TITLE : To supply leftover food to poor

Category:

Salesforce developer

Skills Required:

Salesforce Admin, Salesforce Developer

Project Description:

The *Food for All* project aims to reduce food waste and combat hunger by collecting safe, surplus food from restaurants, hotels, events, and households and redistributing it to underprivileged individuals and communities. Every day, large quantities of edible food are discarded while many people struggle to afford a meal. This project bridges that gap by creating a sustainable food-sharing network.

Through partnerships with local food businesses, volunteers, and charitable organizations, the project ensures that leftover food is collected, stored safely, and distributed efficiently to those in need. The initiative promotes community participation, food safety, and environmental responsibility while fostering compassion and social equity.

TEAM ID: NM2025TMID05825

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Phase 1: Ideation

Problem Statement:

Every day, a significant amount of edible food is wasted in restaurants, hotels, households, and social events, while at the same time, millions of people struggle to secure even one proper meal. This imbalance between food surplus and hunger highlights a major social and environmental challenge.

Food waste contributes to increased landfill use, greenhouse gas emissions, and the loss of valuable resources used in food production. Meanwhile, hunger leads to malnutrition, poor health, and reduced productivity among vulnerable groups such as the homeless, low-income families, and daily wage earners.

Proposed Solution:

To address the twin challenges of food waste and hunger, the project proposes the establishment of a **food recovery and redistribution system** that collects safe, leftover food from reliable sources and delivers it to people in need.

Key Components of the Solution:

1. **Food Collection Network:**
    - Partner with restaurants, hotels, caterers, and households willing to donate surplus food.
2. **Safe Handling & Storage:**
    - Implement hygiene standards for food collection, packaging, and transportation.
3. **Distribution System:**
    - Deliver food to shelters, orphanages, old-age homes, and low-income areas through NGOs or volunteers.

Objectives:

1. Reduce Food Waste:
To minimize the amount of edible food discarded by collecting and redistributing surplus food from restaurants, hotels, events, and households.

2. Alleviate Hunger:
To provide nutritious meals to poor, homeless, and underprivileged individuals who lack regular access to food.

3. Promote Food Safety:
To ensure all collected food is handled, stored, and distributed following proper hygiene and safety standards.

4. Increase Awareness:

To educate the public about food waste, hunger issues, and the importance of sharing surplus food responsibly.

Key Features / Functionalities

1. User Registration & Authentication

Configure **Salesforce Organization Profile**

- Company information (Name, Address, Fiscal Year, Locale, Currency, Time Zone).

Enable **necessary Salesforce Editions** (e.g., Nonprofit Cloud, Sales Cloud, or Service Cloud).

Set up **custom domains** (e.g., *foodrescue.my.salesforce.com*).

2. Food Donation Management

- Donors can **list available leftover food** with details such as:
    - Food type, quantity, freshness, expiry time
    - Pickup location and contact information
- Option to **upload food images** for transparency.
- Automated **food safety checklist** before listing

3. Notification & Communication

- In-app and SMS/email **alerts** for donation confirmations, pickup times, and delivery updates.
- **Chat or message system** for coordination between donors and volunteers.

4. Testing & Deployment

- Perform **User Acceptance Testing (UAT)** with sample data.
- Validate **workflows, reports, and permissions**.
- Migrate setup from **Sandbox to Production** after successful testing.

Expected Outcomes:

- **Improved Awareness:** Educates the community about food wastage and encourages sustainable consumption practices.
- **Reduced Food Waste:** Significant leftover food that would have gone to landfills is redirected to feed people.

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PHASE 2: REQUIREMENT ANALYSIS

Milestone1: Salesfore Account

Introduction:

In Salesforce, an **Account** represents an **organization, company, or individual** that your business or system interacts with. It is one of the core objects in Salesforce and serves as a central record to **store information, manage relationships, and track activities** related to that entity.

What is Salesforce?

Salesforce is a **cloud-based Customer Relationship Management (CRM) platform** that helps organizations manage their interactions with customers, clients, and other stakeholders efficiently. It provides tools to handle **sales, service, marketing, operations, and analytics**, all within a centralized platform.

Activity 1:

Creating Developer Account

Creating a developer org in salesforce.

1. Go to https://developer.salesforce.com/signup
2. On the sign up form, enter the following details :

Build enterprise-quality apps fast and get hands-on with Agentforce and Data Cloud.

Sign up for your Developer Edition.

- Build apps fast with drag-and-drop tools
- Go further with Apex code
- Build AI agents with Agentforce
- Harmonize your data with Data Cloud
- Ground Agentforce with structured and unstructured data
- Integrate with anything using APIs

A free Salesforce Platform environment with Agentforce and Data Cloud

First name

Last name

Job title

Work email

Company

Country/Region

India

Your org may be provisioned on or migrated to Hyperforce, Salesforce's public cloud infrastructure.

I agree to the Main Services Agreement – Developer Services and Salesforce Program Agreement. I acknowledge, as described in the Developer Documentation: (1) the Developer Edition includes autonomous and other generative AI features; and (2) Salesforce may limit use of those features and the org, and may terminate any org that has been inactive for 45 days.

We value your privacy. To learn more, visit our Privacy Statement.

1. First name & Last name
2. Email
3. Role : Developer
4. Company : College or Company Name
5. County : India
6. Postal Code : pin code
7. Username : should be a combination of your name and company

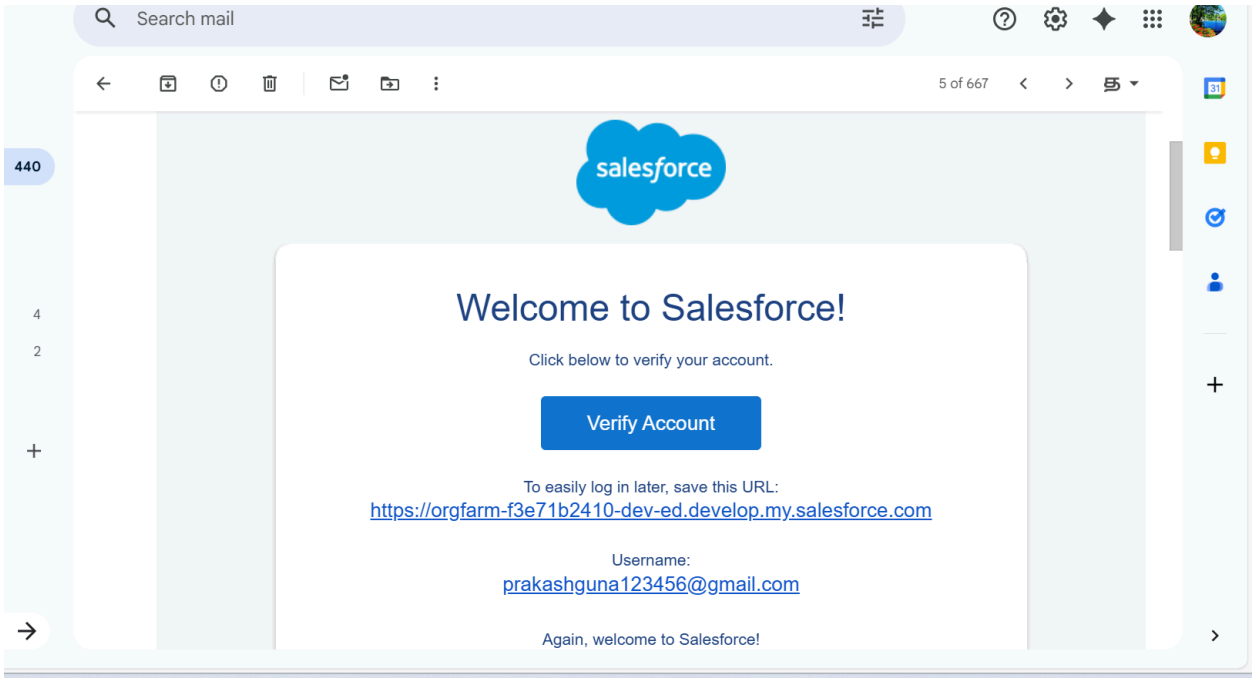
This need not be an actual email id, you can give anything in the format : username@organization.com
Click on sign me up after filling these.

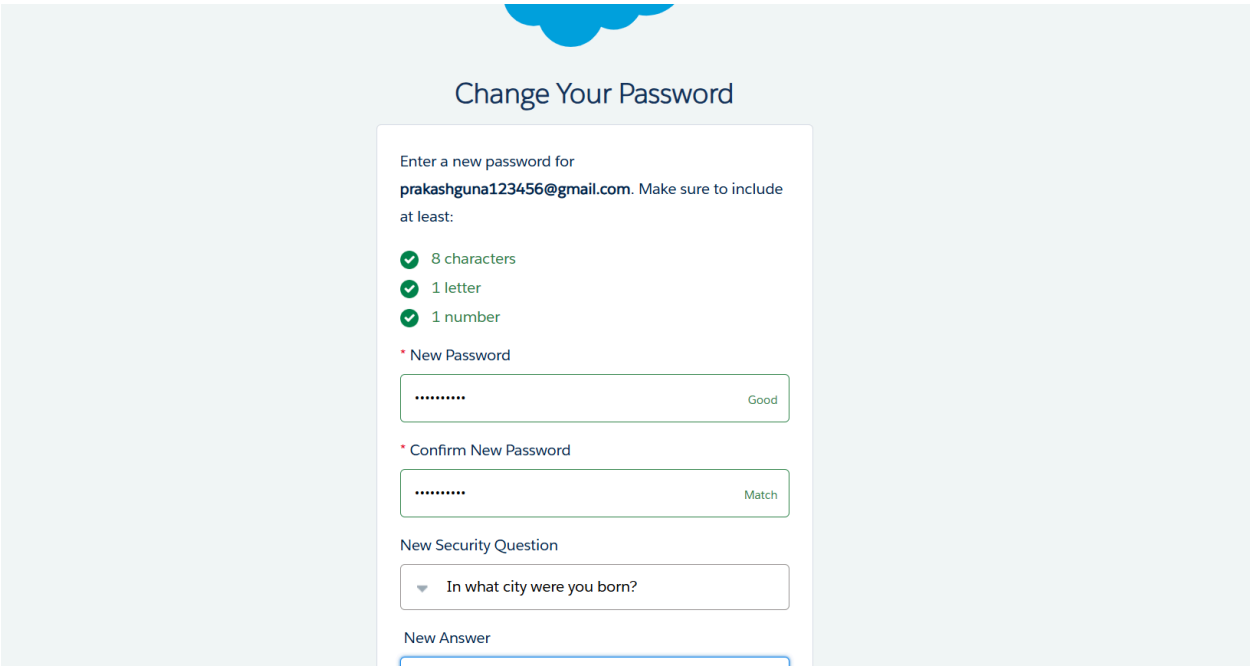
Activity 2:

Account

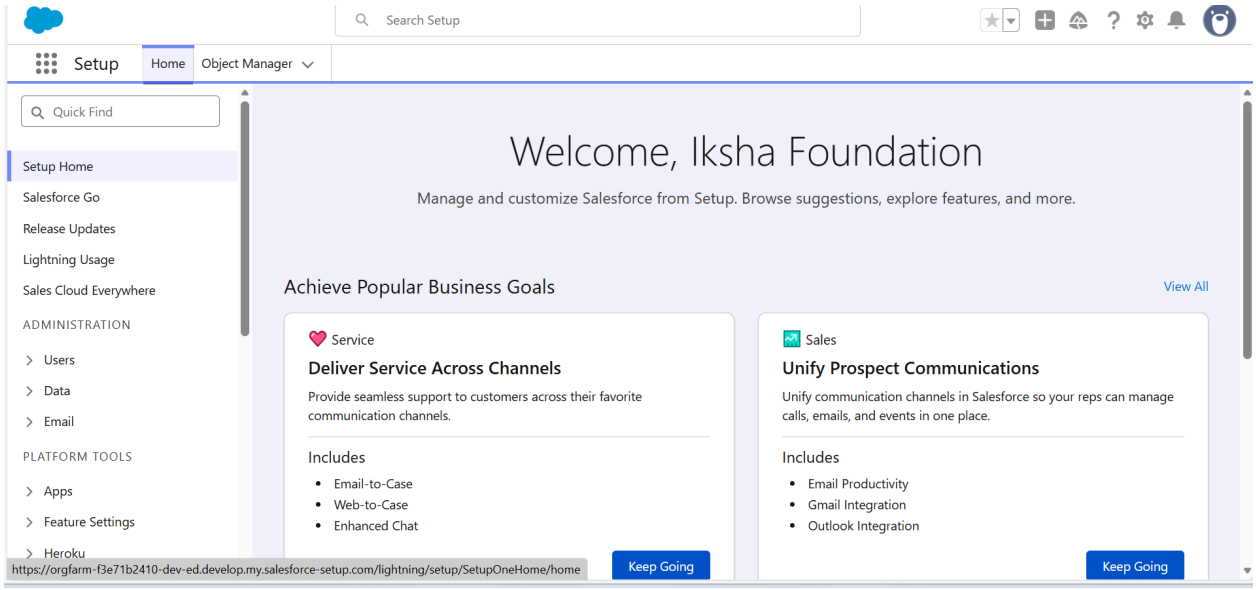
Go to the inbox of the email that

1. you used while signing up. Click on the verify account to activate your account. The email may take 5-10mins.





1. Click on Verify Account
2. Give a password and answer a security question and click on change password.
3. Give a password and answer a security question and click on change password.
4. Then you will redirect to your salesforce setup page.



Milestone 2:Object

What is a Salesforce Object?

In Salesforce, an **Object** is like a **database table** that stores specific types of information. Each object contains **records** (rows) and **fields** (columns), similar to a spreadsheet.

Objects help organize and manage data — such as details about customers, donations, volunteers, or any other entities your system needs to track.

Types of Objects in Salesforce

1. ### Standard Objects

   These are **predefined by Salesforce** and available in every account.
   Common standard objects include:

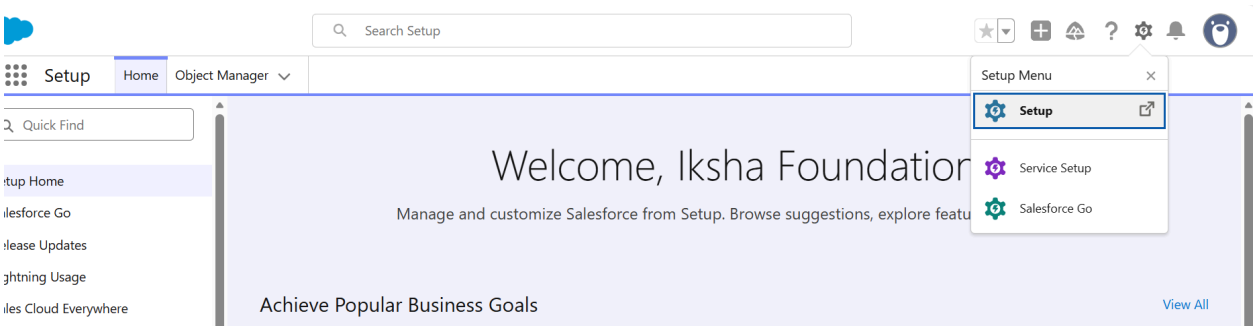
   - **Account:** Represents an organization or company.
   - **Contact:** Represents a person linked to an account.
   - **Opportunity:** Tracks potential sales or donations.
   - **Case:** Records service or support issues.
   - **User:** Represents people who use Salesforce.

2. ### Custom Objects

   These are **created by users or developers** to store data specific to their organization's needs.
   For example, in a **Leftover Food Supply System**, you could create:

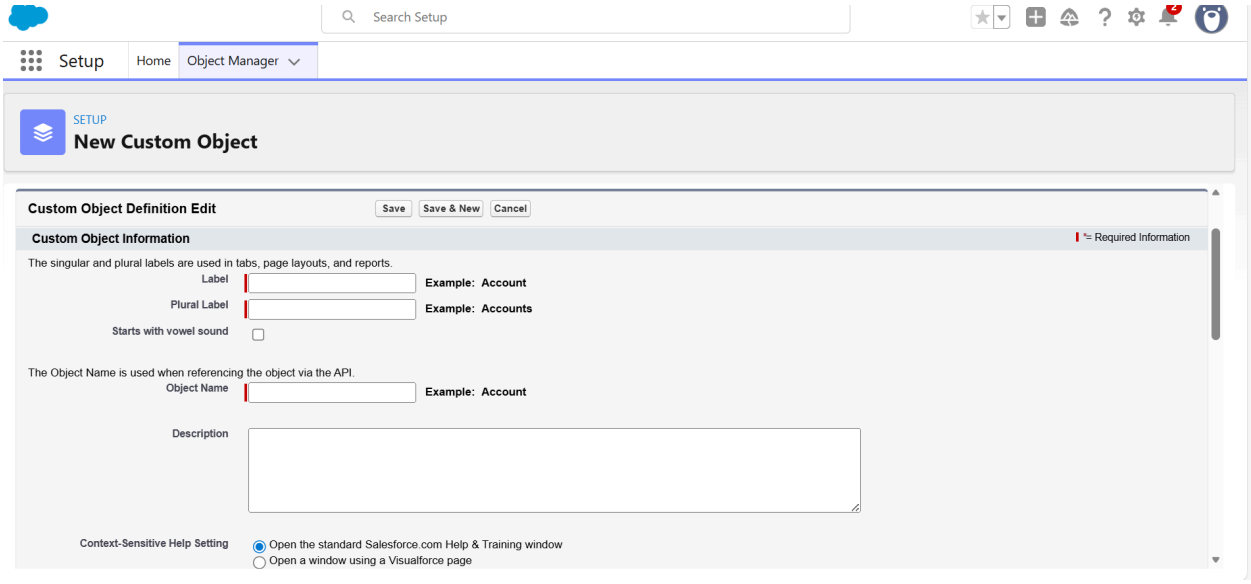
   - **Food_Donation__c** → Stores information about donated food.
   - **Volunteer__c** → Tracks volunteer details.
   - **Beneficiary__c** → Keeps records of recipients or NGOs.
   - **Pickup__c** → Tracks pickup and delivery details.

To Navigate to Setup Page :

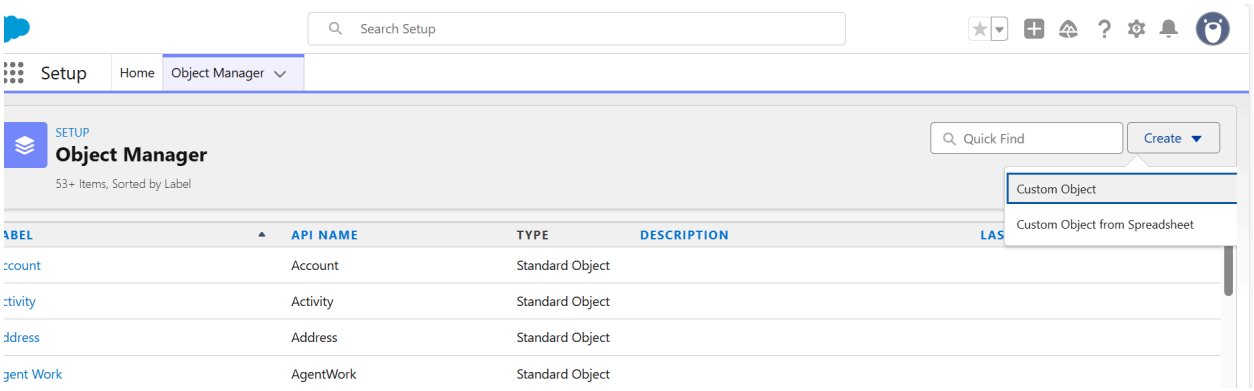


To create an object:

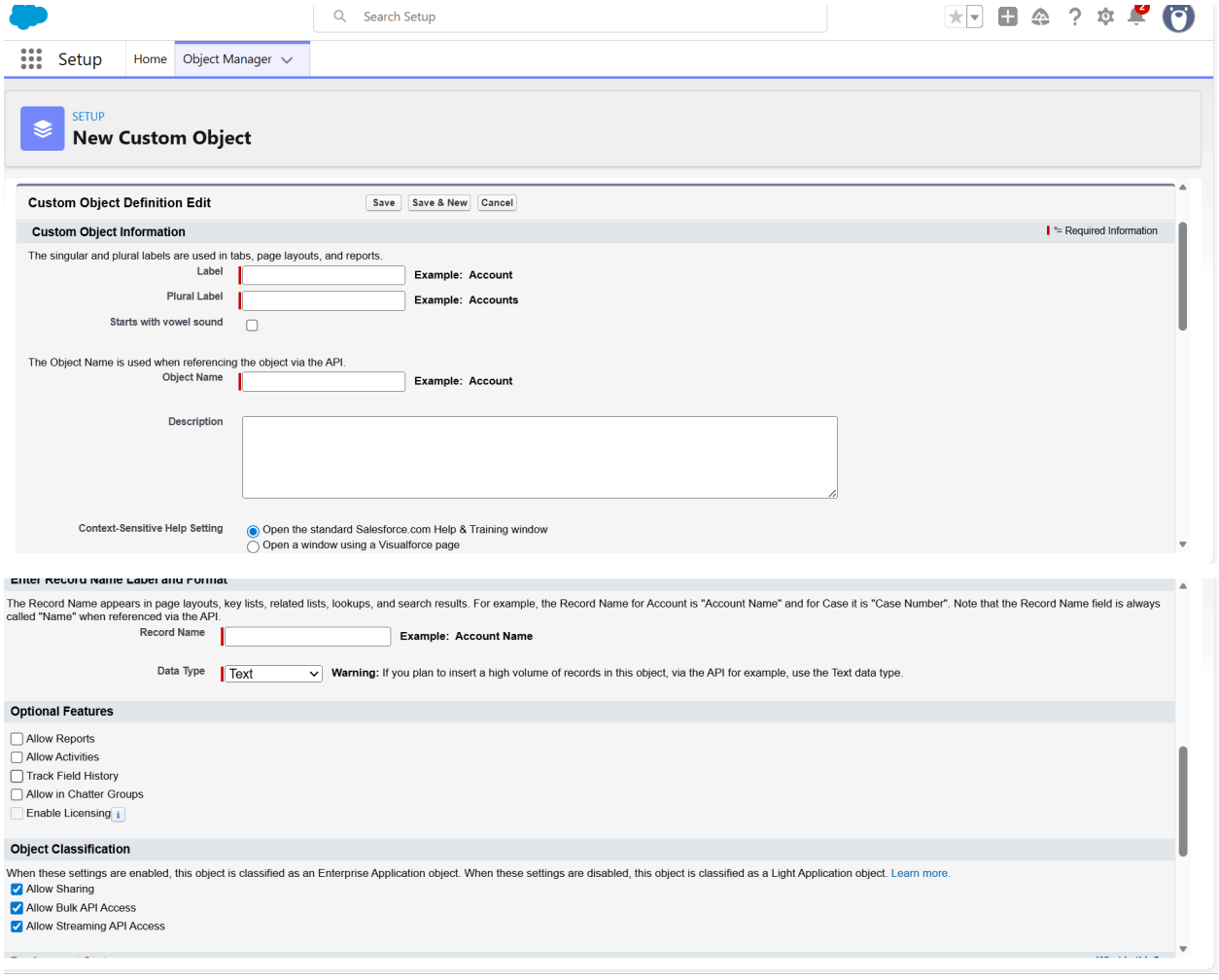
1. From the setup page > Click on Object Manager > Click on Create > Click on Custom

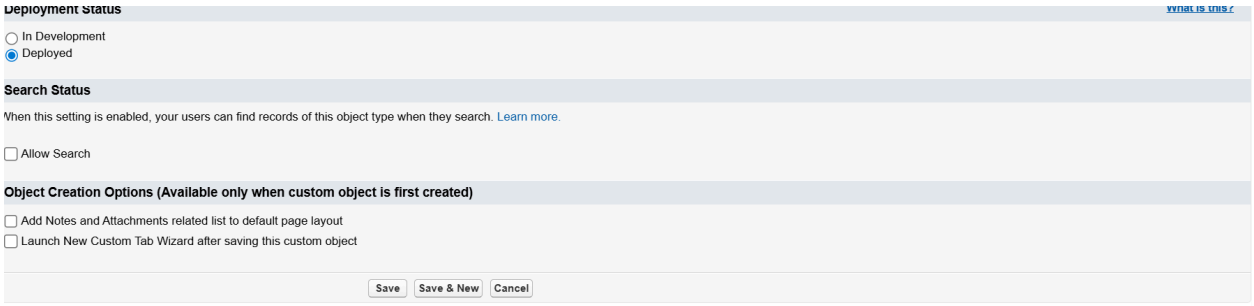


Object.



2. On Custom object defining page:
3. Enter the label name, plural label name, click on Allow reports, Allow search.





4. Click on Save.

Activity1:Create Venue Object

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 >> Venue
    2. Plural label name >> Venues
    3. Enter Record Name Label and Format
        - Record Name >> Venue Name
        - Data Type >> Text
2. Click on Allow reports and Track Field History,Allow Activities.
3. Allow search >> Save.

Activity2: Create Drop-Off Point Object

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 >> Drop-Off Point
    2. Plural label name>> Drop-Off Points
    3. Enter Record Name Label and Format
        - Record Name >> Drop-Off point Name
        - Data Type >> Text
2. Click on Allow reports and Track Field History,Allow Activities
3. Allow search >> Save.

Activity3: Create Task Object

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>> Task
    2. Plural label name>> Tasks
    3. Enter Record Name Label and Format
        - Record Name >> Task Name
        - Data Type >> Text
2. Click on Allow reports and Track Field History,Allow Activities
3. Allow search >> Save.

Activity4: Create Volunteer Object

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>> Volunteer
    2. Plural label name>> Volunteers
    3. Enter Record Name Label and Format
        - Record Name >> Volunteer Name
        - Data Type >> Text
2. Click on Allow reports and Track Field History, Allow Activities
3. Allow search >> Save.

Activity5: Create Execution Details Object

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 >> Execution Detail
    2. Plural label name >> Execution Details
    3. Enter Record Name Label and Format
        - Record Name >> Execution Detail Name
        - Data Type >> Text
2. Click on Allow reports and Track Field History, Allow Activities
3. Allow search >> Save.

Phase 3: Project Design

Milestone 1: Tabs

What is a Tab in Salesforce?

A **Tab** in Salesforce is like a **shortcut or navigation link** that allows users to access a specific **object, record, or web page** easily from the main Salesforce interface.

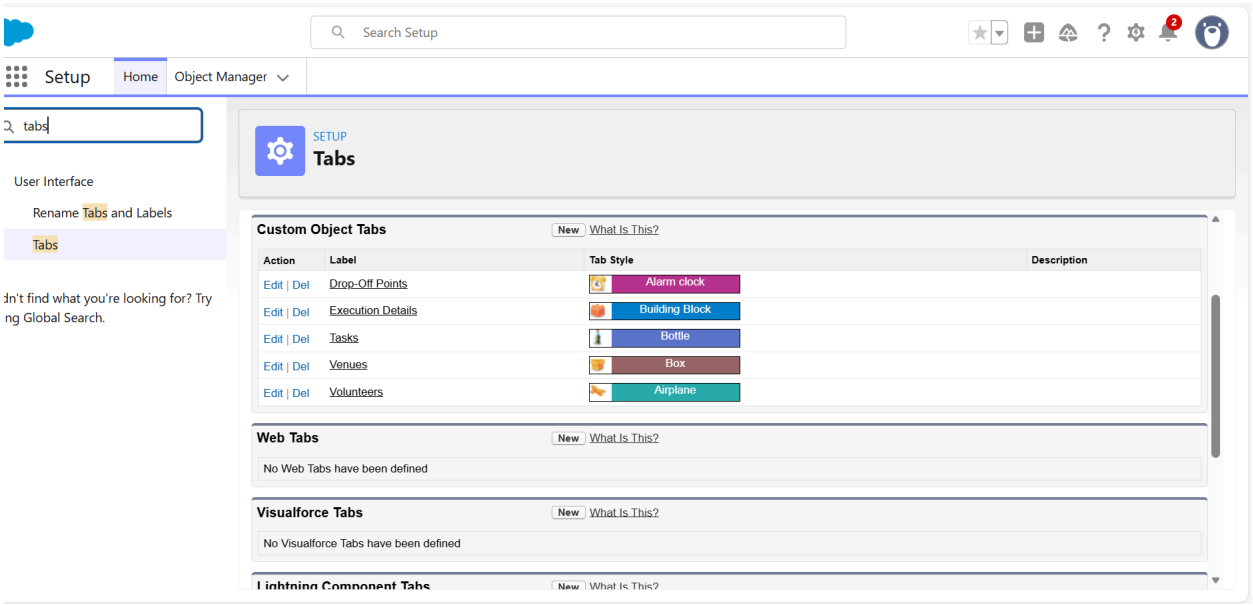
Types of Tabs in Salesforce

Type	Description	Example
Object Tabs	Display data from **standard or custom objects**.	“Accounts,” “Contacts,” “Food Donations,” “Volunteers.”
Web Tabs	Display an **external webpage** inside Salesforce.	A tab showing your NGO’s website or Google Maps.
Visualforce Tabs	Show a **custom Visualforce page** (used by developers).	A custom donation summary page.
Lightning Page Tabs	Display a **Lightning app page** built with components.	A dashboard or analytics tab.

Activity1: **Creating a Custom Tab**

To create a Tab:(Venue)

1. Go to setup page >> type Tabs in Quick Find bar >> click on tabs >> New (under custom object tab)



1. Select Object(Venue) >> Select the tab style >> Next (Add to profiles page) keep it as default >> Next (Add to Custom App) uncheck the include tab .
2. Make sure that the Append tab to users' existing personal customizations is checked.
3. Click save

Activity 2: Creating Remaining Tabs

1. Now create the Tabs for the remaining Objects, they are “Drop-Off Point, Task, Volunteer, Execution Details”.
2. Follow the same steps as mentioned in Activity -1 .

Milestone 2 :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.

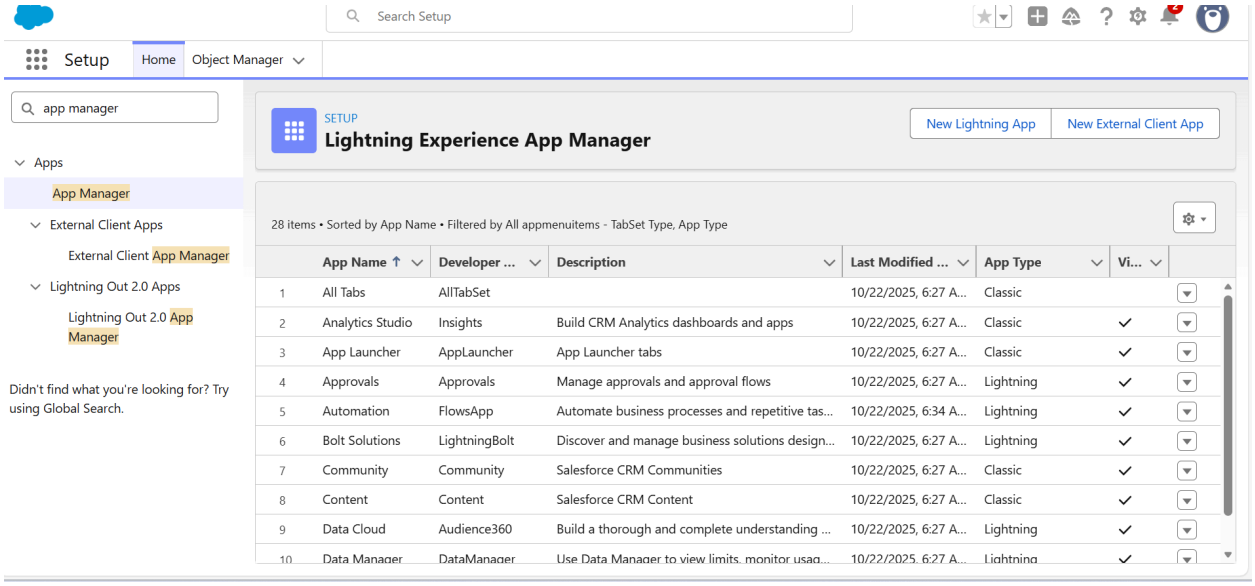
Use Case:

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 organisationcanaccesstheobjectsyouhavecreated 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.

ACtivity 1 :**Create a Lightning App**

To create a lightning app page:

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



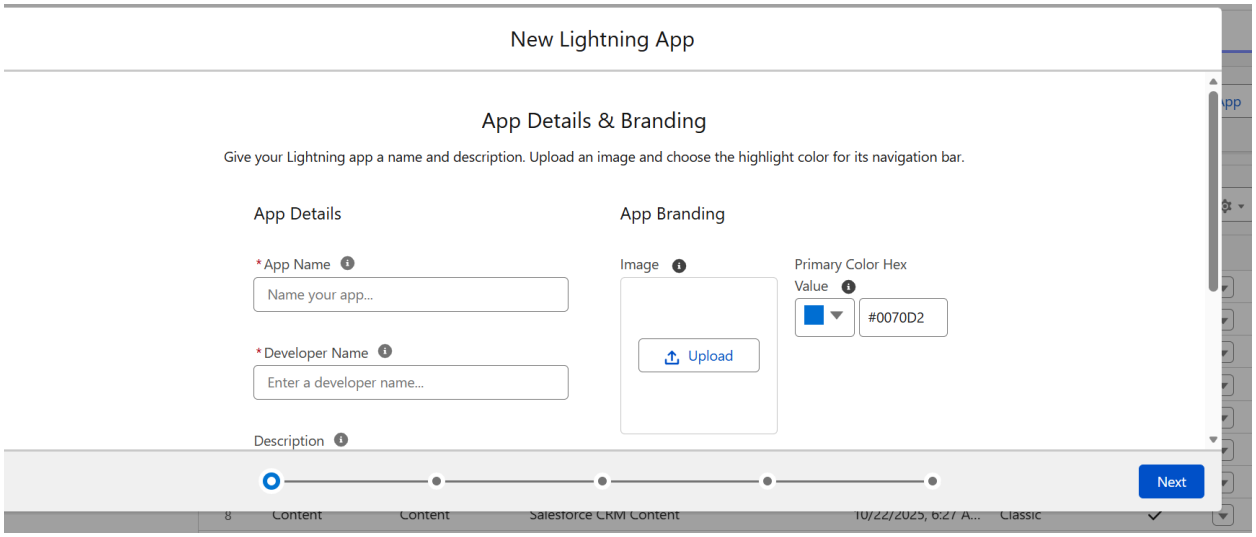
2. Fill the app name in app details and branding as follow

App Name : FoodConnect

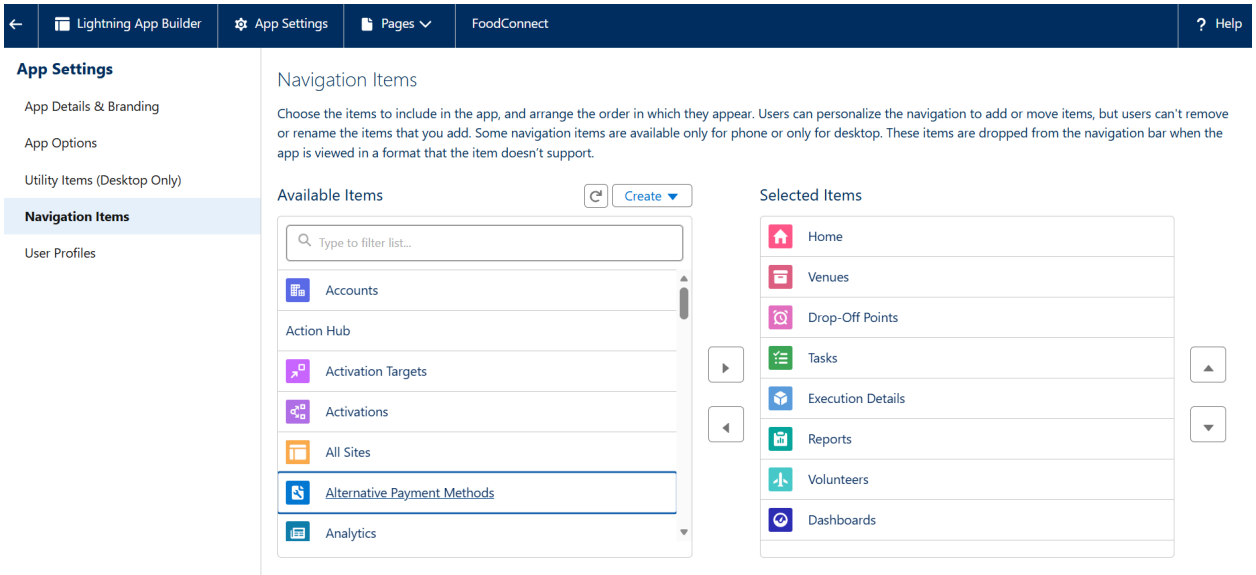
Developer Name : This will auto populated

Image : optional (if you want to give any image you can otherwise not mandatory)
Primary color hex value : keep this default.

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

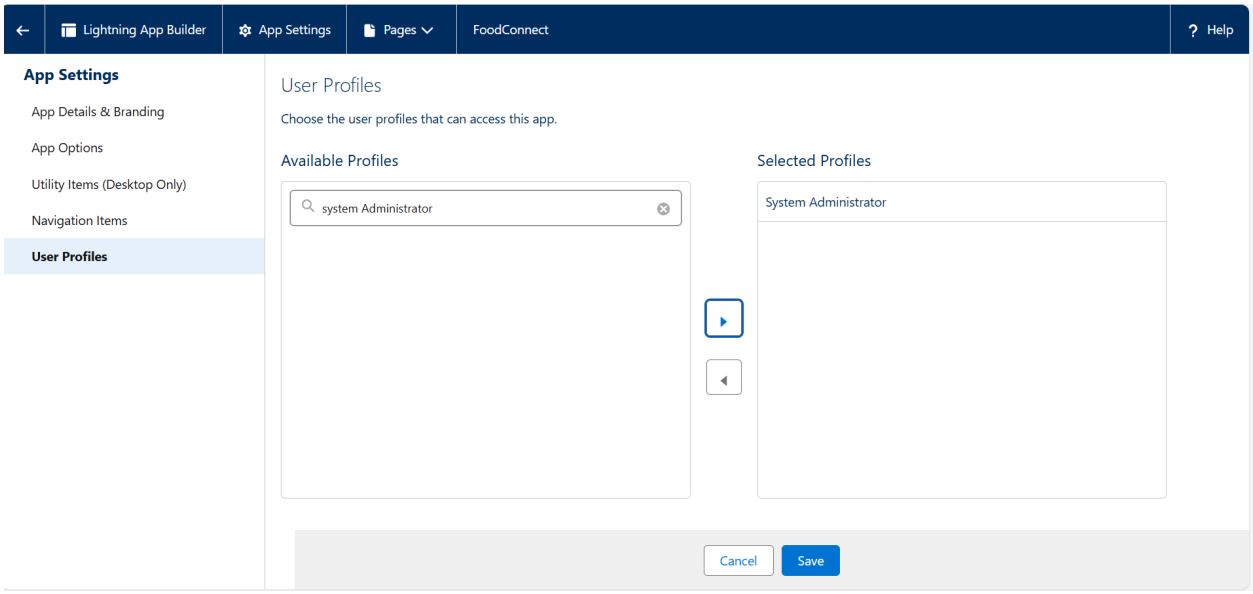


4. (Utility Items) keep it as default >> Next.
5. To Add Navigation Items:



Search for the item in the (Home, Venue, Drop-Off Point, Task, Volunteer, Execution Details, Reports) from the search bar and move it using the arrow button >> Next >> Next.

6. To Add User Profiles:



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

Milestone 3 : Fields

When we talk about Salesforce, Fields represent the data stored in the columns of a relational database. It can also 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

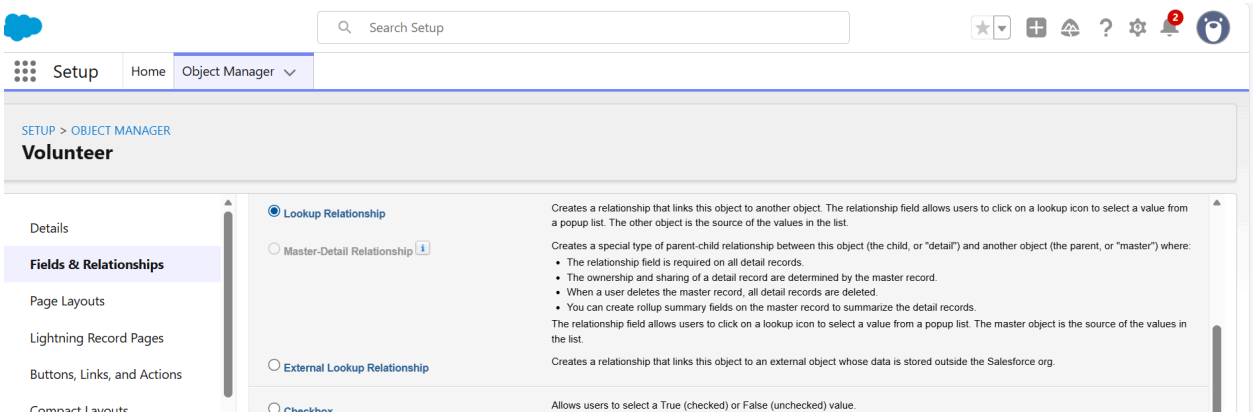
1. Standard Fields: As the name suggests, the Standard Fields are the predefined fields in Salesforce that perform a standard task. The main point is that you can't simply delete a Standard Field until it is a non-required standard field. Otherwise, users have the option to delete them at any point from 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 Creation15
2. Custom Fields: On the other side of the coin, Custom Fields are highly flexible, and users can change them according to requirements. Moreover, each organizer or company can use the

necessary. It means you need not always include them in the records, unlike Standardfields.Hence, the final decision depends on the user, and he can add/remove Custom Fields of any given form.

Activity 1 :**Creation of Relationship fields in objects**

Creation of Lookup Relationship Field on Volunteer Object :

1. Go to setup >> click on Object Manager >> type object name(Volunteer) in the search bar >> click on the object.



2. Now click on “Fields & Relationships” >> New
3. Select Master Detail relationship
4. Select the related object “Drop-Off point” and click next.

5. Field Name : Drop_Off_point
6. Field label : Auto generated
7. Next >> Next >> Save.

Creation of Master Detail Relationship Field on Execution Details Object :

8. Go to setup >> click on Object Manager >> type object name(Execution Details) in the search bar >> click on the object.
9. Now click on “Fields & Relationships” >> New

10. Select Master Detail relationship
11. Select the related object “Volunteer” and click next.
12. Field Name : Volunteer
13. Field label : Auto generated
14. Next >> Next >> Save.

Creation of Master Detail Relationship Field on Execution Details Object :

15. Go to setup >> click on Object Manager >> type object name(Execution Details) in the search bar >> click on the object.
16. Now click on “Fields & Relationships” >> New
17. Select Master Detail relationship
18. Select the related object “Task” and click next.
19. Field Name : Task
20. Field label : Auto generated
21. Next >> Next >> Save.

Creation of Lookup Relationship Field on Drop-Off Point Object :

22. Go to setup >> click on Object Manager >> type object name(Drop-Off Point) in the search bar >> click on the object.
23. Now click on “Fields & Relationships” >> New
24. Select Lookup relationship
25. Select the related object “Venue” and click next.
26. Field Name : Venue
27. Field label : Venue__c
28. Next >> Next >> Save.

Creation of Lookup Relationship Field on Task Object :

29. Go to setup>> click on Object Manager >> type object name(Task) in the search bar >> click on the object.
30. Now click on “Fields & Relationships” >> New
31. Select Lookup relationship
32. Select the related object “Venue” and click next.
33. Field Name : Sponsored By
34. Field label : Auto generated
35. Next >> Next >> Save.

Creation of Lookup Relationship Field on Task Object :

36. Go to setup>> click on Object Manager >> type object name(Task) in the search bar >> click on the object.
37. Now click on “Fields & Relationships” >> New
38. Select Lookup relationship
39. Select the related object “Drop-Off point” and click next.
40. Field Name : Drop-Off point
41. Field label : Auto generated
42. Next >> Next >> Save.

Creation of Lookup Relationship Field on Task Object :

29. Go to setup>> click on Object Manager >> type object name(Task) in the search bar >> click on the object.
30. Now click on “Fields & Relationships” >> New
31. Select Lookup relationship
32. Select the related object “Venue” and click next.
33. Field Name : Sponsored By
34. Field label : Auto generated
35. Next >> Next >> Save.

Creation of Lookup Relationship Field on Task Object :

36. Go to setup>> click on Object Manager >> type object name(Task) in the search bar >> click on the object.
37. Now click on “Fields & Relationships” >> New
38. Select Lookup relationship
39. Select the related object “Drop-Off point” and click next.
40. Field Name : Drop-Off point
41. Field label : Auto generated
42. Next >> Next >> Save.

Activity 2 : Creation of fields for the Venue object

1. Go to setup>> click on Object Manager >> type object name(Venue) in search bar >> click on the object.
2. Now click on “Fields & Relationships” >> New
3. Select Data type as a “Email” and Click on Next
4. Fill the Above as following:
   - Field Label : Contact Email
   - Field Name : Contact Email

- Click on required check box
- Click on Next >> Next >> Save and new.

To create another fields in an object:

5. Go to setup >> click on Object Manager >> type object name(Venue) in search bar >> click on the object.
6. Now click on “Fields & Relationships” >> New
7. Select Data type as a “Phone” and Click on Next
8. Fill the Above as following:
   - Field Label : Contact Phone
   - Field Name : Contact Phone
   - Click on required check box
   - Click on Next >> Next >> Save and new.

To create another fields in an object:

1. Go to setup >> click on Object Manager >> type object name(Venue) in search bar >>click on the object.
2. Now click on “Fields & Relationships” >> New
3. Select Data type as a “Geolocation” and Click on Next
4. Fill the Above as following:
   - Field Label : Location
   - Decimal Places : 4
   - Field Name : Location
   - Description : Enter the Geolocation of your Venue
   - Click on Next >> Next >> Save and new.

To create another fields in an object:

9. Go to setup >> click on Object Manager >> type object name(Venue) in search bar >> click on the object.
10. Now click on “Fields & Relationships” >> New
11. Select Data type as a “Long Text Area” and Click on Next
12. Fill the Above as following:
    - Field Label : Venue Location
    - Field Name : Venue_Location
    - Click on Next >> Next >> Save and new.

Activity 3: Creation of fields for the Drop-Off point object

Go to setup >> click on Object Manager >> type object name(Drop-Off point) in search bar >> click on the object.

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

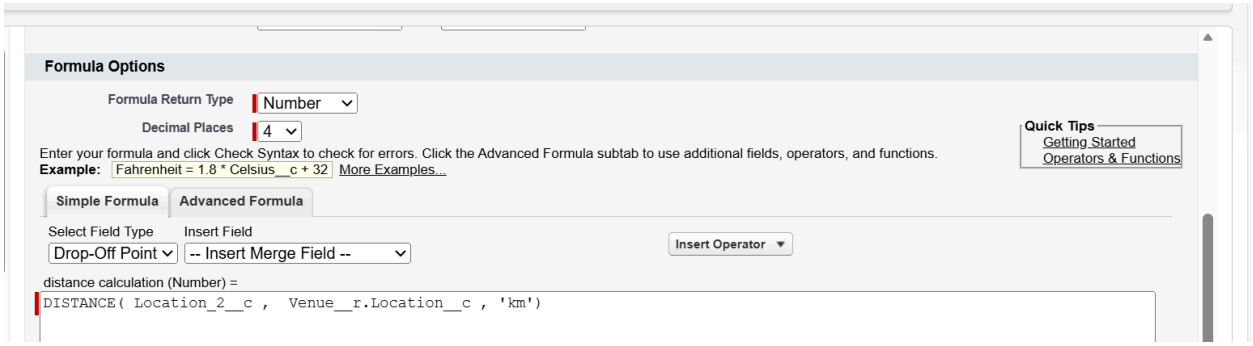
3. Select Data type as a “Geolocation” and Click on Next

4. Fill the Above as following:

- Field Label : Location 2
- Field Name : gets auto generated
- Description : Enter the Geolocation of the Drop off Point
- Geolocation Options : select Decimal
- Decimal Places : 4
- Click on Next >> Next >> Save and new.

To create another fields in an object:

1. Go to setup >> click on Object Manager >> type object name(Drop-Off point) in search bar >> click on the object.
2. Now click on “Fields & Relationships” >> New
3. Select Data type as a “Formula” and Click on Next
4. Fill the Above as following:
   - Field Label : distance calculation
   - Field Name : distance_calculation
   - Formula Return Type : Number
   - Formula Options : DISTANCE(Location_2__c , Venue__r.Location__c , 'km')
   - Click on Next >> Next >> Save and new.



To create another fields in an object:

5. Go to setup >> click on Object Manager >> type object name(Drop-Off point) in search bar >> click on the object.
6. Now click on “Fields & Relationships” >> New
7. Select Data type as a “Picklist” and Click on Next
8. Fill the Above as following:
   - Field Label : State
   - Field Name : State
   - Enter values, with each value separated by a new line :

Andhra Pradesh
Arunachal Pradesh
Assam
Bihar
Chhattisgarh
Goa
Gujarat
Haryana
Himachal Pradesh
Jharkhand
Karnataka
Kerala
Maharashtra
Madhya Pradesh
Manipur
Meghalaya
Mizoram
Nagaland
Odisha
Punjab
Rajasthan
Sikkim
Tamil Nadu
Tripura
Telangana
Uttar Pradesh
Uttarakhand
West Bengal
Andaman & Nicobar (UT)
Chandigarh (UT)
Dadra & Nagar Haveli and Daman & Diu (UT)
Delhi [National Capital Territory (NCT)]
Jammu & Kashmir (UT)
Ladakh (UT)
Lakshadweep (UT)
Puducherry (UT)

- Click on required check box

- Click on Next >> Next >> Save and new.

To create another fields in an object:

9. Go to setup >> click on Object Manager >> type object name(Task) in search bar >> click on the object.
10. Now click on “Fields & Relationships” >> New
11. Select Data type as a “Number” and Click on Next
12. Fill the Above as following:
    - Field Label : Distance
    - Field Name : Distance
    - Length : 14
    - Decimal Places : 4
    - Click on required check box
    - Click on Next >> Next >> Save and new.

Activity 4: Creation of fields for the Task object

Go to setup>> click on Object Manager >> type object name(Task) in search bar >> click on the object.

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

3. Select Data type as a “Auto Number” and Click on Next

4. Fill the Above as following:
    - Field Label : Task ID
    - Display Format : TASK-{0}
    - Starting Number : 1
    - Field Name : gets auto generated
    - Click on required check box
    - Click on Next >> Next >> Save and new.

To create another fields in an object:

1. Go to setup >> click on Object Manager >> type object name(Task) in search bar >> click on the object.
2. Now click on “Fields & Relationships” >> New
3. Select Data type as a “Date” and Click on Next
4. Fill the Above as following:
    - Field Label : Date
    - Field Name : Date
    - Click on required check box
    - Click on Next >> Next >> Save and new.

To create another fields in an object:

5. Go to setup >> click on Object Manager >> type object name(Task) in search bar >> click on the object.
6. Now click on “Fields & Relationships” >> New
7. Select Data type as a “Picklist (Multi-Select)” and Click on Next
8. Fill the Above as following:
    - Field Label : Food Category
    - Field Name : Food Category
    - Enter values, with each value separated by a new line :

      Veg

      Non-Veg

      Salad

      Snack
    - Click on required check box
    - Click on Next >> Next >> Save and new.

To create another fields in an object:

9. Go to setup >> click on Object Manager >> type object name(Task) in search bar >> click on the object.
10. Now click on “Fields & Relationships” >> New
11. Select Data type as a “Number” and Click on Next
12. Fill the Above as following:
    - Field Label : Number of People Served
    - Field Name : Number_of_People_Served
    - Click on required check box
    - Click on Next >> Next >> Save and new.

To create another fields in an object:

13. Go to setup >> click on Object Manager >> type object name(Task) in search bar >> click on the object.
14. Now click on “Fields & Relationships” >> New
15. Select Data type as a “Text” and Click on Next
16. Fill the Above as following:
    - Field Label : Name of the Person
    - Field Name : Name_of_the_Person
    - Click on Next >> Next >> Save and new.

To create another fields in an object:

17. Go to setup>> click on Object Manager >> type object name(Task) in search bar >> click on the object.
18. Now click on “Fields & Relationships” >> New
19. Select Data type as a “Phone” and Click on Next
20. Fill the Above as following:
    - Field Label : Phone
    - Field Name : Phone
    - Click on Next >> Next>> Save and new.

To create another fields in an object:

21. Go to setup >> click on Object Manager >> type object name(Task) in search bar >> click on the object.
22. Now click on “Fields & Relationships” >> New
23. Select Data type as a “Pick List” and Click on Next
24. Fill the Above as following:
    - Field Label : Rating
    - Field Name : Rating
    - Enter values, with each value separated by a new line :

      1

      2

      3

      4

      5
    - Click on Next >> Next >> Save and new.

To create another fields in an object:

25. Go to setup >> click on Object Manager >> type object name(Task) in search bar >> click on the object.
26. Now click on “Fields & Relationships” >> New
27. Select Data type as a “Long Text Area” and Click on Next
28. Fill the Above as following:
    - Field Label : Feedback
    - Field Name : Feedback
    - Click on Next >> Next >> Save and new.

Activity 5: Creation of fields for the Volunteer object

1. Go to setup >> click on Object Manager >> type object name(Volunteer) in search bar >> click on the object.
2. Now click on “Fields & Relationships” >> New
3. Select Data type as a “Auto Number” and Click on Next
4. Fill the Above as following:
    - Field Label : Volunteer ID
    - Field Name : gets auto generated
    - Click on required check box
    - Click on Next >> Next >> Save and new.
    - Click on Next >> Next >> Save and new.

To create another fields in an object:

1. Go to setup >> click on Object Manager >> type object name(Volunteer) in search bar >> click on the object.
2. Now click on “Fields & Relationships” >> New
3. Select Data type as a “Picklist” and Click on Next
4. Fill the Above as following:
    - Field Label : Gender
    - Field Name : Gender
    - Enter values, with each value separated by a new line :

      Female
      Male
    - Click on Next >> Next >> Save and new.

To create another fields in an object:

5. Go to setup >> click on Object Manager >> type object name(Volunteer) in search bar >> click on the object.
6. Now click on “Fields & Relationships” >> New
7. Select Data type as a “Date” and Click on Next
8. Fill the Above as following:
    - Field Label : Available On

- Field Name : Available On
- Click on required check box
- Click on Next >> Next >> Save and new.

To create another fields in an object:

9. Go to setup >> click on Object Manager >> type object name(Volunteer) in search bar >> click on the object.
10. Now click on “Fields & Relationships” >> New
11. Select Data type as a “Number” and Click on Next
12. Fill the Above as following:
    - Field Label : Age
    - Field Name : Age
    - Click on required check box
    - Click on Next >> Next>> Save and new.

To create another fields in an object:

13. Go to setup >> click on Object Manager >> type object name(Volunteer) in search bar >> click on the object.
14. Now click on “Fields & Relationships” >> New
15. Select Data type as a “Email” and Click on Next
16. Fill the Above as following:
    - Field Label : Email
    - Field Name : Email
    - Click on required check box
    - Click on Next>> Next >> Save and new.

To create another fields in an object:

17. Go to setup >> click on Object Manager >> type object name(Volunteer) in search bar >> click on the object.
18. Now click on “Fields & Relationships” >> New
19. Select Data type as a “Number” and Click on Next
20. Fill the Above as following:
    - Field Label : Contact Number
    - Field Name : Contact_Number
    - Click on required check box
    - Click on Next >> Next >> Save and new.

To create another fields in an object:

21. Go to setup >> click on Object Manager >> type object name(Volunteer) in search bar >> click on the object.
22. Now click on “Fields & Relationships” >> New
23. Select Data type as a “Text Area (Long)” and Click on Next
24. Fill the Above as following:
    - Field Label : Address
    - Field Name : Address
    - Click on Next >> Next >> Save and new.

To create another fields in an object:

25. Go to setup >> click on Object Manager >> type object name(Volunteer) in search bar >> click on the object.
26. Now click on “Fields & Relationships” >> New
27. Select Data type as a “Date” and Click on Next
28. Fill the Above as following:
    - Field Label : Date of Birth
    - Field Name : Date_of_Birth
    - Click on Next >> Next >> Save and new.

Activity 6: Creation of fields for the Execution Details object

1.Go to setup >> click on Object Manager >> type object name(Volunteer) in search bar >> click on the object.

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

3. Select Data type as a “Auto Number” and Click on Next

4. Fill the Above as following:
    - Field Label : Execution ID
    - Field Name : gets auto generated
    - Click on required check box
    - Click on Next >> Next >> Save and new.

Milestone 4: Flows

A **Flow** in Salesforce is an **automation tool** that lets you perform actions and process logic **without writing code**.
It helps you **collect data, update records, send notifications, assign tasks**, and **automate repetitive processes** visually — through a drag-and-drop interface in the **Flow Builder**.

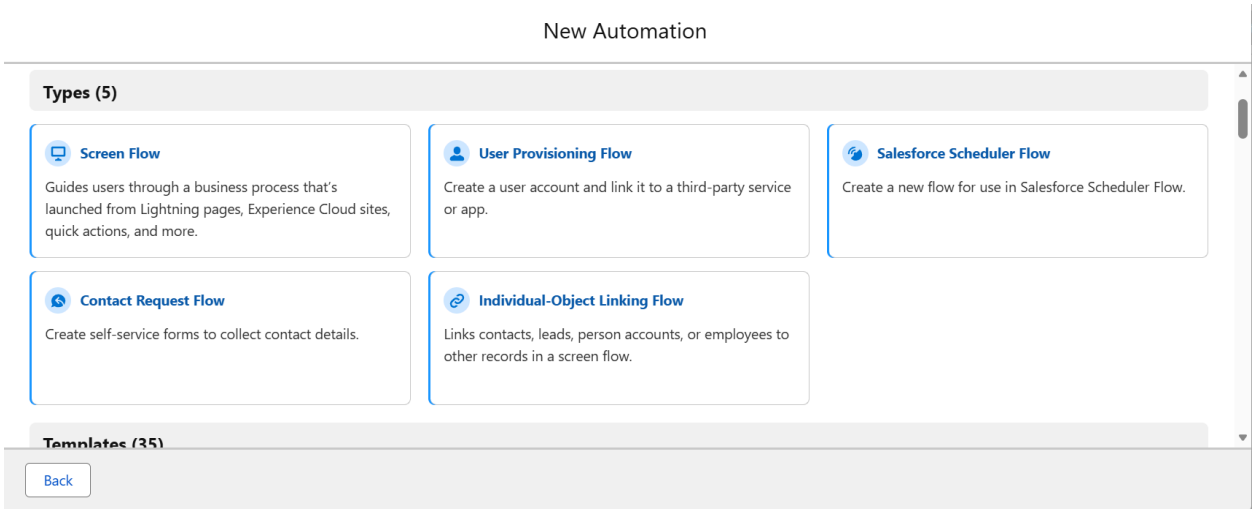
Flows are part of **Salesforce Automation Tools**, which also include Workflow Rules and Process Builder, but **Flows are more powerful and flexible**.

Types of Flows in Salesforce

Type of Flow	Description	Example (in Food Supply System)
Record-Triggered Flow	Runs automatically when a record is created, updated, or deleted.	When a new *Food Donation* is created, automatically assign it to an available volunteer.
Scheduled Flow	Runs at a specific time or interval.	Every day at 10 PM, generate a report of total food delivered.
Screen Flow	Displays screens to users for input (interactive).	Donor fills out a form to register a food donation.
Auto-Launched Flow	Runs in the background when invoked by another process or Flow.	Send an SMS or email to a volunteer after a donation is assigned.

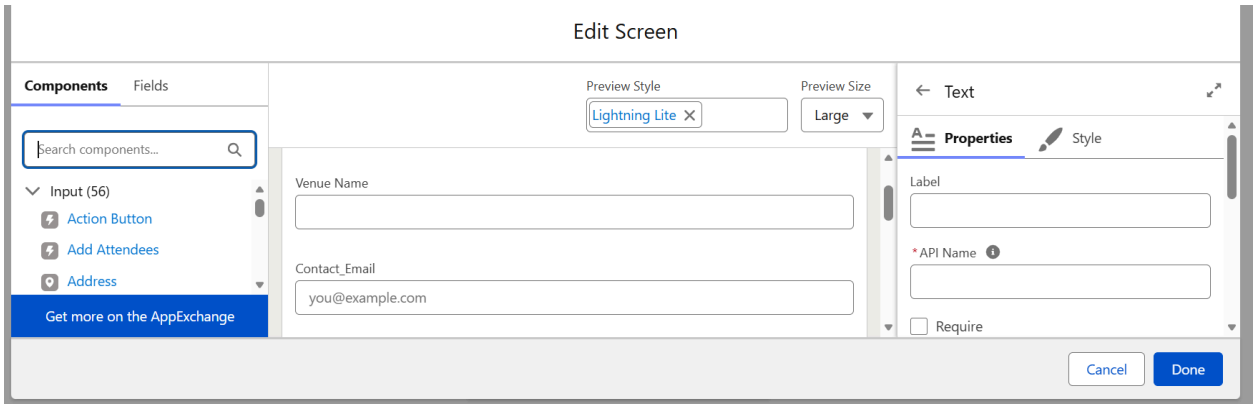
Activity 1: Create Flow to create a record in Venue object

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



3. Click on the '+' icon in between start and end, and click on screen element.
4. Under the Screen Properties:
   Label : Venue Details
   API Name : Venue_Details
5. Now lets add components in this flow. Click on Text Component and name it as:
   Label : Venue Name
   API Name : Venue_Name
6. Click on Email Component and name it as:
   Label : Email
   API Name : Contact_Email
7. Click on Phone Component and name it as:
   Label : Phone
   API Name : Contact_Phone
8. Click on Text Component and name it as:
   Label : Venue Location
   API Name : Venue_Location
9. Click on Number Component and name it as:
   Label : Latitude
   API Name : Latitude
10. Click on Number Component and name it as:
    Label : longitude
    API Name : longitude

11. Next click on Done. This would like below



12. Click on the '+' icon in between Venue details and end, and click on create record element.
13. Now label it as

    Label : Create Venue Record

    API Name : Create_Venue_Record

    How Many Records to Create : One

    How to Set the Record Fields : Use separate resources, and literal values

    Object : Venue

    Set Field Values for the Venue : Click on 'Add Field' 5 times

    Field : Value = Contact_Email__c : {!Contact_Email.value}

    Field : Value = Contact_Phone__c : {!Contact_Phone.value}

    Field : Value = Name : {!Venue_Name}

    Field : Value = Venue_Location__c : {!location}

    Field : Value = Location__Latitude__s : {!latitude}

    Field : Value = Location__Longitude__s : {!longitude}
14. This would look like:
15. Click on Save as:

    Flow Label : Venue Form

    Flow API Name : Venue_Form

Milestone 5: Trigger

What is a Trigger in Salesforce?

A **Trigger** in Salesforce is a piece of **Apex code** (Salesforce's programming language) that **automatically runs when certain actions occur** in the database — such as when a record is **created, updated, deleted, or undeleted**.

In simple terms:

> A **Trigger** tells Salesforce *"when something happens to this data, automatically do this action."*

Purpose of a Trigger

Triggers are used to:

- Automate actions **behind the scenes**.
- Enforce **business rules** and **data consistency**.
- Perform **complex logic** that cannot be done using Flows or Process Builder alone.
- Handle **related record updates** or **custom calculations**.

When Triggers Run

Triggers can run **before** or **after** a record change:

Type	When It Runs	Typical Use
Before Trigger	Runs **before** data is saved to the database.	Validate or modify data (e.g., check expiry date before saving a food donation).
After Trigger	Runs **after** data is saved to the database.	Perform actions on related records (e.g., create a delivery record after a donation is saved).

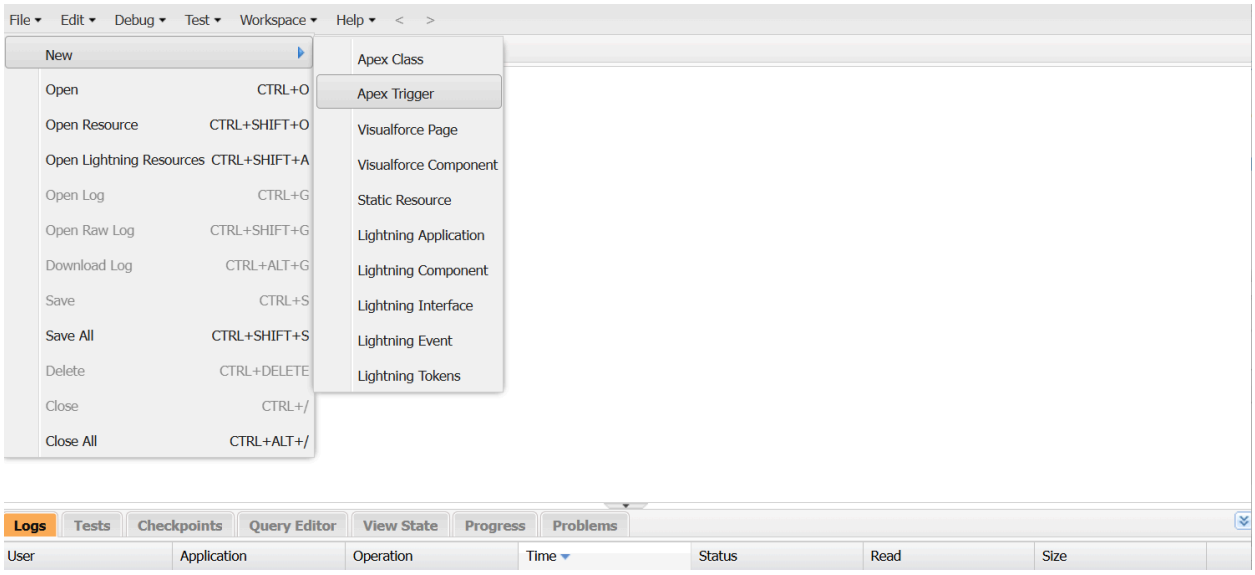
Example Triggers in the Leftover Food Supply System

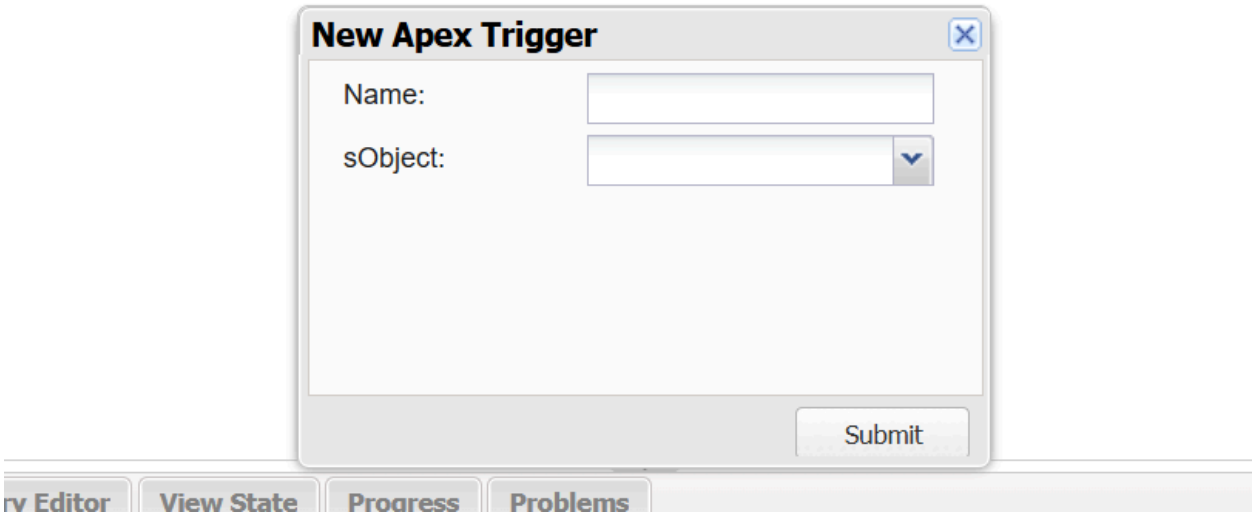
Trigger Name	Event	Purpose
DonationAssignmentTrigger	After Insert	Assigns the nearest volunteer automatically when a donation is created.
DonationValidationTrigger	Before Insert	Checks that the food expiry date is valid and quantity > 0.

DeliveryUpdateTrigger	After Update	Sends a notification to the beneficiary when delivery status changes to “Delivered.”
FeedbackTrigger	After Insert	Notifies the admin when new feedback is received.

Activity 1: Create a Trigger

1. Log into the trailhead account, navigate to the gear icon in the top right corner.
2. Click on developer console and you will be navigated to a new console window.
3. Click on the File menu in the toolbar, and click on new >> Trigger.
4. Enter the trigger name and the object to be triggered.





5. Enter Name : DropOffTrigger
   sObject: Drop-Off Point
6. Click on Submit.

Activity 2: Trigger Code

(This Trigger is to assign Distance field to the Distance Calculation field. So that we can assign the distance in the sharing rules.)

Code:

```
trigger DropOffTrigger on Drop_Off_point__c (before insert) {
   for(Drop_Off_point__c Drop : Trigger.new){
      Drop.Distance__c = Drop.distance_calculation__c;
   }
}
```

Milestone 8: Profiles

What Is a Profile in Salesforce?

A **Profile** defines:

- What **objects** a user can access (like Leads, Accounts, Opportunities, etc.)
- What **fields** they can view or edit
- What **permissions** they have (create, read, edit, delete)
- What **apps, tabs, and records** they can use

Every user must have one Profile in Salesforce.

Types of Profiles in Salesforce

Salesforce provides **two categories** of profiles:

1. Standard Profiles

These come **built-in** with Salesforce.
You can **view** them but have **limited ability to modify** them.

Common standard profiles include:

Profile Name	Description

System Administrator	Full access to all data, setup, and configuration. Can manage users, objects, and security.
Standard User	Can view, edit, and delete records they own. Has access to standard apps and tabs.
Read Only	Can view records but not edit, delete, or create.
Marketing User	Can manage campaigns, import leads, and has extra marketing permissions.
Solution Manager	Manages Solutions (knowledge base articles).
Contract Manager	Can manage and approve contracts.
Chatter Free / Chatter Moderator User	For internal communication in Chatter only.

Activity 1: Profiles

1. Go to setup page >> type Profiles in Quick Find bar >> click on Profiles >> click on ‘S’
2. Click on Clone beside Standard Platform User.
3. Under Clone Profile:

   Profile Name : NGOs Profile
1. Then click on Save

Milestone 9: **Creation of User**

What is creation of user in salseforce?

- It defines **who** can access Salesforce.
- It controls **permissions** and **data access**.
- It allows **tracking** of who creates or updates records.

Every record in Salesforce has “Created by” and “Last Modified by” fields — tied to user accounts like *User1*.

Step 1: Go to Setup Click the **gear icon** (top right corner).

Select **Setup** → this opens the Salesforce Setup page.

Step 2: Find the Users Page

1. In the **Quick Find** search box (left side), type **“Users”**.
2. Click **Users** under **Administration** → **Users**.

Step 3: Click “New User”

- Click the **“New User”** button at the top.

Activity 1: Creation of User1

1. Go to setup page >> type users in Quick Find bar >> click on users>> New user.
2. In General Information give details as: (Note : create users as per your wish NGO's)

   First Name : Iksha Foundation

   Last Name : Iksha_Foundation

   Alias : iiksh

   Email : Give Your Email

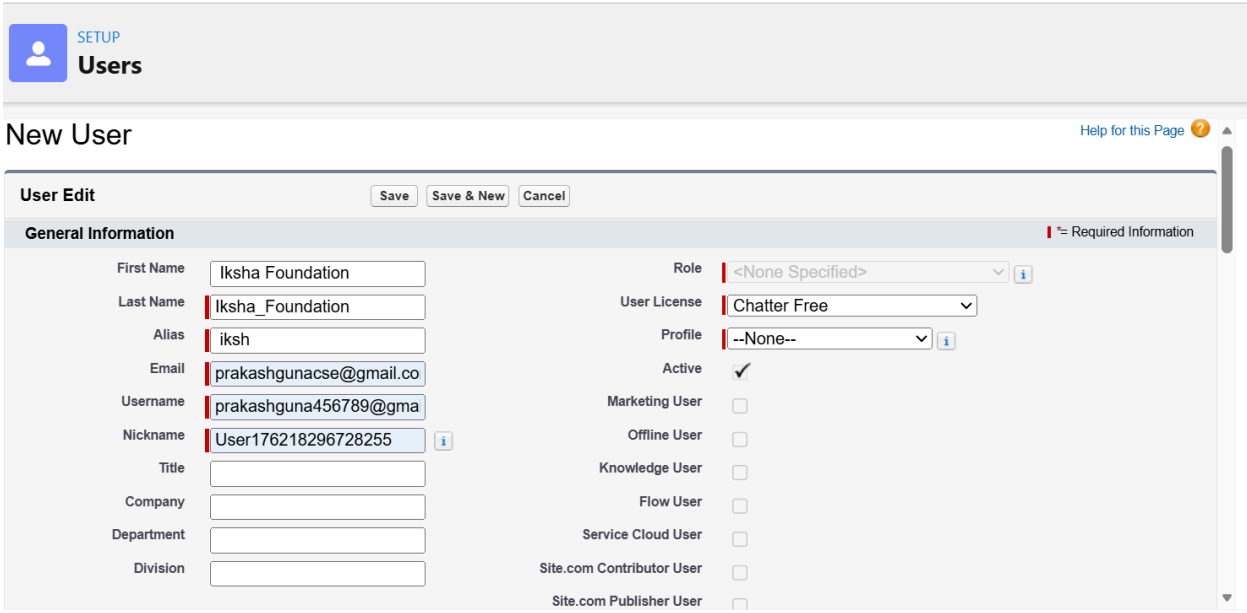
   Username : ikshafoundation@sb.com (give the username different)

   Nickname : Auto Populated

   User License : Salesforce Platform

   Profile : NGOs Profile

   Active : Check

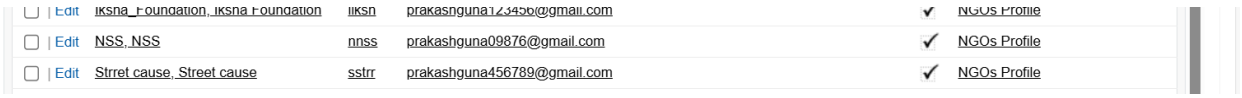


3. Click on Save

Activity 2: Creation of User2, User3

1. Create another Two Users by following steps in Activity - 1 with similar User License and Profile.

2. Give Different First Name, Last Name based on Different NGO's.



Milestone 10: Public Group

Activity 1: Creation of Public Group 1

1. Go to setup page >> type Public Groups in Quick Find bar >> click on Public Groups >> click on New.
2. Under Group Information:

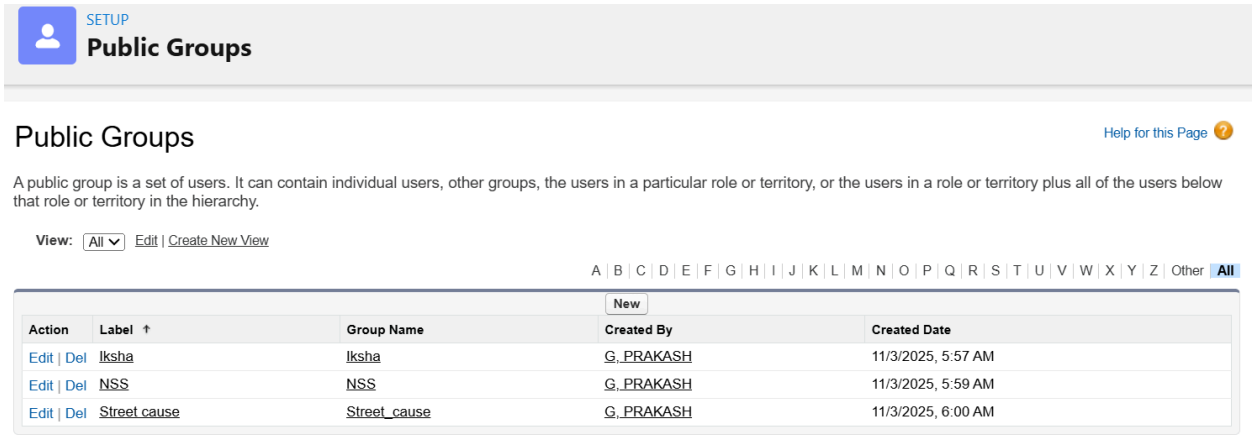
   Label : Iksha

   Group Name : Iksha

   Grant Access Using Hierarchies : Check
3. In Search, Select Users.
4. In Selected Members Add Iksha Foundation and System Administrator

Activity 2: Creation of Public Group 2

1. By Following Steps in Activity 1, Create other two Public Groups for other two users.
2. After Saving this would look like this.



Milestone 11: Report Types

What Is a Report Type in Salesforce?

A **Report Type** in Salesforce defines:

- **Which records (objects)** you can see in a report
- **How those objects are related** (e.g., Accounts with Contacts, Opportunities with Products)
- **Which fields** are available to include in your report

Think of a **report type** as the **"data blueprint"** for a report — it tells Salesforce **where the data comes from**.

Types of Report Types in Salesforce

Salesforce has **two main categories** of report types:

1. Standard Report Types

- These are **automatically created** by Salesforce when you create new objects or relationships.

- You **don’t have to define them manually**.
- They include common combinations like:
    - Accounts and Contacts
    - Opportunities and Products
    - Cases and Solutions

    Example:

    “Accounts with Contacts” — shows all accounts that have at least one contact.

ACtivity 1: Creation of Report Types

1. Go to setup page >> type Report Types in Quick Find bar >> click on Report Types >> click on Continue >> Click on New Custom Report Type.
2. In Define the Custom Report Type:

   Primary Object : Select Venues

   Report Type Label : Venue with DropOff with Volunteer

   Report Type Name : Venue_with_DropOff_with_Volunteer

   Description : Venue with DropOff with Volunteer

   Store in Category : Select Other Reports

   Deployment Status : Deployed
3. Click on Next
4. Near Click to relate another Object Select Drop-Off Points.
5. And also select "A" records may or may not have related "B" records.
6. Now again Near Click to relate another Object Select Volunteers.
7. Now click on Save.

Milestone 12: Report

What Is a Report in Salesforce?

A **Report** is a **list or summary of Salesforce records** that meet certain criteria.
It allows you to **analyze, organize, and visualize your data**.

Think of it as a **dynamic table or chart** that shows the information you need from Salesforce objects like Accounts, Contacts, Opportunities, or Cases.

Key Features of Salesforce Reports

1. **Filter Data** – Only show records you care about (e.g., Opportunities > $50,000).
2. **Group Records** – Organize data by fields like Stage, Region, Owner.
3. **Summarize** – Calculate totals, averages, counts, etc.
4. **Visualize** – Add charts to reports for easier understanding.
5. **Export** – Download to Excel, CSV, or use in dashboards.

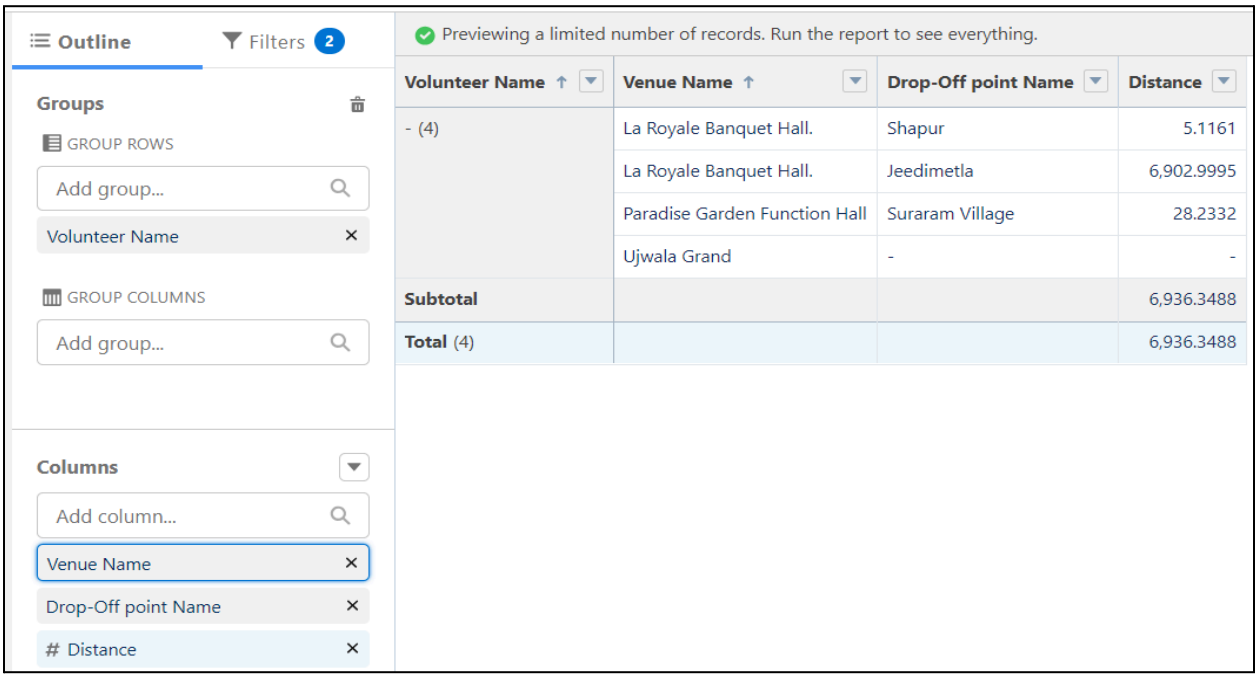
Activity 1: Creation of Report on Venue with DropOff with Volunteer

1. Go to the app(FoodConnect) >> click on the reports tab
2. Click on New Folder.

   Folder Label : Custom Reports

   Folder Unique Name : CustomReports
3. Open Custom Reports and click on New Report
4. Select Report Type : Venue with DropOff with Volunteer
5. Then click on Start Report.
6. In GROUP ROWS : Add Volunteer Name

7. In Columns : Add Venue Name, Drop-Off point Name, Distance.
8. Distance.

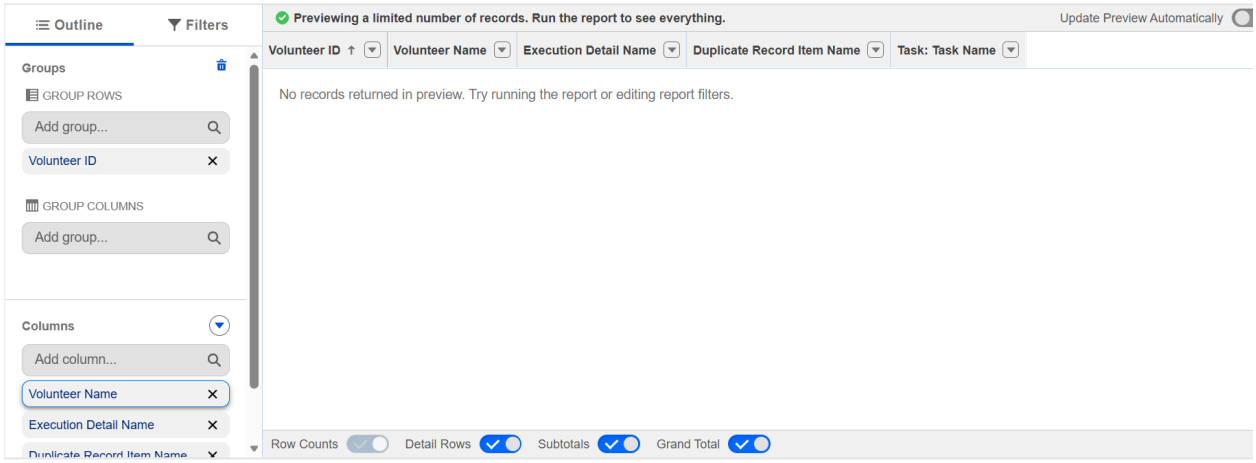


8. Now click on Save & Run.
9. Give Label as :
10. Report Name : venue and Drop Off point
11. Report Unique Name : Auto Populated
12. Click on Select Folder and select Custom Report, then click on Save.

Activity 2: Creation of Report on Volunteers with Execution Details and Tasks

1. Go to the app(FoodConnect) >> click on the reports tab
2. Click on Custom Reports Folder and click on New Report
3. Select Report Type : Volunteers with Execution Details and Tasks.
4. Then click on Start Report.
5. In GROUP ROWS : Volunteer ID
6. In Columns : Add Volunteer : Volunteer Name, Task : Task Name, Execution Detail :

Execution Detail Name, Volunteer: Owner Name, Task: Date, Task : Rating.



7. Now click on Save & Run.
8. Give Label as :

   Report Name : Volunteer Task

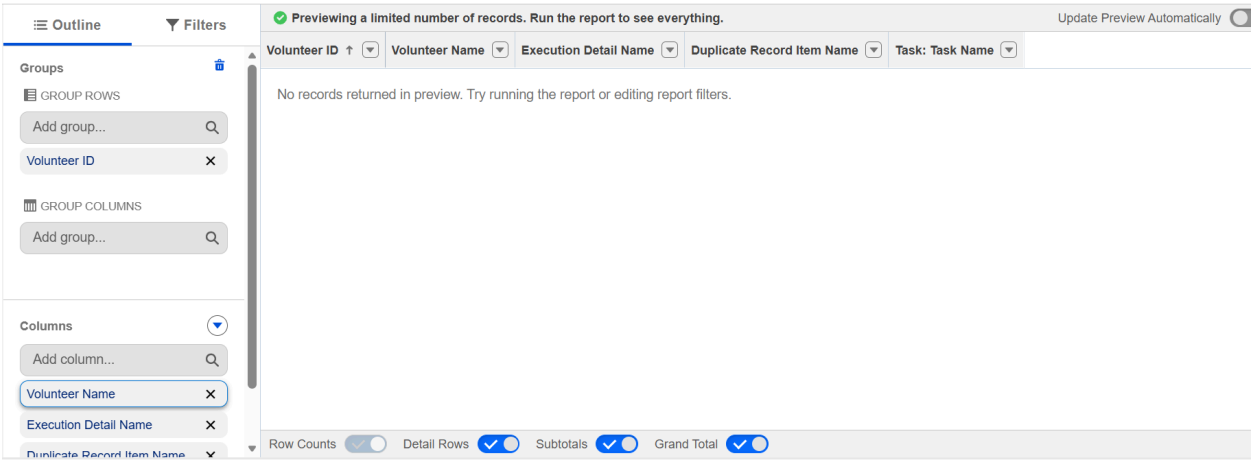
   Report Unique Name : Auto Populated

1. Click on Select Folder and select Custom Report, then click on Save.

Activity 3: Creation of Report on Volunteers with Execution Details and Tasks

1. Go to the app(FoodConnect) >> click on the reports tab
2. Click on Custom Reports Folder and click on New Report
3. Select Report Type : Volunteers with Execution Details and Tasks.
4. Then click on Start Report.
5. In GROUP ROWS : Volunteer ID

6. In Columns : Add Volunteer : Volunteer Name, Task : Task Name, Execution Detail : Execution Detail Name, Volunteer: Owner Name, Task: Date, Task : Rating.



7. Now click on Save & Run.
8. Give Label as :

   Report Name : Volunteer Task

   Report Unique Name : Auto Populated

1. Click on Select Folder and select Custom Report, then click on Save.

Milestone 12: Dashboard

What Is a Dashboard in Salesforce?

A **Dashboard** is a **visual display of key Salesforce data** in one place.
It's made up of **components (charts, tables, metrics, gauges, etc.)** that summarize reports.

Think of it as a **control panel** that lets you **monitor your business at a glance**

Key Features of a Salesforce Dashboard

1. **Visualize Data** – Turn report data into charts, graphs, and tables.
2. **Real-Time Updates** – Dashboards update automatically when underlying reports change.
3. **Single View of KPIs** – Track sales, support cases, campaigns, etc., in one screen.
4. **Interactive** – Click on dashboard components to drill into the underlying report.
5. **Shareable** – Share dashboards with your team, role, or profile.

Activity 1:Adding venue and Drop Off point Report to the Dashboard

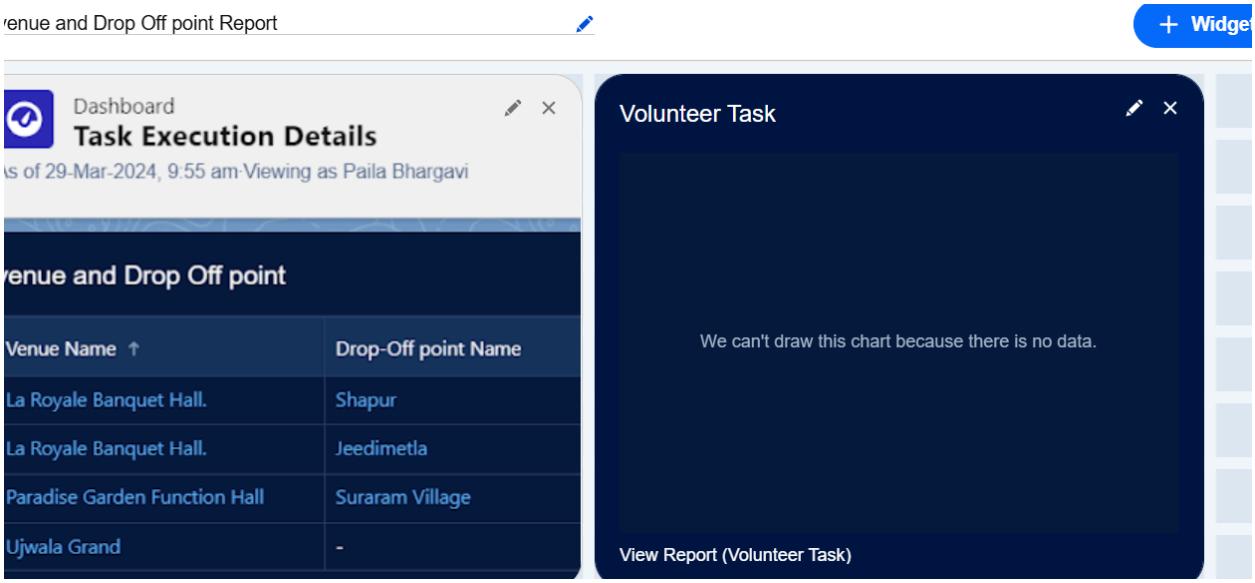
1. Go to the app(FoodConnect) >> click on the Dashboards tab.
2. Click on New Folder.

   Folder Label : Custom Dashboards

   Folder Unique Name : Auto Populated
3. Open Custom Dashboards and click on New Dashboards
4. Name : Organization Details
5. Click on Widget and select Chart or Table
6. In Select Report : Select venue and Drop Off point Report.
7. Then click on select
8. In Add Component:

   Display As : Select Lightning Table

   Component Theme : Select Dark (Optional)



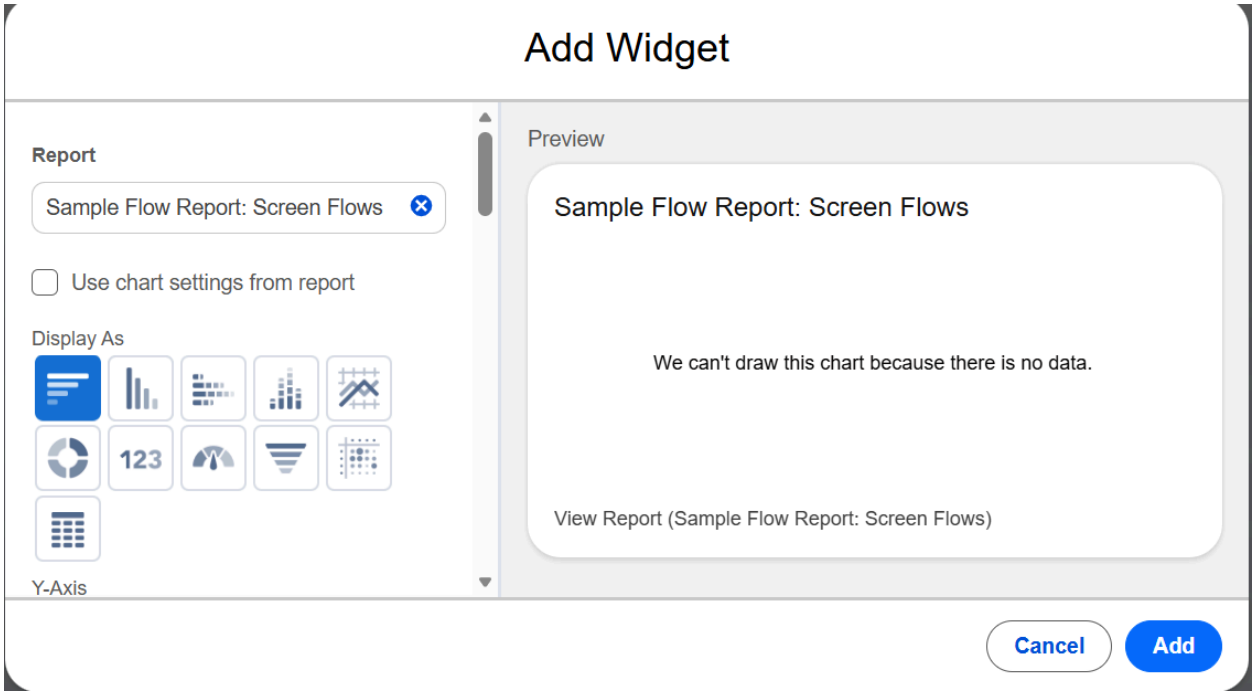
1. Now click on save.

Activity 2: Adding Volunteer Task Report to the Dashboard

1. Click on Widget and select Chart or Table
2. In Select Report : Select Volunteer Task Report.
3. Then click on select
4. In Add Component:

   Display As : Select Line Chart

   Component Theme : Select Dark (Optional)



1. Now click on save.

Activity 3: Adding a Picture to the Dashboard (Optional)

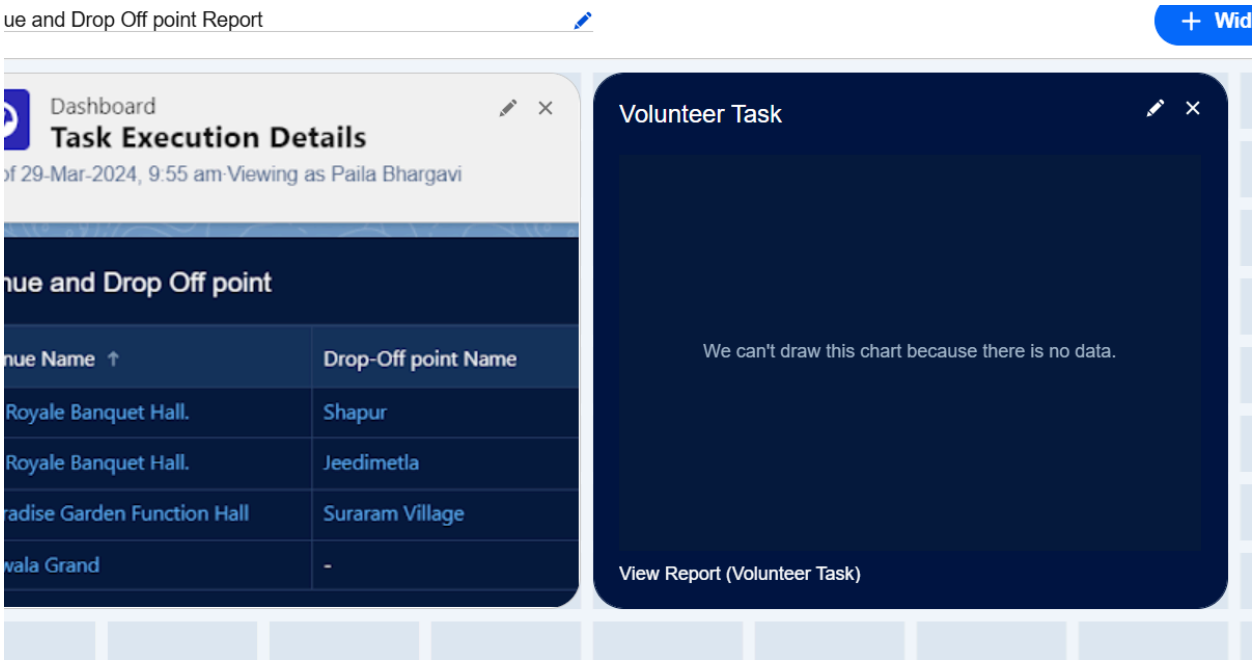
(Note : To upload an image into the Dashboard, we have to first download an image from google or other sources into your system)

1. Click on Widget and select Image. Then click on Browse Files.
2. Then Select the Picture you want to upload in this Dashboard.
3. Then click on Save As :

Name : Task Execution Details

Click on Select Folder and select Custom Dashboards

4. Click on Select Folder and then Save.



Milestone 13: Sharing Rules

What Are Sharing Rules in Salesforce?

Sharing Rules are a way to **automatically grant additional access** to records to users **beyond their profile permissions**.

They are part of Salesforce's **record-level security model**, which controls **who can see or edit which records**.

Think of it as saying:
"Profiles give baseline access, but Sharing Rules let me open access for specific groups or roles when needed."

Types of Sharing Rules

1. Owner-Based Sharing Rules

- Share records **owned by specific users or roles** with other users, roles, or groups.
- Example:
    - Share all Opportunities owned by Sales Rep role **with the Sales Manager role**.

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2. Criteria-Based Sharing Rules

- Share records that **meet certain conditions** with other users, roles, or groups.
- Example:
    - Share all Accounts where `Industry = "Technology"` with the Technology Sales team

Creation of sharing rules

1. Go to setup >> type Sharing Settings in quick find box >> Click on the Sharing Settings.
2. Scroll down and find Drop-Off point Sharing Rules.
3. Click on new near Drop-Off point Sharing Rules and Name it as:
   Label : Rule 1
   Rule Name : Rule_1
4. Select your rule type : Select Based on criteria.
5. Select which records to be shared:
   Field : Operator : Value = Distance : less than : 15
6. Select the users to share with : Near Share With
   Public Groups : Iksha
7. Click on Save.
8. Click on new near Drop-Off point Sharing Rules and Name it as:
   Label : Rule 2
   Rule Name : Rule_2

9. Select your rule type : Select Based on criteria.
10. Select which records to be shared:

Field : Operator : Value = Distance : greater than : 15

Field : Operator : Value = Distance : less or equal : 30

11. Select the users to share with : Near Share With

    Public Groups : NSS

12. Click on Save.
13. Click on new near Drop-Off point Sharing Rules and Name it as:

    Label : Rule 3

    Rule Name : Rule_3

14. Select your rule type : Select Based on criteria.
15. Select which records to be shared:

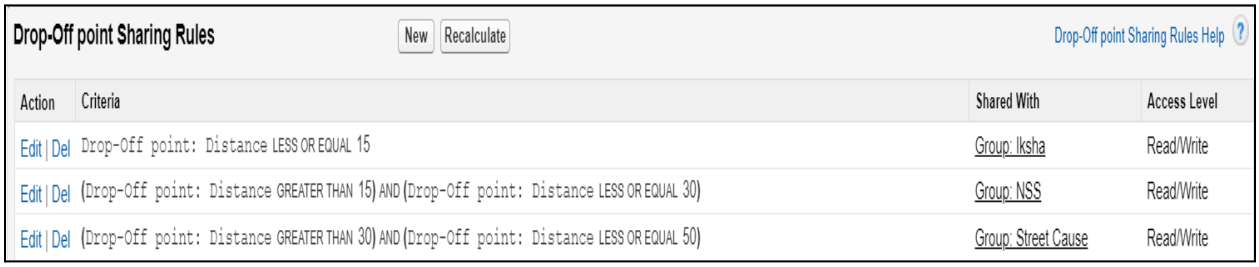
    Field : Operator : Value = Distance : greater than : 30

    Field : Operator : Value = Distance : less or equal : 50

16. Select the users to share with : Near Share With

    Public Groups : Street Cause

17. Click on Save.



Drop-Off point Sharing Rules New Recalculate Drop-Off point Sharing Rules Help

Action	Criteria	Shared With	Access Level
Edit | Del	Drop-Off point: Distance LESS OR EQUAL 15	Group: Iksha	Read/Write
Edit | Del	(Drop-Off point: Distance GREATER THAN 15) AND (Drop-Off point: Distance LESS OR EQUAL 30)	Group: NSS	Read/Write
Edit | Del	(Drop-Off point: Distance GREATER THAN 30) AND (Drop-Off point: Distance LESS OR EQUAL 50)	Group: Street Cause	Read/Write

Milestone 14: Home page

What Is the Home Page in Salesforce?

The **Home Page** in Salesforce is the **main landing page** a user sees when they log in. It provides a **snapshot of key information** and acts as a **central hub** to access records, reports, dashboards, tasks, and other tools.

Think of it as your **personalized control center** in Salesforce.

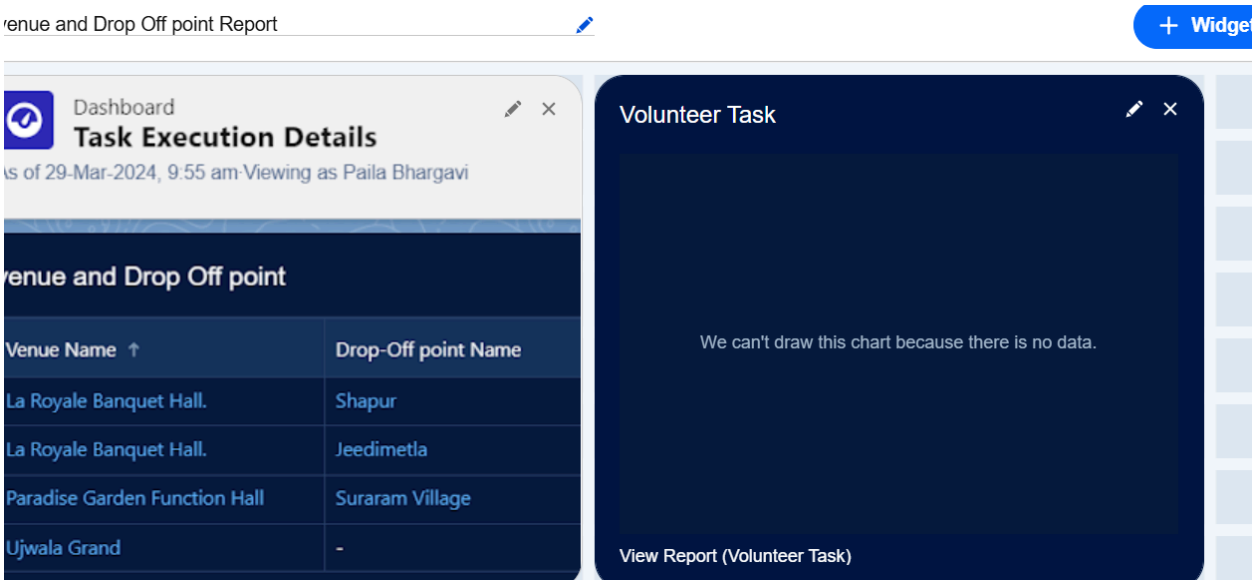
Types of Home Pages

1. **Standard Home Page**
    - Default page provided by Salesforce.
    - Shows basic components like Tasks, Calendar, Chatter feed.
2. **Custom Home Page**
    - Created or modified by Admins using **Lightning App Builder**.
    - Allows adding **custom components, charts, dashboards, and links**.
    - Can be personalized for different **profiles or roles**.

Creation of Home Page

1. Go to setup >> type Lightning App Builder in quick find box >> Click on the Lightning App Builder and Select the New.
2. Select Home Page and give Label as HOME Page.
3. Select Standard Home Page.
4. Near Components search for Flow and Drag and Drop in Right Side Section..
5. On the right hand side:
   Flow : Venue Flow

18. Near Components search for Dashboard, then Drag and Drop it in first Section.



7. Click on Save and Activation, then click on App Default, then Add Assignments.
8. Add FoodConnect App and then Save.
9. FoodConnect Home Page would Look Like this.