

FOOD CONNECT: TO SUPPLY LEFT OVER FOOD TO POOR

By

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1. Project Overview

This project, "**Food Connect: To Supply Leftover Food to Poor**," is focused on creating a platform to streamline the redistribution of surplus food to underserved communities, designed to address the dual challenge of food wastage and hunger. The goal is to deliver a comprehensive solution by leveraging the Salesforce platform with tools like custom objects, Lightning apps, and automation workflows. Through this project, we aim to enhance operational efficiency, transparency, and community engagement while supporting the long-term vision of creating a sustainable food-sharing ecosystem.

2. Objectives

Business Goals:

- To reduce food wastage by connecting surplus food providers with underserved communities in need.
- To create a sustainable platform that promotes transparency and accountability in food redistribution.
- To foster community engagement by encouraging volunteers and donors to participate actively.

Specific Outcomes:

- **Real-Time Tracking:** Implement a dashboard to monitor donations, volunteer tasks, and delivery progress.
- **Automation of Processes:** Streamline donor requests, volunteer coordination, and food pickups using Salesforce Flows and Triggers.

- **User-Friendly Interface:** Develop intuitive forms and tabs for easy onboarding of donors, volunteers, and drop-off points.
- **Comprehensive Reporting:** Generate detailed reports to evaluate the impact, measure key performance indicators (KPIs), and support data-driven decision-making.
- **Scalability:** Create a replicable model that can be extended to other regions or scaled for larger operations.

3. Salesforce Key Features and Concepts Utilized

- **Custom Objects and Fields:**
 - Created tailored objects to manage donor information, volunteer tasks, food pickup requests, and drop-off locations.
- **Lightning App Builder:**
 - Designed an intuitive and visually appealing Lightning app interface for users to easily navigate and manage tasks.
- **Flows and Automation:**
 - Implemented automation for task assignments, notifications, and tracking of food donations and pickups to reduce manual efforts.
- **Triggers:**
 - Developed Apex triggers to ensure data consistency and automate backend processes, such as updating task statuses or alerting users.
- **Reports and Dashboards:**
 - Built dynamic dashboards and reports to provide real-time insights into donation volumes, volunteer activities, and delivery progress.

4. Detailed Steps to Solution Design

Topic no.	Topic Name
1.	Creating Objects: <ul style="list-style-type: none">1.1 Create Venue Object1.2 Create Drop-Off Point Object1.3 Create Task Object1.4 Create Volunteer Object1.5 Create Execution Details Object
2.	Creating Tabs: <ul style="list-style-type: none">2.1 Create Venue Tab2.2 Create Drop-Off Point Tab2.3 Create Task Tab2.4 Create Volunteer Tab2.5 Create Execution Details Tab
3.	Create A Lightning App
4.	Fields: <ul style="list-style-type: none">4.1 Creation of Relationship Fields In Objects4.2 Creation of Fields For The Venue Object4.3 Creation of Fields For The Drop-Off Point Object4.4 Creation of Fields For The Task Object4.5 Creation of Fields For The Volunteer Object4.6 Creation of Fields For The Execution Details Object
5.	Create Flow to create a record in Venue object

6.	Trigger: 6.1 Create A Trigger 6.2 Trigger Code
7.	Creation Of Users: 7.1 Creation Of User1 7.2 Creation Of User2,user3
8.	Public Groups: 8.1 Creation Of Public Group 1 8.2 Creation Of Public Group 2
9.	Creation Of Report Types
10.	Reports: 10.1 Creation Of Report On venue With Drop-Off Point With Volunteer 10.2 Creation Of Report On Volunteer With Execution Details And Tasks
11.	Dash Boards: 11.1 Adding Venue And Drop-Off Point To Report The Dashboard 11.2 Adding Volunteer Task Report To The Dashboard 11.3 Adding A Picture To The DashBoard
12.	Creation Of Sharing Rules
13.	Creation Of Home Page

1. Creating Objects

Objects in Salesforce are database tables that allow you to store data specific to your organization. Each object comprises records (rows) and fields (columns) that help organize and structure your data efficiently. We use objects to manage and relate various types of information, enabling seamless data tracking, reporting, and analysis within the Salesforce platform.

Objects allow users to manage various types of information such as customer accounts, contacts, opportunities, and custom data specific to the organization. Salesforce provides standard objects like Account, Contact, and Opportunity, and users can also create **custom objects** to suit unique business needs.

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.

SETUP
New Custom Object

Custom Object Definition Edit Save Save & New Cancel

Custom Object Information

The singular and plural labels are used in tabs, page layouts, and reports.

Label Example: Account 1

Plural Label Example: Accounts

Starts with a word used ☐

The Object Name is used when referencing the object via the API.

Object Name Example: Account 2

Description

Context-Sensitive Help Setting ☒ Open the standard Salesforce.com Help & Training window
☐ Open a window using a Visualforce page

Content Name

Enter Record Name Label and Format

The Record Name appears in page layouts, key lists, related lists, roll-ups, and search results. For example, the Record Name for Account is "Account Name" and for Case it is "Case Number". Note that the Record Name field is always called "Name" when referenced via the API.

Record Name Example: Account Name 3

Data Type

Optional Features

☐ Allow Reports 4

☐ Allow Activities

☐ Track Field History

Object Classification

When these settings are enabled, this object is classified as an Enterprise Application object. When these settings are disabled, this object is classified as a Light Application object. [Learn more.](#)

☒ Allow Sharing
☒ Allow Bulk API Access
☒ Allow Streaming API Access

Deployment Status

☐ In Development
☒ Deployed

Search Status

When this setting is enabled, your users can find records of this object type when they search. [Learn more.](#)

☐ Allow Search 1

Object Creation Options (Available only when custom object is first created)

☐ Add Notes and Attachments related list to default page layout
☐ Launch New Custom Tab Wizard after saving this custom object

2 Save Save & New Cancel

4. Click on Save.

1.1 Create Venue Object:

To create an object:

1. From the setup page >> Click on Object Manager >> Click on Create >> Click on Custom Object.
 - 1.1 Enter the label name >> Venue
 - 1.2 Plural label name >> Venues

1.3 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.

The screenshot shows the Salesforce Setup interface for the 'Venue' object. The left sidebar contains a 'Details' section with a list of configuration options: Fields & Relationships, Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, Related Lookup Filters, Search Layouts, List View Button Layout, Restriction Rules, and Scoping Rules. The main content area is titled 'Venue' and includes a 'Details' section with a description field. Below this, there are two columns of settings. The left column includes 'API Name' (Venue_c), 'Custom' (checked), 'Singular Label' (Venue), 'Plural Label' (Venues), and 'Deployment Status' (Deployed). The right column includes 'Enable Reports' (checked), 'Track Activities' (checked), 'Track Field History' (checked), and 'Help Settings' (Standard salesforce.com Help Window). At the top right of the main content area, there are 'Edit' and 'Delete' buttons.

1.2 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.

1.1 Enter the label name >> Drop-Off Point

1.2 Plural label name >> Drop-Off Points

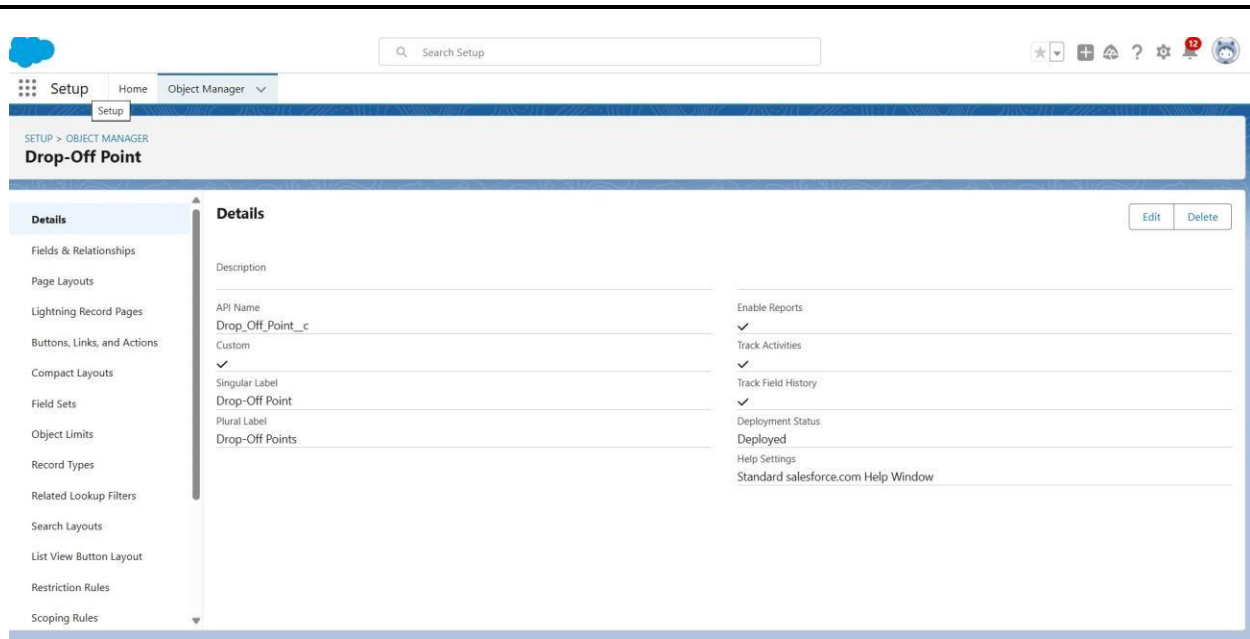
1.3 Enter Record Name Label and Format Record

Name >> Drop-Off point Name Data

Type >> Text

2. Click on Allow reports and Track Field History, Allow Activities

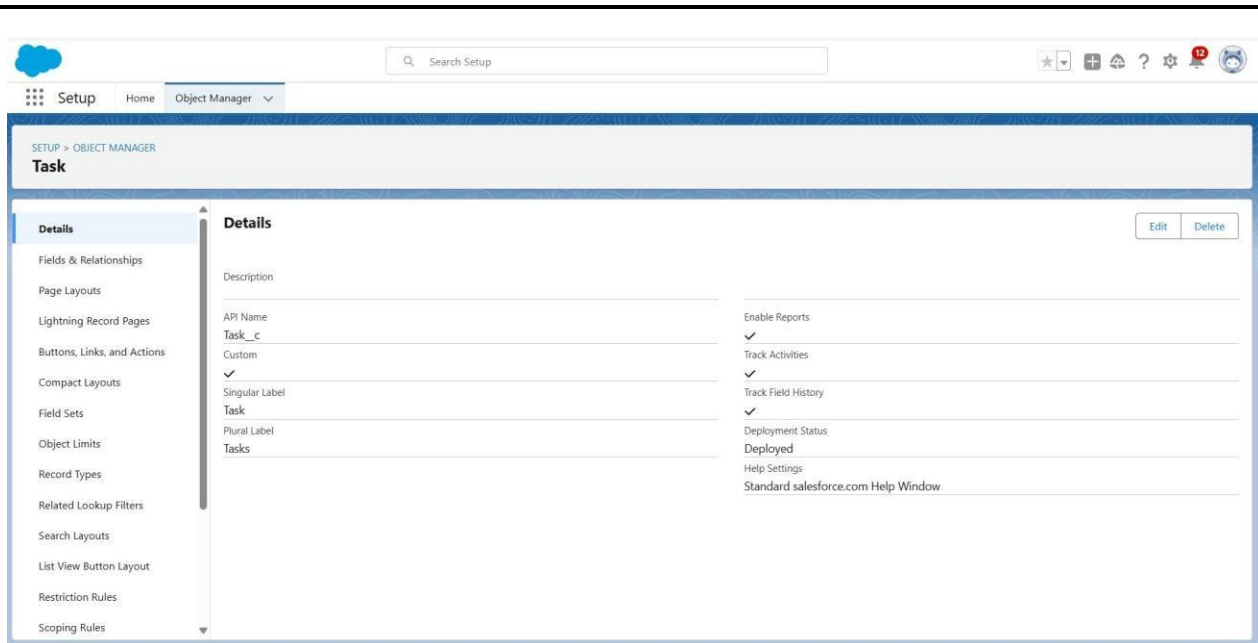
3. Allow search >> Save.



1.3 Create Task Object:

To create an object:

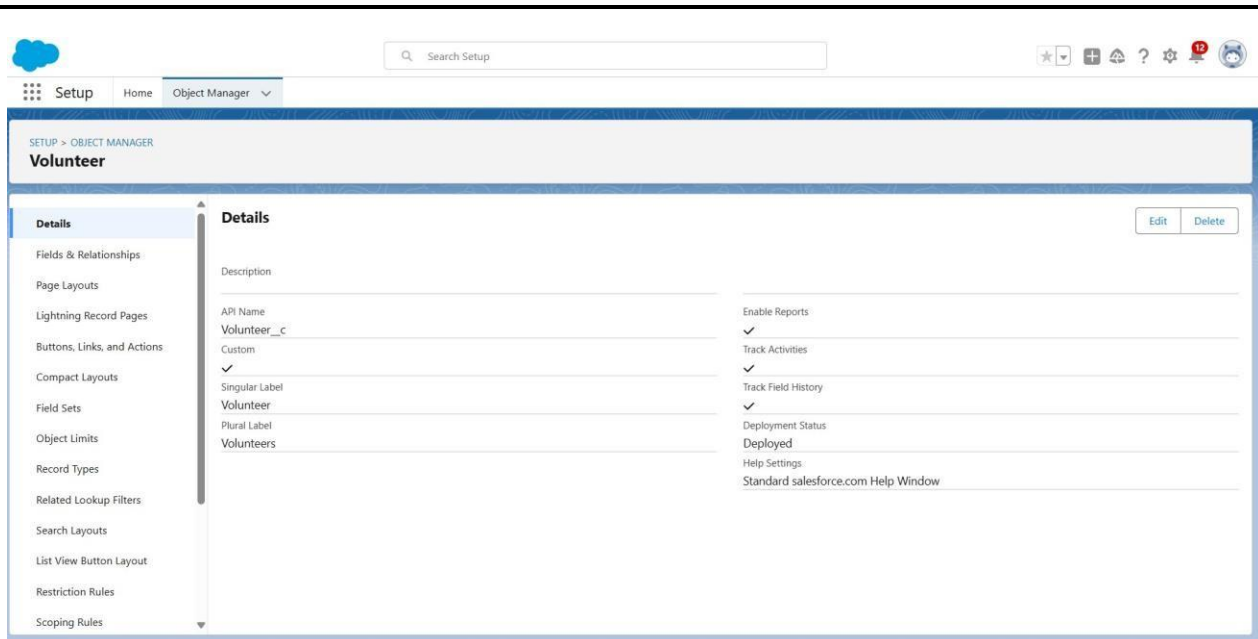
1. From the setup page >> Click on Object Manager >> Click on Create >> Click on Custom Object.
 - 1.1 Enter the label name>>> Task
 - 1.2 Plural label name>> Tasks
 - 1.3 Enter Record Name Label and Format
 - Record Name >> Task Name
 - Data Type >> Text
2. Click on Allow reports and Track Field History, Allow Activities
3. Allow search >> Save.



1.4 Create Volunteer Object:

To create an object:

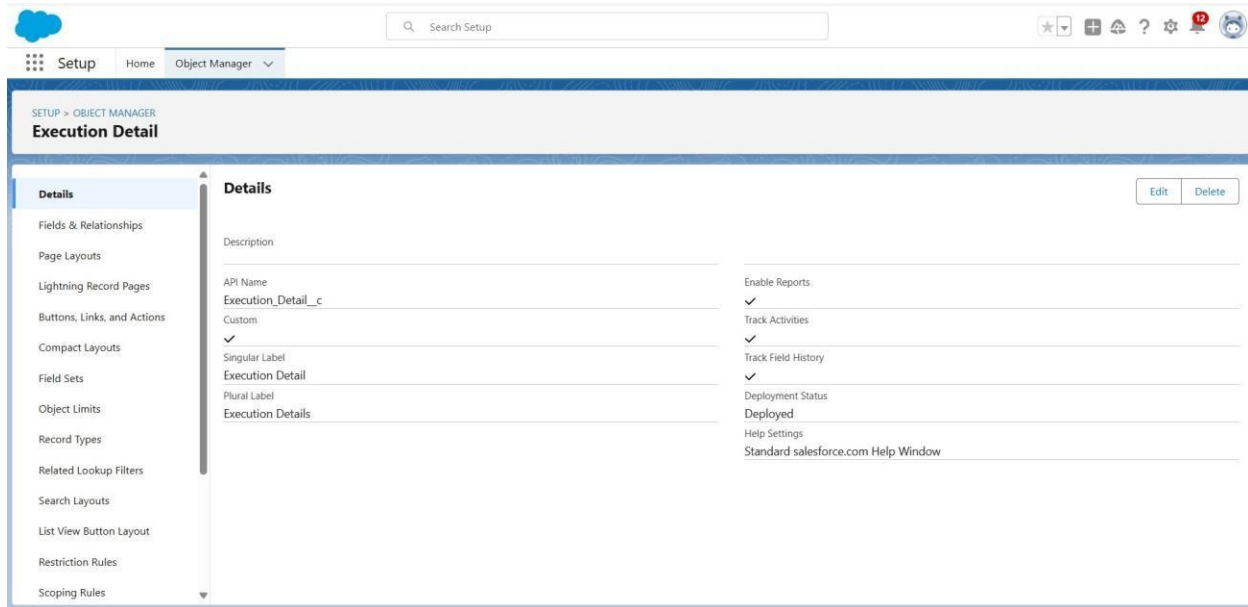
1. From the setup page >> Click on Object Manager>> Click on Create >> Click on Custom Object.
 - 1.1 Enter the label name>> Volunteer
 - 1.2 Plural label name>> Volunteers
 - 1.3 Enter Record Name Label and Format
Record Name >> Volunteer Name Data
Type >> Text
2. Click on Allow reports and Track Field History, Allow Activities
3. Allow search >> Save.



1.5 CreateExecution Detail Object:

To create an object:

1. From the setup page >> Click on Object Manager >> Click on Create >> Click on Custom Object.
 - 1.1 Enter the label name >> Execution Detail
 - 1.2 Plural label name >> Execution Details
 - 1.3 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.



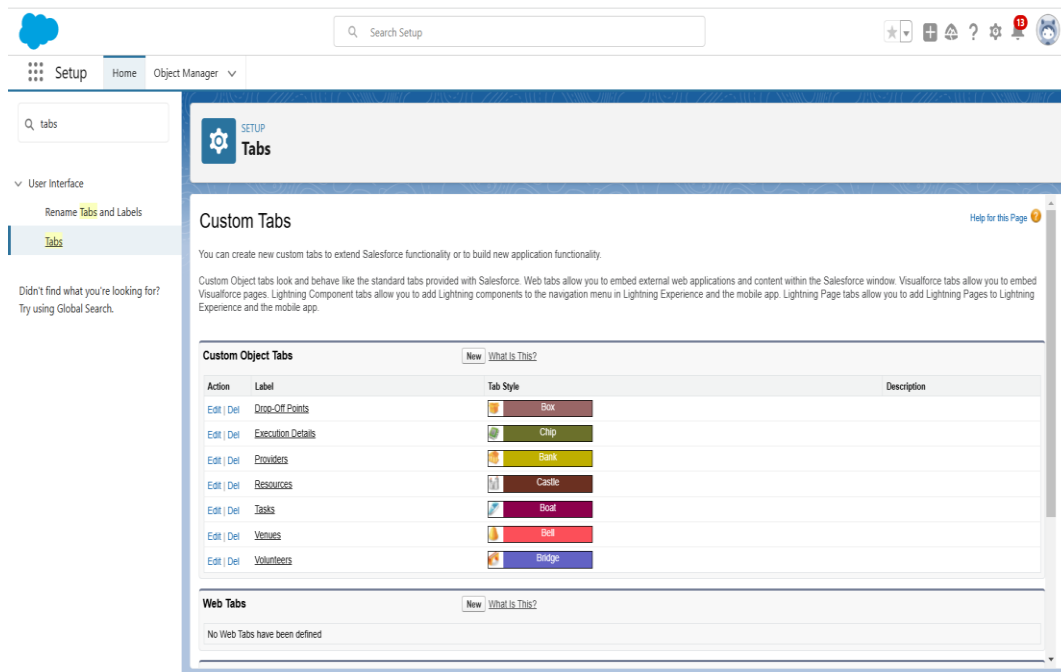
2. Creating Tabs

A **tab** is a user interface component that helps users organize, access, and manage records of different **objects** within the platform. Salesforce objects represent different types of data, such as Accounts, Contacts, Opportunities, or Custom Objects, and each object has its own tab. Here's a more detailed explanation of what a tab is and how it functions

2.1 Creating Venue Tab:

To create a Tab:(Venue)

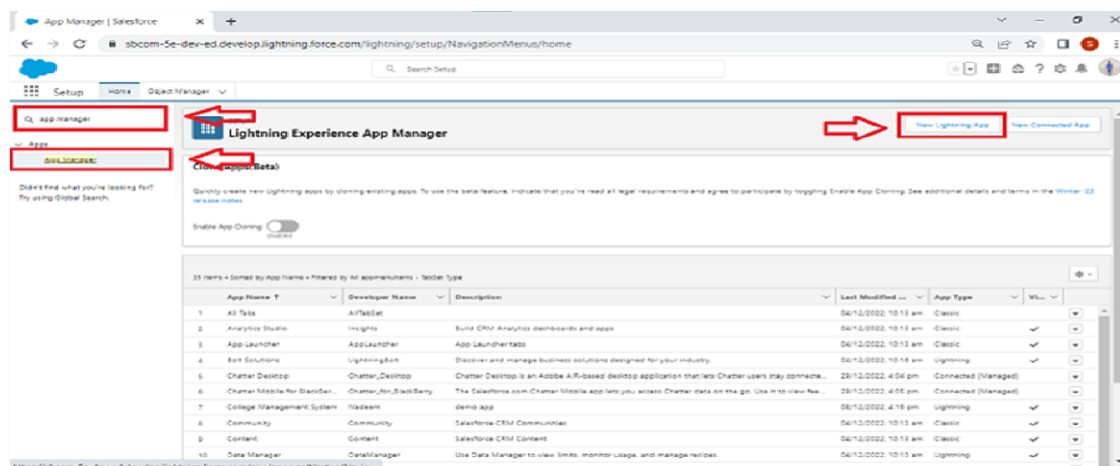
1. Go to setup page >> type Tabs in Quick Find bar >> click on tabs >> New (under custom object tab)



3. 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

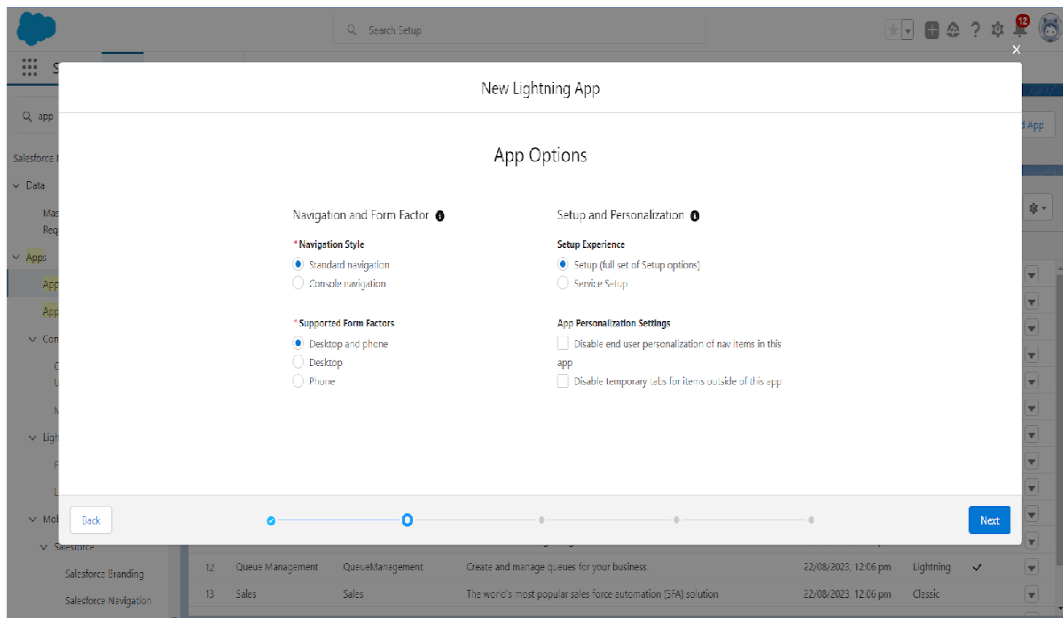
App Name : FoodConnect

Developer Name : This will auto populated

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

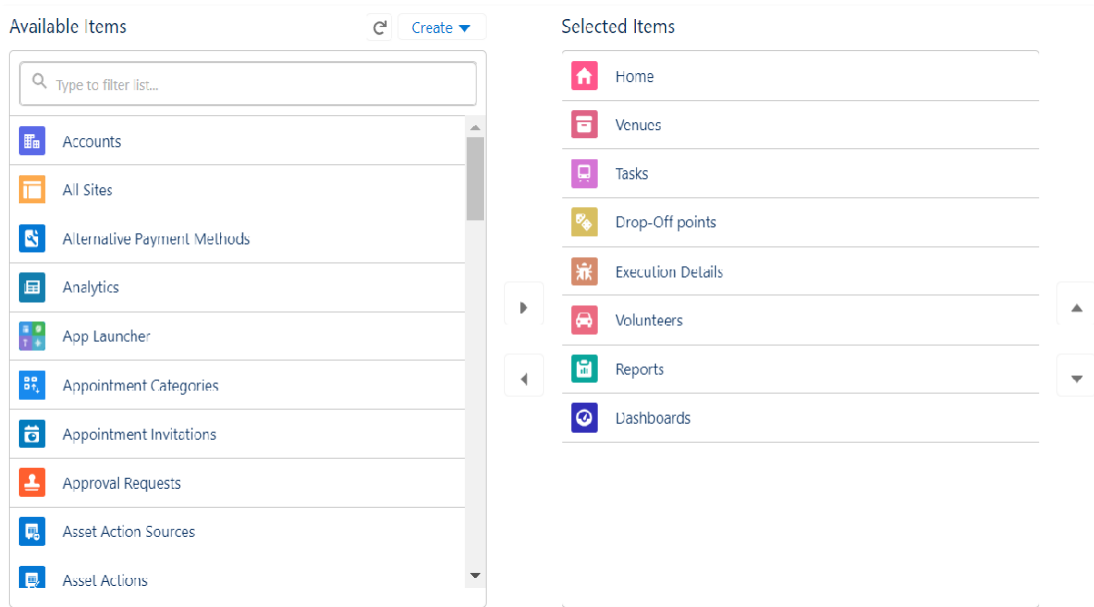
Primary color hex value : keep this default.

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



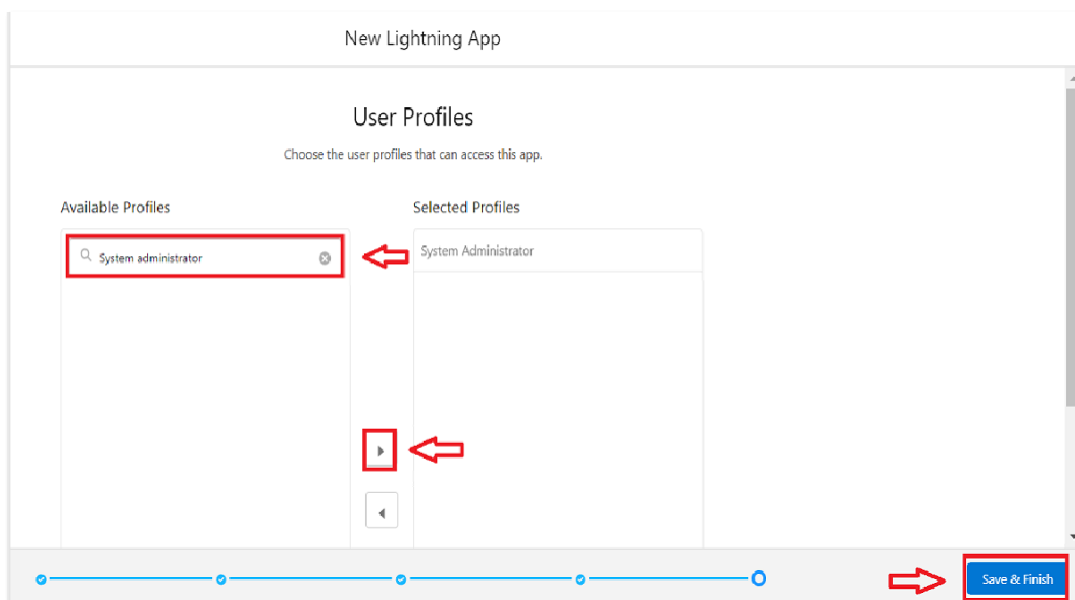
4. (Utility Items) keep it as default >> Next.

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.

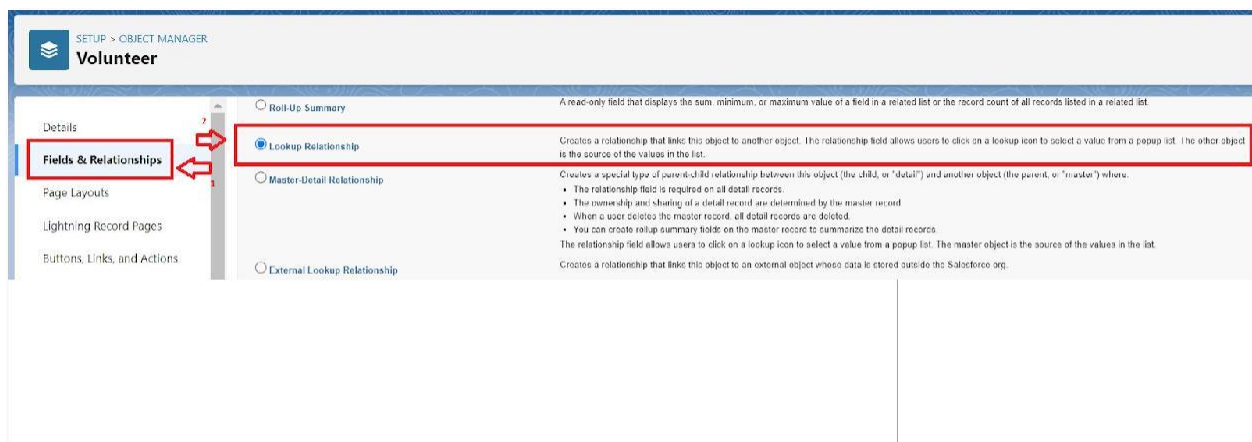
4. Fields

Fields are fundamental building blocks of objects. They store individual pieces of data in a record and define the data type, behavior, and purpose of that data. Fields are associated with both **standard** and **custom objects**. Fields in Salesforce are data containers within objects that store specific pieces of information, such as text, numbers, or dates.

4.1 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.

Step 2. Choose the related object

Select the other object to which this object is related.

Related To: Drop Off point

Previous Next Cancel

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.

4.2 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.

SETUP > OBJECT MANAGER
Venue

Details	Fields & Relationships 8 Items, Sorted by Field Label					Q, Quick Find	New	Deleted Fields	Field Dependencies	Set History Tracking
Fields & Relationships	FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED					
Page Layouts	Contact Email	Contact_Email__c	Email							
Lightning Record Pages	Contact Phone	Contact_Phone__c	Phone							
Buttons, Links, and Actions	Created By	CreatedById	Lookup(User)							
Compact Layouts	Last Modified By	LastModifiedById	Lookup(User)							
Field Sets	Location	Location__c	Geolocation							
Object Limits	Owner	OwnerId	Lookup(User,Group)		✓					
Record Types	Venue Location	Venue_Location__c	Long Text Area(32768)							
Related Lookup Filters	Venue Name	Name	Text(80)		✓					
Search Layouts										
List View Button Layout										
Restriction Rules										
Scoping Rules										

4.2 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.

The screenshot shows the 'Formula Options' dialog box. The 'Formula Return Type' is set to 'Number' and 'Decimal Places' is set to '4'. The 'Simple Formula' tab is selected. The formula text area contains 'distance calculation (Number) =' followed by a redacted formula. The 'Insert Field' button is highlighted with a red box.

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.

Setup > OBJECT MANAGER

Drop-Off Point

Details

Fields & Relationships
9 Items, Sorted by Field Label

Quick Find

New Deleted Fields Field Dependencies Set History Tracking

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		
Distance	Distance__c	Number(14, 4)		
distance calculation	distance_calculation__c	Formula (Number)		
Drop-Off Point Name	Name	Text(80)		✓
Last Modified By	LastModifiedById	Lookup(User)		
Location 2	Location_2__c	Geolocation		
Owner	OwnerId	Lookup(User,Group)		✓
State	State__c	Picklist		
Venue__c	Venue__c	Lookup(Venue)		✓

4.3 Creation Of Fields For 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:

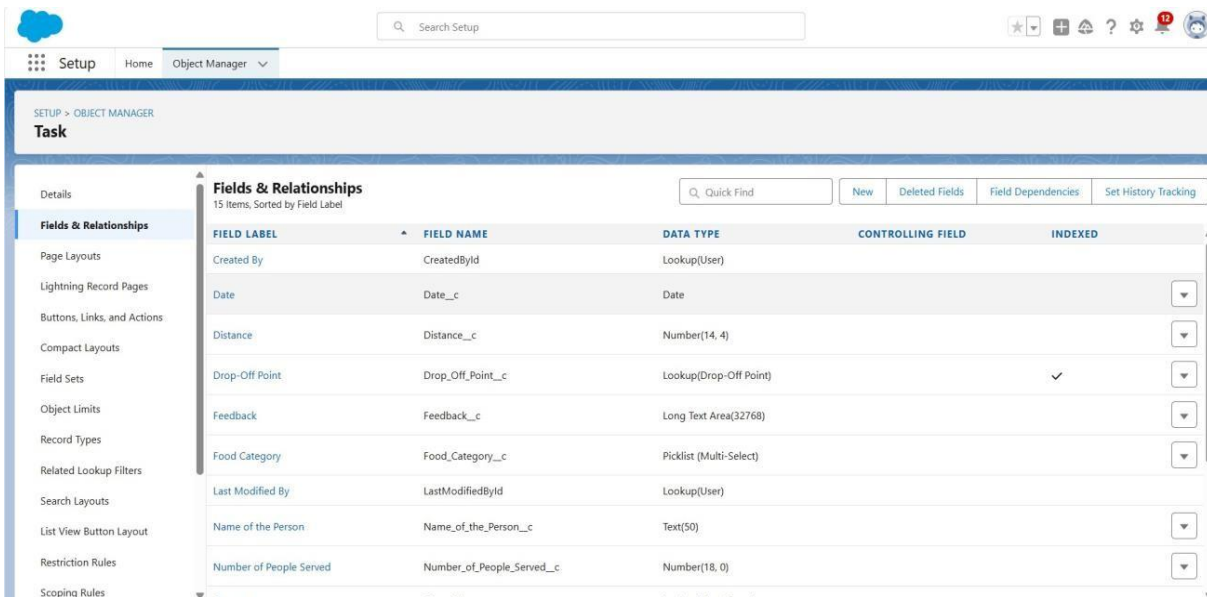
17. Go to setup>> click on Object Manager >> type object name(Task) in search bar >> click on the object.
18. Now click on “Fields & Relationships” >> New
19. Select Data type as a “Phone” and Click on Next
20. Fill the Above as following:
 - Field Label : Phone
 - Field Name : Phone
 - Click on Next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



4.4 Creation Of Fields For 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:

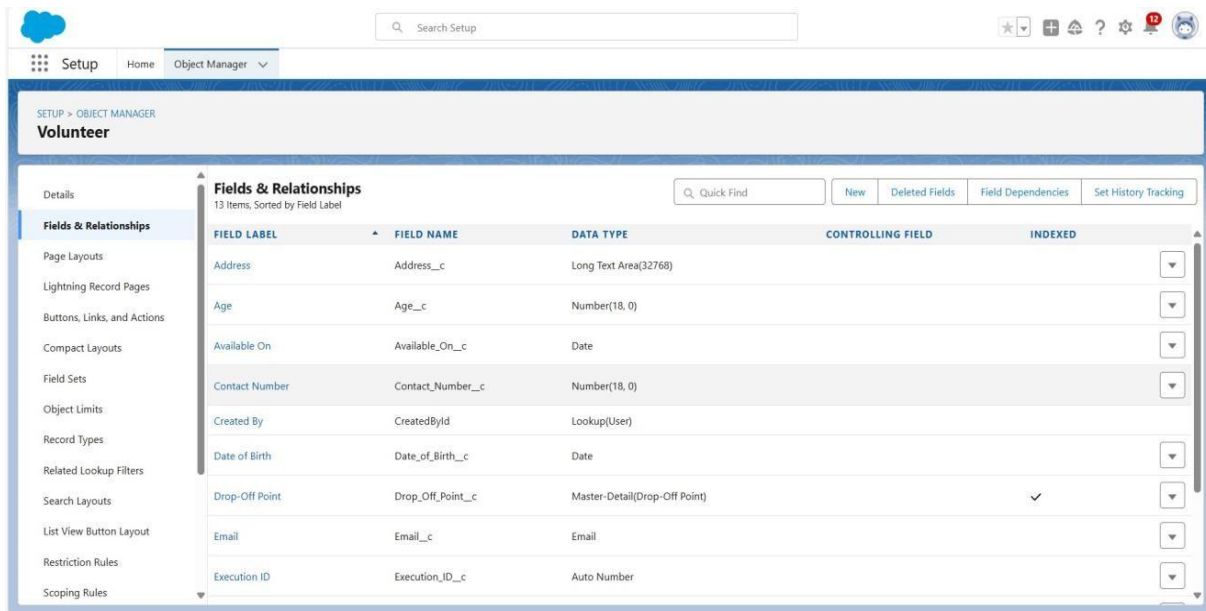
25. Go to setup >> click on Object Manager >> type object name(Volunteer) in search bar >> click on the object.

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

27. Select Data type as a “Date” and Click on Next

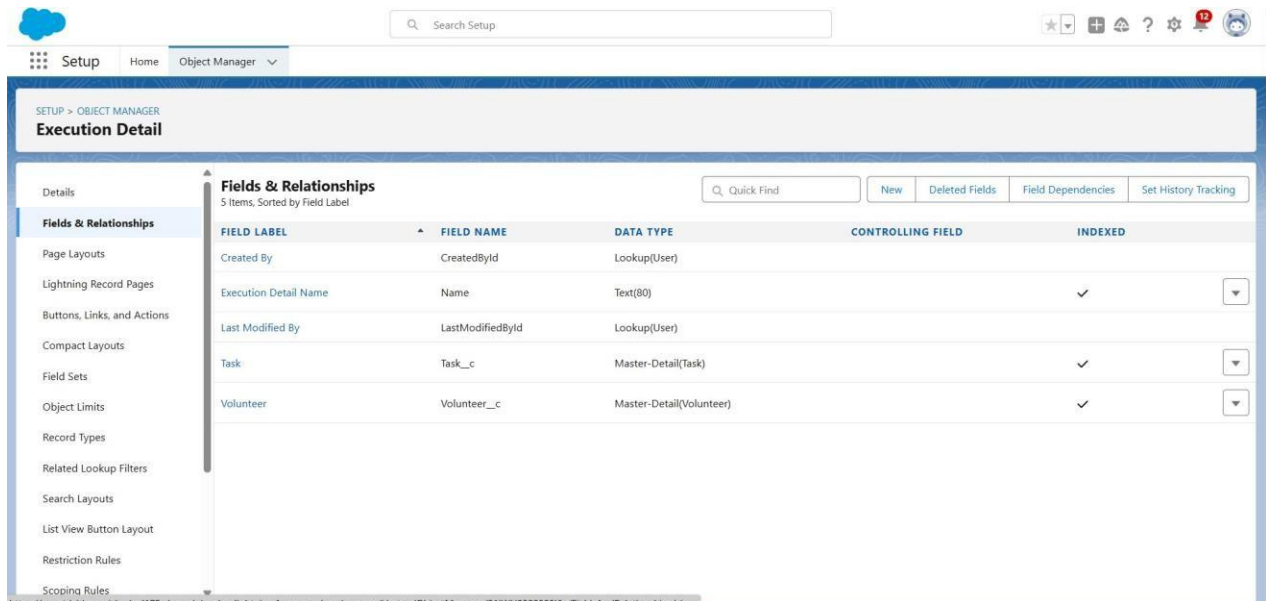
28. Fill the Above as following:

- Field Label : Date of Birth
- Field Name : Date_of_Birth
- Click on Next >> Next >> Save and new.



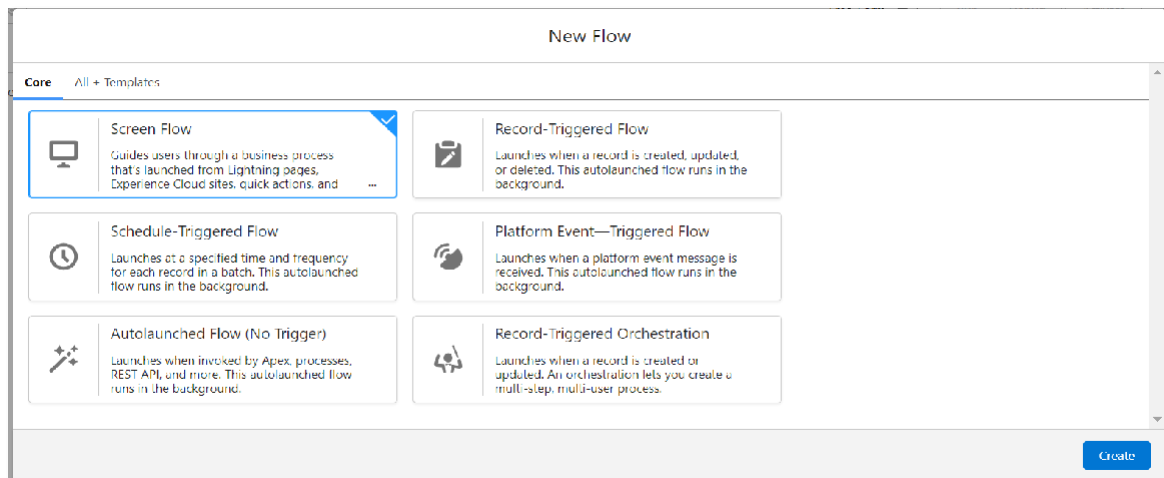
4.4 Creation Of Fields For Execution Details object:

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.



5. 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

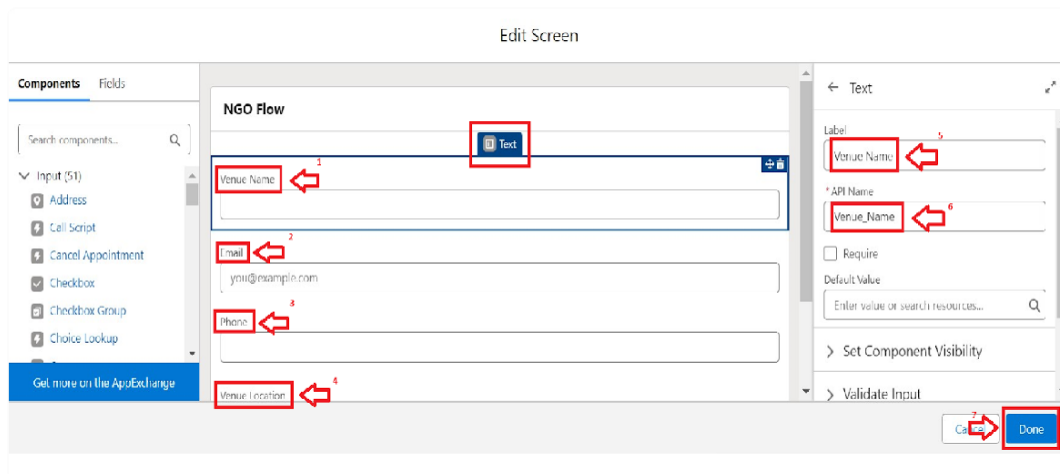
API Name : Latitude

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:

Create a Record of This Object

* Object
Venue

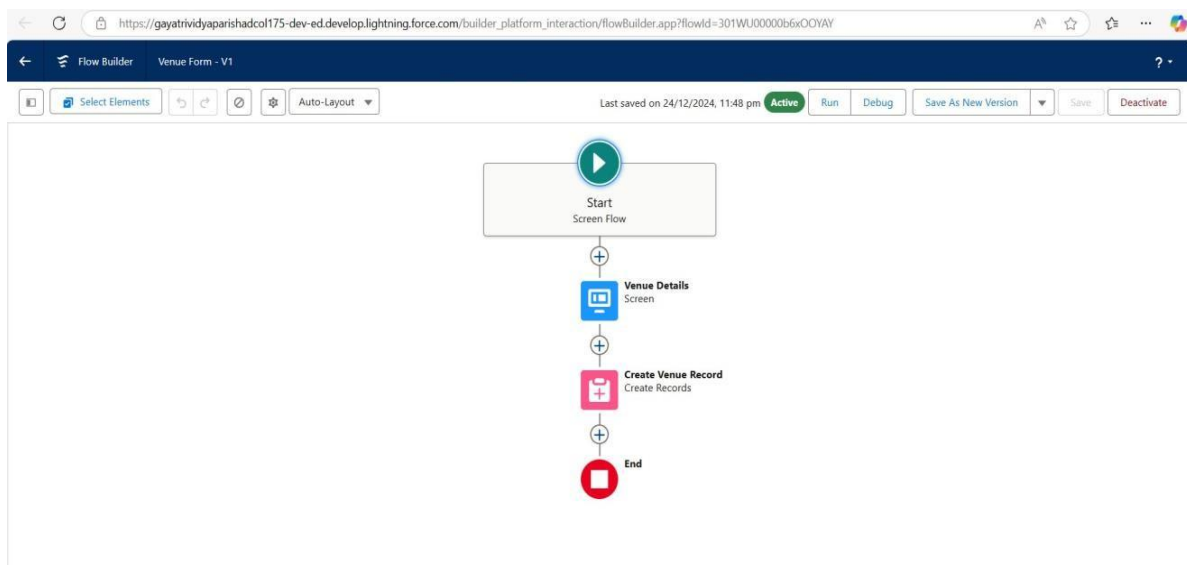
Set Field Values for the Venue

Field Contact_Email__c	←	Value Contact_Email > Value X	🗑️
Field Contact_Phone__c	←	Value Contact_Phone > Value X	🗑️
Field Name	←	Value Venue Name X	🗑️
Field Venue_Location__c	←	Value location X	🗑️

15. Click on Save as:

Flow Label : Venue Form Flow

API Name : Venue_Form

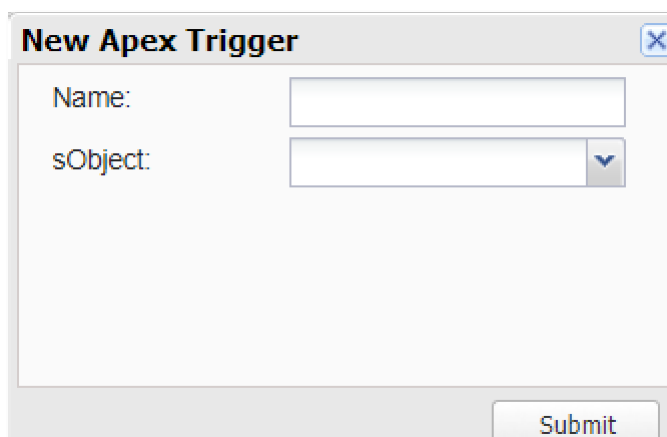
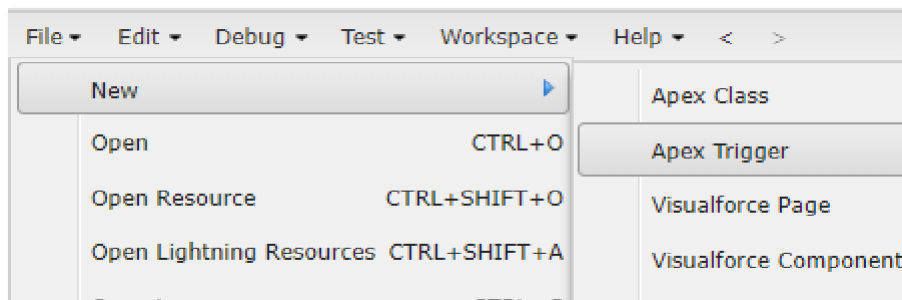


6. Triggers

Triggers are pieces of Apex code that execute automatically in response to specific events on a record.

6.1 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.

A screenshot of the 'New Apex Trigger' dialog box. It has a title bar with a close button. Inside, there are two input fields: 'Name:' with a text box and 'sObject:' with a dropdown menu. At the bottom right, there is a 'Submit' button.

5. Enter Name : DropOffTrigger

sObject: Drop-Off Point

6. Click on Submit.

6.2 Trigger 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;  
    }  
}
```

7. Creation Of Users

7.1 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)

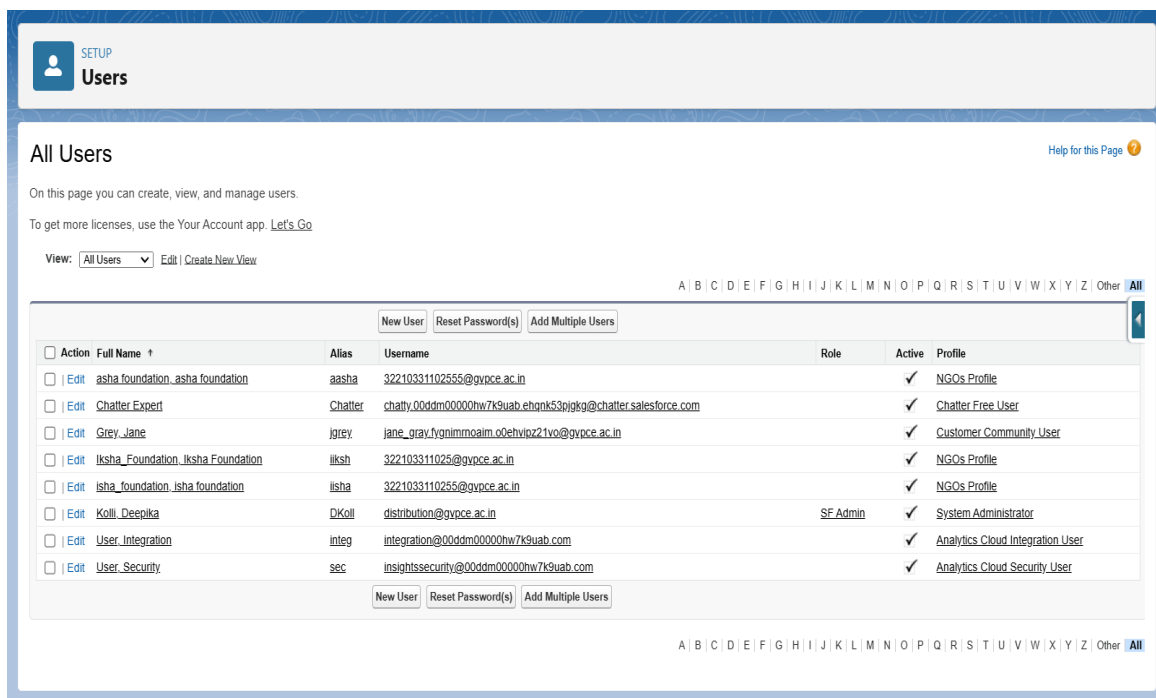
The screenshot shows the 'User Detail' page for a user named 'Iksha Foundation Iksha_Foundation'. The page includes a navigation bar with various setup links, a 'User Detail' section with tabs for 'Edit', 'Sharing', 'Reset Password', 'Freeze', and 'View Summary', and a table of user details. The details are organized into two columns: General Information and Role/Permissions.

User Detail	
Name	Iksha Foundation Iksha_Foundation
Alias	iksh
Email	322103311025@iprice.ac.in [Verify]
Username	322103311025@iprice.ac.in
Nickname	User17360635061613738765
Title	
Company	
Department	
Division	
Address	
Time Zone	(GMT+05:30) India Standard Time (Asia/Kolkata)
Locale	English (India)
Language	English
Delegated Approver	
Manager	
Receive Approval Request Emails	Only if I am an approver
Federation ID	
Role	Salesforce Platform
User License	
Profile	NGOs_Profile
Active	<input checked="" type="checkbox"/>
Marketing User	<input type="checkbox"/>
Offline User	<input type="checkbox"/>
Knowledge User	<input type="checkbox"/>
Flow User	<input type="checkbox"/>
Service Cloud User	<input type="checkbox"/>
Site.com Contributor User	<input type="checkbox"/>
Site.com Publisher User	<input type="checkbox"/>
WDC User	<input type="checkbox"/>
Mobile Push Registrations	View
Data.com User Type	
Accessibility Mode (Classic Only)	<input type="checkbox"/>
Debug Mode	<input type="checkbox"/>
High Contrast Palette on Charts	<input type="checkbox"/>

3. Click on Save

7.1 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.



The screenshot displays the 'All Users' page in Salesforce. At the top, there's a 'SETUP Users' header. Below it, a sub-header 'All Users' is followed by a help link. A message states: 'On this page you can create, view, and manage users. To get more licenses, use the Your Account app. [Let's Go](#)'. A 'View:' dropdown is set to 'All Users', with links for 'Edit' and 'Create New View'. A filter bar shows 'A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Other | All'. Below this is a table with columns: Action, Full Name, Alias, Username, Role, Active, and Profile. The table lists eight users, including 'asha foundation', 'Chatter Expert', 'Grey_Jane', 'Iksha_Foundation', 'Isha_foundation', 'Kolli_Deepika', 'User_Integration', and 'User_Security'. At the bottom of the table, there are buttons for 'New User', 'Reset Password(s)', and 'Add Multiple Users', followed by another alphabetical filter bar.

Action	Full Name	Alias	Username	Role	Active	Profile
<input type="checkbox"/> Edit	asha foundation. asha foundation	aasha	32210331102555@gvpce.ac.in		✓	NGOs Profile
<input type="checkbox"/> Edit	Chatter Expert	Chatter	chatty.00ddm00000hw7k9uab.ehgnk53ojgkg@chatter.salesforce.com		✓	Chatter Free User
<input type="checkbox"/> Edit	Grey_Jane	Jgrey	jane_grav.fvgnmmoaim.o0ehviox21vo@gvpce.ac.in		✓	Customer Community User
<input type="checkbox"/> Edit	Iksha_Foundation_Iksha Foundation	Iksh	322103311025@gvpce.ac.in		✓	NGOs Profile
<input type="checkbox"/> Edit	Isha_foundation_Isha foundation	Isha	3221033110255@gvpce.ac.in		✓	NGOs Profile
<input type="checkbox"/> Edit	Kolli_Deepika	DKolli	distribution@gvpce.ac.in	SF Admin	✓	System Administrator
<input type="checkbox"/> Edit	User_Integration	Integ	integration@00ddm00000hw7k9uab.com		✓	Analytics Cloud Integration User
<input type="checkbox"/> Edit	User_Security	sec	insightssecurity@00ddm00000hw7k9uab.com		✓	Analytics Cloud Security User

8. Public groups

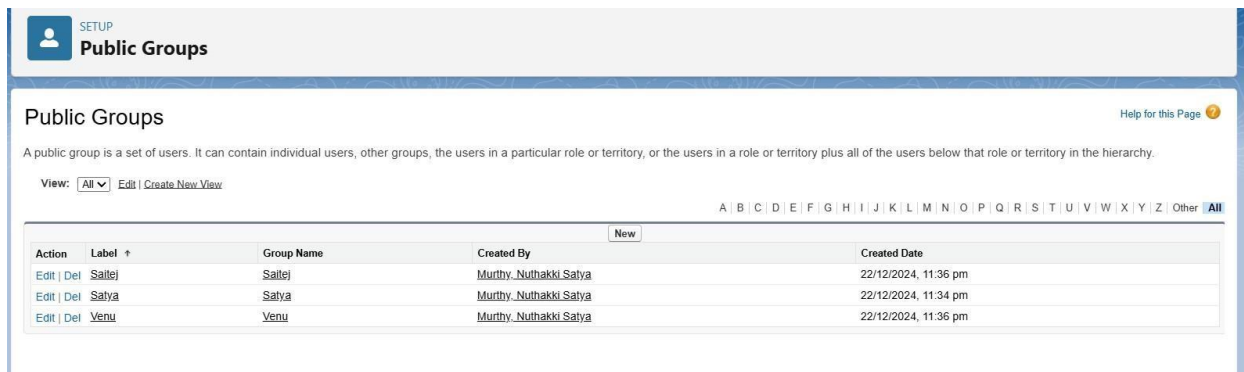
8.1 Creation Of Public Group1:

1. Go to setup page >> type Public Groups in Quick Find bar >> click on Public Groups >> click on New.
2. Under Group Information:
Label : Satya
Group Name : Satya
Grant Access Using Hierarchies : Check
3. In Search, Select Users.
4. In Selected Members Add Nuthakki Satya Murthy and Satya Foundation Satya_Foundation

8.1 Creation Of Public Group2,3:

1. By Following Steps in Activity 1, Create other two Public Groups for other two users.

After Saving this would look like this.



Public Groups				
A public group is a set of users. It can contain individual users, other groups, the users in a particular role or territory, or the users in a role or territory plus all of the users below that role or territory in the hierarchy.				
View: All Edit Create New View				
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z Other All				
Action	Label +	Group Name	Created By	Created Date
Edit Del	Sailej	Sailej	Murthy_Nuthakki Satya	22/12/2024, 11:36 pm
Edit Del	Satya	Satya	Murthy_Nuthakki Satya	22/12/2024, 11:34 pm
Edit Del	Venu	Venu	Murthy_Nuthakki Satya	22/12/2024, 11:36 pm

9. 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.

The screenshot displays the 'Report Types' configuration page. On the left, there's a sidebar with 'Setup', 'Home', and 'Object Manager' tabs. Below these are search and navigation options. The main area is titled 'Report Types' and contains a table of custom report types. The table has columns for 'Action', 'Label', 'Description', 'Category', 'Deployed', 'Created By Alias', and 'Created Date'. The 'Orchestration Run Logs Spring '24' report type is highlighted in blue. Other report types include 'Drop-Off Points with Volunteers with Execution Details', 'Orchestration Stage Runs Spring '24', 'Orchestration Step Runs Spring '24', 'Orchestration Work Items Spring '24', 'Program Definition Spring '24', 'Program Definition Summer '24', 'Program Item Progress Spring '24', and 'Program Item Progress Summer '24'.

Action	Label	Description	Category	Deployed	Created By Alias	Created Date
Edit Del	Drop-Off Points with Volunteers with Execution Details	Drop-Off Points with Volunteers with Execution Details	Other Reports	✓	mluat	23/12/2024
Edit Del	Orchestration Run Logs Spring '24	Find out which orchestration run logs were created and what happened in their associated orchestration runs.	Other Reports	✓	autoproc	11/12/2024
Edit Del	Orchestration Runs Spring '24	Find out which orchestration runs were created.	Other Reports	✓	autoproc	11/12/2024
Edit Del	Orchestration Stage Runs Spring '24	Find out which orchestration stage runs were created and the current status of each run.	Other Reports	✓	autoproc	11/12/2024
Edit Del	Orchestration Step Runs Spring '24	Find out which orchestration step runs were created and the current status of each run.	Other Reports	✓	autoproc	11/12/2024
Edit Del	Orchestration Work Items Spring '24	Find out which orchestration work items were created, who's the associated assignee, and what's the current status of each work item.	Other Reports	✓	autoproc	11/12/2024
Edit Del	Program Definition Spring '24	Review your analytics with a program-like structure. See each program task, target day, results, and more directly in a report and dashboard.	Other Reports	✓	autoproc	11/12/2024
Edit Del	Program Definition Summer '24	Review your analytics with a program-like structure. See each program task, target day, results, and more directly in a report and dashboard.	Other Reports	✓	autoproc	11/12/2024
Edit Del	Program Item Progress Spring '24	Report on tasks like exercises, milestones, and outcomes progress. Overall program progress isn't captured in this report.	Other Reports	✓	autoproc	11/12/2024
Edit Del	Program Item Progress Summer '24	Report on tasks like exercises, milestones, and outcomes progress. Overall program progress isn't captured in this report.	Other Reports	✓	autoproc	11/12/2024

10. Reports

10.1 Creation Of Report On venue With Drop-Off Point 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

FoodConnect Home Venues Drop-Off Points Tasks Execution Details Reports Dashboards Volunteers

Report: Venue with Drop Off with Volunteer
venue and Drop Off point

Total Records: 4 Total Distance: 0

	Drop-Off Point Name	Venue Name	Distance
1	Jose Avenue	CELEBRATIONS RESTAURANT	-
2	railwaystation	platform65	-
3	PhomaSangham	BudhilPark	-
4	sagamagar	Shadhikahana	-
5			0

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

10.2 Creation Of Report On Volunteer 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.

The screenshot shows the FoodConnect Reports interface. The report is titled 'Volunteer Task' and is categorized under 'Tasks with Execution Details and Volunteers'. The report is displayed in a table format with the following columns: Volunteer: Volunteer ID, Volunteer: Volunteer Name, Task: Task Name, Execution Detail: Execution Detail Name, Task: Owner Name, Date, and Rating. The data is grouped by Volunteer ID, showing two tasks: 'collecting food' and 'collecting clothes'. The report is currently in a preview state, showing a limited number of records. The interface includes a search bar, navigation tabs, and a sidebar with filters and columns.

Volunteer: Volunteer ID	Volunteer: Volunteer Name	Task: Task Name	Execution Detail: Execution Detail Name	Task: Owner Name	Date	Rating
1 (1)	ganesh	collecting food	Ongoing	Nuthakki Satya Murthy	26/12/2024	-
Subtotal						
2 (1)	charan	collecting clothes	completed	Nuthakki Satya Murthy	26/12/2024	-
Subtotal						
Total (2)						

7. Now click on Save & Run.

8. Give Label as :

Report Name : Volunteer Task

Report Unique Name : Auto Populated

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

11. Dash Boards

11.1 Adding Venue And Drop-Off Point To Report 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)

The screenshot shows the FoodConnect dashboard with a search bar and navigation menu. A modal window titled 'venue and Drop Off point' is open, displaying a table with the following data:

Drop-Off Point Name	Venue Name	Distance
Jose Avenue	CELEBRATIONS RESTAURANT	
PhemaSangham	BudhaPark	
railwaystation	platform5	
sagamagar	Shudhikahana	

Below the table, there are two buttons: 'View Report (venue and Drop Off point)' and 'View Report (Volunteer Task)'. To the right of the modal, there is a 'Venue Form' with the following fields:

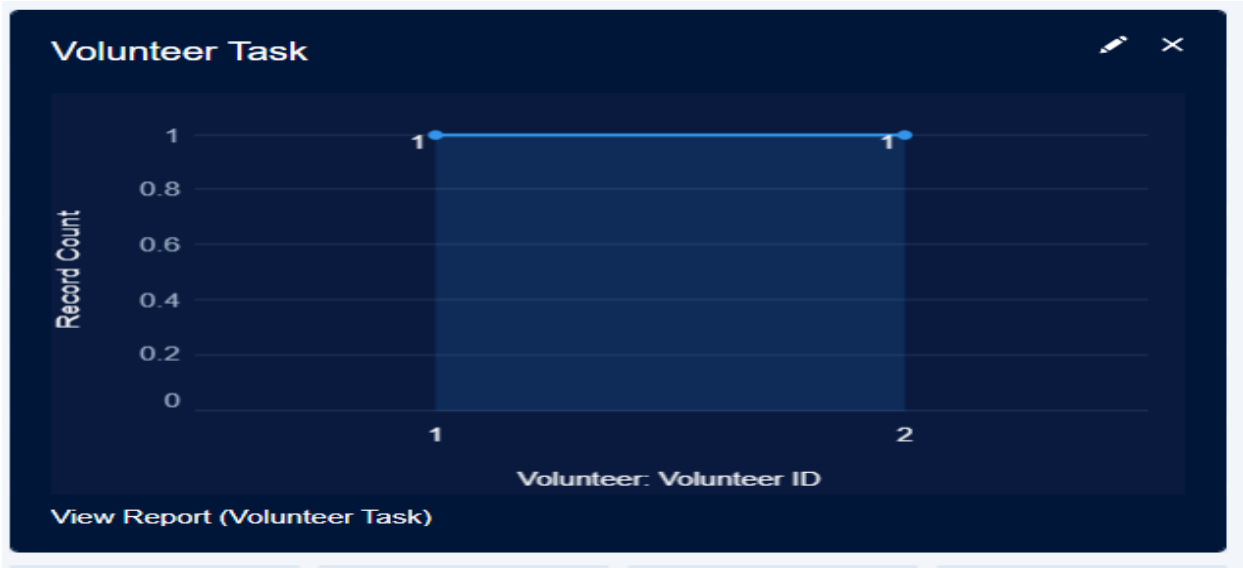
- Venue Name
- Email (pre-filled with you@example.com)
- Phone
- Venue Location
- Latitude
- Longitude

At the bottom of the form are 'Pause' and 'Next' buttons.

9. Now click on save.

11.2 Adding Volunteer Task Report To The Dashboard:

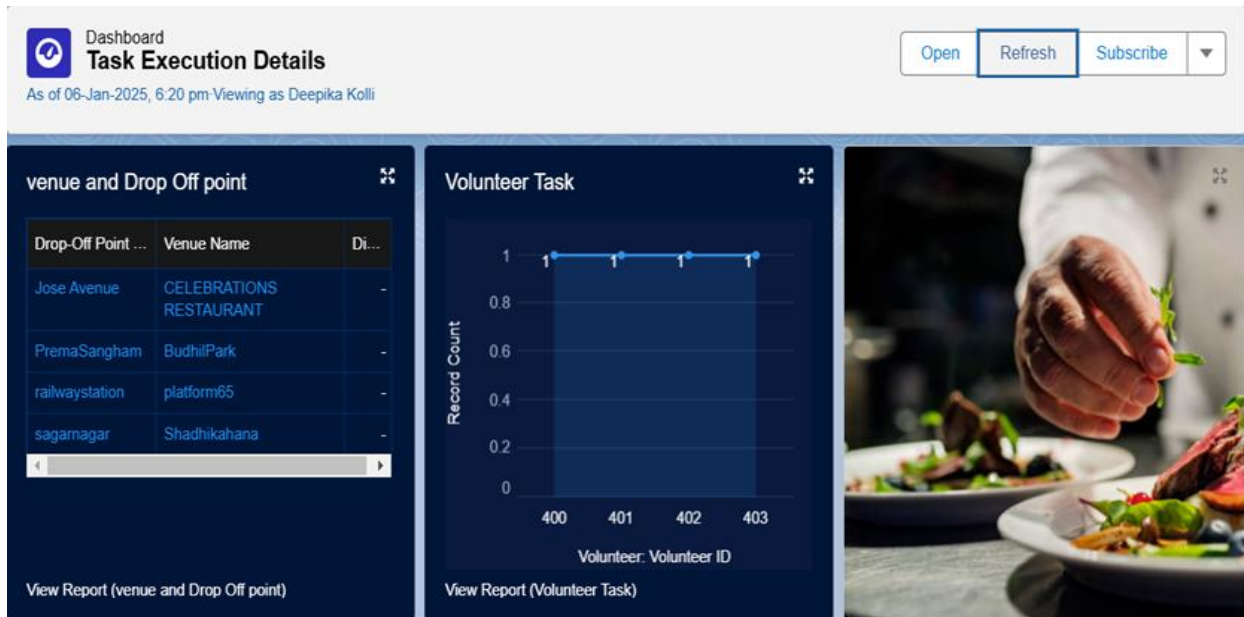
1. Click on Widget and select Chart or Table
2. In Select Report : Select Volunteer Task Report.
3. Then click on select
4. In Add Component:
Display As : Select Line Chart
Component Theme : Select Dark (Optional)



5. Now click on save.

11.3 Adding A Picture To The DashBoard:

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.



12. 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.

Setup Home Object Manager

Search Setup

sharing se

Security

Sharing Settings

Didn't find what you're looking for? Try using Global Search.

SETUP Sharing Settings

Work Step Template Sharing Rules [New](#) [Recalculate](#) [Work Step Template Sharing Rules Help](#)

No sharing rules specified.

Work Type Sharing Rules [New](#) [Recalculate](#) [Work Type Sharing Rules Help](#)

No sharing rules specified.

Work Type Group Sharing Rules [New](#) [Recalculate](#) [Work Type Group Sharing Rules Help](#)

No sharing rules specified.

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 GREATER THAN 15) AND (Drop-Off Point: Distance LESS OR EQUAL 30)	Group_Satje	Read Only
Edit Del	Drop-Off Point: Distance LESS THAN 15	Group_Satya	Read Only
Edit Del	(Drop-Off Point: Distance GREATER THAN 30) AND (Drop-Off Point: Distance LESS OR EQUAL 50)	Group_Venu	Read Only

Task Sharing Rules [New](#) [Recalculate](#) [Task Sharing Rules Help](#)

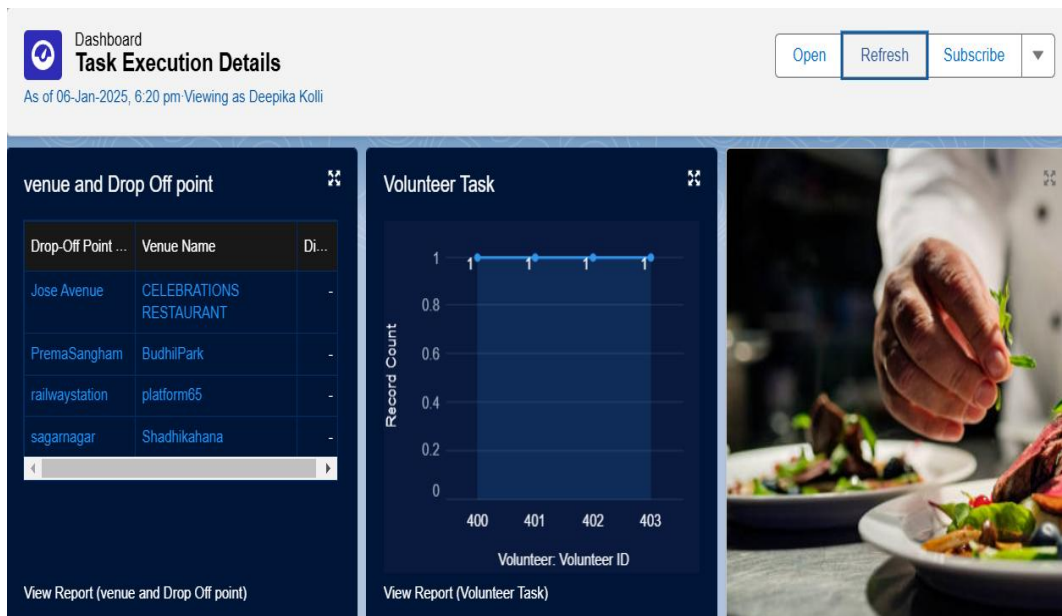
No sharing rules specified.

Venue Sharing Rules [New](#) [Recalculate](#) [Venue Sharing Rules Help](#)

No sharing rules specified.

13. Creation Of Home Page

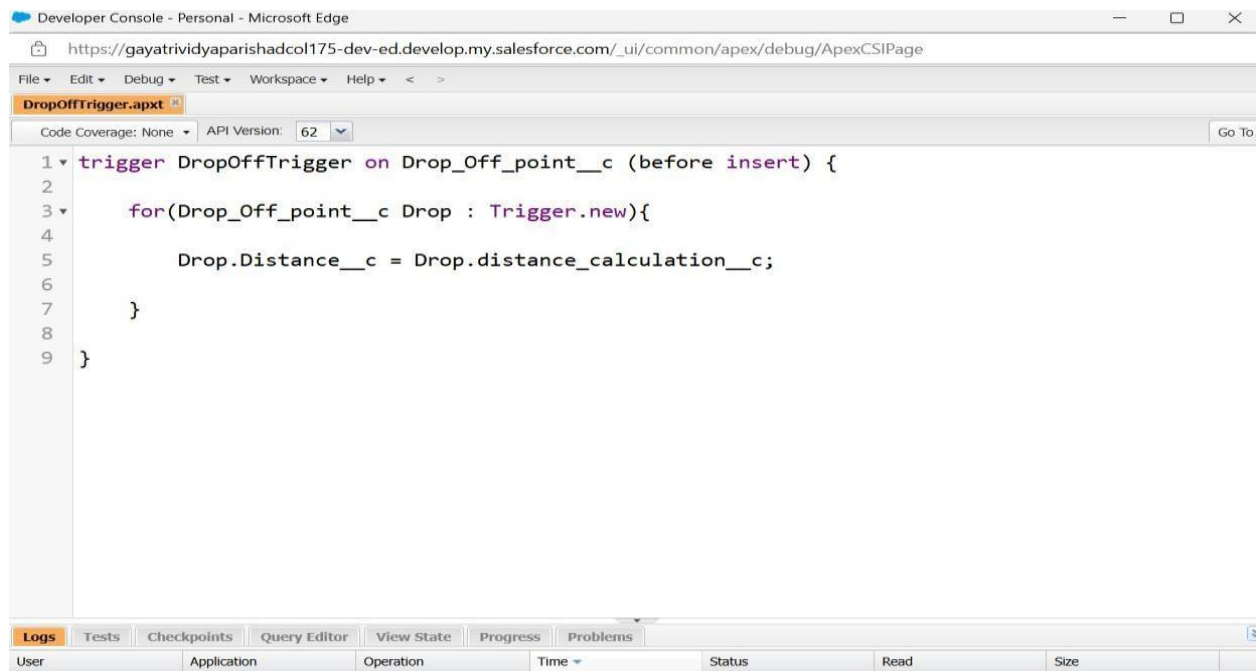
1. Go to setup >> type Lightning App Builder in quick find box >> Click on the Lightning App Builder and Select the New.
2. Select Home Page and give Label as HOME Page.
3. Select Standard Home Page.
4. Near Components search for Flow and Drag and Drop in Right Side Section..
5. On the right hand side:
Flow : Venue Flow
6. 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.



5. Testing and Validation

5.1 Unit Testing:

Testing the Drop-Off Trigger



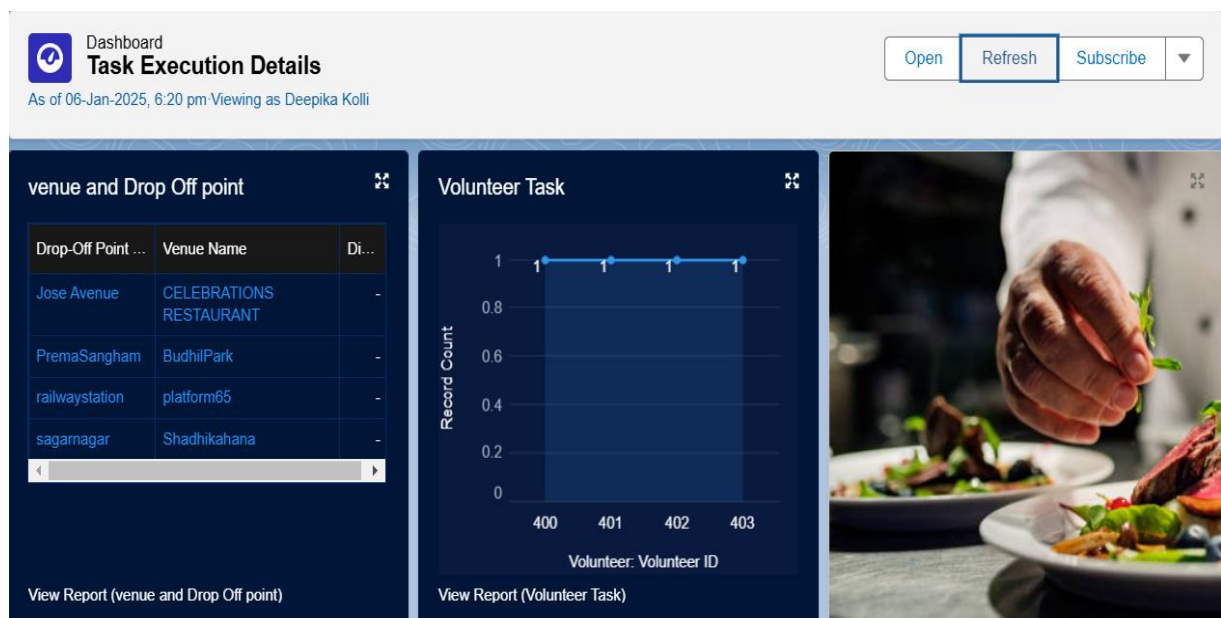
5.2 User Interface Testing:

Here we can see the Dashboard with Venue And Drop Point is tested and Volunteer task Dashboard where we can observe a graph plotted between Record Count and Volunteer: Volunteer ID, Which shows That UI is perfectly developed.

5.3 Validation:

We can Observe That cant Create Duplicate Fields, Objects and Every User, Public Groups details are Valid.

- **Venue Form:** Ensures all mandatory fields (Venue Name, Email, Phone, Venue Location) are filled, with real-time error messages for missing or incorrect inputs. Email and numeric fields are validated for proper formats.
- **Venue and Drop-Off Point Table:** Data is dynamically fetched and validated to ensure accuracy, with functional sorting and scrolling for large datasets.
- **Volunteer Task Section:** Graph data is validated to accurately reflect real-time information, and links are tested for correct redirection



- **Dashboard Controls:** Buttons like "Open," "Refresh," and "Subscribe" are tested to confirm proper functionality and data updates.

SETUP
New Custom Object

New Custom Object

Permissions for this object are disabled for all profiles by default. You can enable object permissions in permission sets or by editing custom profiles. [Tell me more!](#) [Don't show this message](#)

Custom Object Definition Edit Save Save & New Cancel

Error: Invalid Data.
Review all error messages below to correct your data.

Custom Object Information

The singular and plural labels are used in tabs, page layouts, and reports.

Label Example: Account

Plural Label Example: Accounts

Starts with vowel sound ☐

The Object Name is used when referencing the object via the API.

Object Name
Error: That object name is already in use.
Example: Account

Description

6. Key Scenarios Addressed by Salesforce in Implementation Of The Project

- **Customer Relationship Management (CRM):** Salesforce handles managing and analyzing customer interactions and data, improving customer service and engagement.
- **Sales Process Automation:** It automates various sales processes, like tracking leads, opportunities, and performance, helping sales teams close deals faster.
- **Marketing Campaigns and Engagement:** Salesforce enables personalized marketing campaigns and provides tools for tracking and analyzing their effectiveness.
- **Analytics and Reporting:** Salesforce helps generate real-time reports and dashboards, providing insights into business operations and customer behavior.
- **Collaboration and Integration:** The platform integrates with other

systems and fosters team collaboration, ensuring streamlined workflows and improved productivity.

7. Conclusion

The **Food Connect** app has successfully created a digital platform to bridge the gap between surplus food and those in need. By implementing real-time tracking, efficient coordination of volunteers, and a user-friendly interface, the app has streamlined the process of food donation and distribution. Key milestones include integrating donation requests, volunteer management features, and creating impact reporting tools. With this project, we have taken a step toward reducing food waste and addressing hunger in underserved communities, while fostering a sense of community responsibility and involvement.