CRM Application for Jewel Management

COLLEGE : EINSTEIN COLLEGE OF ENGINEERING

TEAM ID : NM2025TMID05407

TEAM SIZE : 4

TEAM MEMBERS DETAILS:

TEAM LEADER: NELLAIAPPAN S

EMAIL : nellai2810@gmail.com

TEAM MEMBER : MOHAMMED AMJATH ILYAS M

EMAIL : mohammedamjath7862@gmail.com

TEAM MEMBER : SREE SUDHARSHAN V T

EMAIL : sudharshansri496@gmail.com

TEAM MEMBER : RATHNA PRAKASH S

EMAIL : prakashsrithar007@gmail.c om

1. INTRODUCTION

1.1 Project Overview

This project aims to create a Salesforce-based CRM system designed specifically for jewellery shop operations. The system helps manage everyday tasks such as stock control, price updates, customer management, and billing. Built on the Salesforce Lightning Platform, it uses custom objects, automated Flows, and dynamic dashboards to make business tracking easier. These tools offer a clear view of sales performance, stock movement, and customer behaviour, all in one place.

1.2 Purpose

The main goal of this project is to convert traditional manual jewellery business processes into an automated, cloud-based Salesforce CRM. It allows real-time stock tracking, flexible pricing, accurate billing, and smooth order management from a single platform.

This helps reduce human errors, improve customer satisfaction, and support better business decisions through data insights.

The system is designed to:

- Store and manage all customer details in one place.
- Track gold and silver jewellery stock.
- Send personalized offers and updates.
- Simplify order and billing operations.
- Increase customer loyalty through automated reminders.
- Generate reports for sales, trends, and employee performance.

2. IDEATION PHASE

2.1 Problem Statement

Many jewellery stores still depend on manual processes for billing, pricing, and stock management. This often causes inconsistent records, difficulty in tracking customers, and slow decision-making. Without a proper system, customer data, order details, and sales history remain scattered, which affects service quality.

Small and medium jewellery businesses also face challenges like maintaining accurate inventory, managing custom orders, and calculating purity-based prices. Most general software tools fail to meet these specific needs, which leads to mistakes and poor customer experience.

2.2 Empathy Map

Think & Feel:

- “Are we losing customers because we don’t follow up properly?”
- “Who are our top customers?”

Hear:

- “The client was unhappy with the delay in their custom order.”
- “Can we remind customers about birthdays and anniversaries?”

See:

- Paper registers filled with handwritten notes.
- Multiple Excel sheets for billing and stock.

Say & Do:

- “Call the customer about their order tomorrow.”
- “Print the list of last year’s top customers.”

Pain Points:

- Losing repeat customers due to no follow-up.
- Lack of live inventory updates.

Gains:

- Happier customers.
- More returning buyers through automation.

2.3 Brainstorming

Discussions were held with shop owners, sales staff, and developers to identify practical challenges and the best features for the CRM. These brainstorming sessions helped shape the system according to real business needs.

Key ideas from this stage included:

- Creating custom objects for Items, Billing, Orders, and Customers.
- Automating inventory using Flows.
- Using dashboards to track performance daily.
- Setting alerts for low stock.
- Adding validation rules to prevent data errors.
- Designing dashboards for different user roles like admin and sales.

3. REQUIREMENT ANALYSIS

3.1 Customer Journey Map

This map outlines how a customer interacts with the business—from first contact to post-purchase. It helps identify where automation can make the experience smoother.

Stages:

- **Awareness:** Customer visits the website or social media. CRM captures leads via Web-to-Lead forms.
- **Consideration:** Customer visits store or requests catalog. CRM assigns a sales rep automatically and sends product suggestions.
- **Purchase:** Customer places an order, and CRM logs it as a sales opportunity. An invoice is generated.

- **Delivery:** Order details and tracking updates are sent automatically.
- **Post-Purchase:** CRM collects feedback, updates loyalty points, and sends reminders for birthdays or anniversaries.

3.2 Solution Requirements

Functional Requirements:

- Track jewellery stock in real time.
- Manage prices and billing automatically.
- Generate detailed dashboards and reports.
- Maintain customer and sales records securely.
- Integrate email and SMS alerts.

Non-Functional Requirements:

- High data security.
- Controlled access for users.
- Quick system performance and reliable uptime.

3.3 Data Flow Diagram (DFD)

The DFD shows how information moves through the system:

1. Customer submits an inquiry.
2. Data enters the CRM via forms or app.
3. CRM creates or updates customer records.
4. Sales and billing data are stored.
5. Stock count is adjusted.
6. Reports show updated sales and inventory.

3.4 Technology Stack

- **Platform:** Salesforce Lightning Experience
- **Logic:** Apex Triggers, Validation Rules, Flow Builder
- **Interface:** Lightning Pages, Tabs, Reports, Dashboards
- **Database:** Standard & Custom Salesforce Objects
- **Integrations:** Email Templates, Scheduled Flows, Approval Processes

4. PROJECT DESIGN

4.1 Problem–Solution Fit

Problem: Manual operations and poor record tracking.

Solution: A Salesforce CRM that automates workflows and centralizes all jewellery shop activities.

4.2 Proposed Solution

Five key custom objects were created — **Item, Price, Jewel_Customer, Customer_Order, and Billing.**

Features include:

- Lightning App with simple navigation.
- Automated flows for billing, stock, and alerts.
- Dashboards showing sales, revenue, and stock performance.

4.3 Solution Architecture

- Object relationships: Jewel_Customer ↔ Customer_Order ↔ Billing ↔ Item ↔ Price.
- Formula fields to calculate total billing.
- Validation rules to check data accuracy.
- Record types for Gold, Silver, and Diamond workflows.

5. PROJECT PLANNING AND SCHEDULING

5.1 Planning Timeline

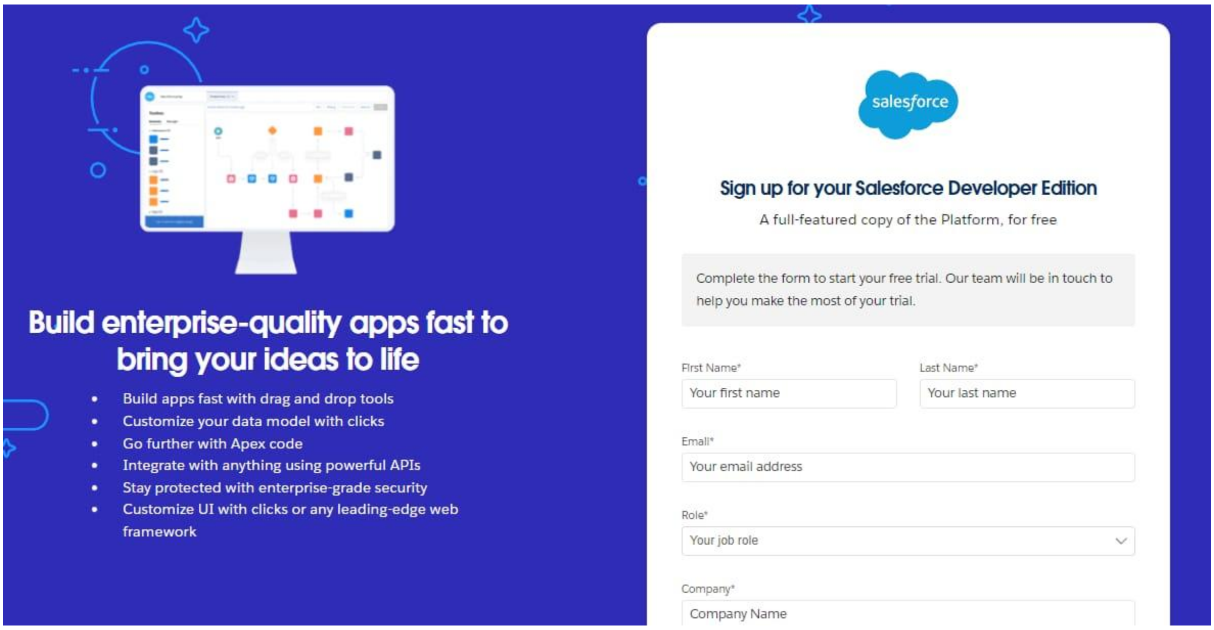
The project was planned in weekly stages to ensure smooth progress:

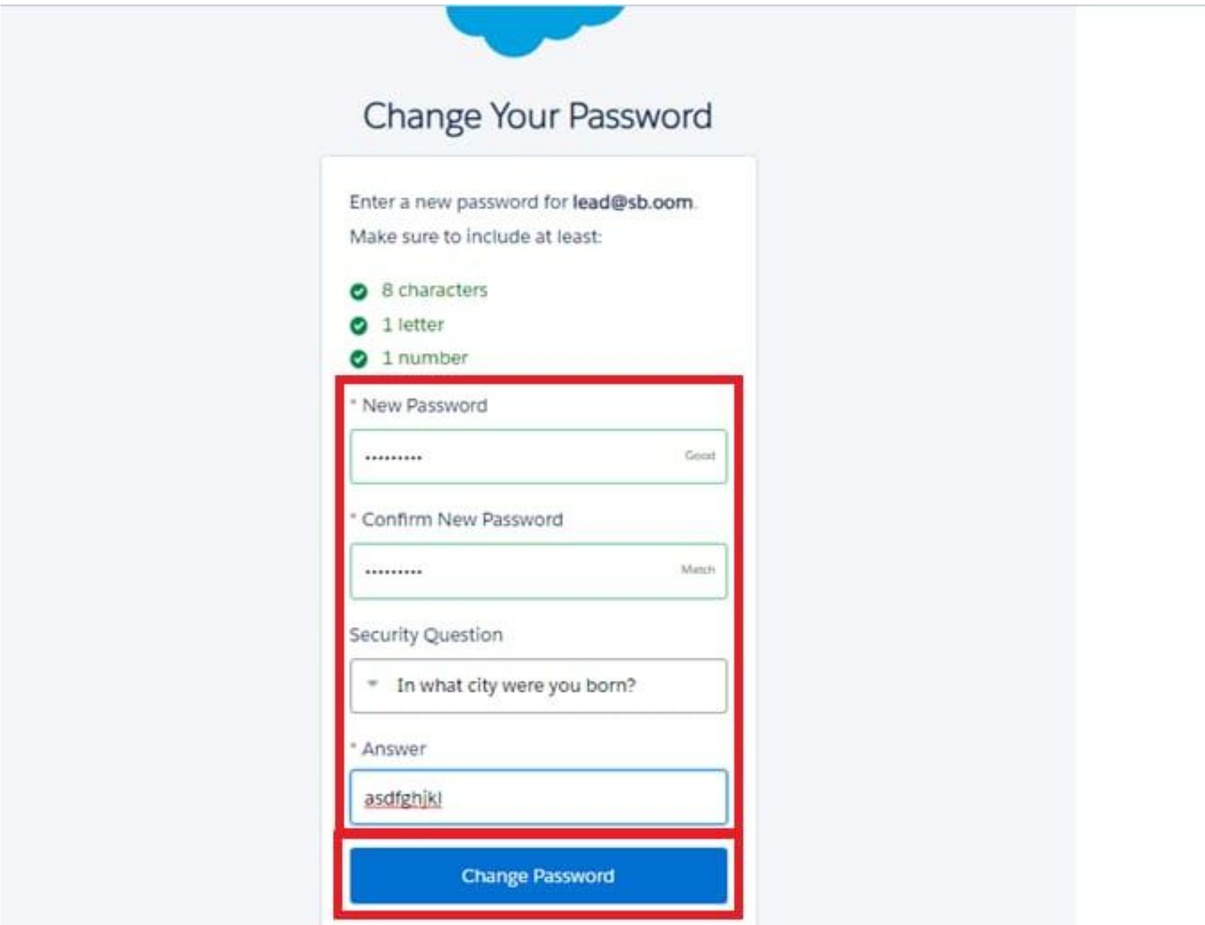
- **Week 1:** Requirements, Use Cases, ER Diagrams.
- **Week 2:** Custom Object and Tab creation.
- **Week 3:** Flows, Automation, Validation Rules.
- **Week 4:** Reports, Dashboards, and Testing.
- **Week 5:** Final Deployment and Documentation.

6.PROJECT DEVELOPMENT PHASE

6.1 Developer Environment Setup

A Salesforce Developer Org was created using **developer.salesforce.com/signup**. After email verification, setup access was configured.

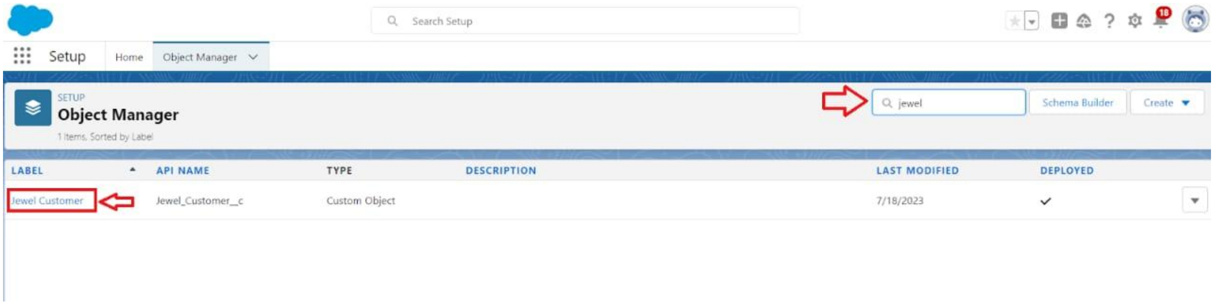

Build enterprise-quality apps fast to bring your ideas to life
Build apps fast with drag and drop tools
Customize your data model with clicks
Go further with Apex code
Integrate with anything using powerful APIs
Stay protected with enterprise-grade security
Customize UI with clicks or any leading-edge web framework
salesforce
Sign up for your Salesforce Developer Edition
A full-featured copy of the Platform, for free
Complete the form to start your free trial. Our team will be in touch to help you make the most of your trial.
First Name*
Your first name
Last Name*
Your last name
Email*
Your email address
Role*
Your job role
Company*
Company Name

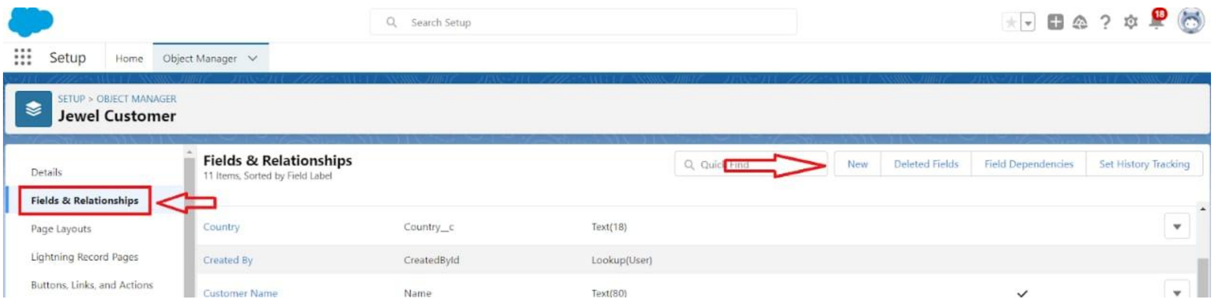

Change Your Password
Enter a new password for lead@sb.oom.
Make sure to include at least:
8 characters
1 letter
1 number
* New Password
Good
* Confirm New Password
Match
Security Question
In what city were you born?
* Answer
asdfghjkl
Change Password

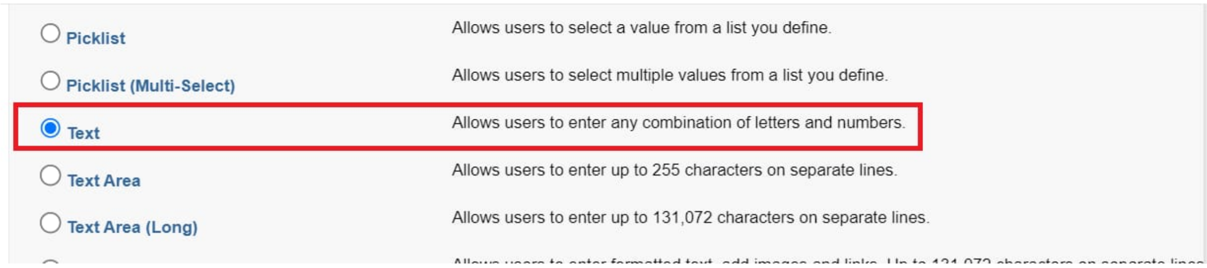
6.2–6.5 Object, Tab, and Field Creation

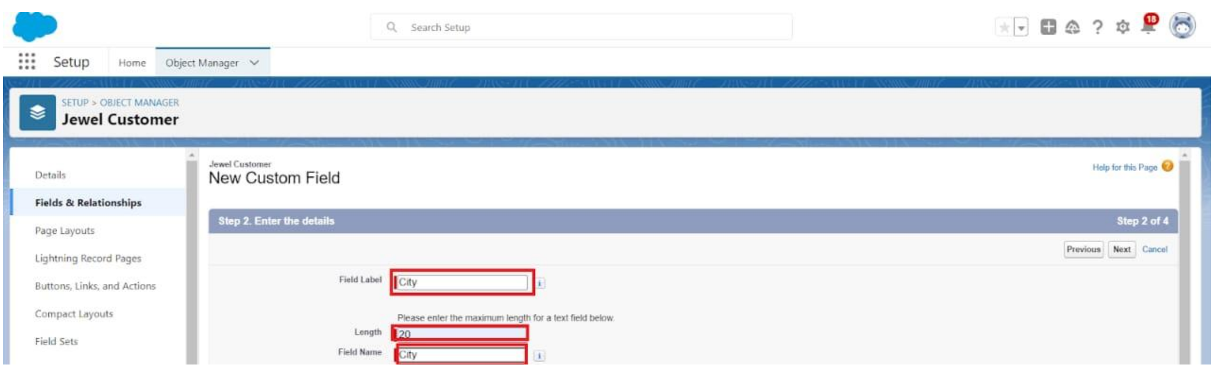
Custom Objects: Jewel Customer, Item, Customer Order, Price, Billing.

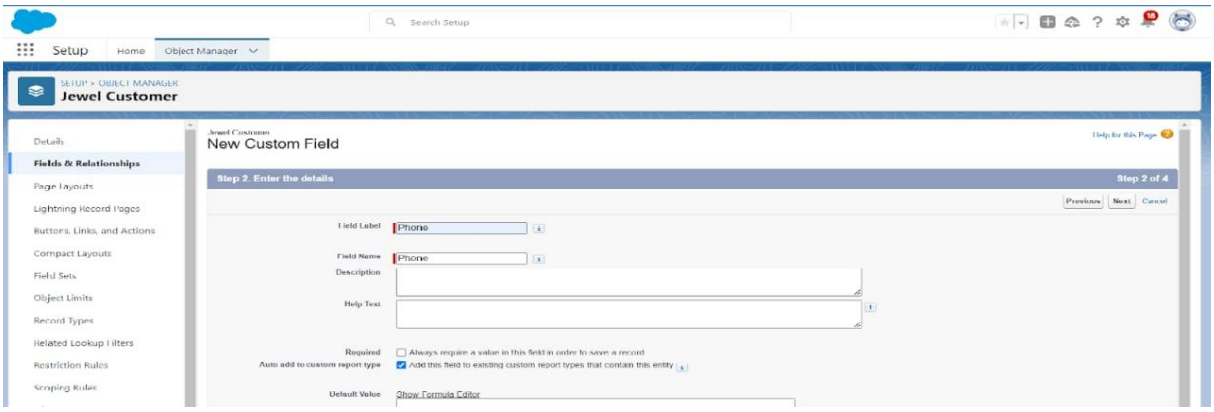
Each object got its own tab and related fields like name, email, price, quantity, weight, etc. Relationships like lookup and master-detail were created between objects. Formula and picklist fields were added for dynamic data handling.

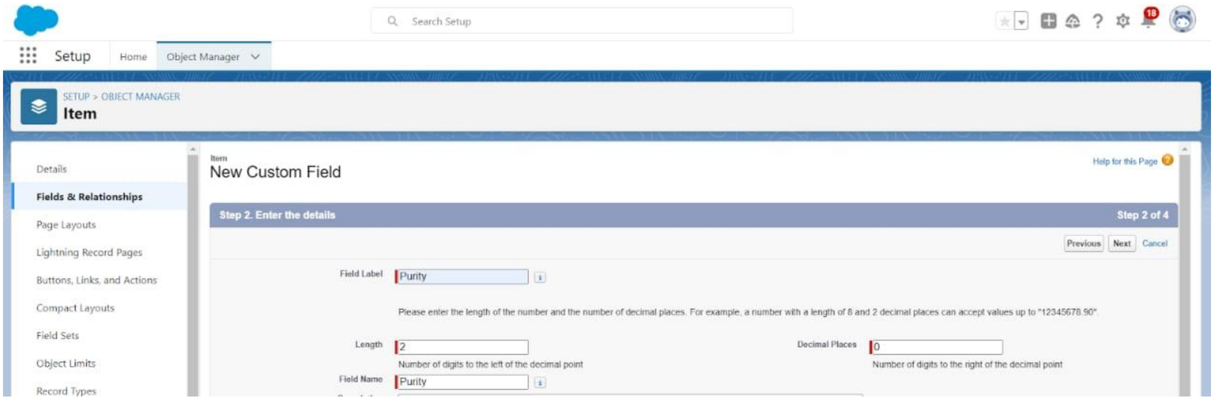


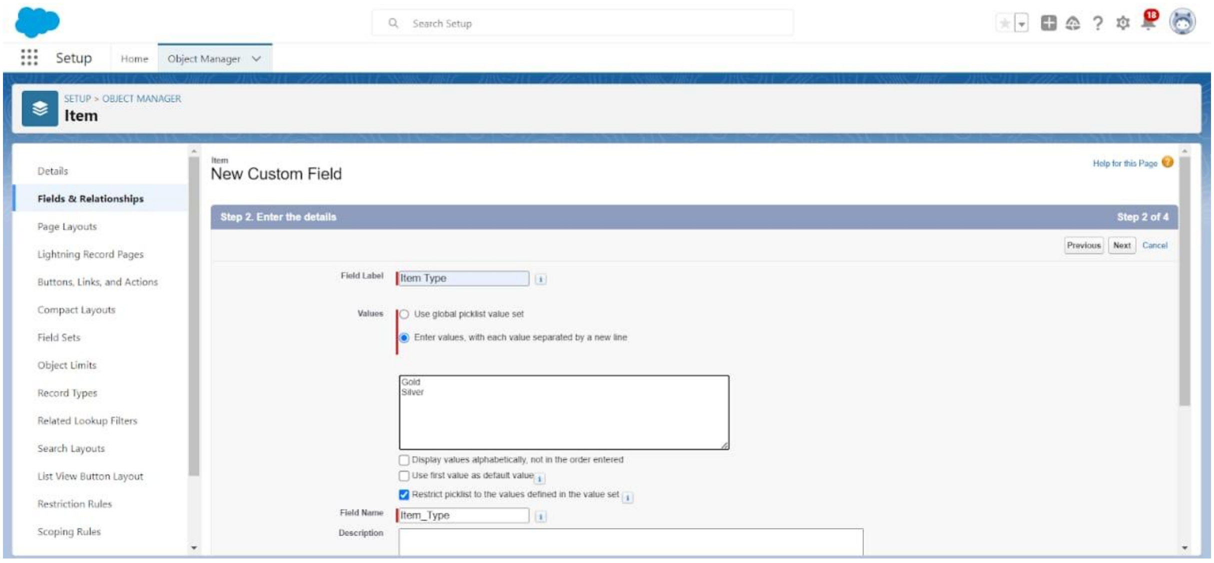


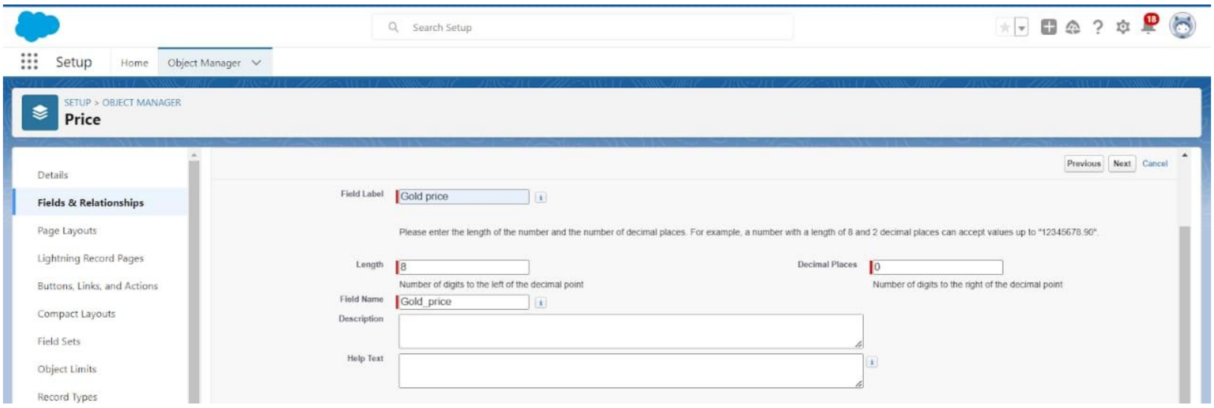


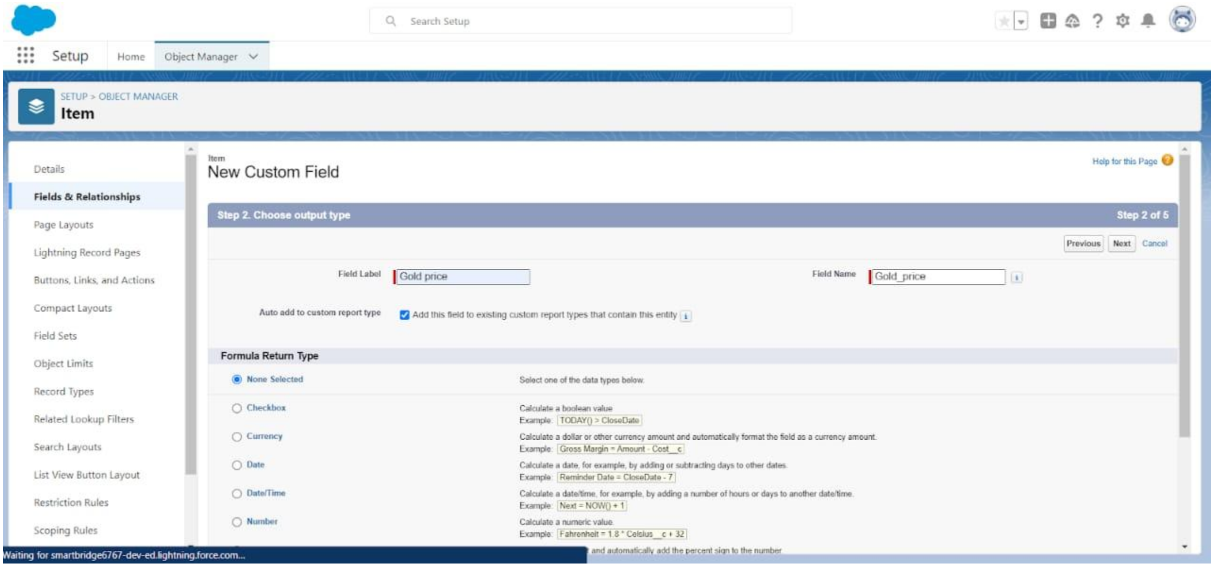


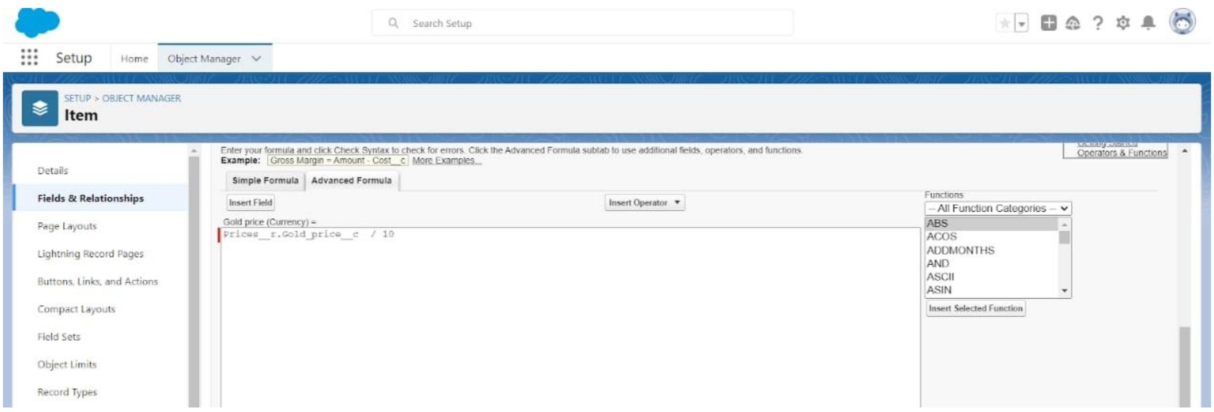

Search Setup
Setup
Home
Object Manager
SETUP > OBJECT MANAGER
Jewel Customer
Details
Fields & Relationships
Page Layouts
Lightning Record Pages
Buttons, Links, and Actions
Compact Layouts
Field Sets
Object Limits
Record Types
Related Lookup Filters
Restriction Rules
Scoping Rules
Jewel Customer
New Custom Field
Help for this Page
Step 2. Enter the details
Step 2 of 4
Previous
Next
Cancel
Field Label
Phone
Field Name
Phone
Description
Help Text
Required
Always require a value in this field in order to save a record
Auto add to custom report type
Add this field to existing custom report types that contain this entity
Default Value
Show Formula Editor


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
Item
New Custom Field
Help for this Page
Step 2. Enter the details
Step 2 of 4
Previous
Next
Cancel
Field Label
Purity
Please enter the length of the number and the number of decimal places. For example, a number with a length of 8 and 2 decimal places can accept values up to "12345678.90".
Length
2
Number of digits to the left of the decimal point
Decimal Places
0
Number of digits to the right of the decimal point
Field Name
Purity


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
Search Layouts
List View Button Layout
Restriction Rules
Scoping Rules
Item
New Custom Field
Help for this Page
Step 2. Enter the details
Step 2 of 4
Previous
Next
Cancel
Field Label
Item Type
Values
Use global picklist value set
Enter values, with each value separated by a new line
Gold
Silver
Display values alphabetically, not in the order entered
Use first value as default value
Restrict picklist to the values defined in the value set
Field Name
Item_Type
Description

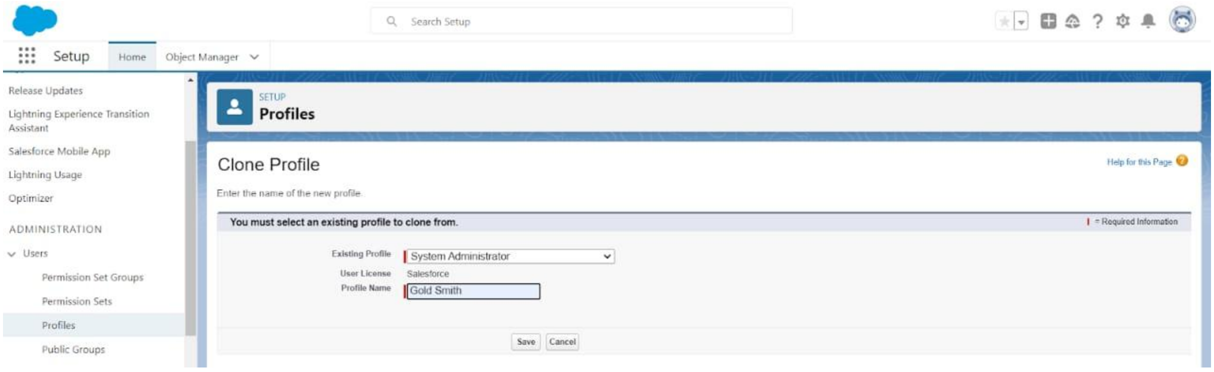

Search Setup
Setup
Home
Object Manager
SETUP > OBJECT MANAGER
Price
Details
Fields & Relationships
Page Layouts
Lightning Record Pages
Buttons, Links, and Actions
Compact Layouts
Field Sets
Object Limits
Record Types
Previous
Next
Cancel
Field Label
Gold price
Please enter the length of the number and the number of decimal places. For example, a number with a length of 8 and 2 decimal places can accept values up to "12345678.90".
Length
8
Number of digits to the left of the decimal point
Decimal Places
0
Number of digits to the right of the decimal point
Field Name
Gold_price
Description
Help Text

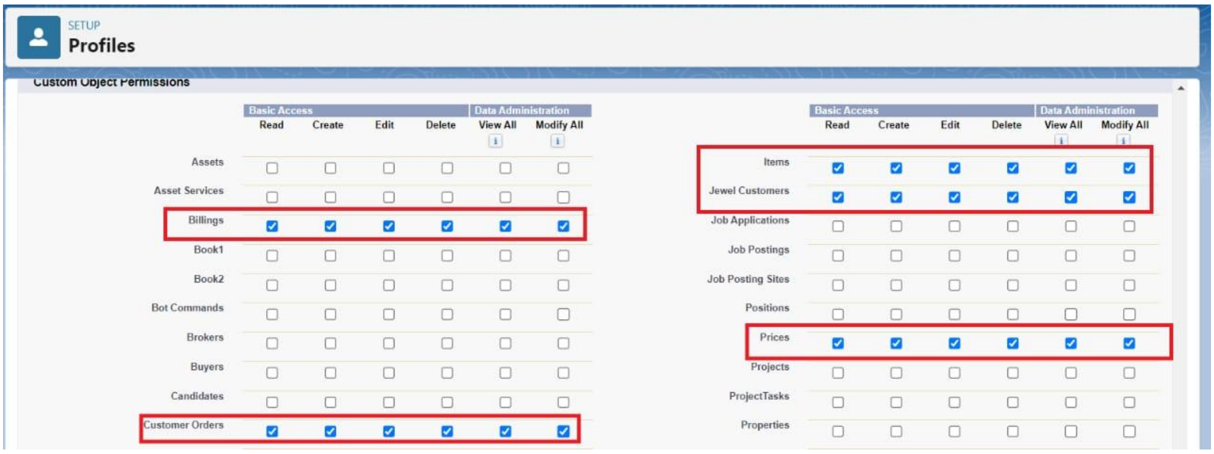


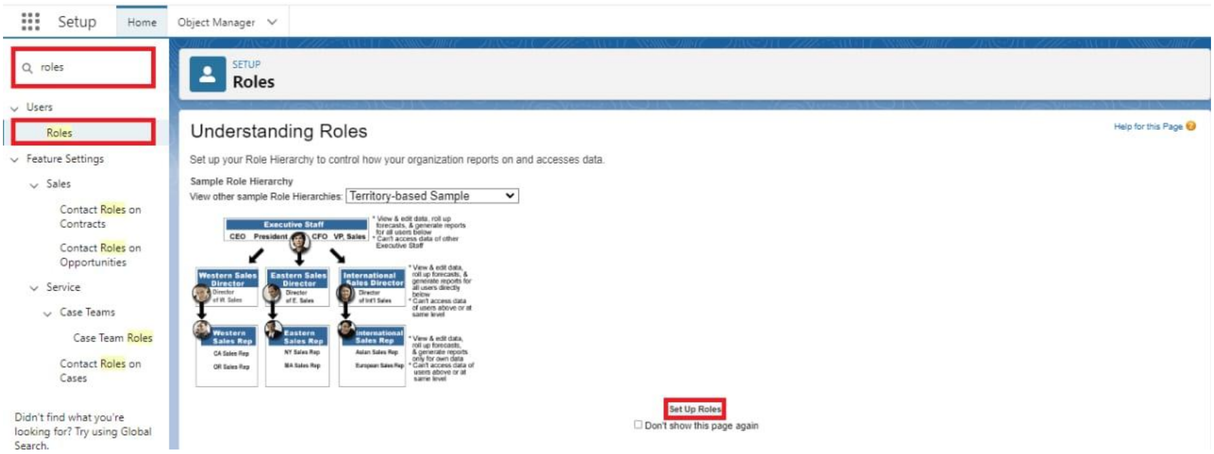


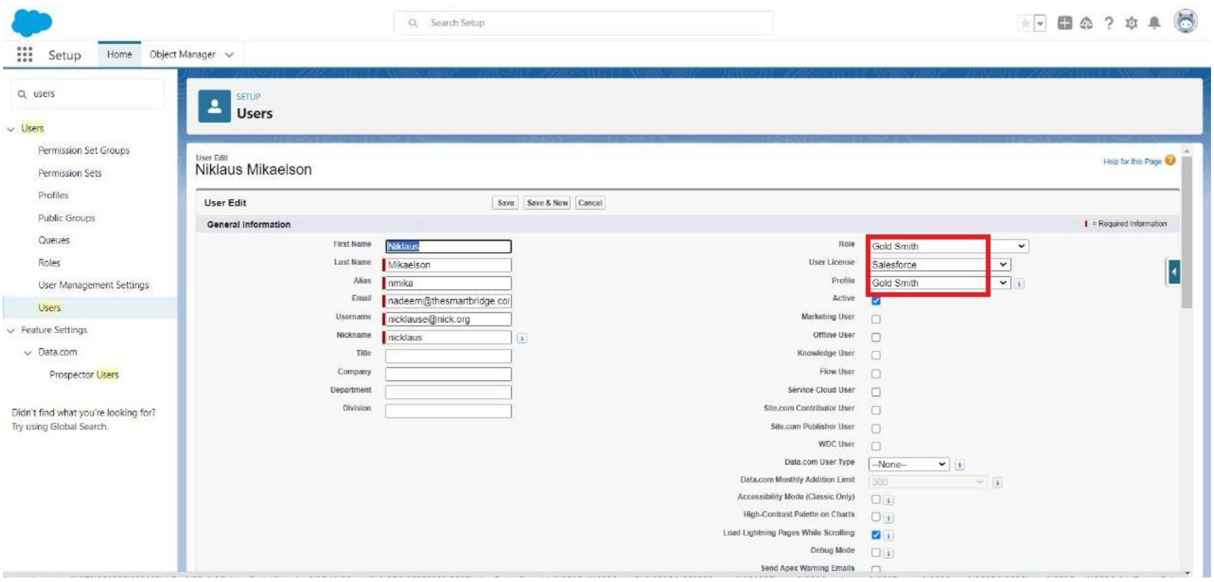
6.6–6.15 Configuration Steps

- Created **profiles, roles, and users.**
- Built **page layouts** for gold and silver records.
- Defined **record types** for metal categories.
- Set **validation rules** for correct entries.
- Added **permission sets, triggers, reports, dashboards, and flows.**


Search Setup
Setup
Home
Object Manager
Release Updates
Lightning Experience Transition Assistant
Salesforce Mobile App
Lightning Usage
Optimizer
ADMINISTRATION
Users
Permission Set Groups
Permission Sets
Profiles
Public Groups
SETUP
Profiles
Clone Profile
Help for this Page
Enter the name of the new profile.
You must select an existing profile to clone from.
= Required Information
Existing Profile
System Administrator
User License
Salesforce
Profile Name
Gold Smith
Save
Cancel


SETUP
Profiles
Custom Object Permissions
Basic Access
Data Administration
Read
Create
Edit
Delete
View All
Modify All
Assets
Asset Services
Billings
Book1
Book2
Bot Commands
Brokers
Buyers
Candidates
Customer Orders
Items
Jewel Customers
Job Applications
Job Postings
Job Posting Sites
Positions
Prices
Projects
ProjectTasks
Properties


Setup
Home
Object Manager
roles
Users
Roles
Feature Settings
Sales
Contact Roles on Contracts
Contact Roles on Opportunities
Service
Case Teams
Case Team Roles
Contact Roles on Cases
Didn't find what you're looking for? Try using Global Search.
SETUP
Roles
Understanding Roles
Help for this Page
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
Executive Staff
Western Sales Director
Eastern Sales Director
International Sales Director
Western Sales Rep
Eastern Sales Rep
International Sales Rep
Set Up Roles
Don't show this page again



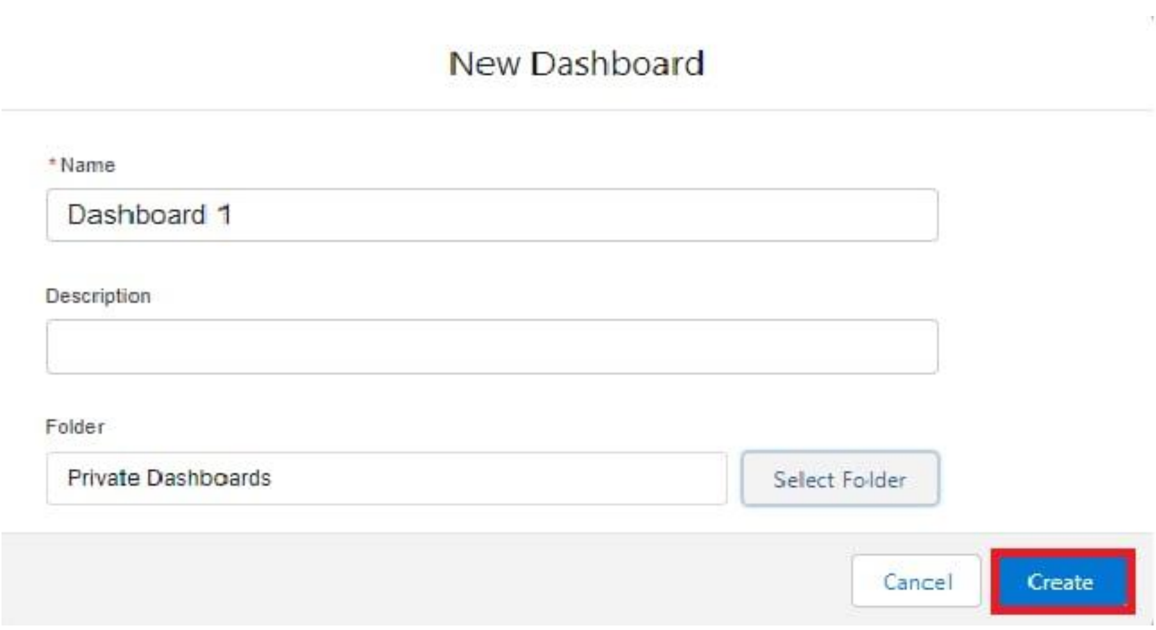
7. FUNCTIONAL AND PERFORMANCE TESTING

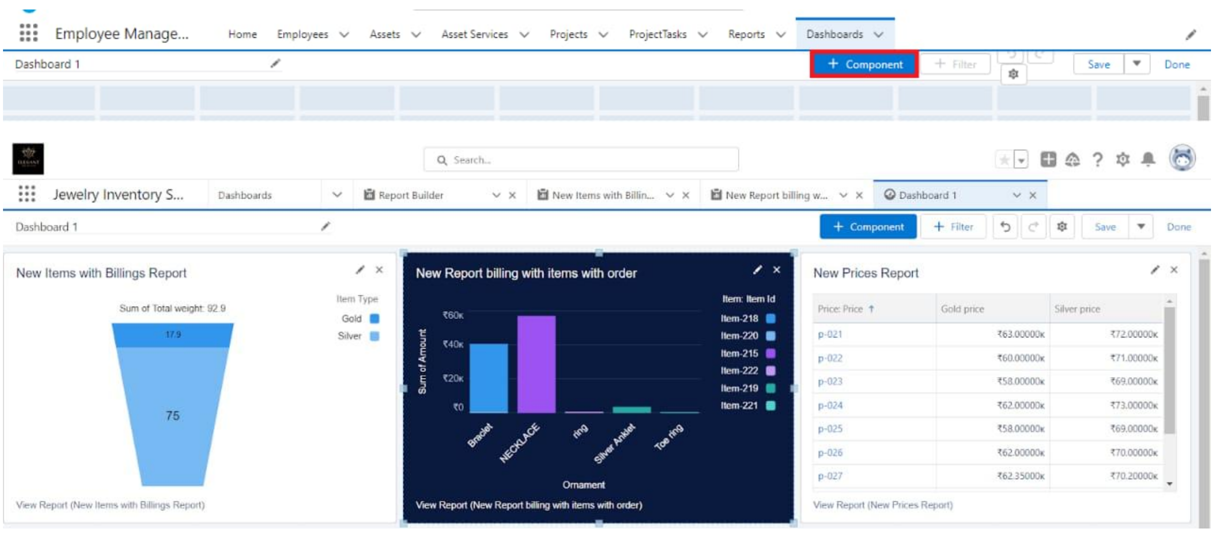
Dashboard 1 Observations

- Data charts load accurately with live updates.
- Bar and funnel charts show correct gold/silver distribution.
- Reports open properly from dashboard links.
- UI performance is stable and responsive.

Objectives:

1. Improve billing and stock accuracy.
2. Simplify order processing.
3. Provide insights for better decision-making.





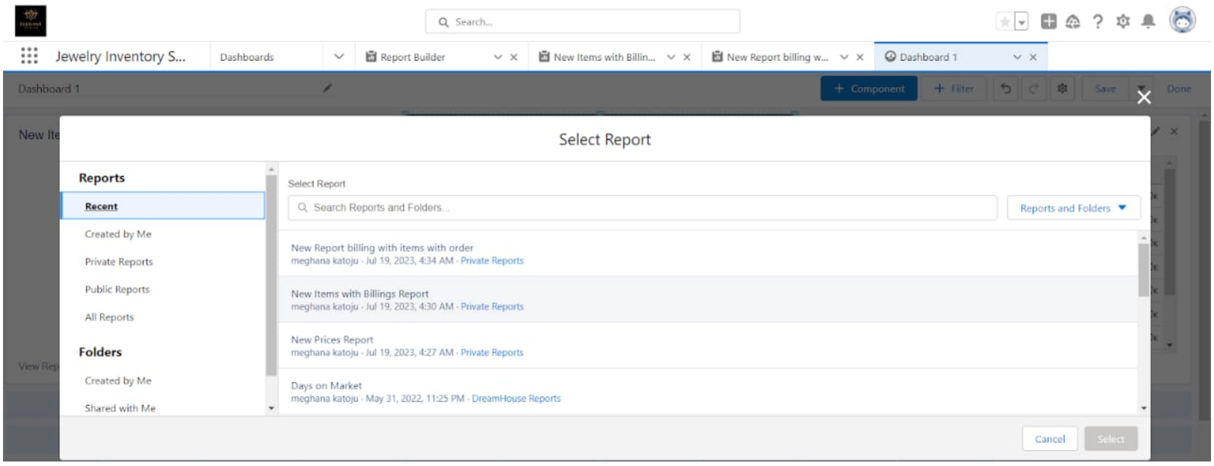
Dashboard 2 Observations

- Billing records show a range of values; one zero entry noted for correction.
- Balanced distribution between gold and silver.
- Some missing price entries identified for review.

Objectives:

1. Track billing for new items.
2. Study order patterns for gold and silver.

3. Monitor jewellery price trends for strategy planning.



8. RESULTS (OUTPUTS)

A. Automated Emails

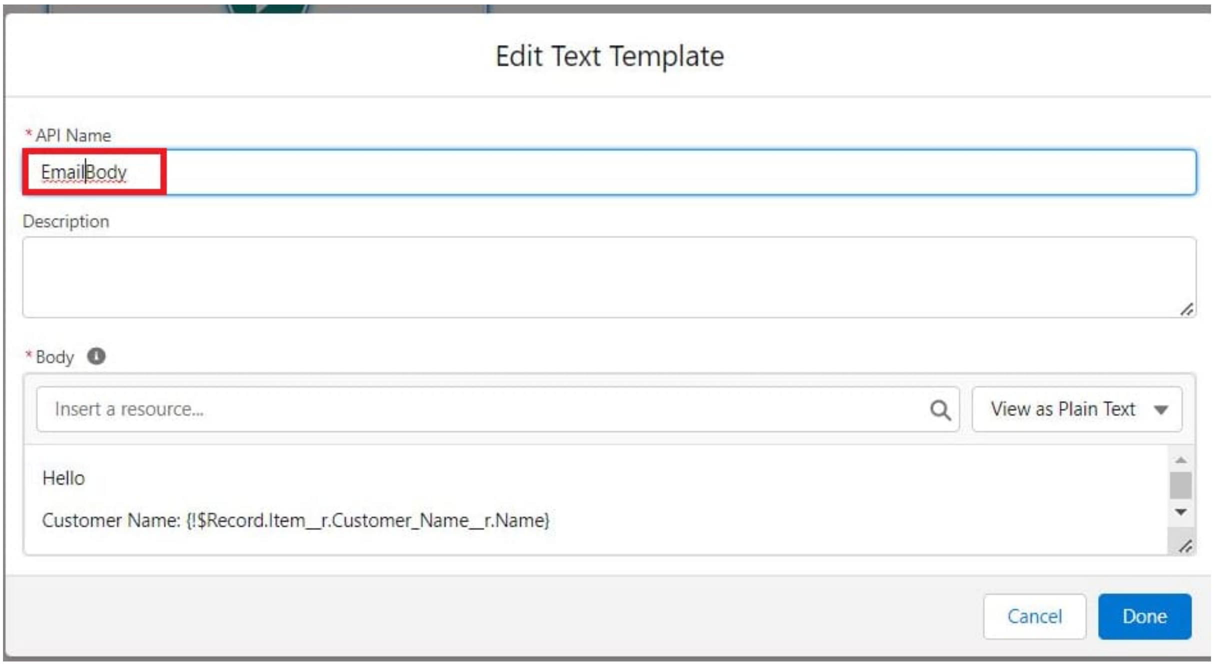
- Alerts for low stock
- Order and invoice notifications
- Purchase confirmation
- Daily sales summary

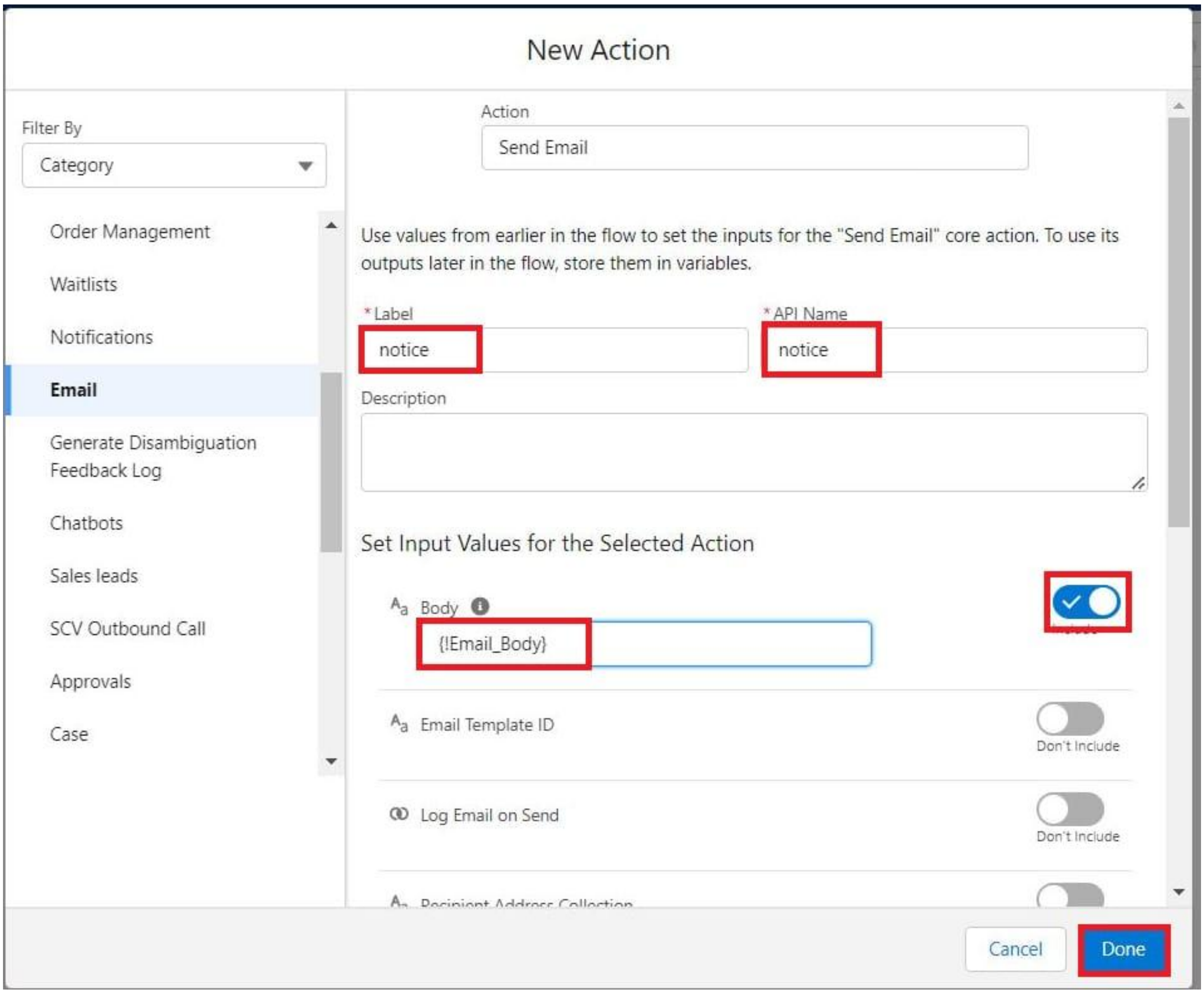
B. Workflows

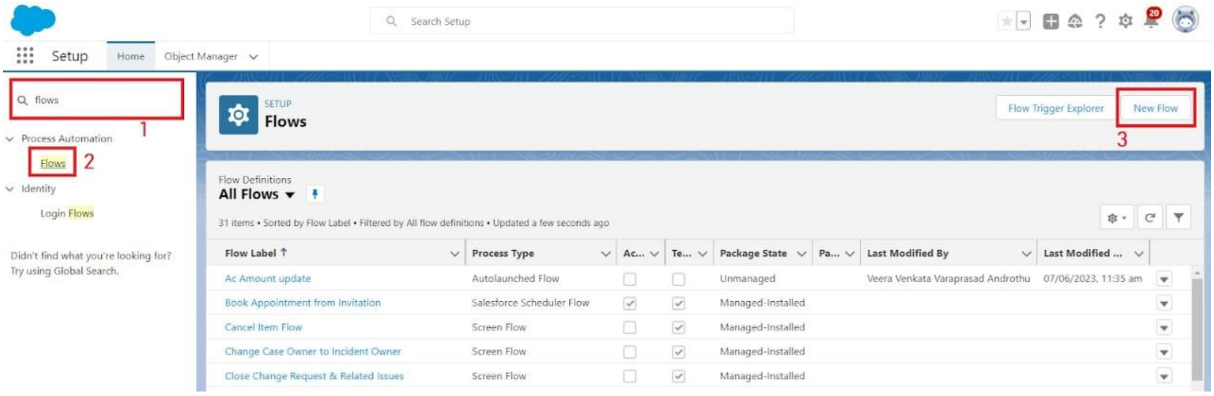
- Automatic stock validation before invoice creation
- Alerts for duplicate entries

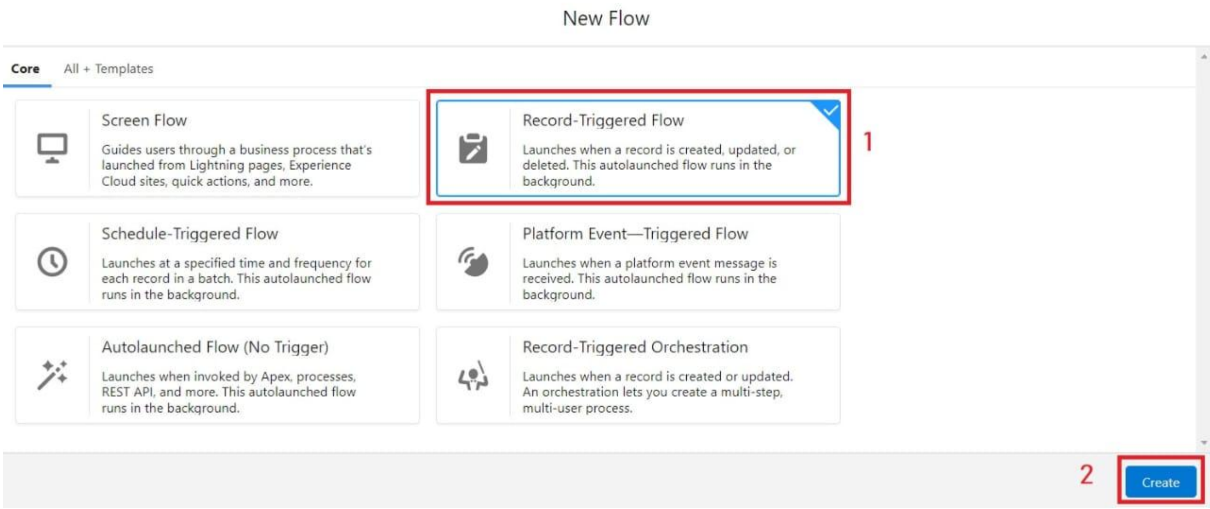
C. Approval Processes

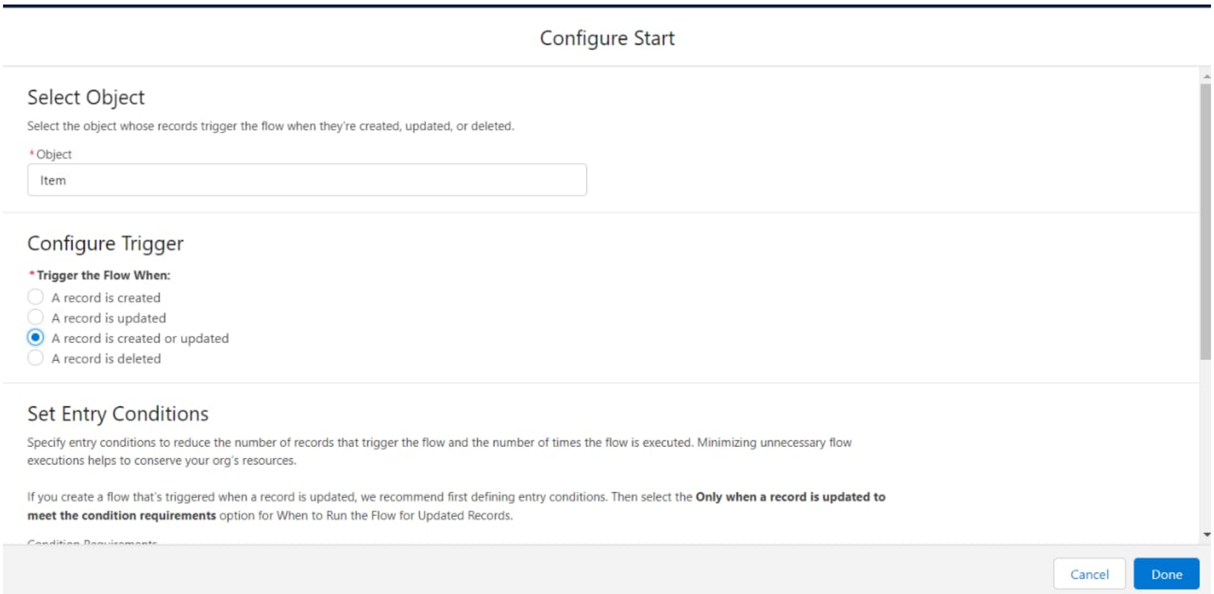
- Approval required for adding new products or restocking.
- Notifications sent via app and email for each decision.

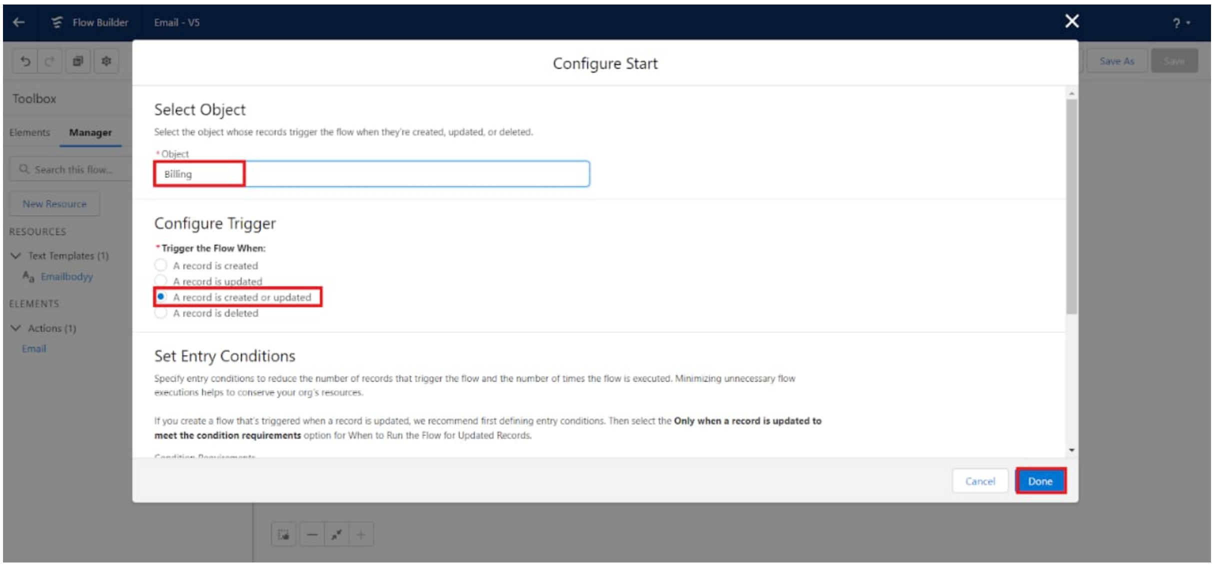

Edit Text Template
* API Name
EmailBody
Description
* Body
Insert a resource...
View as Plain Text
Hello
Customer Name: {!$Record.Item__r.Customer_Name__r.Name}
Cancel
Done

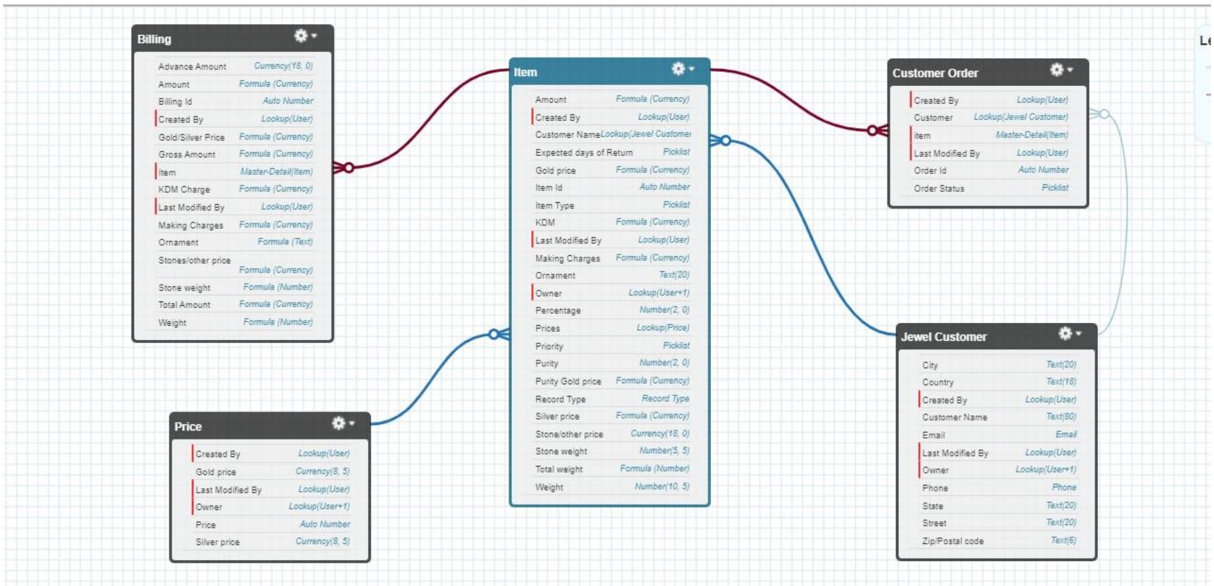

New Action
Filter By
Category
Order Management
Waitlists
Notifications
Email
Generate Disambiguation Feedback Log
Chatbots
Sales leads
SCV Outbound Call
Approvals
Case
Action
Send Email
Use values from earlier in the flow to set the inputs for the "Send Email" core action. To use its outputs later in the flow, store them in variables.
* Label
notice
* API Name
notice
Description
Set Input Values for the Selected Action
Body
{!Email_Body}
Email Template ID
Don't Include
Log Email on Send
Don't Include
Cancel
Done

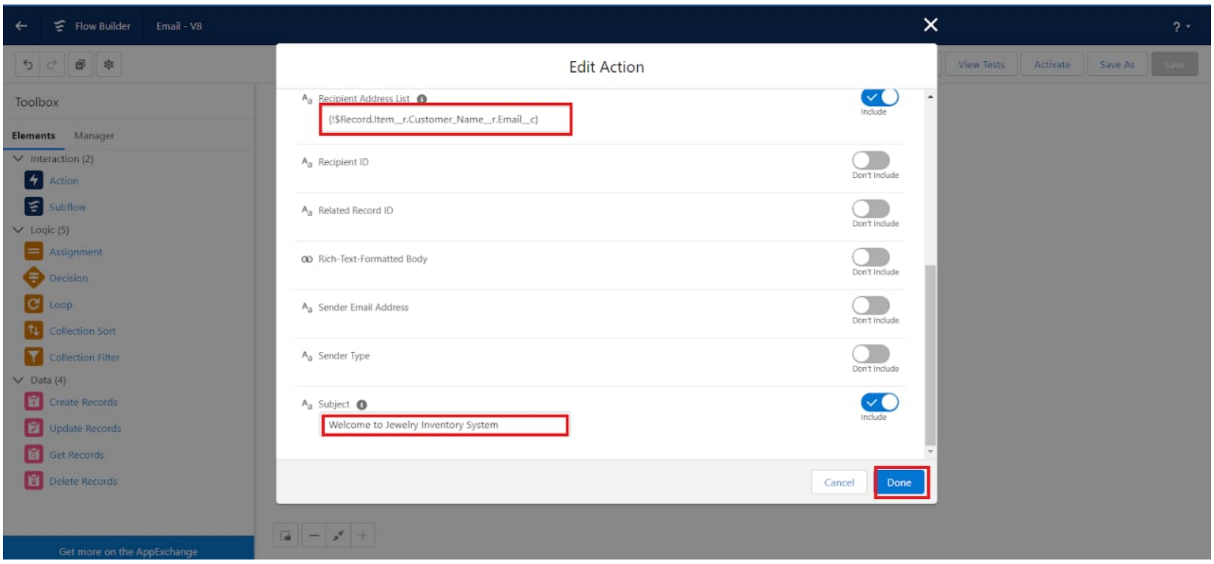

Search Setup
Setup
Home
Object Manager
flows
1
Process Automation
Flows
2
Identity
Login Flows
Didn't find what you're looking for? Try using Global Search.
SETUP
Flows
Flow Trigger Explorer
New Flow
3
Flow Definitions
All Flows
31 items • Sorted by Flow Label • Filtered by All flow definitions • Updated a few seconds ago
Flow Label
Process Type
Ac...
Te...
Package State
Pa...
Last Modified By
Last Modified ...
Ac Amount update
Autolaunched Flow
Unmanaged
Veera Venkata Varaprasad Androthu
07/06/2023, 11:35 am
Book Appointment from Invitation
Salesforce Scheduler Flow
Managed-Installed
Cancel Item Flow
Screen Flow
Managed-Installed
Change Case Owner to Incident Owner
Screen Flow
Managed-Installed
Close Change Request & Related Issues
Screen Flow
Managed-Installed

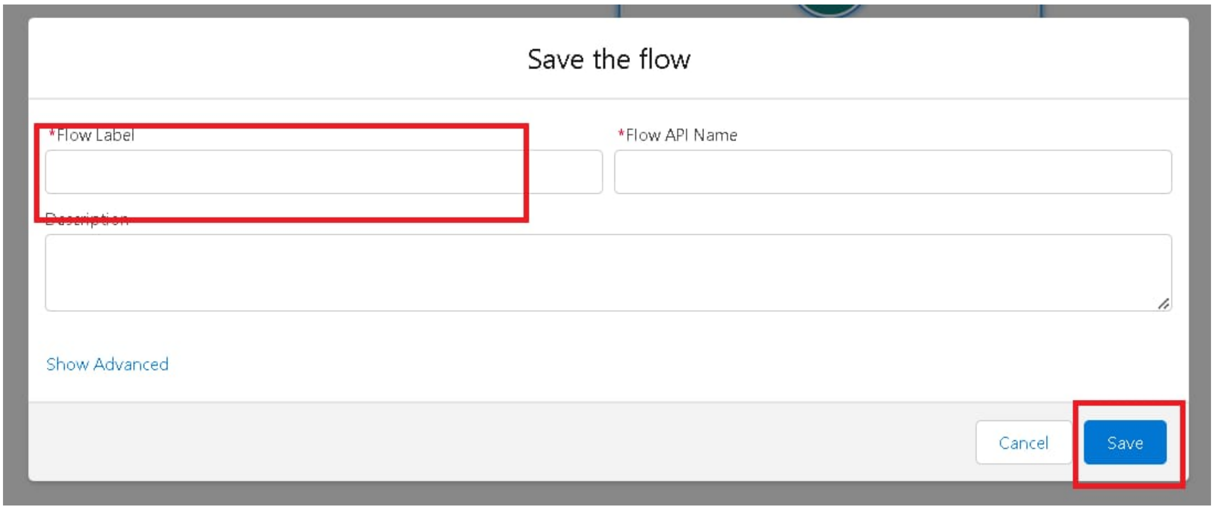

New Flow
Core
All + Templates
Screen Flow
Guides users through a business process that's launched from Lightning pages, Experience Cloud sites, quick actions, and more.
Record-Triggered Flow
Launches when a record is created, updated, or deleted. This autolaunched flow runs in the background.
1
Schedule-Triggered Flow
Launches at a specified time and frequency for each record in a batch. This autolaunched flow runs in the background.
Platform Event—Triggered Flow
Launches when a platform event message is received. This autolaunched flow runs in the background.
Autolaunched Flow (No Trigger)
Launches when invoked by Apex, processes, REST API, and more. This autolaunched flow runs in the background.
Record-Triggered Orchestration
Launches when a record is created or updated. An orchestration lets you create a multi-step, multi-user process.
2
Create

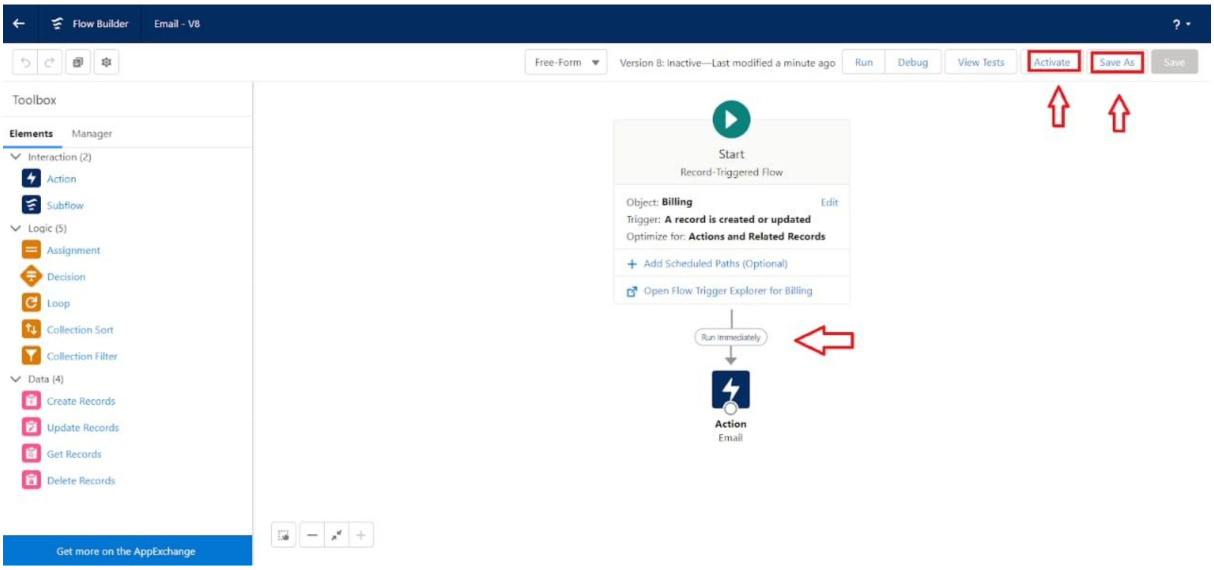

Configure Start
Select Object
Select the object whose records trigger the flow when they're created, updated, or deleted.
*Object
Item
Configure Trigger
*Trigger the Flow When:
A record is created
A record is updated
A record is created or updated
A record is deleted
Set Entry Conditions
Specify entry conditions to reduce the number of records that trigger the flow and the number of times the flow is executed. Minimizing unnecessary flow executions helps to conserve your org's resources.
If you create a flow that's triggered when a record is updated, we recommend first defining entry conditions. Then select the Only when a record is updated to meet the condition requirements option for When to Run the Flow for Updated Records.
Cancel
Done


Flow Builder
Email - V5
Configure Start
Toolbox
Elements
Manager
Save As
Save
Select Object
Select the object whose records trigger the flow when they're created, updated, or deleted.
* Object
Billing
New Resource
RESOURCES
Text Templates (1)
Emailbodyy
ELEMENTS
Actions (1)
Email
Configure Trigger
* Trigger the Flow When:
A record is created
A record is updated
A record is created or updated
A record is deleted
Set Entry Conditions
Specify entry conditions to reduce the number of records that trigger the flow and the number of times the flow is executed. Minimizing unnecessary flow executions helps to conserve your org's resources.
If you create a flow that's triggered when a record is updated, we recommend first defining entry conditions. Then select the Only when a record is updated to meet the condition requirements option for When to Run the Flow for Updated Records.
Cancel
Done


Billing
Advance Amount Currency(18, 0)
Amount Formula (Currency)
Billing Id Auto Number
Created By Lookup(User)
Gold/Silver Price Formula (Currency)
Gross Amount Formula (Currency)
Item Master-Detail(Item)
KDM Charge Formula (Currency)
Last Modified By Lookup(User)
Making Charges Formula (Currency)
Ornament Formula (Text)
Stones/other price Formula (Currency)
Stone weight Formula (Number)
Total Amount Formula (Currency)
Weight Formula (Number)
Item
Amount Formula (Currency)
Created By Lookup(User)
Customer Name Lookup(Jewel Customer)
Expected days of Return Picklist
Gold price Formula (Currency)
Item Id Auto Number
Item Type Picklist
KDM Formula (Currency)
Last Modified By Lookup(User)
Making Charges Formula (Currency)
Ornament Text(20)
Owner Lookup(User+1)
Percentage Number(2, 0)
Prices Lookup(Price)
Priority Picklist
Purity Number(2, 0)
Purity Gold price Formula (Currency)
Record Type Record Type
Silver price Formula (Currency)
Stone/other price Currency(18, 0)
Stone weight Number(5, 5)
Total weight Formula (Number)
Weight Number(10, 5)
Customer Order
Created By Lookup(User)
Customer Lookup(Jewel Customer)
Item Master-Detail(Item)
Last Modified By Lookup(User)
Order Id Auto Number
Order Status Picklist
Price
Created By Lookup(User)
Gold price Currency(8, 5)
Last Modified By Lookup(User)
Owner Lookup(User+1)
Price Auto Number
Silver price Currency(8, 5)
Jewel Customer
City Text(20)
Country Text(18)
Created By Lookup(User)
Customer Name Text(80)
Email Email
Last Modified By Lookup(User)
Owner Lookup(User+1)
Phone Phone
State Text(20)
Street Text(20)
Zip/Postal code Text(6)


Flow Builder
Email - V8
Edit Action
Toolbox
Elements
Manager
View Tests
Activate
Save As
Save
Interaction (2)
Action
Subflow
Logic (5)
Assignment
Decision
Loop
Collection Sort
Collection Filter
Data (4)
Create Records
Update Records
Get Records
Delete Records
Get more on the AppExchange
Recipient Address List
{!$Record.Item__r.Customer_Name__r.Email__c}
Include
Recipient ID
Don't Include
Related Record ID
Don't Include
Rich-Text-Formatted Body
Don't Include
Sender Email Address
Don't Include
Sender Type
Don't Include
Subject
Welcome to Jewelry Inventory System
Include
Cancel
Done





9. ADVANTAGES AND DISADVANTAGES

Advantages

- Automation saves time and reduces errors.
- All data is centralized in Salesforce.
- Dashboards give real-time insights.
- Modern and easy-to-use Lightning interface.
- System can grow with business needs.
- Improves customer satisfaction.

Disadvantages

- New users may need training.
- Some advanced logic requires Apex coding.
- Higher cost for enterprise-level scaling.
- Admin roles must be managed carefully for data safety.

10. CONCLUSION

To conclude, the **Salesforce Jewellery Management CRM** brings a complete digital solution to traditional jewellery shops. It automates sales, billing, and stock updates, while dashboards give instant visibility into performance. Using Salesforce's low-code tools like Flow and Lightning App Builder, this project shows how small businesses can build smart, scalable systems that support long-term growth.

11.FUTURE SCOPE

Future enhancements can make the system even more powerful:

- **Payment Integration:** Connect with Razorpay or PayPal for online payments.
- **SMS/WhatsApp Alerts:** Send real-time updates through Twilio or similar services.
- **Mobile App:** Use Salesforce Mobile SDK for on-the-go access.

- **Barcode Scanning:** Speed up billing and item identification.
- **AI Suggestions:** Use Salesforce Einstein for personalized customer recommendations.
- **Accounting Integration:** Sync data with tools like QuickBooks or Tally.
- **Multi-Store Support:** Manage several branches with a shared dashboard.
- **Customer Feedback Module:** Collect and analyze customer reviews to improve services.