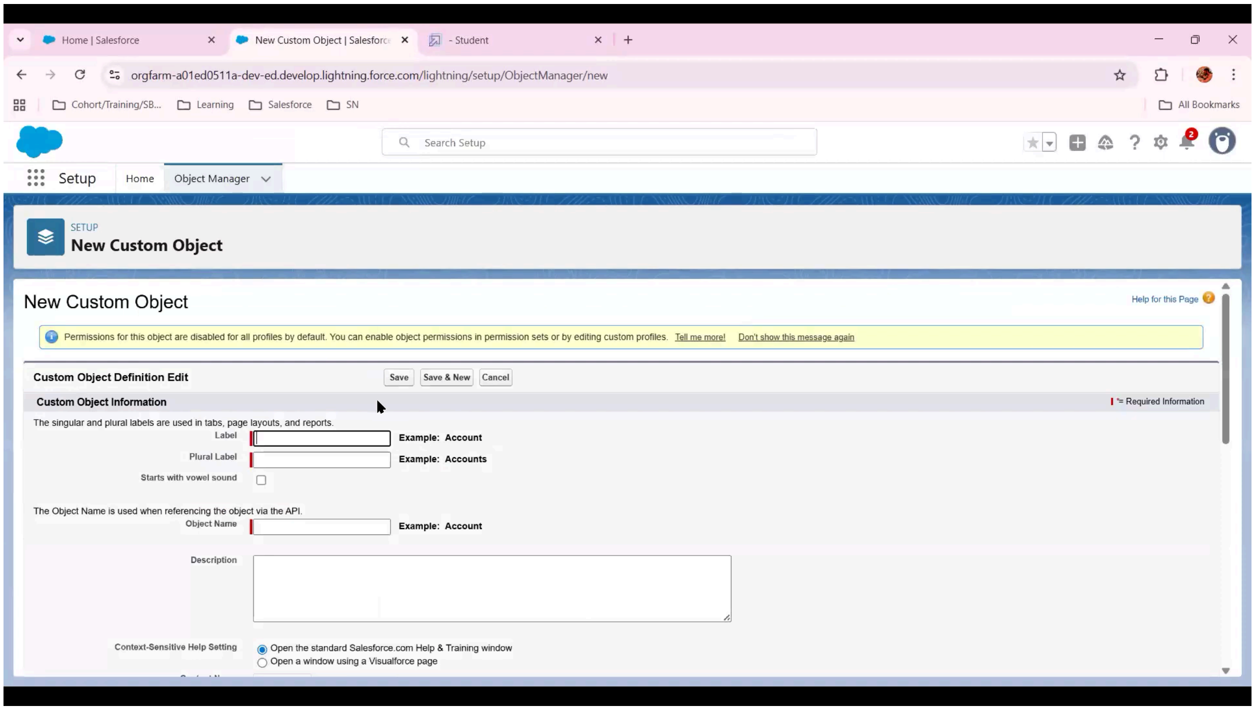
❖ **Configured fields and relationships**



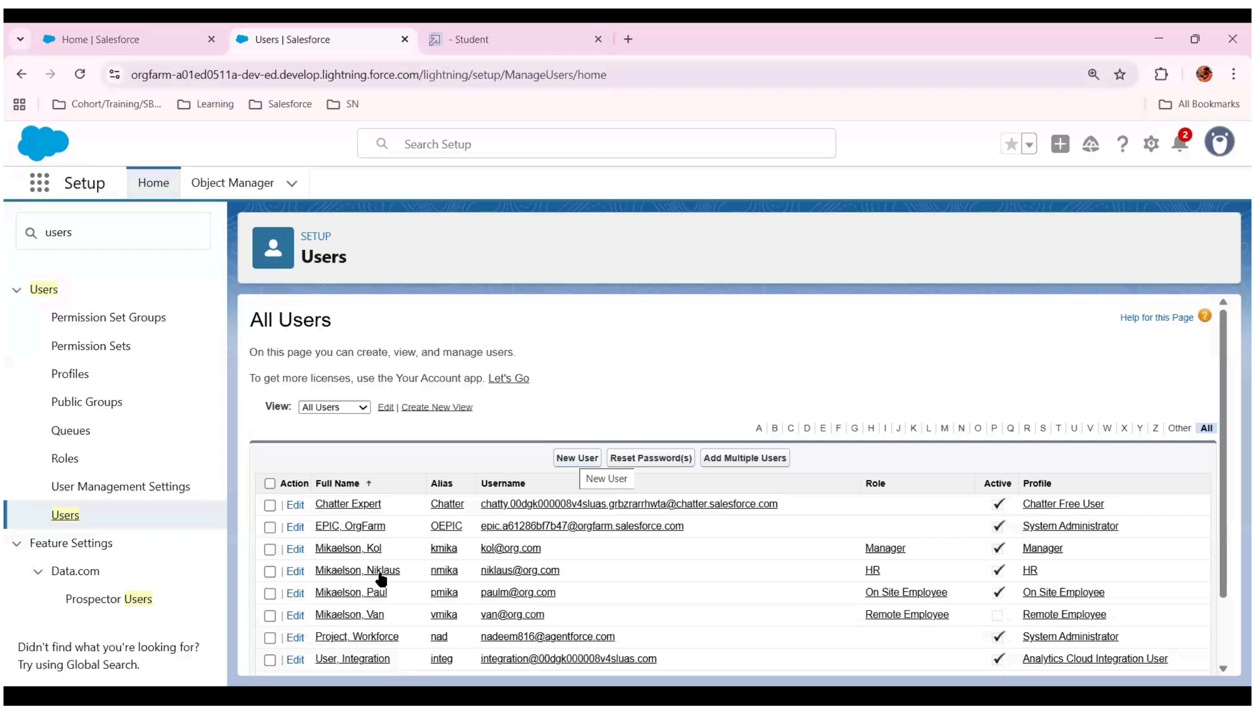


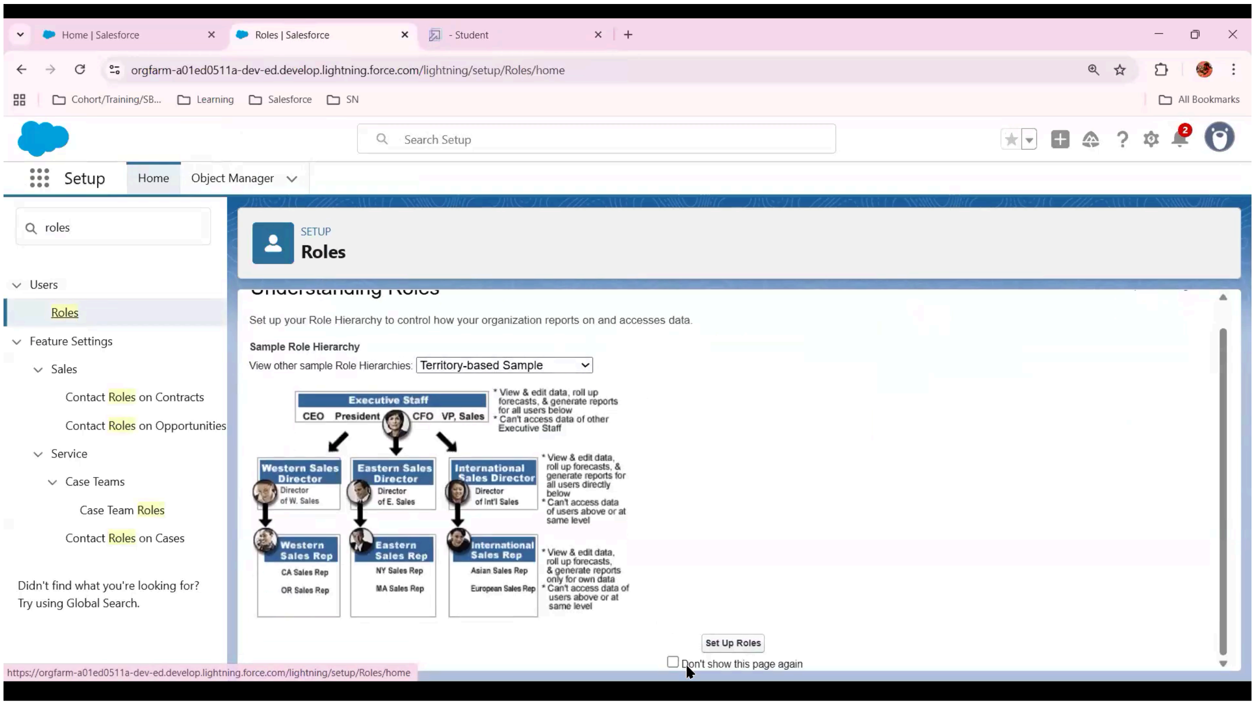
❖ Create New Custom Object



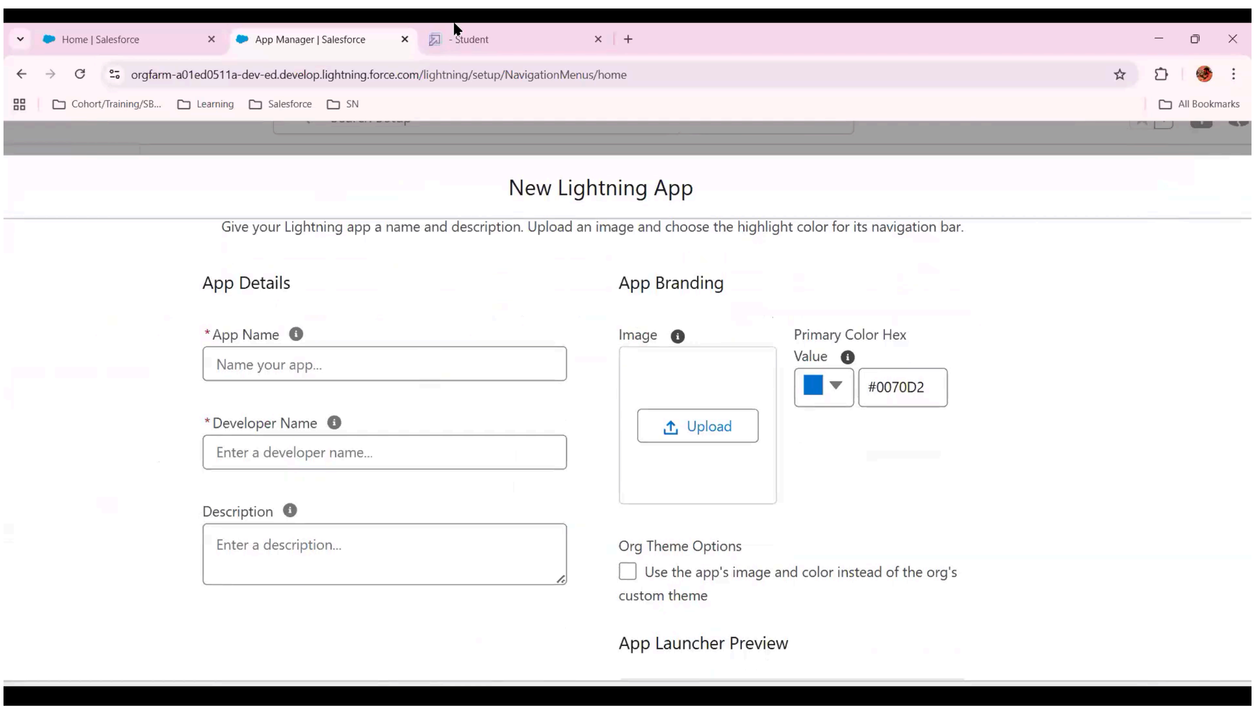


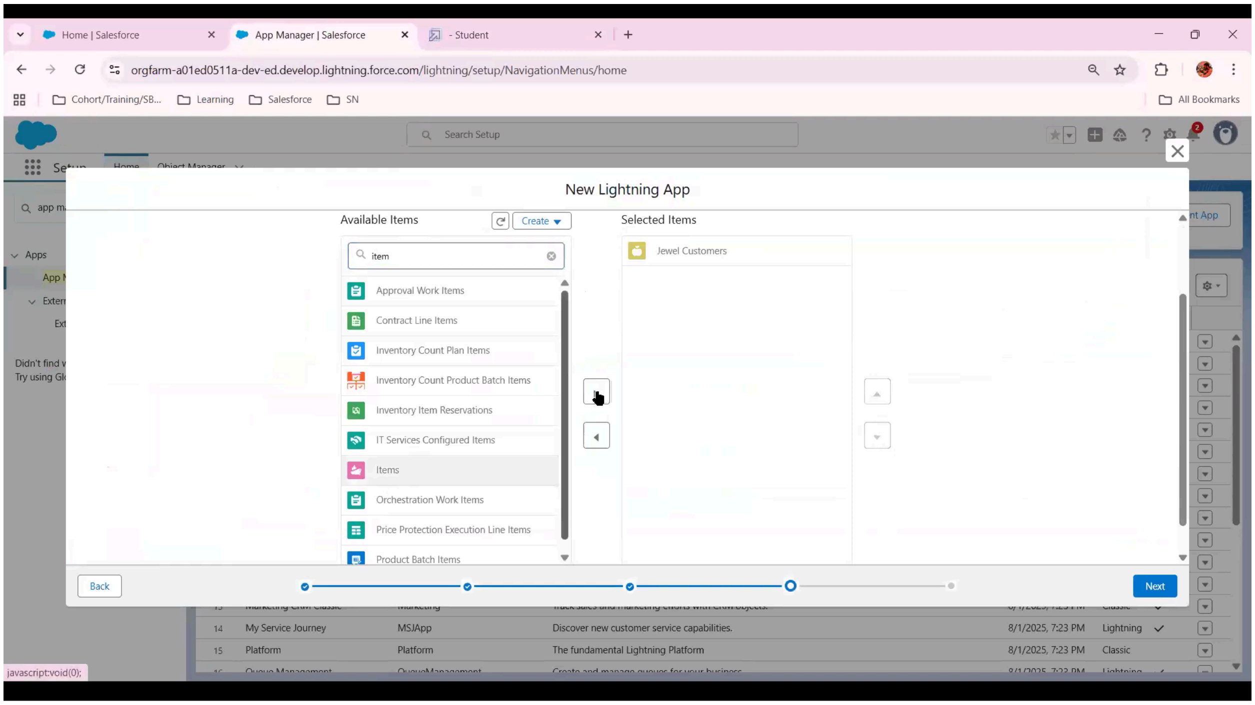
- ❖ **Create New User and Roles**



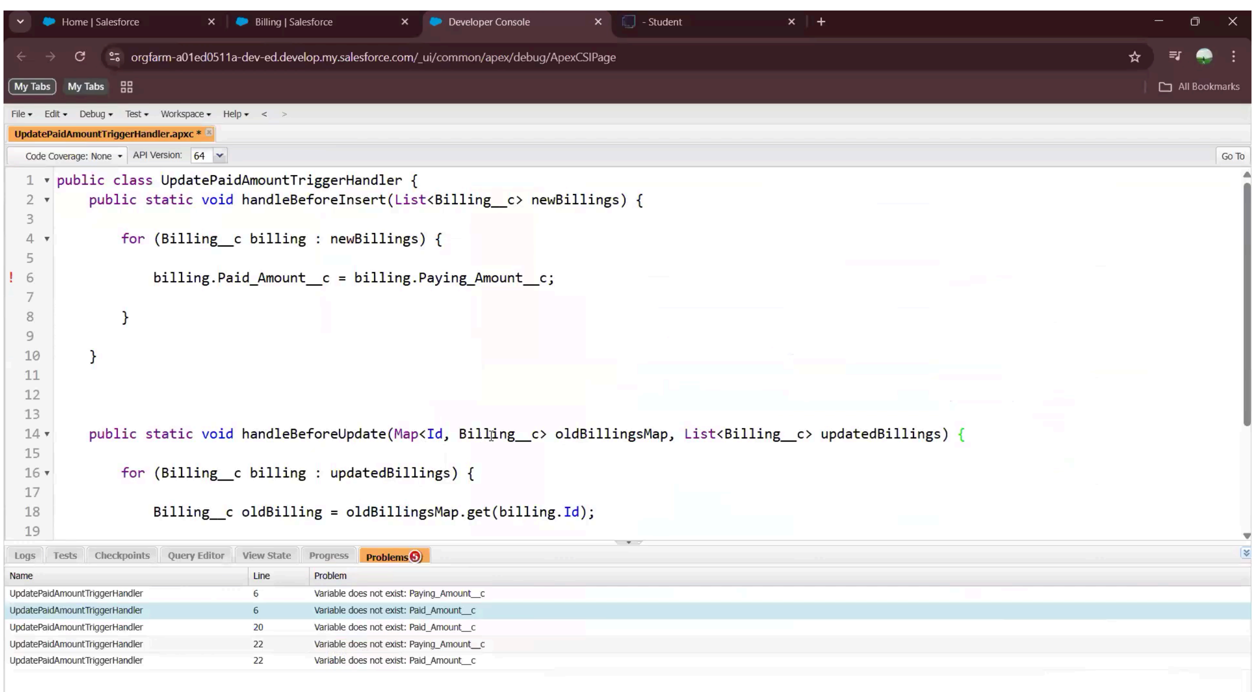


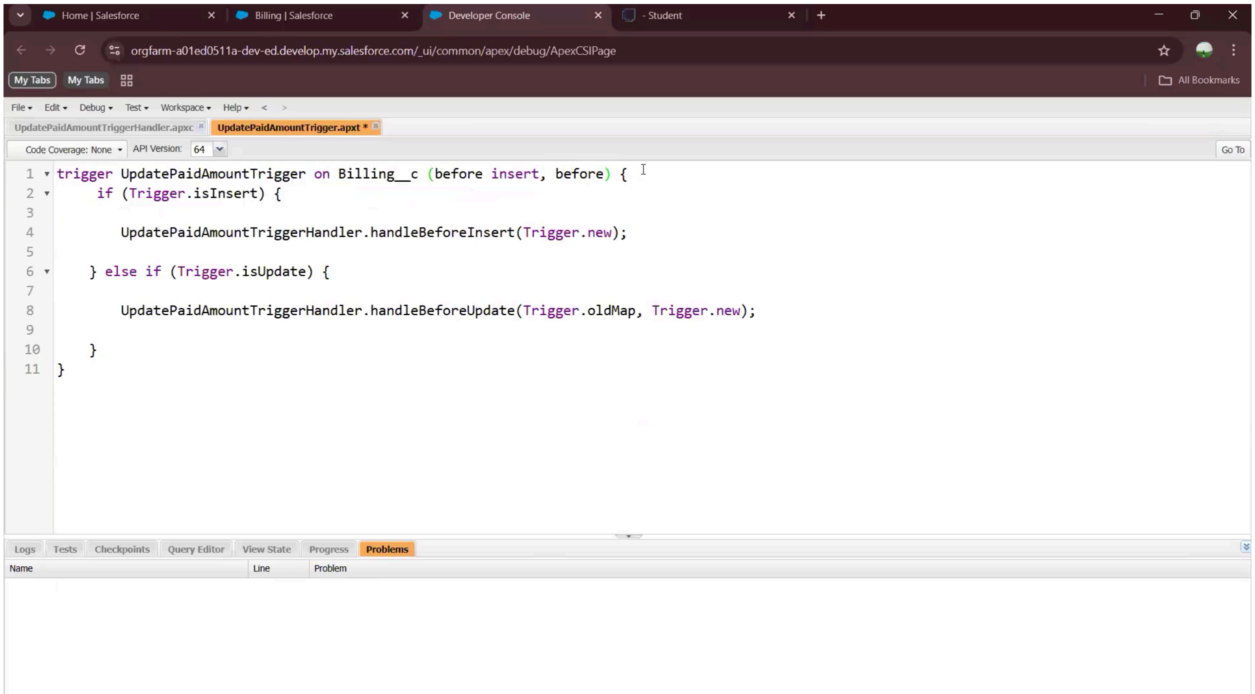
❖ Create New Lighting App



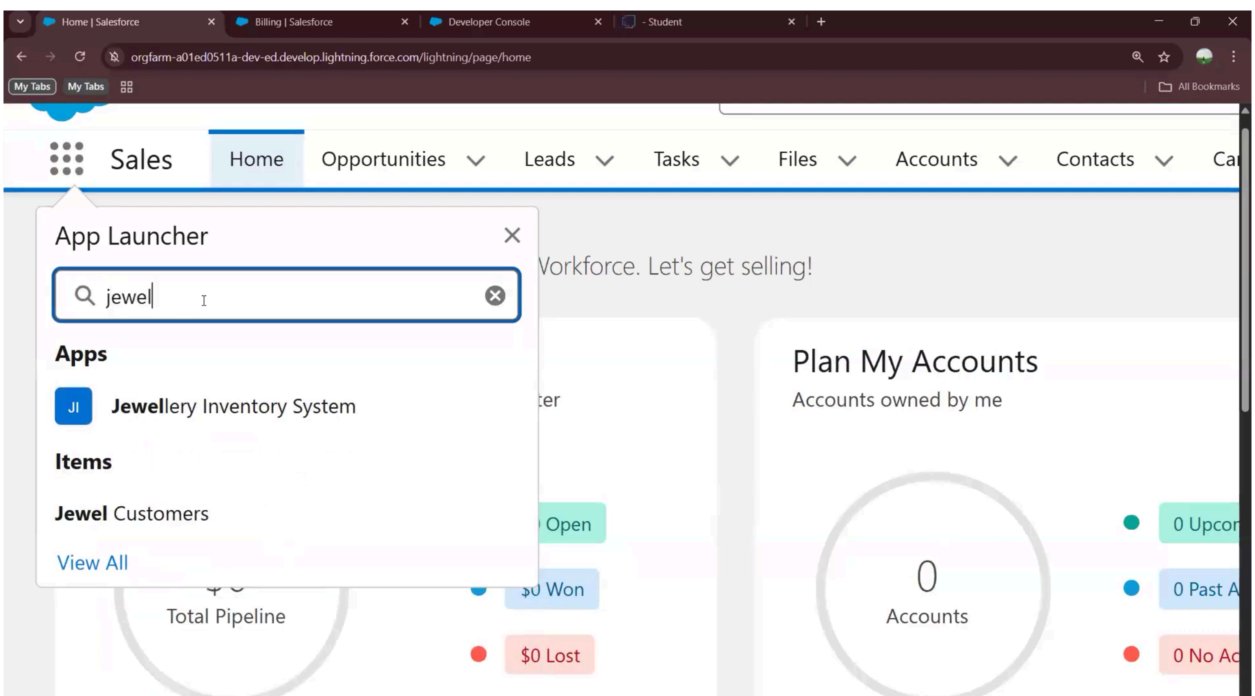


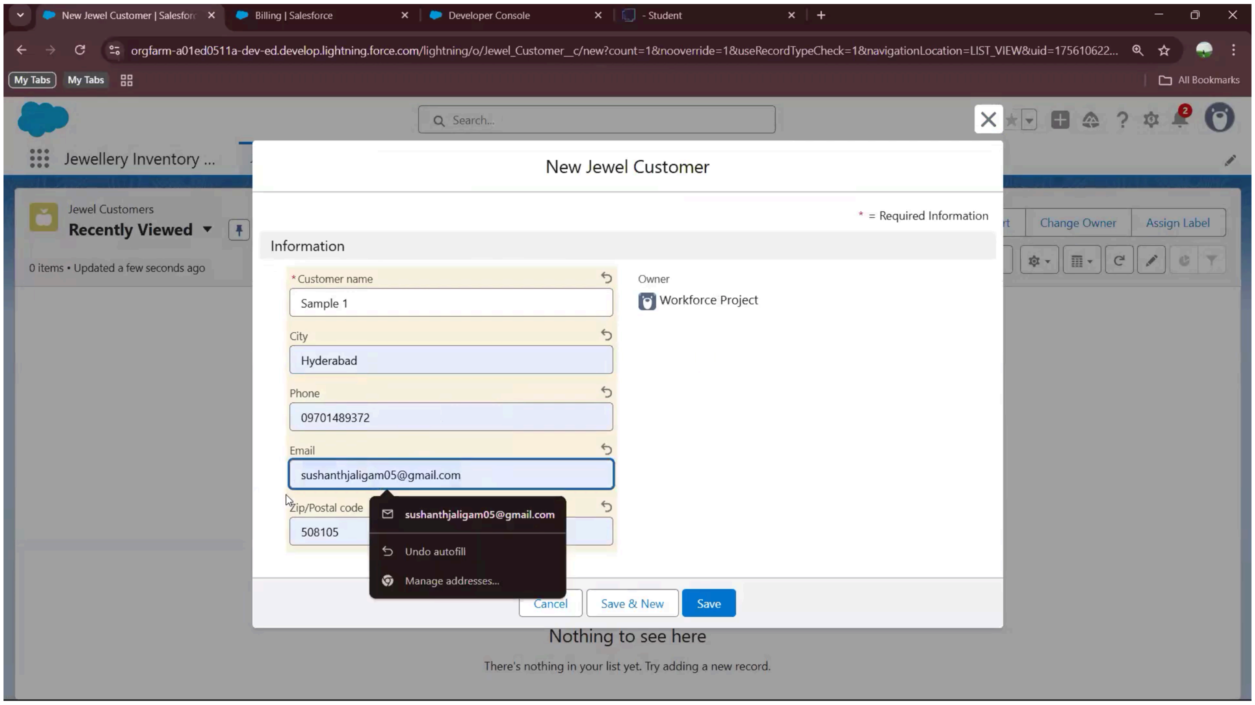
❖ Create An Apex Class



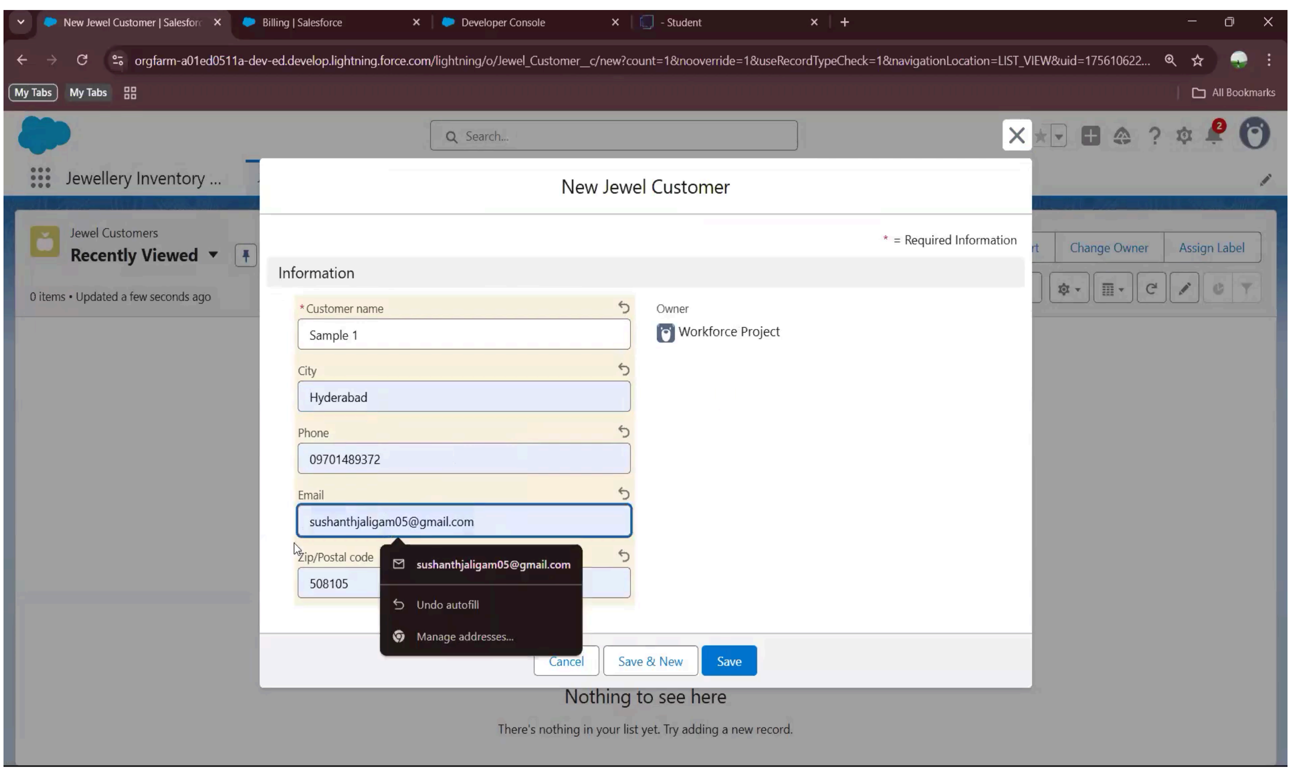


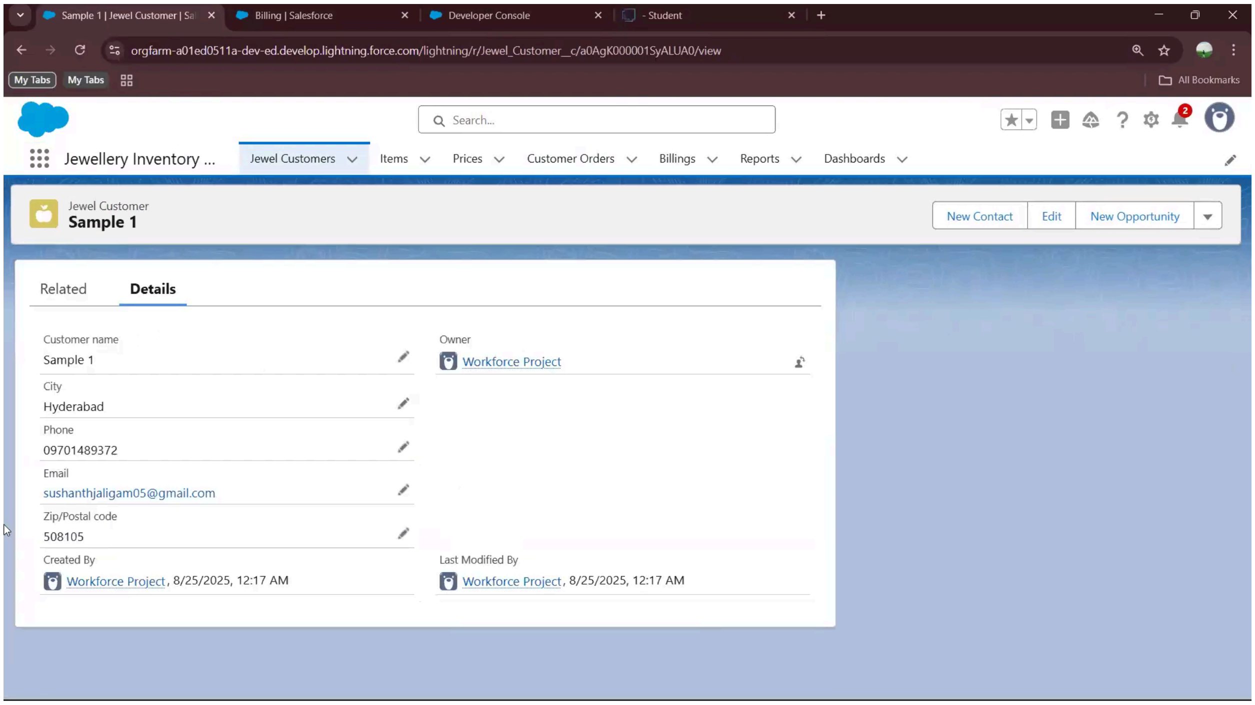
❖ **Go to Home and Search For Jewellery Inventory System.**

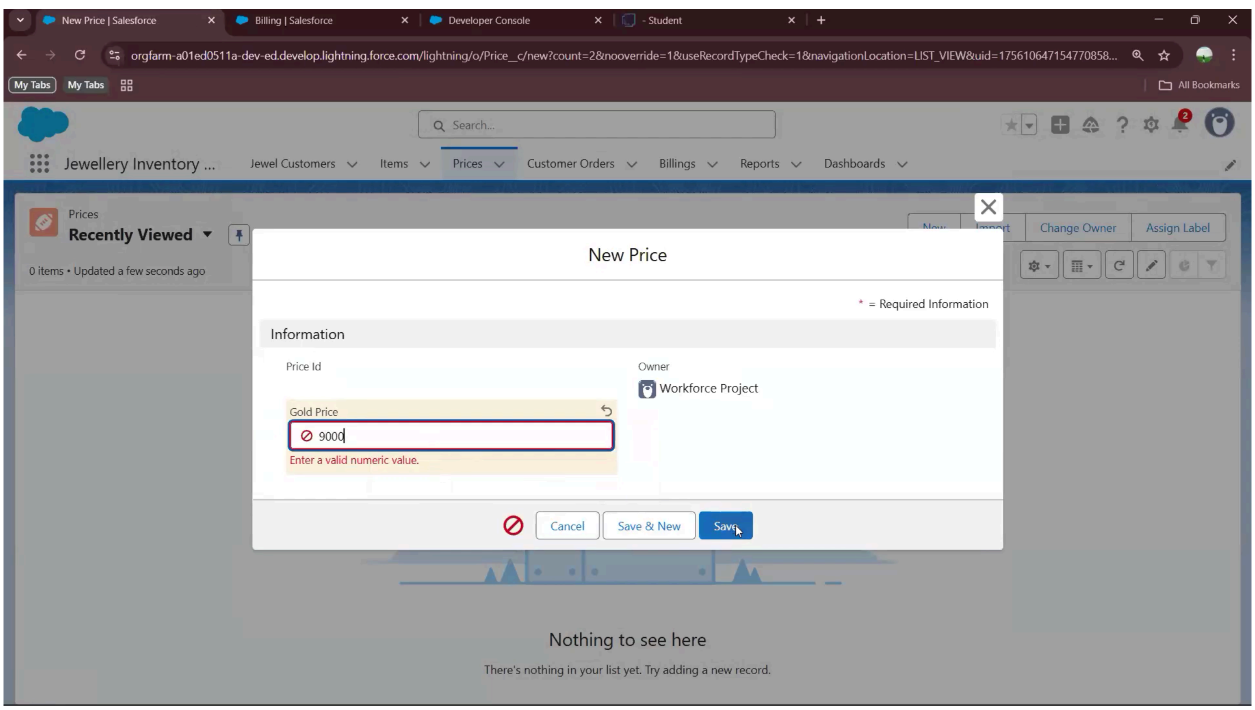




- **Create New Customer and Give Price**

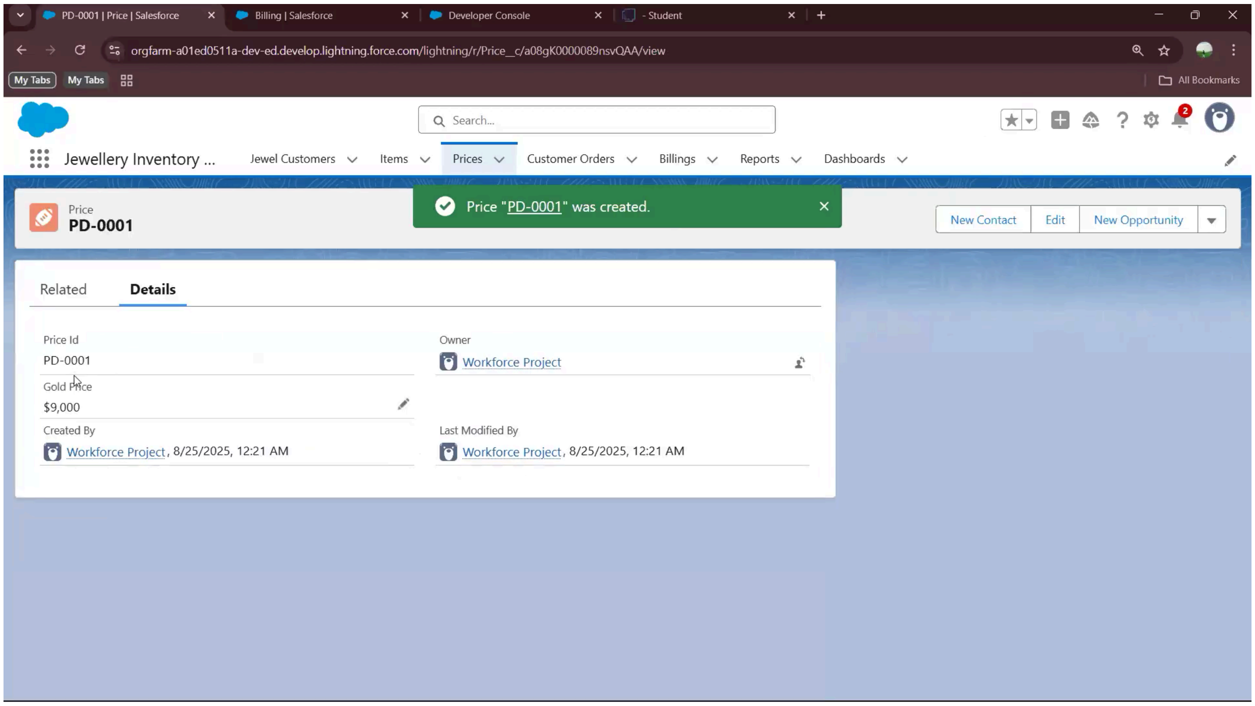


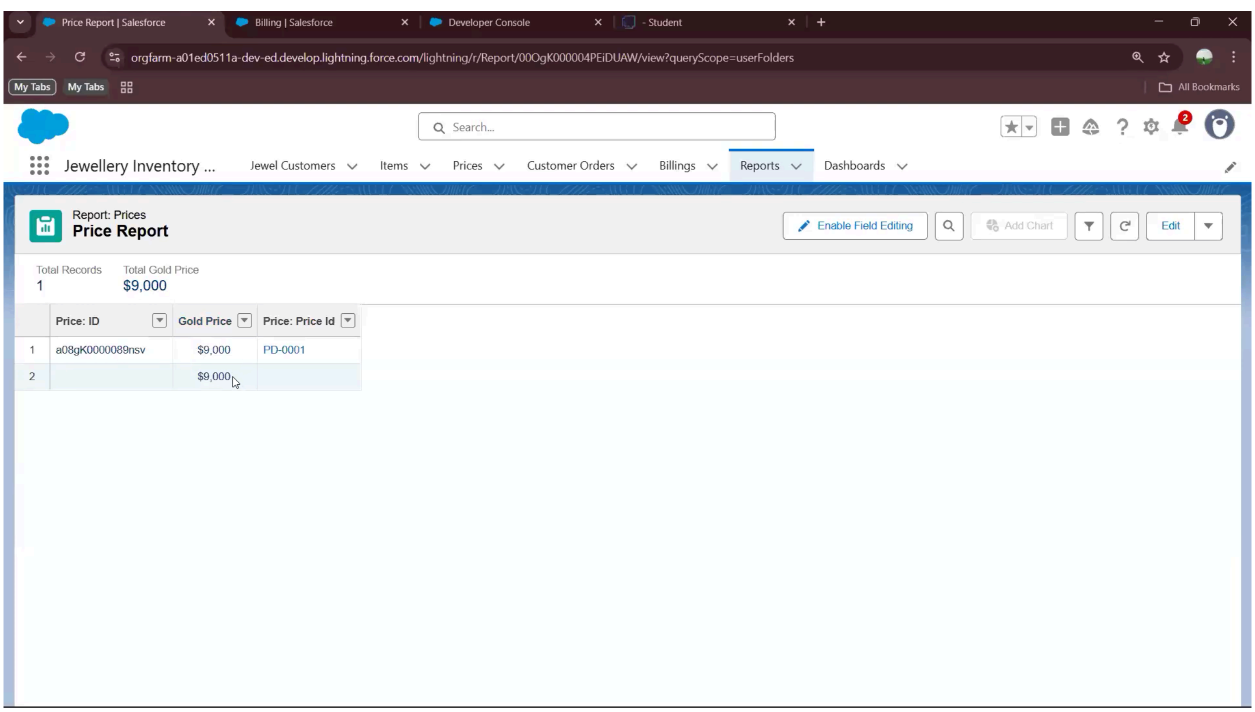

Jewellery Inventory ...
Jewel Customers
Items
Prices
Customer Orders
Billings
Reports
Dashboards
Jewel Customer
Sample 1
New Contact
Edit
New Opportunity
Related
Details
Customer name
Sample 1
City
Hyderabad
Phone
09701489372
Email
sushanthjaligam05@gmail.com
Zip/Postal code
508105
Created By
Workforce Project, 8/25/2025, 12:17 AM
Owner
Workforce Project
Last Modified By
Workforce Project, 8/25/2025, 12:17 AM


Jewellery Inventory ...
Prices
Recently Viewed
0 items • Updated a few seconds ago
New Price
* = Required Information
Information
Price Id
Owner
Workforce Project
Gold Price
9000
Enter a valid numeric value.
Cancel
Save & New
Save
Nothing to see here
There's nothing in your list yet. Try adding a new record.

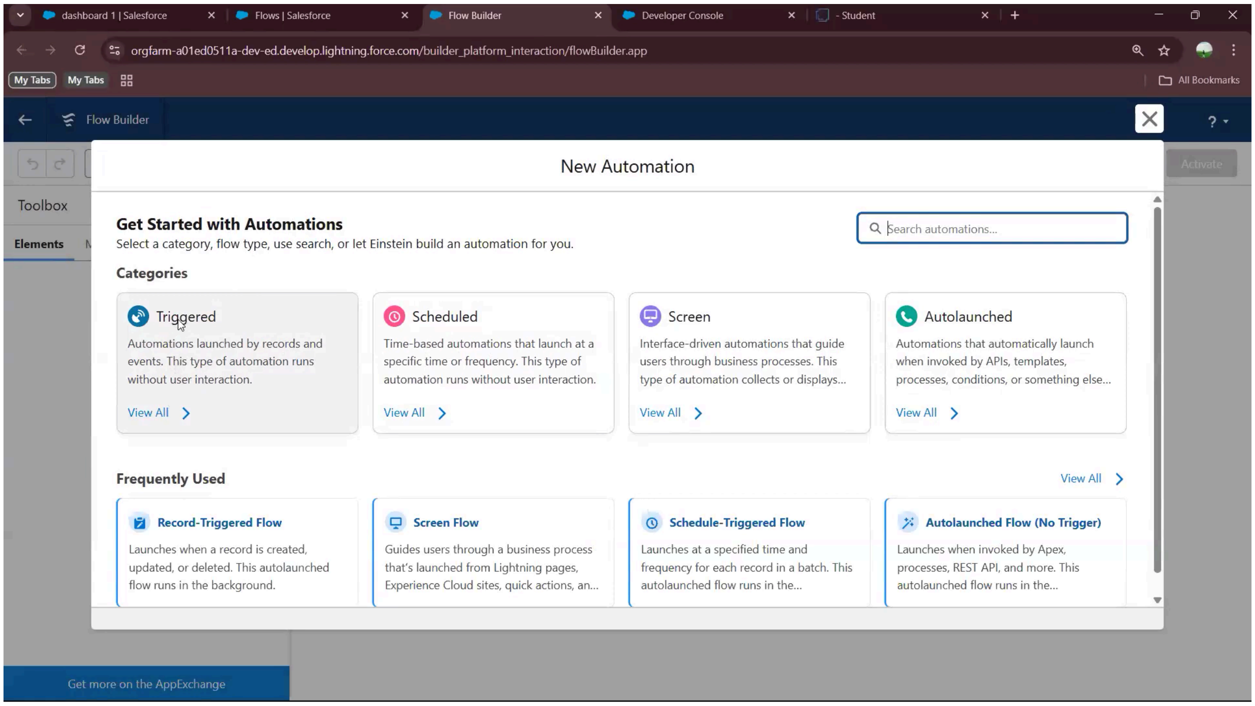
SAKTHIVEL

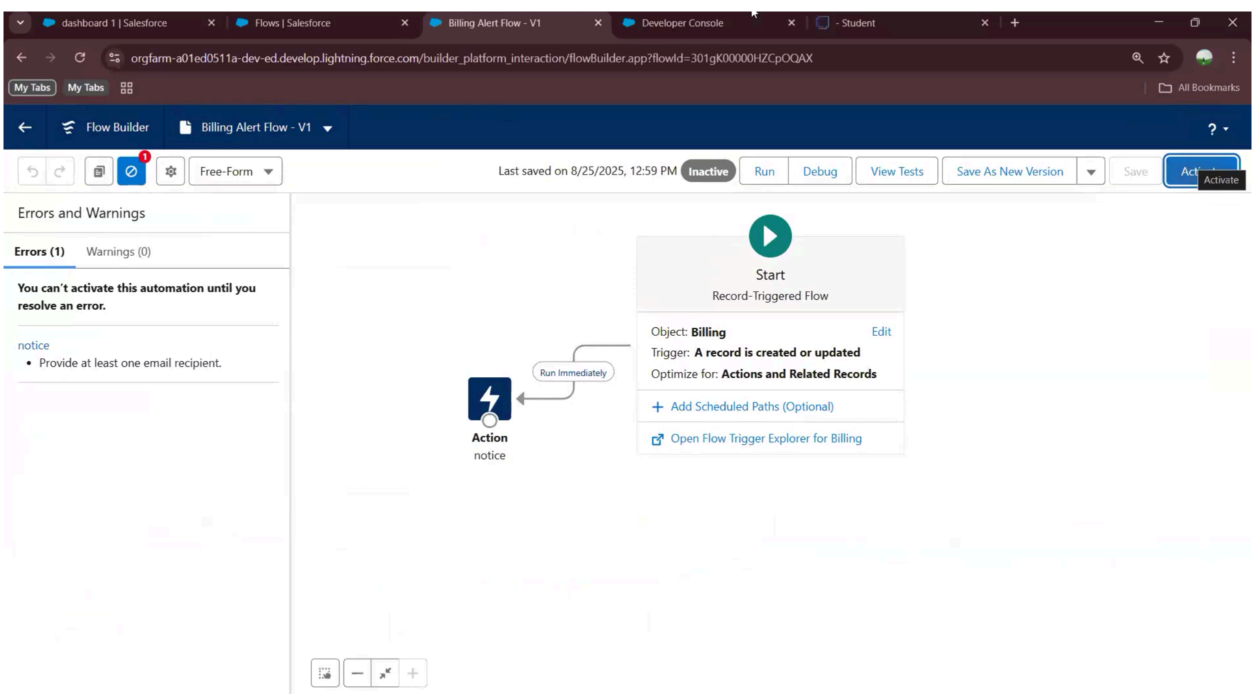
❖ **Check For Price Report**





- ❖ **Create New Automation and Start**





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.**

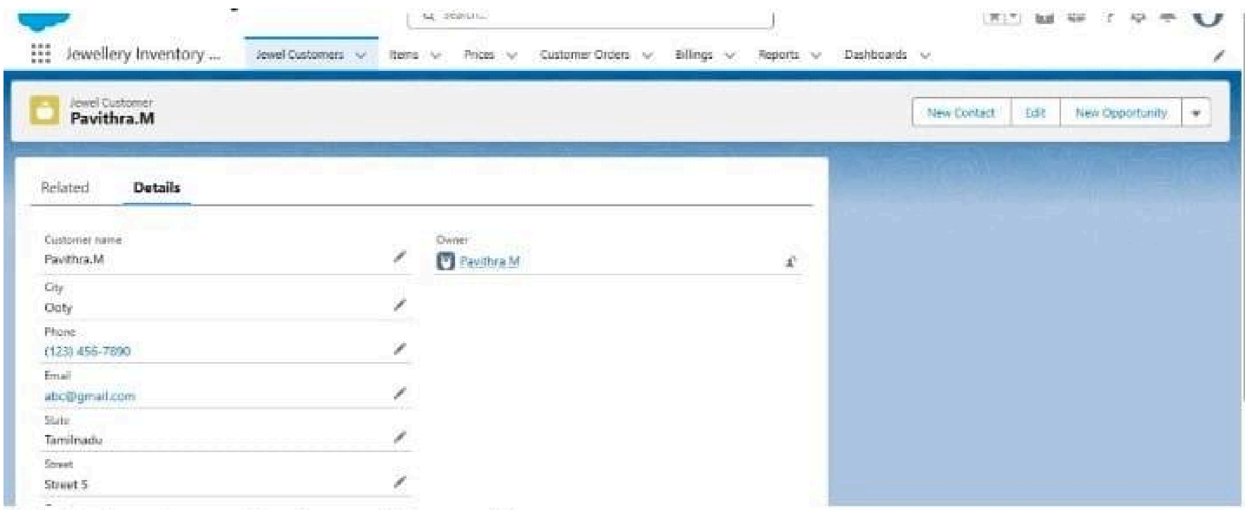
6. MARKET COMPETITION :

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

3.TESTING RESULTS :

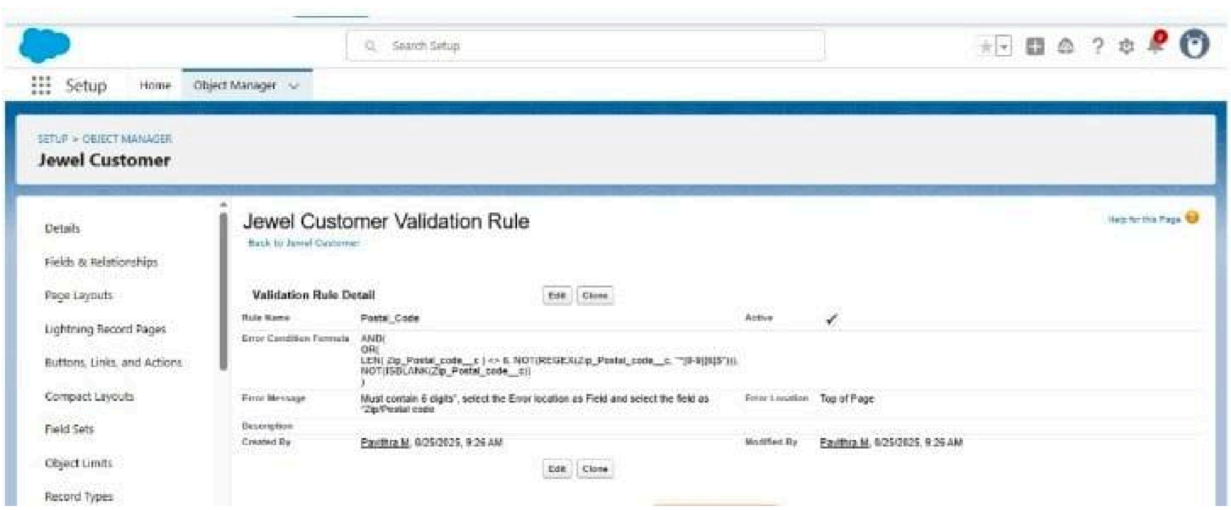
3.1 FUNCTIONAL TESTING RESULTS

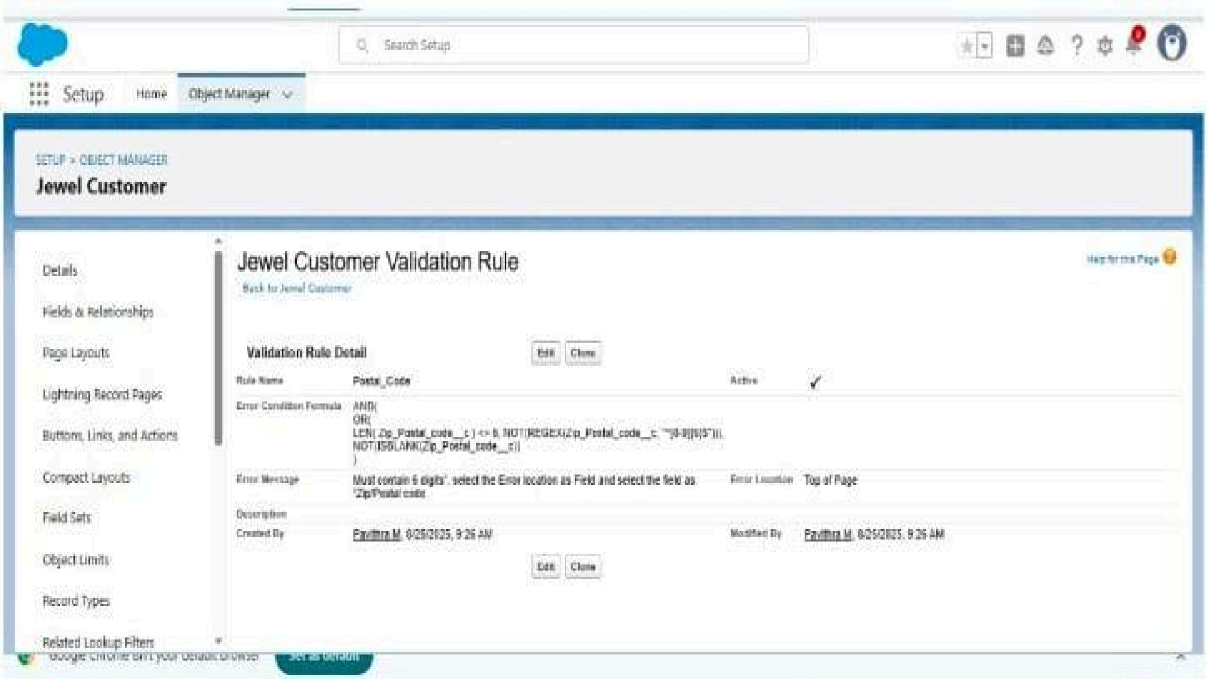
- ❖ **Object Creation (Pass)**
- ❖ **Successful created Jewel Customer and item record with mandatory fields.**

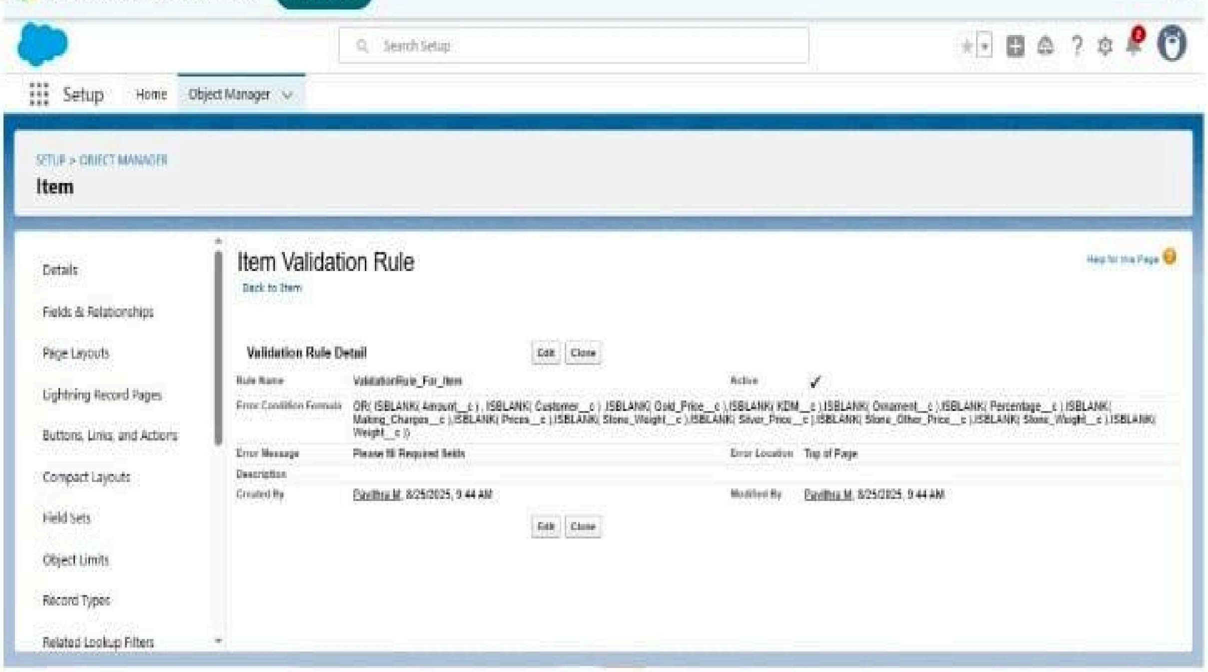


3.2 VALIDATION RULES (Pass)

- ❖ **Invalid Phone/Email triggered error message correctly.**

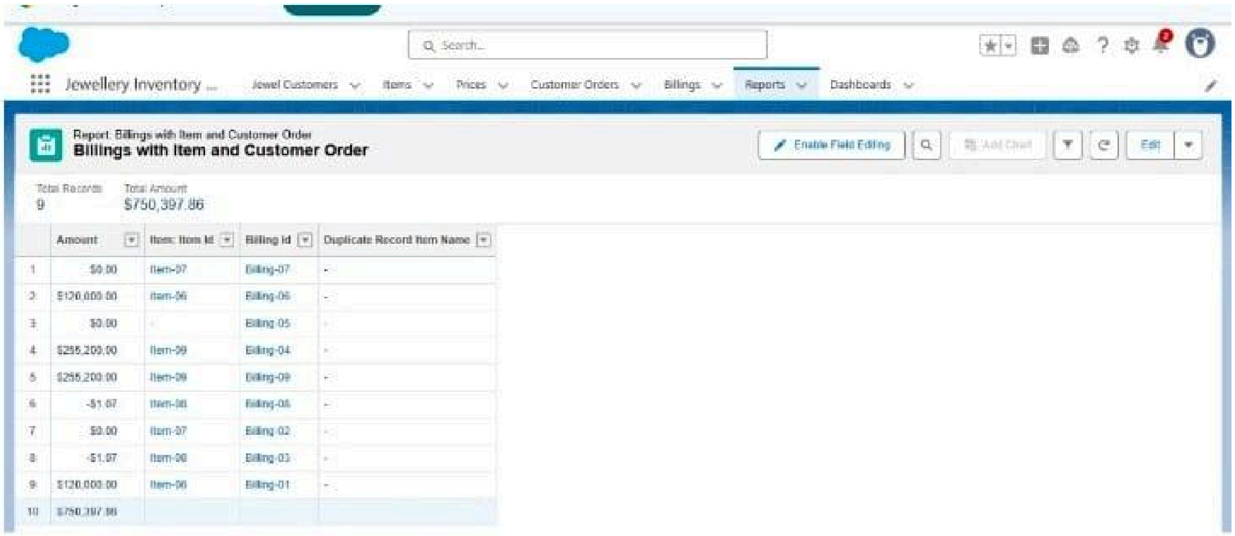



Search Setup
Setup
Home
Object Manager
SETUP > OBJECT MANAGER
Jewel Customer
Details
Fields & Relationships
Page Layouts
Lightning Record Pages
Buttons, Links, and Actions
Compact Layouts
Field Sets
Object Limits
Record Types
Related Lookup Filters
Jewel Customer Validation Rule
Back to Jewel Customer
Help for this Page
Validation Rule Detail
Edit
Clone
Rule Name
Postal_Code
Active
Error Condition Formula
AND(
OR(
LEN(Zip_Postal_code__c) <> 6, NOT(REGEX(Zip_Postal_code__c, "^[0-9]{6}$"))),
NOT(ISBLANK(Zip_Postal_code__c))
)
Error Message
Must contain 6 digits", select the Error location as Field and select the field as "Zip/Postal code
Error Location
Top of Page
Description
Created By
Pavithra M, 8/25/2025, 9:26 AM
Modified By
Pavithra M, 8/25/2025, 9:26 AM
Edit
Clone


Search Setup
Setup
Home
Object Manager
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
Item Validation Rule
Back to Item
Help for this Page
Validation Rule Detail
Edit
Clone
Rule Name
ValidationRule_For_Item
Active
Error Condition Formula
OR(ISBLANK(Amount__c) , ISBLANK(Customer__c) ,ISBLANK(Gold_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
Error Location
Top of Page
Description
Created By
Pavithra M, 8/25/2025, 9:44 AM
Modified By
Pavithra M, 8/25/2025, 9:44 AM
Edit
Clone

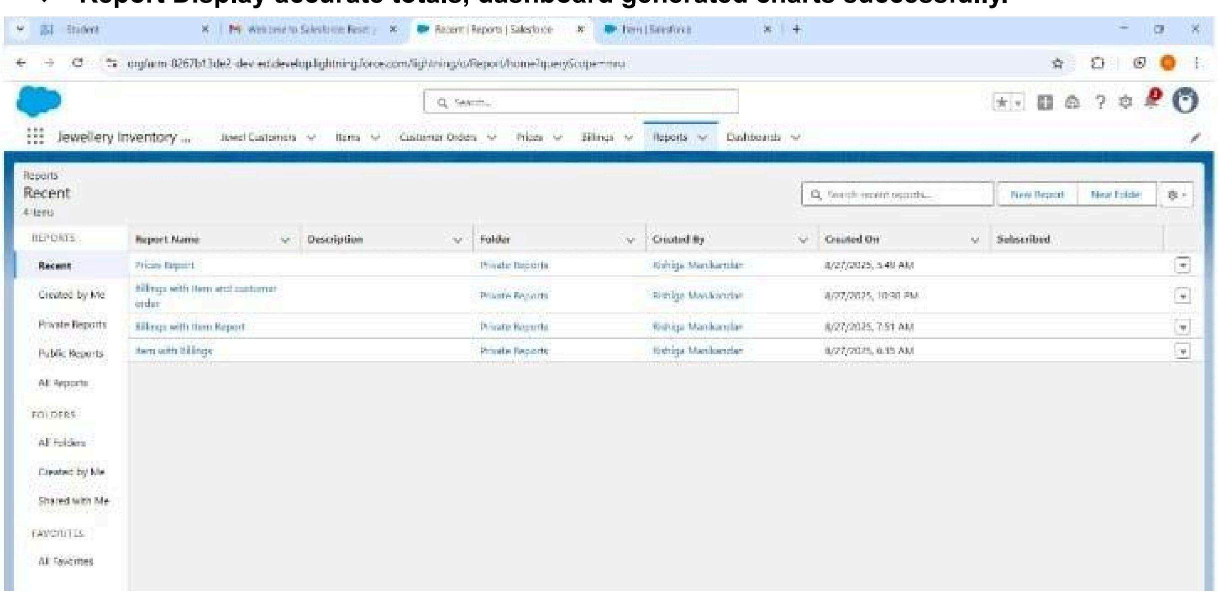
3.3 TRIGGERED AUTOMATION (Pass)

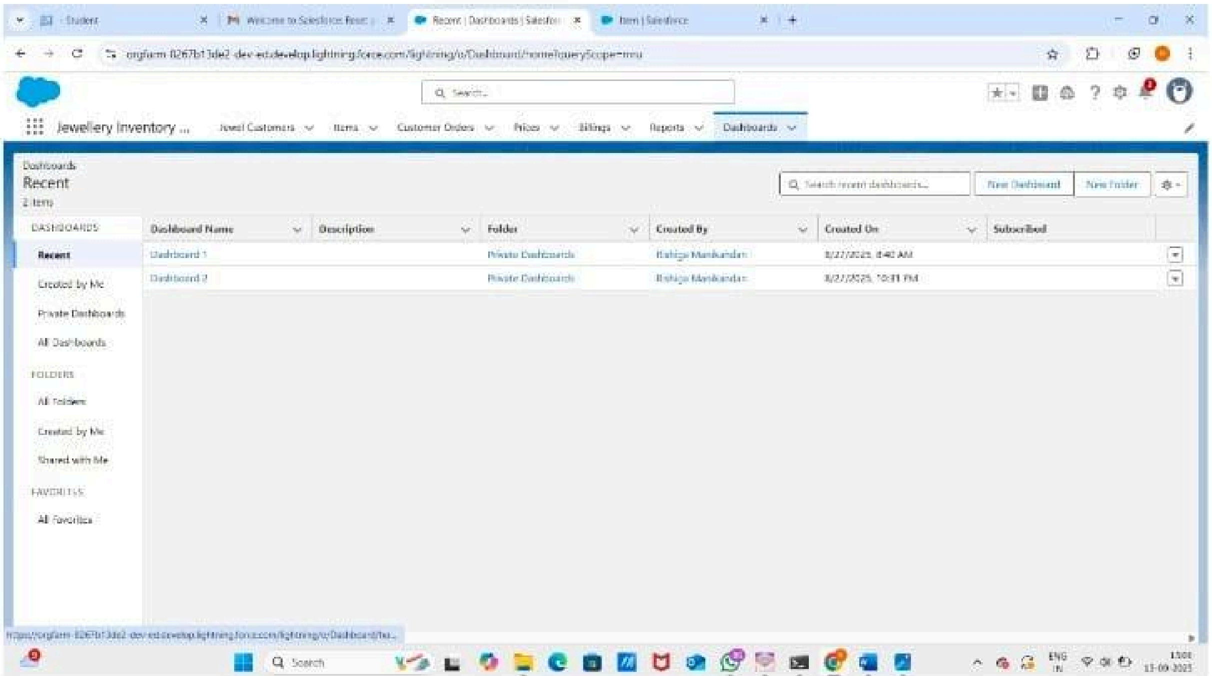
❖ **Billing record was auto-created when Order status = Confirmed**



3.4 REPORT & DASKBOREDS (Pass)

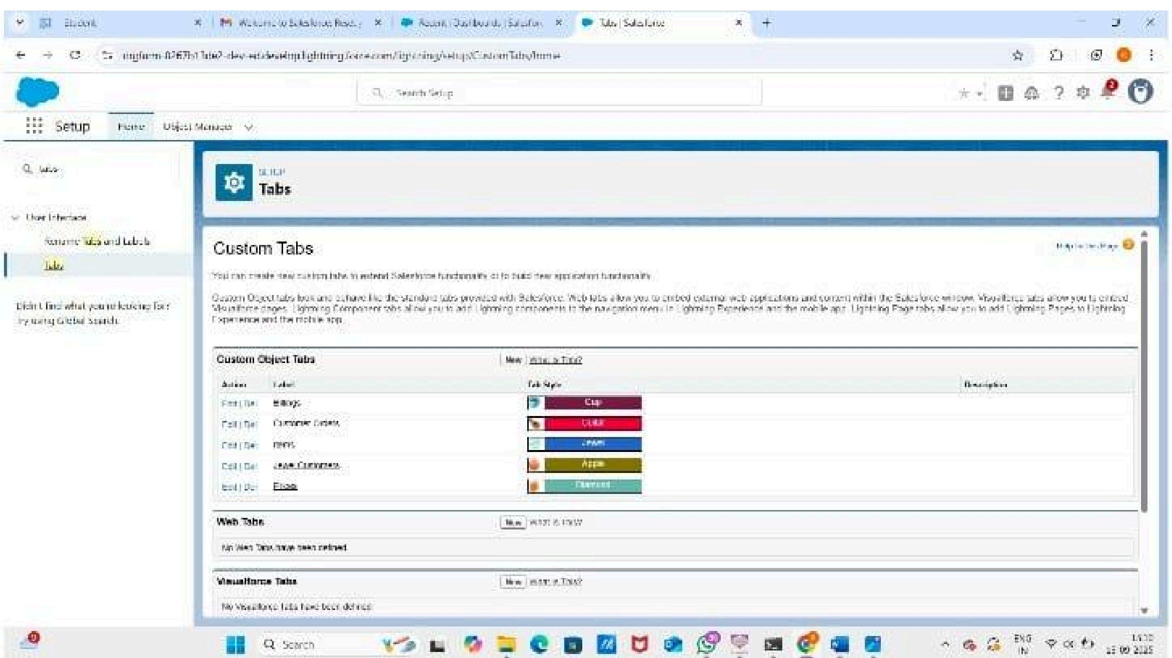
❖ **Report Display accurate totals, dashboard generated charts successfully.**





3.5 PERFORMANCE TESTING RESULTS

Record Load Test (Pass)
Created and handled 100+ Jewel Customer records without errors.



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 sakthivel 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 sakthi 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());
   }
}
```