CRM APPLICATION FOR JEWEL MANAGEMENT

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TEAM SIZE : 4

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1.INTRODUCTION

1.1 Project Overview:

This project involves the development of a CRM based Jewel Management System using Salesforce. It streamlines operations like inventory tracking, price updates, billing, and customer management for a jewellery business. The project leverages Salesforce Lightning Platform to design custom objects, automate processes using Flows, and generate actionable insights via dashboards and reports.

1.2 Purpose:

The purpose is to replace manual processes with an automated, cloud-based Salesforce CRM that enables real-time stock updates, dynamic pricing, customer billing, and order tracking. The system enhances customer experience, operational accuracy, and business decision-making.

The purpose of this project is to design and implement a Salesforce-based CRM solution specifically for jewel businesses to:

- Centralize customer information and communication.
- Track and manage jewellery inventory (gold and silver).
- Enable personalized marketing and offers.
- Facilitate efficient order processing and billing.
- Improve customer retention through engagement automation.
- Generate detailed reports on sales, trends, and staff performance.

PHASE 1 : IDEATION PHASE:

1.1 Problem Statement:

Traditional jewellery shops face problems like manual stock maintenance, lack of customer records, and inefficiencies in pricing and billing. There's also no integrated view of customer interactions. This leads to errors, delayed decision-making, and customer dissatisfaction.

Many small to mid-sized jewellery retailers struggle with managing customer relationships, tracking sales, handling special orders, and maintaining inventory. Current manual systems or generic software often fall short of addressing the industry's unique needs.

1.2 Objectives:

✓ **Customer Data Management:** To maintain a centralized database of customer profiles, including personal details, purchase history, and preferences, to enable personalized services.

✓ **Sales Tracking and Lead Management**: To automate the process of capturing leads, tracking sales activities, and converting potential customers into loyal buyers through Salesforce tools.

✓ **Product and Inventory Management** To manage detailed information about jewelry products, including type, purity, weight, price, and stock availability, ensuring transparency and control.

✓ **Billing and Order Processing**: To simplify the billing process by automating invoice generation, payment tracking, and sales reporting for each transaction.

1.3 Ideas collected during brainstorming:

- Use of custom objects for Items, Billing, Orders, and Customers.
- Automate stock management with flows.
- Dashboard for daily performance insights.
- Notifications for low inventory.
- Implement record-triggered and scheduled flows.
- Introduce validation rules to prevent data inconsistencies.
- Plan separate dashboards for different roles (sales, inventory, admin).

PHASE 2 : REQUIREMENT ANALYSIS:

2.1. Functional and Non-Functional Requirements:

2.1.1 Functional Requirements

1**. Customer Data Management:**

* Maintain a centralized database of customer details (name, contact, preferences, purchase history).
* Enable segmentation of customers based on purchase behavior and preferences.
* Provide personalized recommendations and follow-ups.

2. Lead and Sales Management:

* Capture and track leads from various sources (walk-ins, website, referrals, events).
* Automate lead scoring, assignment, and conversion workflows.
* Track each stage of the sales pipeline (lead → opportunity → quotation → order → invoice).

3. Product and Inventory Management:

* Store detailed jewelry product information (type, metal, purity, weight, design, price).
* Track stock availability and automatically update inventory after each sale.
* Enable real-time synchronization between sales and inventory records.

4. **Billing and Order Processing:**

* Automate invoice generation after sales confirmation.
* Track payments and update customer records accordingly.
* Generate daily, weekly, and monthly sales reports for performance analysis.

5. **User Management and Access Control:**

* Define roles for sales executives, inventory managers, finance officers, and administrators.
* Restrict access to sensitive data based on user roles and responsibilities.

2.1.2 Non-Functional Requirements:

*Performance: The system should handle concurrent users efficiently with minimal latency.

* **Scalability**: The system must support the addition of new products, users, and stores without performance degradation.

* **Security**: Customer and payment data must be encrypted and protected according to Salesforce security standards.

* **Usability**: The interface must be intuitive and easily navigable for users with minimal training.

* **Reliability**: The system should maintain 99.9% uptime and ensure data integrity during transactions.

* **Maintainability**: System configurations and workflows should be easily updatable through Salesforce's declarative tools.

2.2. Object Relationships, Automations, and User Roles

Object Relationships

* Customer → Lead → Opportunity → Order → Invoice

* Product → Inventory → Order Line Items → Invoice

* User (Sales Rep / Manager) → Assigned Leads, Opportunities, and Orders

Automations

*Lead Assignment Rule: Automatically assigns leads to sales reps based on location or product interest.

* **Workflow Rules**: Trigger follow-up emails and reminders for pending opportunities.

* **Inventory Update**: Automatically reduce stock quantity upon successful order completion.

*Approval Process: Approval workflow for discount or high-value jewelry orders.

* **Reports and Dashboards**: Auto-refresh daily to show key KPIs (sales, top products, customer growth).

<u>User Roles</u>

* **Admin**: Full control over all modules and system settings.

* **Sales Executive**: Access to leads, opportunities, and customer profiles.

* **Inventory Manager**: Manage product catalog and update stock details.

2.3. Documentation and Traceability

* All requirements are documented in a **Requirement Traceability Matrix (RTM)** linking each functional requirement to corresponding design components, workflows, and test cases.

* Salesforce objects, fields, and flows are mapped to business requirements for traceability throughout the project lifecycle.

* Any changes in scope or configuration are version-controlled and reviewed during sprint retrospectives.

2.4. Dependencies and System Constraints

Dependencies:

* Integration with external payment gateways (e.g., Razorpay, PayPal).

* Access to product catalog and pricing database.

* Stable internet connection for Salesforce access.

* User licenses and appropriate Salesforce editions (Sales Cloud, Service Cloud).

System Constraints:

* Limited customization within certain Salesforce managed packages.

* Data storage limits depending on Salesforce edition.

* System performance depends on Salesforce API call limits and governor limits.

PHASE 3: PROJECT DESIGN

3.1 Problem Solution Fit:

Problem: Manual processes and lack of centralized tracking

Solution: Salesforce CRM system automating every major jewelry workflow

3.2 Proposed Solution:

Five major custom objects:Item__c,Price__c,Jewel_Customer__c, Customer_Order__c, Billing__c

- Lightning app with navigation tabs
- Automated flows for inventory, billing, and notifications

3.3 Solution Architecture:

Objects and Relationships:

- Jewel_Customer__c ↔ Customer_Order__c ↔ Billing__c ↔ Item__c ↔ Price__c
- Lookup and Master-Detail fields used to link records
- Formula fields for auto-calculations (e.g., total billing amount)
- Validation rules for quantity and price limits
- Record Types to distinguish Gold, Silver, and Diamond workflows

3.4 Key Design Components:

- **Entity-Relationship (ER) Design:**
  All major entities—**Customer, Lead, Opportunity, Product, Order, Invoice, and Inventory**—are defined with clear relationships. The design ensures seamless data flow from lead capture to final billing.
- Modular Architecture
- Workflow and Automation Design
- Security and Access Design

3.5 User Experience (UX) Considerations

- Intuitive Navigation
- Responsive Design
- Responsive Design
- Visual Dashboards

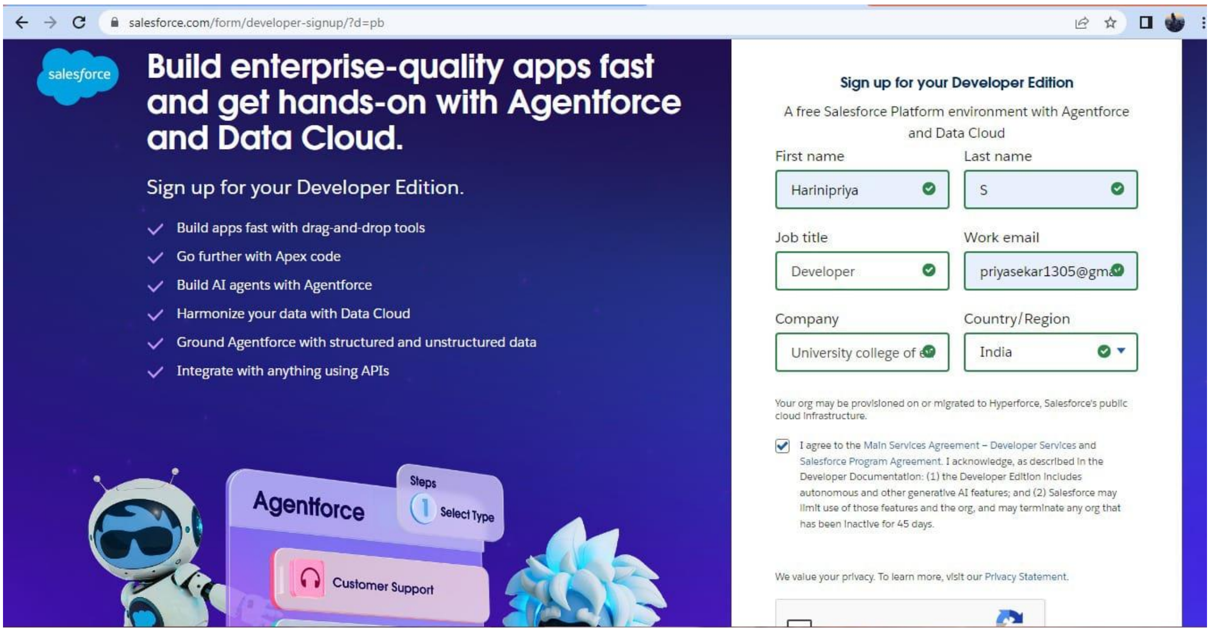
PHASE 4: PROJECT DEVELOPMENT - SALESFORCE GUIDED PROJECT

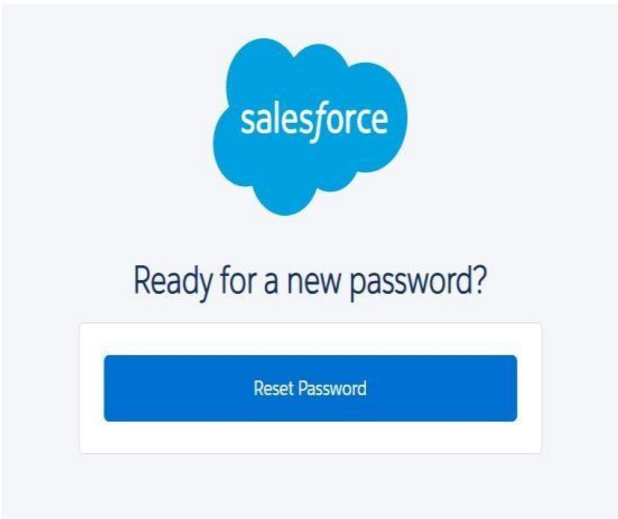
The development phase is the backbone of the CRM application, where core functionalities were implemented using Salesforce's declarative tools and programmatic capabilities. This phase was conducted in iterative sprints, following Agile methodology, and broken into several key activities.

4.1 Developer Environment Setup:

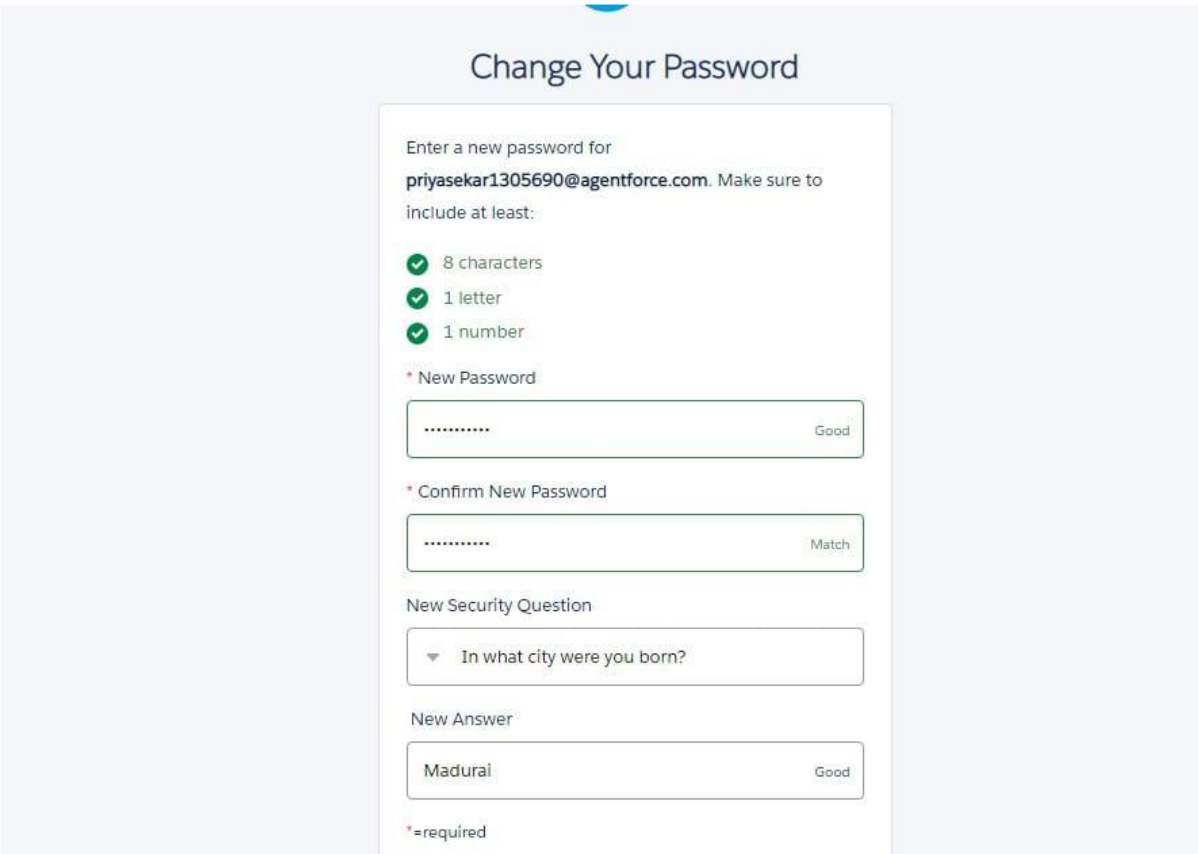
- Create Salesforce Developer Org via developer.salesforce.com/signup

Fill the required information, verify email, set password, and access Salesforce Setup.





Account Activation:



4.2 Custom Object Creation:

We create five main custom objects for

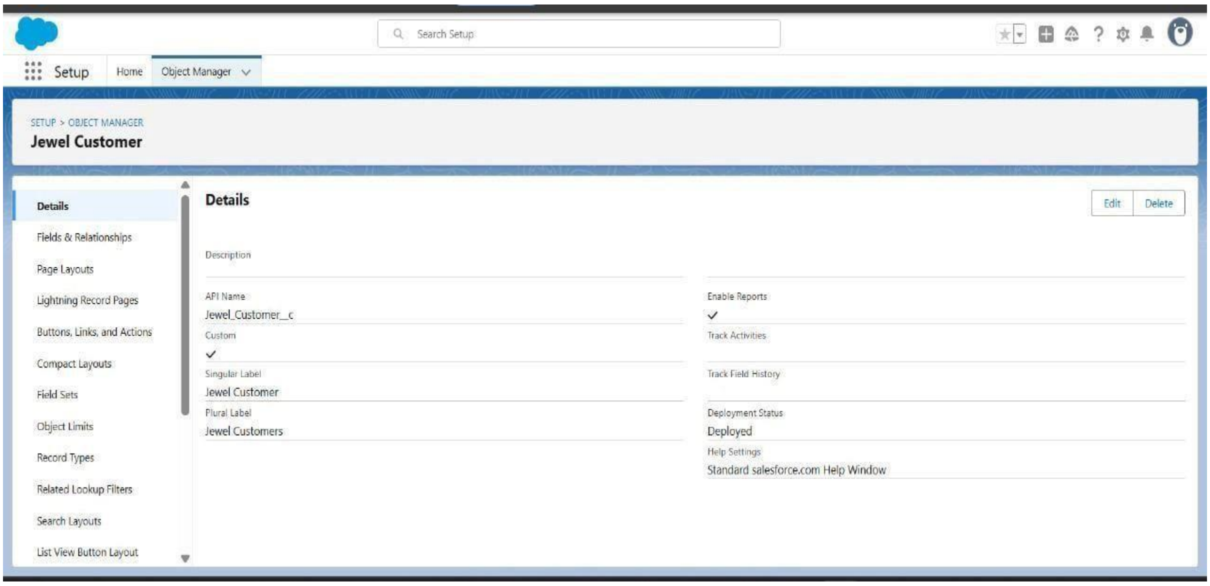
- Jewel Customer
- Item,
- Customer Order,
- Price,
- Billing.

From the setup page >> Click on Object Manager >> Click on Create >> Click on Custom Object.

1. Enter the label name: Jewel Customer
2. Plural label name: Jewel Customers
3. Enter Record Name Label and Format

* Record Name >> Customer name
* Data Type >> Text

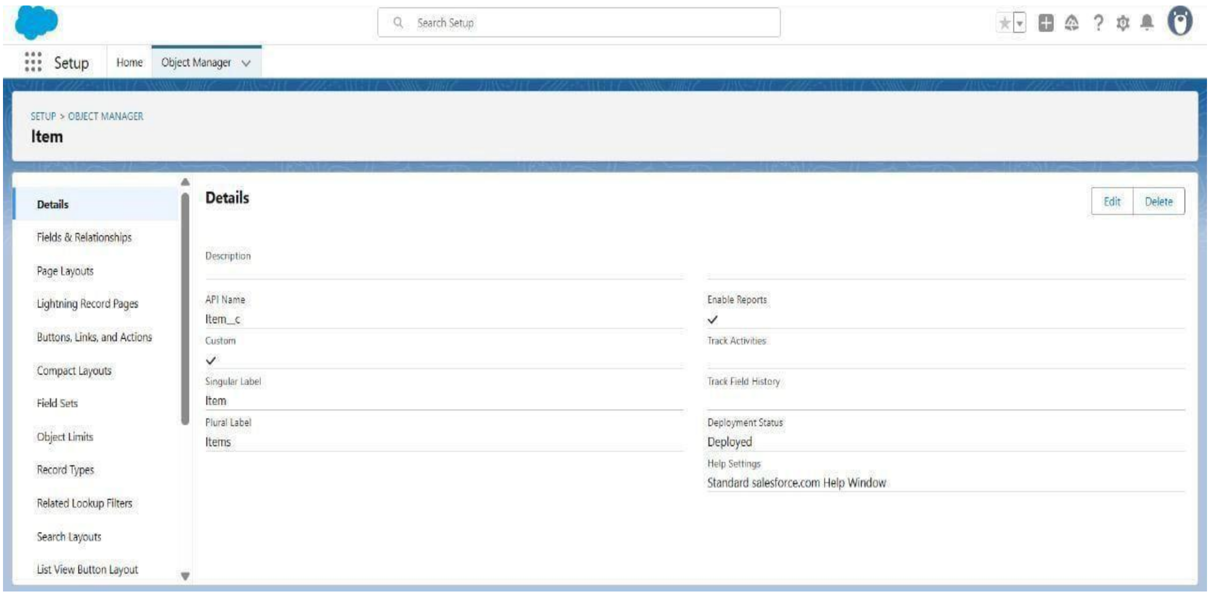
1.Jewel Customer



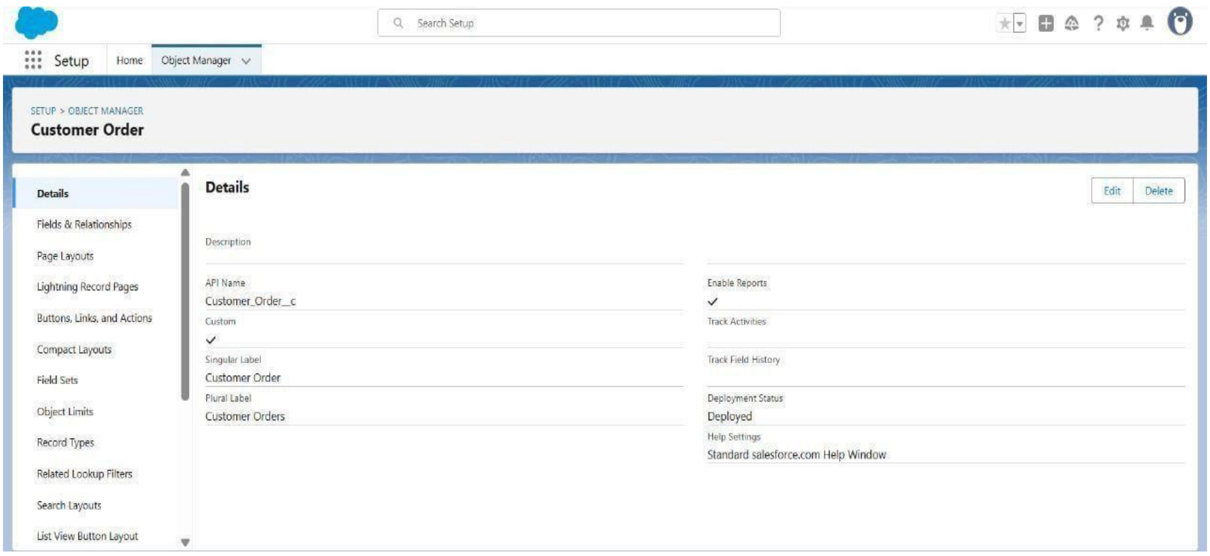
Activity 2: Create Item Object

1. From the setup page >>Click on Object Manager >> Click on Create >> Click on Custom Object.
1. Enter the label name >> Item
2. Plural label name >> Items
3. Enter Record Name Label and Format
* Record Name >> Item Id
* Data Type >> Auto Number
* Display Format >> Item- {00}
* Starting Number >> 1
2. Click on Allow reports.
3. Allow search >> Save.
Note: Create 3 more objects with label names as Customer order, Price, Billing

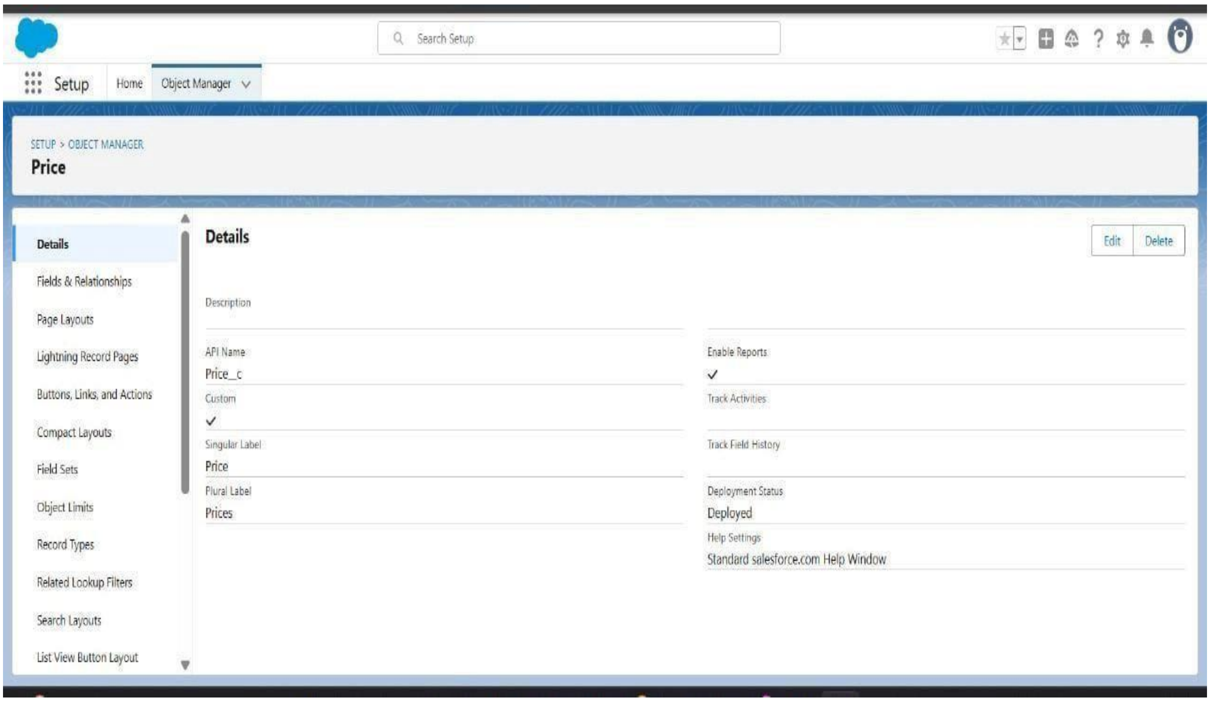
2.Item



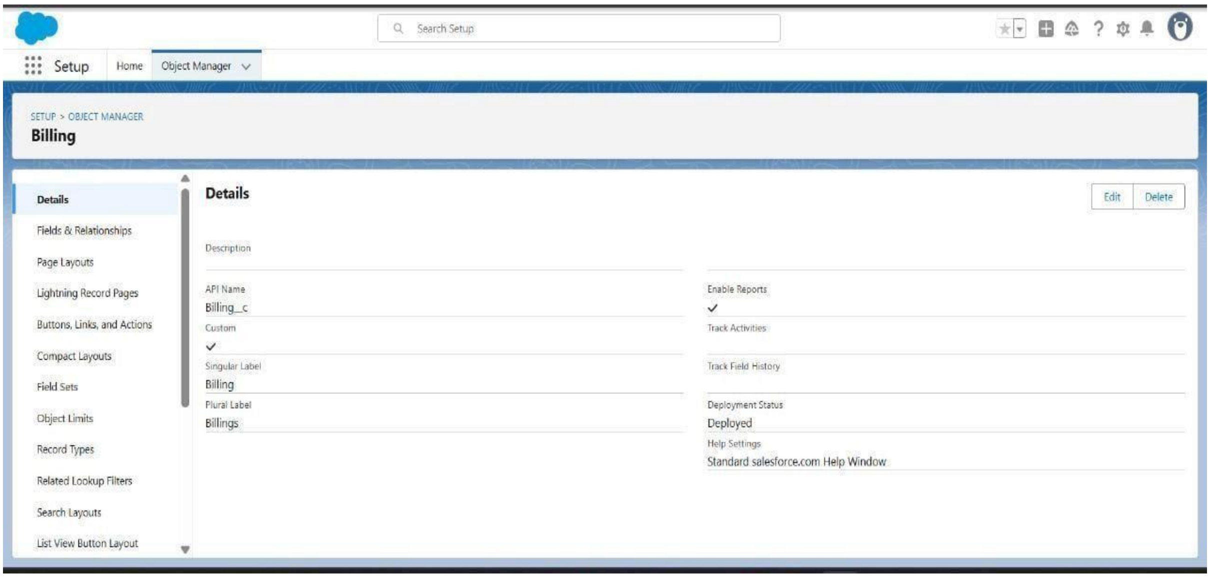
3.Customer Order



4.Price



5.Billing



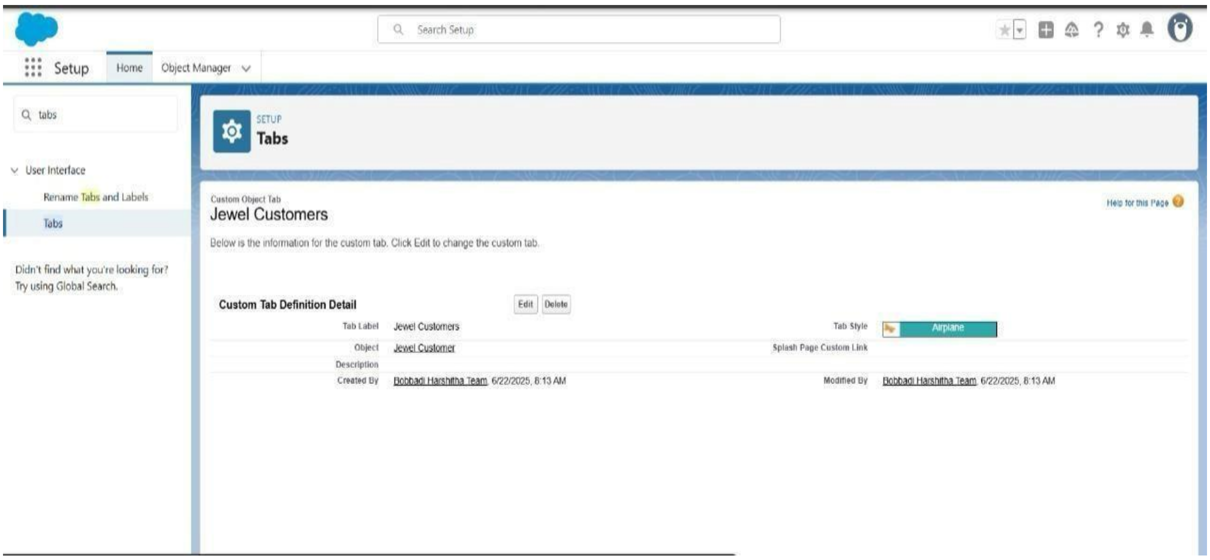
4.3 Creation of Tabs

We create five main custom tabs for Jewel Customer, Item, Customer Order, Price, Billing.

Activity 1: Creating a Custom Tab

1. Go to setup page >> type Tabs in Quick Find bar >> click on tabs >> New (under custom object tab).
2. Select Object (Jewel Customer) >> Select any tab style >> Next (Add to profiles page) keep it as default >> Next (Add to Custom App) keep it as default >> Save.

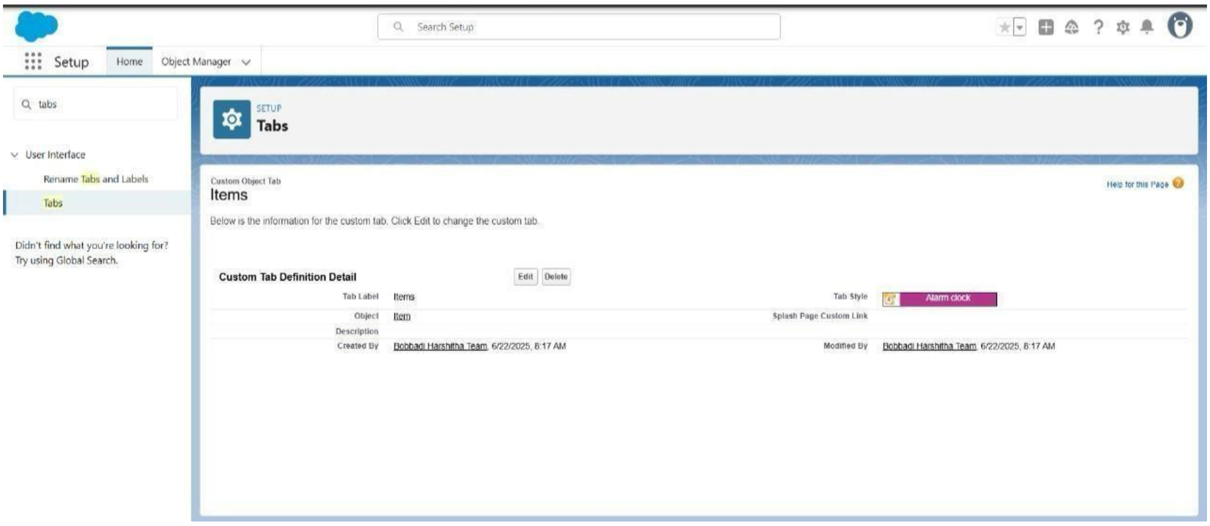
Jewel Customer



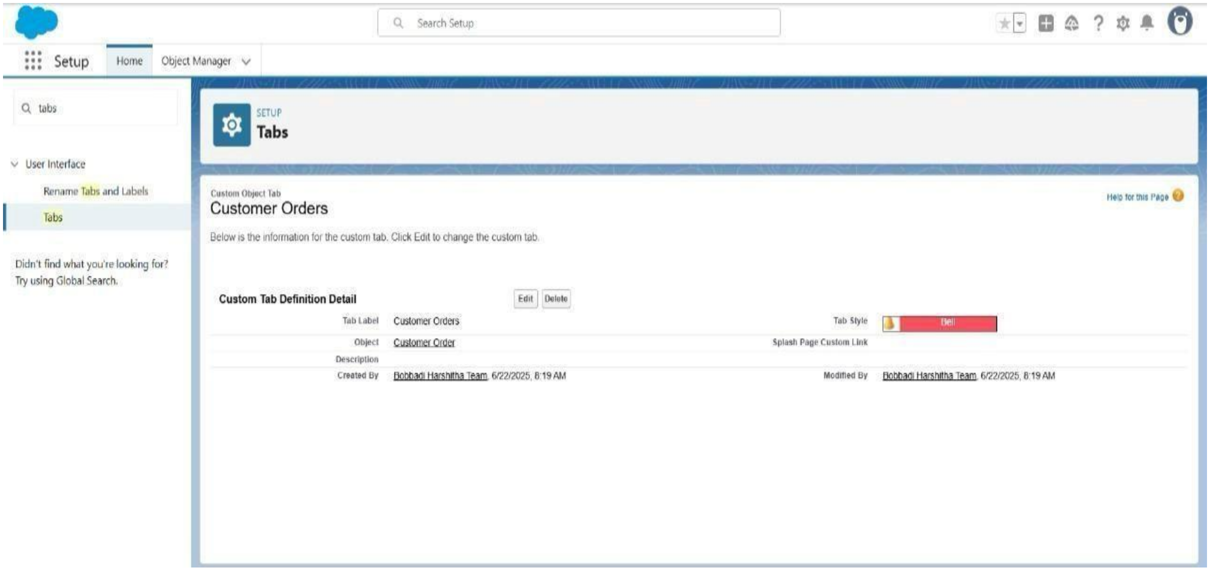
Activity 2: To Create a Tab (Item, Customer Order, Price, Billing)

1. Go to setup page >> type Tabs in Quick Find bar >> click on tabs >> New (under custom object tab)
2. Select Object (Item) >> Select the tab style >> Next (Add to profiles page) keep it as default >> Next (Add to Custom App) keep it as default >> Save.

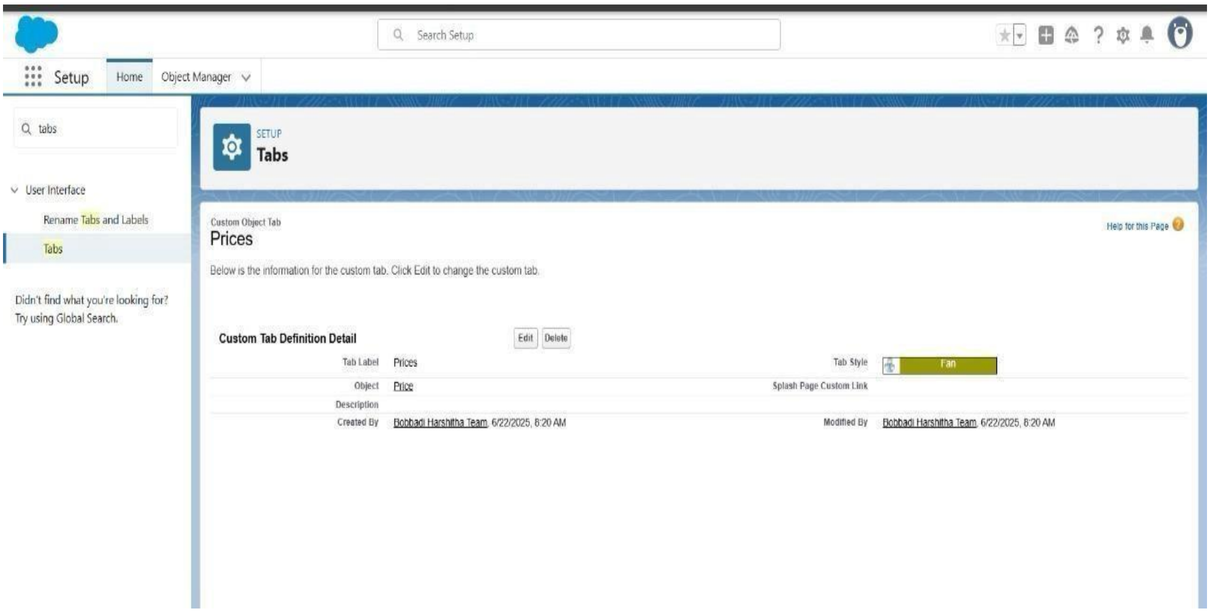
2.Item



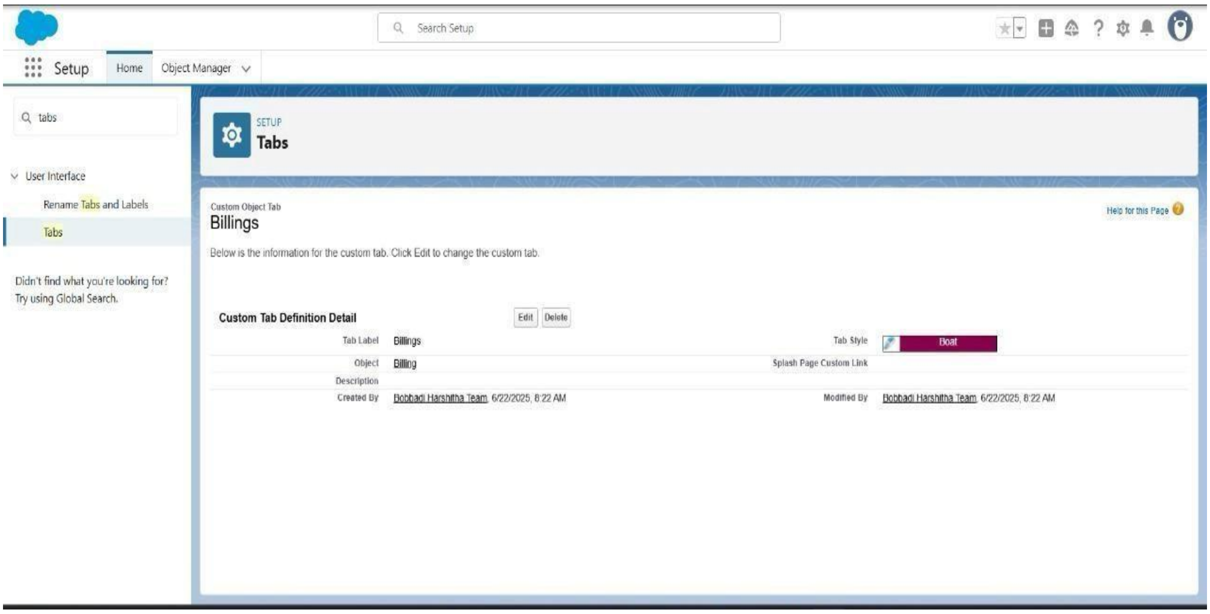
3.Customer Order



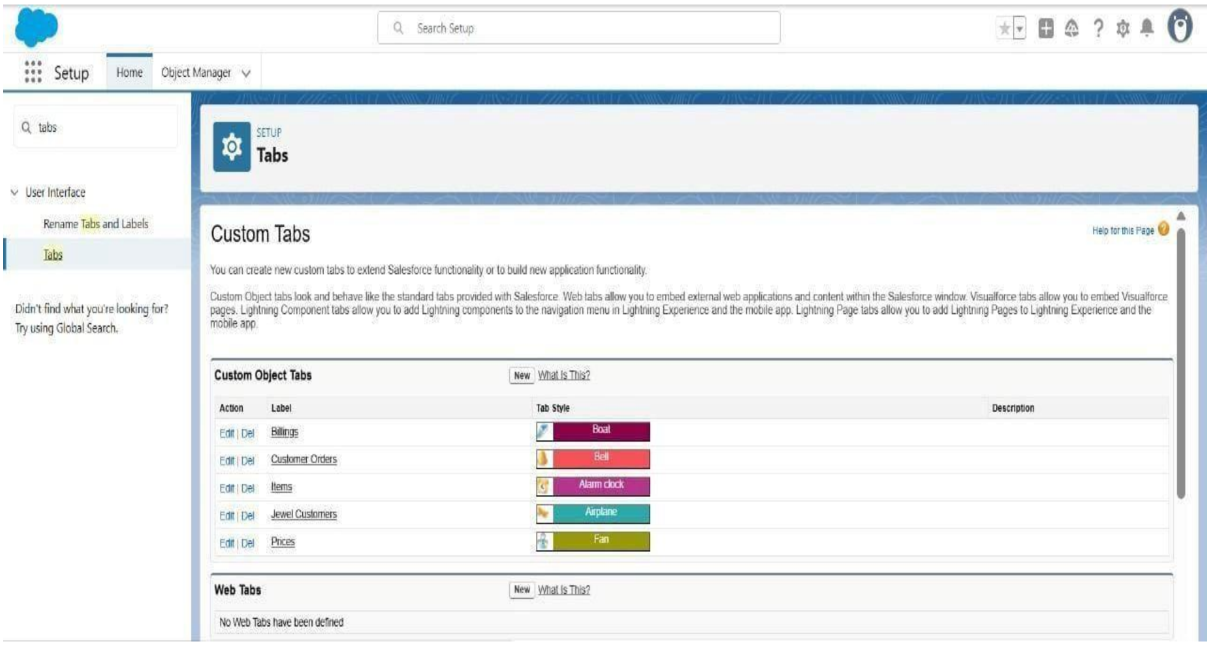
4.Price



5.Billing



So we get the required all custom tabs as below



4.4 Creation of Lightning App

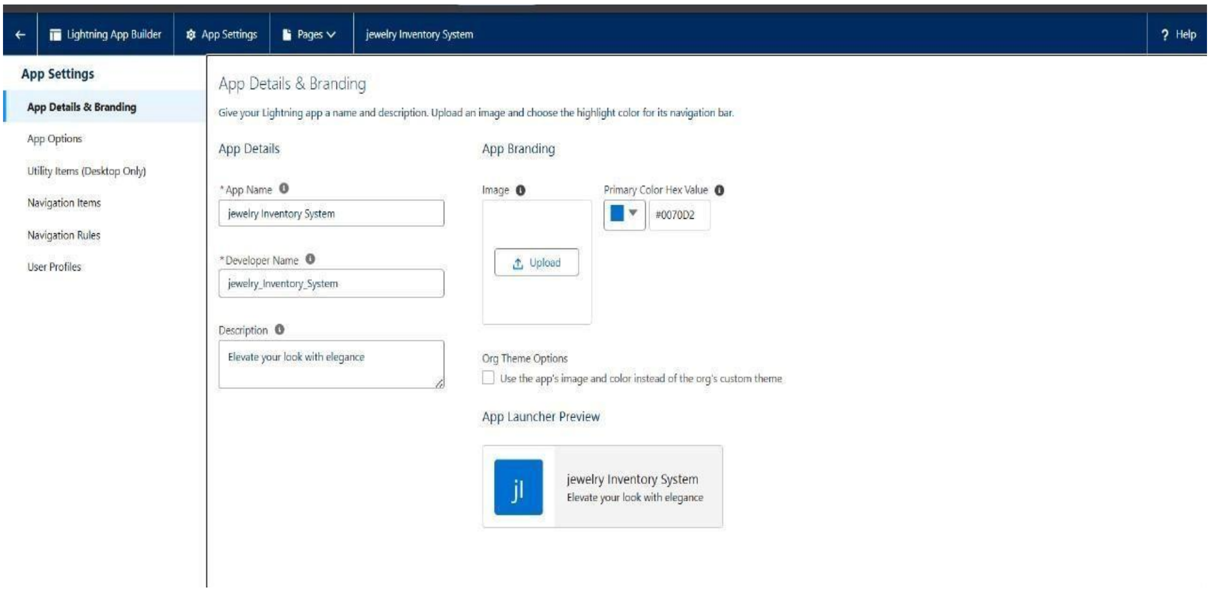
Activity 1: Create A Lightning App

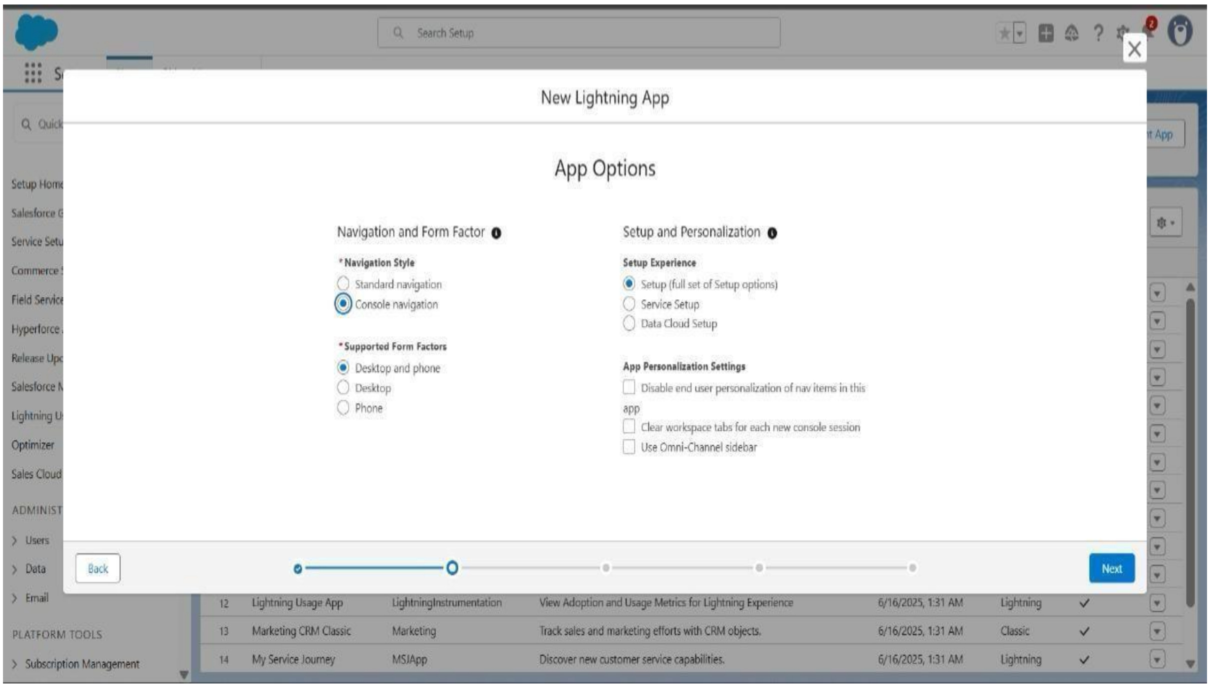
1. Go to setup page >> search "app manager" in quick find >> select "app manager" >>
2. Click on New lightning App.
3. Fill the app name in app details and branding as follow:

App Name: Jewellery Inventory System.

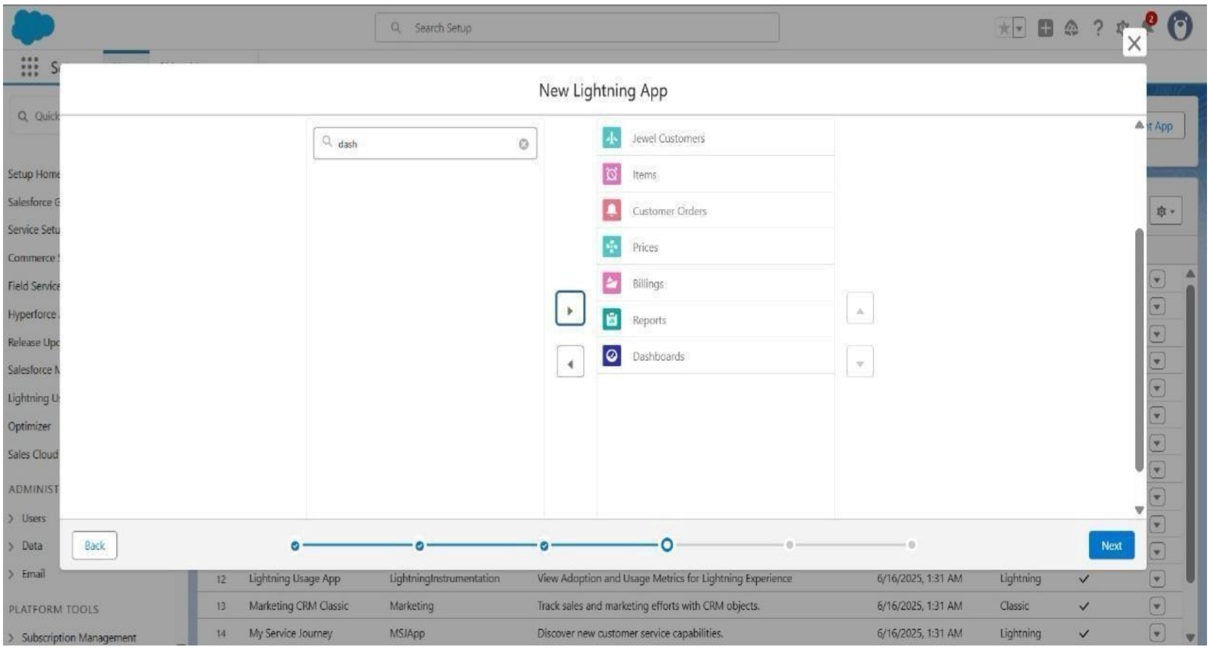
Developer Name: This will auto populated

Description: Elevate your look with elegance





Navigation Items



4.5 Creation of Fields

1.Creating lookup relationship

Activity 1: Creating Lookup Relationship

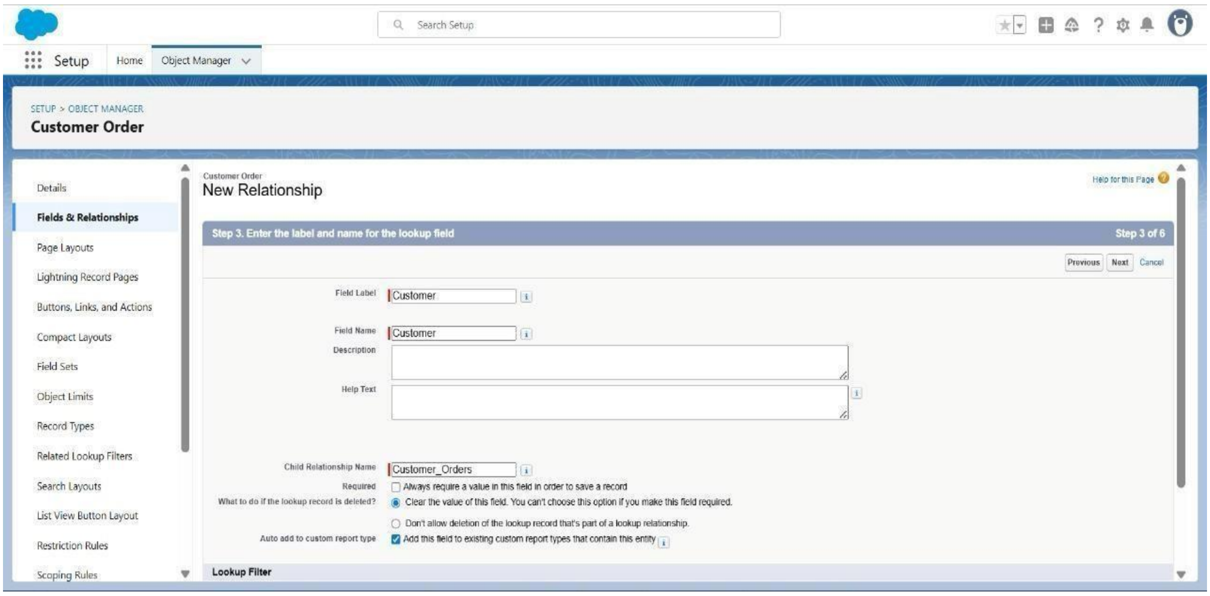
1. Go to the setup page >> click on object manager >> type object name (Customer Order) in the quick find bar >> click on the object.

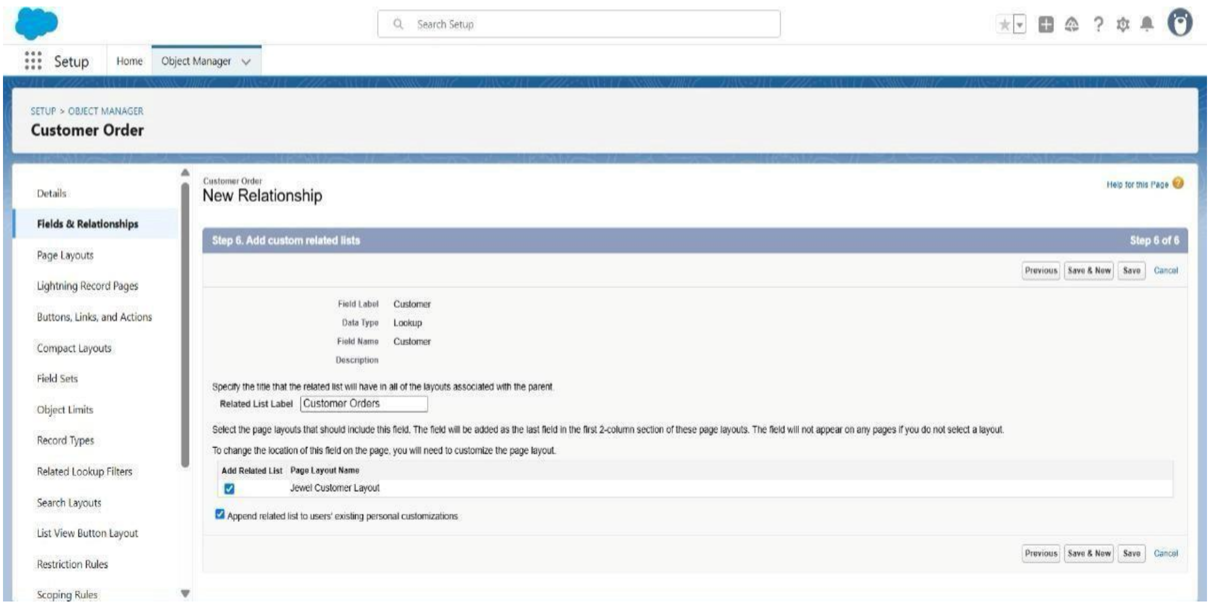
2. Click on fields & relationship >> click on New.

3. Select “Lookup relationship” as data type and click Next.

4. Select the related object “ Jewel Customer ”

5. Give Field Label as “Customer” and click Next >> Next >> Next >> Save.



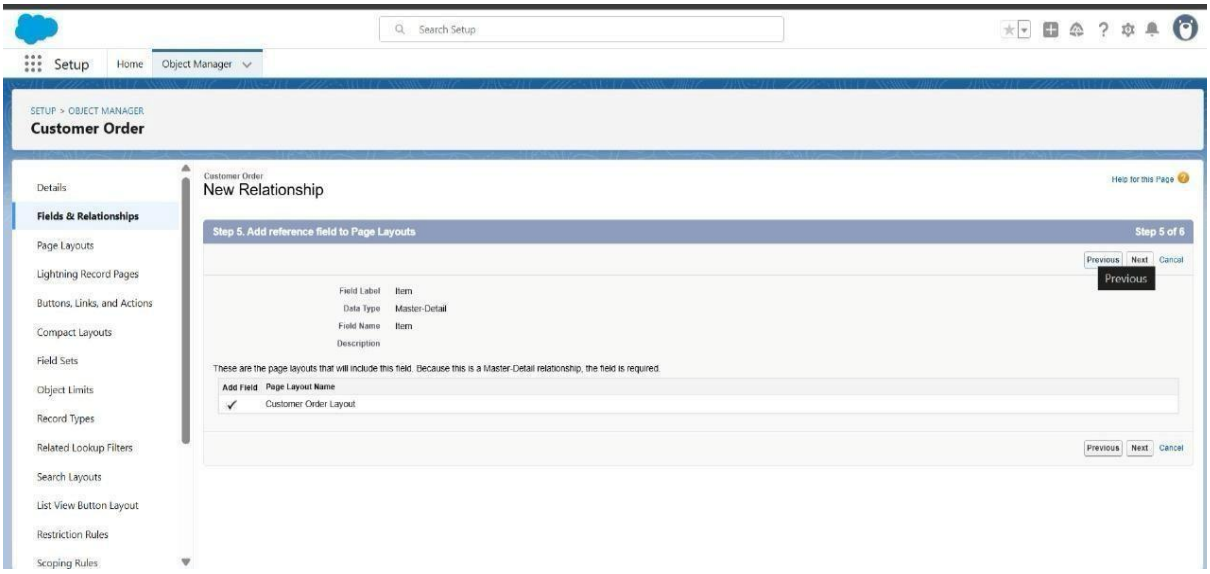


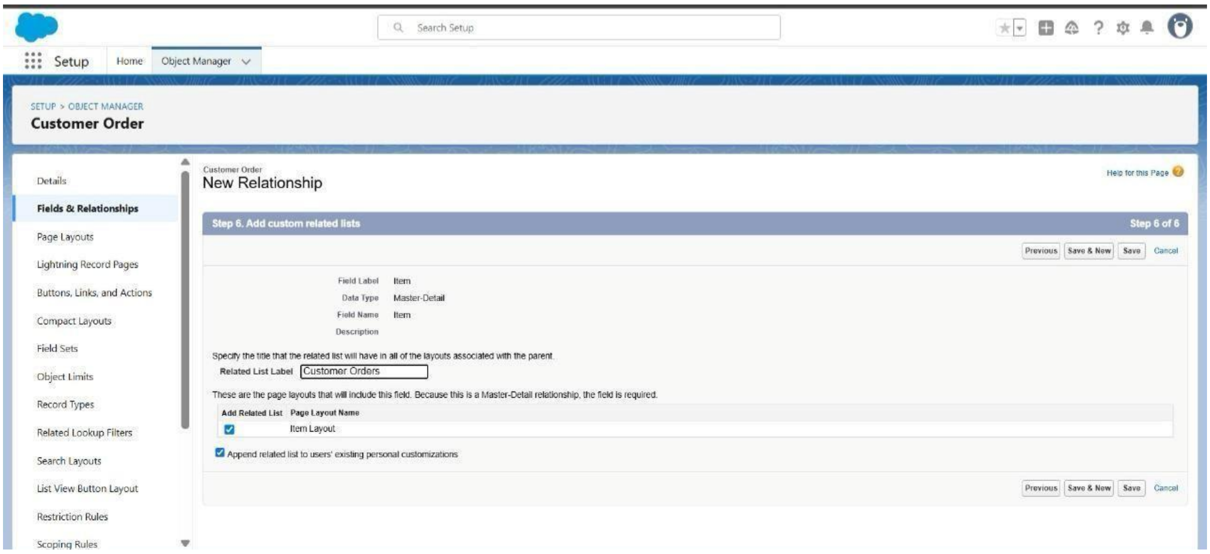
2. Creating a Master-Detail Relationship

Creating Master-Detail Relationship between Item & Customer Order Object.

Activity 2: Creating a Master-Detail Relationship

1. Go to the setup page >> click on object manager >> type object name (Customer Order) in the quick find bar >>
2. Click on fields & relationships >> click on New.
3. Select “Master-Detail relationship” as data type and click Next.
4. Select the related object “Item”
5. Give Field Label as “Item” and click Next >> Next >> Next >> Save.





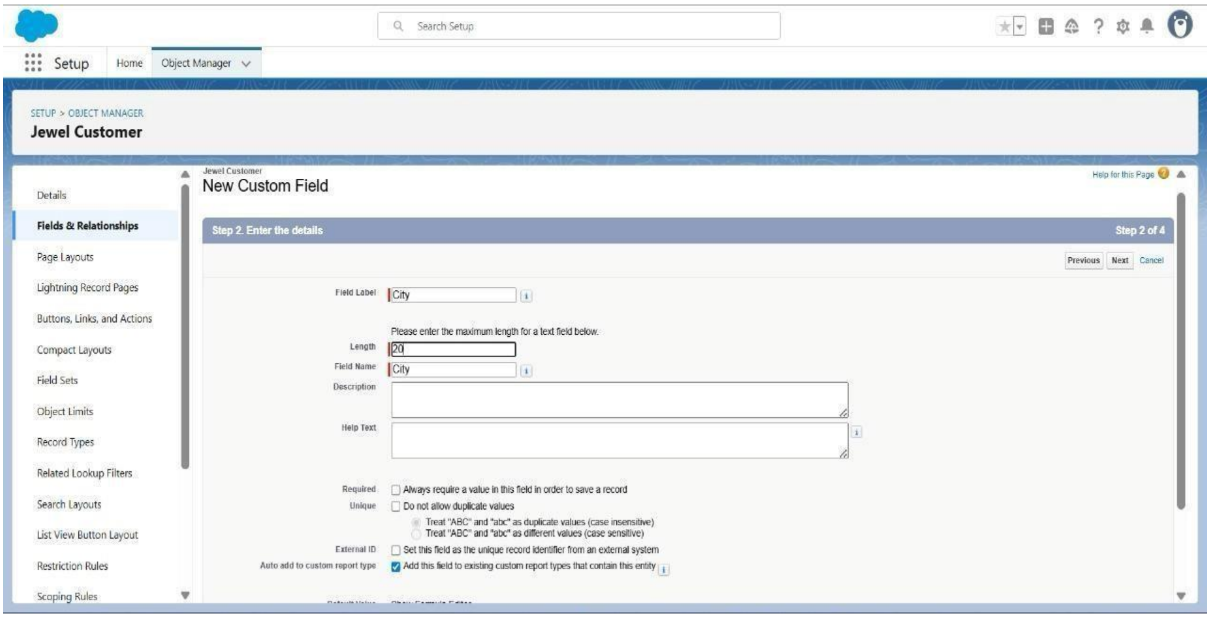
3. Creating Text Field in Jewel Customer Object

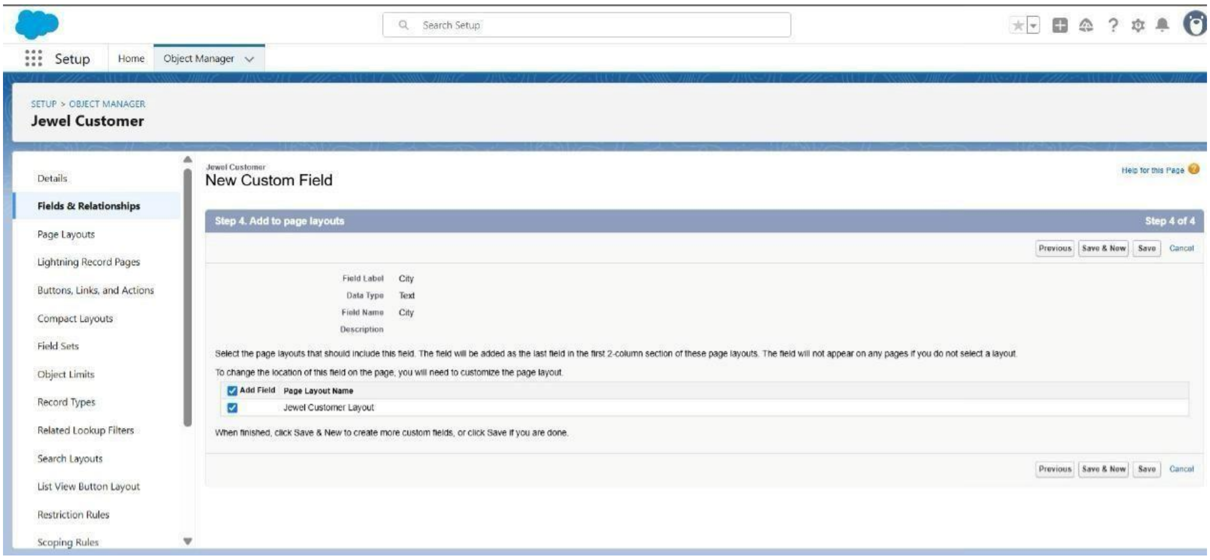
1. Go to setup >> click on Object Manager >> type object name (Jewel Customer) in quick find bar >> click on the object.

2. Now click on “Fields & Relationships” >> New

3. Select Data type as “Text”.

4. Click on Next





4. Creating the Phone field in object Jewel Customer

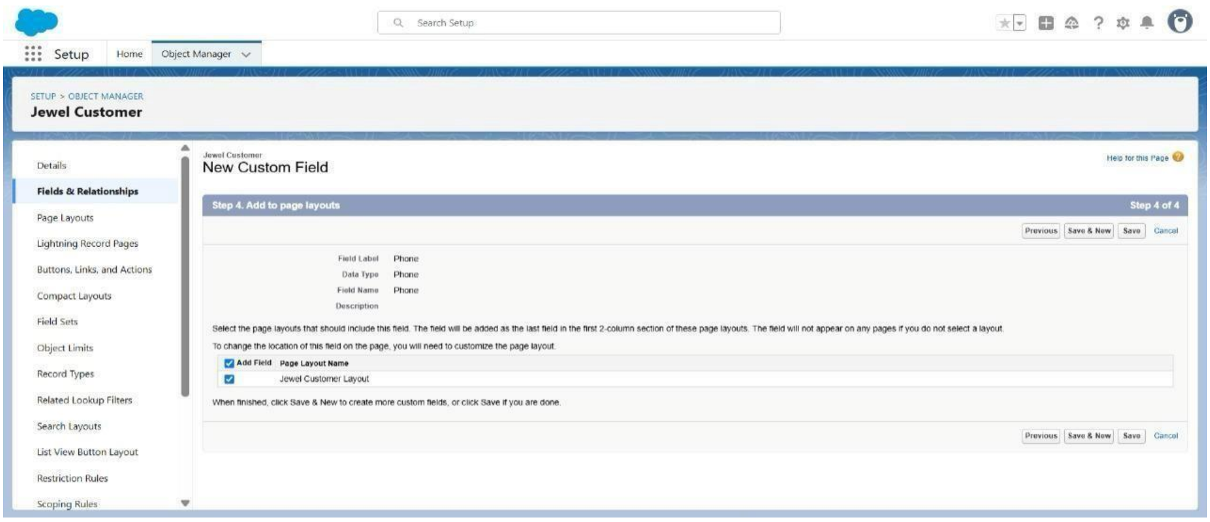
1. Go to setup >> click on Object Manager >> type object name (Jewel Customer) in quick find bar >> click on the object.

2. Now click on "Fields & Relationships" >> New

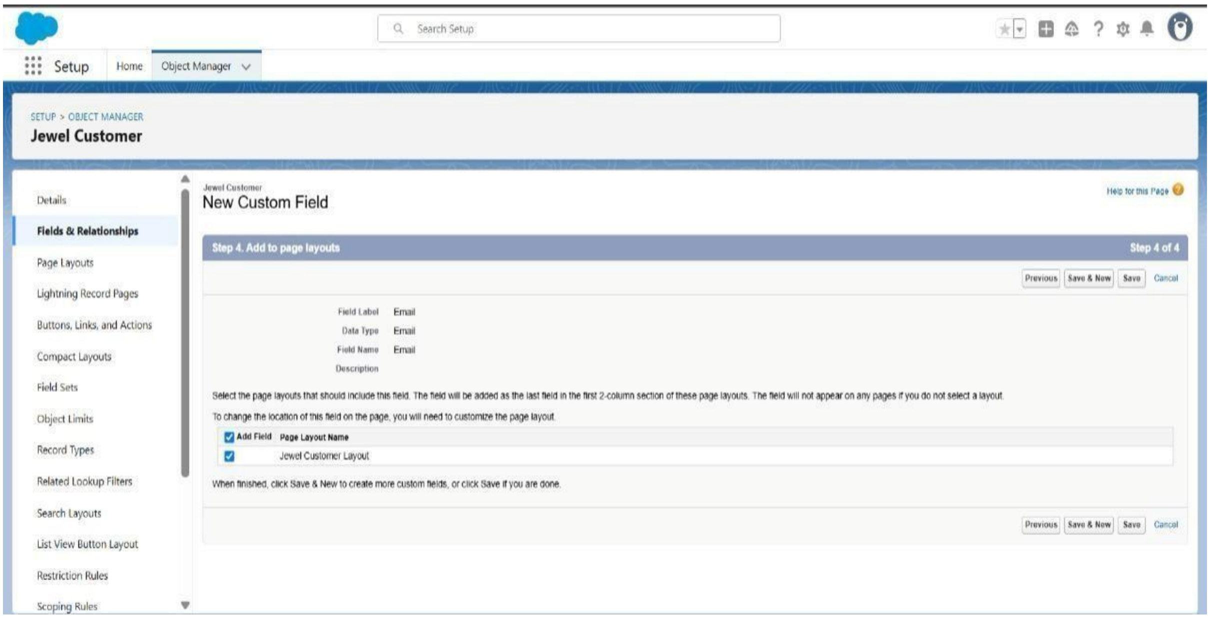
3. Select Data type as "Phone" and click Next.

4. Given the Field Label as "Phone".

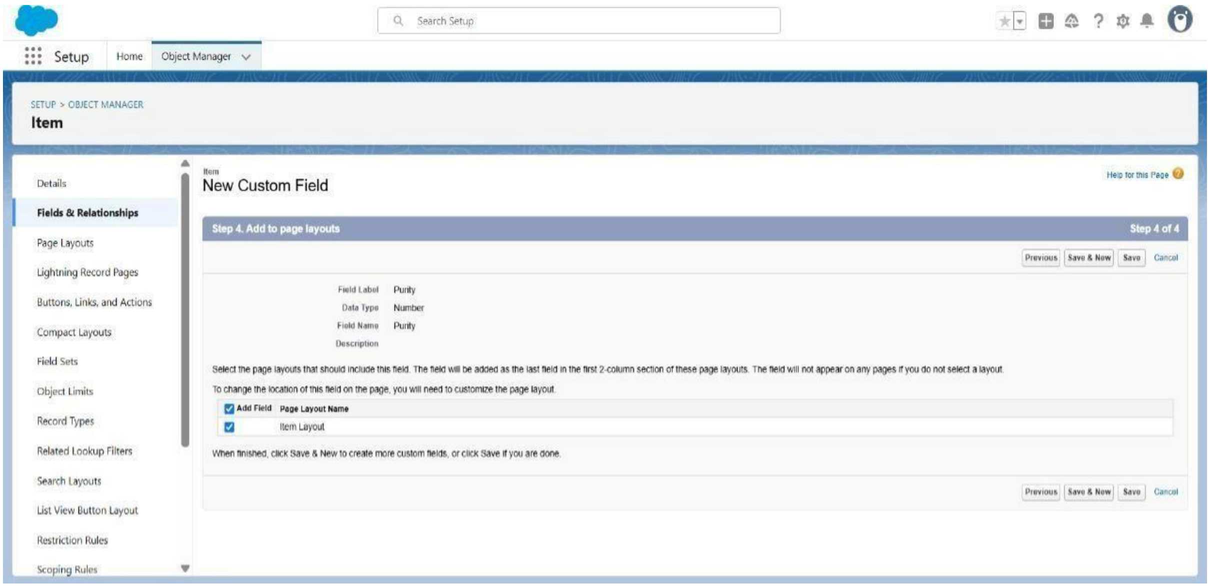
5. Field Name will be auto populated, and click on Next >> Next >> Save & new



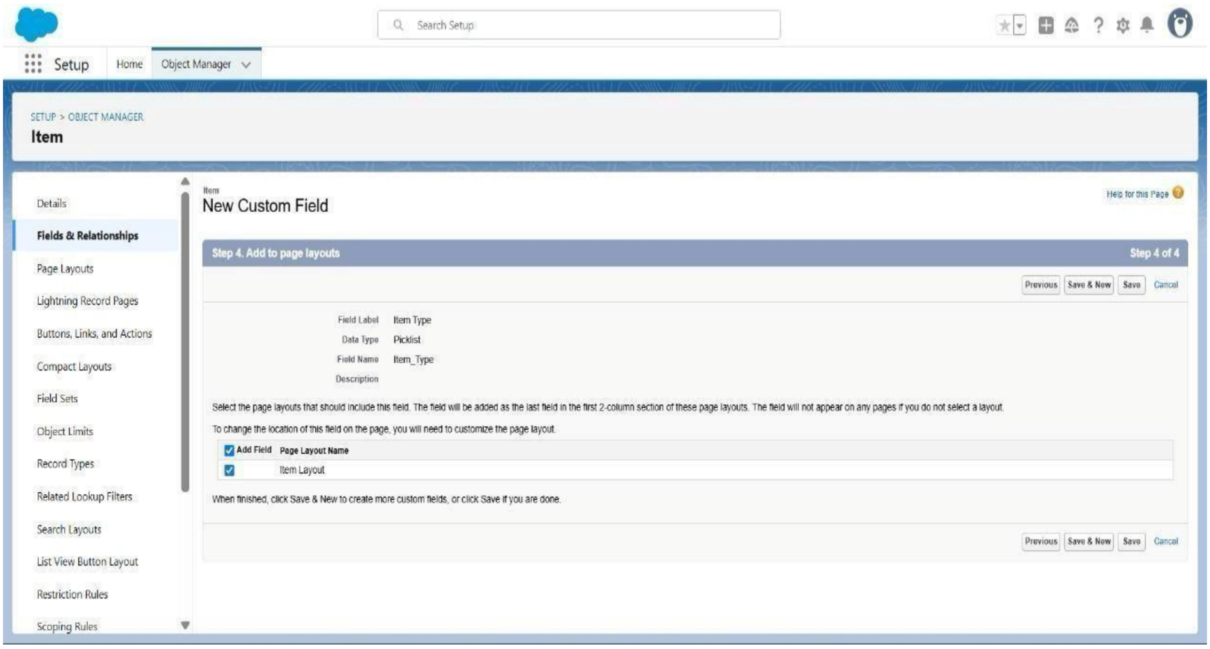
5. Creating the Email field in object Jewel Customer



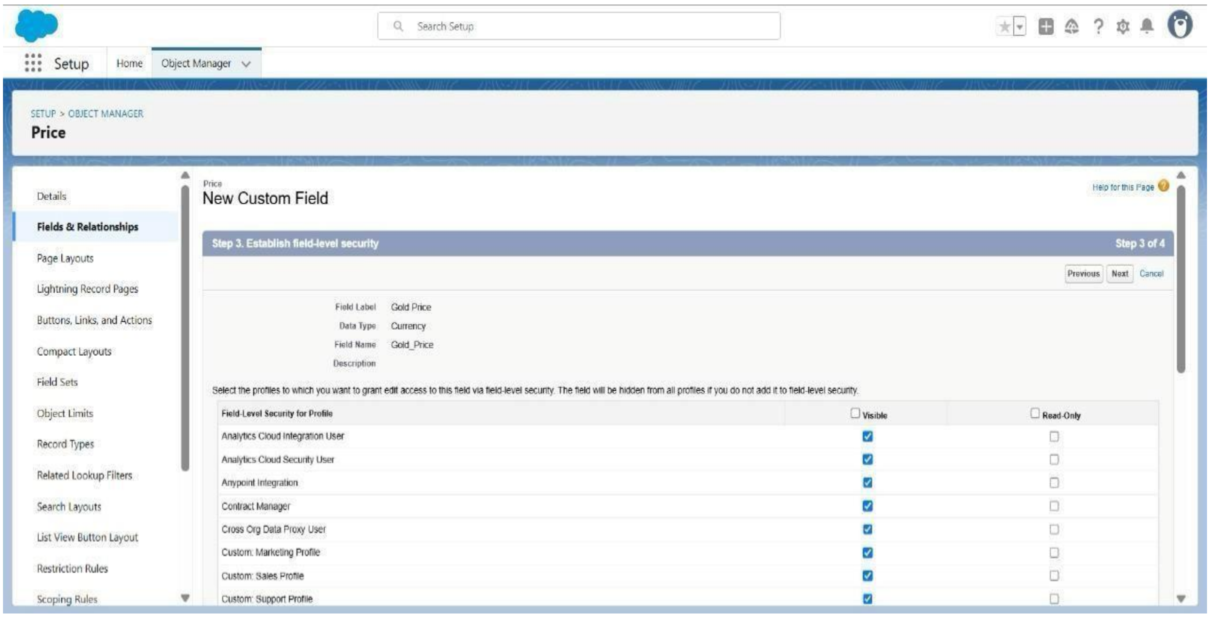
6. Creating the number field in Item object



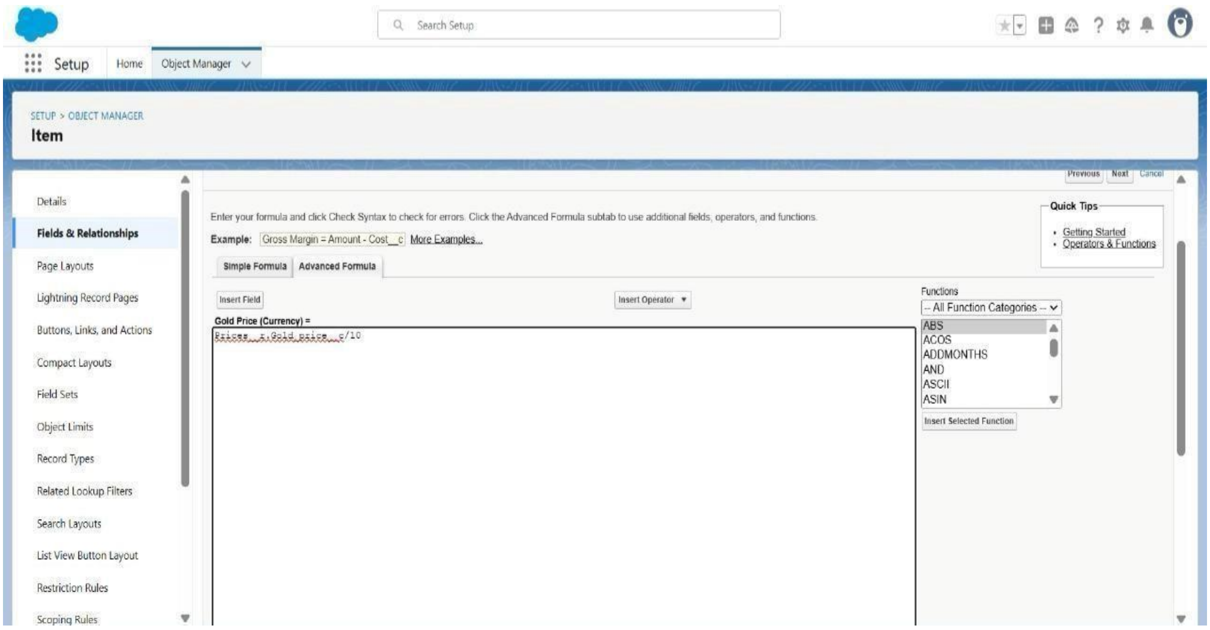
7. Creating Picklist Field in Item Object

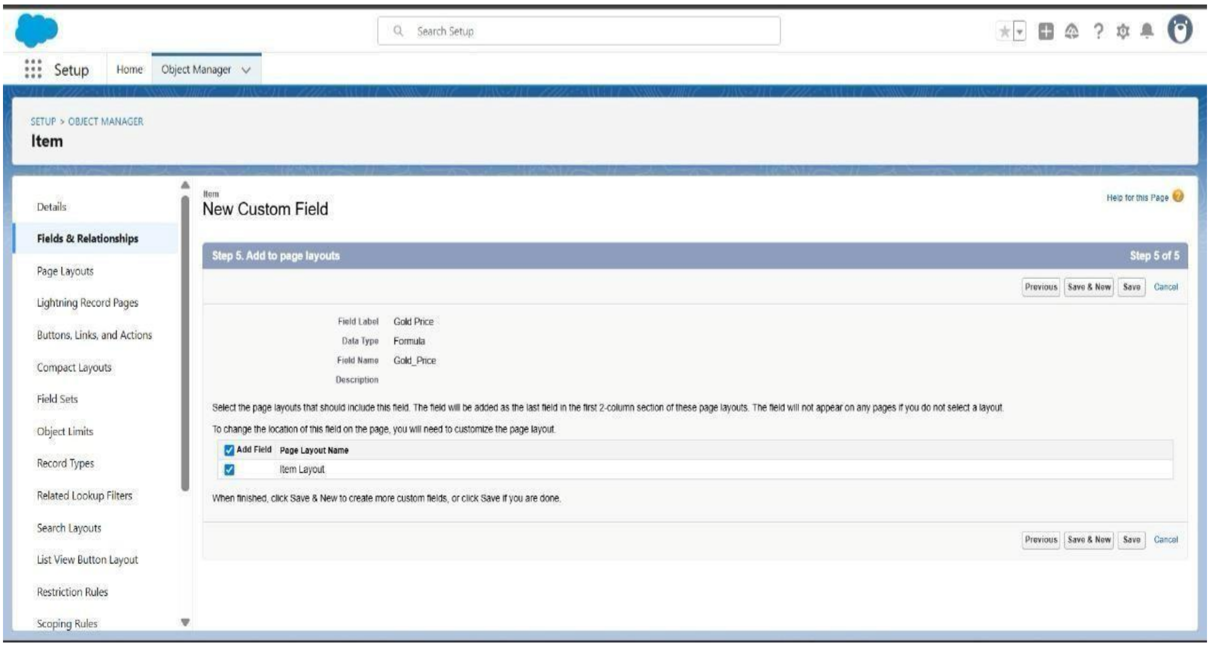


8. Creating Currency Field in Price Object



9. Creating Formula Field(Cross Object) in Item Object

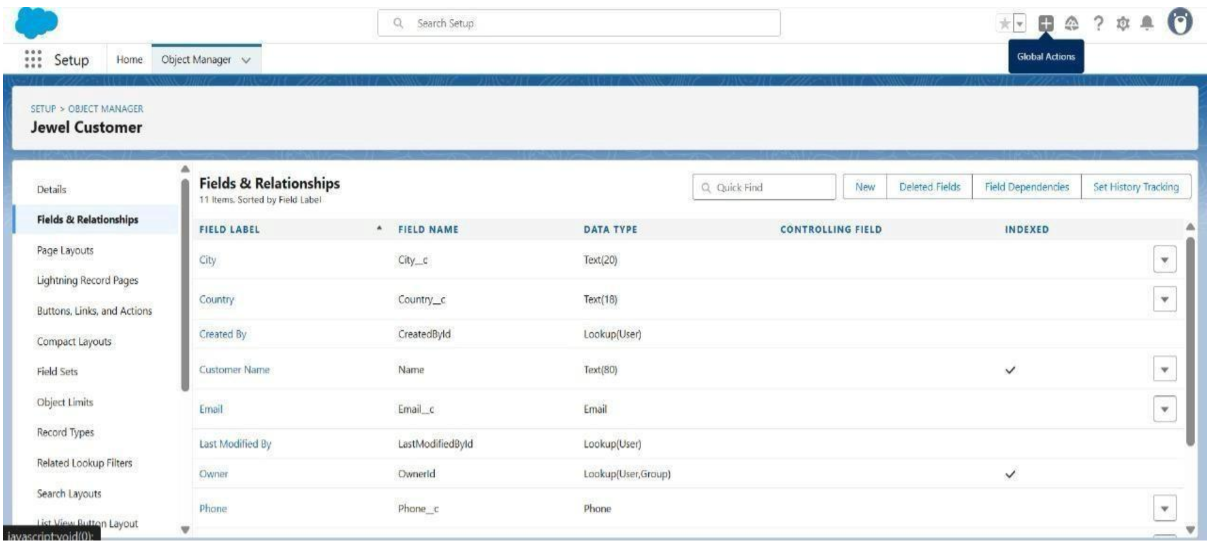




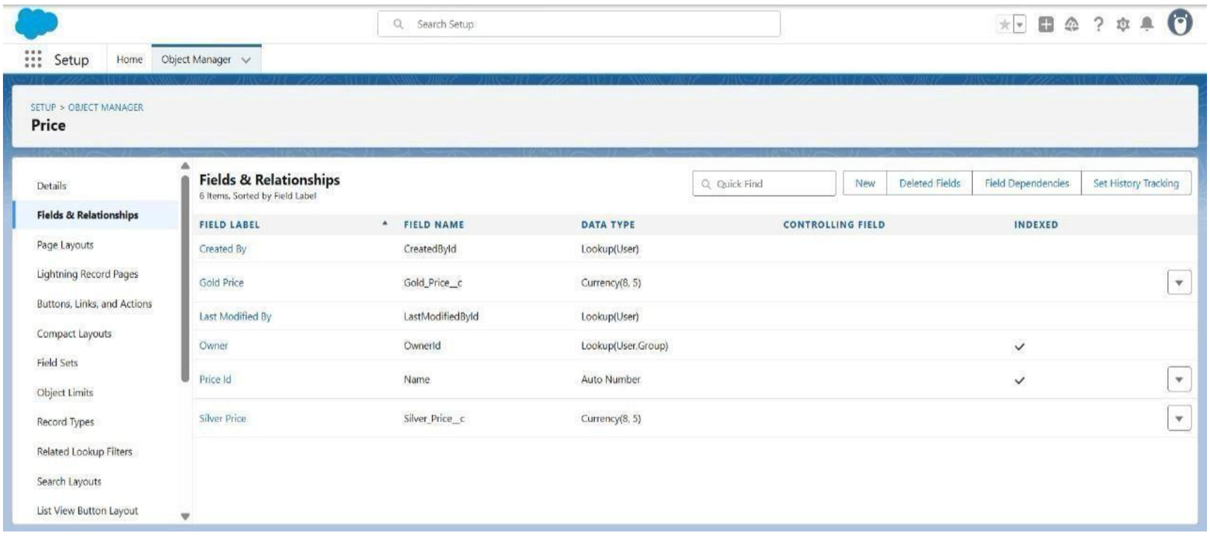
10. Creating Remaining Fields in Objects

Creating remaining fields in the objects

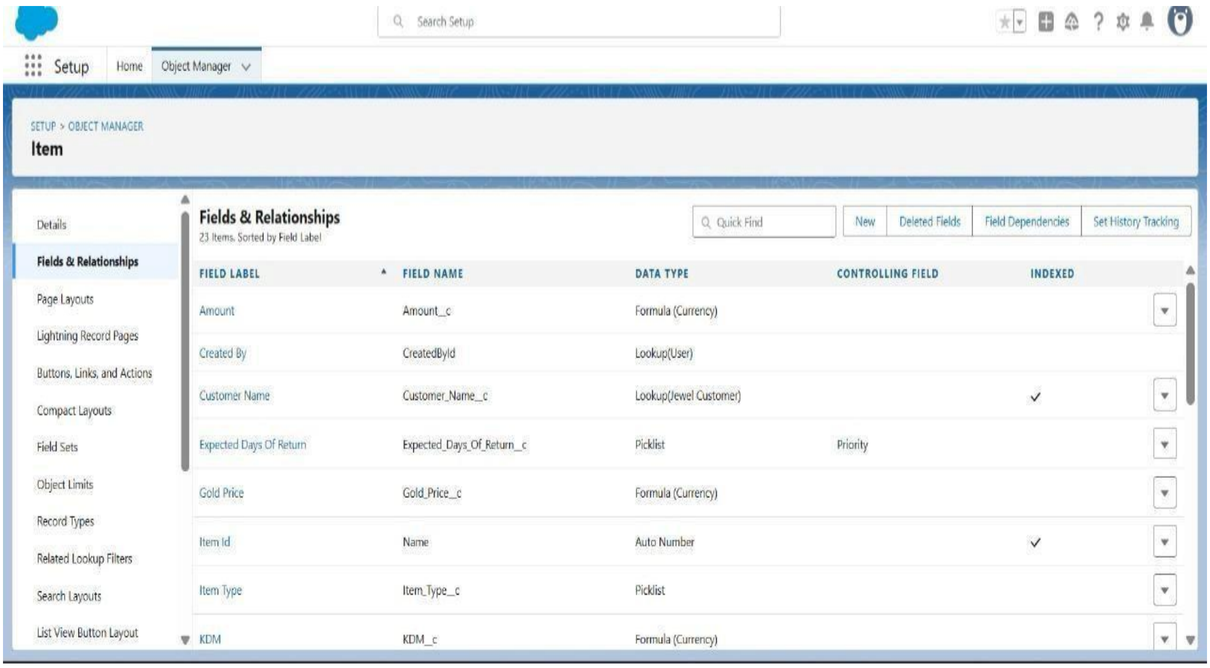
1.Jewel Customer : State, Street, Country, Zip/Postal code



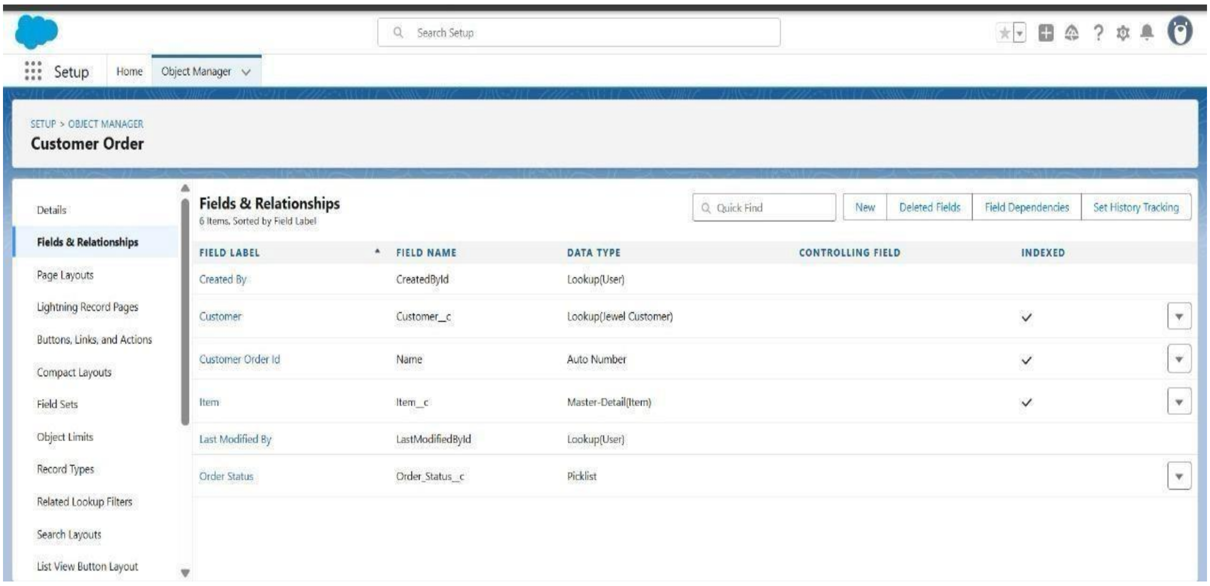
2.Price : Silver Price



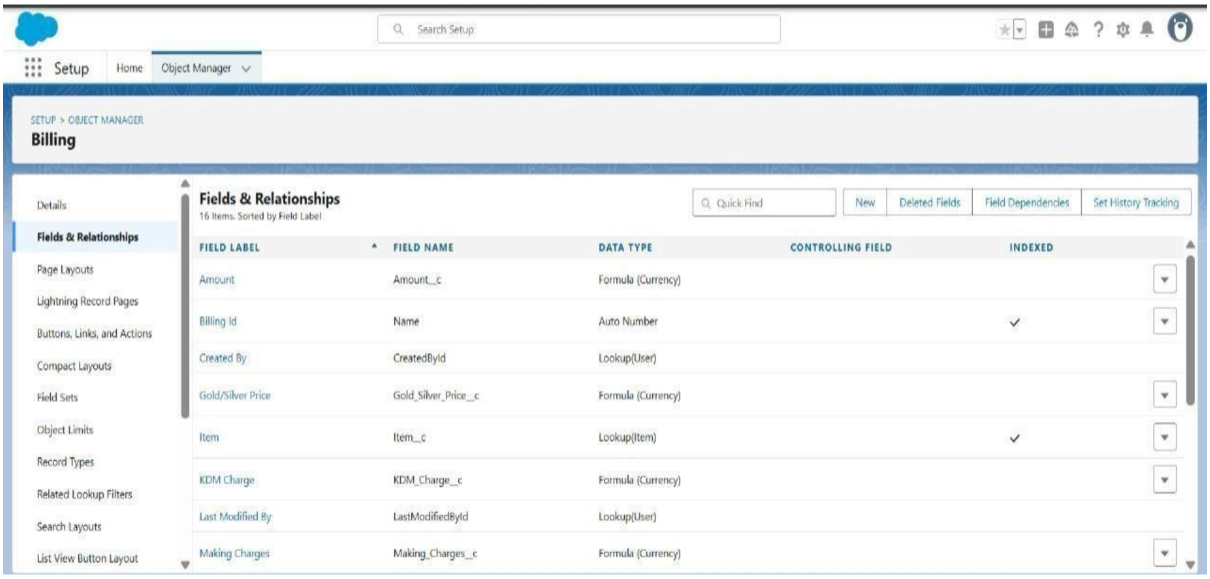
3.Item : Field Label-Customer Name, Ornament, Weight, Stone Weight, Percentage,Stone/Other Price, Expected Days of Return, Priority, Silver Price, Purity Gold Price, Total weights, Amount, KDM, Making Charges.



4.Customer Order: Order Status

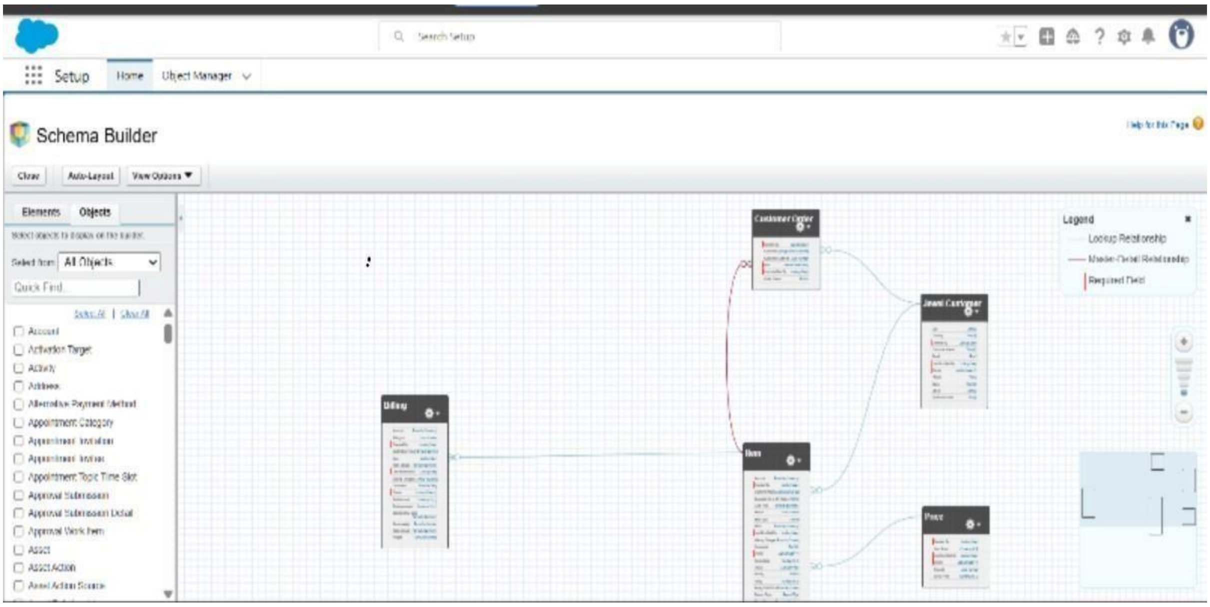


5.Billing: FieldLabelItem,Ornament,Stone,Weight,Weight,Amount, Gold/Silver Price, KDM Charge, Making Charges,Stone/Other Price, Total Amount.



11.Creation of Schema Builder

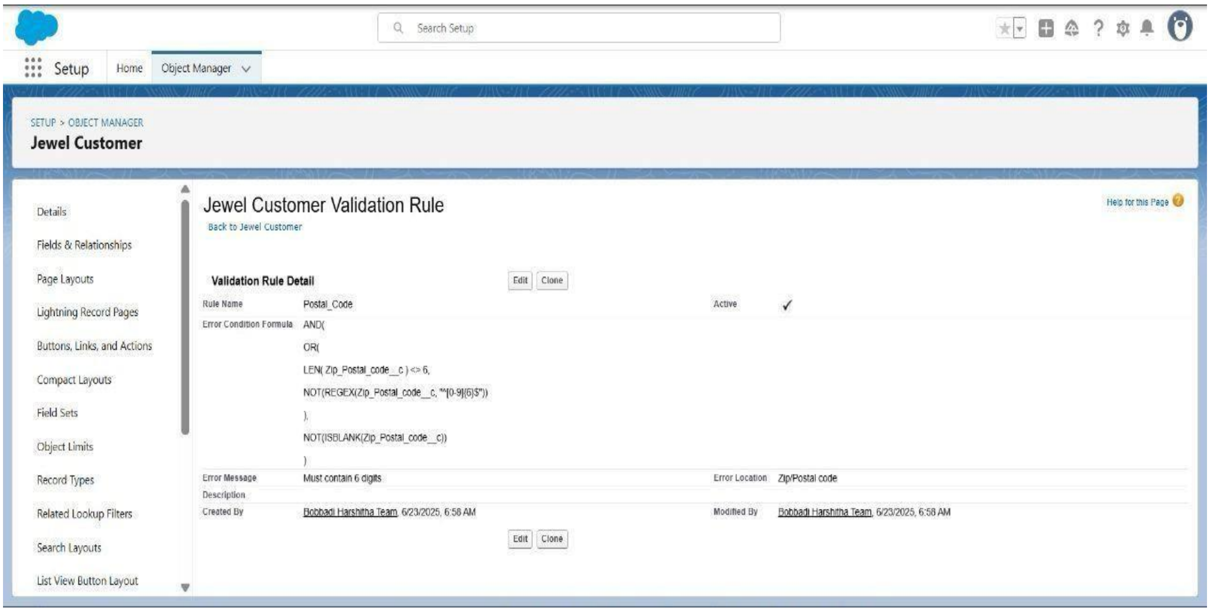
Schema Builder is a powerful tool within Salesforce that allows you to visualise, explore, and design the relationships between objects in your Salesforce organisation. It provides a graphical representation of the data model, making it easier to understand the structure and connections between different objects.

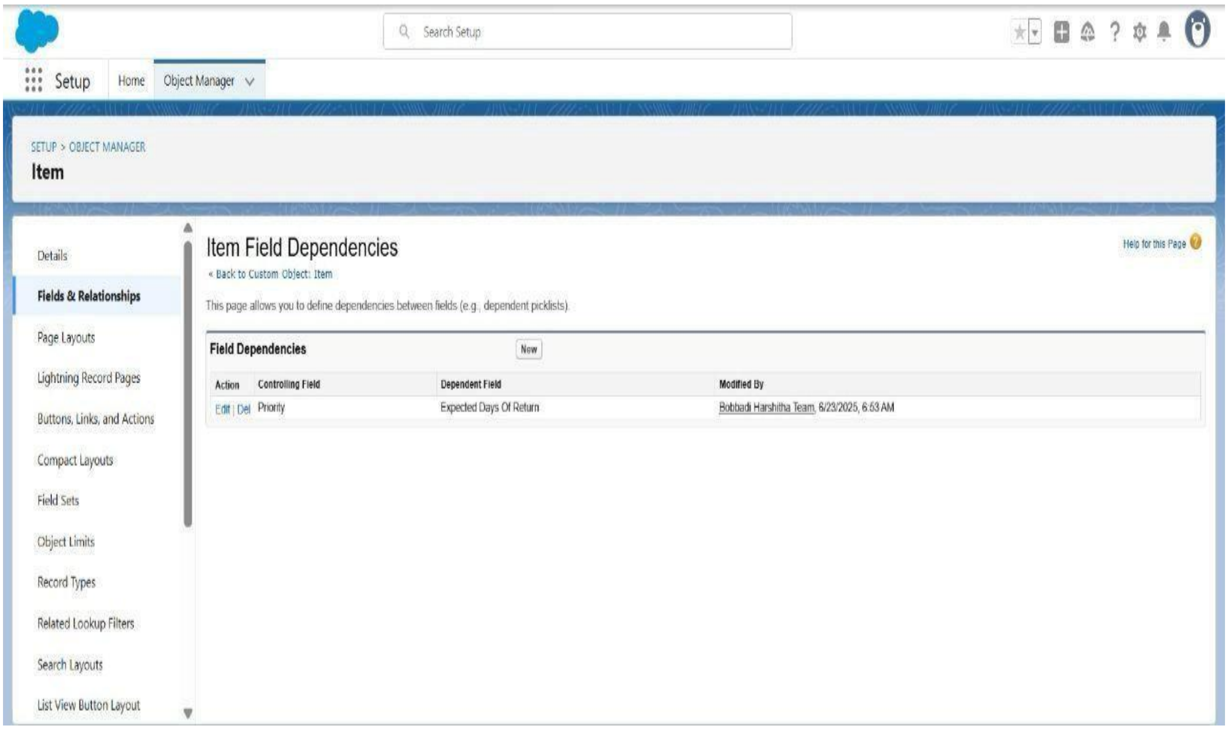


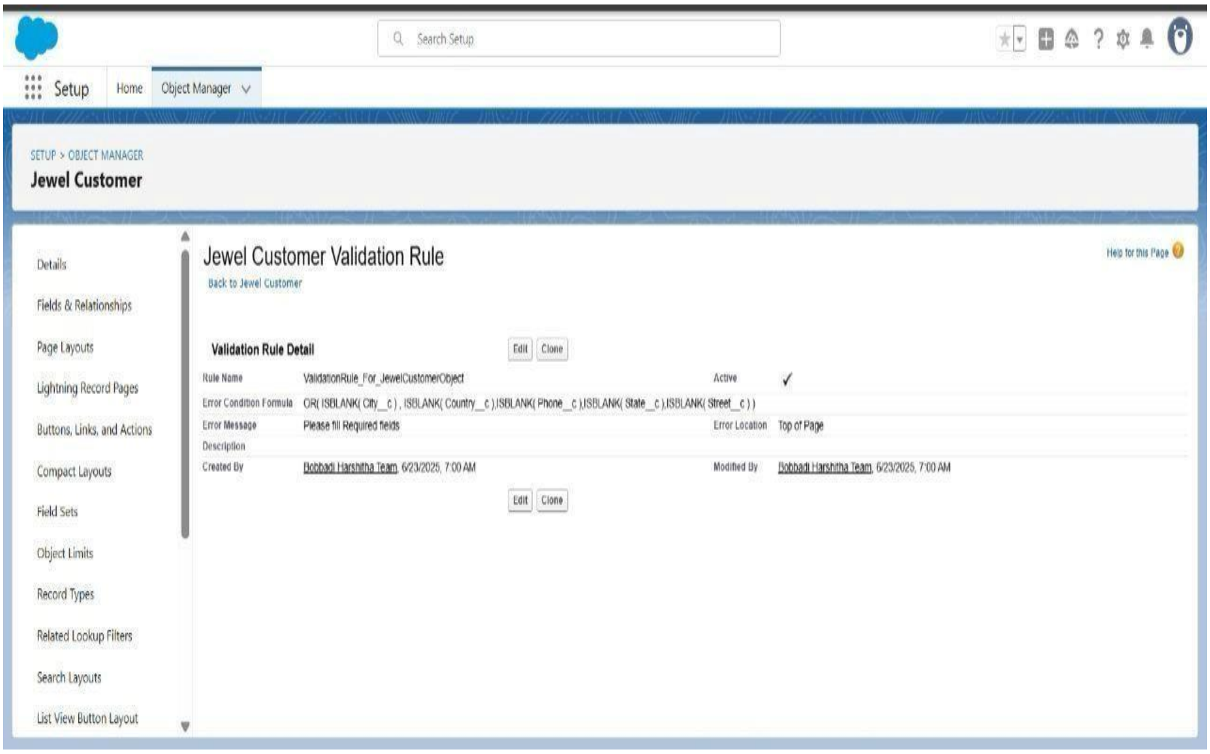
12.Creation of Field Dependencies

1. Go to setup >> click on Object Manager >> type object name(Item) in quick find bar >> click on the object.
2. Click on Fields & Relationships and click on the Priority field.
3. Search for Field Dependencies and click on New.
4. Select Controlling Field as "Priority" and Depending field as "Expected Days of Return" >> Continue.

13.Creation of Validation Rules





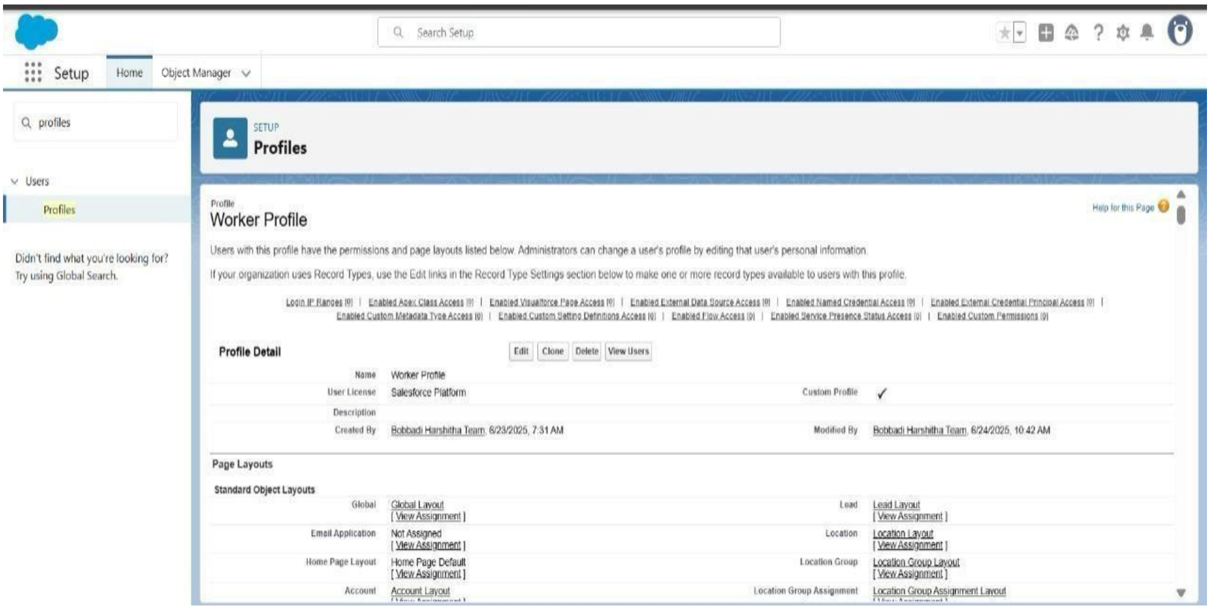


4.6 Creation of Profiles

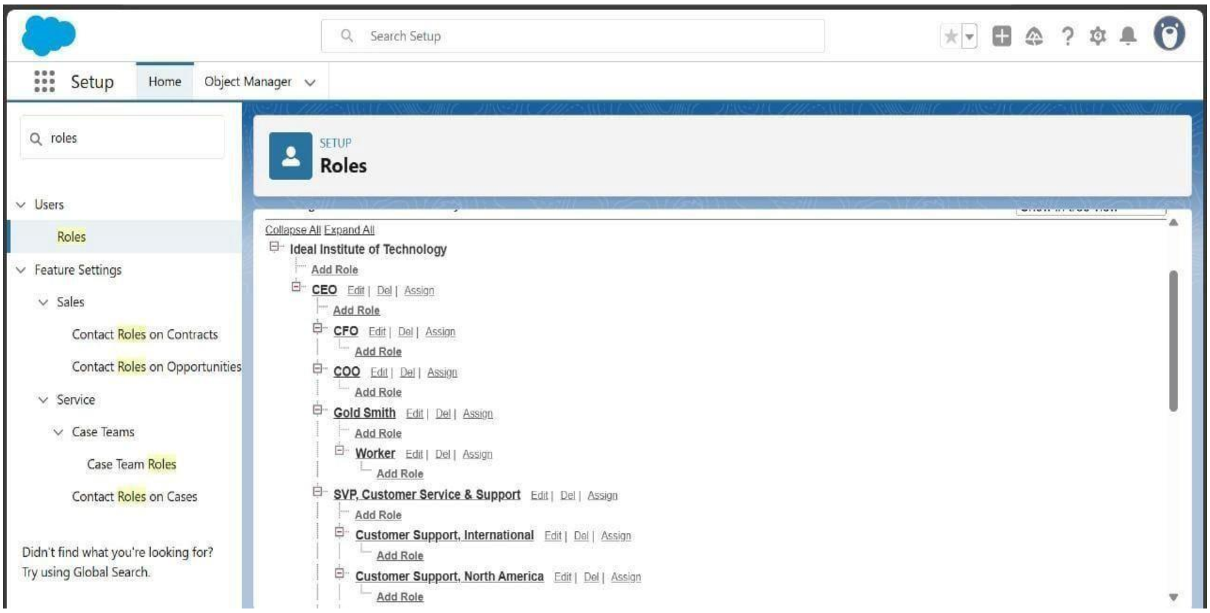
We create the goldsmith profile and the worker profile

1. Go to setup >> type profiles in quick find box >>click on profiles ? clone the desired profile (System Administrator) >> enter profile name (Gold Smith) >> Save.
2. While still on the profile page, then click Edit.
3. Scroll down to Custom Object Permissions and Give access permissions for Jewel Customer, Item, Customer Order, Price, Billings.

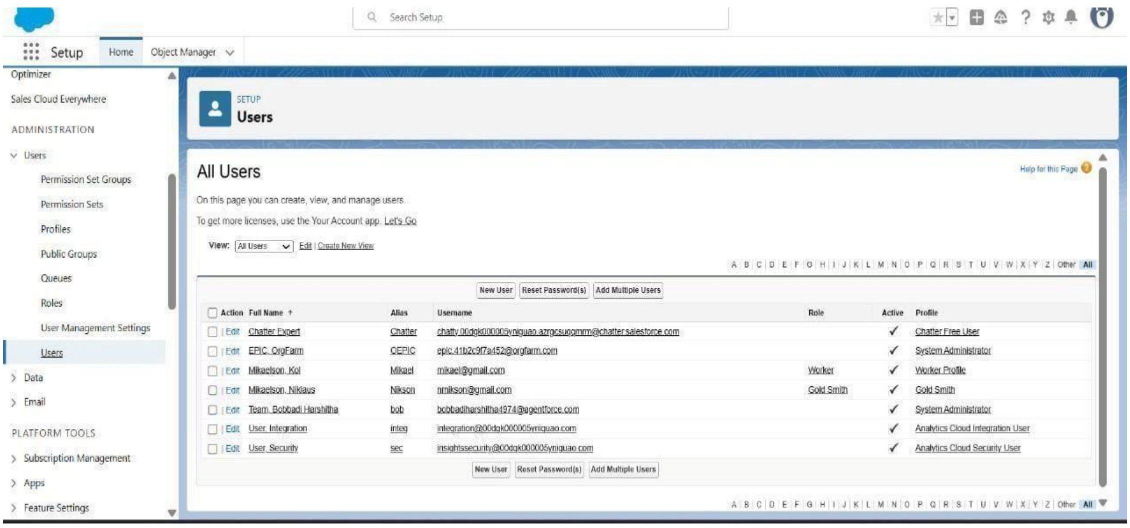
4. Scroll down and Click on Save.



4.7 Creation of Roles



4.8 Creation of Users



4.9 Creation of Page Layouts

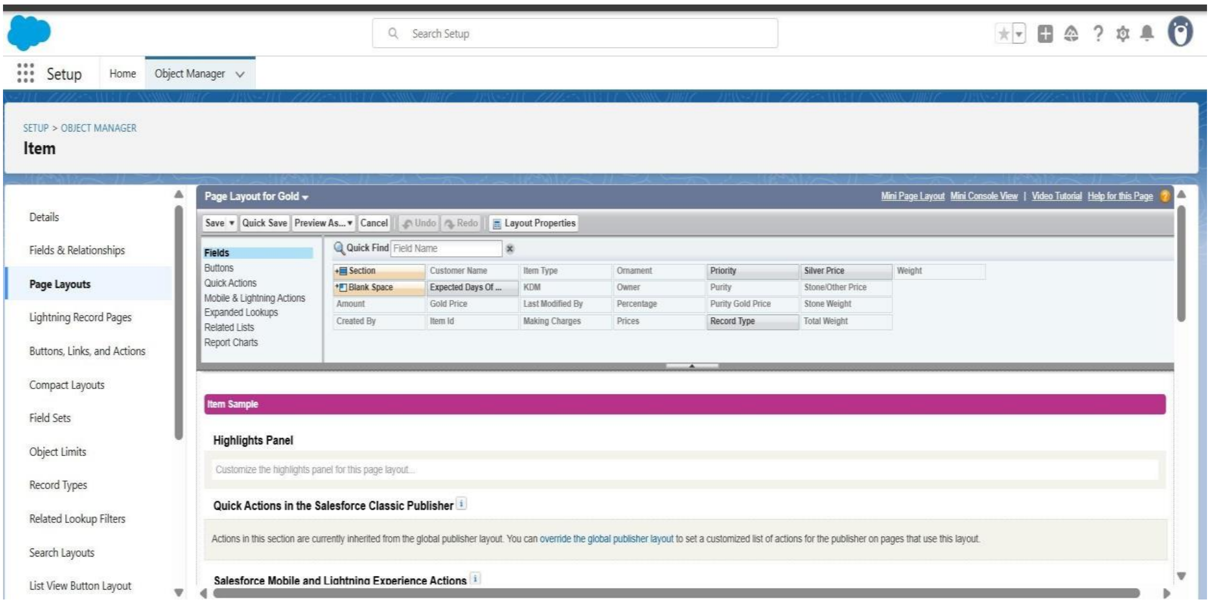
We create the page layouts for gold and silver items

1. Go to Setup >> Click on Object Manager >> Search for the object (Item) >> From drop down click on Edit.

2. Click on Page layout >> Click on New.

3. Give Page layout Name as "Page Layout for Gold" and click on Save.

4. Arrange the field as shown in the Information Section, remove fields which are related to Silver and click Ok.

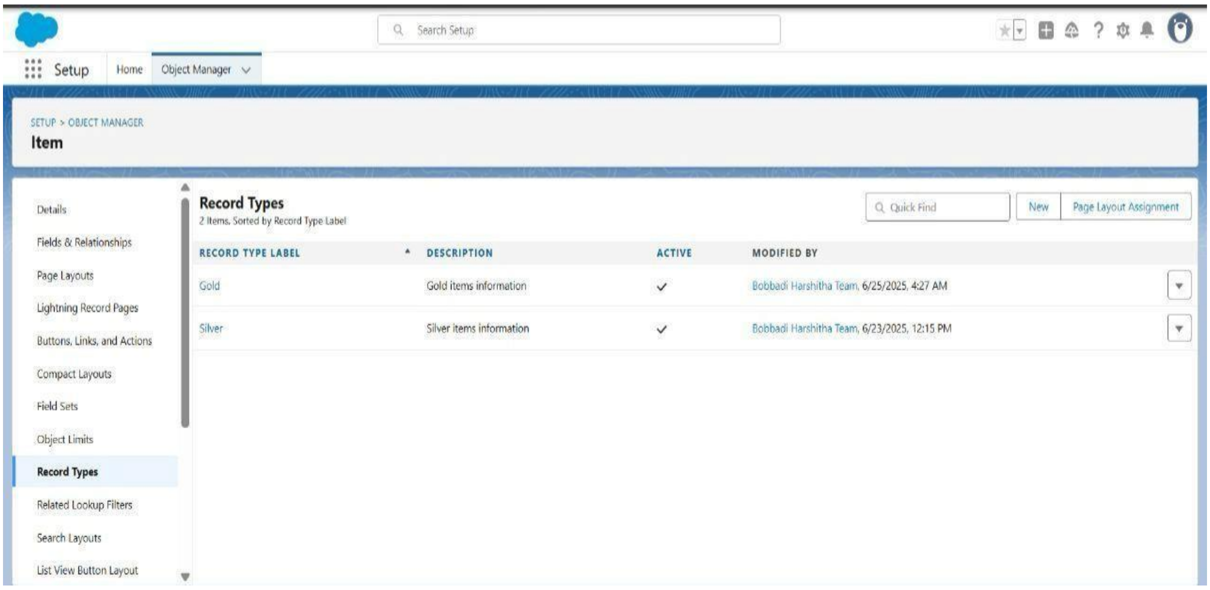


4.10 Creation of Record Types

1. Go to setup >> click on Object Manager >> type object name (Item) in quick find bar? click on the object.

2. Click on the Record Types >> click New.

3. Select Existing Record as "Master",Record type Label as "Gold",Description as "Gold items information".



4.11 Creation of Permission Sets

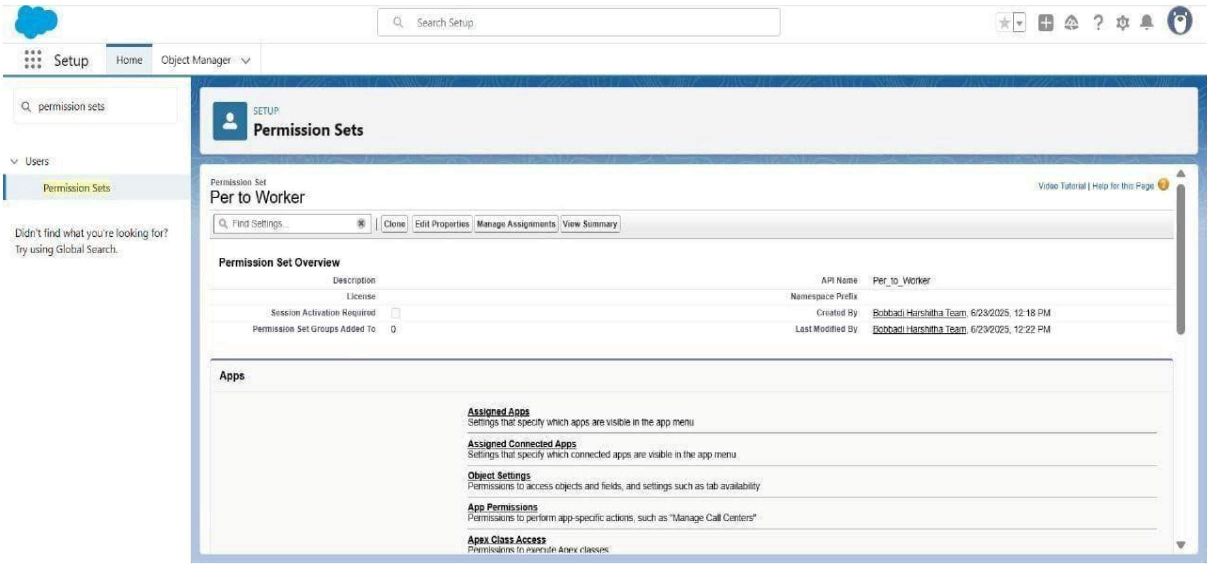
1. Go to setup >> type "permission sets" in quick search >> select permission sets >> New.

2. Enter the label name as "Per to Worker", API will be auto populated >> save.

3. Click on Save.

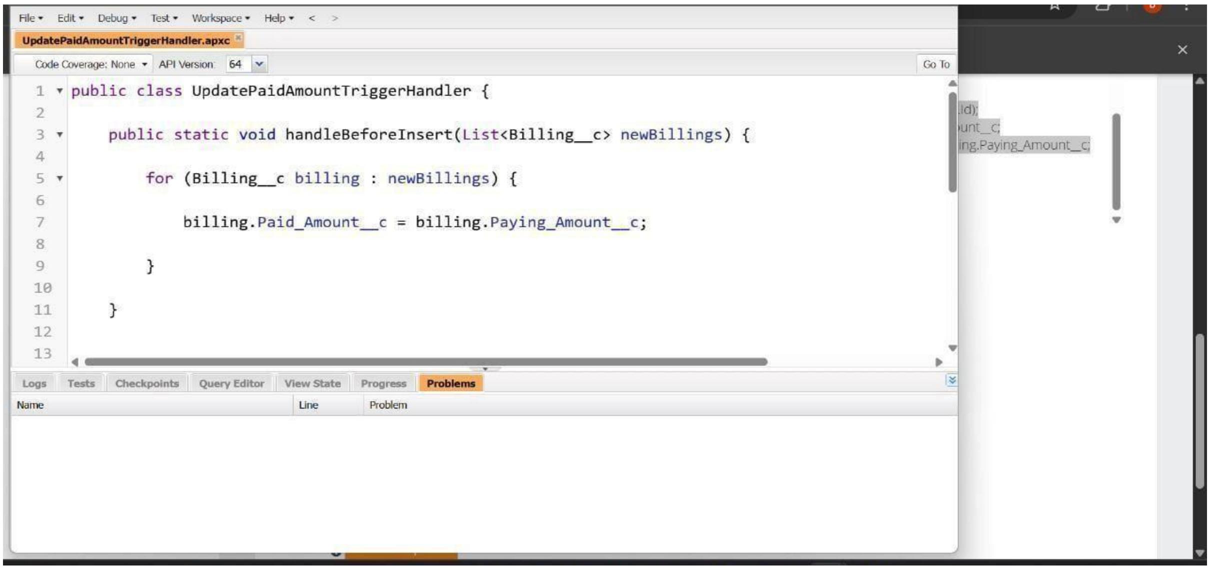
4. After saving the permission click on the Manage assignment

5. Now click on the Add Assignment.



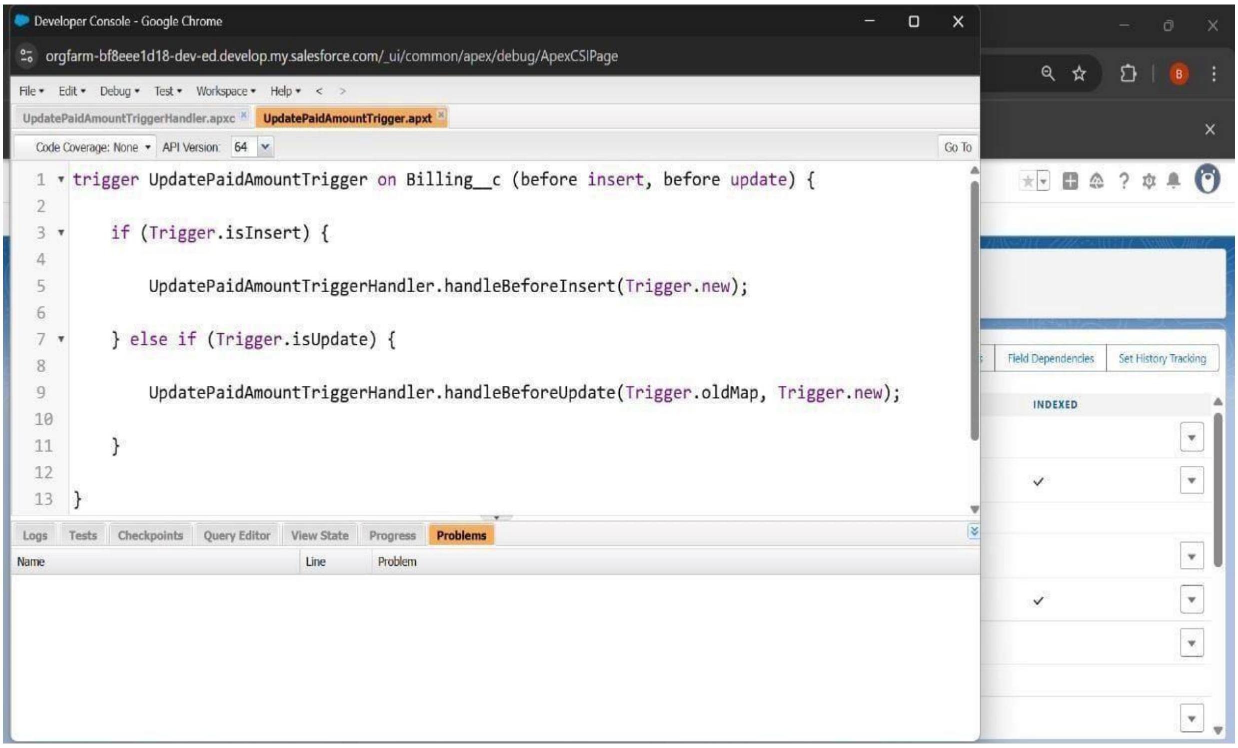
4.12 Creation of Trigger

* A trigger handler is a design pattern that organises trigger logic into separate classes.
* This helps in keeping code organised, reusable, and easier to maintain.
* The trigger handler class contains methods that handle the specific logic for different trigger events, improving code structure and readability.
* This approach is particularly useful for complex triggers or projects with multiple triggers, as it promotes modular coding practices and reduces the chances of code duplication.



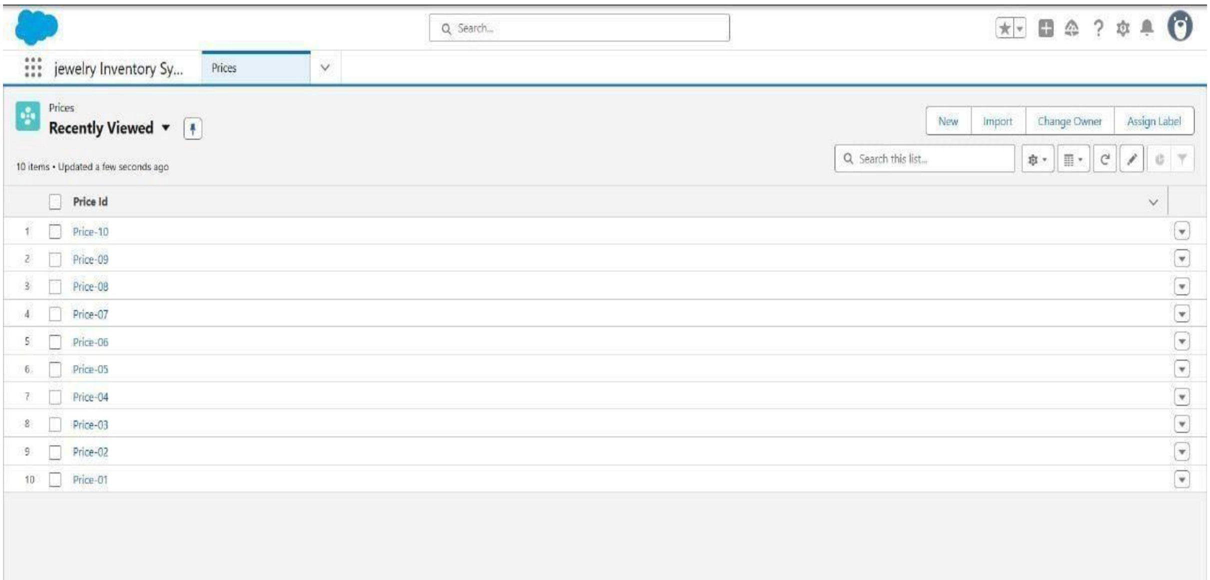
CODE:

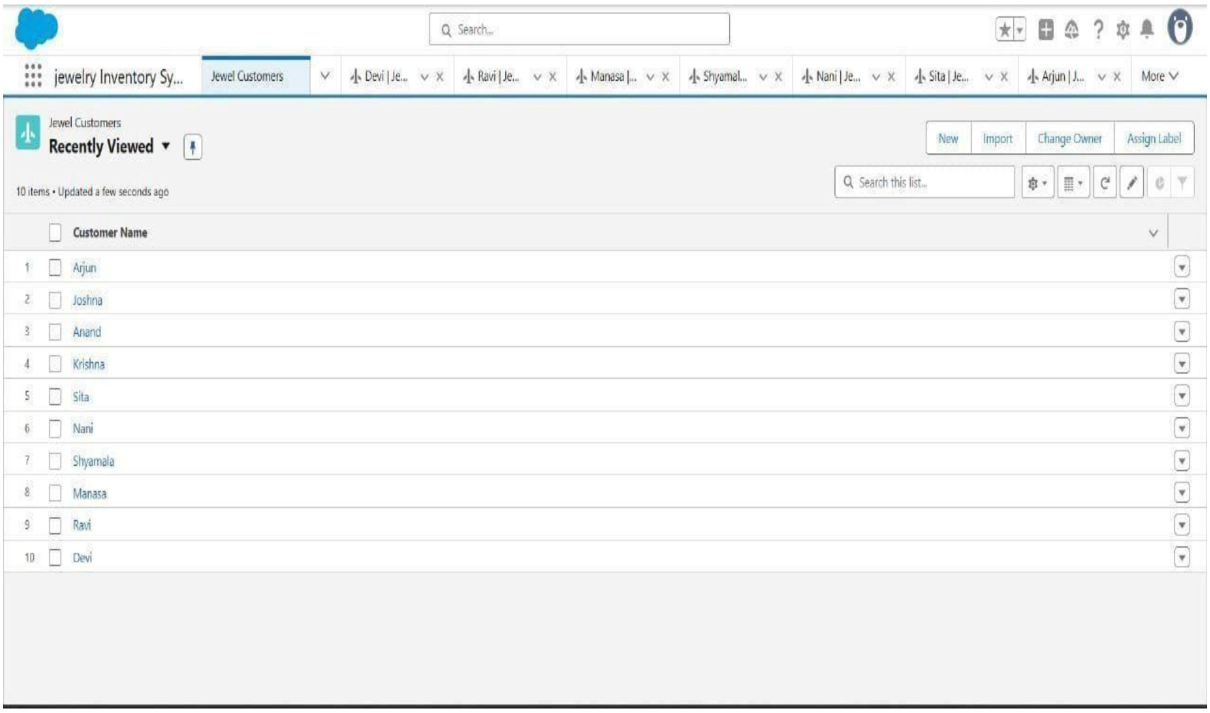
```
trigger UpdatePaidAmountTrigger on Billing__c (before insert, before update) {
 if (Trigger.isInsert) {
 UpdatePaidAmountTriggerHandler.handleBeforeInsert(Trigger.new);
 } else if (Trigger.isUpdate) {
 UpdatePaidAmountTriggerHandler.handleBeforeUpdate(Trigger.oldMap,
Trigger.new);
 }
```



4.13 Creation of User Adoption

We create item,price,customer orders,jewel customers and billing





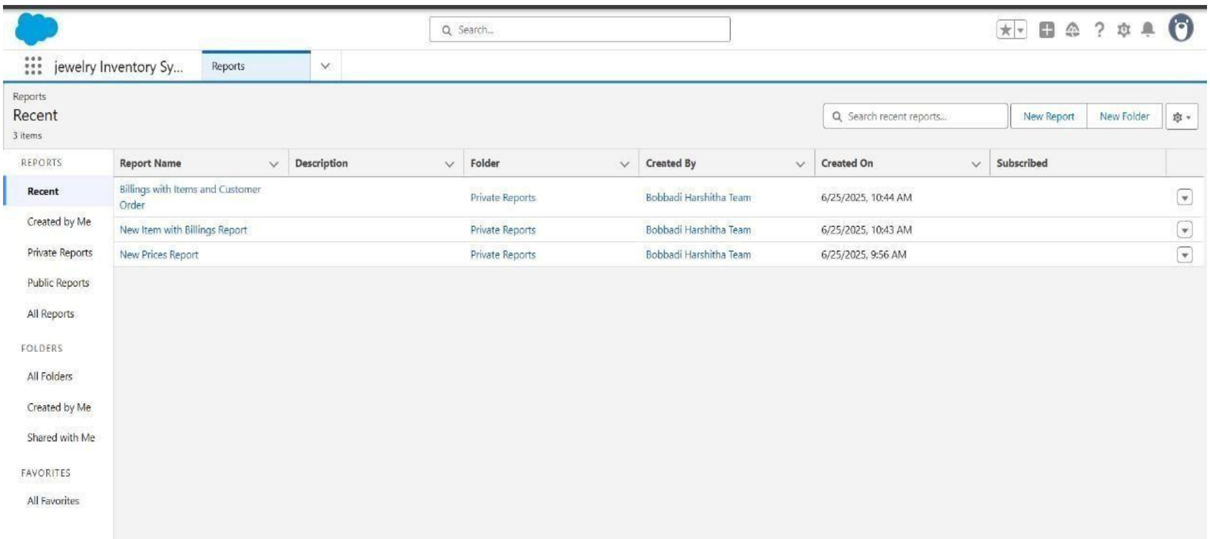
4.14 Creation of Reports

Go to the app >> click on the reports tab

2. Click New Report.

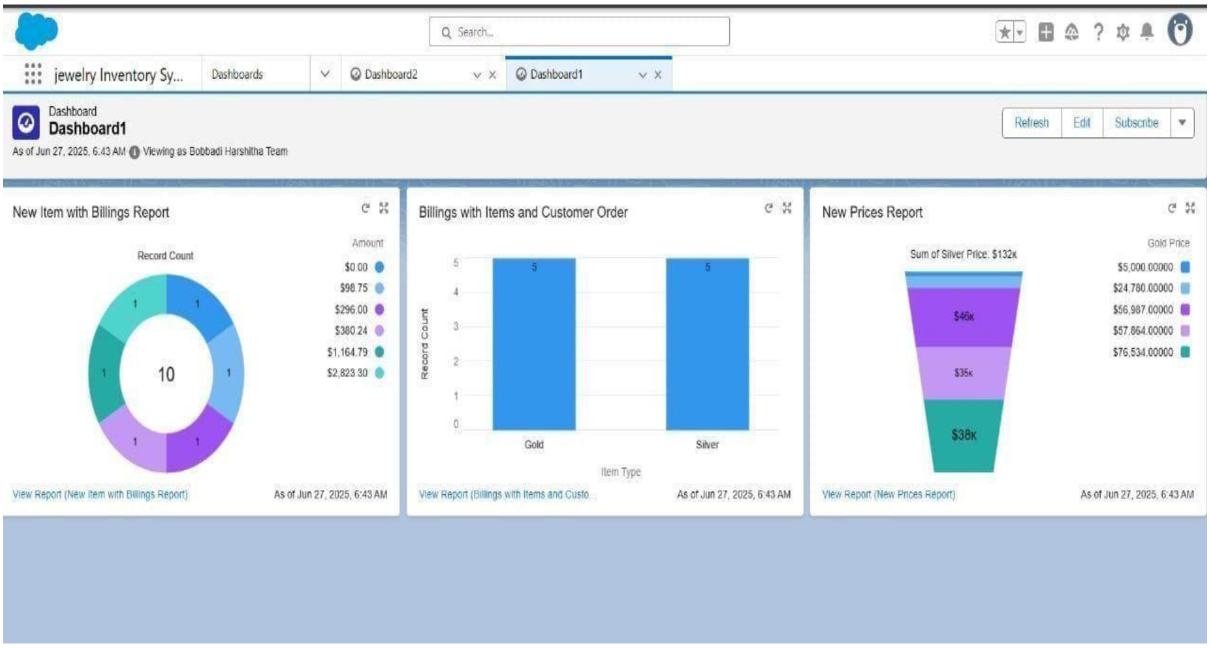
3. Select report type from category or from report type panel or from search panel >> Click on start report.

4. Customise your report5. Save or run it.

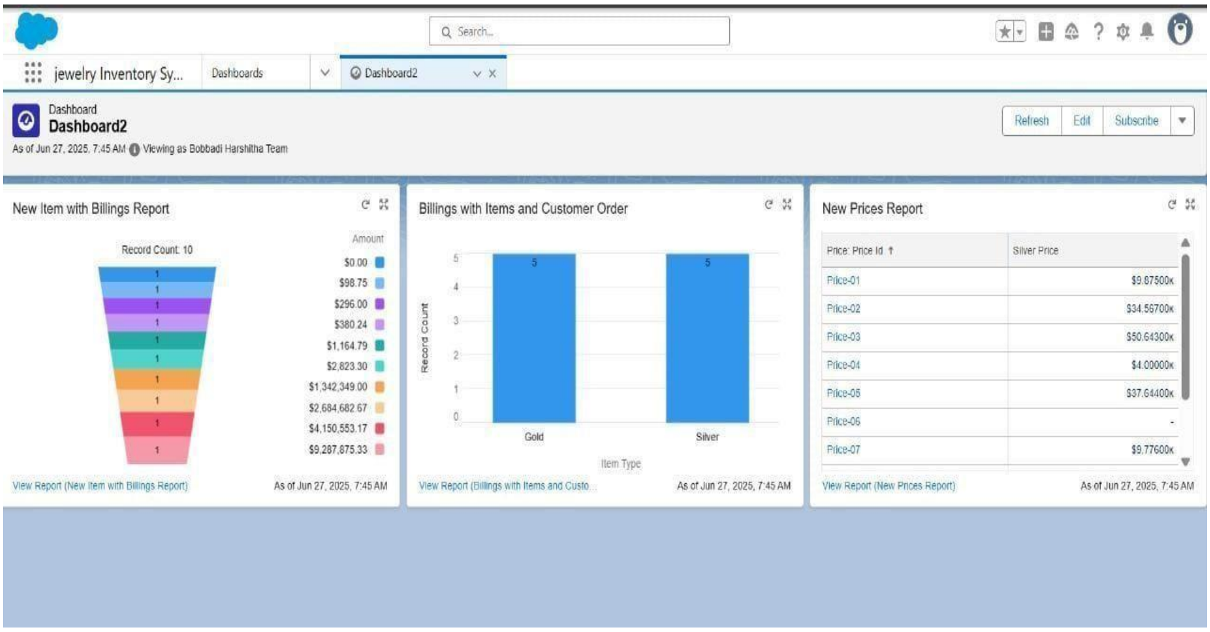


4.15 Creation of Dashboards

Dashboard 1



Dashboard 2



4.16 Creation of Flows

1.Go to setup >> type Flow in quick find box >> Click on the Flow and Select the New Flow.

2.Select the Record-triggered flow and Click on Create. Select the Object as a “Billing” in the Drop down list.

3. Select the Trigger Flow when: “A record is Created or Updated”.

4. Select the Optimise the flow for: “Actions and Related Records” and Click on Done.

Now change the mode form Auto-layout to free-form.

6. Now select the manger option in the toolbox, click New resource.

7. Select the resource type as text template. Click done.

8. Now click on elements, and drag the action element into the preview pane.

9. In the body field paste the syntax that is given below.

Hello

Customer Name: {!$Record.Item__r.Customer_Name__r.Name}

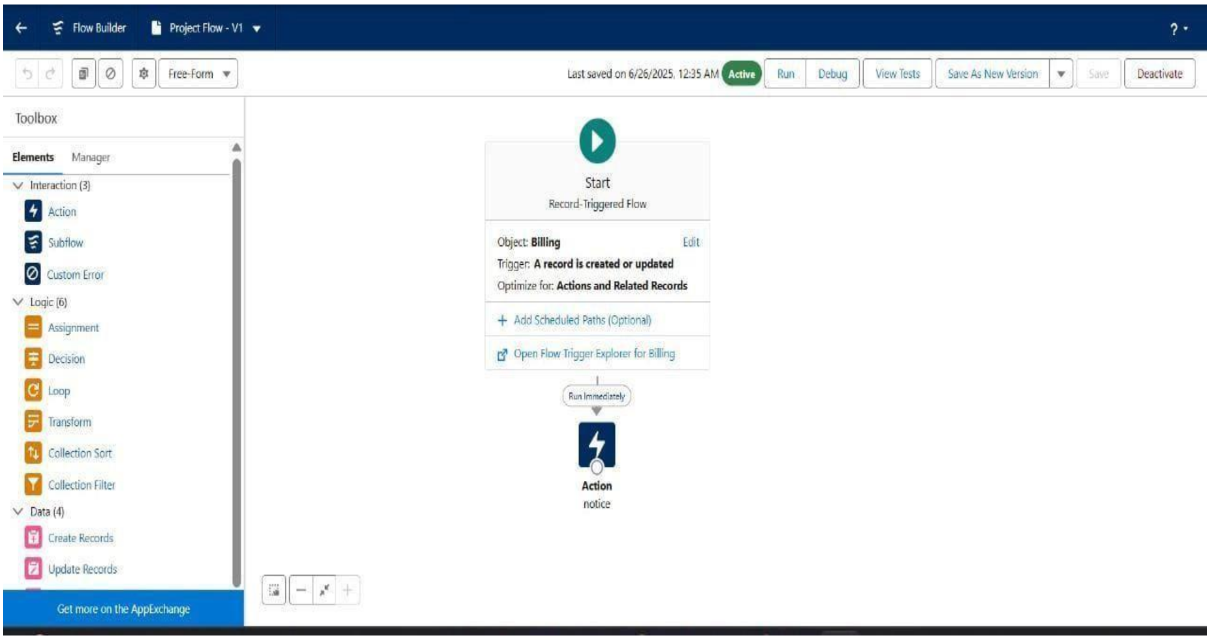
Here are the details for the item you purchased with Jewellery Inventory System

10.Give the label name as “notice”. Now drag the path from the start to the action element.

11.Include Recipient Address list, select the email form the record.

12.Click on save. Given the Flow label , Flow Api name will be auto populated.

13.And click save, and click on activate.



PHASE 5: DEPLOYMENT & MAINTENANCE

✓ Once the CRM application was fully tested and validated, it was deployed in the Salesforce production environment for real-time use.

✓ All essential modules — including Customer, Jewelry Item, Customer Order, Billing, and Price — were activated and integrated.

✓ Dashboards and reports were shared with management for monitoring business performance and customer engagement.

✓ Maintenance involves regular updates, system monitoring, and performance optimization.

TESTING SUMMARY

❖ Unit Testing: Verified each module like Customer, Item, Order, Billing, and Price individually.

❖ Integration Testing: Checked data flow between related objects.

❖ User Acceptance Testing: Ensured system meets user expectations and is easy to use.

❖ Performance Testing: Confirmed fast loading and smooth operation.

❖ Security Testing: Validated access control and data protection.

TESTING AND DEBUGGING

Testing and debugging played a crucial role in ensuring the reliability, accuracy, and performance of the **CRM Application for Jewelry Management**. Multiple testing phases were conducted to verify that all modules — including customer data management, sales tracking, inventory control, and billing — functioned correctly and met the project requirements.

Functional Testing was carried out to validate each feature against the defined use cases. Modules such as lead conversion, order processing, and invoice generation were tested using different input scenarios to ensure that the workflows performed as expected. **Integration Testing** ensured seamless data flow between interconnected objects like Customer, Product, Order, and Invoice, confirming that information remained consistent across the system.

User Acceptance Testing (UAT) was performed with sample users such as sales executives and store managers to evaluate the system's usability and performance in real business conditions. Their feedback helped refine layouts, validation rules, and automation flows.

LIMITATIONS

❖ Requires a stable internet connection for cloud access.

❖ Limited offline functionality in Salesforce.

❖ Custom UI design options are restricted within the Salesforce platform.

❖ Integration with external billing or ERP systems may need additional APIs.

FUTURE OUTCOMES

❖ Technical Improvements: Integration with AI and machine learning to predict customer preferences and buying trends.

❖ Business Outcomes: Increased brand loyalty through rewards, offers, and better customer engagement.

❖ Long-Term Goals: Expansion of CRM features to support multiple branches or franchises. Use of data analytics and forecasting for strategic business planning.

CONCLUSION

The **CRM Application for Jewelry Management** successfully streamlines and automates various operations of a jewelry business through the Salesforce platform. The system centralizes all customer-related information, product details, and sales transactions, ensuring that data is easily accessible and well-organized. By maintaining a comprehensive database of customers, purchase history, and preferences, the system enables the delivery of personalized services and builds stronger customer relationships.

This project effectively integrates multiple business functions—such as sales, lead management, inventory control, billing, and reporting—into one cohesive system. Through Salesforce's powerful tools, it automates repetitive processes like lead tracking, order management, and invoice generation, significantly reducing manual work and human errors. The automated workflows ensure consistency in business operations, while real-time dashboards and reports provide valuable insights into sales trends and performance metrics.

One of the major achievements of this CRM application is its ability to enhance **transparency and accuracy**. The inclusion of automated pricing calculations, stock updates, and approval processes ensures that all business data is reliable and up to date. Additionally, role-based access control and secure data management practices safeguard sensitive business and customer information, which is crucial in a competitive industry like jewelry retail.

From a business perspective, the project demonstrates how **Salesforce CRM** can be tailored to meet the unique needs of the jewelry industry. It shows how technology can drive efficiency, improve decision-making, and strengthen relationships with both new and existing customers. The use of cloud-based architecture allows the system to be accessible anytime and anywhere, providing flexibility for managers and employees across different branches or departments.

In conclusion, the **CRM Application for Jewelry Management** stands as an effective example of how Salesforce technology can be implemented to achieve higher efficiency, better transparency, and improved customer satisfaction. It paves the way for jewelry businesses to embrace smart, data-driven operations and build long-term success in a rapidly evolving marketplace.

REFERNECES:

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https://trailhead.salesforce.com/content/crm_application_for_jewel_management/schema_builder

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