

To Supply Leftover Food To Poor

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1. Project Overview

This project focuses on "FoodConnect," an application built on the Salesforce platform, designed to address the challenge of food wastage and hunger. The primary objective is to connect donors with surplus food to organizations or individuals in need, ensuring efficient redistribution of leftover food to the underprivileged. By leveraging Salesforce's robust features, such as cloud-based data management, real-time collaboration, and automated workflows, the application facilitates seamless coordination between food donors, transport providers, and beneficiaries.

The platform ensures that food is safely and promptly delivered to those in need, reducing waste while combating hunger. FoodConnect also provides features for tracking donations, monitoring delivery status, and generating reports for transparency and accountability. By focusing on the equitable distribution of excess food, this project not only supports the basic needs of the poor but also fosters a culture of social responsibility among donors. Through this initiative, we aim to minimize food wastage, enhance food security for the underprivileged, and support long-term social impact goals aligned with global sustainability efforts.

2. Objectives

Business Goals:

1. **Reduce Food Wastage:** Streamline the process of collecting and redistributing surplus food, minimizing food waste from donors such as restaurants, grocery stores, and event organizers.
2. **Support Hunger Relief:** Ensure that leftover food reaches underprivileged communities effectively, contributing to the reduction of hunger and food insecurity.

Specific Outcomes:

1. **Efficient Donor Management System:** Develop a user-friendly platform where donors can easily register, schedule food pickups, and track their contributions.
2. **Enhanced Beneficiary Reach:** Build a database of NGOs, shelters, and individuals to match food availability with demand in real-time.

3. Detailed Steps to Solution Design

Creating Custom Object.

steps

1. From the setup page > Click on Object Manager > Click on Create > Click on Custom Object.
2. On Custom object defining page:
3. Enter the label name, plural label name, click on Allow reports, Allow search.
4. Click on Save.

Following the steps to creat custom objects are venue, Drop-of point,Task, Volunteer and Execution Details

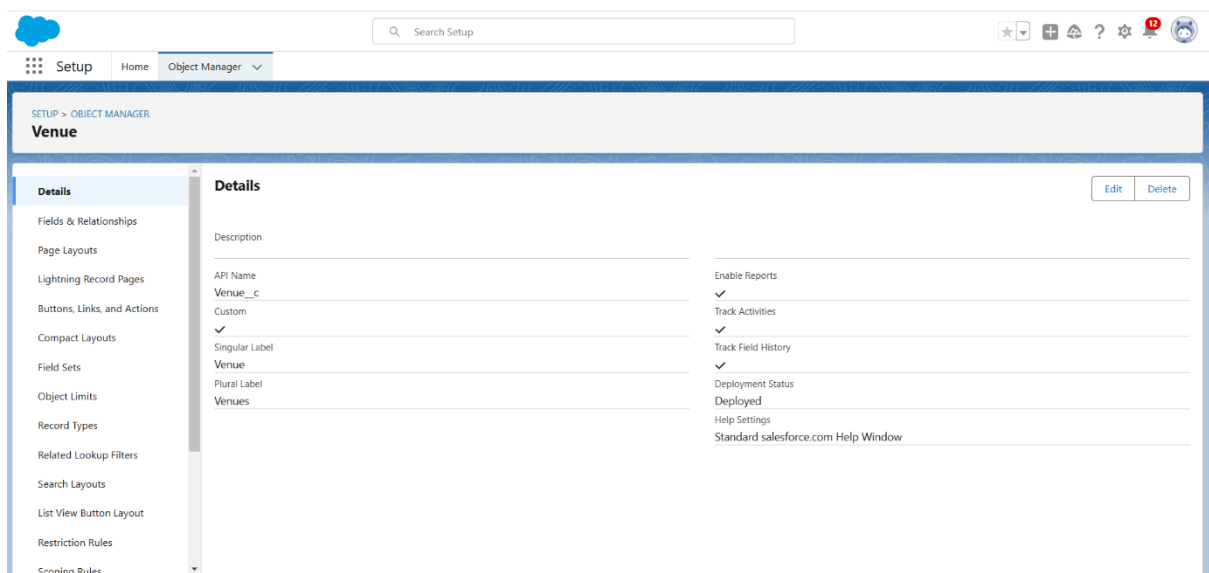


Fig : Venue object

Tabls

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

Creating a Custom Tab

steps

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

2. Select Object(Venue) >> Select the tab style >> Next (Add to profiles page) keep it as default >> Next (Add to Custom App) uncheck the include tab .
3. Make sure that the Append tab to users' existing personal customizations is checked.
4. Click save
5. Now create the Tabs for the remaining Objects, they are “Drop-Off Point, Task, Volunteer, Execution Details”.
6. Follow the same steps as mentioned.

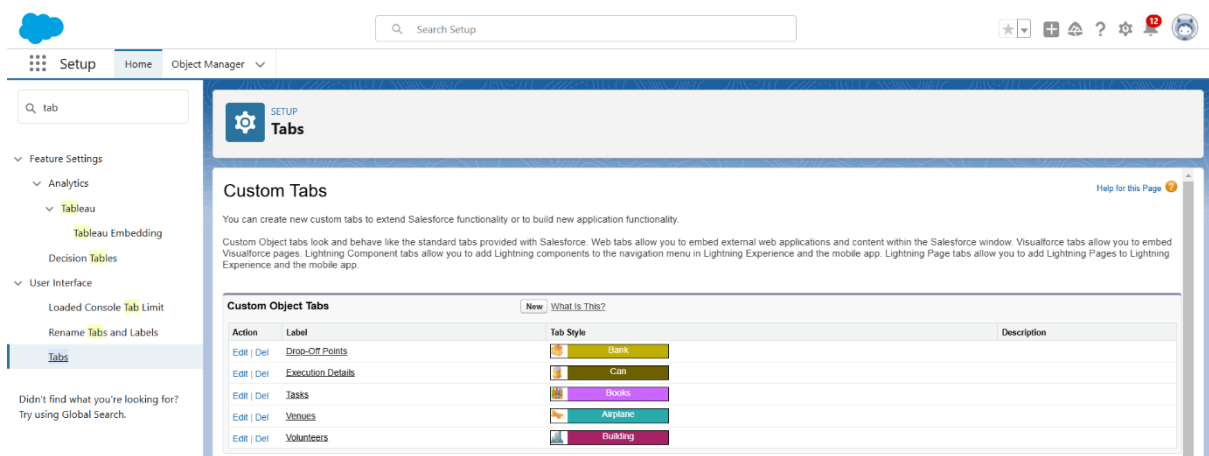


Fig : Custom Tabs

Create a Lightning App

To create a lightning app page:

1. Go to setup page >> search “app manager” in quick find >> select “app manager” >> click on New lightning app.
2. Fill the app name in app details and branding as follow
 App Name : FoodConnect
 Developer Name : This will auto populated
 Image : optional (if you want to give any image you can otherwise not mandatory) Primary color hex value : keep this default.

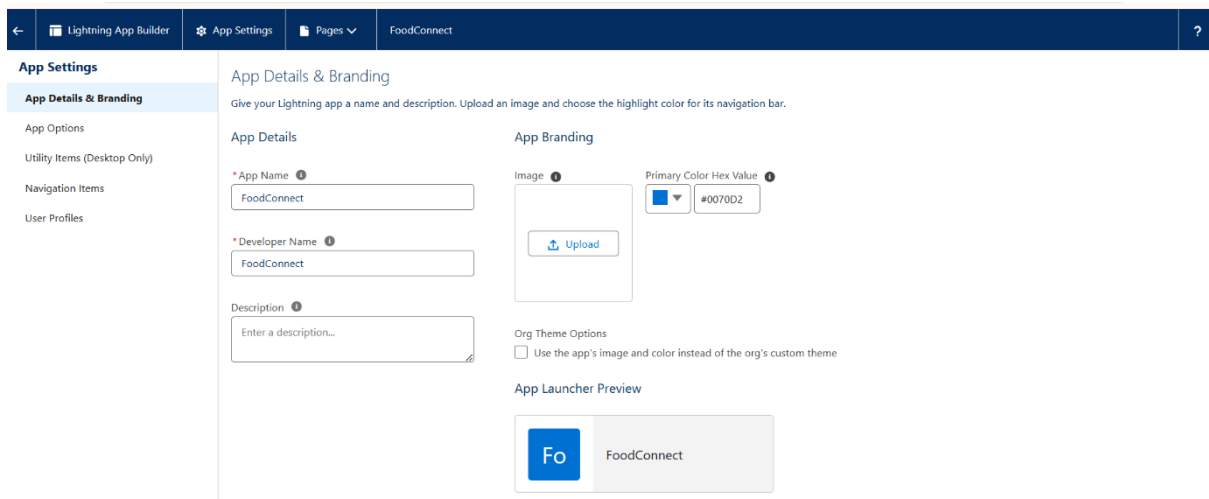


Fig : Lightning App Foodconnect

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.

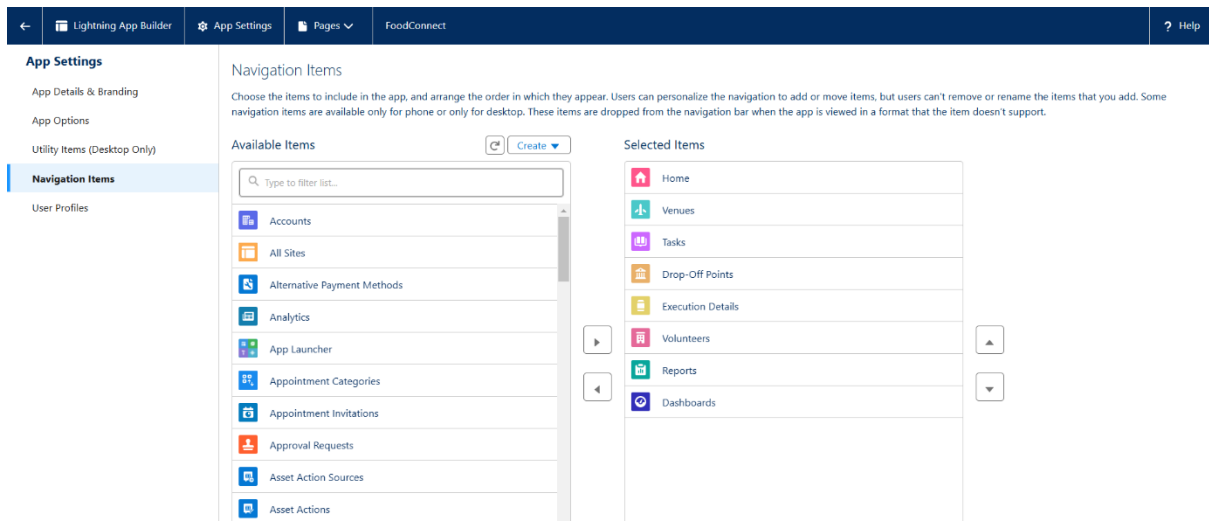


Fig : Lightning App Utility Items

6. To Add User Profiles: Search profiles (System administrator) in the search bar >> click on the arrow button >> save & finish.

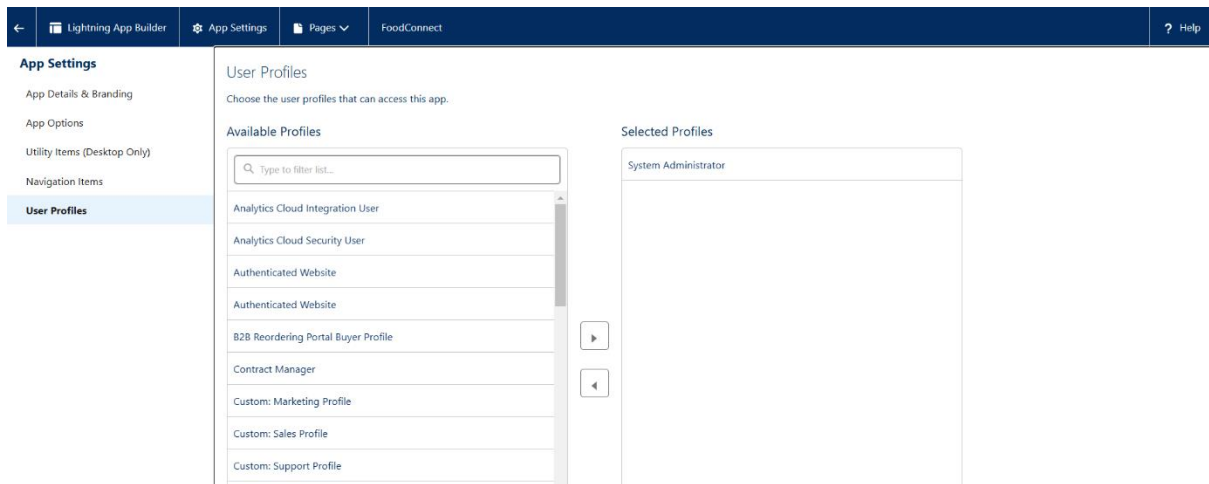


Fig : Lightning App System administrator

Fields

Creation of Relationship fields in objects

1. Creation of Relationship Field on Volunteer Object

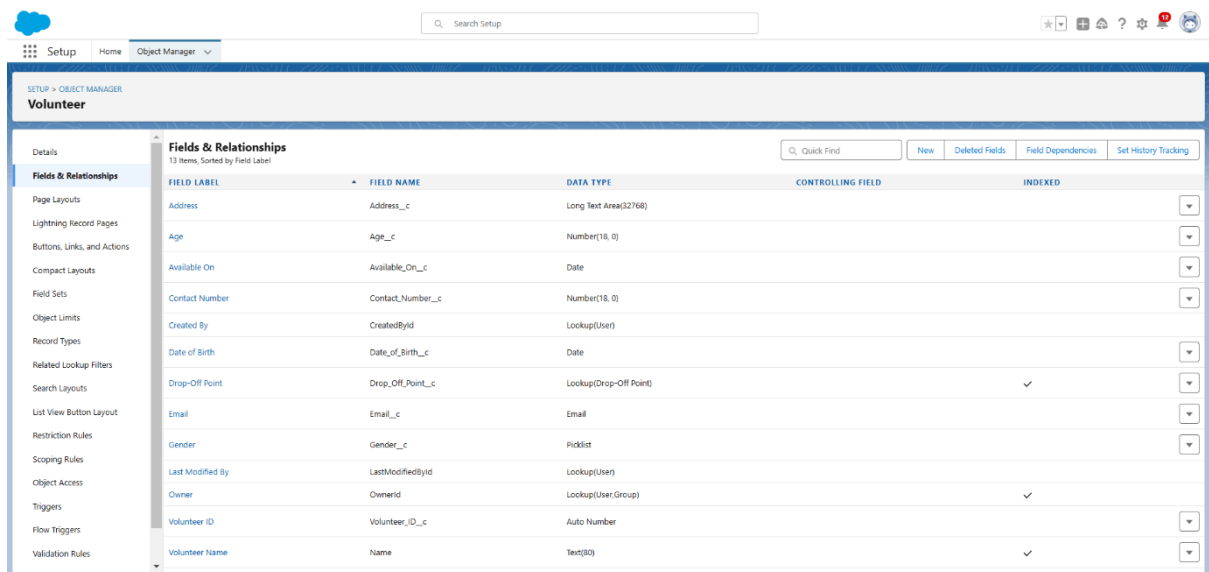


Fig : Relationship Field on Volunteer Object

2. Creation of fields for the Venue object

Setup	Home	Object Manager
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SETUP > OBJECT MANAGER					
Venue					

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

Fig : Field on Venue Object

3. Creation of fields for the Drop-Off point object

SETUP > OBJECT MANAGER					
Drop-Off Point					

Details	Fields & Relationships 9 Items, Sorted by Field Label				
Fields & Relationships	<div>Q Quick Find</div> <div>New Deleted Fields Field Dependencies Set History Tracking</div>				
Page Layouts	FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Lightning Record Pages	Created By	CreatedById	Lookup(User)		
Buttons, Links, and Actions	Distance	Distance__c	Number(14, 4)		▼
Compact Layouts	distance calculation	distance_calculation__c	Formula (Number)		▼
Field Sets	Drop-Off Point Name	Name	Text(80)		✓
Object Limits	Last Modified By	LastModifiedById	Lookup(User)		
Record Types	Location 2	Location_2__c	Geolocation		▼
Related Lookup Filters	Owner	OwnerId	Lookup(User,Group)		✓
Search Layouts	State	State__c	Picklist		▼
List View Button Layout	Venue__c	Venue__c	Lookup(Venue)		✓
Restriction Rules					
Scoping Rules					

Fig : Field on Drop-Off point Object

4. Creation of fields for the Task object

SETUP > OBJECT MANAGER

Task

Details

Fields & Relationships

15 Items, Sorted by Field Label

Q, Quick Find New Deleted Fields Field Dependencies Set History Tracking

Distance	Distance__c	Number(14, 4)	
Drop-Off Point	Drop_Off_Point__c	Lookup(Drop-Off Point)	✓
Feedback	Feedback__c	Long Text Area(32768)	
Food Category	Food_Category__c	Picklist (Multi-Select)	
Last Modified By	LastModifiedById	Lookup(User)	
Name of the Person	Name_of_the_Person__c	Text(14)	
Number of People Served	Number_of_People_Served__c	Number(16, 0)	
Owner	OwnerId	Lookup(User/Group)	✓
Phone	Phone__c	Phone	
Rating	Rating__c	Picklist	
Task ID	Task_ID__c	Auto Number	
Task Name	Name	Text(80)	✓
Venue	Venue__c	Lookup(Venue)	✓

Fig : Field on Task Object

5. Creation of fields for the Execution Details object

SETUP > OBJECT MANAGER

Execution Detail

Details

Fields & Relationships

6 Items, Sorted by Field Label

Q, Quick Find New Deleted Fields Field Dependencies Set History Tracking

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		
Execution Detail Name	Name	Text(80)		✓
Execution ID	Execution_ID__c	Auto Number		
Last Modified By	LastModifiedById	Lookup(User)		
Task	Task__c	Master-Detail(Task)		✓
Volunteer	Volunteer__c	Master-Detail(Volunteer)		✓

Fig : Field on Execution Details Object

Flows

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

The screenshot shows the 'Edit Screen' interface of a mobile app development tool. It features three main panels: 'Components' on the left, 'Fields' in the center, and 'Screen Properties' on the right. The 'Components' panel lists various input components such as 'Action Button', 'Add Attendees', 'Address', 'Call Script', 'Cancel Appointment', 'Checkbox', 'Checkbox Group', and 'Text Component'. The 'Fields' panel displays a form with input fields for 'Venue Name', 'Email' (containing 'you@example.com'), 'Phone', 'Venue Location', 'Latitude', and 'Longitude'. The 'Screen Properties' panel shows the configuration for the selected 'Text Component', with the 'Label' set to 'Venue Details' and the 'API Name' set to 'Venue_Details'. At the bottom right, there are 'Cancel' and 'Done' buttons.

Fig: Screen Venue Details

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}

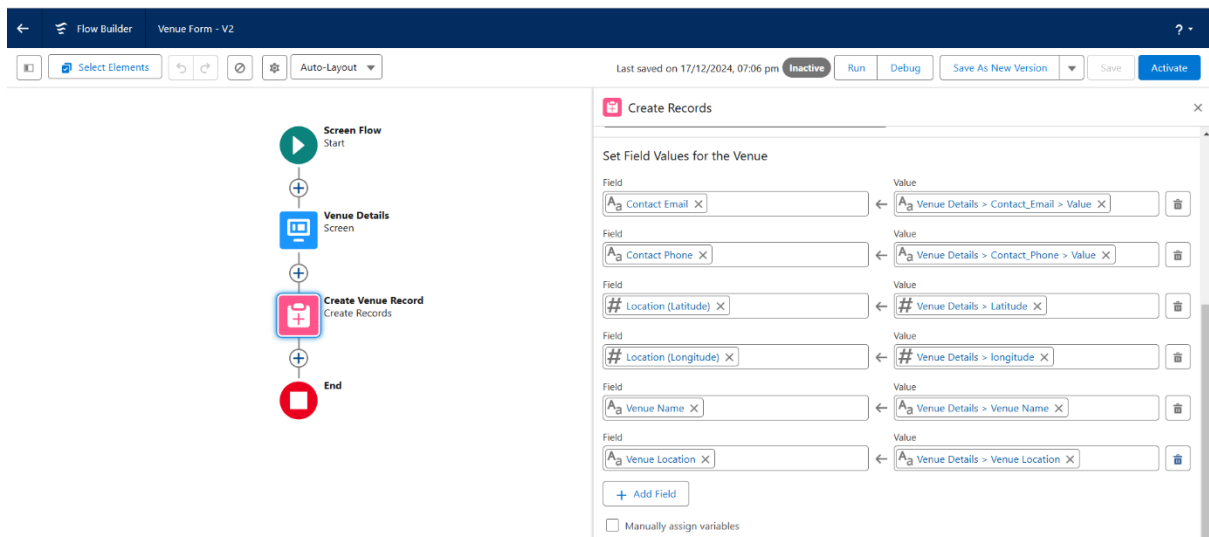


Fig : Venue record

14.This would look like:

15.Click on Save as:

Flow Label : Venue Form

Flow API Name : Venue_Form

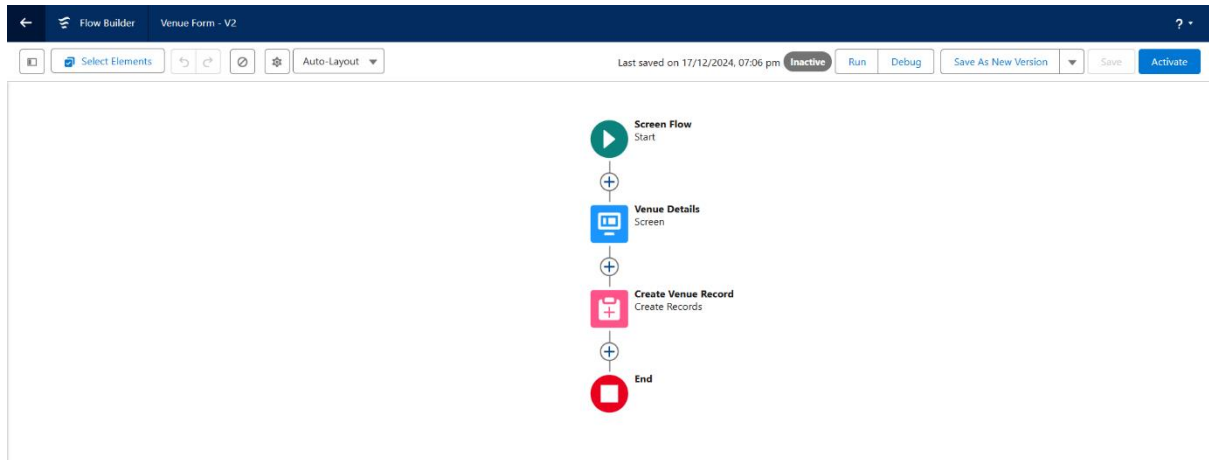
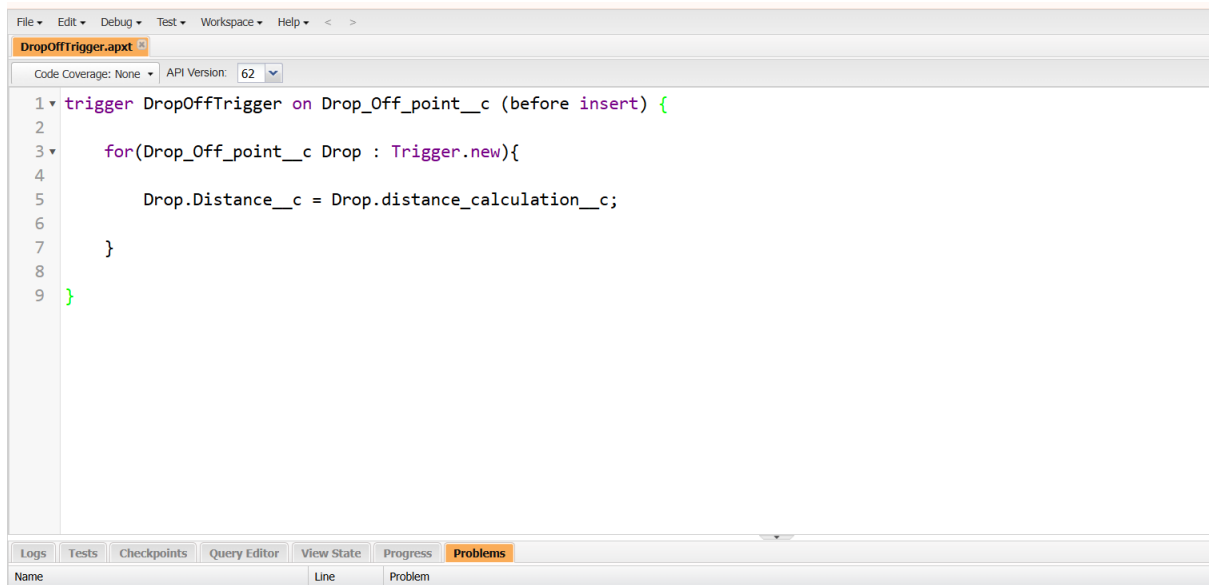


Fig : Venue form flow

Trigger

Create a Trigger

1. Log into the trailhead account, navigate to the gear icon in the top right corner.
2. Click on developer console and you will be navigated to a new console window.
3. Click on the File menu in the toolbar, and click on new >> Trigger.
4. Enter the trigger name and the object to be triggered.
5. Enter Name : DropOffTrigger
sObject: Drop-Off Point
6. Click on Submit.



```
1 trigger DropOffTrigger on Drop_Off_point__c (before insert) {  
2  
3     for(Drop_Off_point__c Drop : Trigger.new){  
4  
5         Drop.Distance__c = Drop.distance_calculation__c;  
6  
7     }  
8  
9 }
```

Fig: Trigger code

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 Users

1. Go to setup page >> type users in Quick Find bar >> click on users>> New user.
2. In General Information give details as: (Note : create users as per your wish NGO's)
First Name : Iksha Foundation
Last Name : Iksha_Foundation
Alias : iiksh
Email : Give Your Email
Username : ikshafoundation@sb.com (give the username different)

Nickname : Auto Populated

User License : Salesforce Platform

Profile : NGOs Profile

Active : Check

Creation of User2, User3

user2:NSS

user3:Street Cause

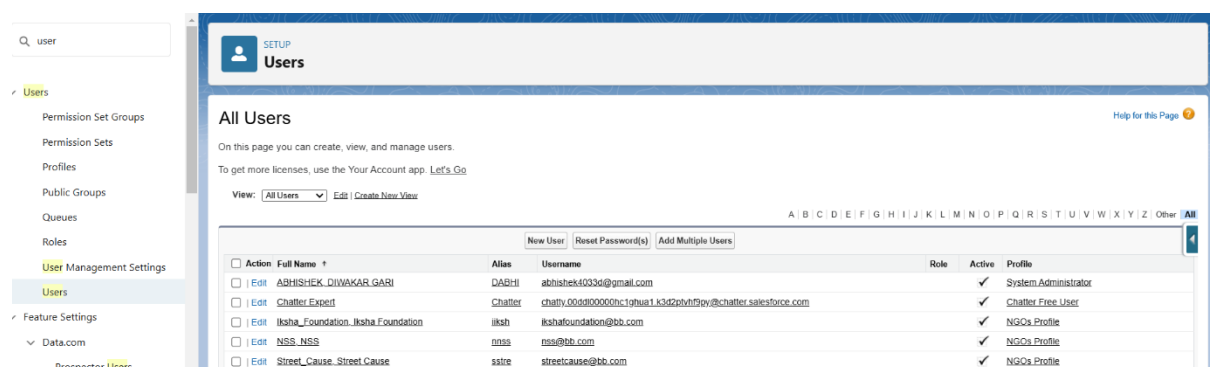


Fig : Users

Creation of Public Group 1 & 2

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

SETUP

Public Groups

Public Groups

Help for this Page

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	Iksha	Iksha	ABHISHEK_DIWAKAR GARI	16/12/2024, 3:04 pm
Edit Del	NSS	NSS	ABHISHEK_DIWAKAR GARI	16/12/2024, 3:05 pm
Edit Del	Street_Cause	Street_Cause	ABHISHEK_DIWAKAR GARI	16/12/2024, 3:06 pm

Fig :Public Group 1 & 2

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.
- 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
- Click on Next
- Near Click to relate another Object Select Drop-Off Points.
- And also select "A" records may or may not have related "B" records.
- Now again Near Click to relate another Object Select Volunteers.
- Now click on Save.

Report Types 2

Report Type Label :Volunteers with Execution Details and Tasks

Report Type Name : Volunteers_with_Execution_Details_and_Tasks

The screenshot shows the 'Report Types' setup page in Salesforce. The custom report type is 'Venue with DropOff with Volunteer'. It includes fields for Report Type Label, Name, Category, Description, and Deployment Status. The 'Object Relationships' section shows a diagram with three overlapping circles labeled A (Venues), B (Drop-Off Points), and C (Volunteers). The 'Fields Available for Reports' table lists the source objects and the number of fields available for each.

Source	Selected Fields
Venues	13
Drop-Off Points	13
Volunteers	16

Fig:Venue with DropOff with Volunteer

The screenshot shows the 'Report Types' setup page in Salesforce. The custom report type is 'Volunteers with Execution Details and Tasks'. It includes fields for Report Type Label, Name, Category, Description, and Deployment Status. The 'Object Relationships' section shows a diagram with three overlapping circles labeled A (Venues), B (Drop-Off Points), and C (Volunteers). The 'Fields Available for Reports' table lists the source objects and the number of fields available for each.

Source	Selected Fields
Venues	13
Drop-Off Points	13
Volunteers	16

Fig:Volunteers with Execution Details and Tasks

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.

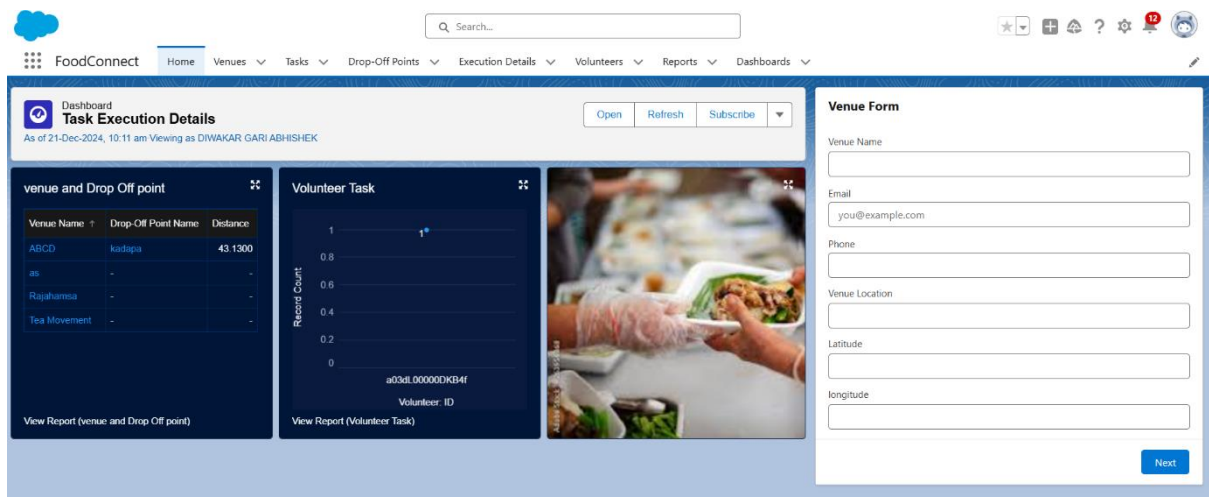


Fig : Home Page FoodConnect

4. Implementation Project

Step1 : Filling Venue form to collect leftover food

The screenshot shows the FoodConnect dashboard with the 'Venue Form' open. The dashboard includes a search bar, navigation menu, and a sidebar with 'Task Execution Details'. The 'Venue Form' contains fields for Venue Name, Email, Phone, Venue Location, Latitude, and Longitude. A 'Next' button is at the bottom right.

Venue Name	Drop-Off Point Name	Distance
ABCD	Kadapa	43.1300
as	-	-
Rajahmusa	-	-
Tata Movement	-	-

Volunteer Task

Report Count

1

0.8

0.6

0.4

0.2

0

a03dL00000DKB4f

Volunteer ID

View Report (Venue and Drop Off point)

View Report (Volunteer Task)

Venue Form

Venue Name

vikas

Email

vikas@gmail.com

Phone

7904123924

Venue Location

Amarapuram

Latitude

14

Longitude

77

Next

Fig : Venue form details

Step 2: Filling New Task Details under venue Form

The screenshot shows the 'New Task' form. It includes fields for Task Name, Venue, Drop-Off Point, Distance, Task ID, Date, and Food Category. A 'Save' button is at the bottom right.

New Task

* = Required Information

Information

* Task Name

Food collection

Owner

DIWAKAR GARI ABHISHEK

Venue

vikas

Drop-Off Point

Search Drop-Off Points...

* Distance

4,500.0000

Task ID

* Date

21/12/2024

* Food Category

Available

Chosen

Salad

Non-Veg

Cancel

Save & New

Save

Fig : New Task Details

The screenshot shows the 'Venue Form' interface. At the top, there's a header with the 'Venue vikas' logo. Below the header, there are two tabs: 'Related' (active) and 'Details'. Under the 'Related' tab, there are two sections: 'Drop-Off Points (0)' with a 'New' button, and 'Tasks (1)' with a 'New' button. Below the 'Tasks (1)' section, there's a 'Task Name' field with a dropdown menu showing 'Food collection'. At the bottom of the task list, there's a 'View All' link.

Fig :Task details added at Venue form

Step 3:Filling New Drop-Of Point details

The screenshot shows the 'New Drop-Off Point' form. At the top, there's a title 'New Drop-Off Point'. Below the title, there's a legend indicating that '*' denotes 'Required Information'. The form is divided into two main sections: 'Information' and 'Owner'. The 'Information' section contains several fields: '* Drop-Off Point Name' (text input with value 'valasa'), 'Venue_c' (dropdown menu with value 'vikas'), 'Location 2' (section header), '* Latitude' (text input with value '14.685564'), '* Longitude' (text input with value '76.9'), '* State' (dropdown menu with value 'Andhra Pradesh'), and '* Distance' (text input with value '4500'). The 'Owner' section shows a profile picture and the name 'DIWAKAR GARI ABHISHEK'. At the bottom of the form, there are three buttons: 'Cancel', 'Save & New', and 'Save'.

Fig :New Drop-Of Point details

Step 4:Filling New Volunteer details

New Volunteer

* = Required Information

Information

* Volunteer Name

vikas

Drop-Off Point

valasa

Volunteer ID

Gender

Male

* Available On

21/12/2024

* Age

23

* Email

vikas@gmail.com

* Contact Number

Owner

DIWAKAR GARI ABHISHEK

Cancel

Save & New

Save

Fig :New Volunteer details

Step 5 : Filling New Execution Details

New Execution Detail

* = Required Information

Information

* Execution Detail Name

ABCD

* Volunteer

vikas

* Task

Food collection

Execution ID

Cancel

Save & New

Save

Fig:New Execution Details

Step 6: Updated Home Page after filled all new details

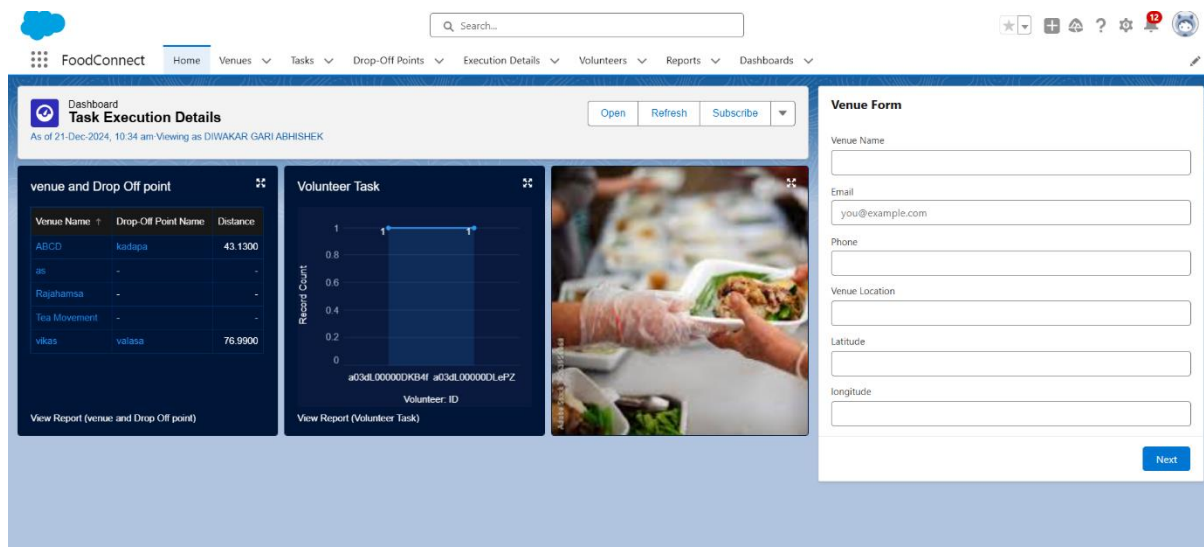


Fig :Updated Home Page

5 Conclusion

The "FoodConnect" application represents a significant step toward addressing the dual challenges of food wastage and hunger by leveraging the power of the Salesforce platform. This innovative solution not only facilitates the efficient redistribution of surplus food to the underprivileged but also fosters a sense of community and social responsibility among donors.

By streamlining the donation process, providing real-time tracking, and offering insightful data reporting, the platform ensures transparency, efficiency, and accountability. Through its scalability and adaptability, FoodConnect has the potential to expand its reach, helping communities worldwide reduce food waste and support hunger relief efforts.

Ultimately, this project contributes to creating a sustainable and equitable system that aligns with global goals to combat hunger and promote sustainability, driving positive social and environmental impact for the long term.