

**TO SUPPLY LEFTOVER**  
**FOOD TO POOR**

# Project Overview:

## A Salesforce CRM for Surplus Food Redistribution

**To Supply Leftover Food to Poor** is a Salesforce CRM-based solution designed to address two critical issues: food wastage and hunger. The system bridges food donors (restaurants, event organizers, etc.) with NGOs and volunteers, facilitating timely collection and distribution of leftover food to underprivileged communities. Built entirely on Salesforce, the CRM enables efficient donor and beneficiary management, real-time task assignments, and impact tracking through dashboards.

### Key Stakeholders:

- **Food Donors:** Restaurants, caterers, supermarkets, event managers
- **Volunteers:** Individuals who collect and distribute food
- **NGOs/Beneficiaries:** Shelters, orphanages, slums, and food-insecure communities
- **Administrators:** Managers overseeing logistics and reporting

### Objectives:

The primary objective of the **Leftover2Lives** CRM project is to create a centralized, automated, and scalable solution for managing the collection and distribution of surplus food using Salesforce. This system aims to bridge the gap between food donors such as restaurants, caterers, and event organizers and beneficiaries, including NGOs, shelters, and

underprivileged communities. By leveraging Salesforce's automation and workflow capabilities, the project seeks to streamline food donation logging, assign delivery tasks to nearby volunteers, and ensure timely delivery of food to those in need. Additionally, the platform provides real-time visibility through dashboards and reports to track the impact of donations, monitor volunteer engagement, and promote data-driven decision-making. The CRM ensures role-based access and data security, while also supporting audit readiness and future scalability. Ultimately, the system is designed to reduce food waste, improve social welfare, and facilitate a more efficient, transparent, and humane food distribution process.

## Phase 1: Requirement Analysis & Planning

◆ **Understanding Business Requirements :** The key requirement of this project is to establish an organized platform that connects restaurants, hotels, and event organizers willing to donate leftover food with NGOs or volunteer groups who can distribute it to the poor. The system needs to efficiently track food availability, coordinate pickups and deliveries, monitor beneficiary reach, and maintain transparent records. Users require a solution that minimizes manual coordination, prevents food spoilage, and ensures that surplus food is safely and quickly routed to the needy.

◆ **Project Scope & Objectives :**

- Manage food donations and requests.
- Automate task assignment for volunteers.
- Create dashboards for reporting (meals delivered, food saved, top donors).
- Maintain user-level access security.

◆ **Design Data Model and Security Model:**

The data model includes custom objects like Donor, Food Donation, Pickup Schedule, Recipient, and Distribution Record, linked through appropriate relationships to maintain a clear trail from donation to delivery. The security model employs profiles and role hierarchies to ensure that restaurant managers, NGO coordinators, and volunteer drivers have access only to the data relevant to

their roles. Permission sets and sharing rules are configured to maintain data privacy while supporting collaborative workflows among multiple partners.

## **Phase 2: Salesforce Development - Backend & Configurations**

### **Phase 2: Salesforce Development - Backend & Configurations**

◆ **Environment Setup & DevOps Workflow :** A dedicated Salesforce sandbox environment was set up for the development and initial testing of the FOODCONNECT CRM. This enabled isolated customization without impacting production data. A simple DevOps process was followed using Change Sets to migrate metadata from the sandbox to production, ensuring controlled deployments and version management.

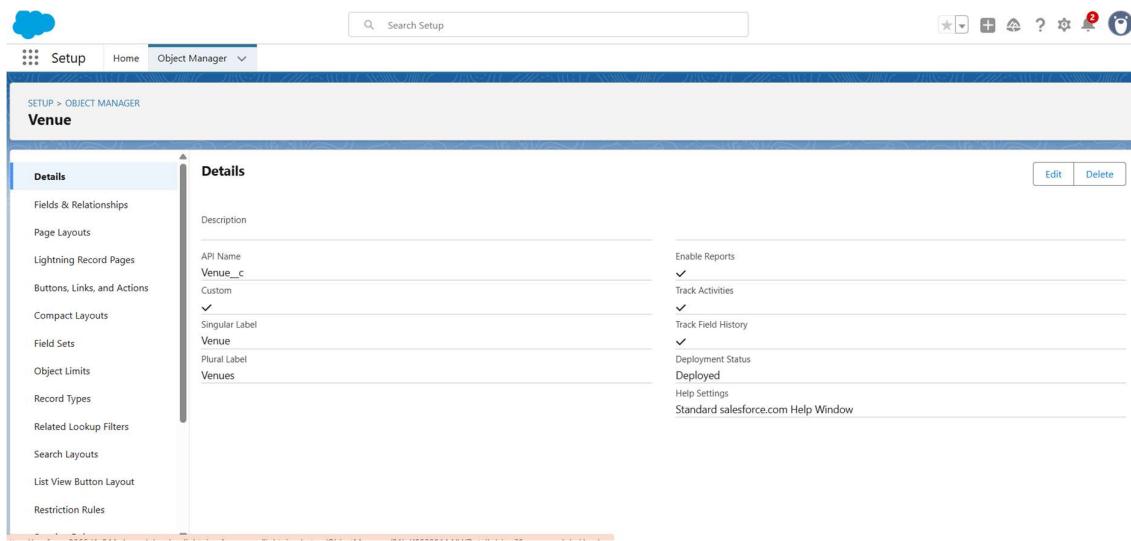
#### **Customization of Objects, Fields, Validation Rules, Automation:**

##### **CREATE VENUE OBJECT**

To create an object:

1. From the setup page >> Click on Object Manager >> Click on Create >>Click on Custom Object.
  - Enter the label name >> Venue
  - Plural label name >> Venues
  - Enter Record Name Label and Format
    - 1.Record Name >> Venue Name
    - 2.Data Type >> Text
- 2.Click on Allow reports and Track Field History, Allow Activities.

3.Allow search >> Save.



## Create Drop-Off Point Object

To create an object:

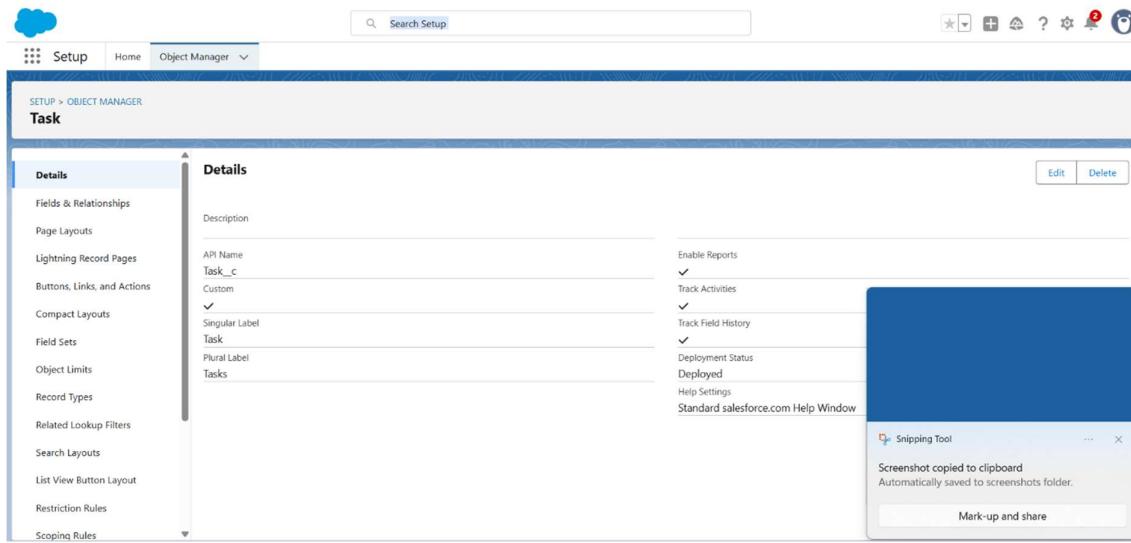
1. From the setup page >> Click on Object Manager >> Click on Create >> Click on Custom Object.
  - Enter the label name >> Drop-Off Point
  - Plural label name>> Drop-Off Points
  - Enter Record Name Label and Format
    - a. Record Name >> Drop-Off point Name
    - b. Data Type >> Text
2. Click on Allow reports and Track Field History, Allow Activities
3. Allow search >> Save.

The screenshot shows the Salesforce Object Manager interface for the 'Drop-Off Point' object. The left sidebar lists various configuration tabs: Details, Fields & Relationships, Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, Related Lookup Filters, Search Layouts, List View Button Layout, and Restriction Rules. The main content area is titled 'Details' and contains sections for 'Description', 'API Name' (set to 'Drop\_Off\_Point\_c'), 'Custom' (checked), 'Singular Label' (set to 'Drop-Off Point'), 'Plural Label' (set to 'Drop-Off Points'), and 'Enable Reports', 'Track Activities', 'Track Field History', 'Deployment Status' (set to 'Deployed'), and 'Help Settings'. At the top right are 'Edit' and 'Delete' buttons.

## Create Task Object

To create an object:

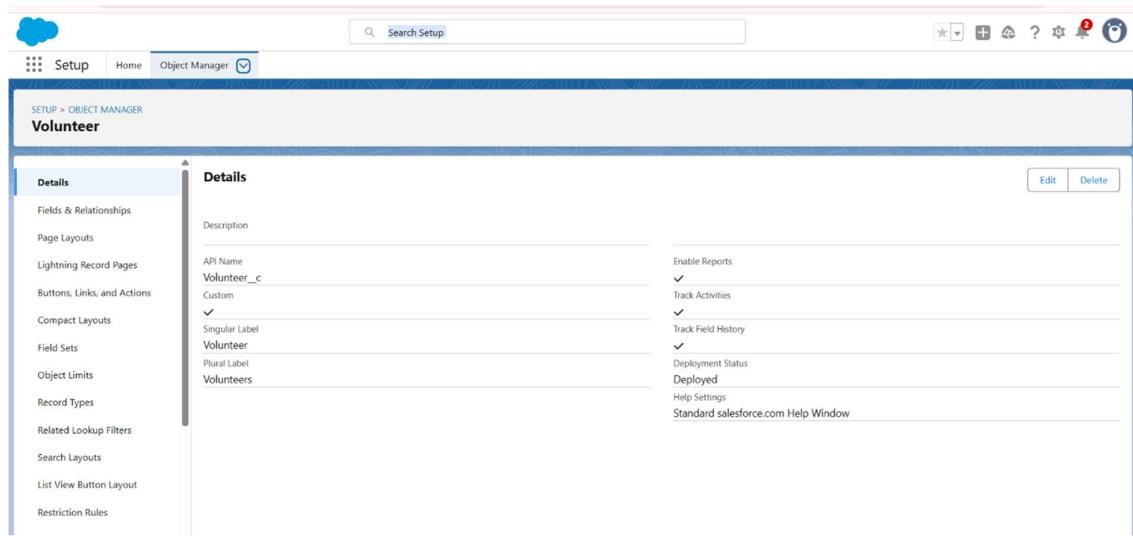
1. From the setup page >> Click on Object Manager >> Click on Create >> Click on Custom Object.
  1. Enter the label name>> Task
  2. Plural label name>> Tasks
  3. Enter Record Name Label and Format
    - Record Name >> Task Name
    - Data Type >> Text
2. Click on Allow reports and Track Field History,Allow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



## 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
2. Allow search >> Save.



## 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
2. Allow search >> Save.

## Creation of Relationship fields in objects

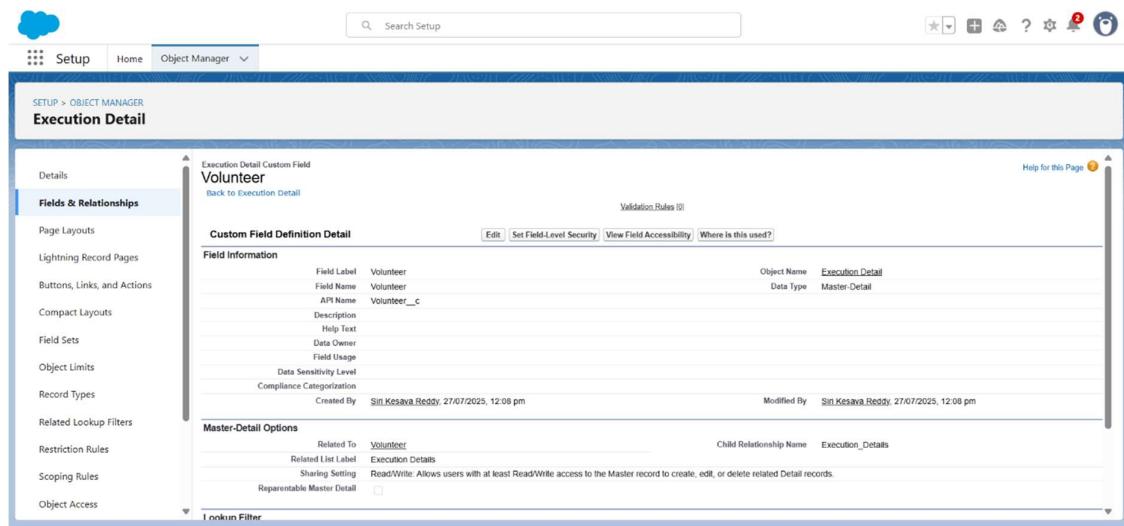
### Creation of Lookup Relationship Field on Volunteer Object:

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

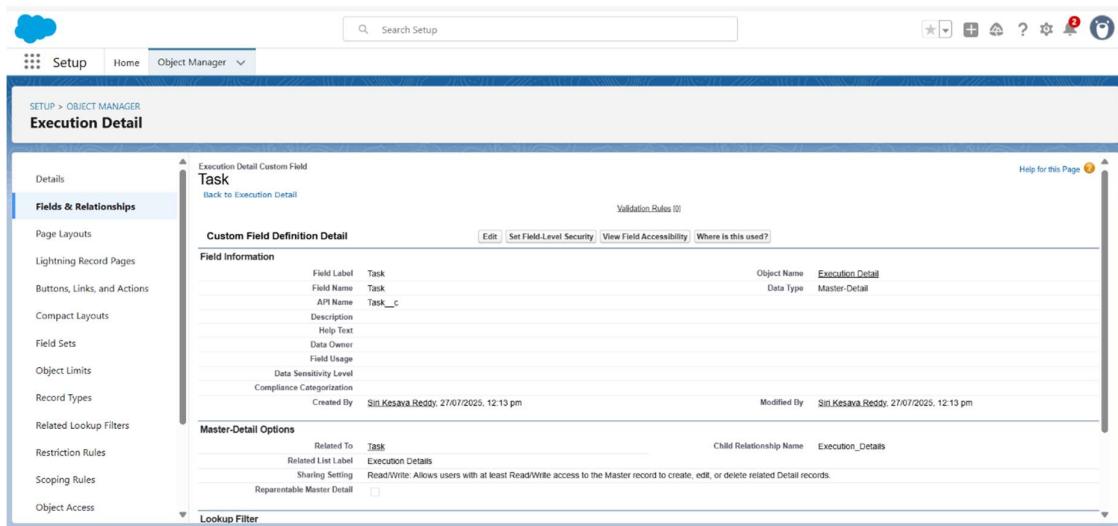
8. Go to setup >> click on Object Manager >> type object name (Execution Details) in the search bar >> click on the object.
9. Now click on “Fields & Relationships” >> New
10. Select Master Detail relationship
11. Select the related object “Volunteer” and click next.



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

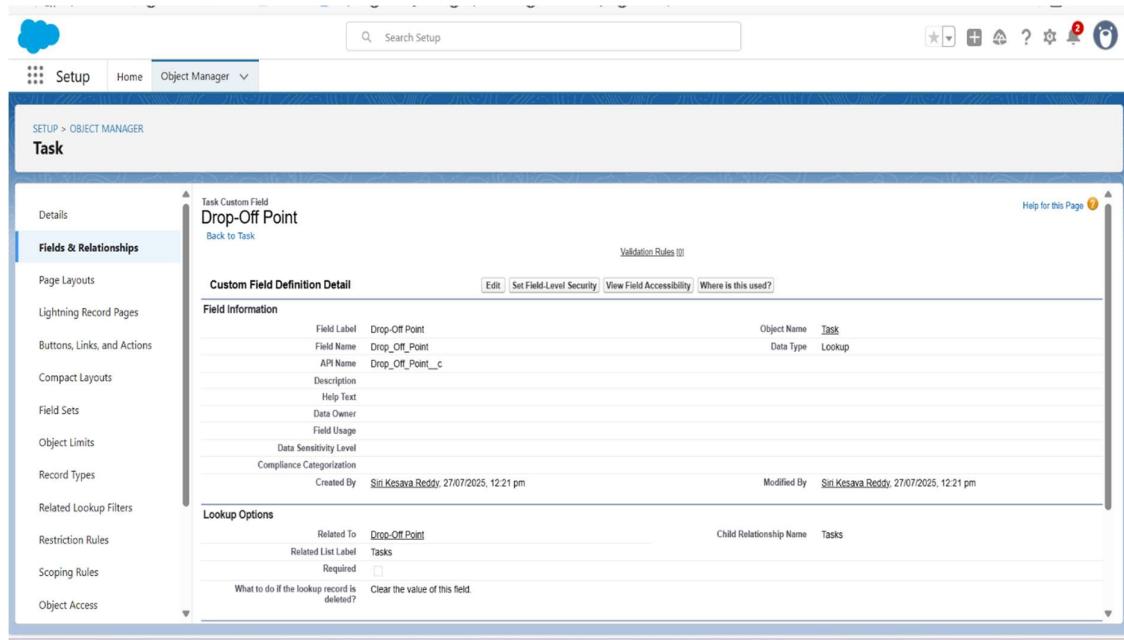
The screenshot shows the Salesforce Setup interface under the Object Manager. A custom field named 'Drop-Off Point' has been created on the Task object. The field details are as follows:

- Field Label:** Drop-Off Point
- Field Name:** Drop\_Off\_Point
- API Name:** Drop\_Off\_Point\_c
- Description:** (empty)
- Help Text:** (empty)
- Data Owner:** (empty)
- Field Usage:** (empty)
- Data Sensitivity Level:** (empty)
- Compliance Categorization:** (empty)
- Created By:** Siti Kesava Reddy, 27/07/2025, 12:21 pm
- Modified By:** Siti Kesava Reddy, 27/07/2025, 12:21 pm
- Object Name:** Task
- Data Type:** Lookup
- Related To:** Drop-Off Point
- Related List Label:** Tasks
- Required:** (checkbox checked)
- Child Relationship Name:** Tasks
- What to do if the lookup record is deleted?** (checkbox checked) Clear the value of this field.

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 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

SETUP > OBJECT MANAGER  
Venue

**Contact Email**

**Custom Field Definition Detail**

**Field Information**

- Field Label: Contact Email
- Field Name: Contact\_Email
- API Name: Contact\_Email\_\_c
- Description:
- Help Text:
- Data Owner:
- Field Usage:
- Data Sensitivity Level:
- Compliance Categorization:

Object Name: Venue  
Data Type: Email

Created By: Srinivas Reddy / 27/07/2025, 12:23 pm  
Modified By: Srinivas Reddy / 27/07/2025, 12:23 pm

**General Options**

- Required:
- Unique:
- External ID:
- Default Value:

- 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

SETUP > OBJECT MANAGER  
Venue

**Contact Phone**

**Custom Field Definition Detail**

**Field Information**

- Field Label: Contact Phone
- Field Name: Contact\_Phone
- API Name: Contact\_Phone\_\_c
- Description:
- Help Text:
- Data Owner:
- Field Usage:
- Data Sensitivity Level:
- Compliance Categorization:

Object Name: Venue  
Data Type: Phone

Created By: Srinivas Reddy / 27/07/2025, 12:24 pm  
Modified By: Srinivas Reddy / 27/07/2025, 12:24 pm

**General Options**

- Required:
- Default Value:

**Validation Rules**

No validation rules defined.

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

The screenshot shows the Salesforce Setup interface for creating a custom field. The left sidebar shows navigation options like Details, Fields & Relationships, Page Layouts, etc. The main area is titled 'Venue Custom Field Location'. It displays the 'Custom Field Definition Detail' page with the following details:

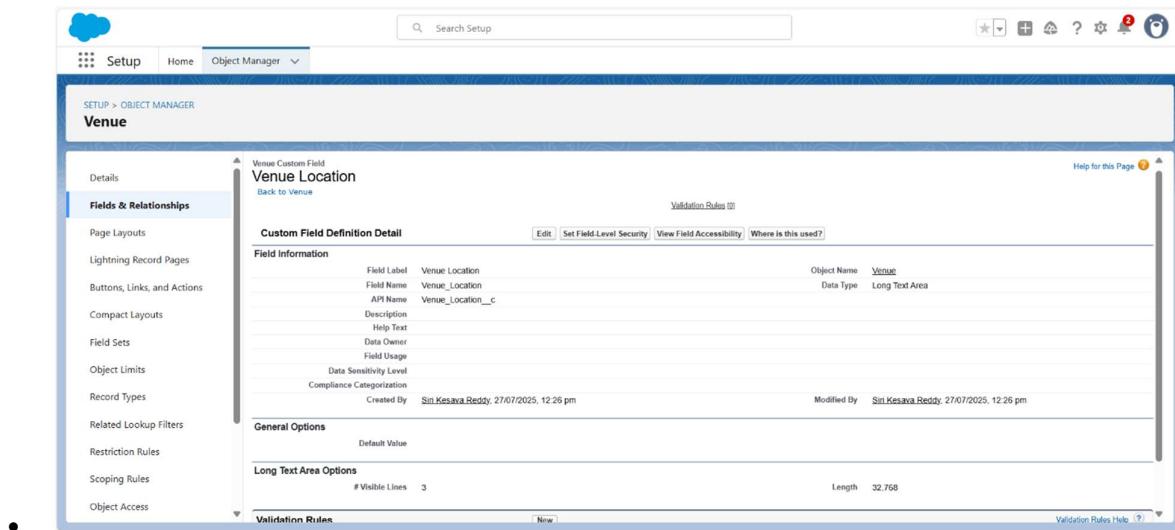
- Field Information:** Field Label: Location, Field Name: Location, API Name: Location\_\_c, Description: Enter the Geolocation of your Venue, Help Text: (empty), Data Owner: (empty), Field Usage: (empty), Data Sensitivity Level: (empty), Compliance Categorization: (empty).
- Object Name:** Venue
- Data Type:** Geolocation
- Validation Rules:** (empty)
- Where is this used?**: (empty)
- Created By:** Siri Kesava Reddy, 27/07/2025, 12:25 pm
- Modified By:** Siri Kesava Reddy, 27/07/2025, 12:25 pm

At the bottom, there are sections for 'General Options' (Required: unchecked) and 'Geolocation Options' (Decimal: checked, Decimal Places: 4). A note at the bottom right says 'Help for this Page'.

4. 5. 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 other fields in an object:
- Go to setup >> click on Object Manager >> type object name(Venue) in search bar >> click on the object.
- Now click on “Fields & Relationships” >> New
- Select Data type as a “Long Text Area” and Click on Next

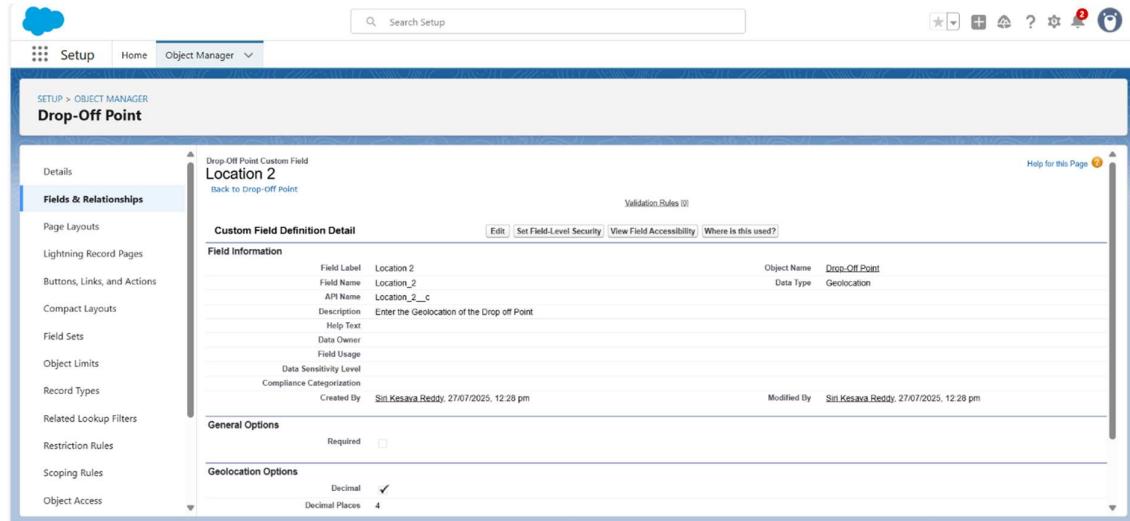


- Fill the Above as following:
- Field Label : Venue Location
- Field Name : Venue\_Location
- Click on Next >> Next >> Save and new.
- **Creation of fields for the Drop-Off point object**

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

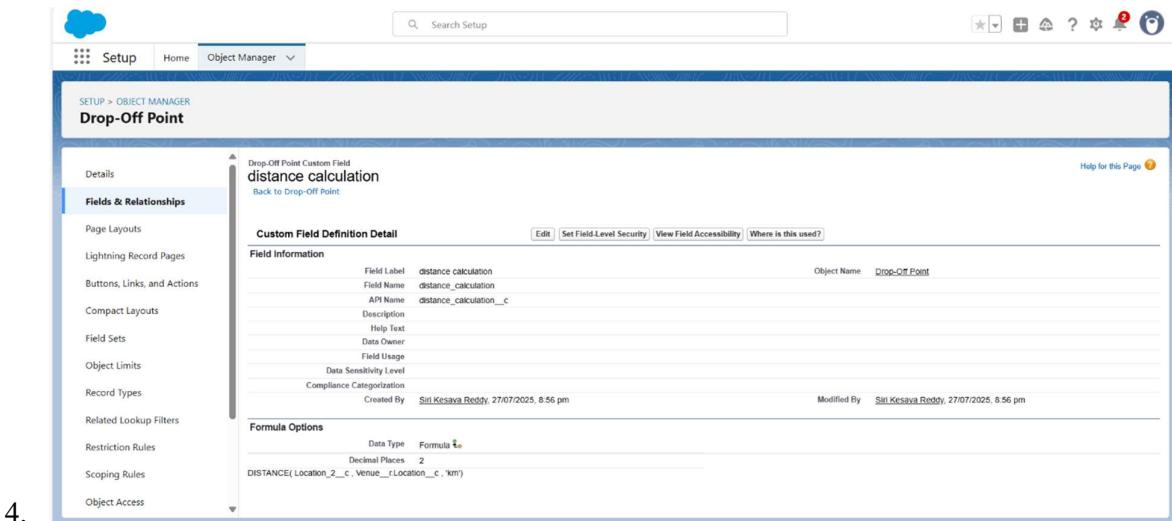


4. Fill the Above as following:

- 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.

5. 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:

6. Go to setup >> click on Object Manager >> type object name (Drop-Off point) in search bar >> click on the object.
7. Now click on “Fields & Relationships” >> New
8. Select Data type as a “Picklist” and Click on Next
9. 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

Setup Home Object Manager ▾

SETUP > OBJECT MANAGER Drop-Off Point

Details Fields & Relationships Page Layouts Lightning Record Pages Buttons, Links, and Actions Compact Layouts Field Sets Object Limits Record Types Related Lookup Filters Restriction Rules Scoping Rules Object Access

Drop-Off Point Custom Field State Back to Drop-Off Point Help for this Page

Custom Field Definition Detail Edit Set Field-Level Security View Field Accessibility Where is this used?

Field Information

Object Name	Drop-Off Point
Data Type	Picklist

Field Label: State  
Field Name: State  
API Name: State\_\_c  
Description:  
Help Text:  
Data Owner:  
Field Usage:  
Data Sensitivity Level:  
Compliance Categorization:

Created By: Sri Kesava Reddy, 27/07/2025, 12:35 pm Modified By: Sri Kesava Reddy, 27/07/2025, 12:35 pm

General Options Required ✓ Default Value ⓘ

Picklist Options Restrict picklist to the values defined in the value set ✓

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

### To create another fields in an object:

10. Go to setup >> click on Object Manager >> type object name(Task) in search bar >> click on the object.
11. Now click on “Fields & Relationships” >> New
12. Select Data type as a “Number” and Click on Next

13.

Field Information	
Field Label	Distance
Field Name	Distance
API Name	Distance__c
Description	
Help Text	
Data Owner	
Field Usage	
Data Sensitivity Level	
Compliance Categorization	
Created By	Siri Kesava Reddy, 27/07/2025, 9:19 pm
Modified By	Siri Kesava Reddy, 27/07/2025, 9:19 pm

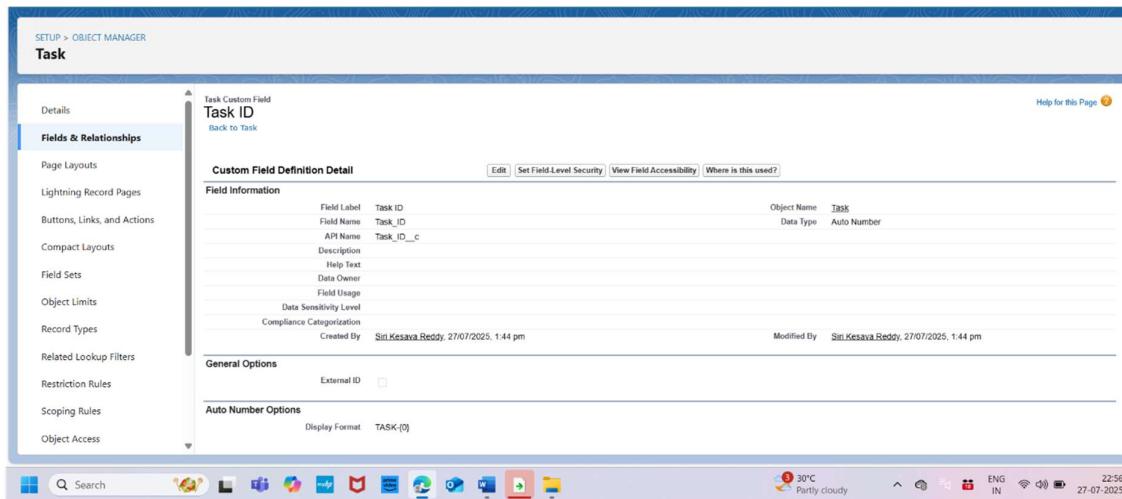
General Options	
Required	<input checked="" type="checkbox"/>
Unique	<input type="checkbox"/>
External ID	<input type="checkbox"/>
AI Prediction	<input type="checkbox"/>
Default Value	

14. 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.

### **Creation of fields for the Task object:**

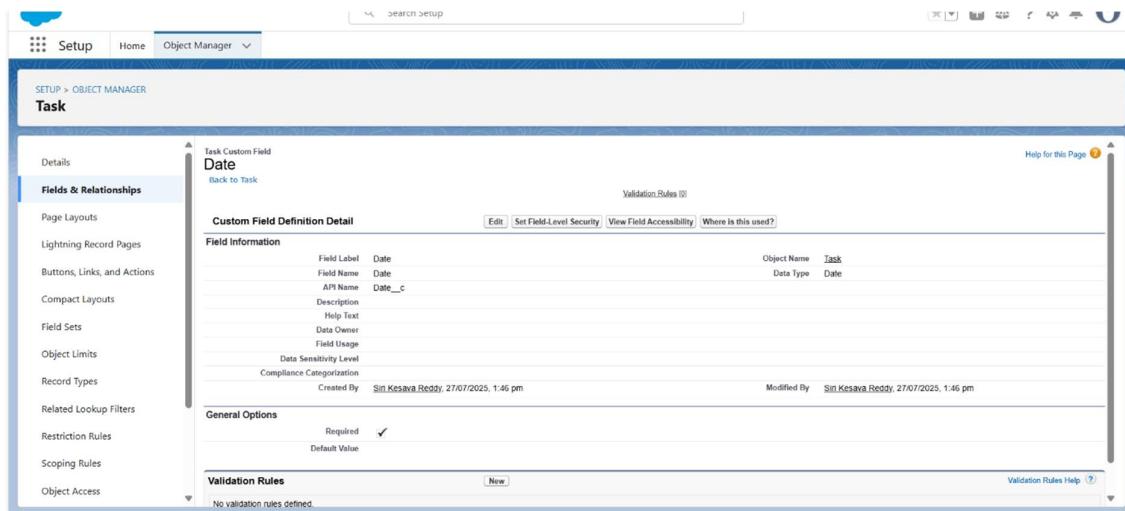
1. Go to setup>> click on Object Manager >> type object name (Task) in search bar >> click on the object.
2. Now click on “Fields & Relationships” >> New
3. Select Data type as a “Auto Number” and Click on Next



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

The screenshot shows the Salesforce Object Manager interface. A custom field named "Food Category" is being created for the "Task" object. The "Fields & Relationships" tab is selected. The field details are as follows:

- Field Label:** Food Category
- Field Name:** Food\_Category
- API Name:** Food\_Category\_\_c
- Data Type:** Picklist
- Value Set:** the value set
- Required:**

8.

9. 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

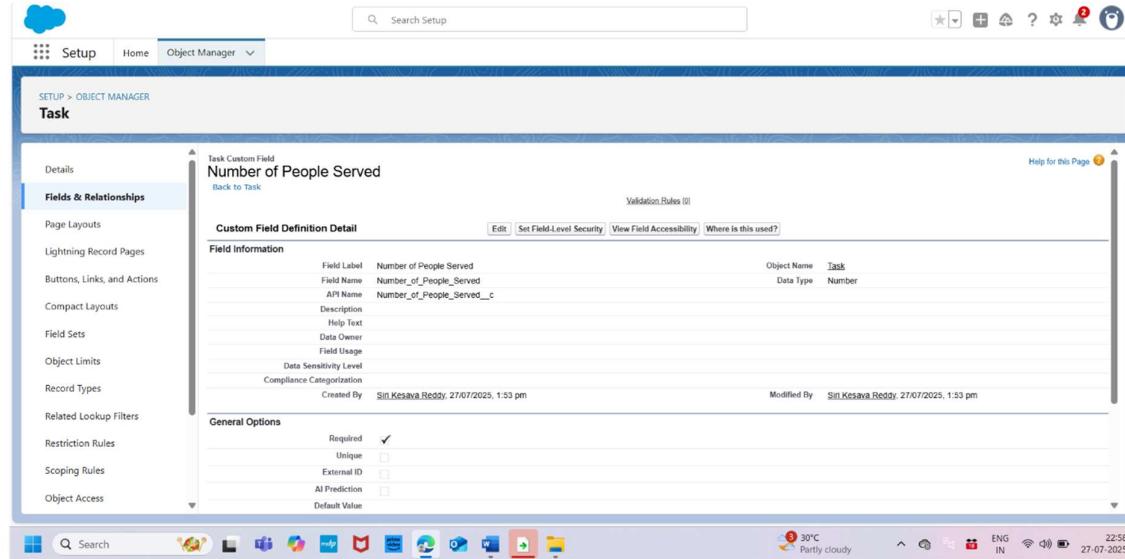
Salad

Snack

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

To create another fields in an object:

10. Go to setup >> click on Object Manager >> type object name(Task) in search bar >> click on the object.
11. Now click on “Fields & Relationships” >> New
12. Select Data type as a “Number” and Click on Next



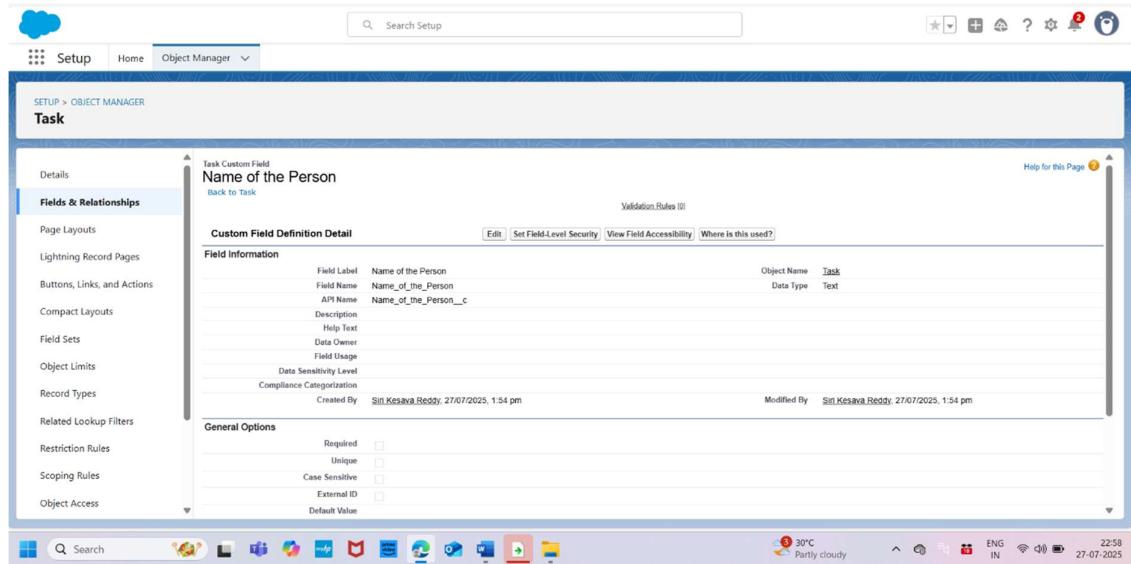
13.

14. 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:

15. Go to setup >> click on Object Manager >> type object name(Task) in search bar >> click on the object.
16. Now click on “Fields & Relationships” >> New
17. Select Data type as a “Text” and Click on Next



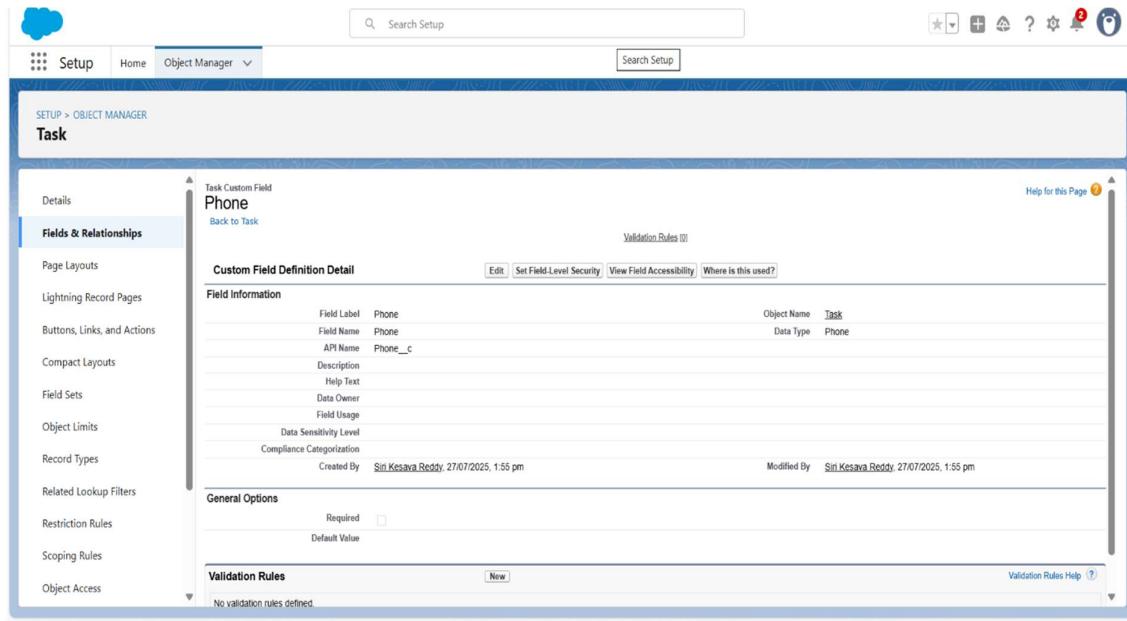
18.

19. 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:

20. Go to setup>> click on Object Manager >> type object name(Task) in search bar >> click on the object.
21. Now click on “Fields & Relationships” >> New
22. Select Data type as a “Phone” and Click on Next



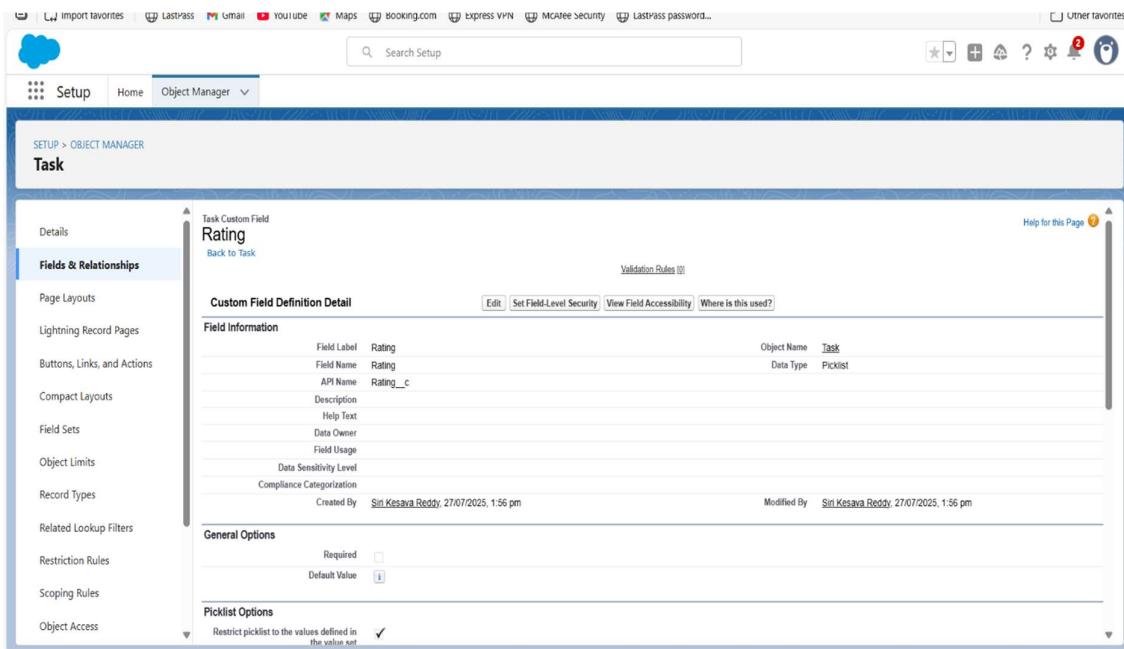
23.

24. 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:

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 “Pick List” and Click on Next



28. 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.

25. Now click on “Fields & Relationships” >> New
25. Select Data type as a “Long Text Area” and Click on Next

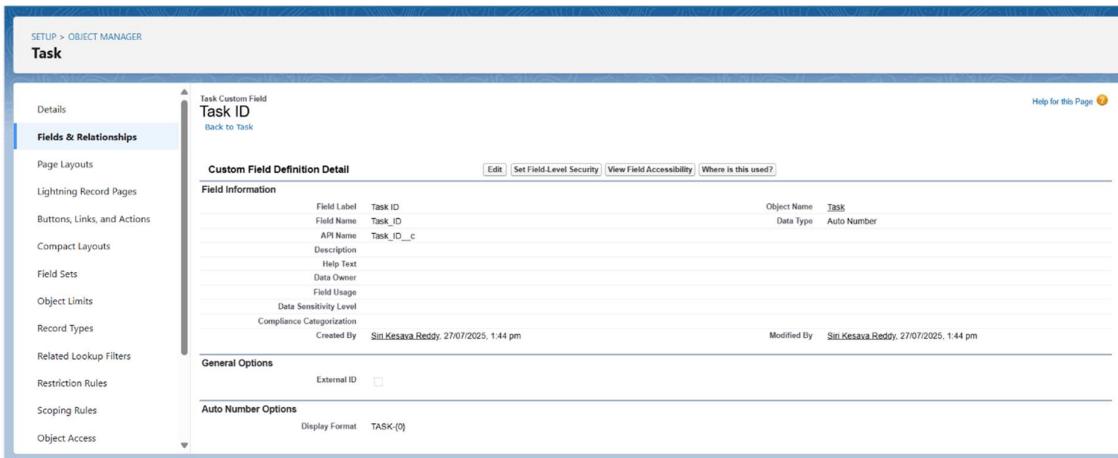
26.

Field Information	Value
Field Label	Feedback
Field Name	Feedback
API Name	Feedback__c
Description	
Help Text	
Data Owner	Siri Kesava Reddy
Field Usage	
Data Sensitivity Level	
Compliance Categorization	
Created By	Siri Kesava Reddy, 27/07/2025, 1:57 pm
Modified By	Siri Kesava Reddy, 27/07/2025, 1:57 pm
General Options	
Default Value	
Long Text Area Options	# Visible Lines: 3, Length: 32,768

27. Fill the Above as following:
  - Field Label: Feedback
  - Field Name: Feedback
  - Click on Next >> Next >> Save and new.

### **Creation of fields for the Task 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 “Auto Number” and Click on Next

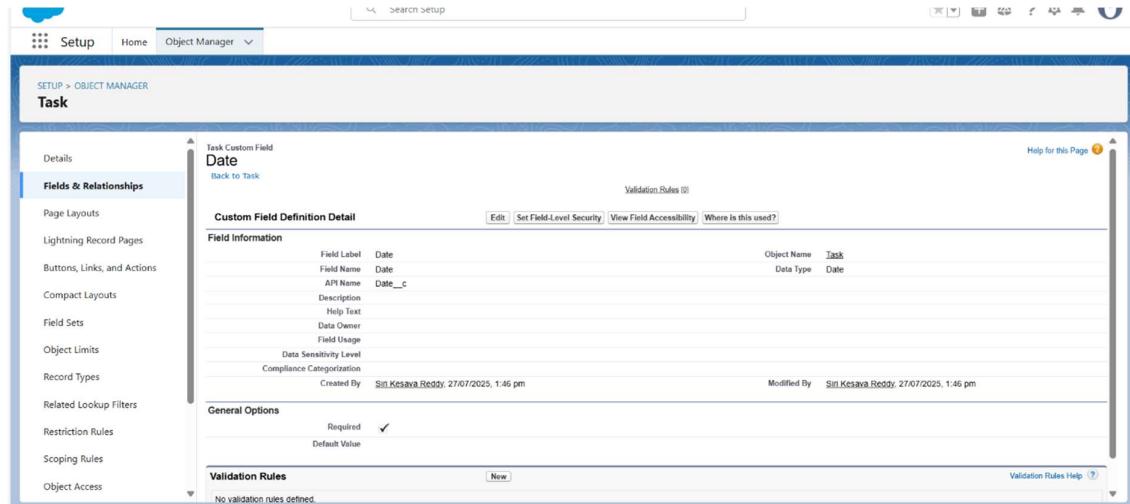


#### 4. Fill the Above as following:

- 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

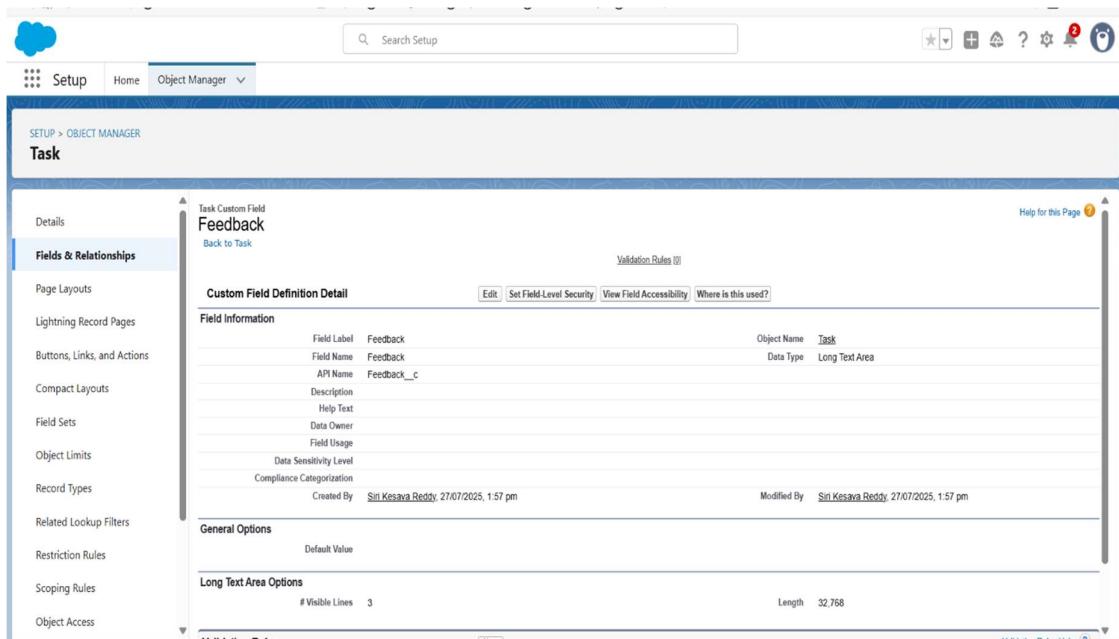
4

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

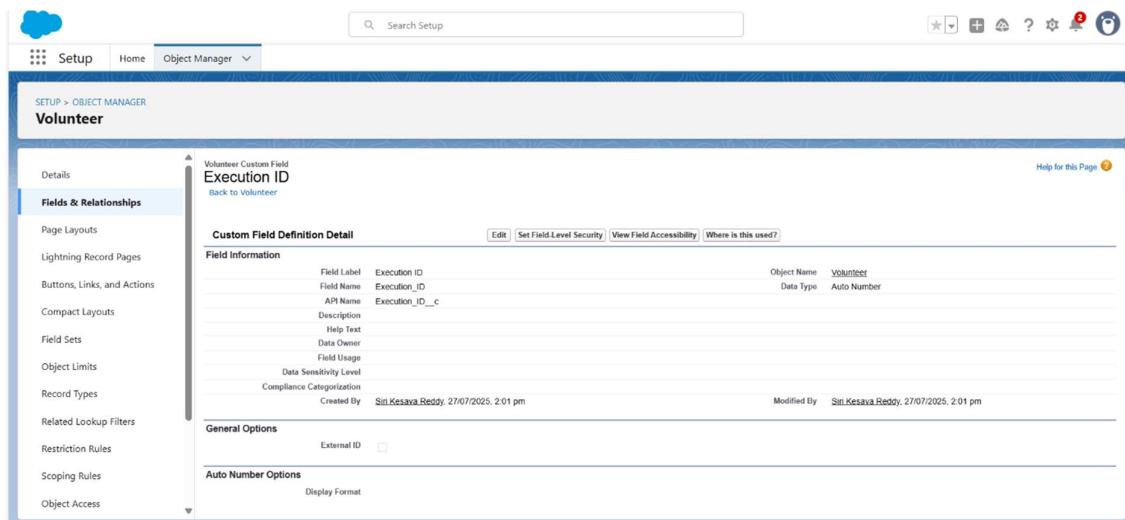


28. Fill the Above as following:

- Field Label: Feedback
- Field Name: Feedback
- Click on Next >> Next >> Save and new.

## **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.

## **Create Flow to create a record in Venue object**

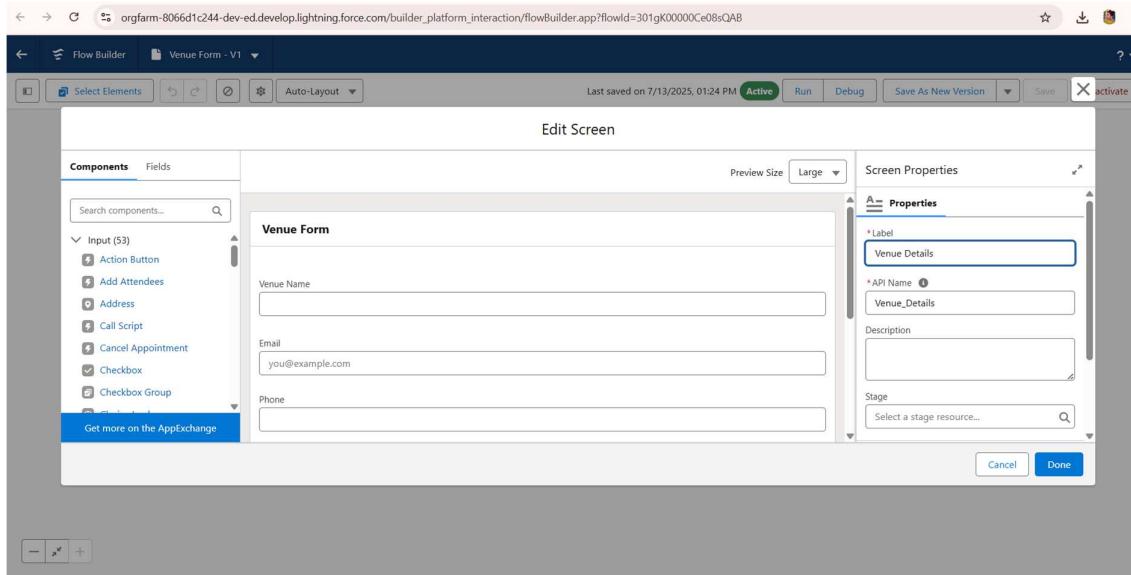
1. Go to setup >> type Flow in quick find box >> Click on the Flow and Select the New Flow.
2. Select the Screen flow. Click on create.

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 let's 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.

12. 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}

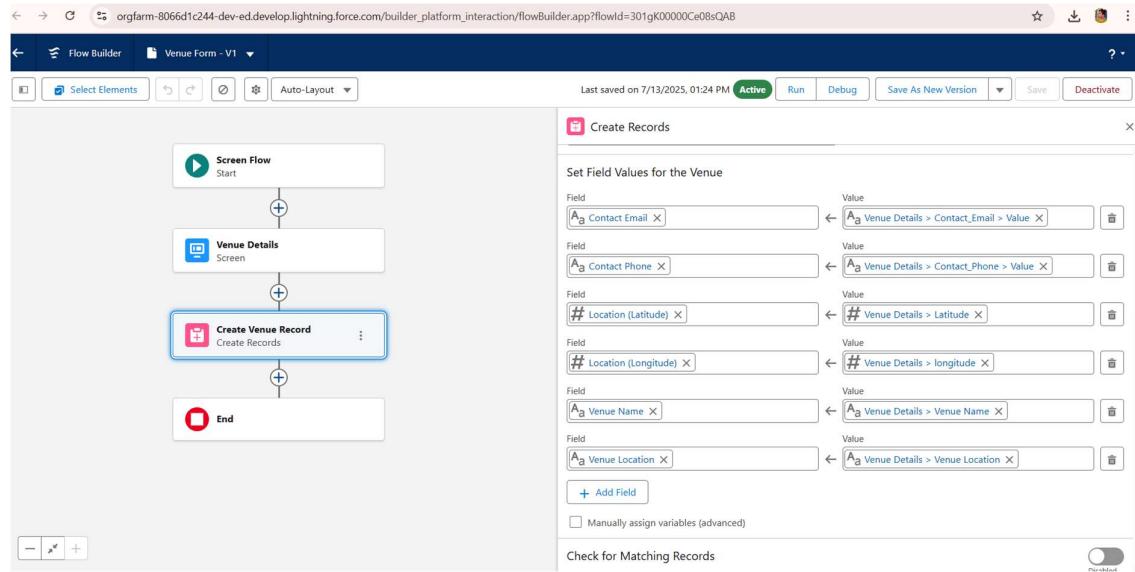
Field: Value = Contact\_Phone\_c : {! Contact\_Phone.value}

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

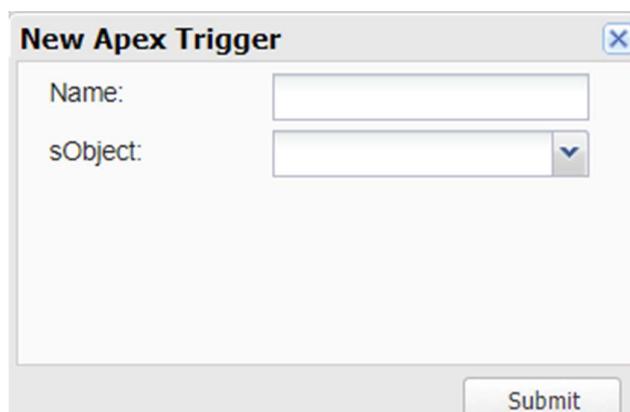
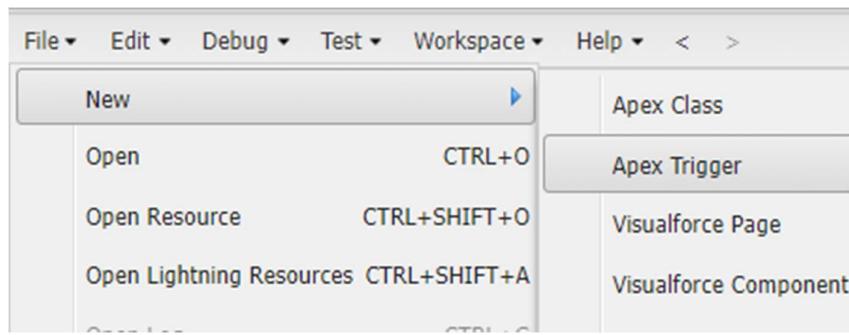
Flow API Name: Venue\_Form

## Apex Classes, Triggers, Asynchronous Apex:

Custom Apex triggers were developed to automatically update stock status and generate distribution records when a pickup is marked completed. Additionally, asynchronous Apex (Batch Apex) was implemented to periodically send summary emails to donors and NGOs highlighting food saved and beneficiaries served over the week. This ensures timely communication and promotes continued engagement without impacting real-time system performance.

## 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.



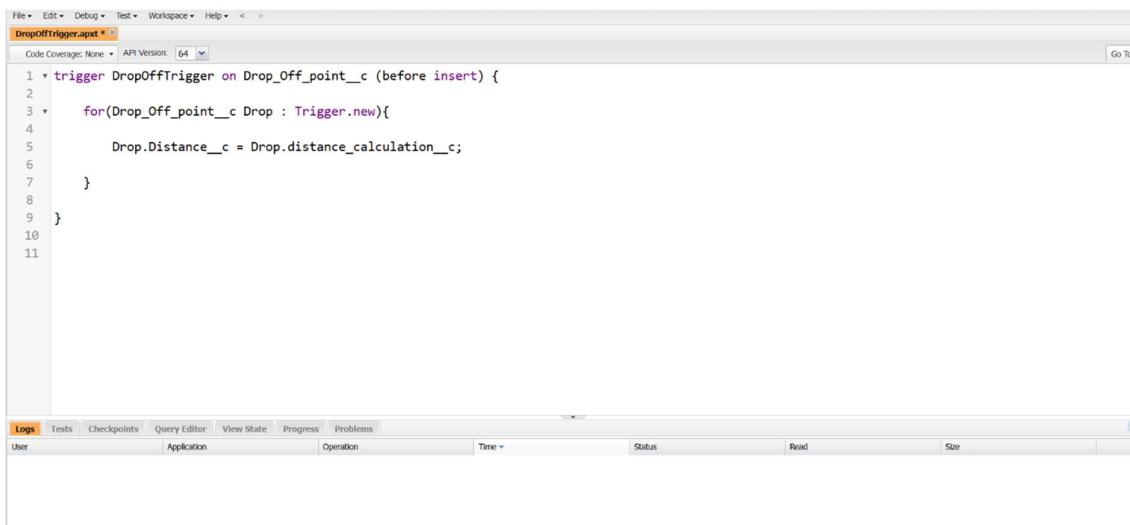
5. Enter Name: DropOffTriggers
6. Object: Drop-Off Point
7. Click on Submit.

### **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;  
    }  
}
```



## **Phase 3: UI/UX Development & Customization:**

### **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.

The screenshot shows the 'App Details & Branding' section of the Lightning App Builder. It includes fields for App Name, Developer Name, Description, Image, Primary Color Hex Value, and Org Theme Options. An App Launcher Preview is also displayed.

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

Name:FoodConnect

Developer\_Name:Thiswillautopopulated

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.

## **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.

The screenshot shows the FoodConnect report builder. At the top, there's a navigation bar with links like Home, Venues, Drop-Off Points, Volunteers, Tasks, Execution Details, Reports, and Dashboards. Below the navigation is a search bar and a toolbar with various icons. The main area is titled 'REPORT' and shows a preview of a report. The preview table has columns: Volunteer Name, Venue Name, Drop-Off Point Name, and Distance. The data in the preview table is as follows:

Volunteer Name	Venue Name	Drop-Off Point Name	Distance
sai (1)	sai	nandalur	25.0000
	<b>Subtotal</b>		25.0000
Sai charan (1)	sai charan	boyanapalli	10.0000
	<b>Subtotal</b>		10.0000
	<b>Total (2)</b>		35.0000

On the left side of the preview, there are sections for 'Outline' and 'Filters'. Under 'Outline', there are 'Groups' (with 'GROUP ROWS' and 'Add group...'), 'Volunteer Name' (with 'x'), and 'GROUP COLUMNS' (with 'Add group...'). Under 'Filters', there are 'Venue Name' (with 'x'), 'Drop-Off Point Name' (with 'x'), and '# Distance' (highlighted in blue). There are also buttons for 'Add Chart', 'Save & Run', 'Save', 'Close', and 'Run'.

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.

## **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

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

### **Adding venue and Drop Off point Report to the Dashboard**

1. Go to the app (Food Connect) >> 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

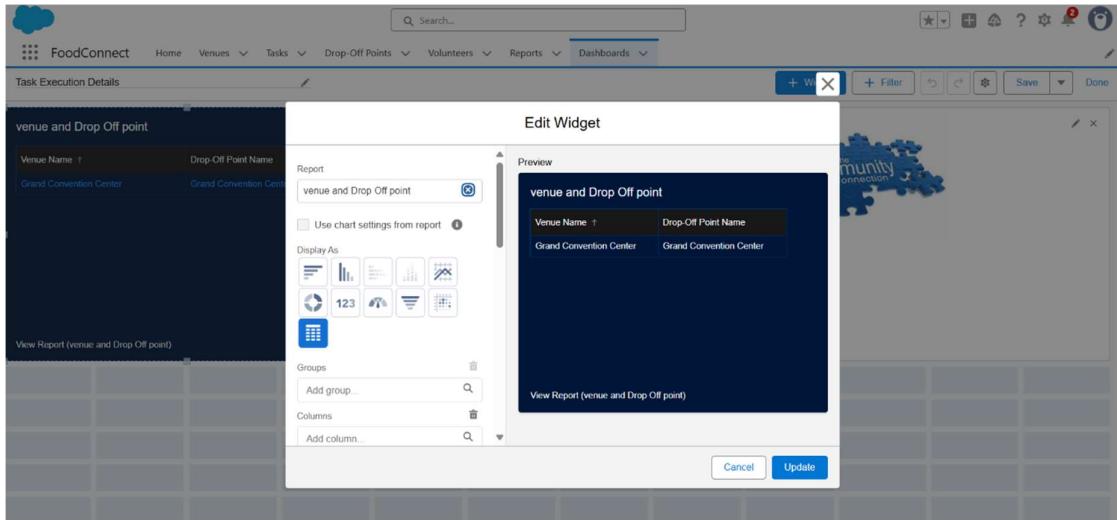
6. In Select Report: Select venue and Drop Off point Report.

7. Then click on select

8. In Add Component:

Display As: Select Lightning Table

Component Theme: Select Dark (Optional)



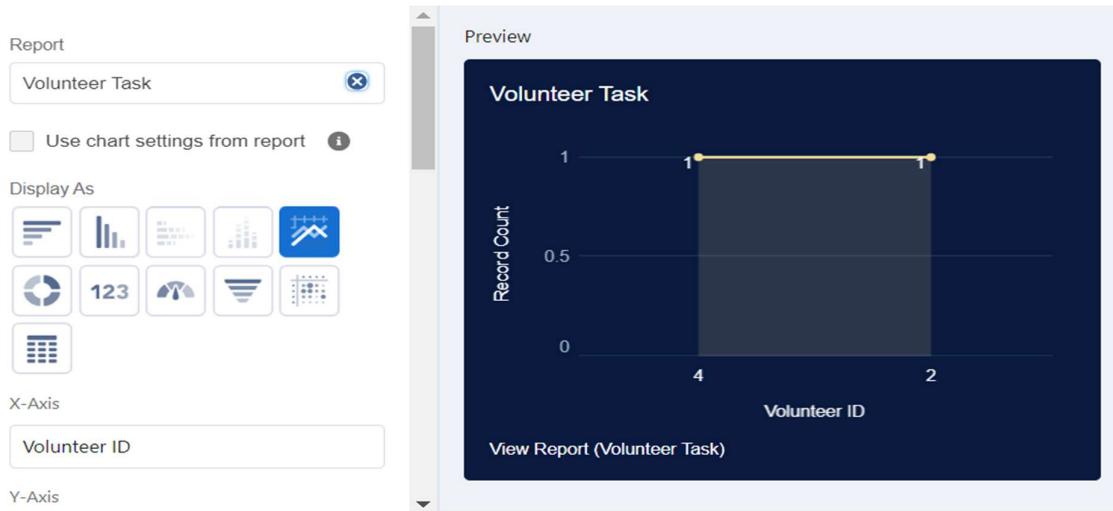
Now click on save.

### Adding Volunteer Task Report to the Dashboard

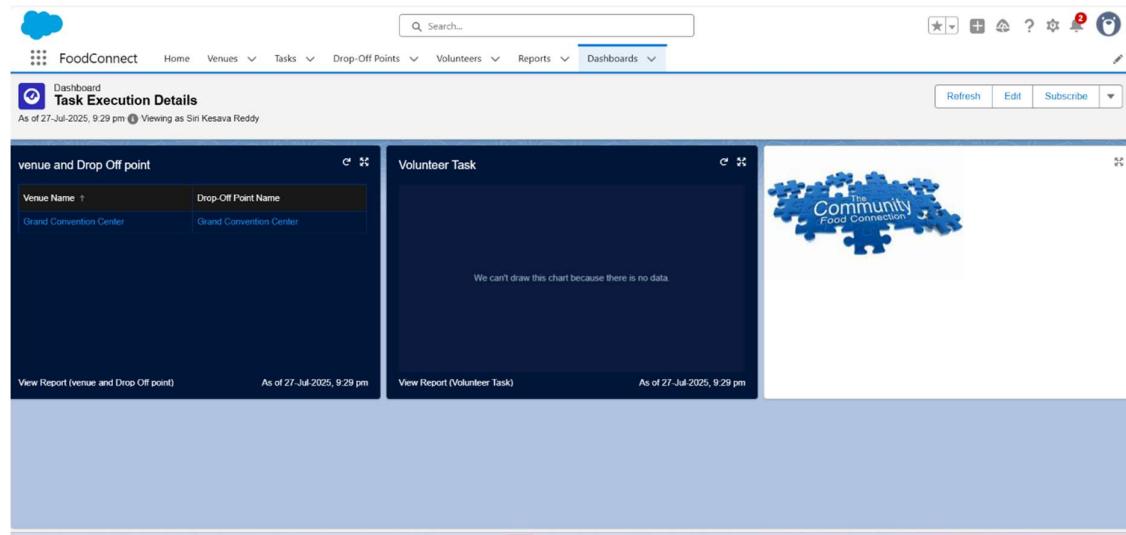
1. Click on Widget and select Chart or Table
2. In Select Report: Select Volunteer Task Report.
3. Then click on select
4. In Add Component:

Display As: Select Line Chart

Component Theme: Select Dark (Optional)



Now click on save.



## Phase 4: Data Migration, Testing & Security

### Data Loading Process:

Historical data of partner restaurants, NGOs, and past donation records was migrated into Salesforce using the Data Loader, chosen for its capability to handle bulk records and ensure referential integrity across custom objects like Food Donation, Pickup Schedule, and Distribution Record. This ensured a smooth transition from manual tracking systems to the new automated CRM.

## **Field History Tracking, Duplicate Rules, Matching Rules:**

Field History Tracking was enabled on key objects such as Food Donation and Pickup Schedule to maintain an audit trail of critical changes like pickup time adjustments or status updates. Duplicate Rules and Matching Rules were configured on the Donor and Recipient records to prevent redundant entries and ensure that every partner is uniquely identified, thereby preserving data quality.

## **Profiles, Roles, Role Hierarchy, Permission Sets, Sharing Rules:**

A robust security model was implemented using Salesforce Profiles and Roles. Profiles controlled baseline access for different users like restaurant managers, NGO coordinators, and volunteer drivers. A Role Hierarchy was established to allow NGO managers to view records of volunteers under them while keeping data compartmentalized across different NGOs. Permission Sets were used to grant additional privileges, such as access to dashboards for analytics teams, while Sharing Rules ensured specific records (like a Pickup Schedule) could be shared with relevant volunteers automatically.

### **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

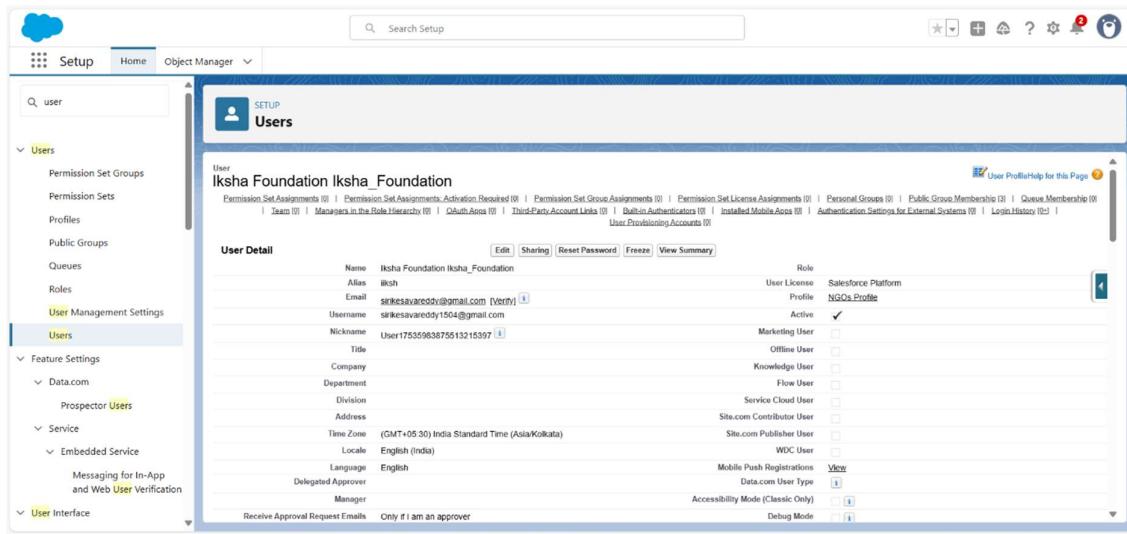
4. Then click on Save

### 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

4. Then click on Save



## Creation of User2, User3:

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

The screenshot shows the Salesforce Setup interface. The left sidebar is titled "Setup" and includes sections for Home, Object Manager, and various User Management settings like Permission Set Groups, Profiles, Public Groups, Queues, Roles, User Management Settings, and Users. The main content area is titled "Users" and shows a user record for "NSS NSS NSS\_NSS". The user's Name is "NSS NSS NSS\_NSS", Alias is "nss", Email is "srikeshavareddy@gmail.com", Username is "nss523@gmail.com", and Nickname is "User17535985666575612782". The Role section indicates "Salesforce Platform" and "NGOs\_Profile" with "Active" checked. Other roles listed include Marketing User, Offline User, Knowledge User, Flow User, Service Cloud User, Site.com Contributor User, Site.com Publisher User, WDC User, Mobile Push Registrations, Data.com User Type, Accessibility Mode (Classic Only), and Debug Mode.

2.

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

This screenshot shows the same setup as the previous one, but the user record has been modified. The user's Name is now "Street Cause Street\_Cause", Alias is "sstre", Email is "srikeshavareddy@gmail.com", Username is "street1504@gmail.com", and Nickname is "User17535986672771355249". The Role section still shows "Salesforce Platform" and "NGOs\_Profile" with "Active" checked. The rest of the user details and settings remain the same.

## 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.

## **Phase 5: Deployment, Documentation & Maintenance**

### **Deployment Strategy:**

The deployment of the FOODCONNECT CRM from the sandbox environment to production was carried out using **Change Sets**, which facilitated secure and organized migration of metadata components including custom objects, fields, validation rules, flows, and Apex code. This method ensured that all dependencies were properly packaged and tested before final deployment, minimizing the risk of disruptions in the live environment.

### **System Maintenance and Monitoring:**

The CRM is designed for ease of ongoing maintenance. Scheduled reports and dashboards help monitor daily operations, highlighting metrics like pending pickups and distributions completed. Regular data quality reviews are performed to identify duplicates or

The screenshot shows the FoodConnect software interface. At the top, there's a navigation bar with links for Home, Venues, Tasks, Drop-Off Points, Volunteers, Reports, and Dashboards. A search bar is also at the top. The main content area is titled 'Grand Convention Center'. It has two main sections: 'Details' and 'Activity'. The 'Details' section contains fields for Venue Name (Grand Convention Center), Contact Email (info@grandcenter.com), Contact Phone (9876565431), Location (37.7749, -122.4149), and Venue Location (123 market street, san francisco, united states). It also shows the Owner as Siri Kesava Reddy and the creation date as 27/07/2025, 2:57 pm. The 'Activity' section is currently empty, showing a message: 'No activities to show. Get started by sending an email, scheduling a task, and more.' There are also buttons for New Contact, Edit, and New Opportunity.

inconsistencies. Admins are responsible for periodic reviews of automation processes and ensuring that validation rules and flows continue to align with evolving business

This screenshot shows the same FoodConnect interface, but the main content area is now titled 'Drop-Off Point Grand Convention Center'. The 'Details' section includes fields for Drop-Off Point Name (Grand Convention Center), Venue (Grand Convention Center), Location (37.7749, -122.4149), State (Andhra Pradesh), and Distance (0.00). It also shows the creation date as 27/07/2025, 2:58 pm. The 'Activity' section is empty, displaying the same informational message as the previous screenshot.

requirements. Any required enhancements or new features will be safely developed and tested in sandbox environments before being pushed to production.

 FoodConnect

Home Venues Tasks Drop-Off Points Volunteers Reports Dashboards

Volunteer  
**Grand Convention Center**

New Contact Edit New Opportunity

**Related Details**

Volunteer Name: Grand Convention Center

Drop-Off Point: Grand Convention Center

Volunteer ID: 1

Gender: Female

Execution ID: 1

Created By:  Siri Kesava Reddy, 27/07/2025, 2:59 pm

Last Modified By:  Siri Kesava Reddy, 27/07/2025, 2:59 pm

**Activity**

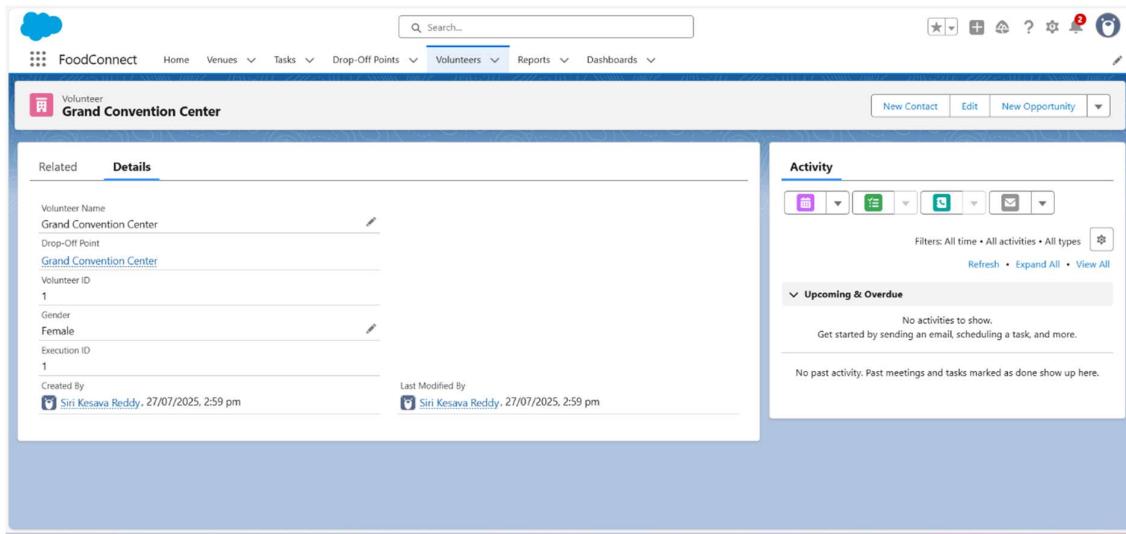
Filters: All time • All activities • All types

Refresh • Expand All • View All

No activities to show.

Get started by sending an email, scheduling a task, and more.

No past activity. Past meetings and tasks marked as done show up here.



 FoodConnect

Home Venues Tasks Drop-Off Points Volunteers Reports Dashboards

**Recently Viewed**

1 item • Updated a few seconds ago

Search this list...

Recently Viewed

Other

**Task Other**

Mark Complete Edit Comments Change Date Create Follow-Up Task

Name: Related To

**Details Related**

Assigned To:  Siri Kesava Reddy

Subject: Other

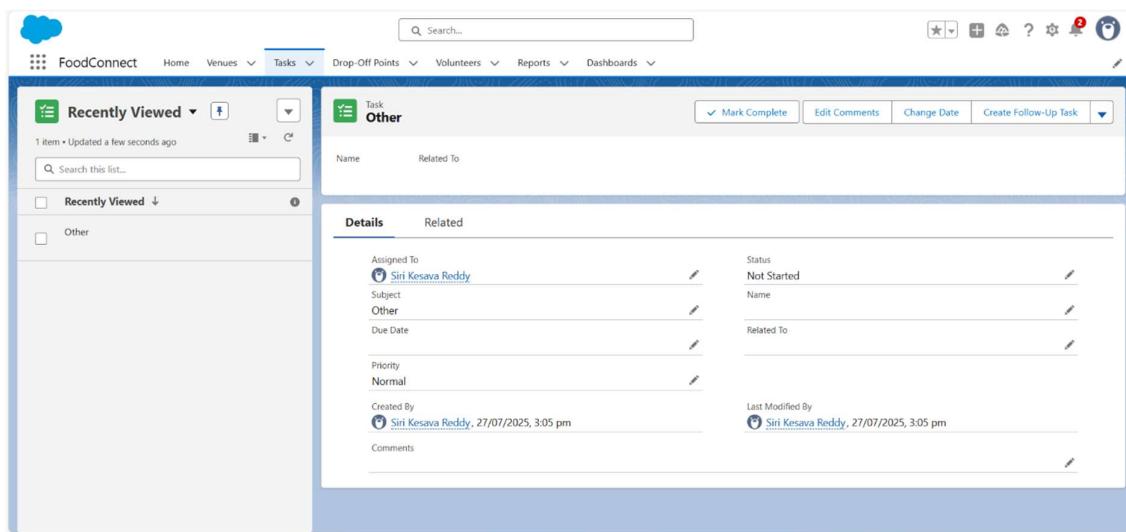
Due Date:

Priority: Normal

Created By:  Siri Kesava Reddy, 27/07/2025, 3:05 pm

Comments:

Last Modified By:  Siri Kesava Reddy, 27/07/2025, 3:05 pm



The screenshot shows the Salesforce Setup interface under Object Manager. The main title is "Execution Detail". On the left, a sidebar lists various setup categories like Details, Fields & Relationships, Page Layouts, and Object Limits. The "Fields & Relationships" section is selected. In the center, the "Execution Detail Name" field is being edited. The "Field Information" section shows the field label as "Execution Detail Name", data type as "Text(80)", and other details like Description, Data Owner, Field Usage, Data Sensitivity Level, and Compliance Categorization. Below it, the "Validation Rules" section indicates "No validation rules defined". A "Help for this Page" link is at the top right.

The screenshot shows the FoodConnect application interface. The top navigation bar includes Home, Venues, Tasks, Drop-Off Points, Volunteers, Reports (which is currently selected), and Dashboards. The left sidebar has sections for Reports (Recent, Created by Me, Private Reports, Public Reports, All Reports), Folders (All Folders, Created by Me, Shared with Me), and Favorites (All Favorites). The main content area displays a table of recent reports. The columns are Report Name, Description, Folder, Created By, Created On, and Subscribed. The table contains three rows:

Report Name	Description	Folder	Created By	Created On	Subscribed
venue and Drop Off point		Custom Reports	Siri Kesava Reddy	27/7/2025, 2:31 pm	<input checked="" type="checkbox"/>
Volunteer Task		Custom Reports	Siri Kesava Reddy	27/7/2025, 2:37 pm	<input checked="" type="checkbox"/>
Sample Flow Report: Screen Flows	Which flows run, what's the status of each interview, and how long do users take to complete the screens?	Public Reports	Automated Process	27/7/2025, 10:42 am	<input checked="" type="checkbox"/>

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

Total Records 1

<input type="checkbox"/> Volunteer Name ↑	Venue Name ↓	Drop-Off Point Name ↓	<input checked="" type="checkbox"/> Distance
<input type="checkbox"/> Grand Convention Center (1)	Grand Convention Center	Grand Convention Center	Sri Kesava Reddy
Subtotal			
Total (1)			

Row Counts  Detail Rows  Subtotals  Grand Total

Dashboard Task Execution Details

As of 27-Jul-2025, 9:29 pm (Viewing as Sri Kesava Reddy)

venue and Drop Off point

Venue Name ↑	Drop-Off Point Name ↓
Grand Convention Center	Grand Convention Center

View Report (venue and Drop Off point) As of 27-Jul-2025, 11:40 pm

Volunteer Task

We can't draw this chart because there is no data.

View Report (Volunteer Task) As of 27-Jul-2025, 9:29 pm

## Troubleshooting Approach:

A structured troubleshooting framework is established to ensure prompt resolution of common operational issues such as missed pickups, duplicate records, notification delivery failures, and data synchronization errors. Debug logs

gs are actively reviewed to identify issues within Apex classes, Process Builder flows, and scheduled jobs. Custom error messages and exception handling mechanisms are embedded into automation processes to improve traceability. The technical documentation includes comprehensive diagrams of data models, object relationships, and workflow logic, enabling the support team to quickly identify root causes and apply fixes with minimal disruption. Regular system audits and test scripts are maintained to detect and prevent potential failures before they impact operations. This proactive and systematic approach ensures reliability and continuity in food collection and distribution activities, supporting Leftovers2Lives' core mission.

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## **Conclusion:**

The Leftovers2Lives project has successfully utilized Salesforce CRM to create a reliable, scalable platform that connects surplus food providers with underserved communities in a timely and efficient manner. Through automation of donation intake, pickup scheduling, and distribution workflows, the platform significantly reduces manual intervention while improving operational accuracy and response times. The use of dynamic dashboards and real-time reporting tools enhances transparency and allows stakeholders to monitor impact metrics such as food volume rescued, meals distributed, and volunteer participation. The system strengthens donor and partner engagement with automated communications and centralized data management. Designed with scalability in mind, Leftovers2Lives is well-positioned to expand its reach by onboarding more food donors, logistics partners, and community organizations. Future enhancements, such as predictive analytics for demand forecasting and AI-driven volunteer coordination, present exciting opportunities to deepen impact and efficiency. Overall, the project demonstrates how technology can be leveraged to drive social good and create a more sustainable and equitable food distribution ecosystem.

