CRM APPLICATION FOR JEWEL MANAGEMENT

NAAN MUDHALVAN

PROJECT REPORT

Submitted by

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BONAFIDE CERTIFICATE

Certified that this project report **"CRM APPLICATION FOR JEWEL MANAGEMENT"** is the bonafide work of **"HARIHARAN.N (AU620120104029), DAIYA.R(AU620120104317), JAYASEELAN.S (AU620120104038), JEGAN AKILAN. R(AU620120104036)"** who carried out the project work under my supervision.

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CHAPTER 1
PROJECT SPECIFICATION

1.1. Project Goal

The goal of a CRM application for jewelry management is to provide a comprehensive solution that optimizes customer relationships, sales, and inventory control within the jewelry industry. This application should facilitate efficient customer relationship management, enabling the tracking of customer information, preferences, and purchase history to enhance customer interactions and loyalty. It should empower sales teams to manage orders, process transactions, and generate invoices for jewelry sales, while also maintaining a real-time inventory of jewelry items to prevent overstocking or understocking. Additionally, the system should offer features for jewelry appraisal and valuation, advanced reporting and analytics for data-driven decision-making, robust security measures to protect valuable data, and mobile accessibility for on-the-go sales support. Integration with other systems and automation of CRM tasks, such as follow-ups and marketing campaigns, should be key components. An intuitive user interface and tools for customer communication will further contribute to the success of this CRM application tailored for the jewelry industry.

Customization: Provide the flexibility for jewelry businesses to customize the application to suit their unique needs and branding. Multi-location Support: Enable jewelry stores with multiple locations to manage inventory and customer data seamlessly across all outlets. Vendor and Supplier Management: Include features for managing relationships with jewelry suppliers and tracking the procurement of jewelry items. Repairs and Maintenance: Incorporate capabilities to manage jewelry repair requests and maintenance services, tracking items sent for repair and their status. CRM Workflow Automation: Implement workflow automation to streamline processes, such as lead generation, order fulfillment, and customer support, improving efficiency. Customer Segmentation: Allow businesses to segment their customer base for targeted marketing campaigns and personalized offerings.

Support the creation and management of customer loyalty programs to reward repeat customers. Price Management: Enable businesses to adjust pricing strategies dynamically based on market conditions and demand. Compliance and Certification: Ensure that the application complies with industry-specific regulations and certifications, such as hallmarking requirements. Data Backup and Recovery: Implement robust data backup and recovery mechanisms to safeguard against data loss. Training and Support: Provide training and ongoing support to ensure that users can make the most of the CRM application. Scalability: Ensure that the system can grow with the business, accommodating an increasing number of products, customers, and transactions. These goals collectively aim to create a CRM application that not only streamlines daily operations but also helps jewelry businesses build strong customer relationships, enhance their competitive edge, and adapt to the evolving demands of the industry

1.2. The Project Scope

Functional Requirements:

Customer Information Management: Capture and store customer data, including contact details, purchase history, and preferences. Sales and Order Management: Enable the creation, tracking, and management of jewelry sales orders. **Inventory Management:** Keep an up-to-date record of jewelry items in stock, including details like metal type, gemstone, weight, and pricing. Jewelry Appraisal and Valuation: Provide tools for appraising and valuing jewelry items accurately. **Reporting and Analytics:** Generate reports and offer analytical insights on sales trends, customer behavior, and inventory turnover. Security and Authentication: Implement security measures to protect sensitive customer and inventory data. Mobile **Accessibility:** Ensure that the system is accessible via mobile devices for salespeople in the field.

Integration: Support integration with other systems, such as accounting software, to streamline operations. CRM Automation: Implement automation for tasks like follow-ups, reminders, and marketing campaigns. User-Friendly Interface: Develop an intuitive and user-friendly interface for staff.

Non-Functional Requirements:

Performance: Define performance benchmarks for system responsiveness and data processing speed.

Scalability: Determine the system's ability to scale to accommodate growing data and user loads.

Security: Specify security measures, including data encryption, access controls, and authentication mechanisms.

Compliance: Ensure compliance with industry-specific regulations, such as data privacy and hallmarking requirements.

Data Backup and Recovery: Define data backup and recovery processes to prevent data loss.

Usability: Ensure that the system is user-friendly and provide training for staff.

Availability: Set uptime targets to minimize system downtime.

Project Constraints:

Budget: Define the financial constraints and available budget for the project.

Timeline: Establish project timelines, milestones, and delivery dates.

Technology Stack: Determine the technologies, programming languages, and platforms to be used in development.

Allocate human and technical resources, including developers, designers, and hardware.

Project Deliverables: The CRM application itself, meeting the defined functional and non-functional requirements.

Documentation: Provide comprehensive user manuals, system documentation, and training materials.

Training and Support: Ensure that end-users are trained and support is available post-implementation.

Project Risks: Identify potential risks such as data breaches, technical challenges, or delays in development, and define mitigation strategies.

Change Control: Establish a process for managing changes to project scope, ensuring that any changes are documented, approved, and properly integrated.

The scope should be clearly defined, well-documented, and agreed upon by all stakeholders to guide the successful development and implementation of the CRM system for jewelry management.

1.3. Problem Statement Definition:

The project aims to develop and implement a specialized CRM (Customer Relationship Management) application tailored for jewel management in the jewelry industry. This CRM solution will address the critical need for efficient customer relationship management, sales and inventory control, and data-driven decision-making within our jewelry business. Our primary objectives are as follows:

1. Customer Relationship Enhancement: The CRM application will empower us to maintain a centralized database of customer information, preferences, and purchase history. This comprehensive view of our customers will enable us to build and nurture long-lasting relationships, personalize our services, and deliver a superior customer experience.

2. Sales and Inventory Optimization: The system will facilitate the seamless management of sales orders and inventory. It will offer real-time visibility into our jewelry stock, including details such as metal type, gemstone, weight, and pricing. This will help us avoid overstocking or understocking, leading to efficient inventory management.

3. Data-Driven Insights: The CRM will provide advanced reporting and analytical capabilities. It will generate insights into sales trends, customer behavior, and inventory turnover. These insights will guide our decision-making processes, enhancing our ability to respond to market dynamics and customer demands effectively.

4. Security and Compliance: The application will incorporate robust security measures to safeguard sensitive customer and inventory data. It will also ensure compliance with industry-specific regulations, such as data privacy and hallmarking requirements, providing a secure and trustworthy platform.

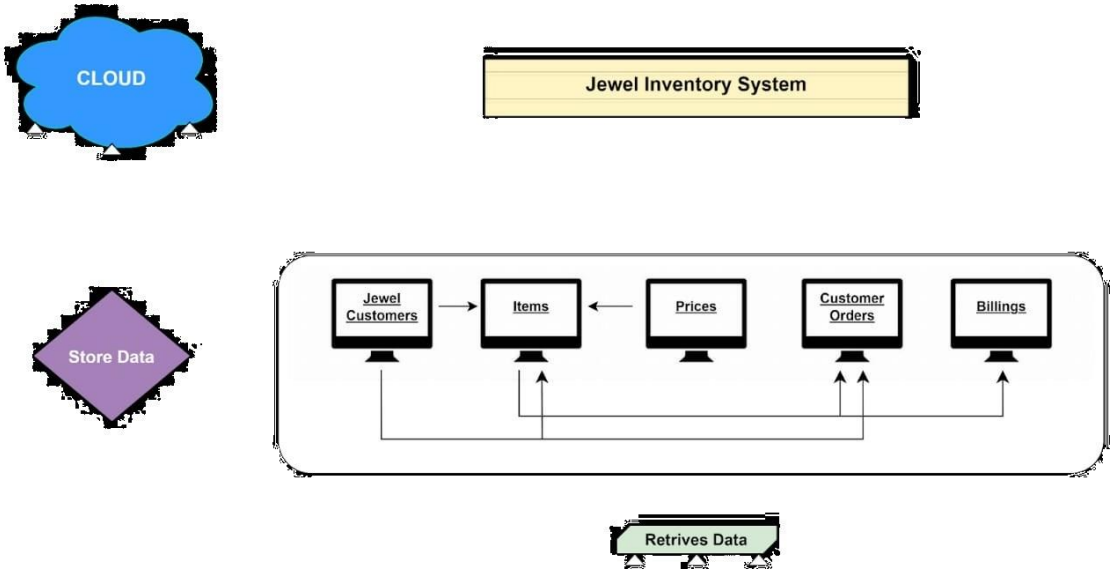
5. Mobile Accessibility: Recognizing the evolving sales landscape, the CRM system will be accessible via mobile devices, allowing our sales teams to serve customers both in-store and in the field. This mobile functionality will provide a competitive edge in the jewelry industry.

6. Integration and Automation: The CRM will seamlessly integrate with other systems, including accounting software, streamlining operational processes. Additionally, it will automate CRM tasks, such as follow-ups, reminders, and marketing campaigns, increasing overall efficiency.

7. User-Friendly Interface: The system will feature an intuitive and user-friendly interface, ensuring that our staff can effectively utilize its capabilities with minimal training.

This project aims to create a CRM application that not only enhances our daily operations but also positions our jewelry business for growth and success by fostering stronger customer relationships, improving inventory management, and harnessing the power of data-driven decision-making. We are committed to delivering a reliable, secure, and accessible solution that aligns with the unique needs and regulatory requirements of the jewelry industry.

1.4. Empathy Map Canvas



1.5. Proposed Solution:

1. Overview:

The proposed solution is a comprehensive CRM (Customer Relationship Management) application designed specifically for the jewelry management industry. It addresses the unique needs of jewelers in managing customer relationships, sales, and inventory. The solution aims to streamline operations, enhance customer engagement, and provide data-driven insights for informed decision-making.

2. Key Features and Functionalities:

2.1 Customer Relationship Management:

Customer Database: Capture and store detailed customer information, including contact details, purchase history, and preferences.

Segmentation: Enable segmentation of customers for targeted marketing campaigns and personalized services.

Communication: Facilitate communication with customers through email and SMS for updates, promotions, and notifications.

2.2 Sales and Order Management:

Sales Orders: Empower users to create, track, and manage jewelry sales orders with ease.

Invoicing: Generate invoices for sales transactions, including tracking payment details.

2.3 Inventory Management:

Real-Time Inventory: Maintain a dynamic inventory database with extensive details, including metal type, gemstone, weight, pricing, and quantity in stock.

Categorization: Support product categorization and tagging for efficient inventory organization.

Scanning: Implement barcode or QR code scanning for streamlined inventory tracking.

2.4 Jewelry Appraisal and Valuation:

Appraisal Tools: Provide tools for the appraisal and valuation of jewelry items, aiding in accurate item valuation.

2.5 Reporting and Analytics:

Customizable Reports: Generate customizable reports on sales trends, customer behavior, and inventory turnover.

Data Visualization: Present data through graphical visualization for actionable insights.

2.6 Security and Authentication:

User Authentication: Implement secure user authentication and role-based access controls to protect sensitive data.

Data Security: Ensure data security with encryption during transmission and storage.

2.7 Mobile Accessibility:

Enable mobile access to the CRM application, supporting sales teams in-store and in the field.

2.8 Integration:

External Systems: Seamlessly integrate with external systems, such as accounting software, for efficient data exchange.

2.9 CRM Automation:

Automated Tasks: Automate routine CRM tasks, including follow-ups, reminders, and marketing campaigns, reducing manual workload.

2.10 User-Friendly Interface:

Develop an intuitive and user-friendly interface for easy navigation and data entry, minimizing the learning curve for users.

3. Technical Considerations:

Performance: Optimize system performance to ensure responsiveness even with extensive data.

Scalability: Design the system to scale to accommodate growth in data and user numbers.

Security: Implement robust security measures, including encryption and regular security audits.

Compliance: Ensure compliance with industry-specific regulations, such as hallmarking requirements.

Data Backup and Recovery: Establish automated data backup and recovery procedures for data protection.

Usability: Provide user training and ongoing support to ensure successful adoption.

Availability: Define and maintain acceptable system uptime and availability targets.

4. Benefits:

The proposed CRM solution for jewel management offers the following benefits:

Improved customer relationships and loyalty. Streamlined sales and order management. Efficient inventory tracking and control. Informed decision-making with data-driven insights. Enhanced data security and regulatory compliance. Mobile accessibility for on-the-go sales teams. Automation for increased operational efficiency.

5. Project Scope:

This solution's scope includes the development and implementation of the CRM application, comprehensive testing, user training, documentation, and post-implementation support.

6. Conclusion:

The proposed CRM application for jewel management is poised to revolutionize the jewelry industry by addressing its unique challenges and requirements. This comprehensive solution will empower jewelry businesses to thrive in a highly competitive market by fostering strong customer relationships, optimizing inventory control, and harnessing the power of data analytics for smarter decision-making.

1.6. Functional & Technical Requirements:

1. Customer Relationship Management:

Customer Database: Capture and store customer information, including name, contact details, purchase history, and preferences.

Segmentation: Enable segmentation of customers for targeted marketing campaigns and personalized services. Communication: Facilitate communication with customers through email and SMS for updates, promotions, and notifications.

2. Sales and Order Management:

Sales Orders: Empower users to create, track, and manage jewelry sales orders with ease.

Invoicing: Generate invoices for sales transactions, including tracking payment details.

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8. Integration:

External Systems: Seamlessly integrate with external systems, such as accounting software, for efficient data exchange.

9. CRM Automation:

Automated Tasks: Automate routine CRM tasks, including follow-ups, reminders, and marketing campaigns, reducing manual workload.

10. User-Friendly Interface:

Develop an intuitive and user-friendly interface for easy navigation and data entry, minimizing the learning curve for users.

Technical Requirements:

1. Performance:

Optimize system performance to ensure responsiveness, even with extensive data. Define acceptable response times for critical system functions.

2. Scalability:

Design the system to scale to accommodate growth in data volume and user numbers. Implement load balancing and resource allocation for scalability.

3. Security:

Implement robust security measures, including data encryption during transmission and storage. Conduct regular security audits and vulnerability assessments to identify and mitigate potential threats.

4. Compliance:

Ensure compliance with industry-specific regulations, such as hallmarking requirements and data privacy laws. Keep records of compliance efforts and documentation.

5. Data Backup and Recovery:

Establish automated data backup procedures with regular backup intervals. Develop and test data recovery processes to minimize downtime in case of data loss.

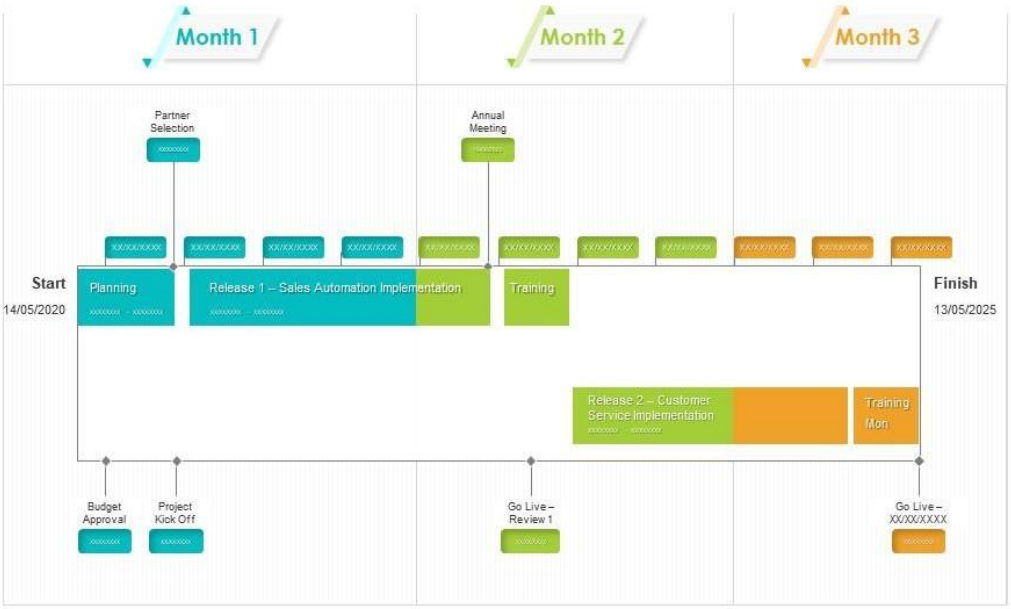
6. Usability:

Provide user training and support for system adoption. Create documentation and resources to aid users in utilizing the CRM effectively.

7. Availability:

Define and maintain acceptable system uptime and availability targets. Implement failover and redundancy mechanisms to ensure high availability. These functional and technical requirements provide the foundation for developing a CRM application tailored to the needs of jewel management, ensuring that it meets both the operational and technical aspects essential for success in the jewelry industry.

1.7. Project Road Map



CHAPTER 2

PREPARATION DATA MODELING

2.1. Sales force Developer Org

The Jewel Inventory System is a comprehensive software Solution designed to streamline and manage the inventory and sales processes of a jewellery store or a jewellery manufacturer. The system aims to provide an efficient and user-friendly solution to track and control the inventory of various jewellery items, maintain accurate records, and facilitate seamless sales transactions.

Salesforce is your customer success platform, designed to help you sell, service, market, analyze, and connect with your customers. Salesforce has everything you need to run your business from anywhere. Using standard products and features, you can manage relationships with prospects and customers, collaborate and engage with employees and partners, and store your data securely in the cloud.

System Requirements:

1. Windows 8 machine
2. Install with two web browser
3. Bandwidth of 30mbps

2.2. Object Creation

Salesforce objects are database tables that permit you to store data that is specific to an organisation. What are the types of Salesforce objects

Salesforce objects are of two types:

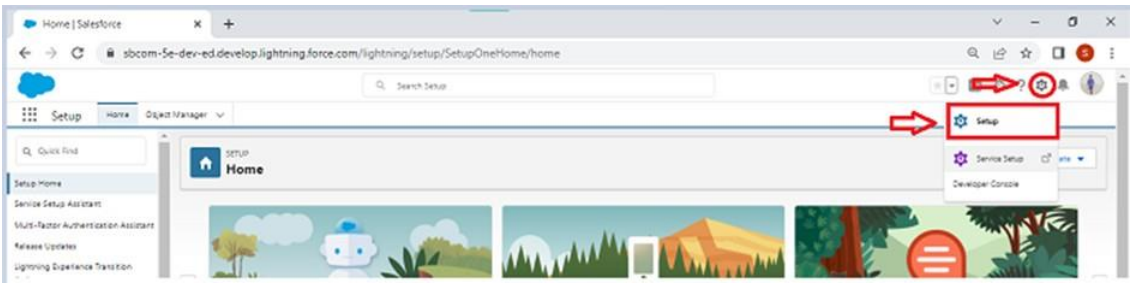
1. **Standard Objects**: Standard objects are the kind of objects that are provided by salesforce.com such as users, contracts, reports, dashboards, etc.
2. **Custom Objects:** Custom objects are those objects that are created by users. They supply information that is unique and essential to their organization. They are the heart of any application and provide a structure for sharing data.

Use Case:

Creating an object in Salesforce organisation is essential for efficient data management and process automation. By defining custom objects, businesses can structure and store data specific to their needs, enabling streamlined workflows, personalised reporting, and enhanced user experiences. Objects serve as the foundation for organising and leveraging critical information within Salesforce.

To Navigate to Setup page:

Click on gear icon ? click setup.



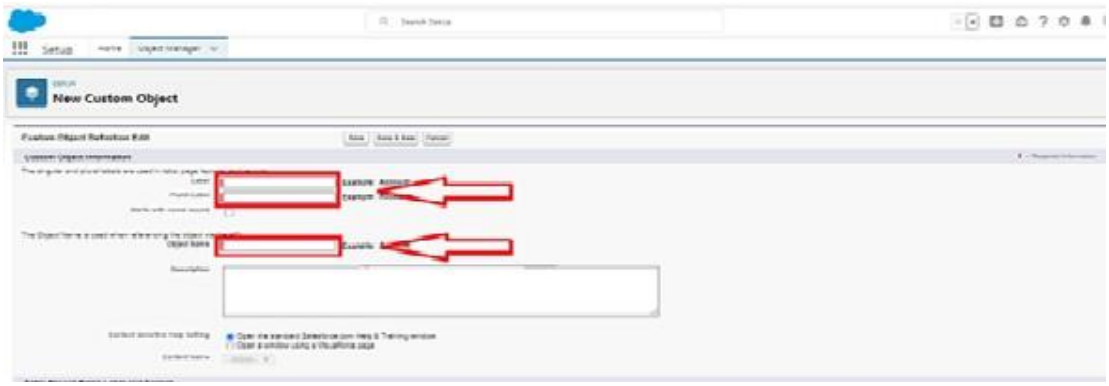
Create Jewel Customer Object

The purpose of creating a Jewel Customer custom object is to store and manage information about Customer.

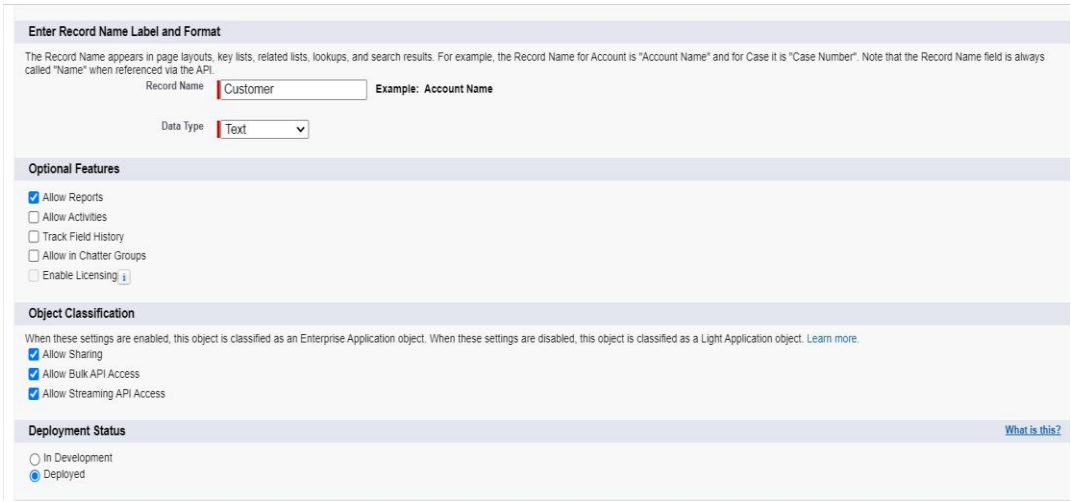
To create an object:

1. From the setup page >> Click on Object Manager >> Click on Create >> Click on Custom Object.
2.

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



3. Click on Allow reports.

4. Allow search >> **Save.**

Create Item Object

The purpose of creating a Item object is to manage the inventory of gold and silver items.

To create an 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**

2.3. Fields and Relationship

Fields

When we talk about Salesforce, Fields represent the data stored in the columns of a relational database. It can hold any valuable information that you require for a specific object. Hence, the overall searching, deletion, and editing of the records become simpler and quicker.

Types of Fields

1. Standard Fields
2. Custom Fields

Standard Fields:

As the name suggests, the Standard Fields are the predefined fields in Salesforce that perform a standard task. The main point is that you can't simply delete a

Standard Field until it is a non-required standard field. Otherwise, users have the option to delete them at any point from the application freely. Moreover, we have some fields that you will find common in every Salesforce application. They are,

- Created By
- Owner
- Last Modified
- Field Made During object Creation

Custom Fields:

On the other side of the coin, Custom Fields are highly flexible, and users can change them according to requirements. Moreover, each organiser or company can use them if necessary. It means you need not always include them in the records, unlike Standard fields. Hence, the final decision depends on the user, and he can add/remove Custom Fields of any given form.

Use Case:

Now it's time for you to think out of the box for your organisation. You have successfully created the database objects for the organisation but now all eyes turn on you as you have to define what sort of information the objects store which you have created. As a life saver of your organisation you come up with the idea of creating fields to store different types of data.

Creating Lookup Relationship

A Lookup relationship is a type of relationship in Salesforce that connects two objects together based on a field known as the Lookup field. It establishes a relationship between a child object and a parent object, allowing the child object to reference the parent object.

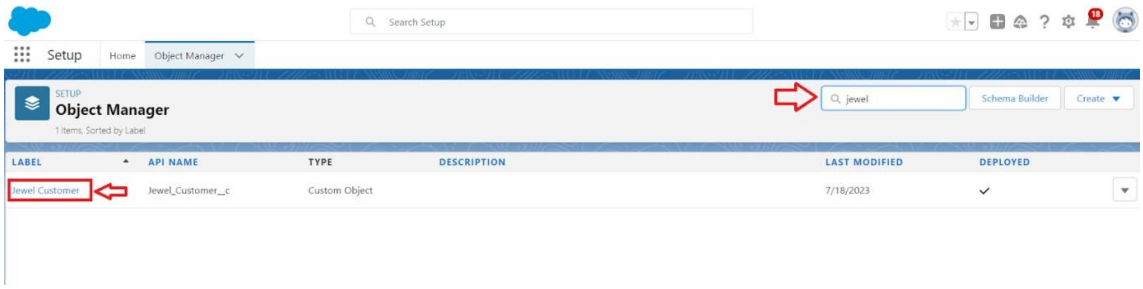
Creating A Master-Detail Relationship

Master-detail relationship is a type of relationship between two objects where the master object controls certain behaviours and settings of the detail object. Here are a few use cases that demonstrate the use of master-detail relationships

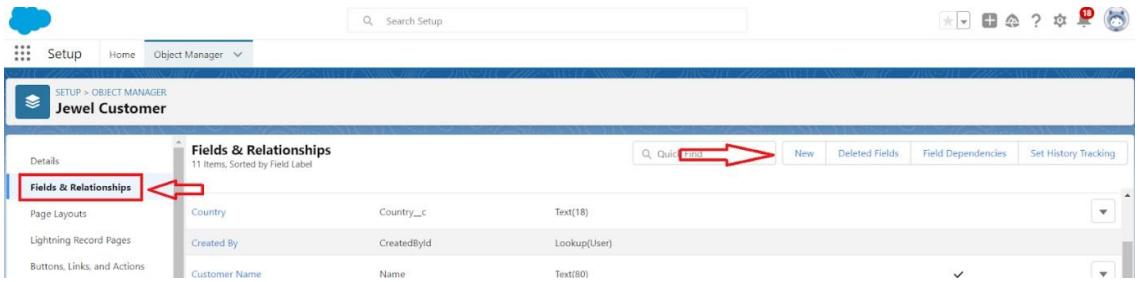
Creating Text Field In Jewel Customer Object

To create fields in an object:

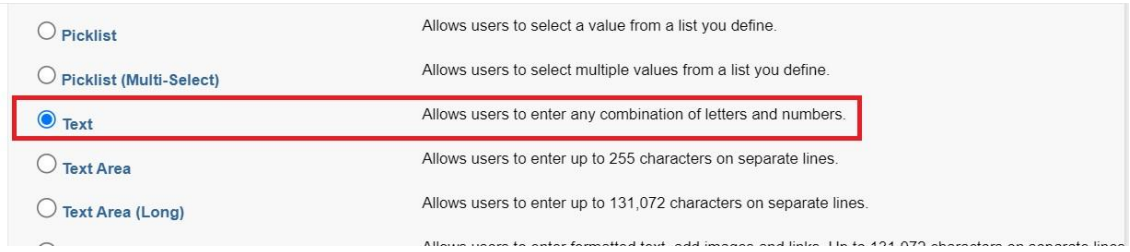
1. Go to setup >> click on Object Manager >> type object name(Jewel Customer) in quick find bar >> click on the object.



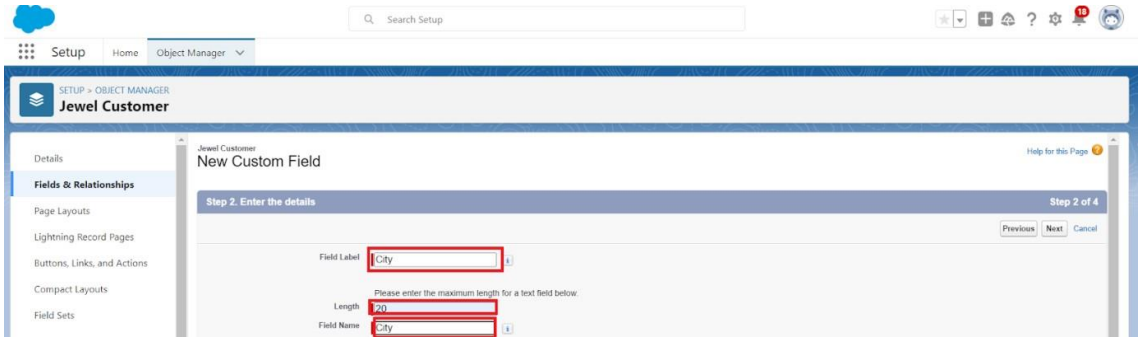
2. Now click on “Fields & Relationships” >> New



3. Select Data type as “Text”.

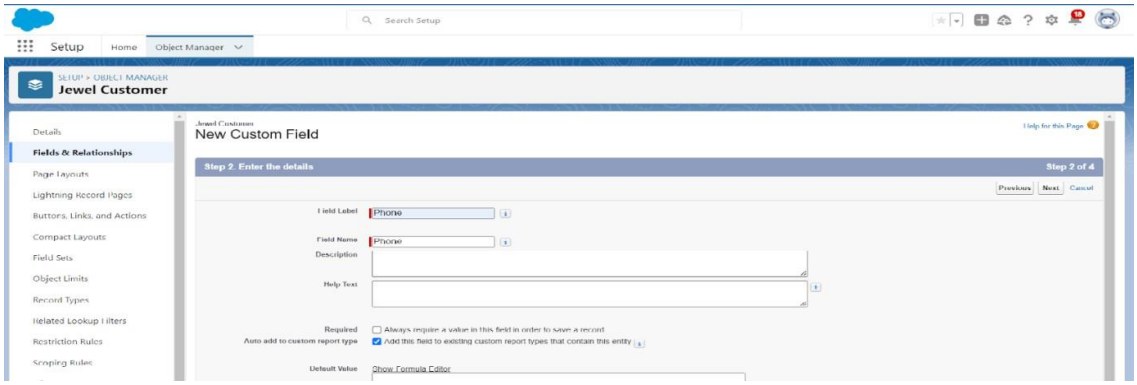


4. Click on Next

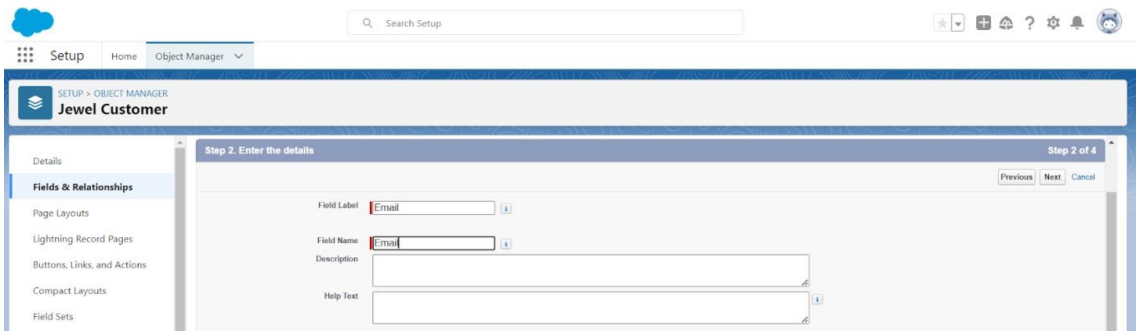


5. Fill the above as following:
   - Field Label: Adress
   - Length : 20
   - Field Name : gets auto generated
   - Click on Next >> Next >> Save and new.

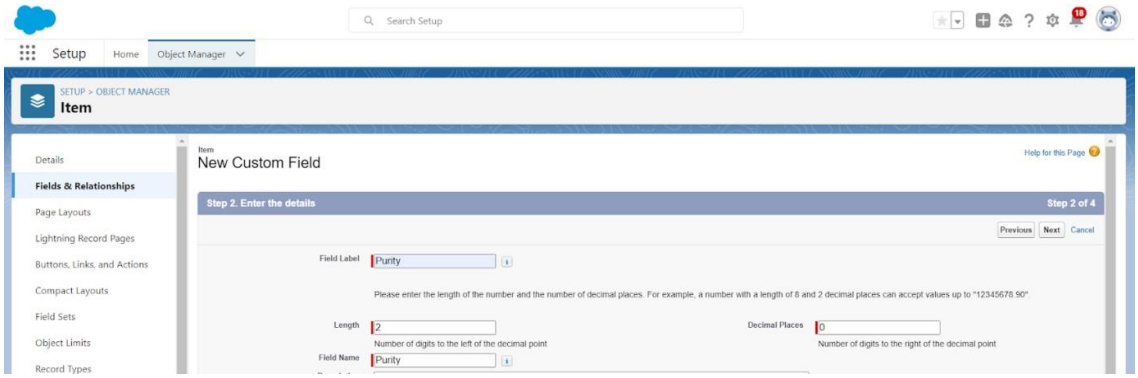
Creating The Phone Field In Object Jewel Customer



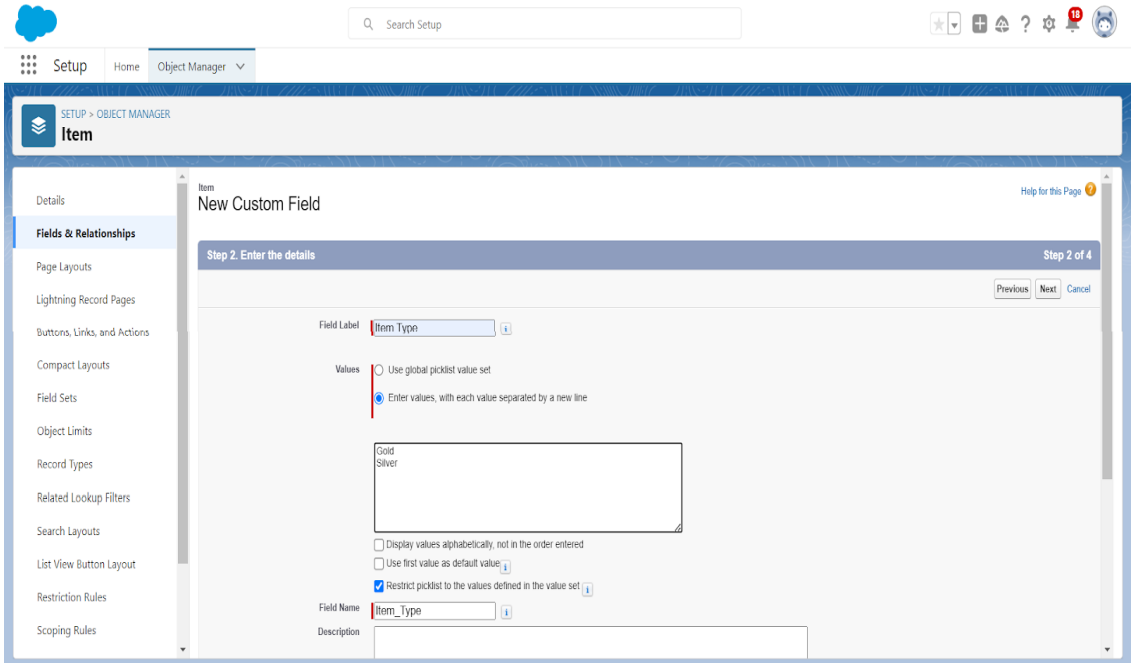
Creating The Email Field In Object Jewel Customer



Creating The Number Field In Item Object



Creating Picklist Field In Item Object



2.4. Tabs

What is Tab: A tab is like a user interface that is used to build records for objects and to view the records in the objects.

Types of Tabs:

1. Custom Tabs

   Custom object tabs are the user interface for custom applications that you build in salesforce.com. They look and behave like standard salesforce.com tabs such as accounts, contacts, and opportunities.

2. Web Tabs

   Web Tabs are custom tabs that display web content or applications embedded in the salesforce.com window. Web tabs make it easier for your users to quickly access content and applications they frequently use without leaving the salesforce.com application.

3. Visualforce Tabs

   Visualforce Tabs are custom tabs that display a Visualforce page. Visualforce tabs look and behave like standard salesforce.com tabs such as accounts, contacts, and opportunities.

4. Lightning Component Tabs

   Lightning Component tabs allow you to add Lightning components to the navigation menu in Lightning Experience and the mobile app.

5. Lightning Page Tabs

   Lightning Page Tabs let you add Lightning Pages to the mobile app navigation menu.

   Lightning Page tabs don't work like other custom tabs. Once created, they don't show up on the All Tabs page when you click the Plus icon that appears to the right of your current tabs. Lightning Page tabs also don't show up in the Available Tabs list when you customize the tabs for your apps.

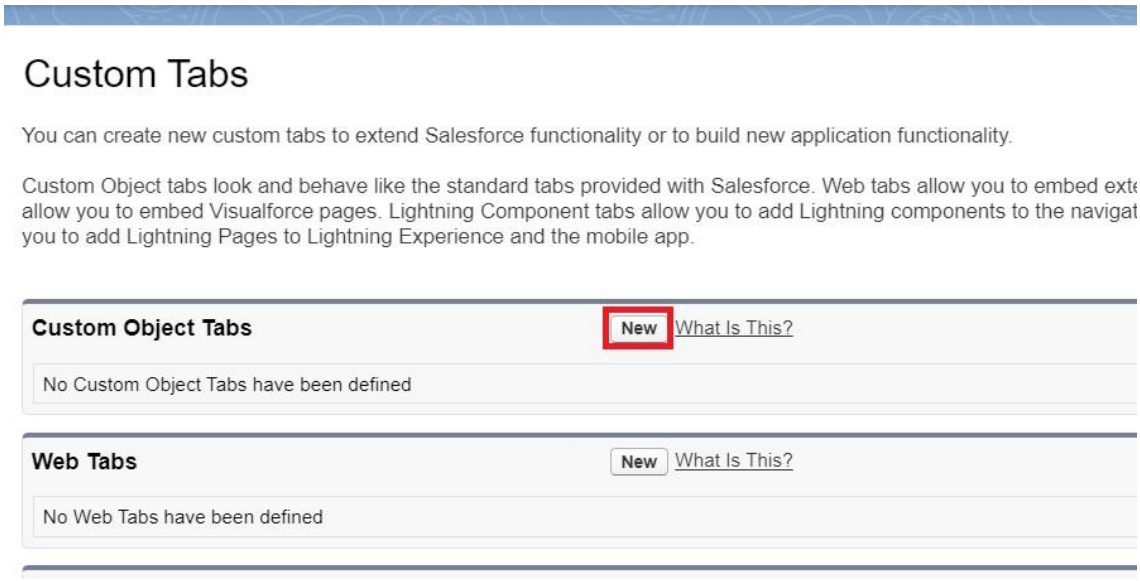
Use Case:

Creating Objects and storing Jewels data is the very first step in the requirements they want. Now to access the stored data by an Owner(Gold Smith) in the organisation Admin needs to create Tabs. By designing a dedicated Tab, businesses can improve user experience, simplify navigation, and provide quick access to critical information, enhancing productivity and ensuring efficient utilisation of Salesforce's capabilities.

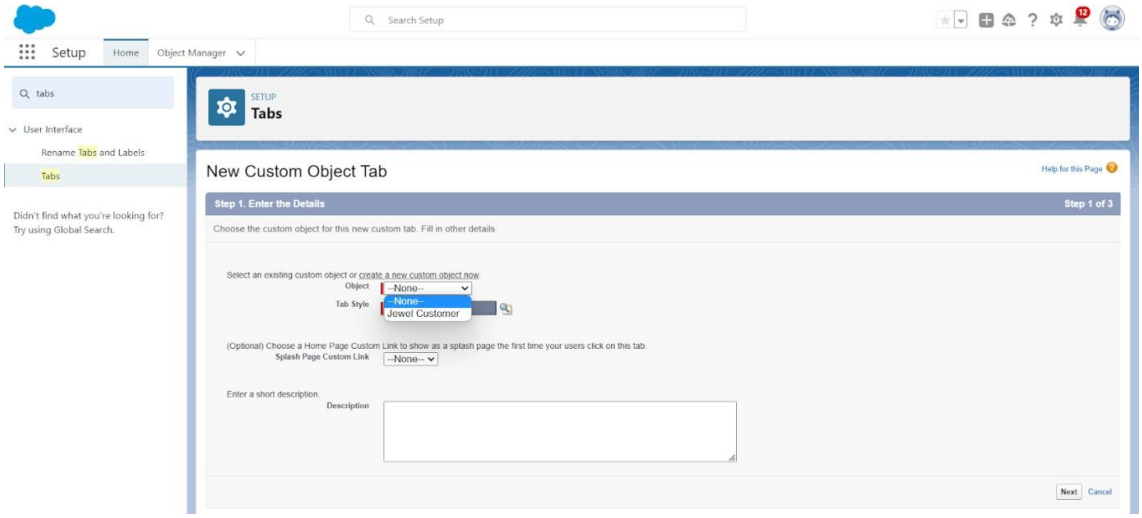
Creating A Custom Tab

To create a Tab:(Customer)

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.



Record Types

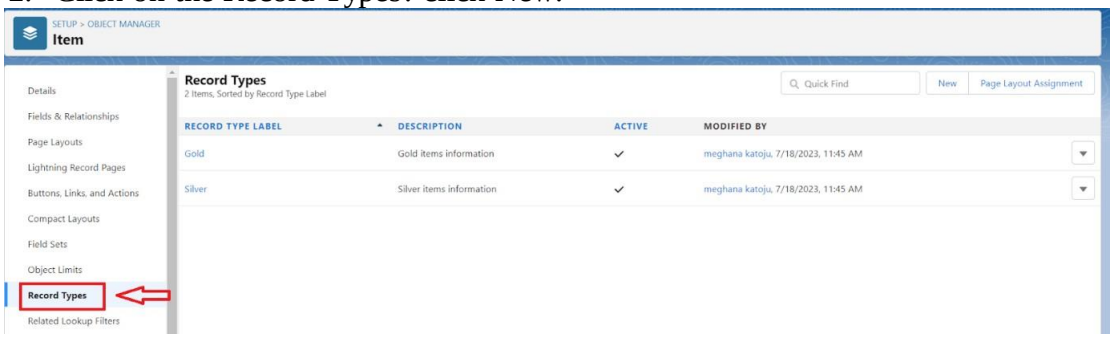
Record Types are a way of grouping many records of one type for that object. These can be applied to any standard or custom object, and allow you to have a different page layout, fields, required fields, and picklist values. Record types allow administrators to create a different page layout with custom picklist fields and values for the same business process and various business processes.

Use Case:

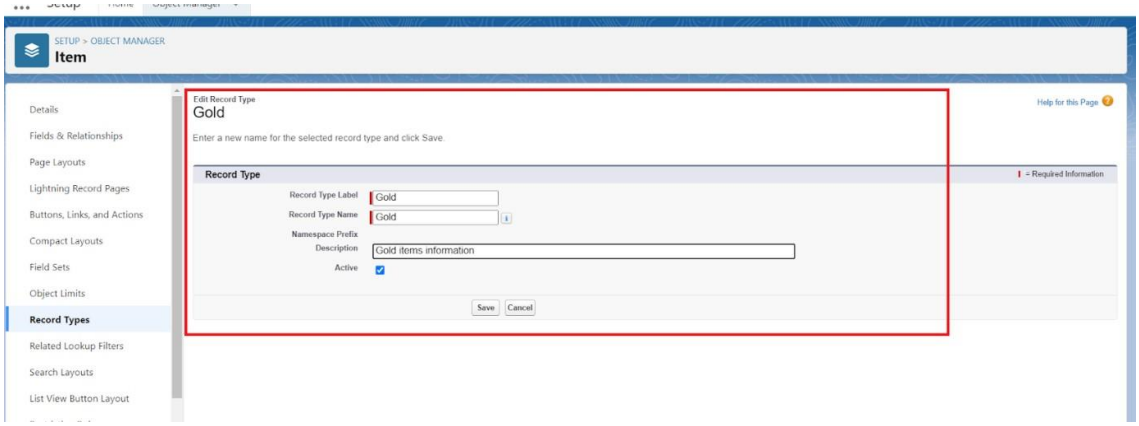
All things done for the organisation. But some of the organisations feel it difficult to fill up all the details while creating a record, so GoldSmith assigned you a task to create different forms for Gold and Silver records based on their mode of work. As an Admin, you know how to achieve this.

To Create A Record Type

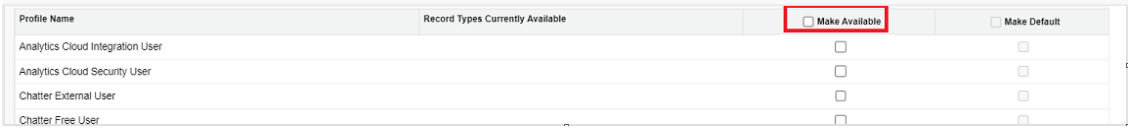
1. Go to setup ? click on Object Manager ? type object name(Item) in quick find bar? click on the object.
2. Click on the Record Types? click New.



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

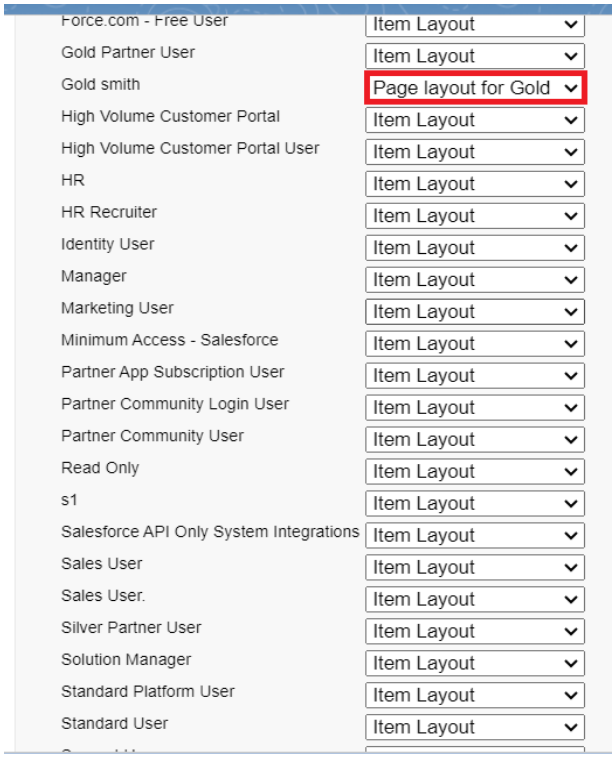


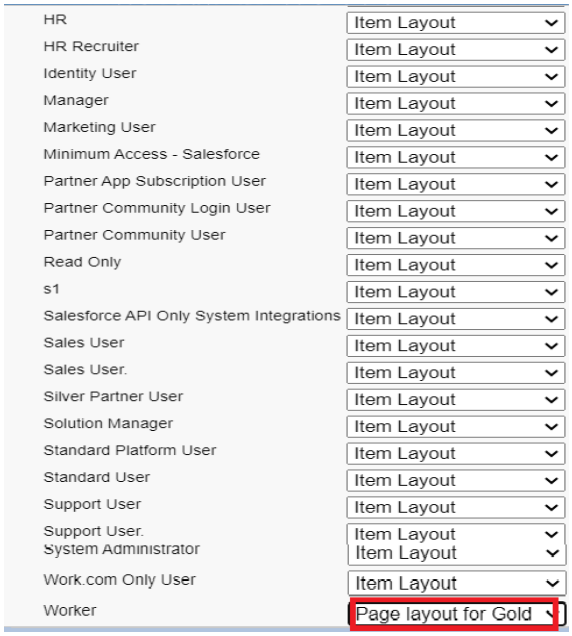
4. Uncheck for “Make Available”.



5. Scroll down and check for the Gold Smith,Worker & System Administrator profile and click on Next.

6. Select “Apply a different layout for each profile”, and change page layout to “Page Layout for Gold“for Gold Smith,Worker and System Administrator ? save & new.





Note: Create another Record Type with name “Silver” following the steps from Activity1(Use page layout for Silver).

2.5. The Lightning App

An app is a collection of items that work together to serve a particular function. In Lightning Experience, Lightning apps gives users access to sets of objects, tabs, and other items all in one convenient bundle in the navigation bar.

Lightning apps let you brand your apps with a custom color and logo. You can even include a utility bar and Lightning page tabs in your Lightning app. Members of your org can work more efficiently by easily switching between apps.

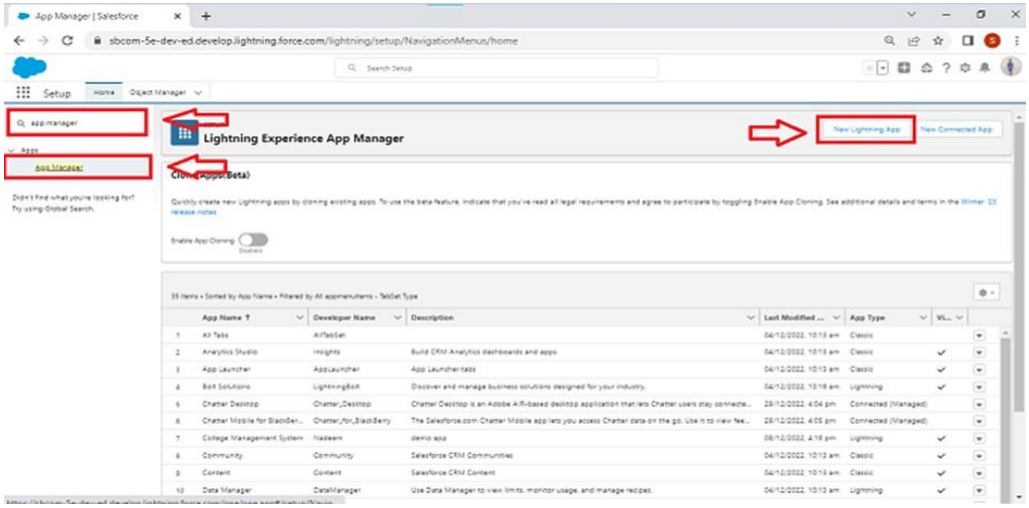
Use Case:

Well done you have reached close to your requirement by creating the objects to store the organisation's data. Making a database for an organisation is just not enough to reach out the requirements, the task is how the users at the organisation can access the objects you have created for them. As an Admin for the organisation it's your duty to make sure every user of the organisation is able to access the data modelling structure.

Create A Lightning App

To create a lightning app page:

Go to setup page >> search "app manager" in quick find >> select "app manager" >> click on New lightning App.



1. Fill the app name in app details and branding as follow

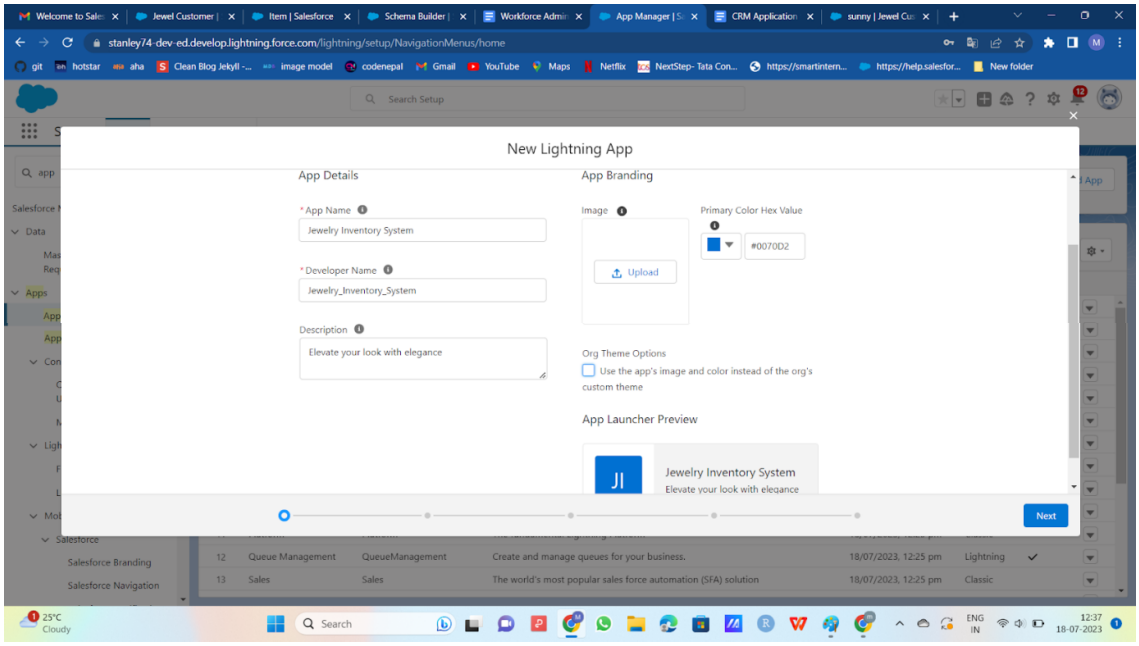
   App Name : Jewellery Inventory System.

   Developer Name : This will auto populated

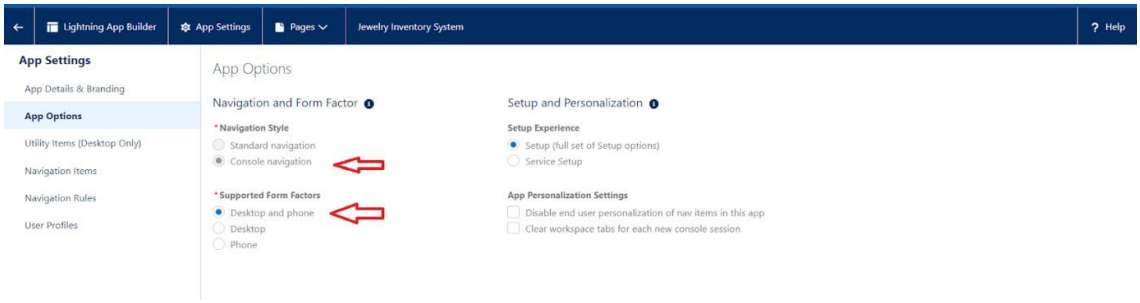
   Description : Elevate your look with elegance

   Image : optional (if you want to give any image you can otherwise not mandatory)

   Primary colour hex value : keep this default.

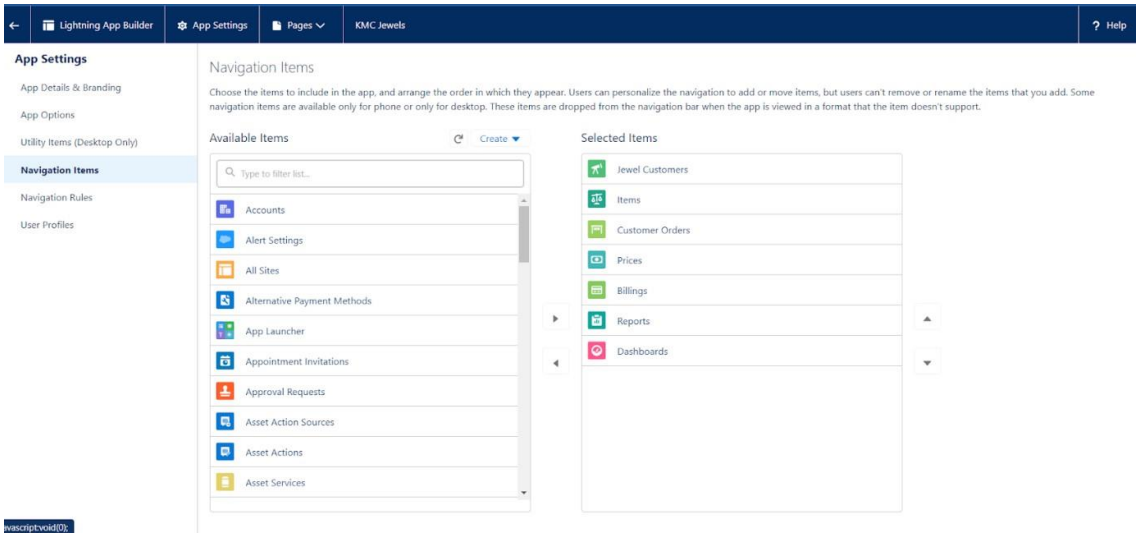
2. 

3. Then click Next >> (App option page)Set Navigation Style as Console Navigation >> Next.



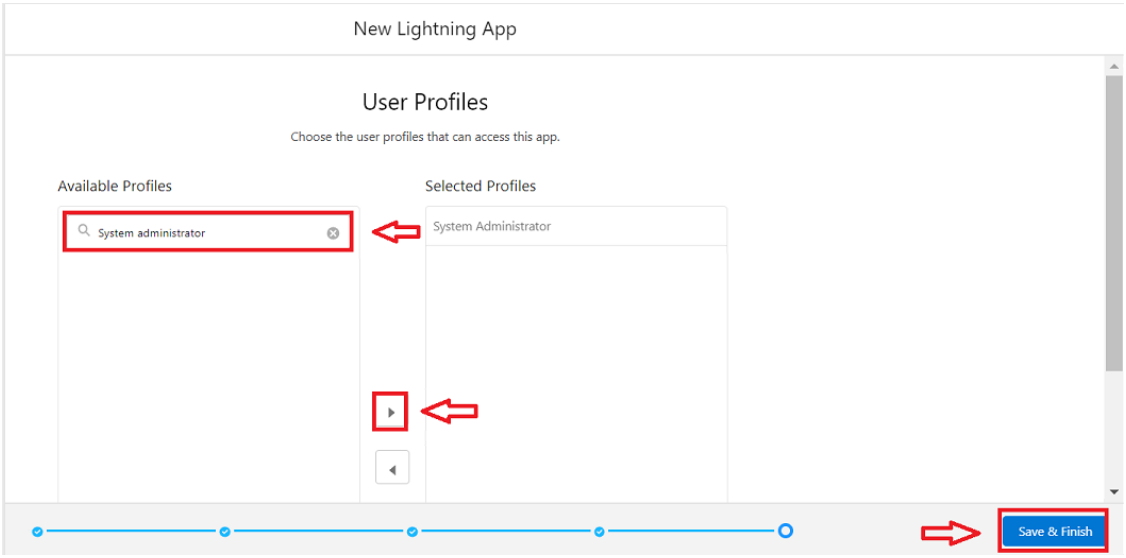
5. (Utility Items) keep it as default >> Next.

6. 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.

7. To Add User Profiles:



Search profiles (System administrator) in the search bar >> click on the arrow button >> save & finish.

2.6. Page Layouts

Page Layout in Salesforce allows us to customise the design and organise detail and edit pages of records in Salesforce. Page layouts can be used to control the appearance of fields, related lists, and custom links on standard and custom objects' detail and edit pages.

Use Case:

Hurray!! you have completed the data model structure for your organisation but while looking at the detailed and edit pages it seems to be so clumsy, so decide to organise the page in a pleasant way for the sake of good and pleasant appearance and assemble all different kinds of information in different sections in order.

2.7. Trigger

Use Case:

Trigger and Trigger handler is designed to handle scenarios where we used to update the "Paid Amount" field on a custom object called "Billing" based on the value in a field named "Paying Amount" during both record insertion and update operations. It Calculates and updates the "Paid Amount" field based on the existing "Paid Amount" and the new "Paying Amount" during record updates.This approach ensures that the "Paid Amount" accurately reflects the payments made by customers and provides a history of changes to the "Paid Amount" over time.

Trigger :

A trigger is a piece of Apex code that automatically runs before or after specific events, like record insertion, update, or deletion. Triggers are used to customise and automate actions in response to these events.

Create A Trigger Handler Class

```
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);
            Decimal oldPaidAmount = oldBilling.Paid_Amount__c;
            billing.Paid_Amount__c = oldPaidAmount + billing.Paying_Amount__c;
        }
    }
}
```

Trigger handler

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.

Create The 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);
    }
}
```

CHAPTER 3

USERS & DATA SECURITY

3.1. Profile

A profile is a group/collection of settings and permissions that define what a user can do in salesforce. Profile controls "Object permissions, Field permissions, User permissions, Tab settings, App settings, Apex class access, Visualforce page access, Page layouts, Record Types, Login hours & Login IP ranges. You can define profiles by the user's job function. For example System Administrator, Developer, Sales Representative.

Types of profiles in salesforce

1. **Standard profiles:**

   By default salesforce provides below standard profiles.

   - Contract Manager
   - Read Only
   - Marketing User
   - Solutions Manager
   - Standard User
   - System Administrator.

   We cannot deleted standard ones

   Each of these standard ones includes a default set of permissions for all of the standard objects available on the platform.

2. **Custom Profiles:**

   Custom ones defined by us.

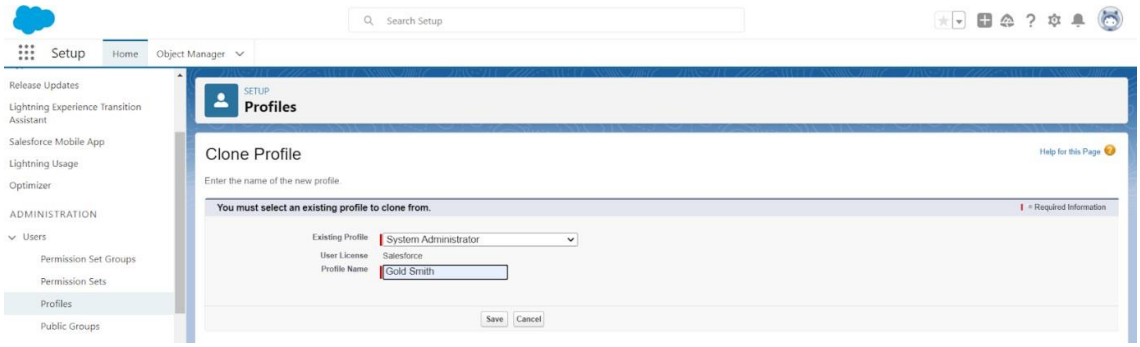
   They can be deleted if there are no users assigned with that particular one.

Use Case:

Great work Admin, you have done so good till now. The GoldSmith wants to differentiate the users based on their functionalities, position and based on this those users need to have the minimum access to the database object in the organisation.

Now it's time to use your Admin skills to focus on the users, their functionality and position in the organisation in order to achieve the Goldsmith Smith requirements.

Gold Smith Profile



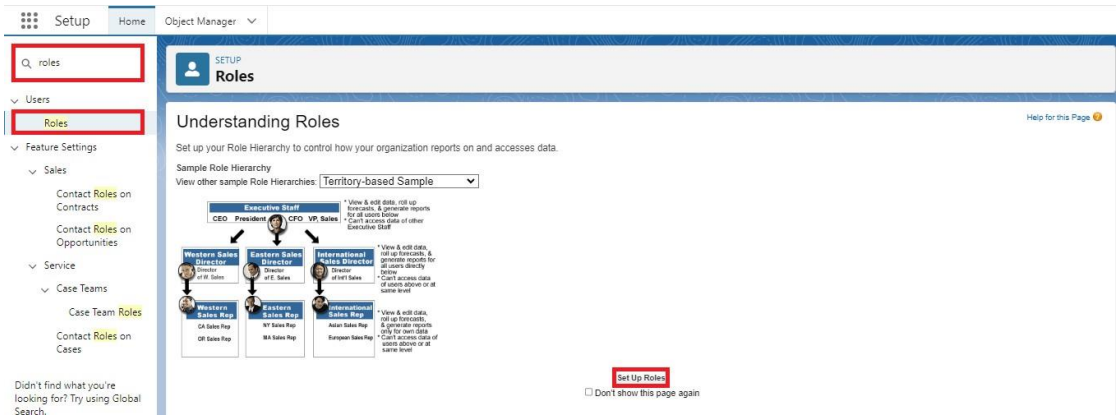
3.2. Setup Roles

A role in Salesforce defines a user's visibility access at the record level. Roles may be used to specify the types of access that people in your Salesforce organisation can have to data. Simply put, it describes what a user could see within the Salesforce organisation.

Use Case:

You have successfully fulfilled the 1st requirement i.e., differentiating the users based on the functionality. Now comes the 2nd task of differentiating the users based on their position, using your excellent admin skills and expanding the custom roles for the organisation and assigning it to the users.

Creating Gold Smith Role



3.3 . Users

A user is anyone who logs in to Salesforce. Users are employees at your company, such as sales reps, managers, and IT specialists, who need access to the company's records. Every user in Salesforce has a user account. The user account identifies the user, and the user account settings determine what features and records the user can access.

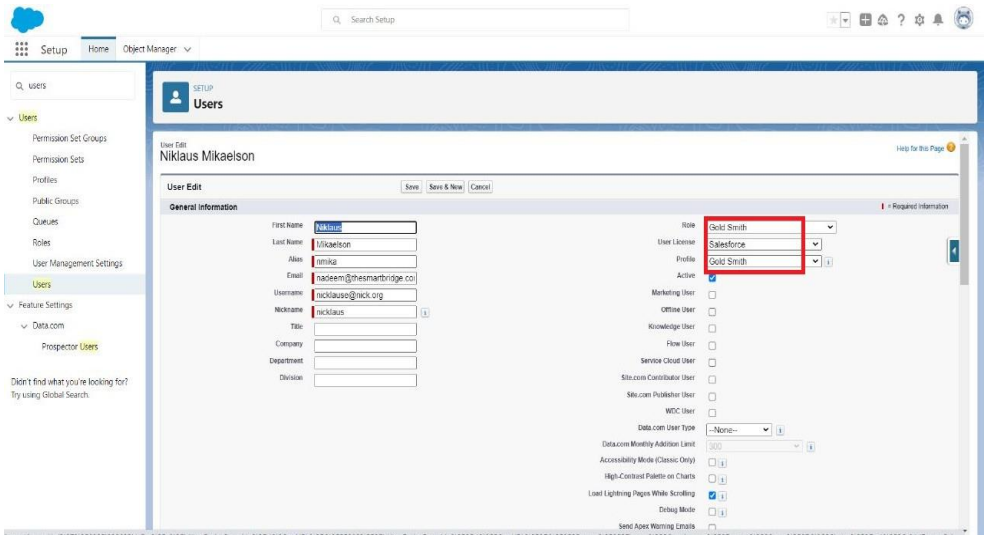
Every user in Salesforce has a user account. The user account identifies the user, and the user account settings determine what features and records the user can access. Each user account contains at least the following:

- Username
- Email Address
- User's First Name (optional)
- User's Last Name
- Alias
- Nickname
- Licence
- Profile
- Role (optional)

Create User

1. Go to setup ? type users in quick find box ? select users ? click New user.
2. Fill in the fields
    1. First Name : Niklaus
    2. Last Name : Mikaelson
    3. Alias : Give a Alias Name
    4. Email id : Give your Personal Email id
    5. Username : Username should be in this form: text@text.text
    6. Nick Name : Give a Nickname

7. Role : Gold Smith
8. User licence : Salesforce
9. Profiles : Gold Smith



3. Save.

1. Go to setup ? type users in quick find box ? select users ? click New user.
2. Fill in the fields
   - First Name : Kol
   - Last Name : Mikaelson
   - Alias : Give a Alias Name
   - Email id : Give your Personal Email id
   - Username : Username should be in this form: text@text.text
   - Nick Name : Give a Nickname
   - Role : Worker
   - User licence : Salesforce Platform
   - Profiles : Worker
3. Save.

3.4 User Adoption& Permission

User Adoption

Use Case:

As a new Administrator, you perform user management tasks like creating and editing users, resetting passwords, granting permissions, configuring data access, and much more. In this unit, you will learn about users and how you add users to your Salesforce org.

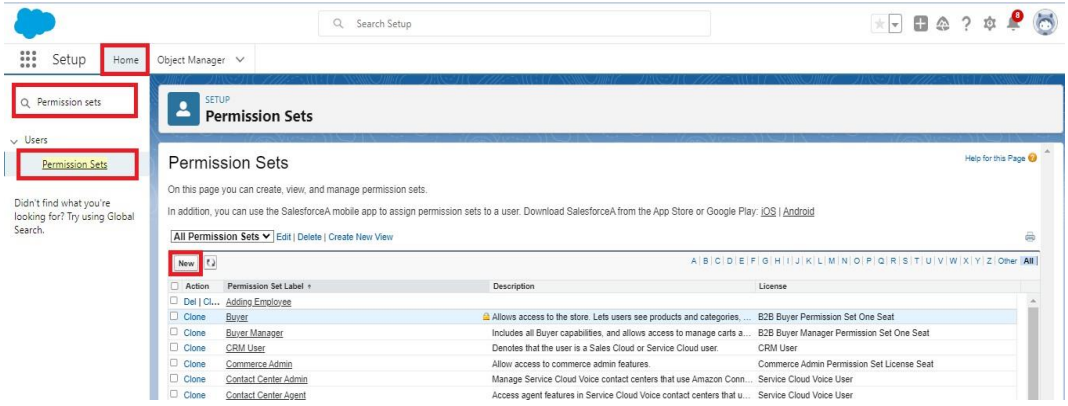
Permission Sets

A standard permission set consists of a group of common permissions for a particular feature associated with a permission set licence. Using a standard permission set saves you time and facilitates administration because you don't need to create the custom permission set.

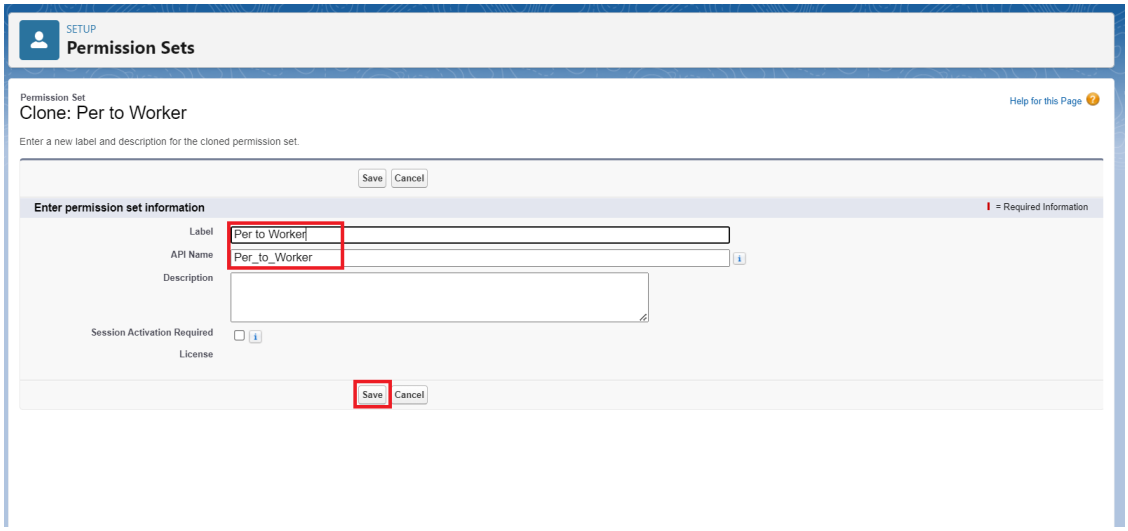
Creating Permission Set

A permission set is a collection of settings and permissions that give users access to various tools and functions. Permission sets extend users' functional access without changing their profiles. Users can have only one profile but, depending on the Salesforce edition, they can have multiple permission sets.

1. Go to setup ? type “permission sets” in quick search ? select permission sets ? New.

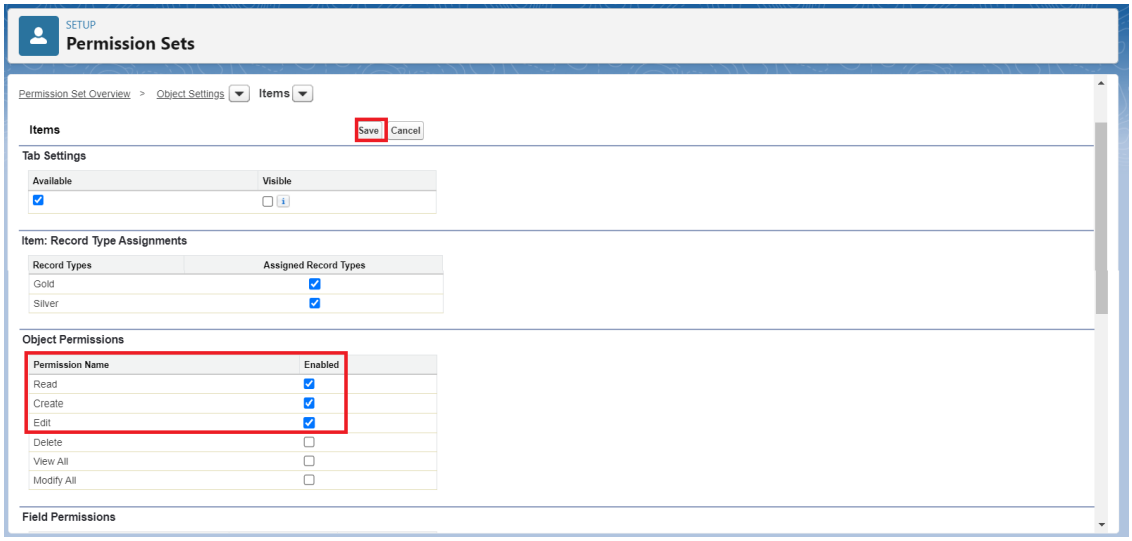


2. Enter the label name as “Per to Worker”, API will be auto populated ? save.



3. Under Apps Select object settings.

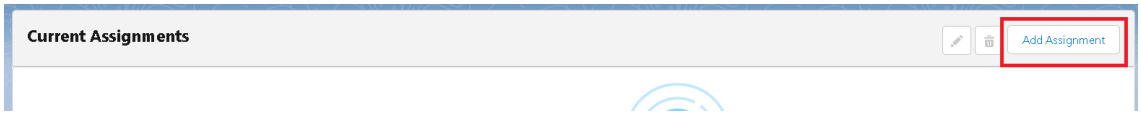
4. Click on Items object ? click on Edit ? under Item:Record Type Assignments,enable Gold,Silver ? Object permission check for read ,edit and create.

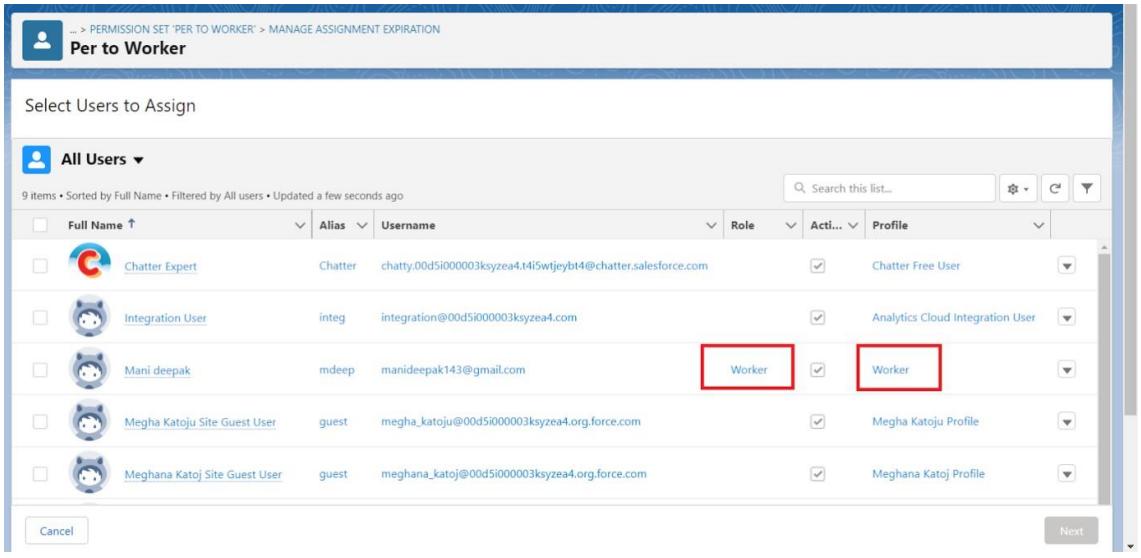


5. Click on Save.

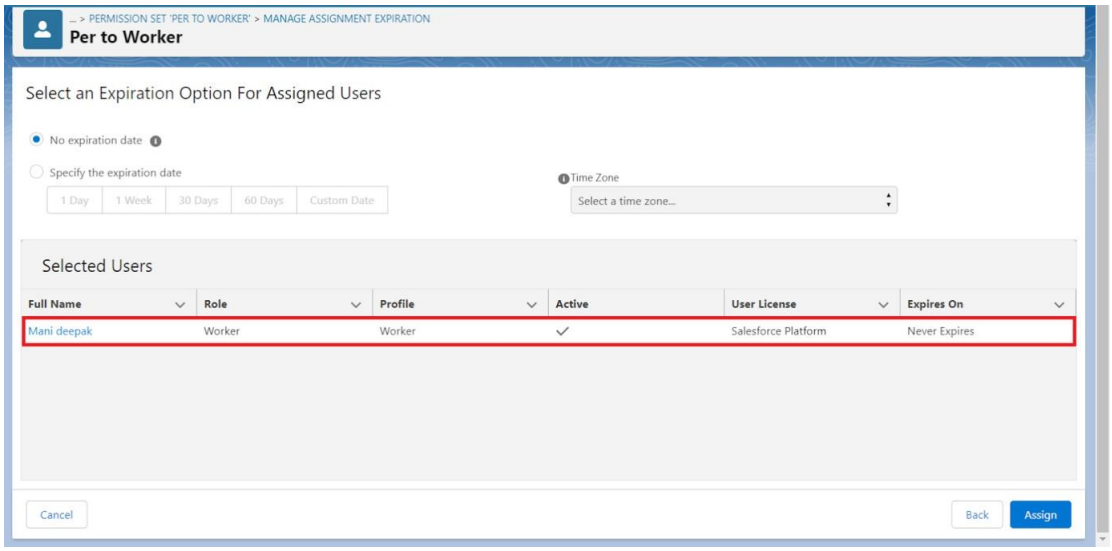
6. After saving the permission click on the Manage assignment

7. Now click on the Add Assignment.





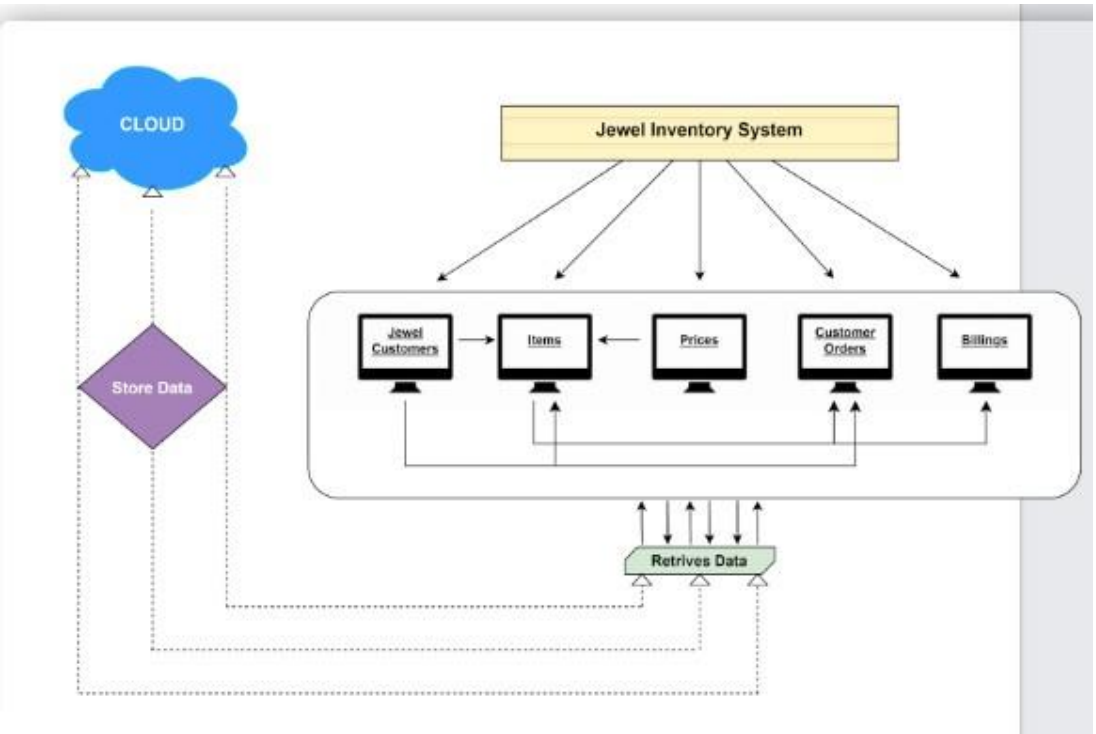
8. Now select the users which you have created in user milestone, using Worker profile and click on Next ? Assign? Done.


... > PERMISSION SET 'PER TO WORKER' > MANAGE ASSIGNMENT EXPIRATION
Per to Worker
Select an Expiration Option For Assigned Users
No expiration date
Specify the expiration date
1 Day
1 Week
30 Days
60 Days
Custom Date
Time Zone
Select a time zone...
Selected Users
Full Name
Role
Profile
Active
User License
Expires On
Mani deepak
Worker
Worker
Salesforce Platform
Never Expires
Cancel
Back
Assign

CHAPTER 4

AUTOMATION

4.1. FLOW



Flows

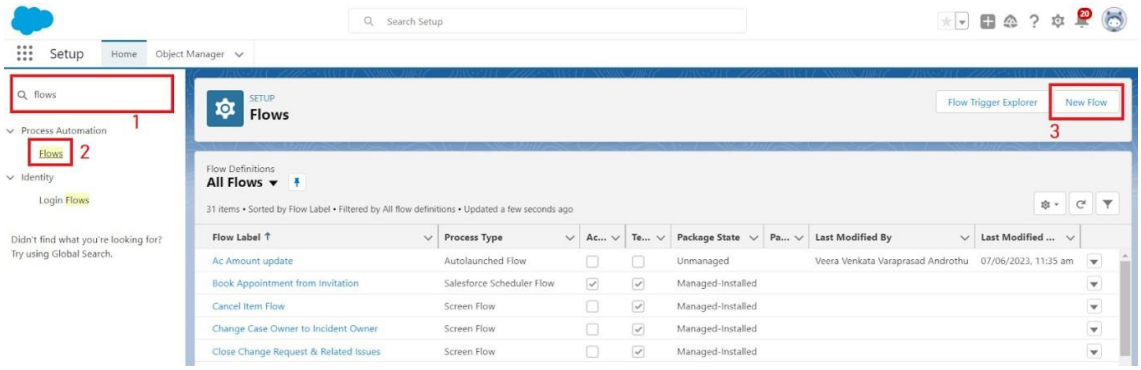
In Salesforce, a flow is a powerful tool that allows you to automate business processes, collect and update data, and guide users through a series of screens or steps. Flows are built using a visual interface and can be created without any coding knowledge.

Use Case:

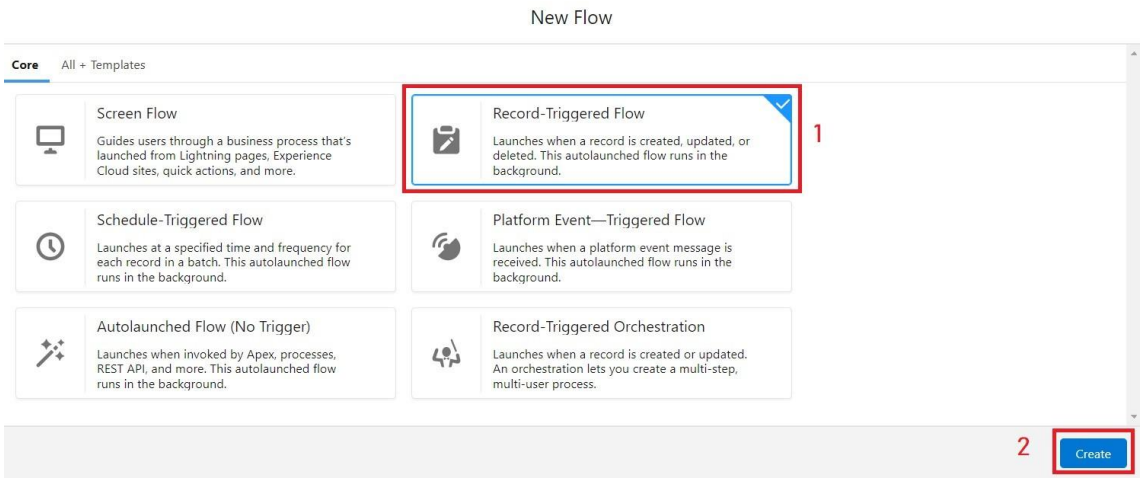
Flows, also known as Salesforce Flows or Visual Flows, are powerful declarative automation tools in Salesforce that allow users to create and manage complex business processes without the need for code. Flows are designed using a drag-and-drop interface, making them easy to use for both administrators and developers. They can be used for various automation tasks like email triggers including data entry, record updates, and guided user interactions.

Create A Flow

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



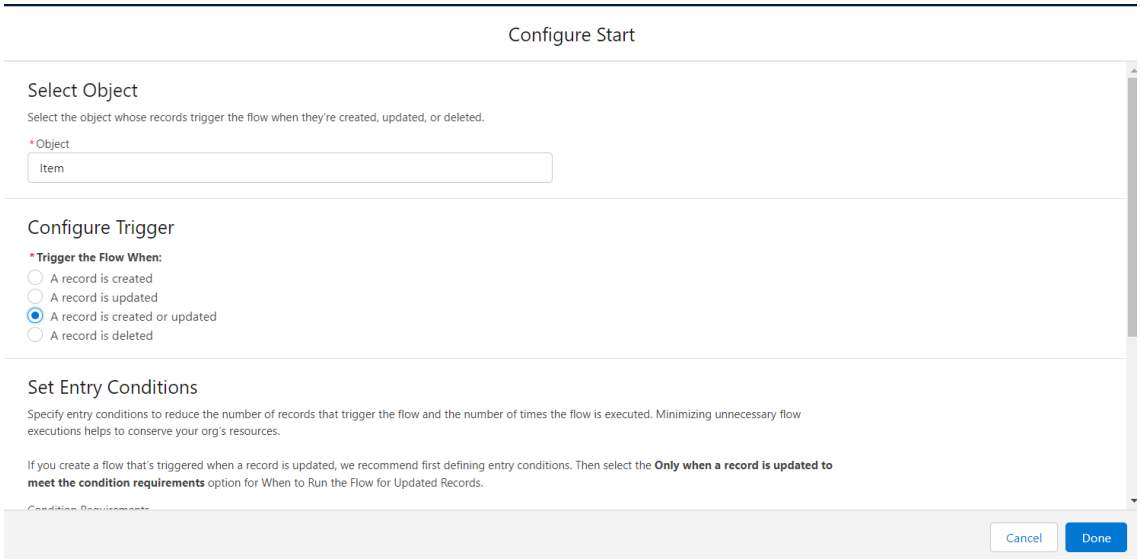
2. Select the Record-triggered flow and Click on Create.



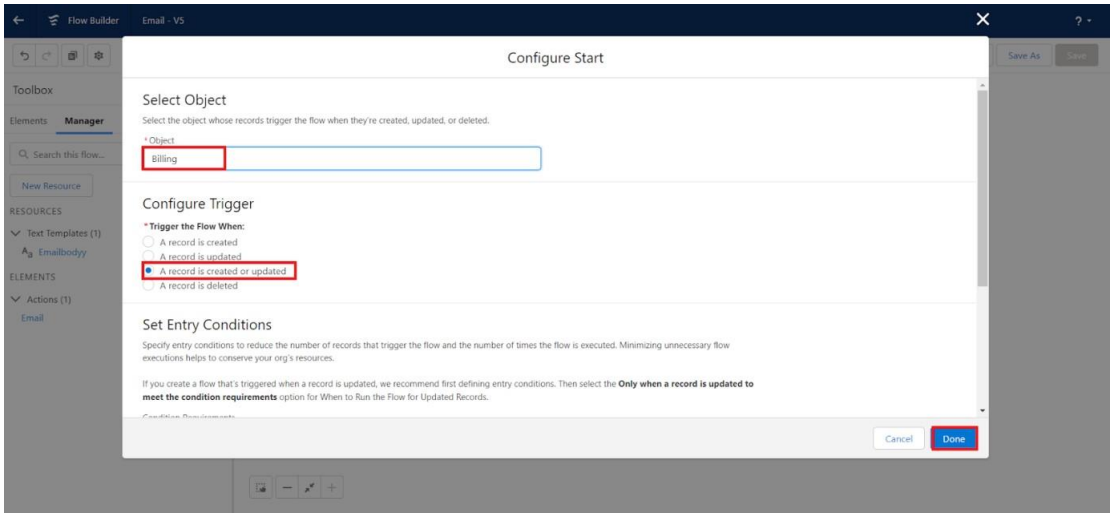
3. Select the Object as a “Billing” in the Drop down list.

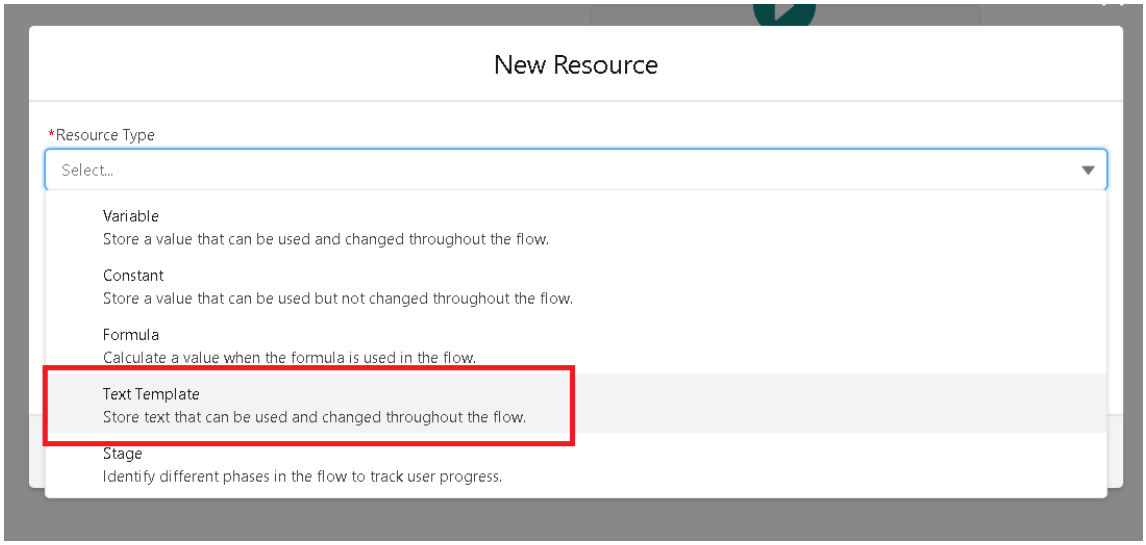
4. Select the Trigger Flow when: “A record is Created or Updated”.

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

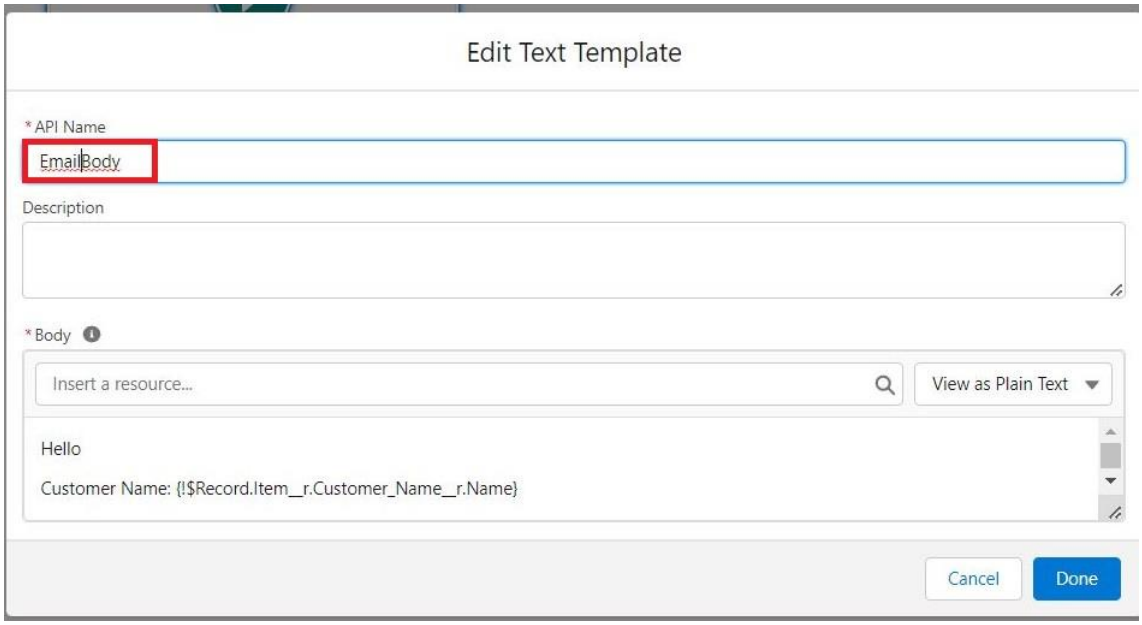


6. Now change the mode form Auto-layout to free-form.
7. Now select the manger option in the toolbox, click New resource.
8. Select the resource type as text template.





9. Enter the API name as " Email body".



10. Change the view as Rich Text ? View to Plain Text.

11. 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 Jewelry Inventory System

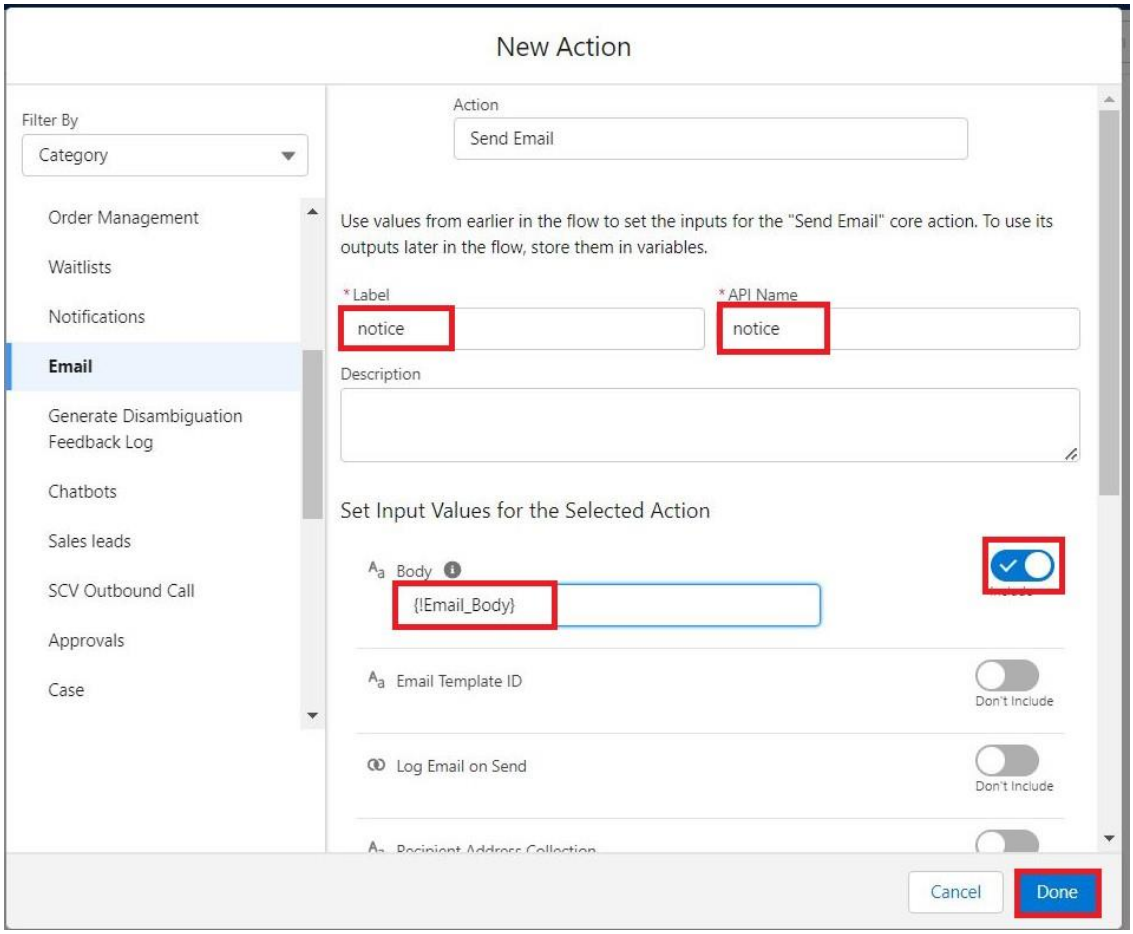
Item Type: {!$Record.Item_r.Item_Type__c}

Ornament: {!$Record.Ornament_c}

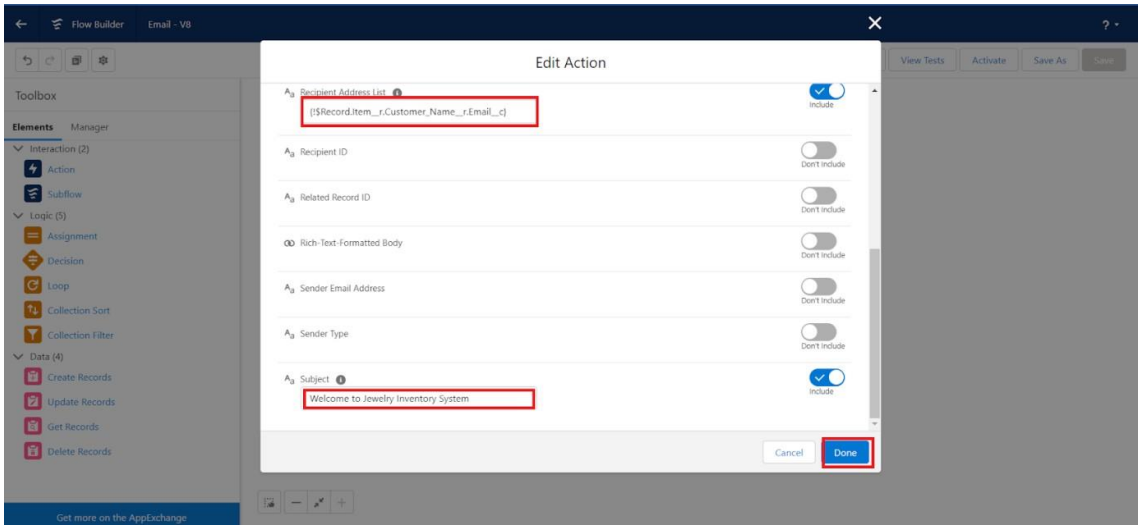
Weight: {!$Record.Weight_c}grams

Amount: {!$Record.Amount_c}

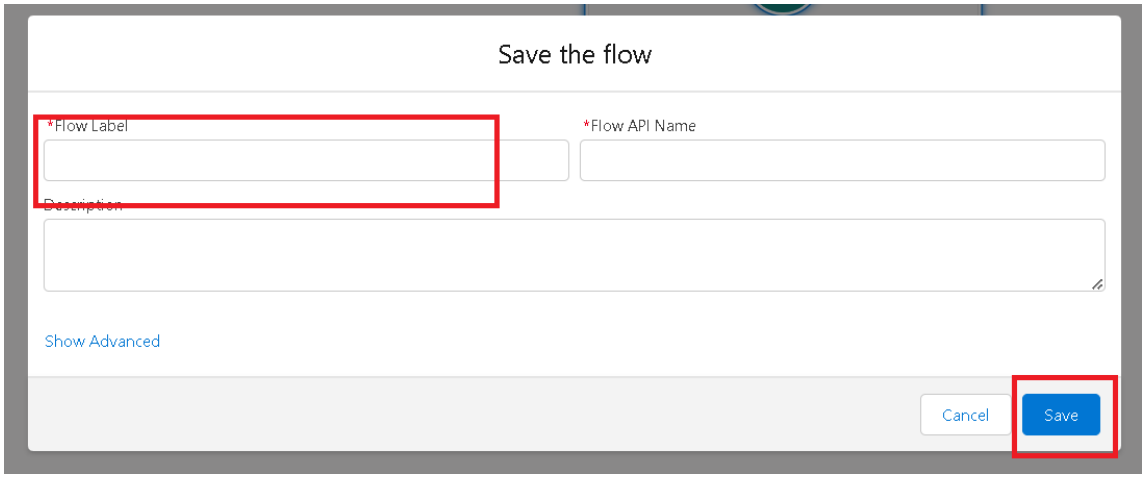
12. Click done.
13. Now click on elements, and drag the action element into the preview pane.
14. Their action bar will be opened in that search for “ send email ” and click on it.
15. Give the label name as “ notice”
16. API name will be auto populated.
17. Enable the body in set input values for the selected action.
18. Select the text template that was created.

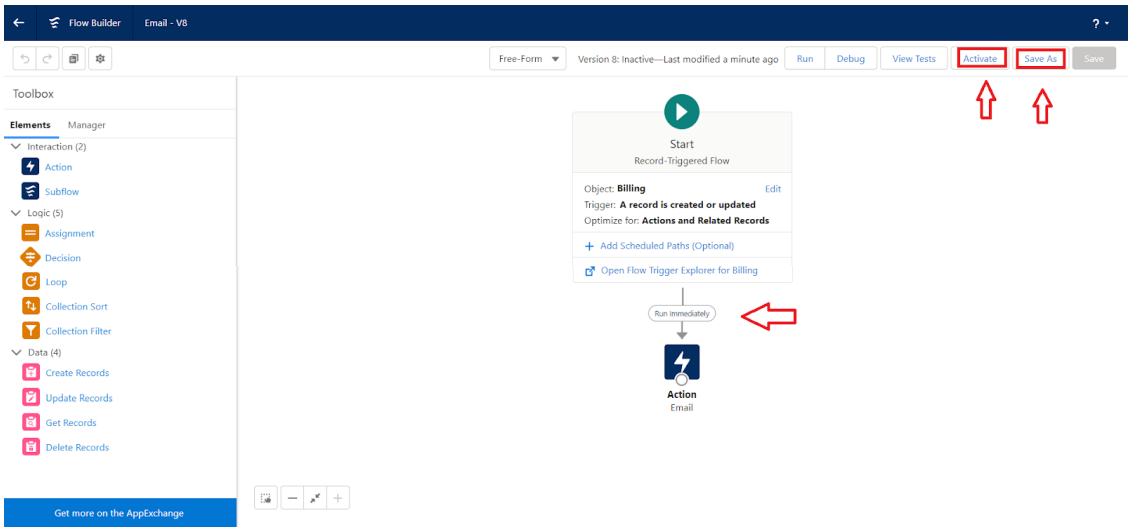


19. Include Recipient Address list, select the email form the record. ({!$Record.Item_r.Customer_Namer.Email_c})
20. Include the subject as “Welcome to Jewelry Inventory System ”.
21. Click done.



22. Now drag the path from the start to the action element.
23. Click on save. Given the Flow label , Flow Api name will be auto populated.
24. And click save, and click on activate.





CHAPTER 5

REPORTS & DASHBOARD

5.1. REPORTS

Reports give you access to your Salesforce data. You can examine your Salesforce data in almost infinite combinations, display it in easy-to-understand formats, and share the resulting insights with others. Before building, reading, and sharing reports, review these reporting basics.

Types of Reports in Salesforce

1. Tabular
2. Summary
3. Matrix
4. Joined Reports

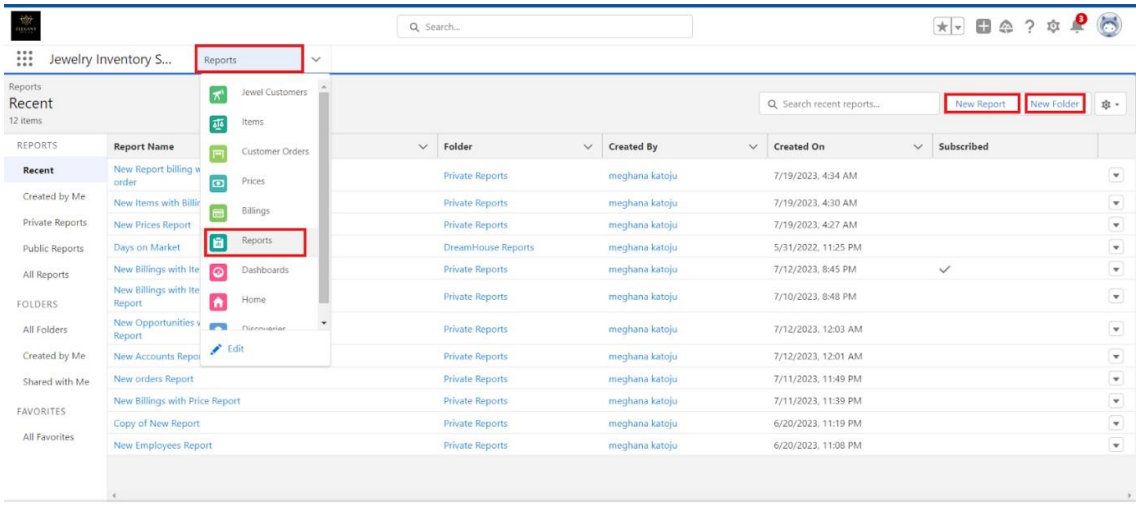
Use Case:

The GoldSmith of an organisation wants to have a brief data on Gold Items,Silver Items,Customer Orders and Billings. So he can have a clear picture of his organisation and be able to make any decisions required based on this data. So he calls you on this task and wants you to represent the data in an appropriate way.

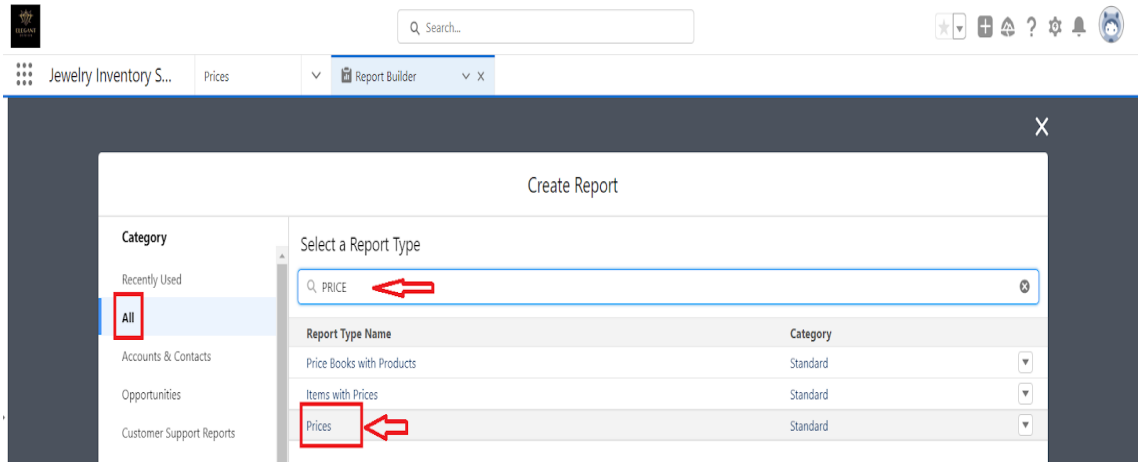
Let’s create a Report.

Create Report

1. Go to the app ? click on the reports tab
2. Click New Report.

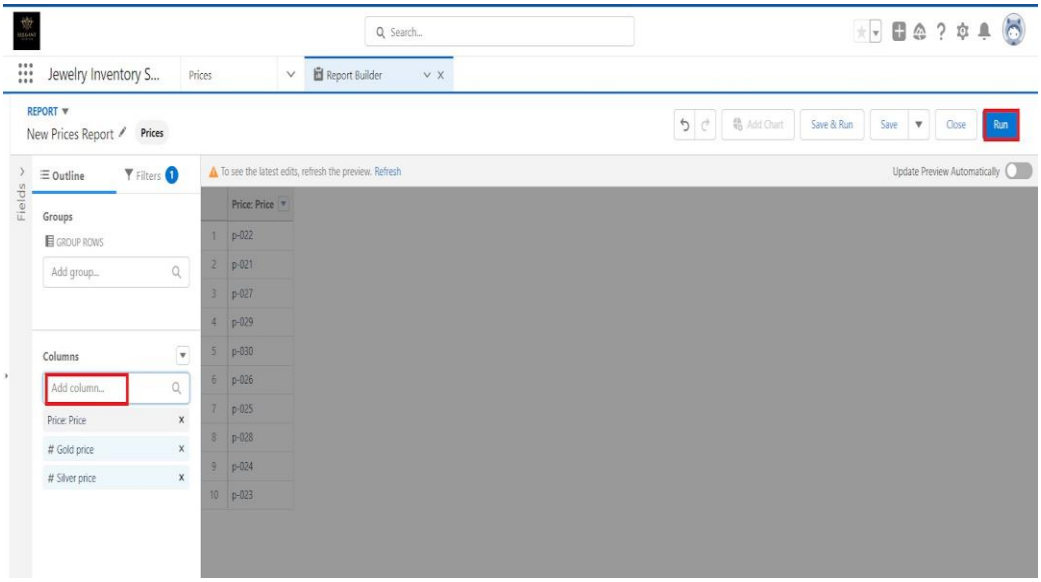


3. Select report type from category or from report type panel or from search panel ? click on start report.

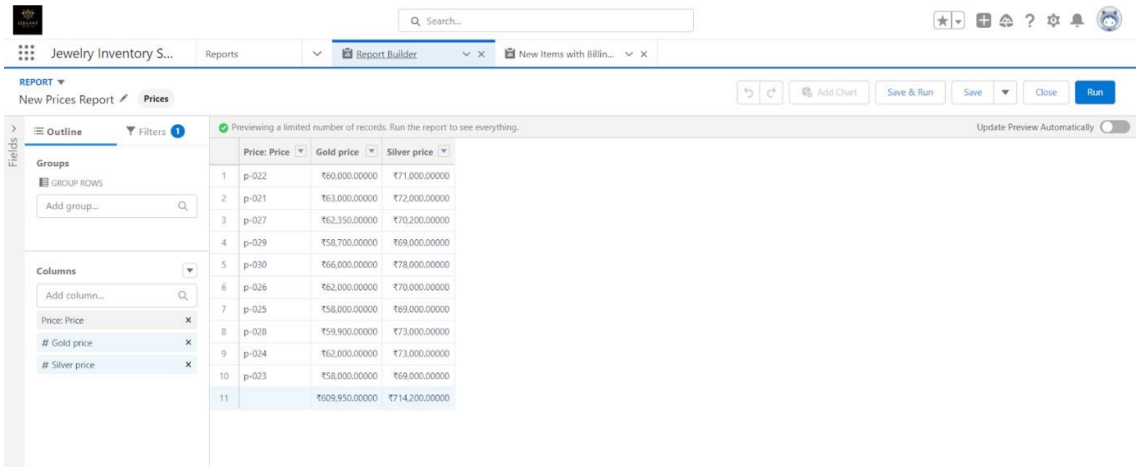


4. Customise your report

- Add fields from the left pane as shown below.



5. Save or run it.



Note: Reports may get varied from the above pictures as the data might be different.

5.2. Dashboards

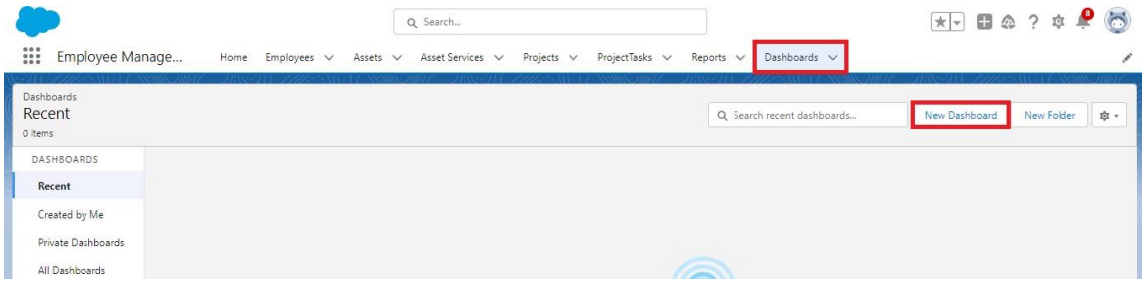
Dashboards help you visually understand changing business conditions so you can make decisions based on the real-time data you've gathered with reports. Use dashboards to help users identify trends, sort out quantities, and measure the impact of their activities. Before building, reading, and sharing dashboards, review these dashboard basics.

Use Case:

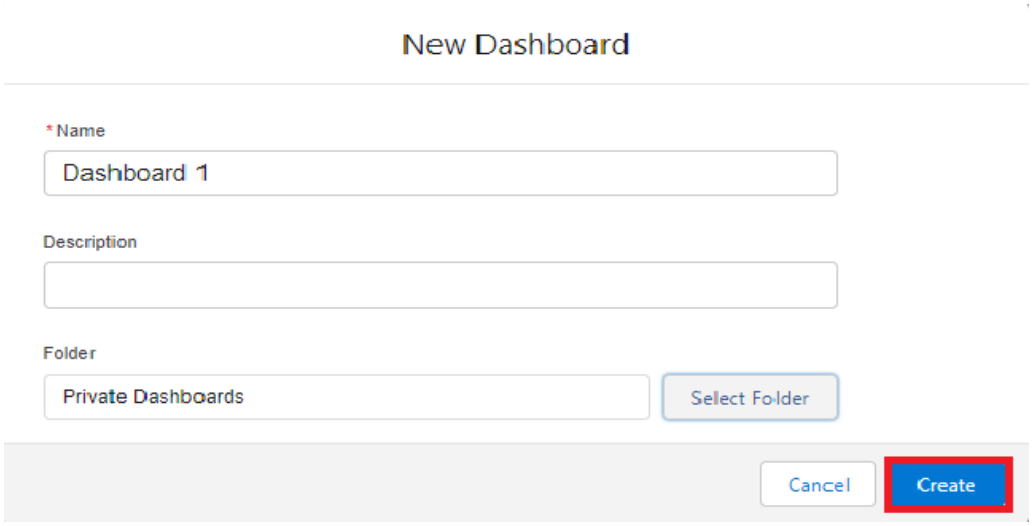
As an Admin for the organisation you keep pushing yourself to reach out the business requirements to take the organisation to peak heights and all your superiors are very much impressed with your efforts and work dedication. In addition with reports you make an ease for the GoldSmith in viewing the reports with data visualisation. So he doesn't have to search for the data he wants to check

Create Dashboard

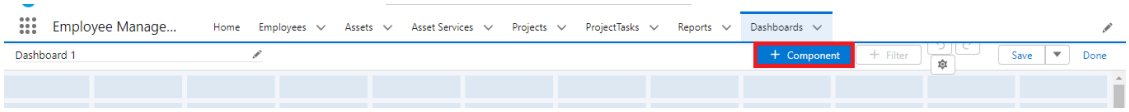
1. Go to the app ? click on the Dashboards tabs.



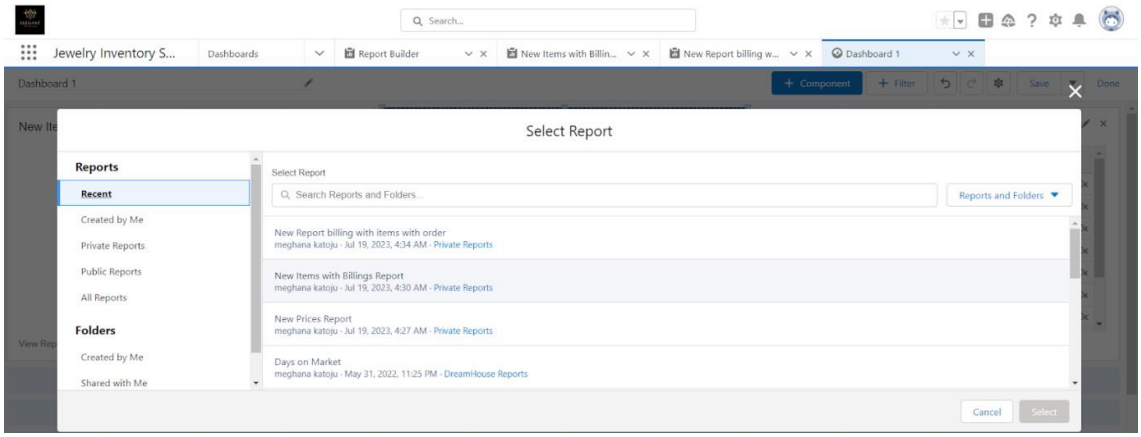
2. Give a Name and click on Create.



3. Select add component.

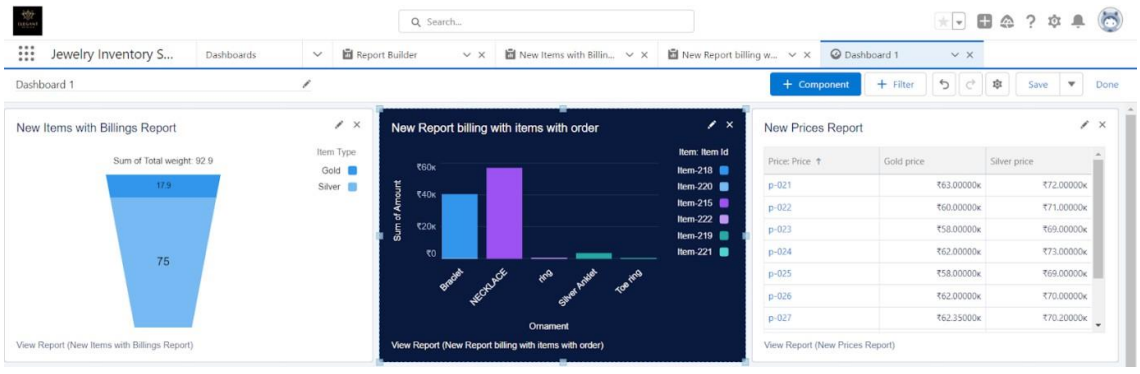


4. Select a Report and click on select.



5. Click Add then click on Save and then click on Done.

Note: Create another Dashboard as we discussed in activity 1.



CHAPTER 6

CONCLUSION

In conclusion, the implementation of a CRM (Customer Relationship Management) application for jewel management can bring significant benefits to the jewelry business. This system can streamline operations, enhance customer service, and provide valuable insights into customer preferences and buying behavior. By effectively managing customer relationships, jewelry businesses can boost sales, build customer loyalty, and stay competitive in the market. However, the success of a CRM application relies on careful planning, customization, and continuous data analysis to ensure it aligns with the specific needs of the jewelry industry.

Customer Profiling: A CRM system can help create detailed customer profiles, including their preferences, purchase history, and important dates like anniversaries or birthdays. This information is invaluable for targeted marketing and personalized service.

Inventory Management: CRM applications can integrate with inventory management systems, helping jewelers keep track of stock levels, reduce overstock or understock issues, and make data-driven purchasing decisions.

Sales and Marketing Automation: CRM tools can automate sales and marketing processes, including sending out promotional emails, managing social media campaigns, and tracking the effectiveness of marketing efforts.

Customer Feedback: CRM systems enable collecting and analyzing customer feedback, which can be used to improve product quality, customer service, and overall business operations.

Customer Support: A CRM application can centralize customer support requests, making it easier to resolve issues and provide timely assistance to customers.

Loyalty Programs: Implementing loyalty programs through CRM software can encourage repeat purchases and customer retention by rewarding loyal clients.

Reporting and Analytics: CRM systems offer robust reporting and analytics tools to help jewelry businesses make informed decisions, measure performance, and identify growth opportunities.

Security and Privacy: Ensure that the CRM application complies with data protection regulations to safeguard customer data and maintain their trust.

Mobile Accessibility: Consider a CRM system that offers mobile accessibility, allowing sales representatives to access customer information and make sales on the go.

Training and Adoption: Plan for proper training and onboarding for your staff to ensure that they can effectively use the CRM application, maximizing its benefits.

Integration: Look for opportunities to integrate your CRM with other tools or systems in your jewelry business, such as point-of-sale systems, e-commerce platforms, and accounting software.

Scalability: Choose a CRM application that can grow with your business, accommodating more customers, products, and data as your jewelry business expands.

Implementing a CRM application for jewel management requires careful consideration of these factors to ensure its success in improving customer relationships, increasing efficiency, and driving business growth.

CHAPTER 7

PROJECT DEMONSTRATION

Github:

https://github.com/harigeorge/Naan-mudhalvan-Sales-force-developer_

Demo Link:
https://drive.google.com/file/d/1v9x6VnB4wCfx_SEAkcvgW8fVE8H2dC88/view?usp=drive_link