

# **Supply Left Over Food To Poor**

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## 1. INTRODUCTION

### 1.1 Project Overview

This Salesforce Guided Project titled FoodConnect aims to streamline the process of managing surplus food donations, coordinating NGOs, venues, volunteers, and drop-off points using the Salesforce platform.

### 1.2 Purpose

To build a transparent and efficient donation coordination system by leveraging Salesforce's no-code and low-code capabilities including custom objects, dashboards, flows, sharing rules, and reporting.

## 2. IDEATION PHASE

### 2.1 Problem Statement

Food waste and inefficient distribution often occur due to a lack of coordinated systems between donors, NGOs, and volunteers.

### 2.2 Empathy Map Canvas

- Says: "We want to ensure food reaches the needy before it spoils."
- Thinks: "How can I track drop-off locations and NGO tasks easily?"
- Feels: Concerned about logistics and time constraints
- Does: Manages volunteers, coordinates drop-offs manually

### 2.3 Brainstorming

- Use custom objects to manage stakeholders
- Visualize task completion and volunteer efforts
- Assign drop-off points based on distance
- Automate venue registration and task updates
- 

## 3. REQUIREMENT ANALYSIS

### 3.1 Customer Journey Map

- Venue registers → Drop-off created → Volunteer assigned → Task executed → Report and feedback recorded

### 3.2 Solution Requirement

- Objects: Venue, Drop-Off Point, Volunteer, Task, Execution Details
- Flow for Venue entry
-

- Sharing rules based on location
- distance Dashboards to visualize
- execution

### 3.3 Data Flow

Diagram → Drop-Off Point → Volunteer → Task → Execution Detail →

Report/Dashboard

### 3.4 Technology

#### Stack

- Platform: Salesforce Tools: Flow Builder, App Manager, Reports &
- Dashboards, Apex Trigger Customization: Object Manager, Field
- Creation
- 

## 4. PROJECT DESIGN

### 4.1 Problem Solution

The design addresses NGO coordination issues and food delivery tracking by ~~without floating~~

Salesforce.

### 4.2 Proposed

Create a Lightning App (FoodConnect) with multiple objects and flows to handle operations, reports, and control access via public groups.

### 4.3 Solution Architecture

- Frontend : Lightning App with Dashboards &
- Backend: ~~Custom~~ Fields, Lookup/Master-Detail
- Automation: ~~Relationships~~, Sharing Rules, Flows

## 5. PROJECT PLANNING & SCHEDULING

### 5.1 Project

#### Planning

Week 1: Developer account setup, Object

- creation Week 2: Relationships and fields
- Week 3: Flows, Reports, Dashboards
- Week 4: Trigger development, Sharing rules, Testing
-

## Development Phase – Salesforce Guided

### 6. Project

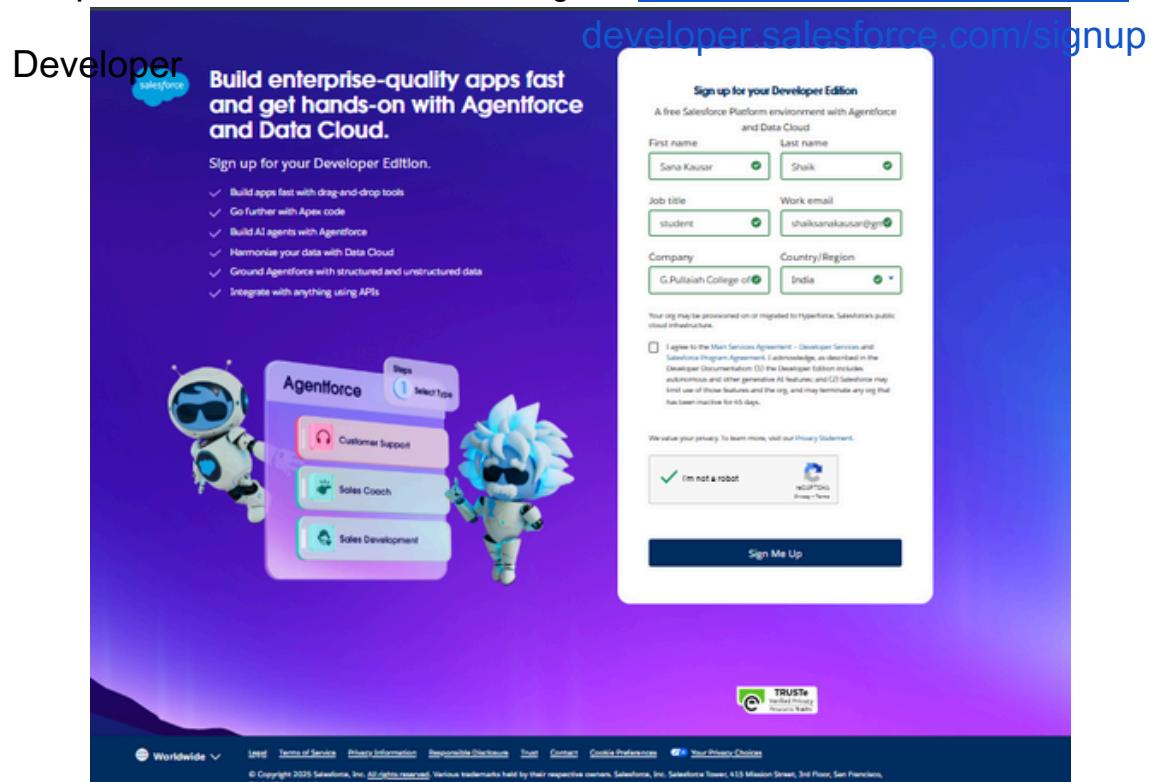
The Development Phase of the given Salesforce project involves building the complete data structure, user interface, business logic, and reporting mechanisms within Salesforce. Here's a structured summary extracted from the document:

#### Developer Environment

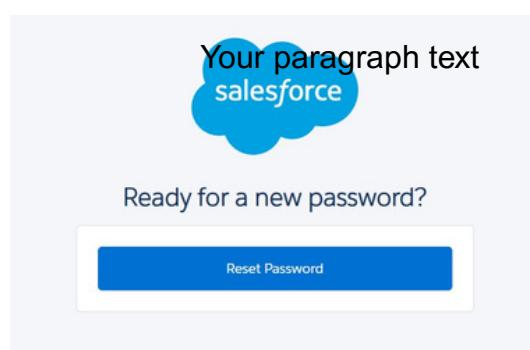
1.

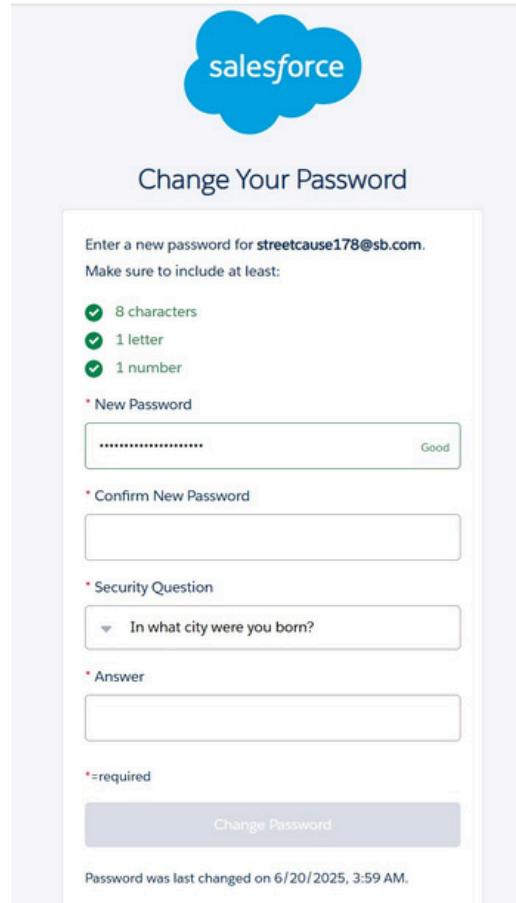
##### Create Salesforce

Org via \_\_\_\_\_



- Fill in required information, verify email, set password, and access Salesforce Setup.





## 2. Custom Object

### Creation

Created several key custom objects to model real-world

entities

## ● Drop-Off Point

The screenshot shows the Salesforce Setup interface under the Object Manager. A new custom object is being created with the following details:

- Label:** Drop-Off Point
- Plural Label:** Drop-Off Points
- Object Name:** Drop\_Off\_Point
- Description:** (Empty)
- Context-Sensitive Help Setting:** Open the standard Salesforce.com Help & Training window (selected)
- Content Name:** None

## ● Task

The screenshot shows the Salesforce Setup interface under the Object Manager. A new custom object is being created with the following details:

- Label:** Task
- Plural Label:** Tasks
- Object Name:** Task
- Description:** (Empty)
- Context-Sensitive Help Setting:** Open the standard Salesforce.com Help & Training window (selected)
- Content Name:** None

## ● Volunteer

The screenshot shows the 'Object Manager' section of the Salesforce Setup. A sidebar on the left lists various configuration options under 'Details'. The main area is titled 'Edit Custom Object Volunteer' and contains the 'Custom Object Definition Edit' form. The 'Custom Object Information' section includes fields for 'Label' (set to 'Volunteer'), 'Plural Label' (set to 'Volunteers'), and 'Object Name' (set to 'Volunteer'). There are also sections for 'Description', 'Context-Sensitive Help Setting' (set to 'Open the standard Salesforce.com Help & Training window'), and 'Content Name' (set to 'None'). Buttons at the top right include 'Save', 'Save & New', and 'Cancel'.

## ● Execution Details

The screenshot shows the 'Object Manager' section of the Salesforce Setup. A sidebar on the left lists various configuration options under 'Details'. The main area is titled 'Edit Custom Object Execution Detail' and contains the 'Custom Object Definition Edit' form. The 'Custom Object Information' section includes fields for 'Label' (set to 'Execution Detail'), 'Plural Label' (set to 'Execution Details'), and 'Object Name' (set to 'Execution\_Detail'). There are also sections for 'Description', 'Context-Sensitive Help Setting' (set to 'Open the standard Salesforce.com Help & Training window'), and 'Content Name' (set to 'None'). Buttons at the top right include 'Save', 'Save & New', and 'Cancel'.

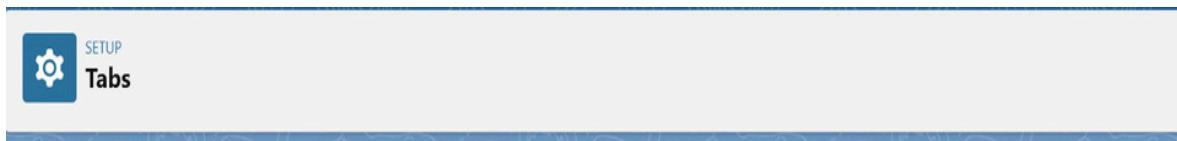
## Each object

includes Label, Record Name, Data Type (mostly Text)

- Enabled options: Allow Reports, Track Field History, Allow Activities, Search

## 3. Tab

Creation  
Custom tabs created  
for:



The screenshot shows the 'Custom Tabs' section within the 'Custom Object Tabs' tab of the Salesforce Setup. It lists five custom tabs for the 'Venues' object, each with a unique icon and color-coded tab style.

Action	Label	Tab Style
Edit   Del	Drop-Off Points	Bell (Red)
Edit   Del	Execution Details	Books (Purple)
Edit   Del	Tasks	Bridge (Blue)
Edit   Del	Venues	Building Block (Dark Blue)
Edit   Del	Volunteers	Heart (Red)

### Custom Tabs

You can create new custom tabs to extend Salesforce functionality or to build new application functionality.

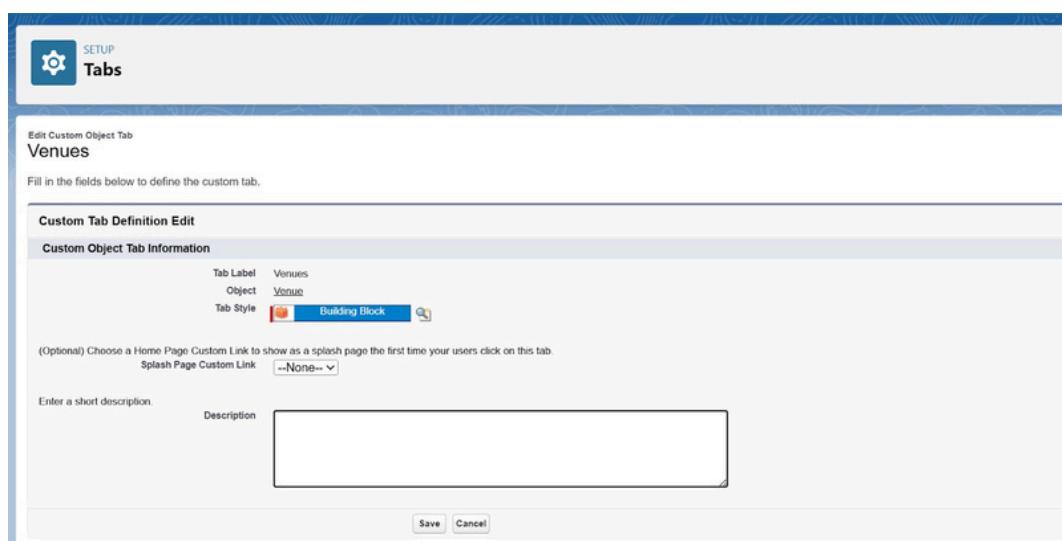
Custom Object tabs look and behave like the standard tabs provided with Salesforce. Web tabs allow you to embed external web applications and content within the Salesforce window. Visualforce Component tabs allow you to add Lightning components to the navigation menu in Lightning Experience and the mobile app. Lightning Page tabs allow you to add Lightning Pages to Lightning Experience.



The screenshot shows the 'Edit Custom Object Tab' page for the 'Venues' object. It displays the 'Custom Tab Definition Edit' section with fields for Tab Label, Object, Tab Style, and Splash Page Custom Link. A large text area for Description is also present.

Custom Tab Definition Edit	
Custom Object Tab Information	
Tab Label	Venues
Object	Venue
Tab Style	Building Block
(Optional) Choose a Home Page Custom Link to show as a splash page the first time your users click on this tab.	
Splash Page Custom Link	--None--
Enter a short description.	
Description	<input type="text"/>

### Venue



The screenshot shows the 'Edit Custom Object Tab' page for the 'Venues' object, with the configuration from the previous screenshot now saved. The 'Custom Tab Definition Edit' section is displayed again, showing the completed settings for the 'Venues' tab.

Custom Tab Definition Edit	
Custom Object Tab Information	
Tab Label	Venues
Object	Venue
Tab Style	Building Block
(Optional) Choose a Home Page Custom Link to show as a splash page the first time your users click on this tab.	
Splash Page Custom Link	--None--
Enter a short description.	
Description	<input type="text"/>

## ● Drop-Off Point

SETUP  
**Tabs**

Edit Custom Object Tab  
**Drop-Off Points**

Fill in the fields below to define the custom tab.

**Custom Tab Definition Edit**

**Custom Object Tab Information**

Tab Label	Drop-Off Points
Object	Drop-Off Point
Tab Style	

(Optional) Choose a Home Page Custom Link to show as a splash page the first time your users click on this tab.  
Splash Page Custom Link

Enter a short description.

Description

## ● Task

SETUP  
**Tabs**

Edit Custom Object Tab  
**Tasks**

Fill in the fields below to define the custom tab.

**Custom Tab Definition Edit**

**Custom Object Tab Information**

Tab Label	Tasks
Object	Task
Tab Style	

(Optional) Choose a Home Page Custom Link to show as a splash page the first time your users click on this tab.  
Splash Page Custom Link

Enter a short description.

Description

## ● Execution Details

The screenshot shows the 'Edit Custom Object Tab' screen under the 'Tabs' section of the Salesforce Setup. The tab is named 'Execution Details' and is associated with the object 'Execution\_Detail'. The tab style is set to 'Books'. A note indicates that a splash page custom link can be chosen for the first time users click on this tab, currently set to 'None'. A large text area for a short description is empty. At the bottom are 'Save' and 'Cancel' buttons.

## 4. Lightning App Creation

### ●App Name: FoodConnect

The screenshot shows the 'App Details & Branding' section of the Lightning App Builder settings. The app name is 'FoodConnect' and the developer name is also 'FoodConnect'. An image placeholder is present, and the primary color hex value is '#0070D2'. The 'Org Theme Options' checkbox is unchecked. The 'App Launcher Preview' shows a blue square icon with 'Fo' and the text 'FoodConnect'.

## ● Navigation Style: Standard

### Navigation and Form Factor i

#### \* Navigation Style

- Standard navigation
- Console navigation

## ● Navigation Items: Home, Venue, Drop-Off Point, Task, Volunteer, Execution Details, Reports

### Navigation Items

Choose the items to include in the app, and arrange the order in which they appear. Users can personalize the navigation to add or move items, but users can't remove or rename for phone or only for desktop. These items are dropped from the navigation bar when the app is viewed in a format that the item doesn't support.

Available Items

Type to filter list...

<span style="color: #0070C0;">A</span> Accounts
<span style="color: #0070C0;">AT</span> Activation Targets
<span style="color: #0070C0;">A</span> Activations
<span style="color: #0070C0;">AS</span> All Sites
<span style="color: #0070C0;">APM</span> Alternative Payment Methods
<span style="color: #0070C0;">A</span> Analytics
<span style="color: #0070C0;">AL</span> App Launcher
<span style="color: #0070C0;">AC</span> Appointment Categories
<span style="color: #0070C0;">AI</span> Appointment Invitations
<span style="color: #0070C0;">AR</span> Approval Requests
<span style="color: #0070C0;">ASD</span> Approval Submission Details
<span style="color: #0070C0;">AS</span> Approval Submissions
<span style="color: #0070C0;">AWI</span> Approval Work Items

Create ▼

Selected Items

H Home

V Venues

T Tasks

DOP Drop-Off Points

ED Execution Details

V Volunteers

R Reports

D Dashboards

▲▼

● Assigned to: System Administrator profile

User Profiles

Choose the user profiles that can access this app.

Available Profiles

Type to filter list...
Analytics Cloud Integration User
Analytics Cloud Security User
Anypoint Integration
Authenticated Website
Authenticated Website
B2B Reordering Portal Buyer Profile
Contract Manager
Custom: Marketing Profile
Custom: Sales Profile

Selected Profiles

System Administrator



5. Relationship

Fields ● Master-Detail and Lookup Relationships established:

- Volunteer ↔ Drop-Off Point
- Execution Details ↔ Volunteer,
- Drop-Off Point ↔ Venue
- Task ↔ Venue, Drop-Off Point

6. Field Creation in

Objects

Each object is enriched with relevant fields:

● Venue: Contact Email, Phone, Location (Geo), Venue Location (Text Area)

SETUP > OBJECT MANAGER			
Venue			
Details		Fields & Relationships	
Fields & Relationships		8 Items, Sorted by Field Label	
FIELD LABEL	▲ FIELD NAME	DATA TYPE	
Contact Email	Contact_Email_c	Email	
Contact Phone	Contact_Phone_c	Phone	
Created By	CreatedById	Lookup(User)	
Last Modified By	LastModifiedById	Lookup(User)	
Location	Location_c	Geolocation	
Owner	OwnerId	Lookup(User,Group)	
Venue Location	Venue_Location_c	Long Text Area(32768)	
Venue Name	Name	Text(80)	
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			
Scoping Rules			

● Drop-Off Point: Geolocation, Distance Calculation (Formula), State (Picklist)

SETUP > OBJECT MANAGER			
Drop-Off Point			
Details		Fields & Relationships	
Fields & Relationships		9 Items, Sorted by Field Label	
FIELD LABEL	▲ FIELD NAME	DATA TYPE	
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)	
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			

● Task: Distance, Task ID (Auto Number), Date, Food Category (Picklist), Number of People Served, Rating, Feedback, Contact Info

SETUP > OBJECT MANAGER Task		
Details	Fields & Relationships	
Page Layouts	FIELD LABEL	FIELD NAME
Lightning Record Pages	Created By	CreatedById
Buttons, Links, and Actions	Date	Date__c
Compact Layouts	Distance	Distance__c
Field Sets	Drop-Off Point	Drop_Off_Point__c
Object Limits	Feedback	Feedback__c
Record Types	Food Category	Food_Category__c
Related Lookup Filters	Last Modified By	LastModifiedById
Search Layouts	Name of the Person	Name_of_the_Person__c
List View Button Layout	Number of People Served	Number_of_People_Served__c
Restriction Rules	Owner	OwnerId
Scoping Rules	Phone	Phone__c
Object Access		
Triggers		

● Volunteer: Volunteer ID, Gender, Available On, Age, Email, Contact Number, Address, DOB

SETUP > OBJECT MANAGER Volunteer		
Details	Fields & Relationships	
Page Layouts	FIELD LABEL	FIELD NAME
Lightning Record Pages	Address	Address__c
Buttons, Links, and Actions	Age	Age__c
Compact Layouts	Available On	Available_On__c
Field Sets	Contact Number	Contact_Number__c
Object Limits	Created By	CreatedById
Record Types	Date of Birth	Date_of_Birth__c
Related Lookup Filters	Drop-Off Point	Drop_Off_Point__c
Search Layouts	Email	Email__c
List View Button Layout	Execution ID	Execution_ID__c
Restriction Rules	Gender	Gender__c
Scoping Rules	Last Modified By	LastModifiedById
Object Access		
Triggers		

## ● Execution Details: Execution ID (Auto Number)

The screenshot shows the Salesforce Object Manager with the path "SETUP > OBJECT MANAGER". The main title is "Execution Detail". On the left, there's a sidebar with links like Details, Fields & Relationships, Page Layouts, Lightning Record Pages, etc. The main content area is titled "Fields & Relationships" with a subtitle "5 Items, Sorted by Field Label". It contains a table with columns: FIELD LABEL, FIELD NAME, and DATA TYPE.

FIELD LABEL	FIELD NAME	DATA TYPE
Created By	CreatedById	Lookup(User)
Execution Detail Name	Name	Text(80)
Last Modified By	LastModifiedById	Lookup(User)
Task	Task_c	Master-Detail(Task)
Volunteer	Volunteer_c	Master-Detail(Volunteer)

## 7. Flow Implementation

### ● Screen Flow to createVenu records

e

#### Frequently Used



##### Screen Flow

Guides users through a business process that's launched from Lightning pages, Experience Cloud sites, quick actions, an...

- Captures Venue details (name, contact, location)

Edit Screen

Venue Form

Venue Name  
email  
Phone  
Venue Location

**Components**

Search components...

Input (53)

- Action Button
- Add Attendees
- Address
- Call Script
- Cancel Appointment
- Checkbox
- Checkbox Group
- Choice Lookup
- Currency
- Data Table
- Date

Get more on the AppExchange

**Screen Properties**

A Properties

\*Label:

\*API Name:

Description:

Stage: Select a stage resource...

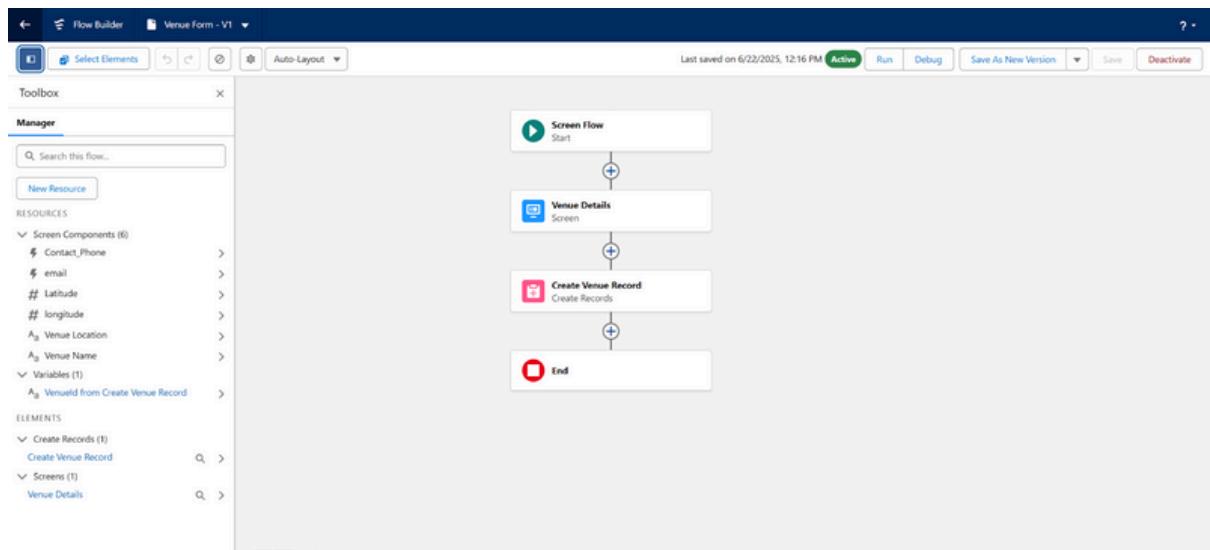
> Configure Header

> Configure Footer

Preview Size: Large

Cancel Done

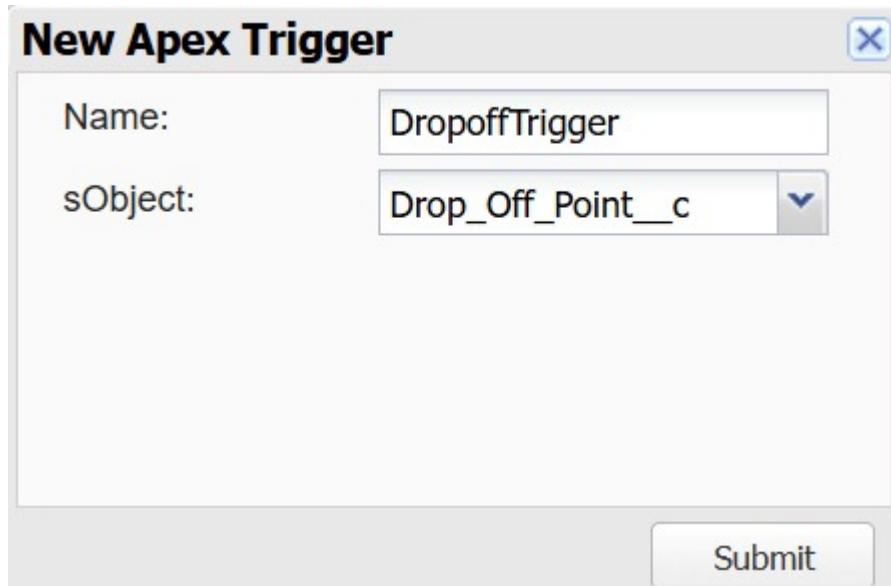
- Saves data to Venue object



## 8. Trigger Implementation

● Trigger Name: DropOffTrigger

● Object: Drop-Off Point



● Logic: **distance\_calculation\_\_c** to **Distance\_\_c**

Copies before  
insert.

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

apex CopyEdit

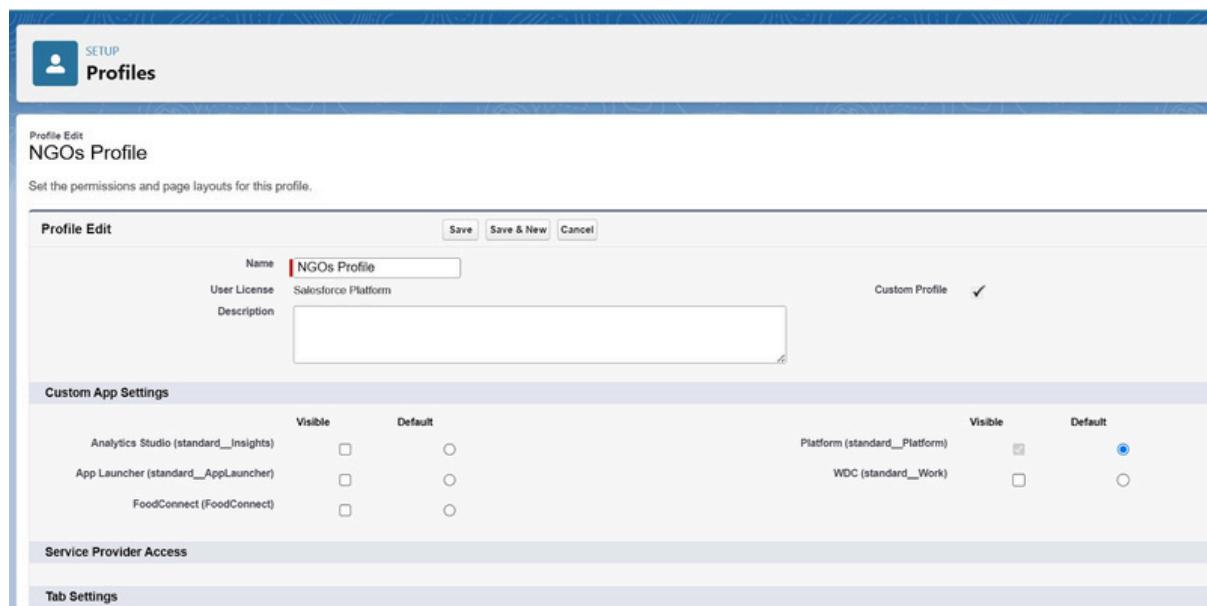
```
trigger DropOffTrigger on Drop_Off_point__c (before insert) {
```

```
    for(Drop_Off_point__c Drop : Trigger.new){  
  
        Drop.Distance__c =  
        Drop.distance_calculation__c;  
  
    }  
  
}
```

## 9. User and Profile

### Management

- Created custom Profile: NGOs Profile



The screenshot shows the 'Profiles' section of the Salesforce Setup. A new profile, 'NGOs Profile', is being created. The profile details are as follows:

- Name:** NGOs Profile
- User License:** Salesforce Platform
- Description:** (Empty text area)
- Custom Profile:** Checked

Under the 'Custom App Settings' section, the following settings are shown:

	Visible	Default
Analytics Studio (standard__Insights)	<input type="checkbox"/>	<input checked="" type="radio"/>
App Launcher (standard__AppLauncher)	<input type="checkbox"/>	<input checked="" type="radio"/>
FoodConnect (FoodConnect)	<input type="checkbox"/>	<input checked="" type="radio"/>
Platform (standard__Platform)	<input checked="" type="checkbox"/>	<input type="radio"/>
WDC (standard__Work)	<input type="checkbox"/>	<input checked="" type="radio"/>

Below these sections are 'Service Provider Access' and 'Tab Settings'.

## ● Created multiple Users (NGO representatives)

**Iksha Foundation Iksha\_Foundation**

User Edit		Save	Save & New	Cancel
<b>General Information</b>				
First Name	Iksha Foundation			
Last Name	Iksha_Foundation			
Alias	iiksh			
Email	mummidiipraveen178@gma			
Username	ikshafoundation178@sb.co			
Nickname	User175040659182532044			
Title				
Company				
Department				
Division				
Role	<None Specified>			
User License	Salesforce Platform			
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"/>			

**NSS NSS**

User Edit		Save	Save & New	Cancel
<b>General Information</b>				
First Name	NSS			
Last Name	NSS			
Alias	nsss			
Email	mummidiipraveen178@gma			
Username	nss178@sb.com			
Nickname	User175041641535847070			
Title				
Company				
Department				
Division				
Role	<None Specified>			
User License	Salesforce Platform			
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"/>			

**Street Cause Street\_Cause**

User Edit		Save	Save & New	Cancel
<b>General Information</b>				
First Name	Street Cause			
Last Name	Street_Cause			
Alias	sstre			
Email	mummidiipraveen178@gma			
Username	streetcause178@sb.com			
Nickname	User175041682998526099			
Title				
Company				
Department				
Division				
Role	<None Specified>			
User License	Salesforce Platform			
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"/>			

- Created corresponding Public Groups (e.g., Iksha, NSS, Street Cause)

The screenshot shows the 'Public Groups' page in the Salesforce setup. At the top, there's a blue header bar with a user icon and the word 'SETUP'. Below it, a sub-header says 'Public Groups'. The main content area has a title 'Public Groups' and a brief description: '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 assigned to a specific profile.' Below this is a 'View' dropdown set to 'All' and a 'New' button. A table lists three groups:

Action	Label ↑	Group Name	Created By
Edit   Del	<a href="#">Iksha</a>	<a href="#">Iksha</a>	<a href="#">Team, Praveen Kumar</a>
Edit   Del	<a href="#">NSS</a>	<a href="#">NSS</a>	<a href="#">Team, Praveen Kumar</a>
Edit   Del	<a href="#">Street Cause</a>	<a href="#">Street_Cause</a>	<a href="#">Team, Praveen Kumar</a>

## 10. Reports and Dashboards

Custom ReportTypes created:

- Venue with Drop-Off and Volunteer
- Volunteers with Execution Details and

The screenshot shows the 'Custom Report Types' page for a report named 'Drop-Off Points with Volunteers with Execution Details'. At the top, there's a blue header bar with a gear icon and the word 'SETUP'. Below it, a sub-header says 'Custom Report Types'. The main content area has a title 'Drop-Off Points with Volunteers with Execution Details' and a note: 'Below is the information for this custom report type. You can click the buttons on this to preview or update information for the custom report type.' To the right are buttons for 'Preview Layout', 'Edit Layout', 'Clone', 'Delete', and 'Close'. The page is divided into two main sections: 'Details' and 'Object Relationships'.

**Details**

Display Label	Drop-Off Points with Volunteers with Execution Details
API Name	Drop_Off_Points_with_Volunteers_with_Execution_Details
Description	Drop-Off Points with Volunteers with Execution Details
Created By	Praveen Kumar Team, 6/18/25, 11:01 PM
Store in Category	other
Deployment Status	Deployed
Modified By	Praveen Kumar Team, 6/18/25, 11:01 PM

**Object Relationships**

Diagram illustrating relationships between objects:

```

graph TD
    A((A)) --- B((B))
    B --- C((C))
    C --- A
    style A fill:#0070C0,stroke:#00569A,color:#fff
    style B fill:#FF9933,stroke:#D98C00,color:#fff
    style C fill:#3CB371,stroke:#3CB371,color:#fff
    
```

Below the diagram, there are two columns: 'Source Object' and 'Included Fields'.

**SETUP** Custom Report Types

Venue with DropOff with Volunteer

Below is the information for this custom report type. You can click the buttons on this to preview or update information for the custom report type.

Preview Layout Edit Layout Clone Delete Close

**Details**

Display Label	Venue with DropOff with Volunteer
API Name	Venue_with_DropOff_with_Volunteer
Description	Venue with DropOff with Volunteer
Created By	Praveen Kumar Team, 6/20/25, 4:50 PM
Store in Category	other
Deployment Status	Deployed
Modified By	Praveen Kumar Team, 6/20/25, 4:50 PM

**Fields**

Source Object	Included Fields
Venues	13

**Object Relationships**

Venues (A)

with or without related records from Drop-Off Points (B)

with or without related records from Volunteers (C)

- Reports grouped by relevant fields (e.g., Volunteer ID,
- **Dashboards:** Created using custom reports with charts and tables

**Dashboard** Task Execution Details

As of Jun 26, 2025, 7:30 AM · Viewing as Praveen Kumar Team

### venue and Drop Off point

Venue Name ↑	Drop-Off Point Name	Distance
Aditya Degree College	Ooty	5.6602k
Aditya Degree College	YSR Bridge	6.0237k
Gandhi Nagar Park	-	-
GRT Hotel	-	-
Ideal Institute of Technology	JNTUK	5.2358k
Rathna Recidency	Jaganadhapuram	6.0237k
Royal Park	RMC Ground	6.9072k

**View Report (venue and Drop Off point)** As of Jun 26, 2025, 7:30 AM

11. Sharing  
Rules  
Based on Distance  
criteria:

Drop-Off Point Sharing Rules		New	Recalculate
Action	Criteria	Shared With	
Edit   Del	(Drop-Off Point: Distance LESS THAN 15)		Group: Iksha
Edit   Del	(Drop-Off Point: Distance GREATER THAN 15) AND (Drop-Off Point: Distance LESS OR EQUAL 30)		Group: NSS
Edit   Del	(Drop-Off Point: Distance GREATER THAN 30) AND (Drop-Off Point: Distance LESS OR EQUAL 50)		Group: Street Cause

<15 km → Group Iksha

15–30 km →

~~NSS~~ 30 km → Street

Cause

12. Home Page

Customization

● Created a Lightning Home Page via Lightning App Builder

\* Label

\* API Name

\* Page Type

Template

Description

## ● Components

includes:

Embedded Flow (Venue Form)



○ Dashboard view



A screenshot of the Lightning App Builder interface. The top navigation bar shows 'Lightning App Builder' and 'HOME Page'. The left sidebar is titled 'Components' and lists 'Standard (43)' components, including Accordion, App Launcher, Assistant, Cdp Metrics Overview, Chatter Feed, Chatter Publisher, CRM Analytics Collection, CRM Analytics Dashboard, Dashboard, Data Mask Console Home Component, Einstein Next Best Action, Flow, Flow App Home cards, Generate Batch Documents, Inventory Lookup Component, Items to Approve, and Key Deals. The main canvas displays a 'Task Execution Details' card and a 'Flow Component: Venue Form' placeholder. The right side shows configuration fields for a 'Page': 'Label' (HOME Page), 'API Name' (HOME\_Page), 'Page Type' (Home Page), 'Template' (Standard Home Page), and 'Description'.

## 7. FUNCTIONAL AND PERFORMANCE TESTING

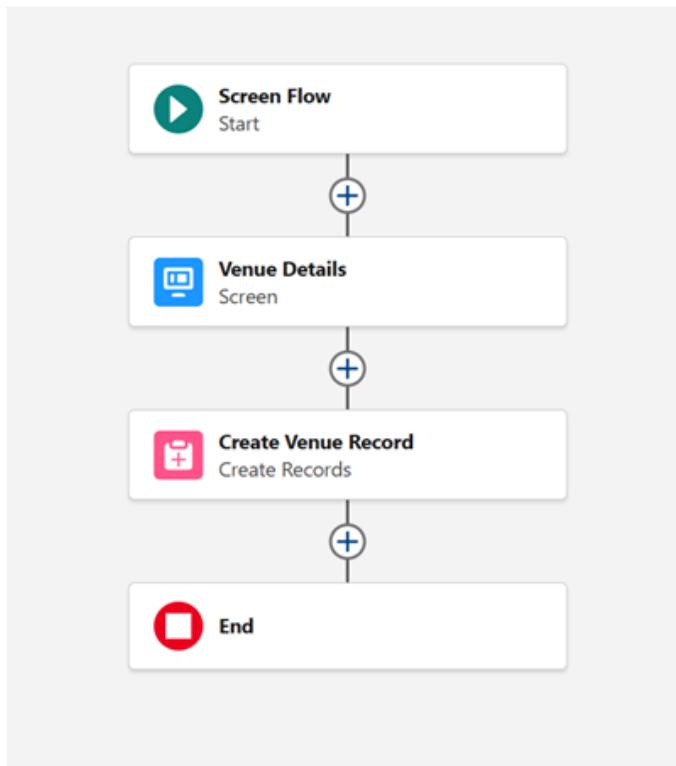
Testing

Performance

## Flow Load Time

The objective is to measure how long it takes to load and submit the Venue Flow form using various data inputs.

The goal is to ensure that the response time stays under 2 seconds.



## Data Load in Reports

Complex reports such as those involving Volunteers with Execution Details and Tasks are tested for performance.

These reports should load in under 5 seconds.

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

Total Records    Total Distance  
8                    37,736.3335

<input type="checkbox"/> Volunteer Name ↑ ↓	Venue Name	Drop-Off Point Name	Distance
<input type="checkbox"/> - (4)	Yati Restaurant	Mysore	7,885.6251
	Aditya Degree College	YSR Bridge	6,023.7478
	GRT Hotel	-	-
	Gandhi Nagar Park	-	-
<b>Subtotal</b>			13,909.3729
<input type="checkbox"/> Abhinav (1)	Ideal Institute of Technology	JNTUK	5,235.8486
<b>Subtotal</b>			5,235.8486
<input type="checkbox"/> Praveen Kumar (1)	Royal Park	RMC Ground	6,907.1915
<b>Subtotal</b>			6,907.1915
<input type="checkbox"/> Renuka (1)	Aditya Degree College	Ooty	5,660.1727
<b>Subtotal</b>			5,660.1727
<input type="checkbox"/> Subramanyam (1)	Rathna Recidency	Jaganadhapuram	6,023.7478
<b>Subtotal</b>			6,023.7478
<b>Total (8)</b>			37,736.3335

## Dashboard Rendering

The performance test involves opening the 'Task Execution Details' dashboard which contains multiple components.

The system should fully render the dashboard within 3 to 4 seconds.

Dashboard  
**Task Execution Details**

As of Jun 26, 2025, 7:30 AM | Viewing as Praveen Kumar Team

Refresh Edit Subscribe

**venue and Drop Off point**

Venue Name ↑	Drop-Off Point Name	Distance
Aditya Degree College	Ooty	5.6602k
Aditya Degree College	YSR Bridge	6.0237k
Gandhi Nagar Park	-	-
GRT Hotel	-	-
Ideal Institute of Technology	JNTUK	5.2359k
Rathna Recidency	Jaganadhapuram	6.0231k
Royal Park	RMC Ground	6.9072k

[View Report \(venue and Drop Off point\)](#)    As of Jun 26, 2025, 7:30 AM

**Volunteer Task**

[View Report \(Volunteer Task\)](#)    As of Jun 26, 2025, 7:30 AM

As of Jun 26, 2025, 7:30 AM

## Sharing Rule Processing

This is tested by evaluating any delay in access propagation following rule updates.

The goal is to ensure that rule enforcement occurs within a few seconds.

The screenshot shows a user interface titled "Drop-Off Point Sharing Rules". At the top right are "New" and "Recalculate" buttons. Below is a table with two columns: "Action" and "Criteria". There are three rows in the table:

Action	Criteria
Edit   Del	(Drop-Off Point: Distance LESS THAN 15)
Edit   Del	(Drop-Off Point: Distance GREATER THAN 15) AND (Drop-Off Point: Distance LESS OR EQUAL 30)
Edit   Del	(Drop-Off Point: Distance GREATER THAN 30) AND (Drop-Off Point: Distance LESS OR EQUAL 50)

## Concurrent Access

This testing simulates multiple NGOs accessing Drop-Off records at the same time.

The system should demonstrate stability by maintaining record visibility without any slowdowns or crashes.

## Trigger Execution Time

The trigger DropOffTrigger, which assigns Distance values during record insertion, is measured.

This trigger should execute instantly, completing within milliseconds before the record is saved.

The screenshot shows a code editor window with the title bar "File ▾ Edit ▾ Debug ▾ Test ▾ Workspace ▾ Help ▾ < >" and the tab "DropOffTrigger.apxt". The API Version is set to 64. The code in the editor is:

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

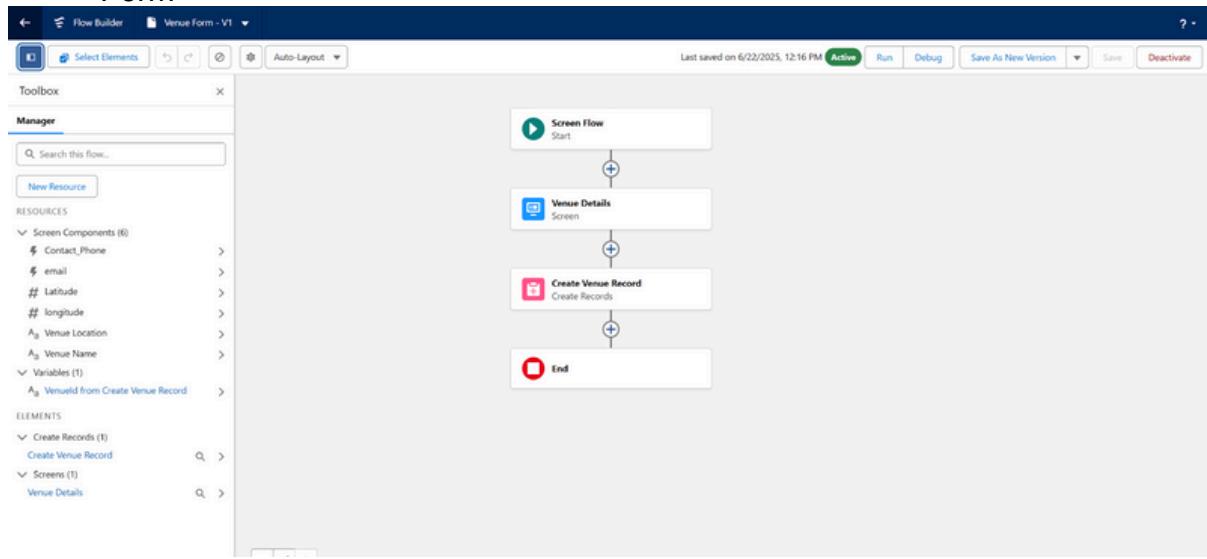
## 8. RESULTS

### 8.1 Output

#### Screenshots

(Suggested  
screenshots)

#### Flow Designer screen for Venue Form



#### Venue Form

Venue Name

email

Phone

Venue Location

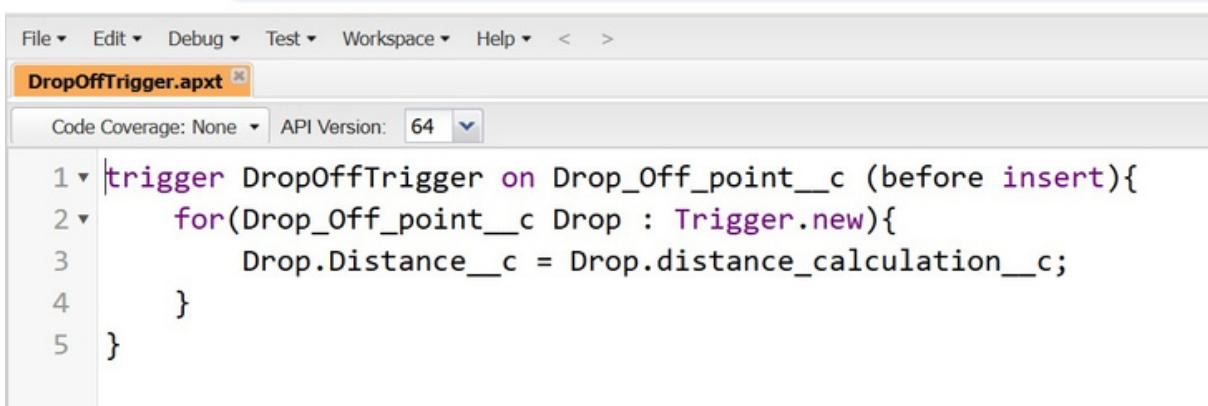
Latitude

longitude

Next

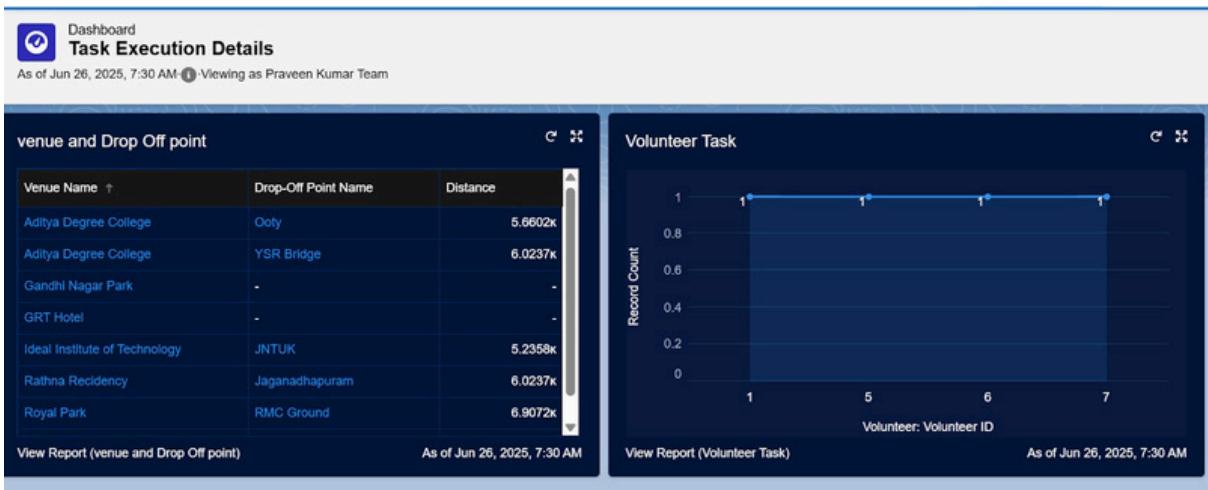
- Trigger test output

Automatically filled `Distance__c` field during Drop-Off Point record creation

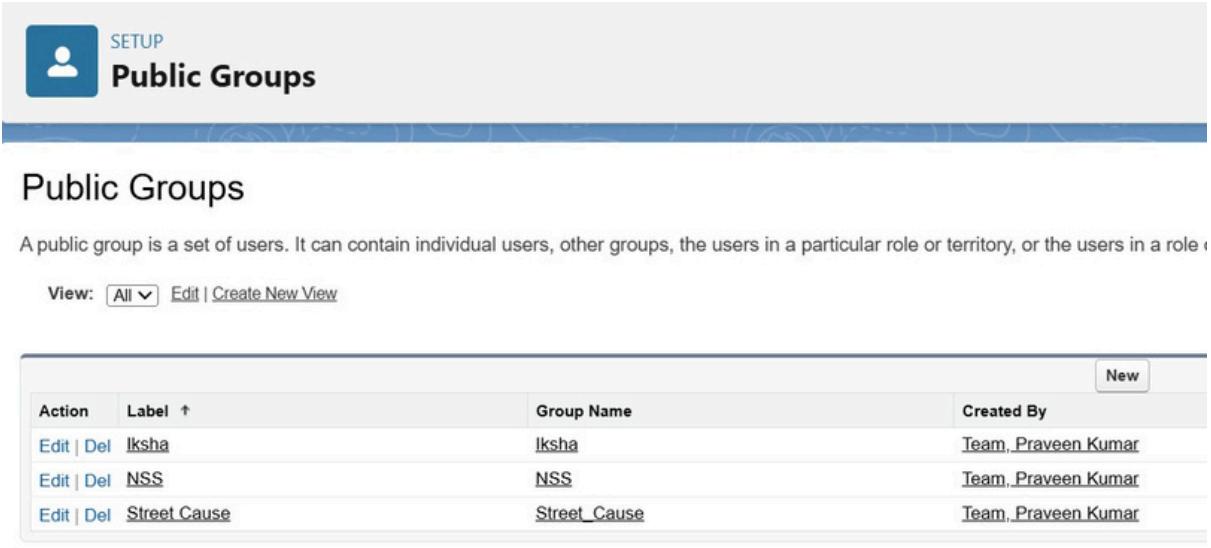


```
trigger DropOffTrigger on Drop_Off_point__c (before insert){  
    for(Drop_Off_point__c Drop : Trigger.new){  
        Drop.Distance__c = Drop.distance_calculation__c;  
    }  
}
```

- Dashboards with line charts and tables



## ● Public Group and Sharing Settings



The screenshot shows the 'Public Groups' setup page. At the top, there's a 'SETUP' icon and the title 'Public Groups'. Below the title, it says 'Public Groups' and defines them as a set of users. A dropdown menu 'View: All' is shown, along with 'Edit | Create New View'. A table lists three groups:

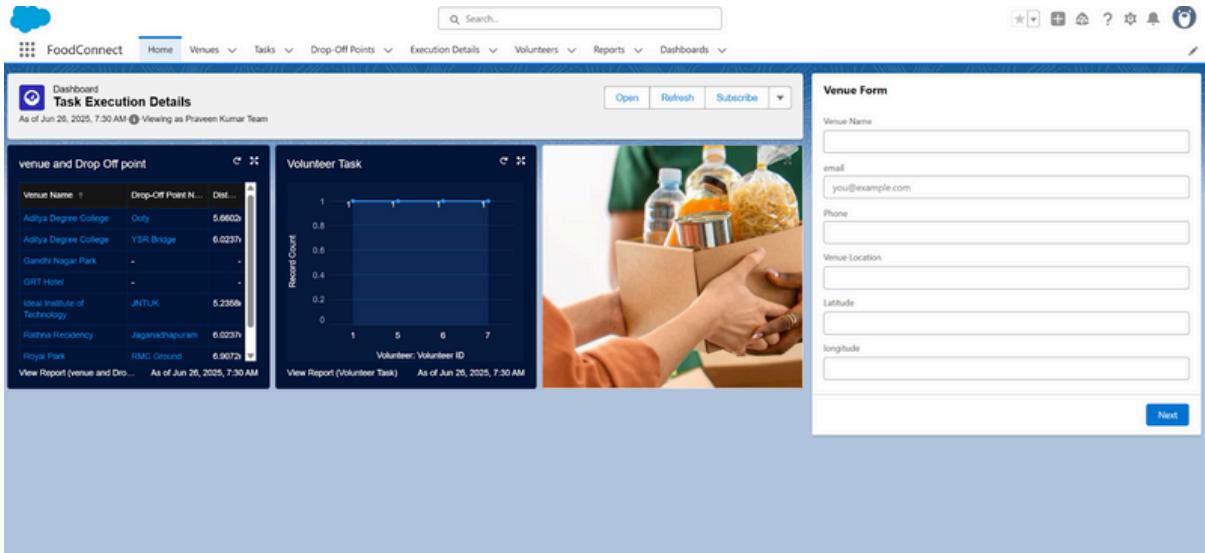
Action	Label	Group Name	Created By
Edit   Del	<a href="#">Iksha</a>	<a href="#">Iksha</a>	<a href="#">Team, Praveen Kumar</a>
Edit   Del	<a href="#">NSS</a>	<a href="#">NSS</a>	<a href="#">Team, Praveen Kumar</a>
Edit   Del	<a href="#">Street_Cause</a>	<a href="#">Street_Cause</a>	<a href="#">Team, Praveen Kumar</a>


The screenshot shows the 'Drop-Off Point Sharing Rules' configuration page. It includes a 'New' button and a 'Recalculate' button. The table lists rules for sharing drop-off points:

Action	Criteria	Shared With
Edit   Del	Drop-Off Point: Distance LESS THAN 15	Group: Iksha
Edit   Del	(Drop-Off Point: Distance GREATER THAN 15) AND (Drop-Off Point: Distance LESS OR EQUAL 30)	Group: NSS
Edit   Del	(Drop-Off Point: Distance GREATER THAN 30) AND (Drop-Off Point: Distance LESS OR EQUAL 50)	Group: Street_Cause

## ● Home page preview



The screenshot shows the FoodConnect home page. At the top, there's a navigation bar with links like Home, Venues, Tasks, Drop-Off Points, Execution Details, Volunteers, Reports, and Dashboards. The main area has two cards: 'Task Execution Details' and 'Volunteer Task'. The 'Task Execution Details' card shows a table of venues and drop-off points, and a chart of record counts. The 'Volunteer Task' card shows a photo of hands holding a box of supplies. To the right, there's a 'Venue Form' with fields for Venue Name, email, phone, venue location, latitude, and longitude. Buttons for 'Open', 'Refresh', 'Subscribe', and 'Next' are also present.

## 9. ADVANTAGES & DISADVANTAGES

### Advantages

#### 1. Centralized and Scalable System

- All entities (Venue, Volunteer, Drop-Off Points, etc.) are integrated into one system.
- Easy to scale by adding new custom objects or fields.

#### 2. Efficient Data Management

- Use of custom objects and relationship fields ensures structured and relational data storage.

- Supports advanced reporting, data linking, and analytics.

#### 3. Automated Workflows

- Flows and Triggers automate data input and background operations (e.g., distance calculations).
- Reduces manual errors and saves time.

#### 4. Role-Based Access & Sharing

- Profiles and Groups ensure controlled access to data.
- Public Groups provide location-based access, improving data security.

Collaboration and

#### 5. Visual Dashboards & Reports

- Real-time, dynamic reports and dashboards provide stakeholders with actionable insights.
- Enhances monitoring, transparency, and decision-making.

#### 6. Volunteer and NGO Coordination

- Tracks execution details, volunteers, tasks, and beneficiaries—crucial for impact measurement.
- Allows multiple NGOs to operate under a shared system.

## 7. Custom Home

Page

- Personalized dashboards and forms improve visibility.
- Visual elements enhance user experience and engagement.

## Disadvantage

### 1. Complex Setup

- Requires technical knowledge of Salesforce (Objects, Triggers, Flows, App Builder).
- Configuration is time-consuming and detail-oriented.

### 2. Limited Offline Access

- Salesforce is cloud-based—reliable internet is required for rural or remote areas with poor connectivity.

### 3. Learning Curve

- Non-technical users (NGO staff/volunteers) may struggle with custom UI, dashboards, or flow screens.
- Requires training and support.

### 4. Cost Consideration (for Production Use)

- Though development is on a free Developer Org , actual deployment may require Salesforce licenses , which can be expensive for NGOs.

## 5. Dependence on Customization

- Heavy reliance on custom fields, tabs, and
- Changes to business logic require ongoing Salesforce admin or developer support.

## 6. Limited Mobile Optimization

- Unless specifically optimized, flows and dashboards may not work well on mobile devices.
- Reduces field usability (for mobile-based task updates, feedback, etc.).

## 10. CONCLUSION

The FoodConnect Salesforce project effectively demonstrates how cloud-based CRM tools like Salesforce can be adapted to solve real-world social issues—specifically, the challenge of managing surplus food and ensuring its timely delivery to the underprivileged.

By leveraging custom objects, flows, triggers, dashboards , and role-based access ,

the

system enables NGOs to coordinate volunteers, track logistics, monitor performance, and share responsibilities transparently and efficiently.

Despite the initial complexity and technical learning curve , the system provides a robust, scalable, and centralized solution for managing food donations, ensuring no food goes to waste and that it reaches those who need it the most.

With further enhancements—like mobile accessibility , automation , and integration

with FUTURE

SCOPE External services —this solution has strong potential to become a sustainable digital platform for tackling food insecurity at scale.

## I. Mobile Application Integration

- Develop a mobile app for volunteers and NGOs to:
  - Log tasks

- Update delivery
  - Status
- Increases accessibility in remote or low-connectivity areas.

## 2. Integration with External Platforms

- Integrate with food providers, restaurants, and supermarket chains for surplus real-time data.
- Google Maps or GPS APIs for accurate geolocation and optimized routes.
- Payment gateways (if logistics costs need recovery).

## 3. Automation & AI Recommendations

- Einstein AI to:  
Use (Salesforce)
  - Recommend nearest drop-off
  - Optimize volunteer-task assignments
  - Predict spoilage risks or demand surges

## 4. Multi-Language and Regional Support

- Add support for regional languages and locale-specific data.
  - Reach NGOs and beneficiaries in various states across India or globally.

## 5. Advanced Analytics & Impact Reports

- Deeper analytics

on:

- Number of people

- Wasted

- Region-wise

- General performance impact reports for donors and stakeholders.

e

## 6. Enhanced Security and Compliance

● Implement audit trails, encryption, and GDPR compliance for donor/volunteer

- Assign data access levels and enable activity logging.

## 7. Gamification for Volunteer Engagement

● Use badges, scores, or leaderboards to motivate volunteers.

- Encourage competition and recognition across NGOs.

## 8. Expansion to Other Causes

● Extend the same Salesforce model to:

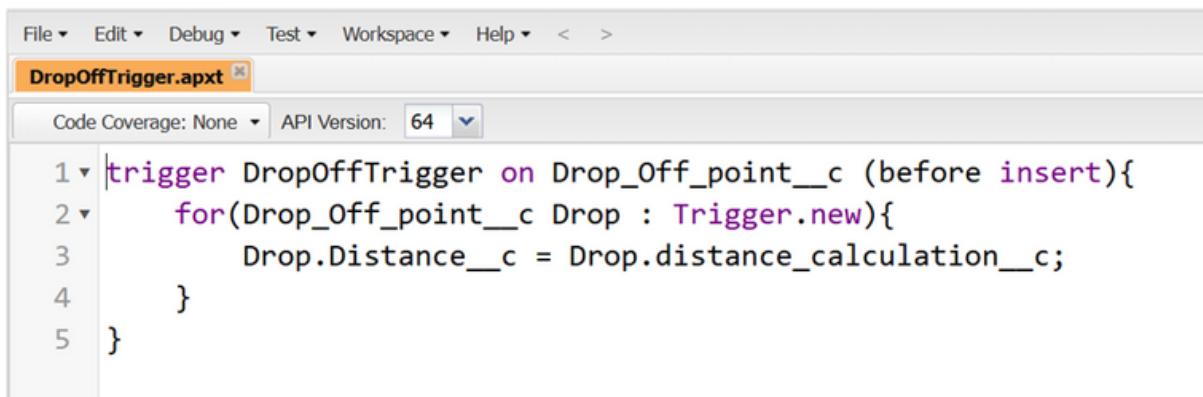
- Clothing drives

- Blood donation

- Disposal logistics

## 12. APPENDIX

- Source : Apex Trigger DropOffTrigger  
Code -



The screenshot shows the Salesforce IDE interface with the following details:

- File menu: File, Edit, Debug, Test, Workspace, Help.
- Toolbar: Standard icons for file operations.
- Tab bar: DropOffTrigger.apxt (highlighted in orange).
- Header bar: Code Coverage: None, API Version: 64.
- Code editor:

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