CRM Application for Jewel Management-(Developer)

College Name: BHARATHIDASAN COLLEGE OF ARTS AND SCIENCE

College Code:

bru3d

TEAM ID:

NM2025TMID24649

TEAM MEMBERS:

Team Leader Name:

Sabari.P

Email:

sabari362033@gmail.com

Team Member 1: Helan Glory. A

Email:helananbu07@gmail.com

Team Member 2: Sowmiya Ravikumar

Email:sowmiyaravikumar73@gmail.com

Team Member 3: Soundarya.R

Email:

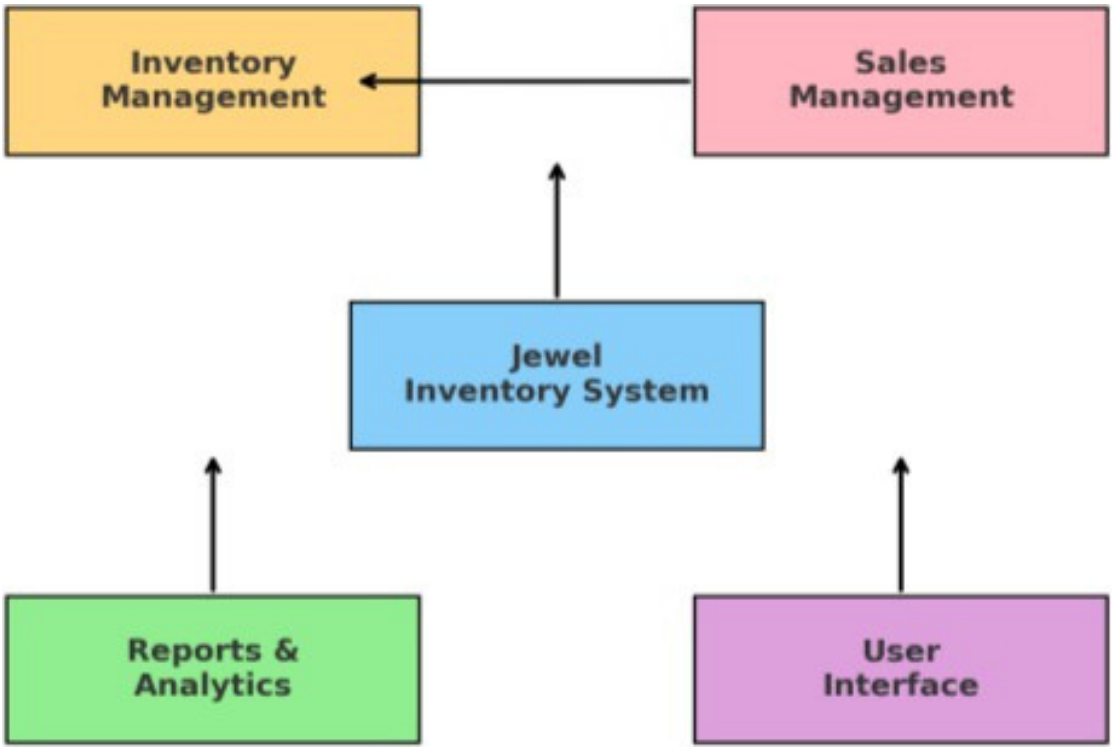
ssoundarya232@gmail.com

1.INTRODUCTION

◦ 1.1 Project Overview

The Jewel Inventory System is a comprehensive software solution developed to simplify and automate the inventory and sales management processes for jewellery stores and manufacturers. It enables businesses to efficiently track a wide range of jewellery items, maintain accurate stock records, and manage day-to-day operations with ease.

The systemis designed to improve accuracy,reduce manual effort , and provide better visibility into inventory and sales data.



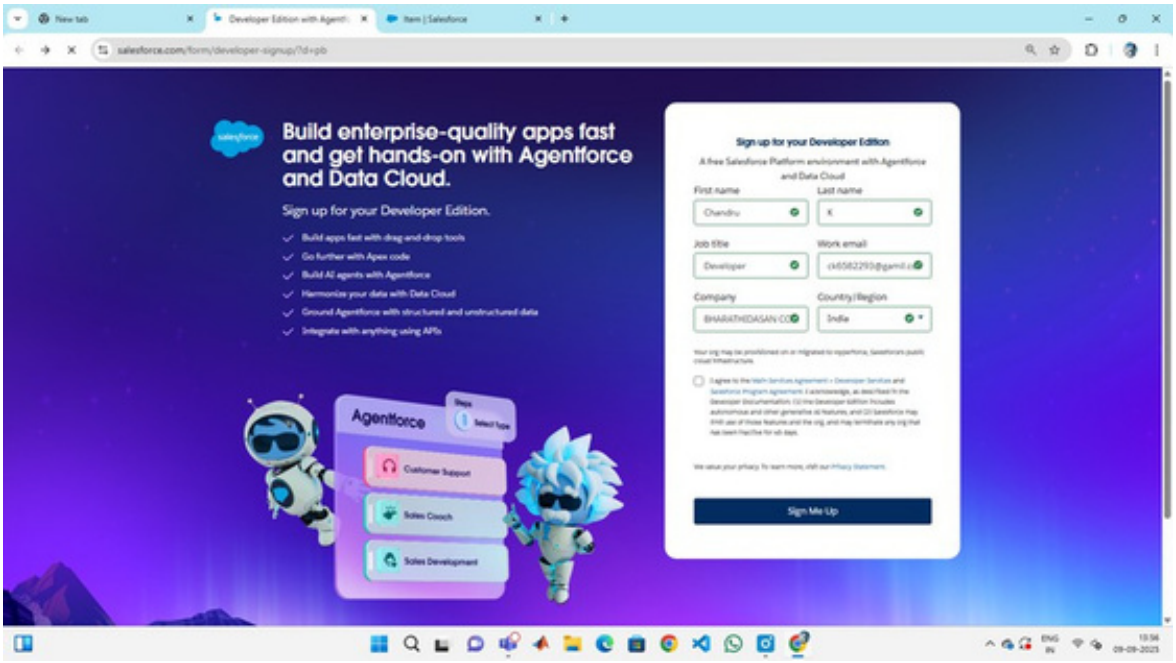
1.2 Purpose

The purpose of the Jewel Inventory System is to provide an efficient and user-friendly platform that streamlines inventory management and stock tracking, ensures accurate record-keeping of jewellery Items, facilitates seamless and reliable sales transactions, and enhances overall operational efficiency for jewellery businesses.

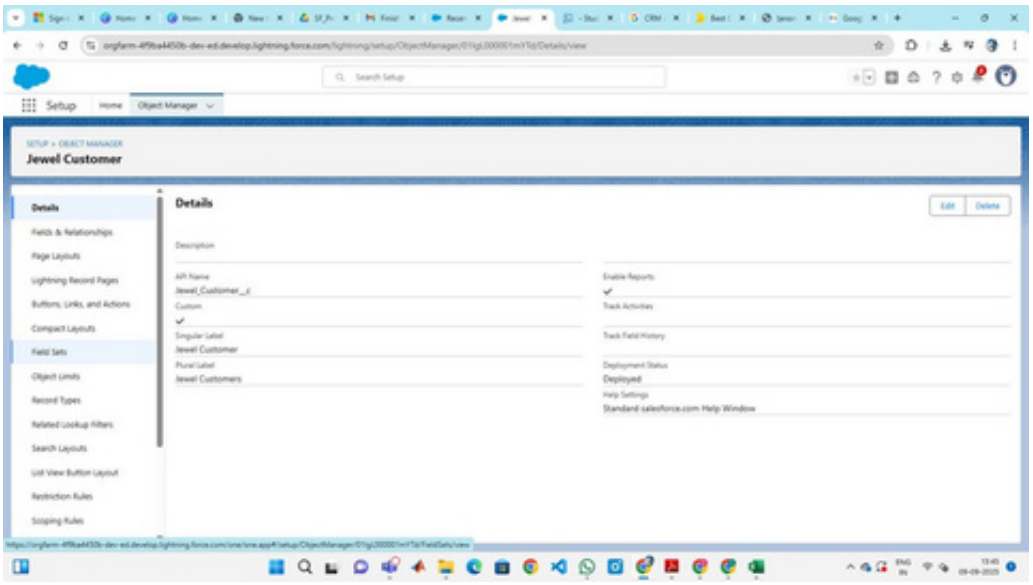
DEVELOPMENT PHASE

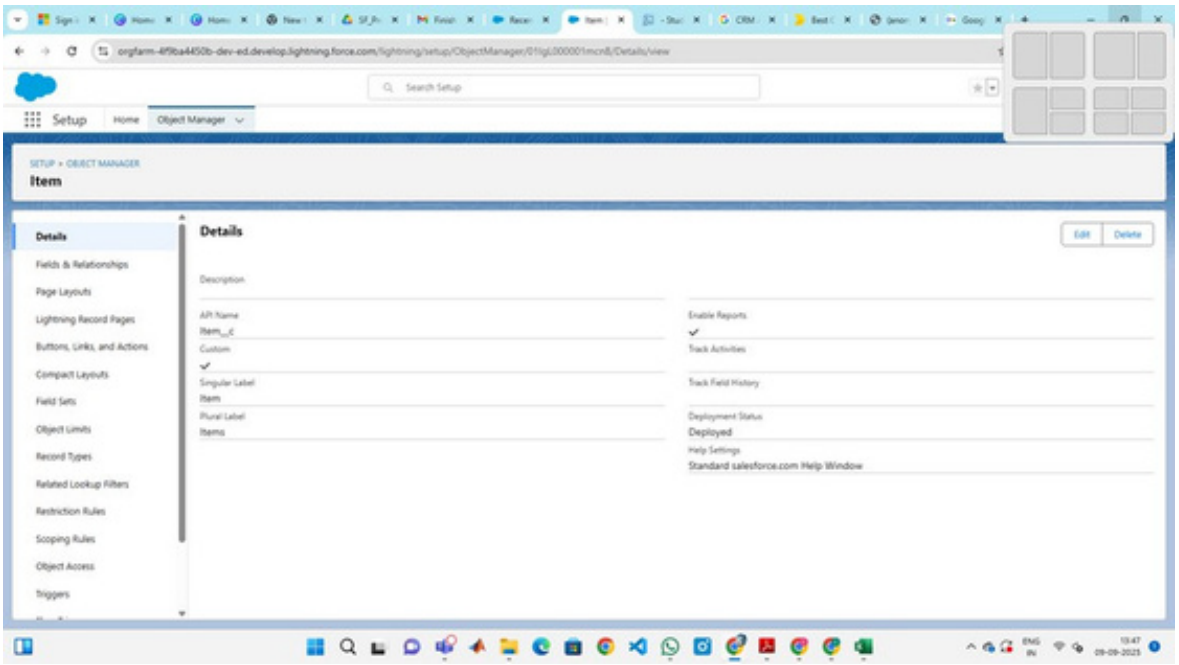
Creating Developer Account:

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



- Created objects: Jewel Customers , Items , Customer Order , Price , Billing


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
Search Layouts
List View Button Layout
Restriction Rules
Scoping Rules
Details
Edit
Delete
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


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
Restriction Rules
Scoping Rules
Object Access
Triggers
Details
Edit
Delete
Description
API Name
Item__c
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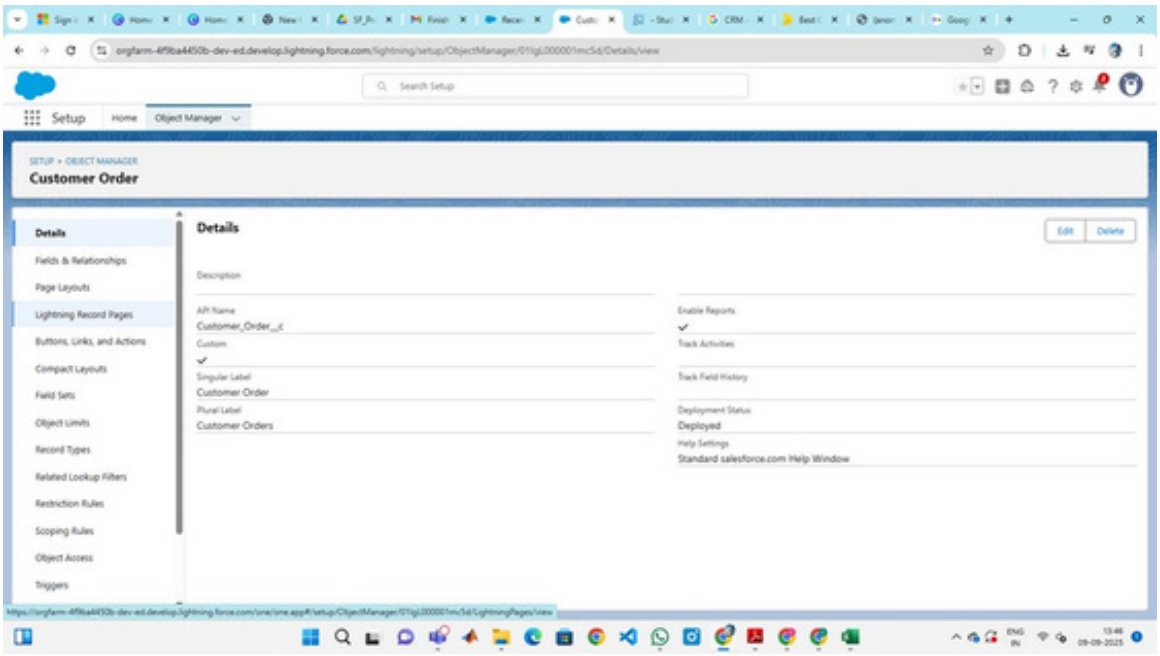
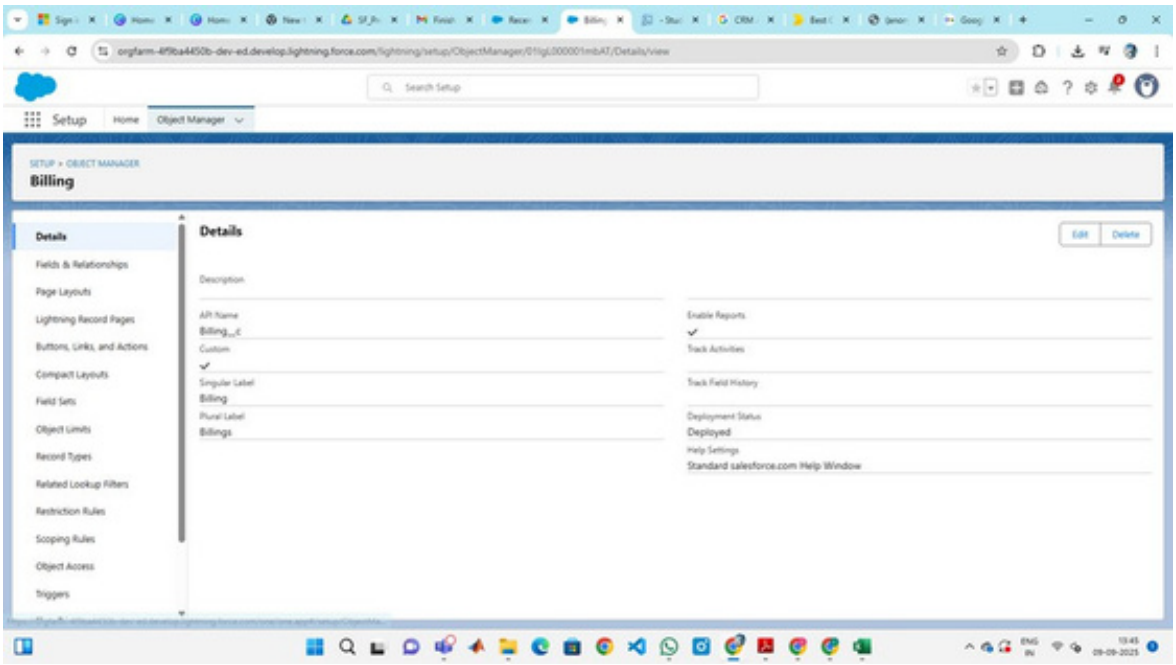
Singular Label
Item
Plural Label
Items
Enable Reports
Track Activities
Track Field History
Deployment Status
Deployed
Help Settings
Standard salesforce.com Help Window


Setup
Home
Object Manager
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
Scoping Rules
Object Access
Triggers
Edit
Delete
Description
API Name
Customer_Order__c
Custom
Singular Label
Customer Order
Plural Label
Customer Orders
Enable Reports
Track Activities
Track Field History
Deployment Status
Deployed
Help Settings
Standard salesforce.com Help Window


Setup
Home
Object Manager
SETUP > OBJECT MANAGER
Billing
Details
Fields & Relationships
Page Layouts
Lightning Record Pages
Buttons, Links, and Actions
Compact Layouts
Field Sets
Object Limits
Record Types
Related Lookup Filters
Restriction Rules
Scoping Rules
Object Access
Triggers
Edit
Delete
Description
API Name
Billing__c
Custom
Singular Label
Billing
Plural Label
Billings
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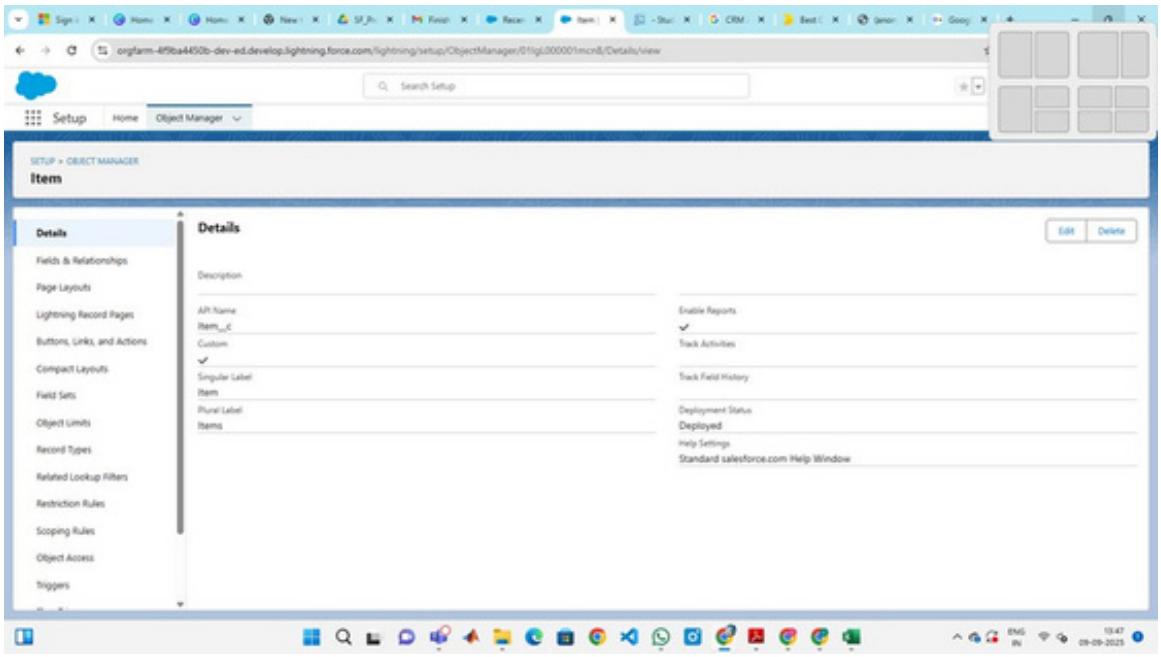
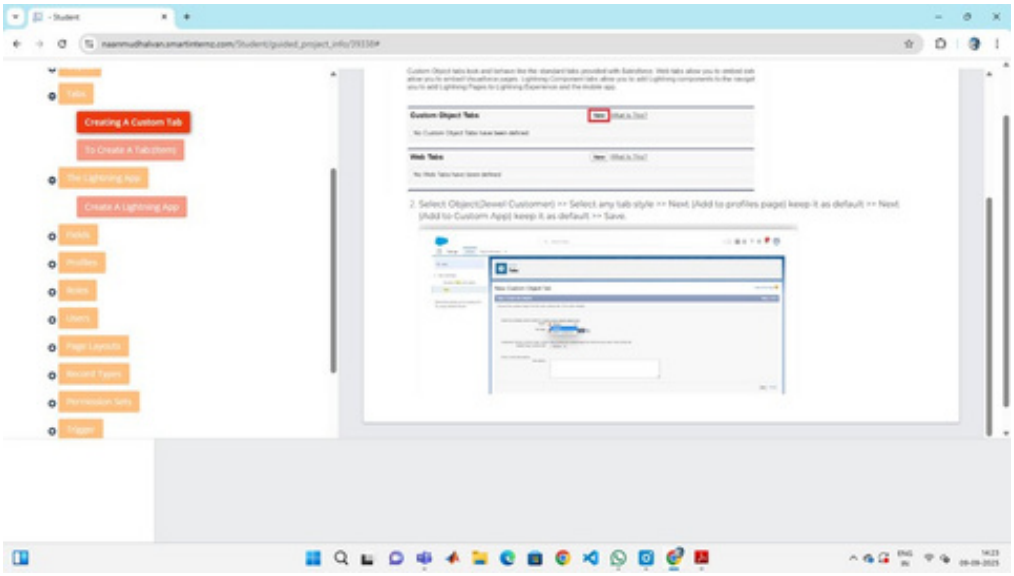
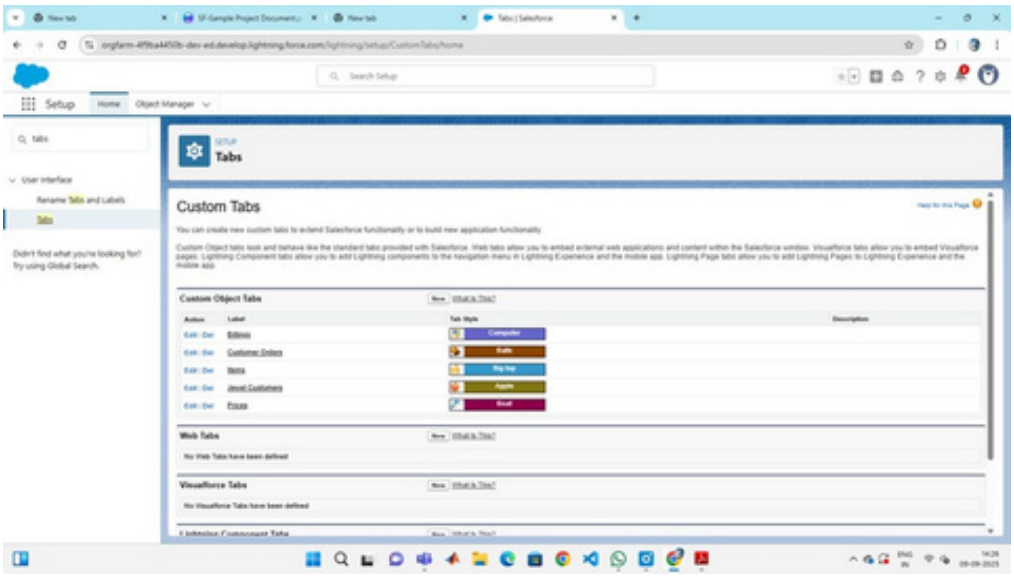
Track Activities
Track Field History
Deployment Status
Deployed
Help Settings
Standard salesforce.com Help Window

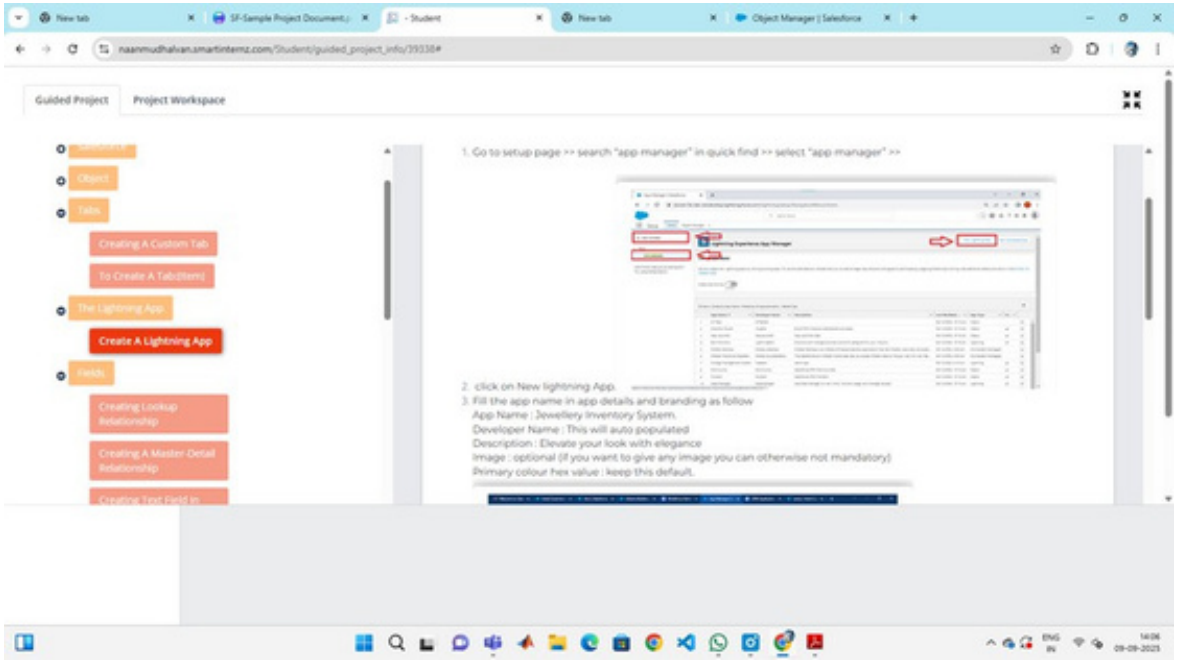


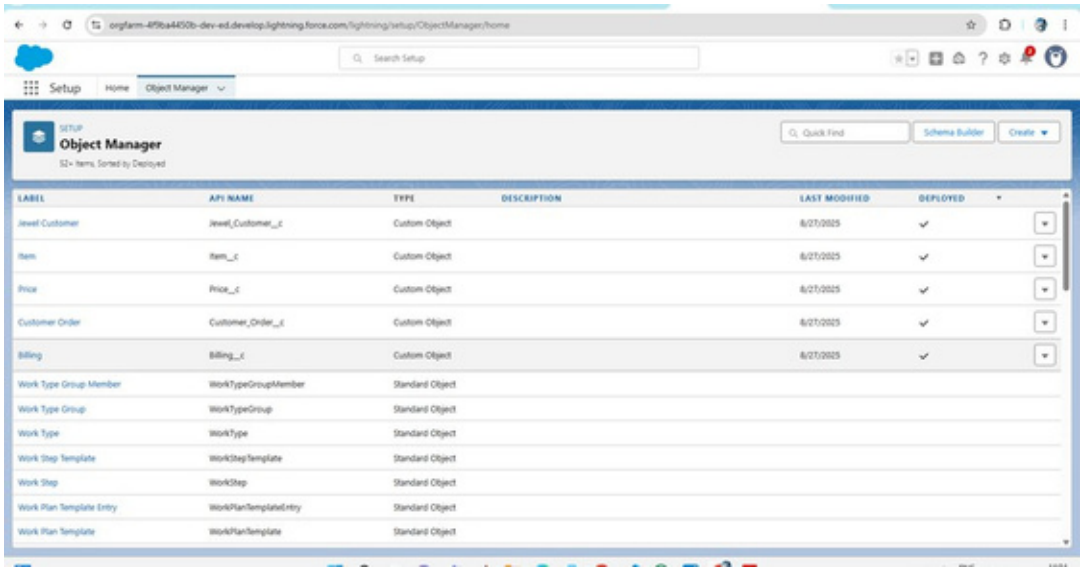
- Creating a tabs

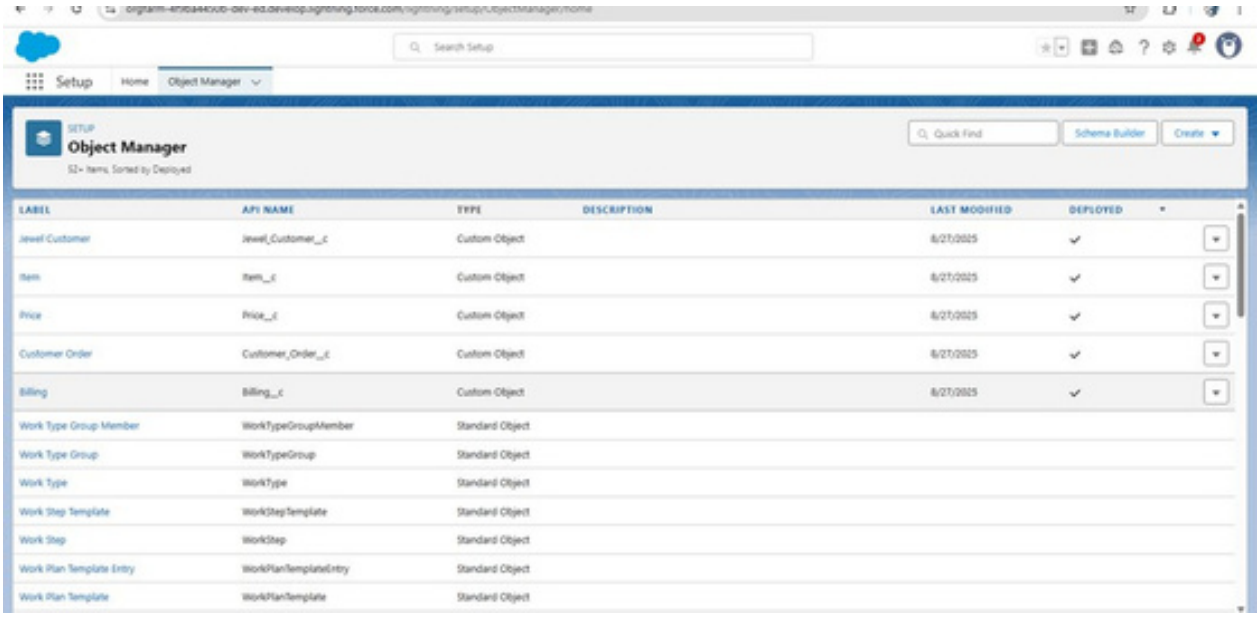




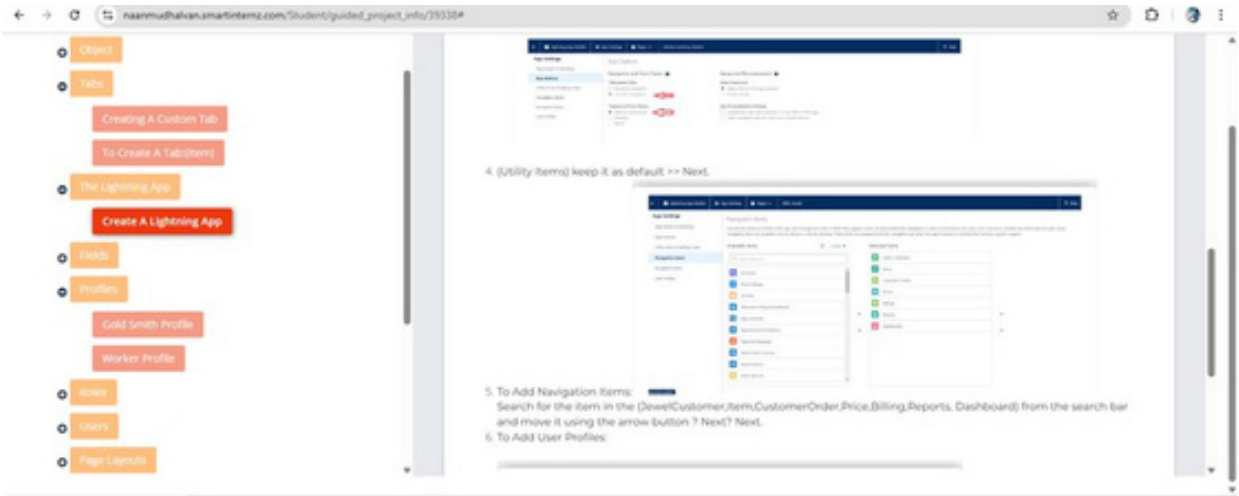
- Configured fields and relationships

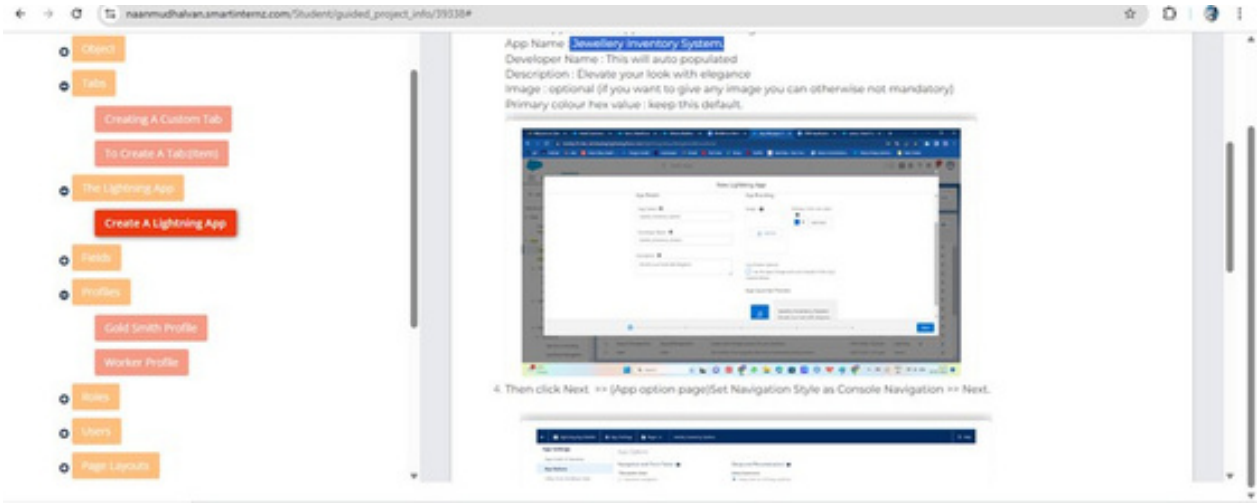


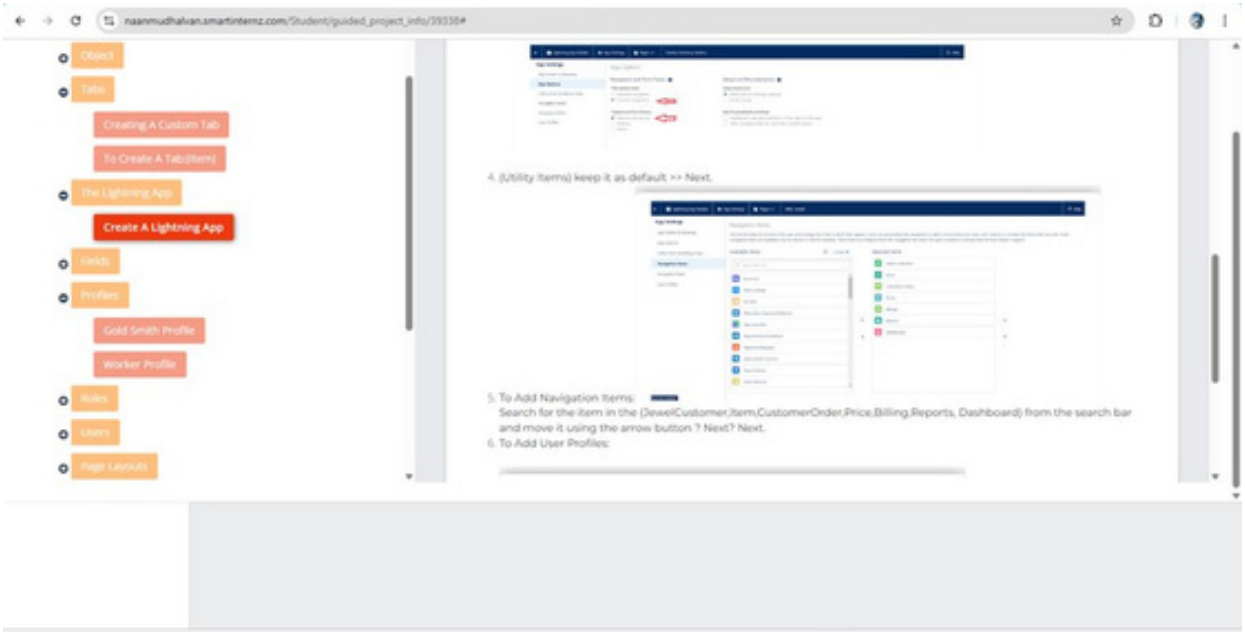

Setup
Home
Object Manager
SETUP
Object Manager
52+ Items, Sorted by Deployed
Quick Find
Schema Builder
Create
LABEL
API NAME
TYPE
DESCRIPTION
LAST MODIFIED
DEPLOYED
Jewel Customer
Jewel_Customer__c
Custom Object
8/27/2025
Item
Item__c
Custom Object
8/27/2025
Price
Price__c
Custom Object
8/27/2025
Customer Order
Customer_Order__c
Custom Object
8/27/2025
Billing
Billing__c
Custom Object
8/27/2025
Work Type Group Member
WorkTypeGroupMember
Standard Object
Work Type Group
WorkTypeGroup
Standard Object
Work Type
WorkType
Standard Object
Work Step Template
WorkStepTemplate
Standard Object
Work Step
WorkStep
Standard Object
Work Plan Template Entry
WorkPlanTemplateEntry
Standard Object
Work Plan Template
WorkPlanTemplate
Standard Object

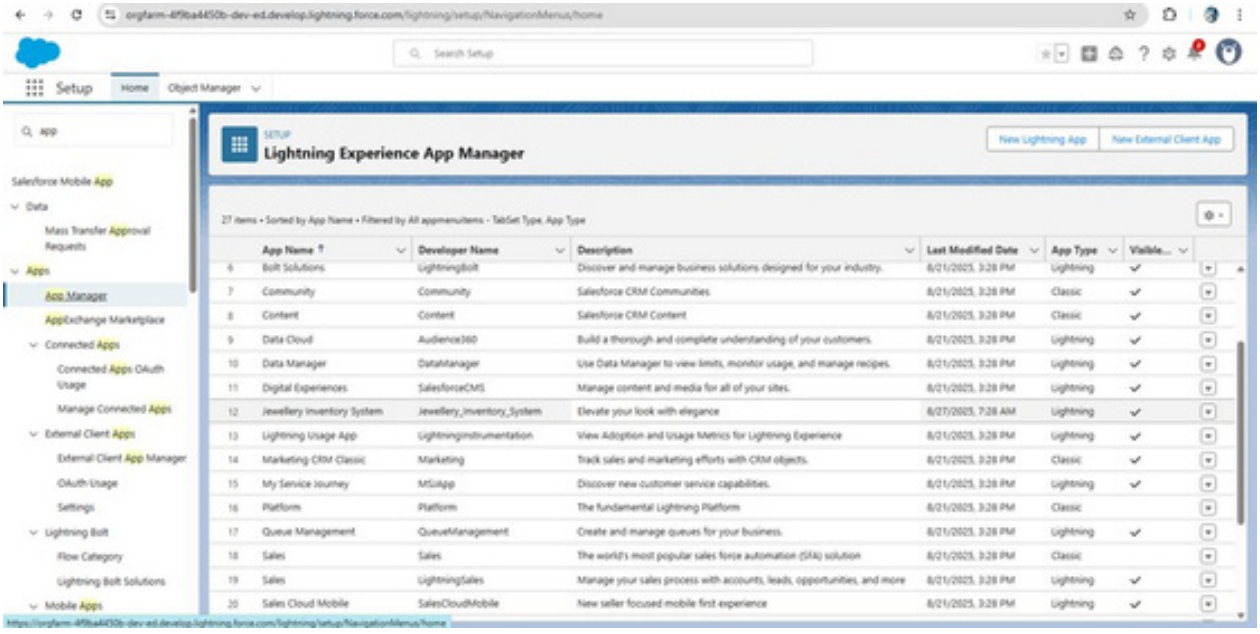

Setup
Home
Object Manager
SETUP
Object Manager
52+ Items, Sorted by Deployed
Quick Find
Schema Builder
Create
LABEL
API NAME
TYPE
DESCRIPTION
LAST MODIFIED
DEPLOYED
Jewel Customer
Jewel_Customer__c
Custom Object
8/27/2025
Item
Item__c
Custom Object
8/27/2025
Price
Price__c
Custom Object
8/27/2025
Customer Order
Customer_Order__c
Custom Object
8/27/2025
Billing
Billing__c
Custom Object
8/27/2025
Work Type Group Member
WorkTypeGroupMember
Standard Object
Work Type Group
WorkTypeGroup
Standard Object
Work Type
WorkType
Standard Object
Work Step Template
WorkStepTemplate
Standard Object
Work Step
WorkStep
Standard Object
Work Plan Template Entry
WorkPlanTemplateEntry
Standard Object
Work Plan Template
WorkPlanTemplate
Standard Object

- Developed Lightning App with relevant tabs

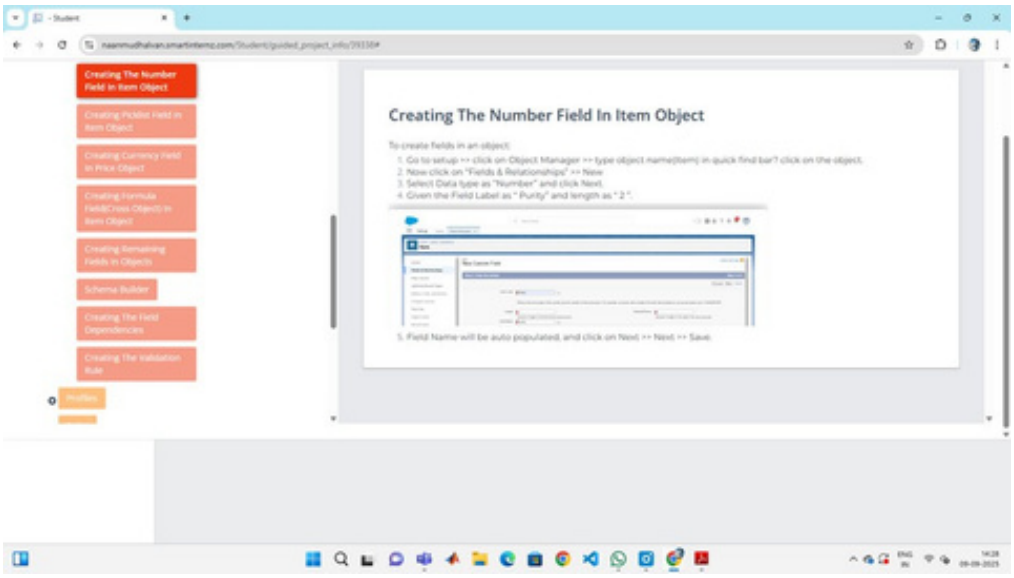


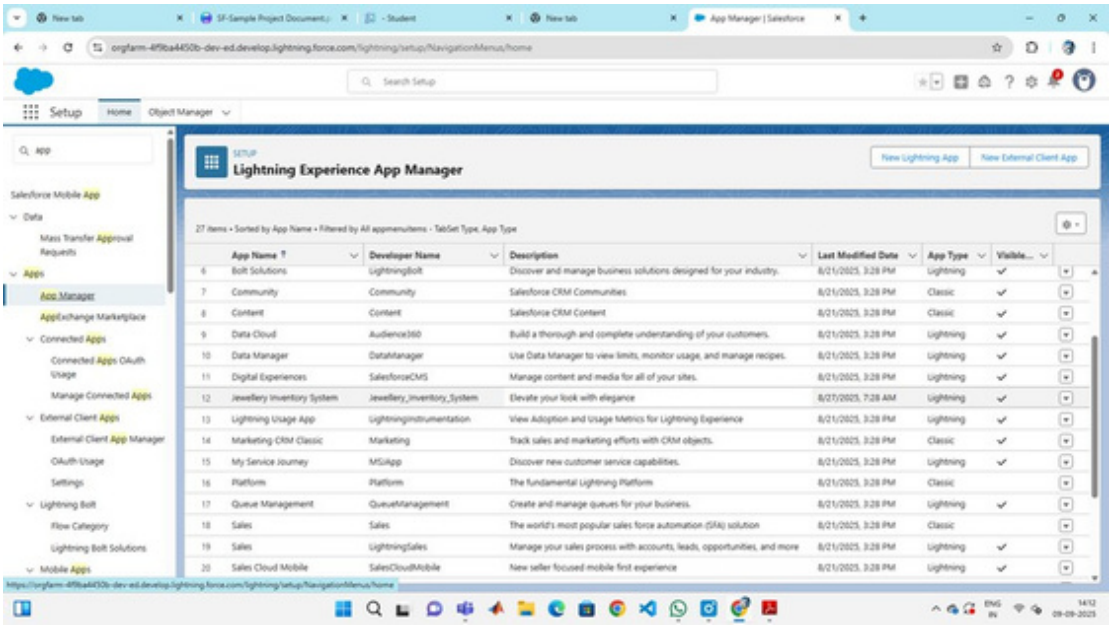



naanmudhalvan.smartinternz.com/Student/guided_project_info/39338#
Object
Tabs
Creating A Custom Tab
To Create A Tab(Item)
The Lightning App
Create A Lightning App
Fields
Profiles
Gold Smith Profile
Worker Profile
Roles
Users
Page Layouts
4. (Utility Items) keep it as default >> Next.
5. To Add Navigation Items:
Search for the item in the (JewelCustomer,Item,CustomerOrder,Price,Billing,Reports, Dashboard) from the search bar and move it using the arrow button ? Next? Next.
6. To Add User Profiles:

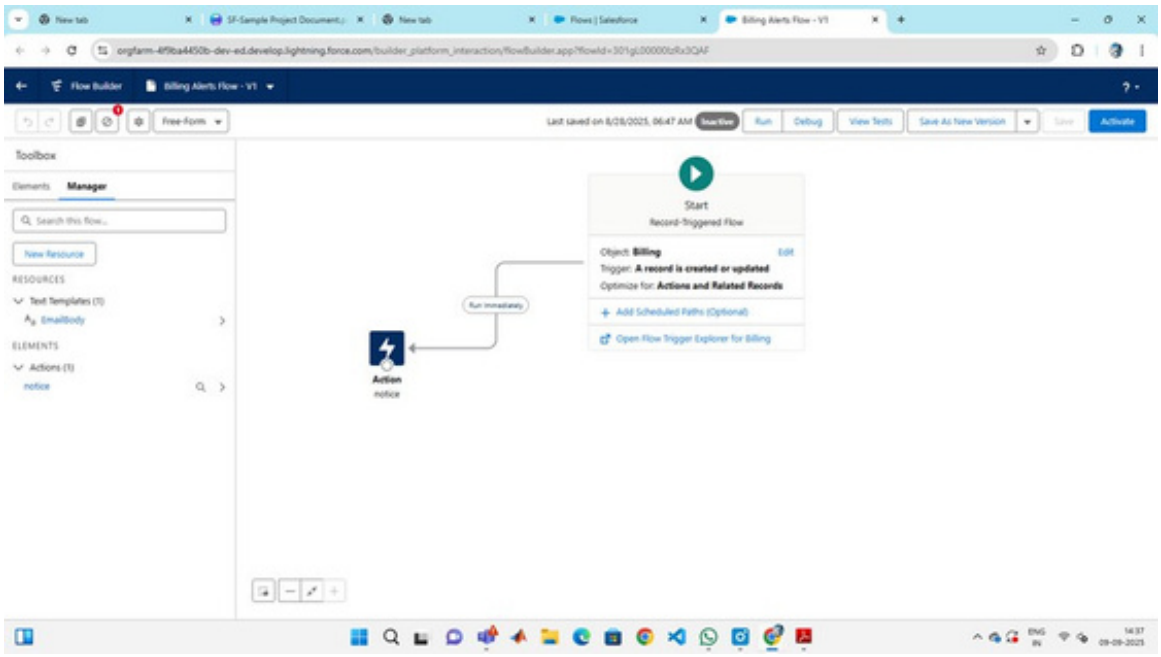

orgfarm-4f9ba4450b-dev-ed.develop.lightning.force.com/lightning/setup/NavigationMenus/home
Search Setup
Setup
Home
Object Manager
app
Salesforce Mobile App
Data
Mass Transfer Approval Requests
Apps
App Manager
AppExchange Marketplace
Connected Apps
Connected Apps OAuth Usage
Manage Connected Apps
External Client Apps
External Client App Manager
OAuth Usage
Settings
Lightning Bolt
Flow Category
Lightning Bolt Solutions
Mobile Apps
SETUP
Lightning Experience App Manager
New Lightning App
New External Client App
27 items • Sorted by App Name • Filtered by All appmenuitems - TabSet Type, App Type
App Name
Developer Name
Description
Last Modified Date
App Type
Visible...
6 Bolt Solutions LightningBolt Discover and manage business solutions designed for your industry. 8/21/2025, 3:28 PM Lightning
7 Community Community Salesforce CRM Communities 8/21/2025, 3:28 PM Classic
8 Content Content Salesforce CRM Content 8/21/2025, 3:28 PM Classic
9 Data Cloud Audience360 Build a thorough and complete understanding of your customers. 8/21/2025, 3:28 PM Lightning
10 Data Manager DataManager Use Data Manager to view limits, monitor usage, and manage recipes. 8/21/2025, 3:28 PM Lightning
11 Digital Experiences SalesforceCMS Manage content and media for all of your sites. 8/21/2025, 3:28 PM Lightning
12 Jewellery Inventory System Jewellery_Inventory_System Elevate your look with elegance 8/27/2025, 7:28 AM Lightning
13 Lightning Usage App LightningInstrumentation View Adoption and Usage Metrics for Lightning Experience 8/21/2025, 3:28 PM Lightning
14 Marketing CRM Classic Marketing Track sales and marketing efforts with CRM objects. 8/21/2025, 3:28 PM Classic
15 My Service Journey MSIApp Discover new customer service capabilities. 8/21/2025, 3:28 PM Lightning
16 Platform Platform The fundamental Lightning Platform 8/21/2025, 3:28 PM Classic
17 Queue Management QueueManagement Create and manage queues for your business. 8/21/2025, 3:28 PM Lightning
18 Sales Sales The world's most popular sales force automation (SFA) solution 8/21/2025, 3:28 PM Classic
19 Sales LightningSales Manage your sales process with accounts, leads, opportunities, and more 8/21/2025, 3:28 PM Lightning
20 Sales Cloud Mobile SalesCloudMobile New seller focused mobile first experience 8/21/2025, 3:28 PM Lightning

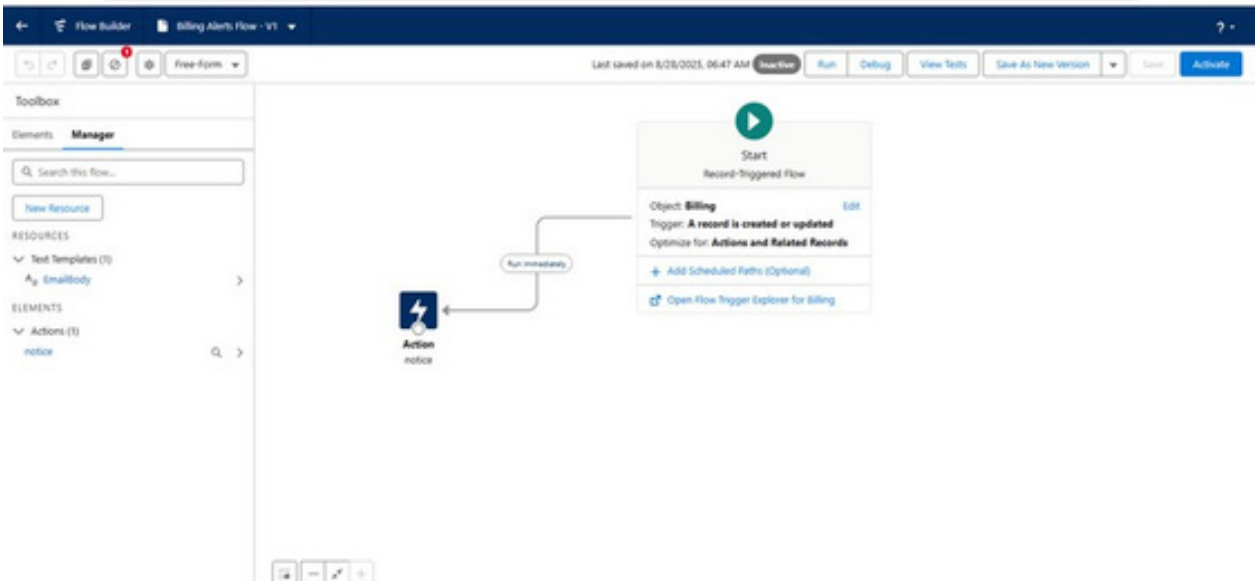
- Additional fields and relationships

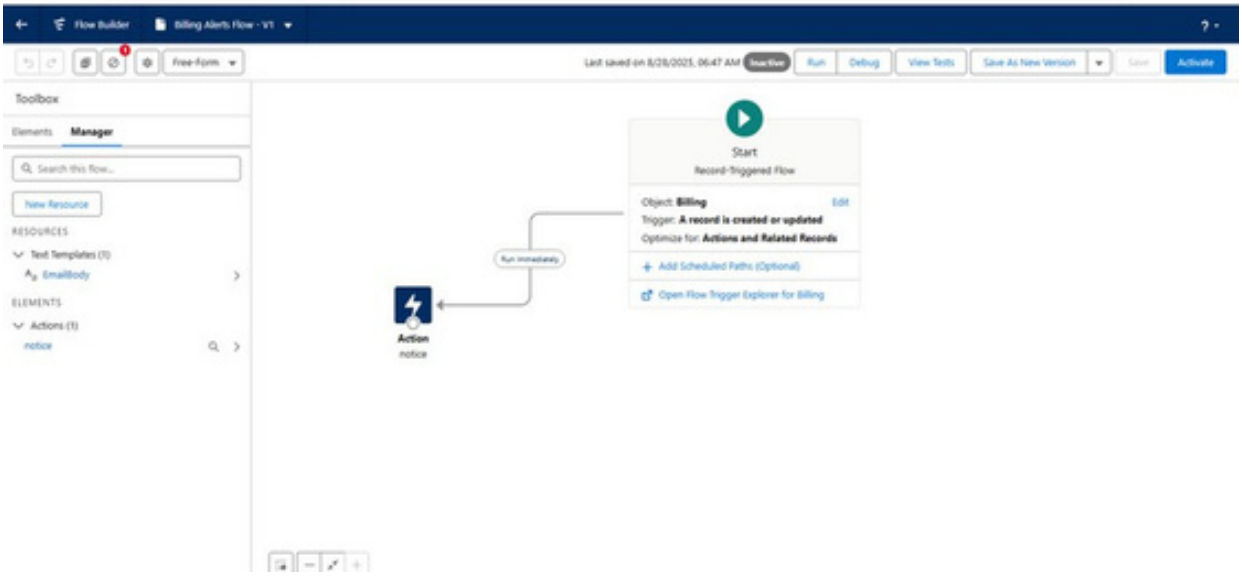




- Flows to check billing


Flow Builder
Billing Alerts Flow - V1
Free-Form
Last saved on 8/28/2025, 06:47 AM
Inactive
Run
Debug
View Tests
Save As New Version
Save
Activate
Toolbox
Elements
Manager
Search this flow...
New Resource
RESOURCES
Text Templates (1)
EmailBody
ELEMENTS
Actions (1)
notice
Start
Record-Triggered Flow
Object: Billing
Edit
Trigger: A record is created or updated
Optimize for: Actions and Related Records
Add Scheduled Paths (Optional)
Open Flow Trigger Explorer for Billing
Run immediately
Action
notice


Flow Builder
Billing Alerts Flow - V1
Free-Form
Last saved on 8/28/2025, 06:47 AM
Inactive
Run
Debug
View Tests
Save As New Version
Save
Activate
Toolbox
Elements
Manager
Search this flow...
New Resource
RESOURCES
Text Templates (1)
EmailBody
ELEMENTS
Actions (1)
notice
Start
Record-Triggered Flow
Object: Billing
Edit
Trigger: A record is created or updated
Optimize for: Actions and Related Records
Add Scheduled Paths (Optional)
Open Flow Trigger Explorer for Billing
Run immediately
Action
notice


Flow Builder
Billing Alerts Flow - V1
Free-form
Last saved on 8/28/2025, 06:47 AM
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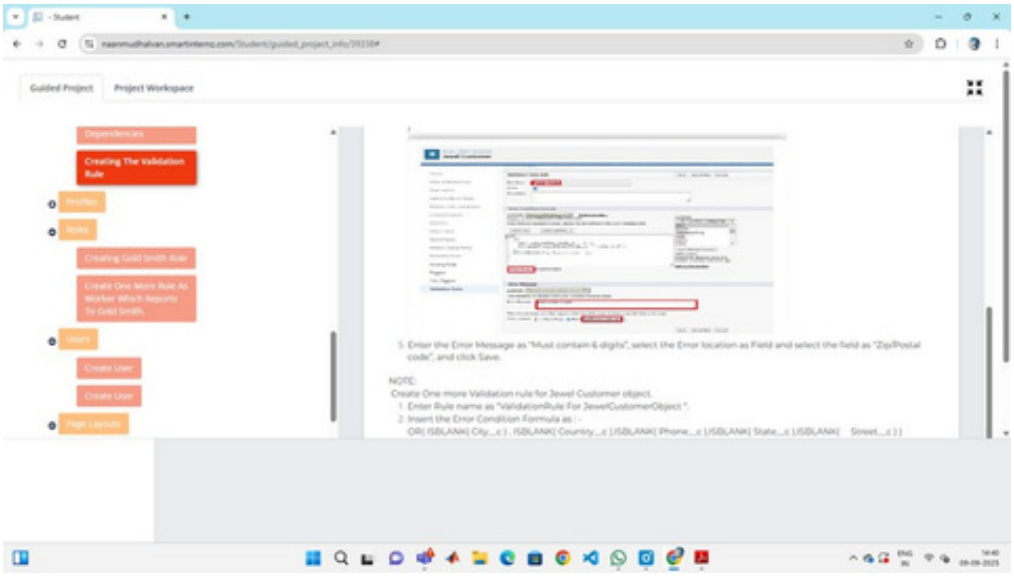
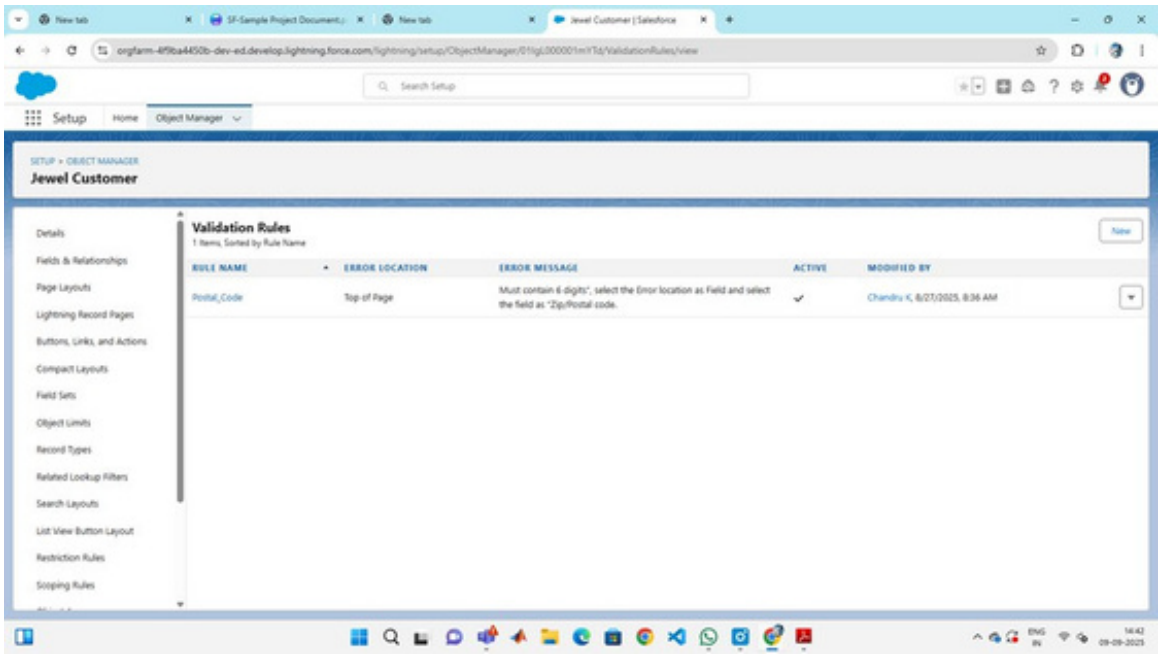
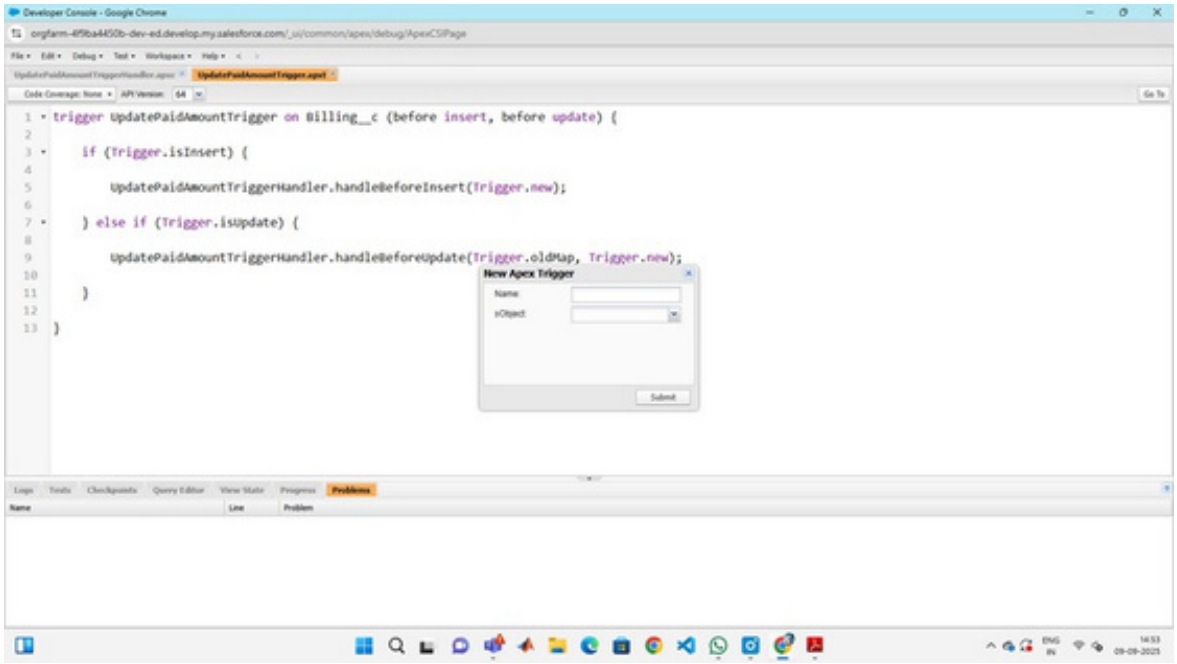
Run
Debug
View Tests
Save As New Version
Save
Activate
Toolbox
Elements
Manager
Search this flow...
New Resource
RESOURCES
Text Templates (1)
EmailBody
ELEMENTS
Actions (1)
notice
Start
Record-Triggered Flow
Object: Billing
Edit
Trigger: A record is created or updated
Optimize for: Actions and Related Records
Run immediately
Add Scheduled Paths (Optional)
Open Flow Trigger Explorer for Billing
Action
notice

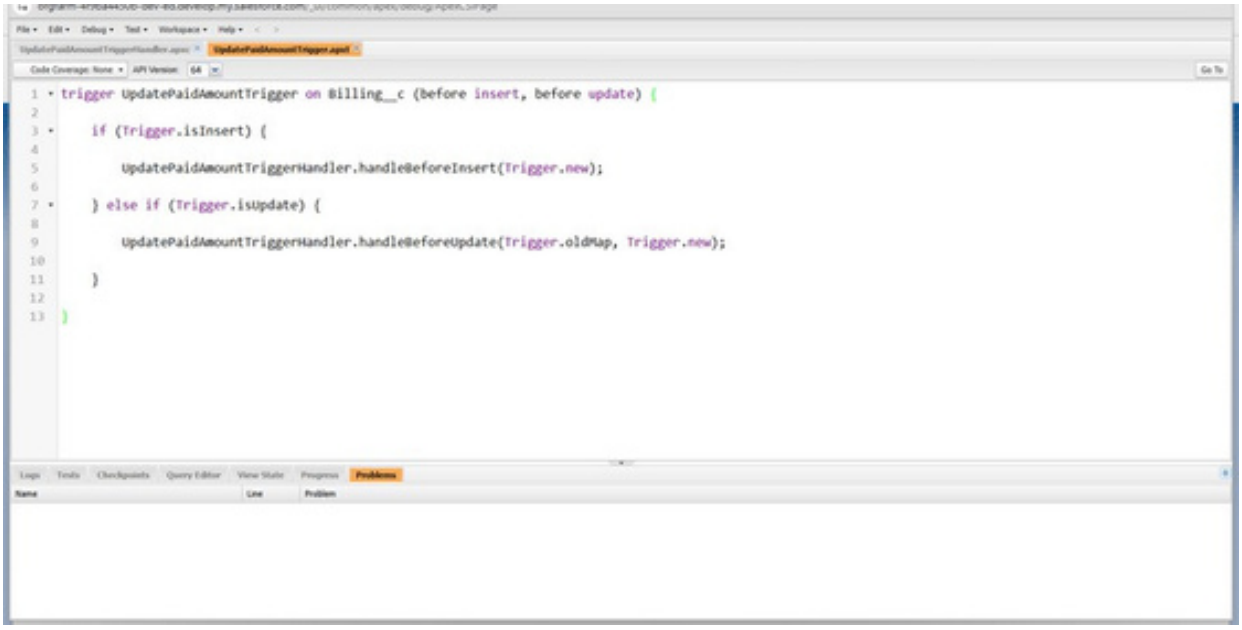

Guided Project
Project Workspace
Dependencies
Creating The Validation Rule
Profiles
Roles
Creating Gold Smith Role
Create One More Role As Worker Which Reports To Gold Smith.
Users
Create User
Create User
Page Layouts
5. Enter the Error Message as "Must contain 6 digits", select the Error location as Field and select the field as "Zip/Postal code", and click Save.
NOTE:
Create One more Validation rule for Jewel Customer object.
1. Enter Rule name as "ValidationRule For JewelCustomerObject ".
2. Insert the Error Condition Formula as : -
OR(ISBLANK(City__c) , ISBLANK(Country__c) ,ISBLANK(Phone__c) ,ISBLANK(State__c) ,ISBLANK(Street__c))



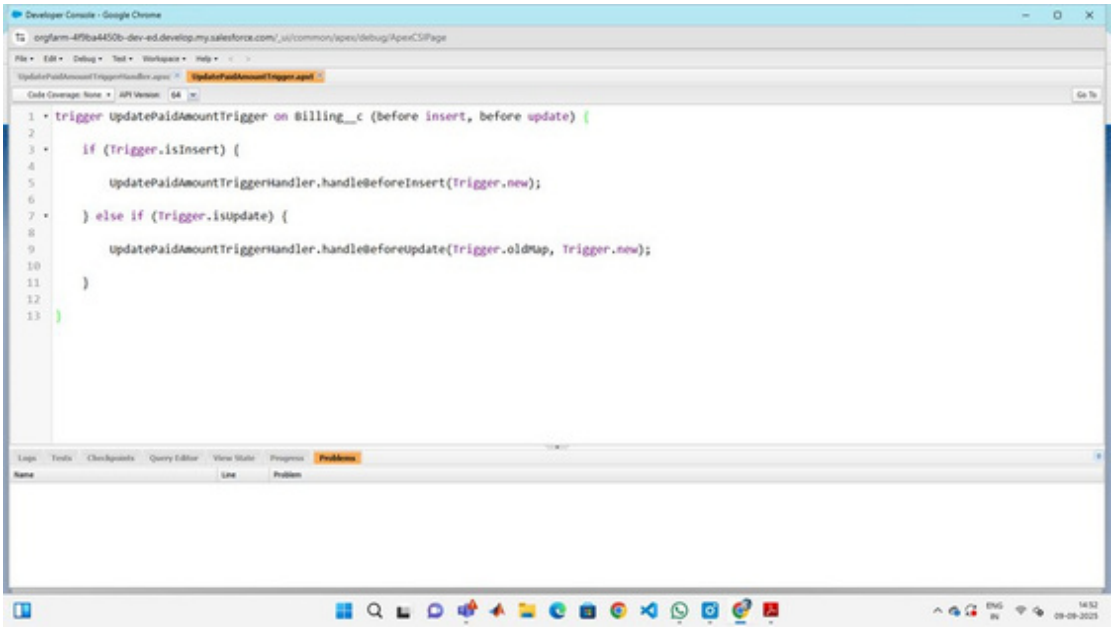
- Apex Trigger

Createan Apex Trigger



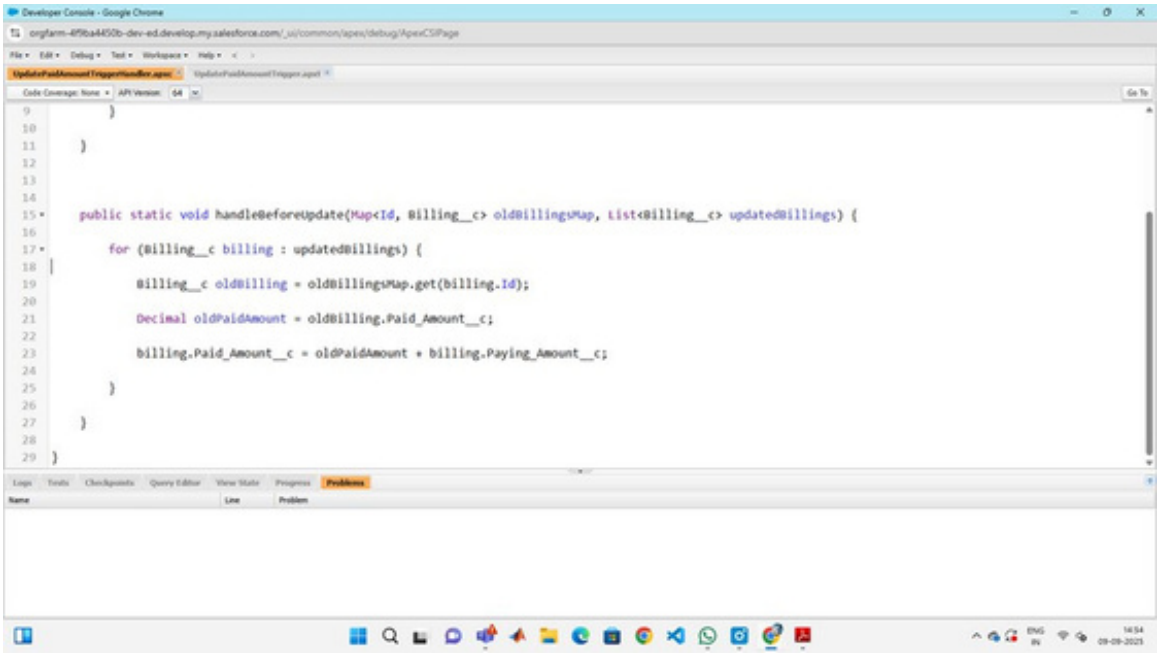


```
trigger UpdatePaidAmountTrigger on Billing__c (before insert, before update) {

    if (Trigger.isInsert) {

        UpdatePaidAmountTriggerHandler.handleBeforeInsert(Trigger.new);

    } else if (Trigger.isUpdate) {

        UpdatePaidAmountTriggerHandler.handleBeforeUpdate(Trigger.oldMap, Trigger.new);

    }

}
```

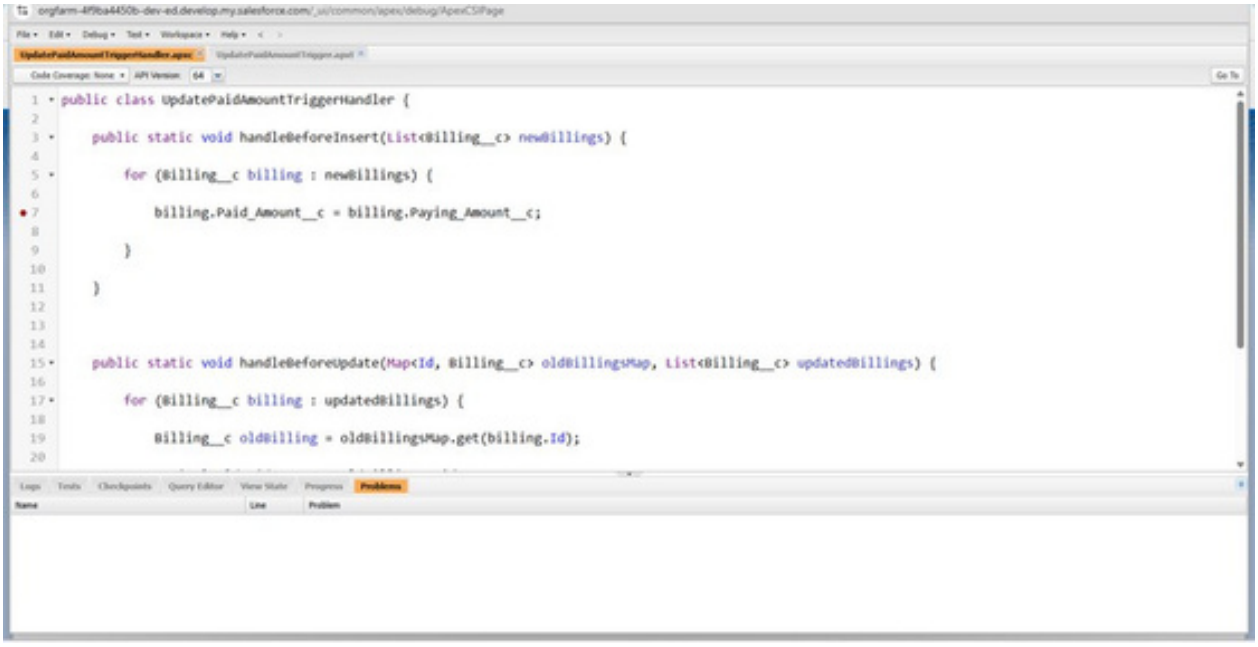


```
trigger UpdatePaidAmountTrigger on Billing__c (before insert, before update) {

    if (Trigger.isInsert) {

        UpdatePaidAmountTriggerHandler.handleBeforeInsert(Trigger.new);

    } else if (Trigger.isUpdate) {

        UpdatePaidAmountTriggerHandler.handleBeforeUpdate(Trigger.oldMap, Trigger.new);

    }

}
```

Createan Apex Handler class

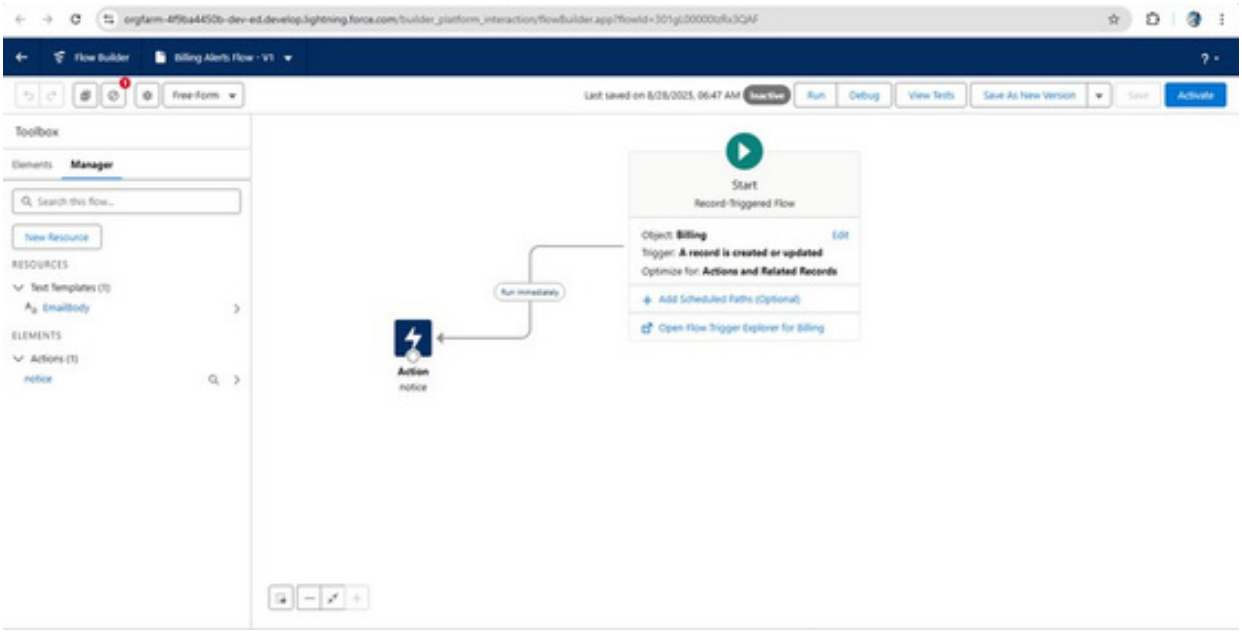


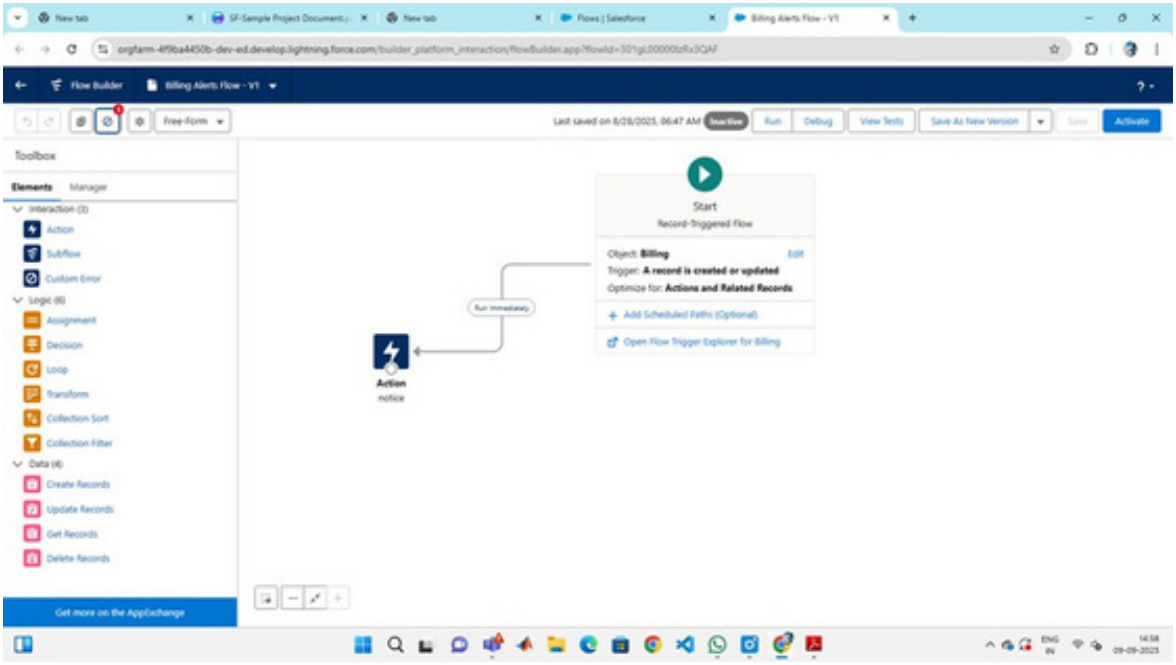
```
        }

    }


    public static void handleBeforeUpdate(Map<Id, Billing__c> oldBillingsMap, List<Billing__c> updatedBillings) {

        for (Billing__c billing : updatedBillings) {

            Billing__c oldBilling = oldBillingsMap.get(billing.Id);

            Decimal oldPaidAmount = oldBilling.Paid_Amount__c;

            billing.Paid_Amount__c = oldPaidAmount + billing.Paying_Amount__c;

        }

    }

}
```

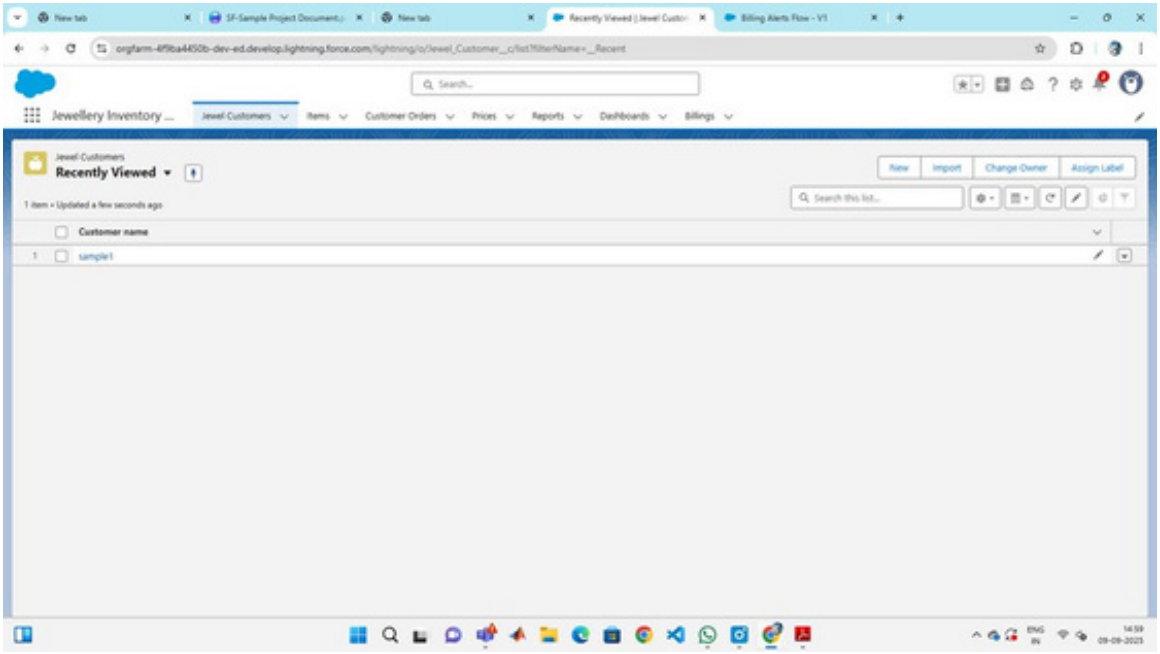


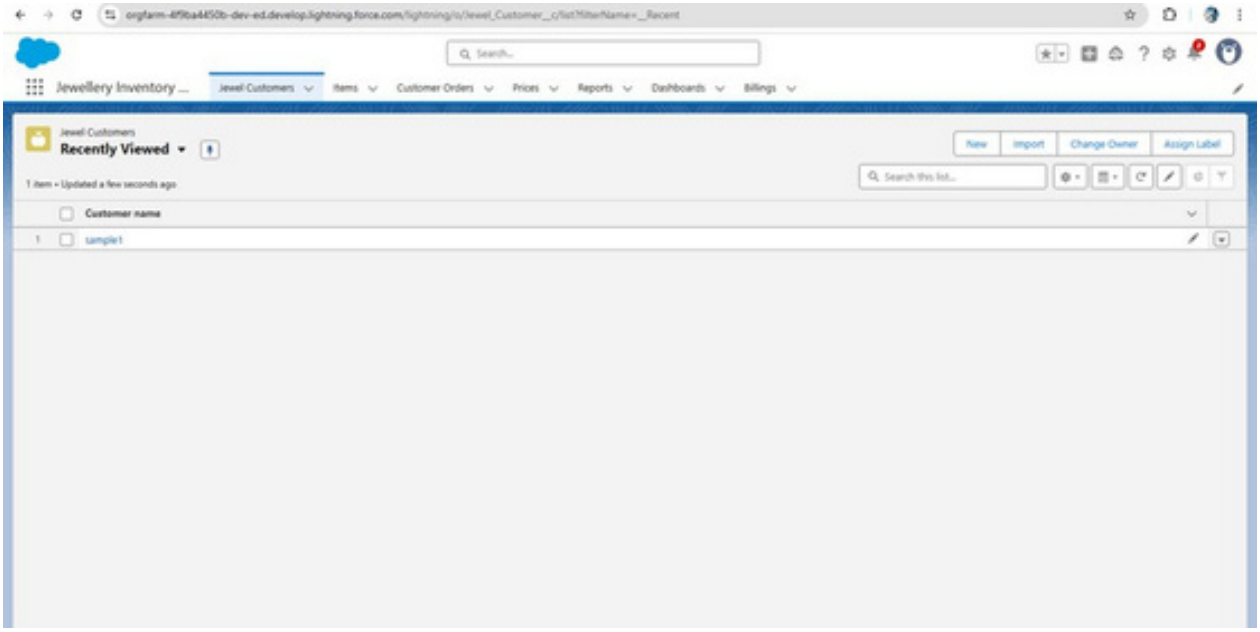
```
public class UpdatePaidAmountTriggerHandler {

    public static void handleBeforeInsert(List<Billing__c> newBillings) {

        for (Billing__c billing : newBillings) {

            billing.Paid_Amount__c = billing.Paying_Amount__c;

        }

    }


    public static void handleBeforeUpdate(Map<Id, Billing__c> oldBillingsMap, List<Billing__c> updatedBillings) {

        for (Billing__c billing : updatedBillings) {

            Billing__c oldBilling = oldBillingsMap.get(billing.Id);
```

- FLOWS


Flow Builder
Billing Alerts Flow - V1
Free-Form
Last saved on 8/28/2025, 06:47 AM
Inactive
Run
Debug
View Tests
Save As New Version
Save
Activate
Toolbox
Elements
Manager
Search this flow...
New Resource
RESOURCES
Text Templates (1)
EmailBody
ELEMENTS
Actions (1)
notice
Start
Record-Triggered Flow
Object: Billing
Edit
Trigger: A record is created or updated
Optimize for: Actions and Related Records
Add Scheduled Paths (Optional)
Open Flow Trigger Explorer for Billing
Run immediately
Action
notice


Flow Builder
Billing Alerts Flow - V1
Free-Form
Last saved on 8/28/2025, 06:47 AM
Inactive
Run
Debug
View Tests
Save As New Version
Save
Activate
Toolbox
Elements
Manager
Interaction (3)
Action
Subflow
Custom Error
Logic (6)
Assignment
Decision
Loop
Transform
Collection Sort
Collection Filter
Data (4)
Create Records
Update Records
Get Records
Delete Records
Get more on the AppExchange
Start
Record-Triggered Flow
Object: Billing
Edit
Trigger: A record is created or updated
Optimize for: Actions and Related Records
Add Scheduled Paths (Optional)
Open Flow Trigger Explorer for Billing
Run immediately
Action
notice


Jewellery Inventory ...
Jewel Customers
Items
Customer Orders
Prices
Reports
Dashboards
Billings
Recently Viewed
New
Import
Change Owner
Assign Label
1 item • Updated a few seconds ago
Customer name
sample1


Jewellery Inventory ...
Jewel Customers
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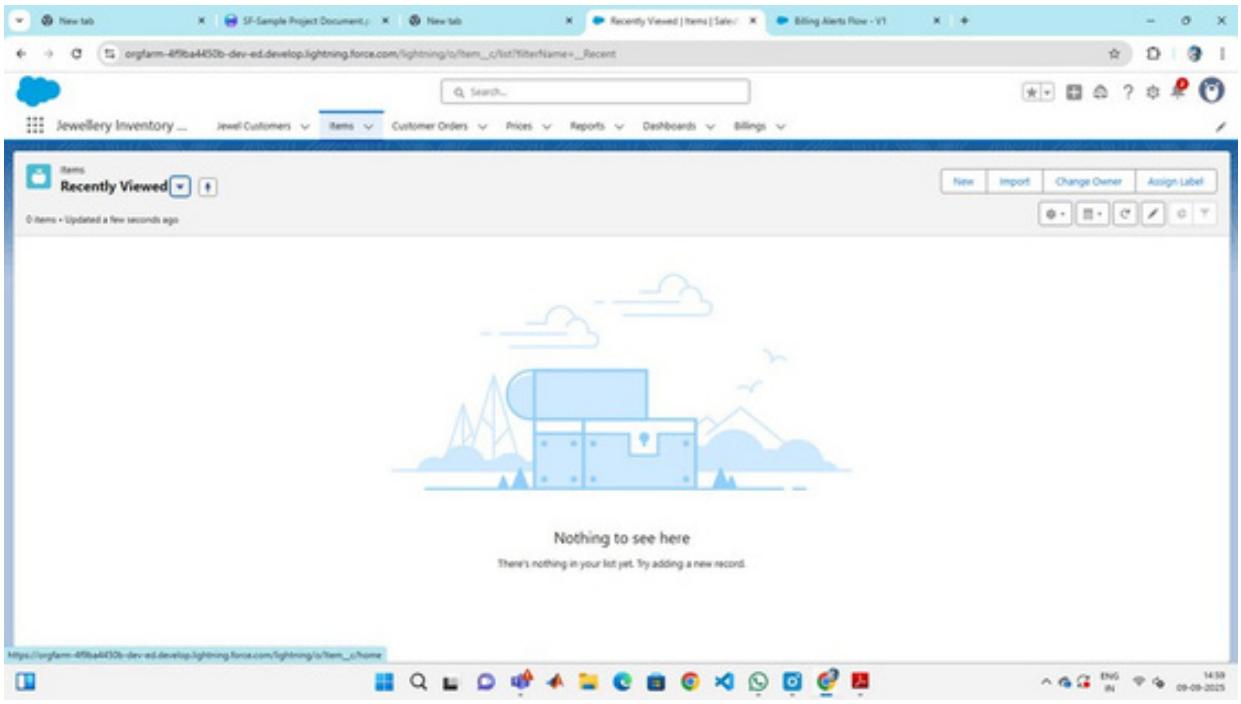
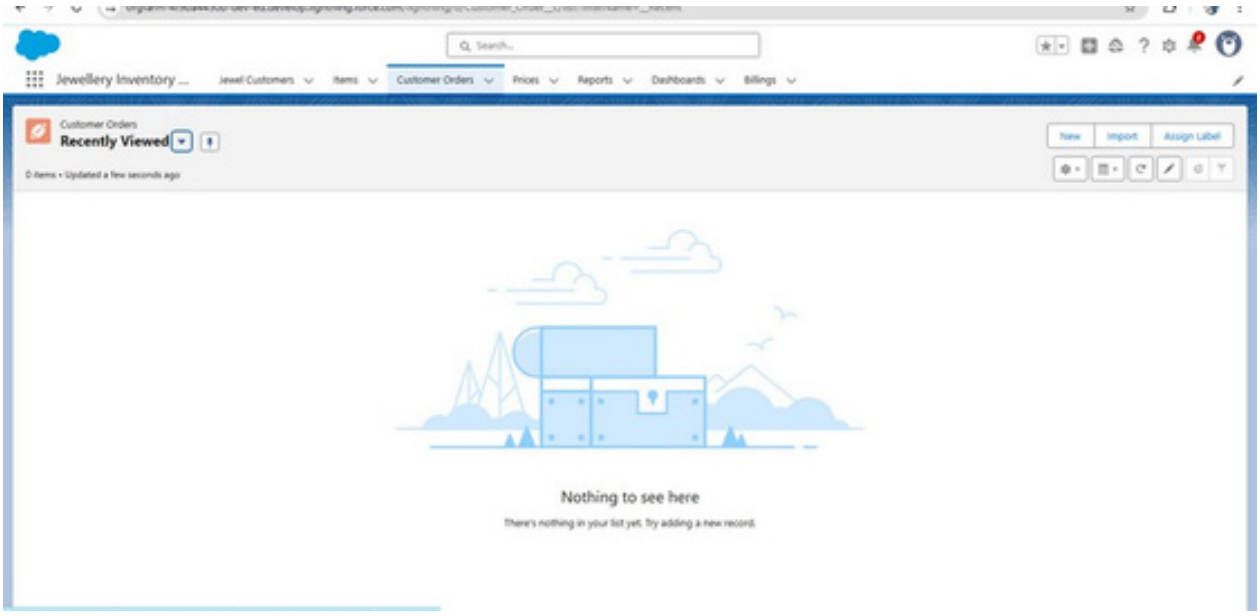
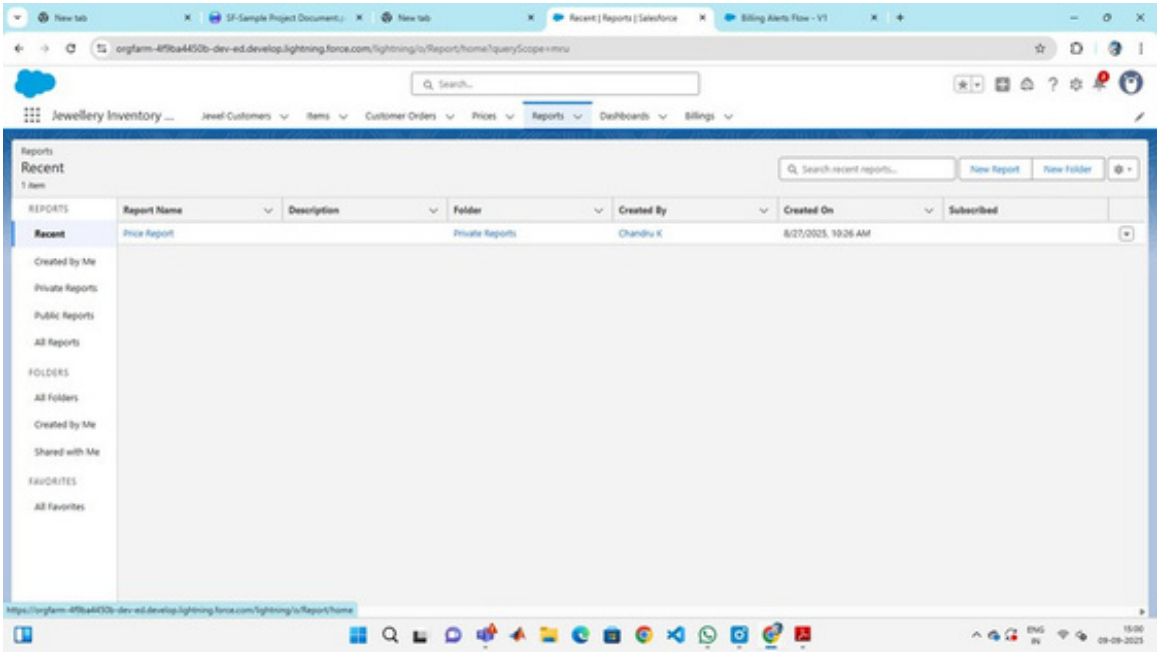
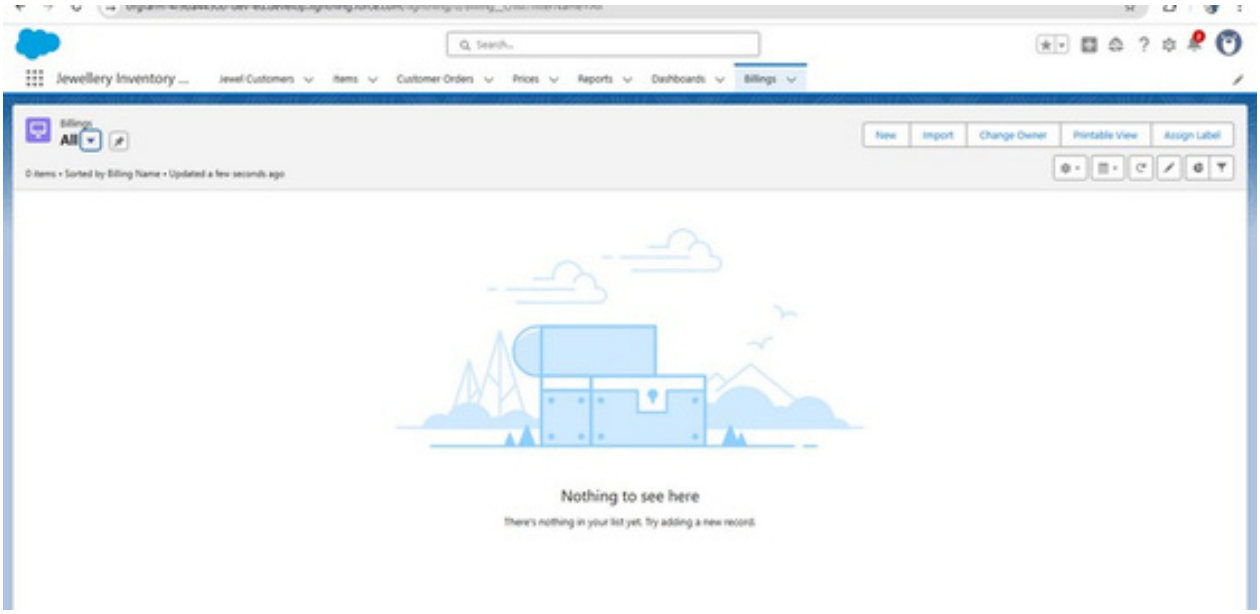
Prices
Reports
Dashboards
Billings
Recently Viewed
New
Import
Change Owner
Assign Label
1 item • Updated a few seconds ago
Customer name
sample1


Jewellery Inventory ...
Jewel Customers
Items
Customer Orders
Prices
Reports
Dashboards
Billings
Items
Recently Viewed
0 items • Updated a few seconds ago
New
Import
Change Owner
Assign Label
Nothing to see here
There's nothing in your list yet. Try adding a new record.


Jewellery Inventory ...
Jewel Customers
Items
Customer Orders
Prices
Reports
Dashboards
Billings
Customer Orders
Recently Viewed
0 items • Updated a few seconds ago
New
Import
Assign Label
Nothing to see here
There's nothing in your list yet. Try adding a new record.

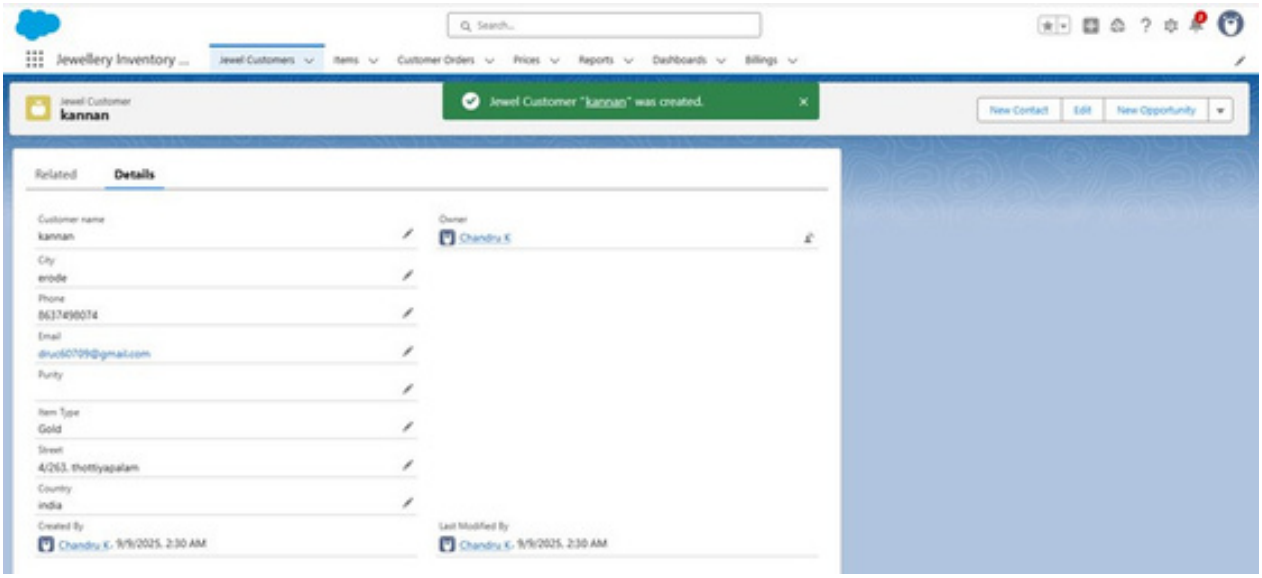

Jewellery Inventory ...
Jewel Customers
Items
Customer Orders
Prices
Reports
Dashboards
Billings
Reports
Recent
1 item
Search recent reports...
New Report
New Folder
REPORTS
Recent
Created by Me
Private Reports
Public Reports
All Reports
FOLDERS
All Folders
Created by Me
Shared with Me
FAVORITES
All Favorites
Report Name
Description
Folder
Created By
Created On
Subscribed
Price Report
Private Reports
Chandru K
8/27/2025, 10:26 AM


Jewellery Inventory ...
Jewel Customers
Items
Customer Orders
Prices
Reports
Dashboards
Billings
Billings
All
New
Import
Change Owner
Printable View
Assign Label
0 items • Sorted by Billing Name • Updated a few seconds ago
Nothing to see here
There's nothing in your list yet. Try adding a new record.

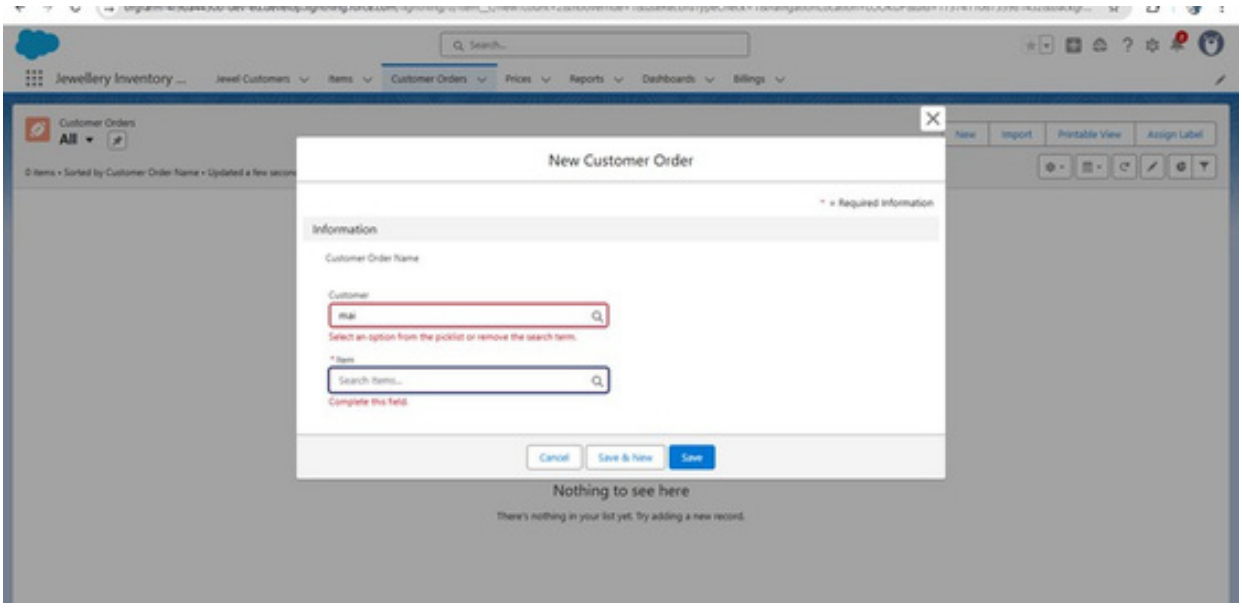
FUNCTIONAL AND PERFORMANCE TESTING

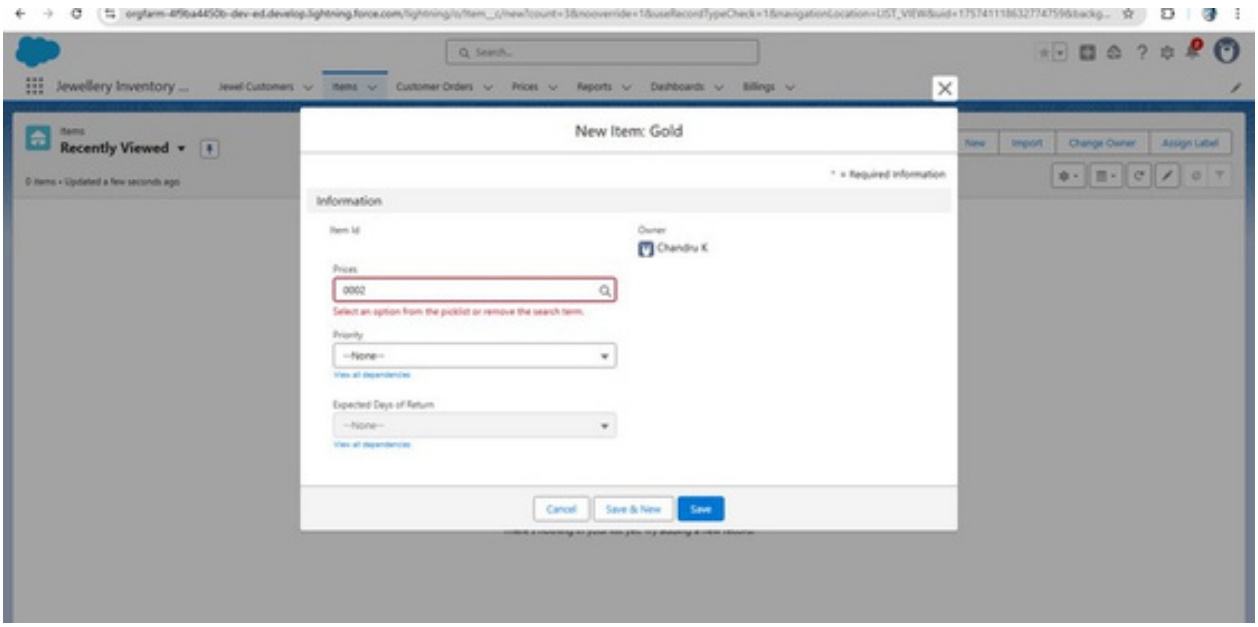
PerformanceTesting

- Addinganewcustomer

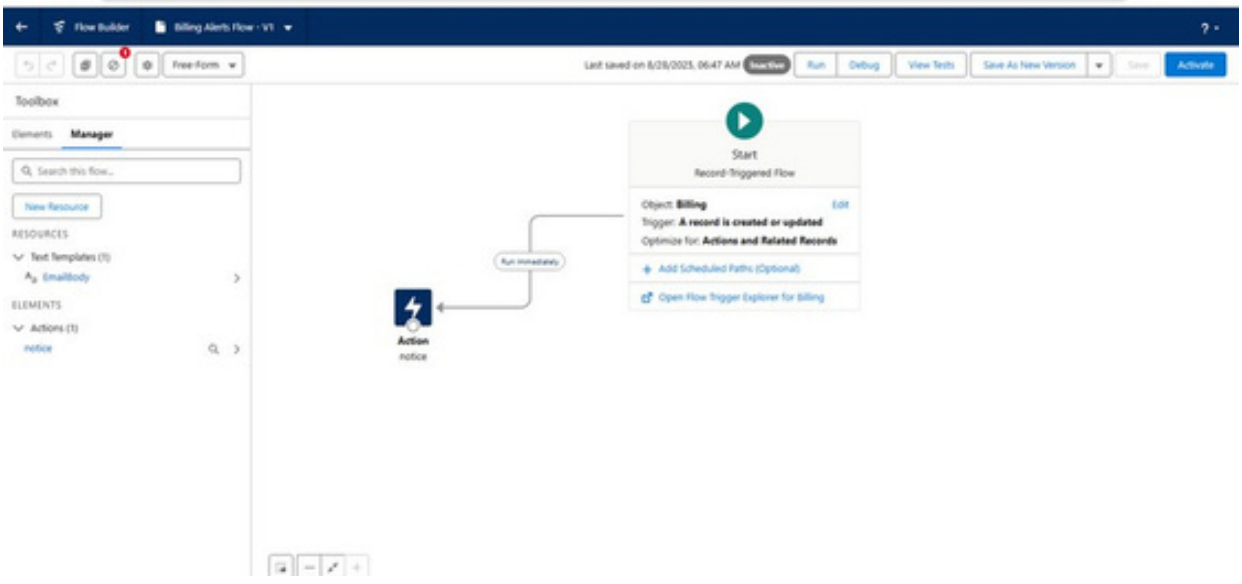


- Validation Rule checking in a customer

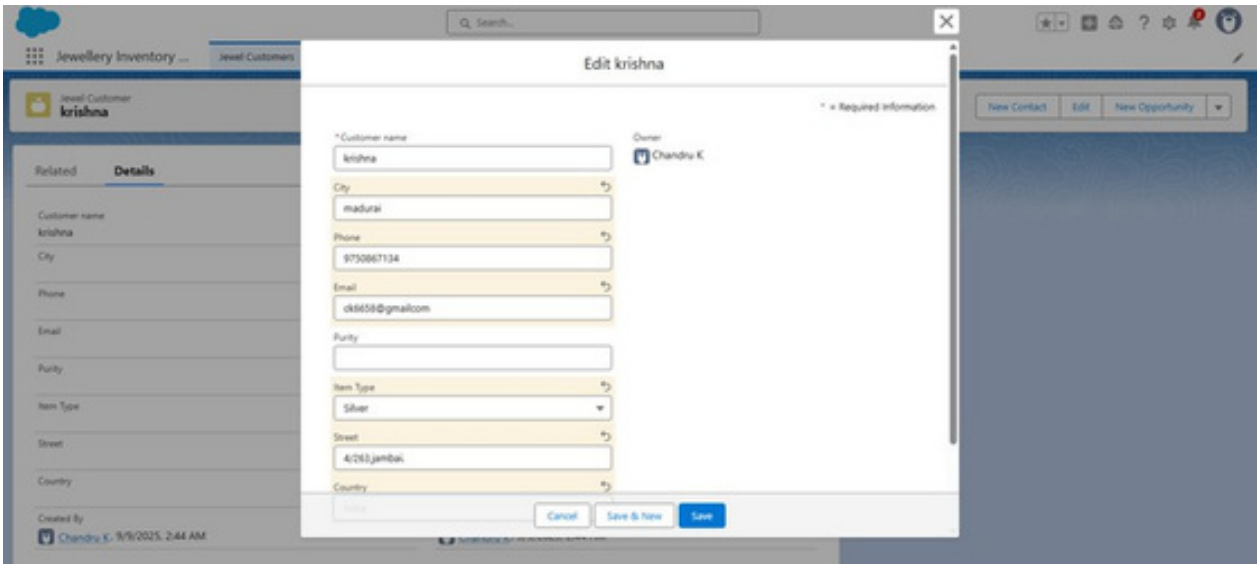


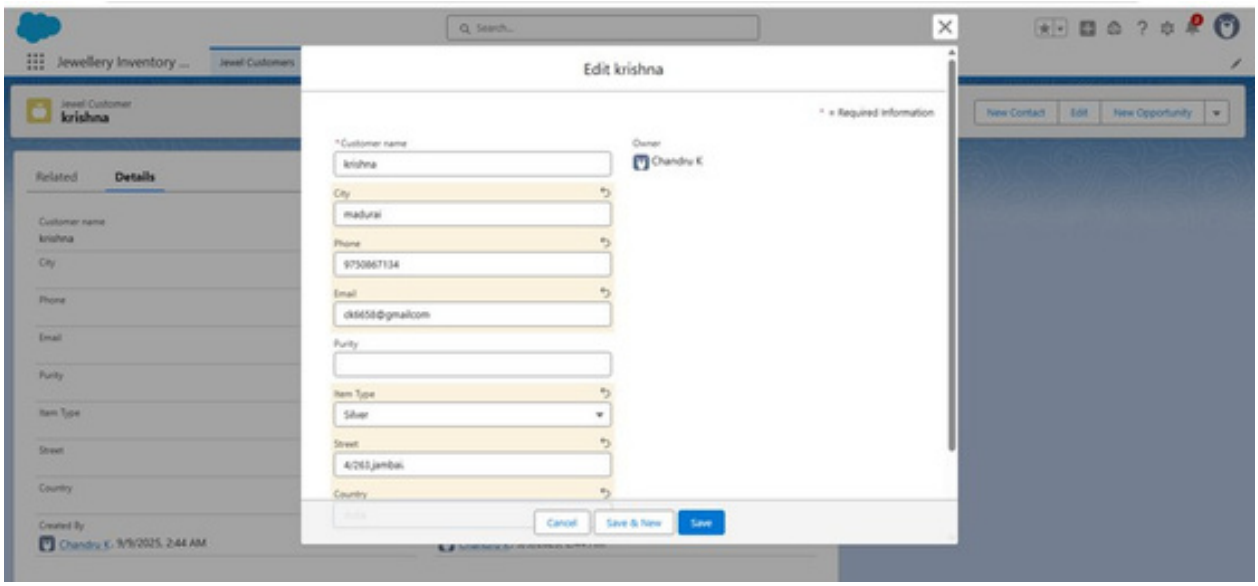


- Flows on billing



- Approval process validated through customer name and details

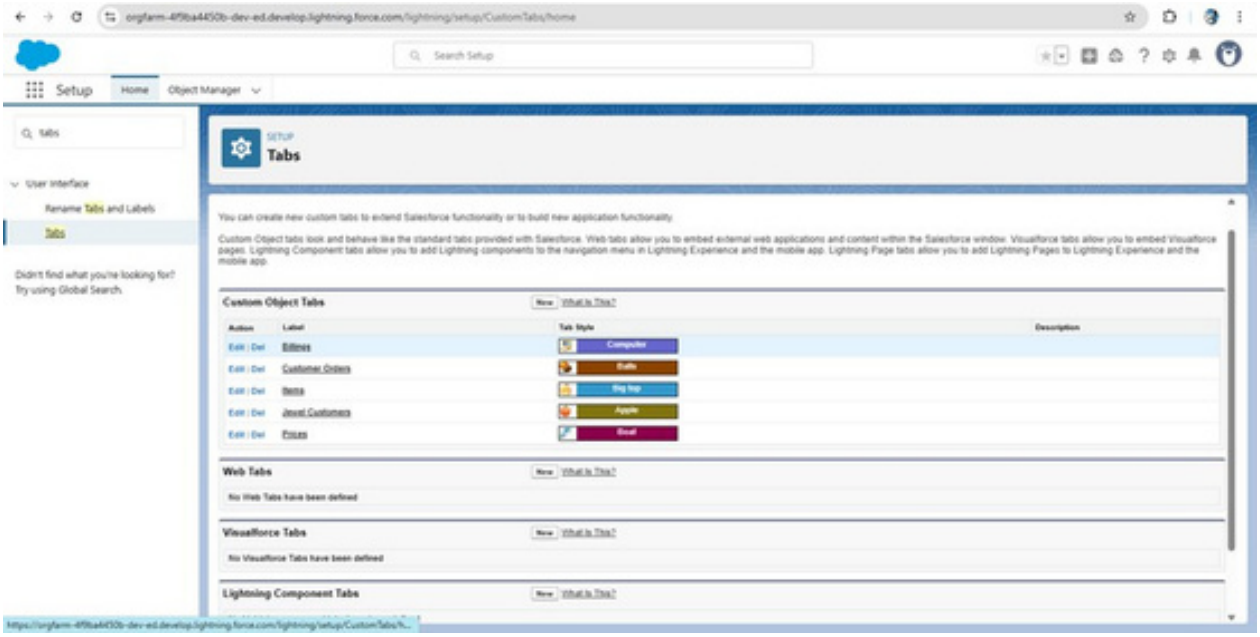


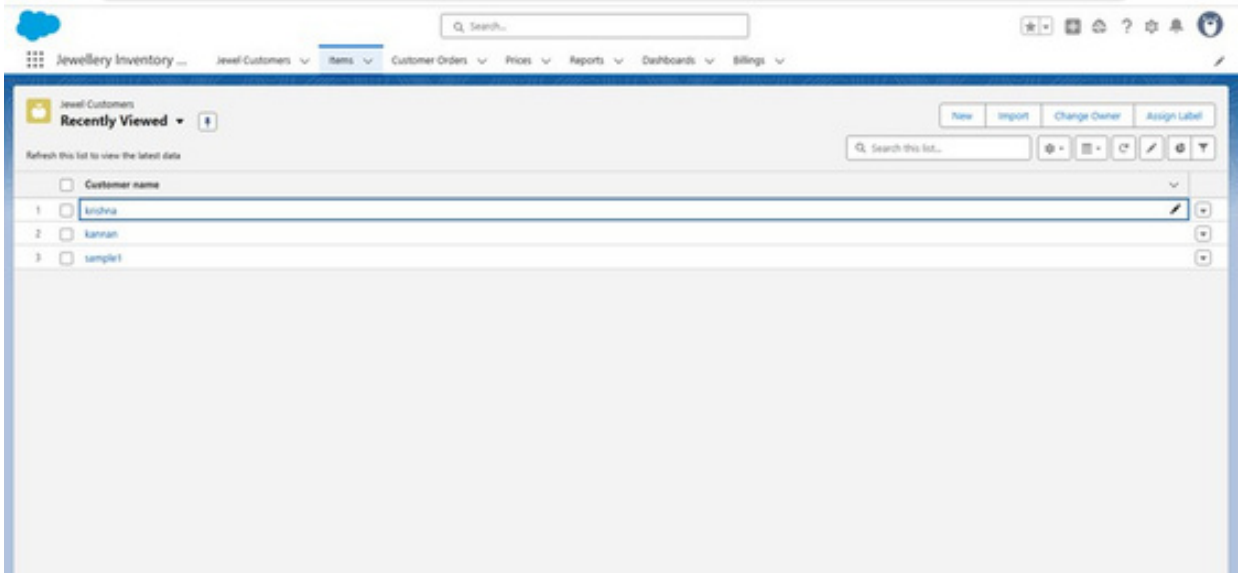


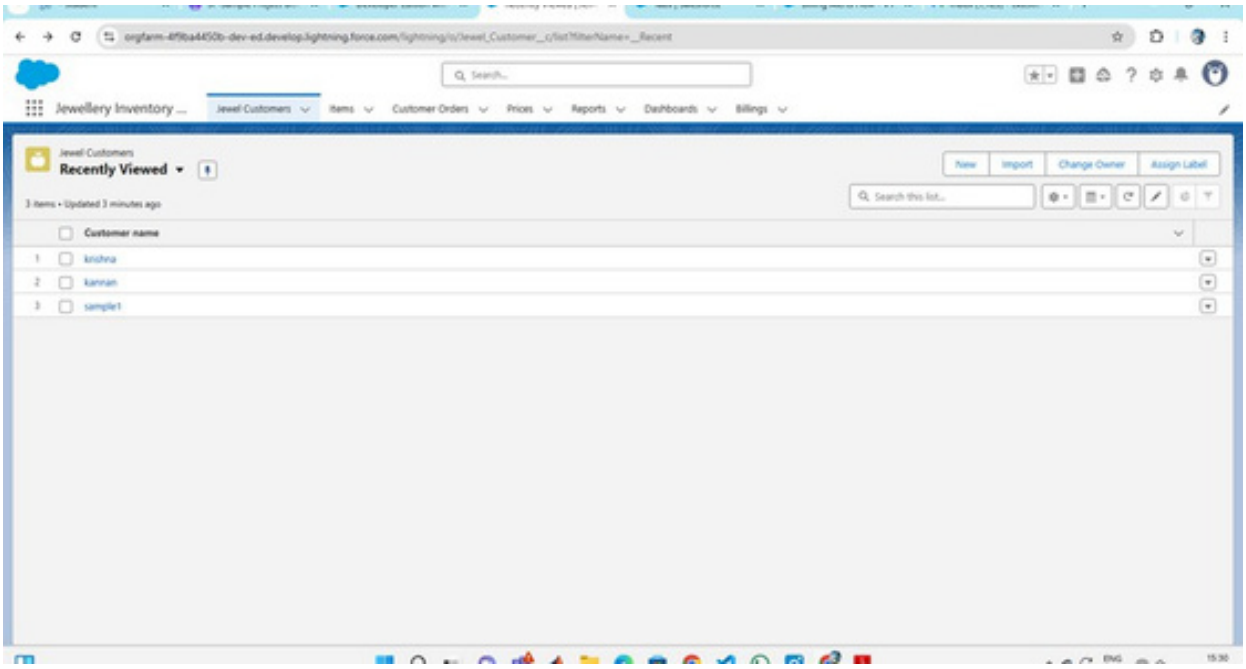
RESULTS

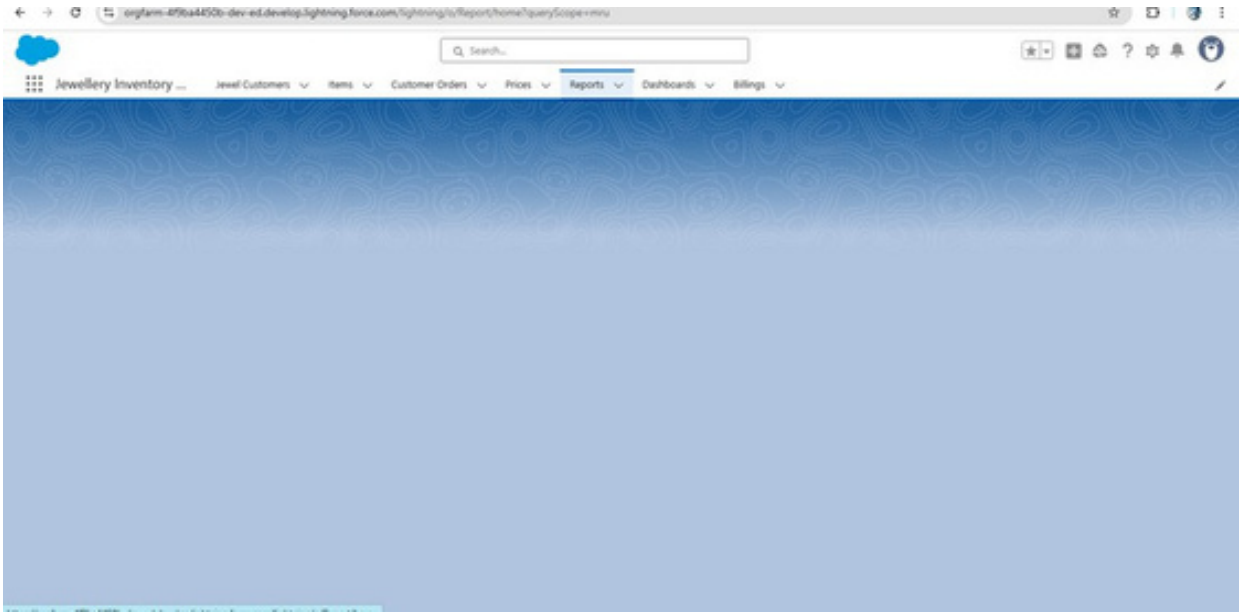
Output Screenshots

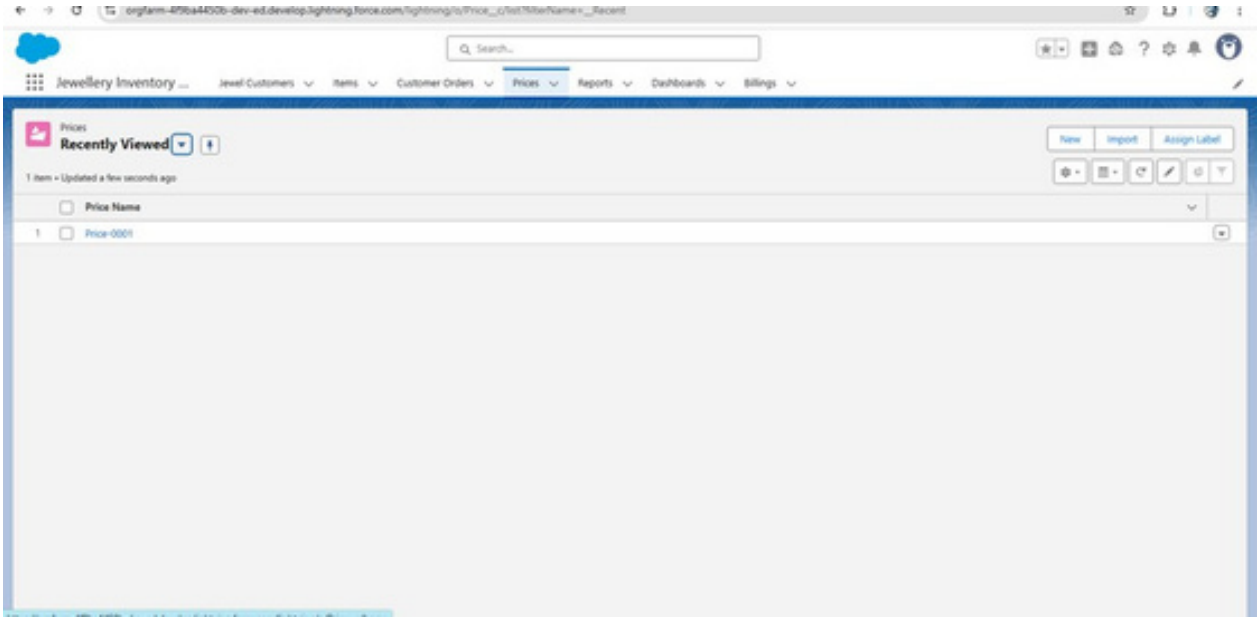
- Tabs for Property :billing,prices,customer,items , jewel customer

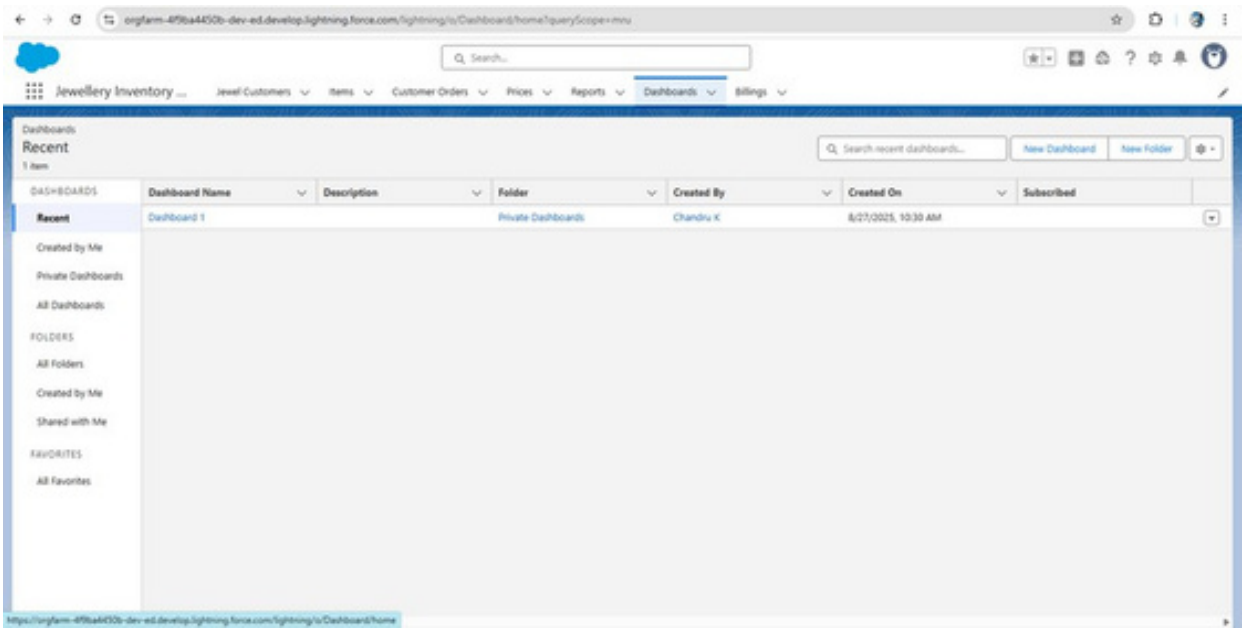


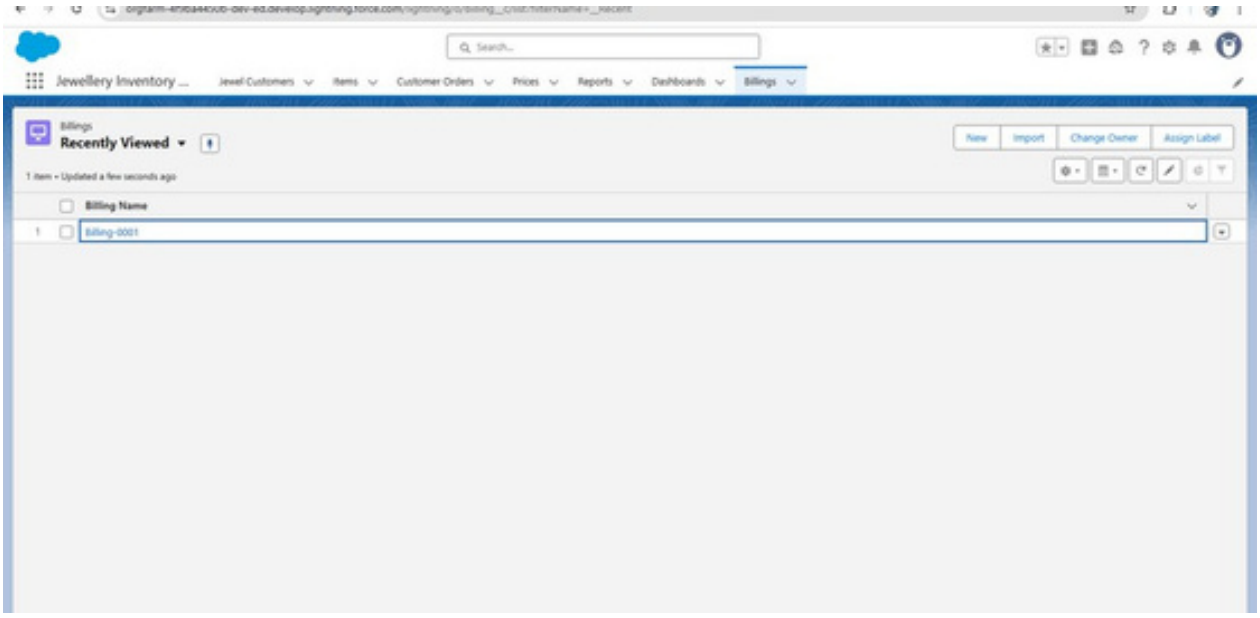

Jewellery Inventory ...
Jewel Customers
Items
Customer Orders
Prices
Reports
Dashboards
Billings
Jewel Customers
Recently Viewed
Refresh this list to view the latest data
New
Import
Change Owner
Assign Label
Search this list...
Customer name
1 krishna
2 kannan
3 sample1


Jewellery Inventory ...
Jewel Customers
Items
Customer Orders
Prices
Reports
Dashboards
Billings
Jewel Customers
Recently Viewed
3 items • Updated 3 minutes ago
New
Import
Change Owner
Assign Label
Search this list...
Customer name
1 krishna
2 kannan
3 sample1

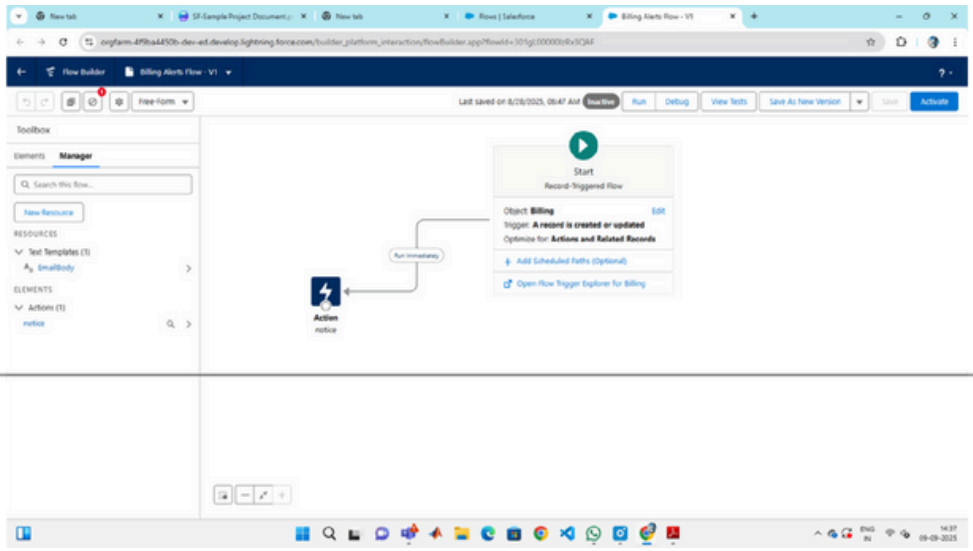

Search...
Jewellery Inventory ...
Jewel Customers
Items
Customer Orders
Prices
Reports
Dashboards
Billings


Search...
Jewellery Inventory ...
Jewel Customers
Items
Customer Orders
Prices
Reports
Dashboards
Billings
Prices
Recently Viewed
1 item • Updated a few seconds ago
New
Import
Assign Label
Price Name
1
Price-0001


Jewellery Inventory ...
Jewel Customers
Items
Customer Orders
Prices
Reports
Dashboards
Billings
Dashboards
Recent
1 item
New Dashboard
New Folder
DASHBOARDS
Recent
Created by Me
Private Dashboards
All Dashboards
FOLDERS
All Folders
Created by Me
Shared with Me
FAVORITES
All Favorites
Dashboard Name
Description
Folder
Created By
Created On
Subscribed
Dashboard 1
Private Dashboards
Chandru K
8/27/2025, 10:30 AM


Jewellery Inventory ...
Billings
Recently Viewed
1 item • Updated a few seconds ago
New
Import
Change Owner
Assign Label
Billing Name
Billing-0001

- Flows runs



ADVANTAGES & DISADVANTAGES

Advantages:

Improves inventory accuracy, streamlines sales, and reduces manual effort with an easy-to-use system.

Disadvantages:

Requires initial setup cost, technical knowledge, and ongoing system maintenance.

CONCLUSION

The Jewel Inventory System serves as an efficient and reliable solution for jewellery businesses by streamlining inventory and sales management. It reduces manual errors, saves time, and enhances operational efficiency while providing accurate insights into stock and transactions. This ultimately helps businesses improve productivity, ensure customer satisfaction, and achieve sustainable growth.

APPENDIX

- Source Code: Provided in Apex Classesand Triggers

```
public class UpdatePaidAmountTriggerHandler
{
   public static void handleBeforeInsert(List<Billing__c> newBillings)
{
      for (Billing__c billing : newBillings)
{
         billing.Paid_Amount__c = billing.Paying_Amount__c;
      }
   }
```

```
}

Public static void handle Before Update(Map<Id,Billing__c>old Billings Map, List<Billing__c>updatedBillings){

for(Billing__cbilling:updatedBillings){

Billing__coldBilling=oldBillingsMap.get(billing.Id);

DecimaloldPaidAmount=oldBilling.Paid_Amount__c;

billing.Paid_Amount__c=oldPaidAmount+billing.Paying_Amount__c;

}

}

}
```

Update Paid Amount Trigger

triggerUpdatePaidAmountTriggeronBilling__c

(beforeinsert,beforeupdate){

if(Trigger.isInsert){

Update Paid Amount Trigger Handler.handle Before Insert(Trigger.new);

}elseif(Trigger.isUpdate){

Update Paid Amount Trigger Handler.handle Before Update(Trigger.oldMap,Trigger.new);

}

```
}
```