

Supply Left Over Food To Poor

College Name : IDEAL INSTITUTE OF TECHNOLOGY

Team ID : LTVIP2025TMID31177

Team Members:

1. Team Leader: Mummidi Veera Venkata Durga Praveen Kumar

Email : mummidipraveen178@gmail.com

2. Team Member: Kadamati Renuka Sai Sri

Email : renukakadamati@gmail.com

3. Team Member: Karri Abhinav Sai

Email : Abhinavsai.K26@gmail.com

4. Team Member: Kondipudi Durga Subrahmanyam

Email : Subbukondipudi987@gmail.com

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 wastage 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

Venue → 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 Fit

The design addresses NGO coordination issues and food delivery tracking by automating workflows in Salesforce.

4.2 Proposed Solution

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

4.3 Solution Architecture

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

5. PROJECT PLANNING & SCHEDULING

5.1 Project Planning

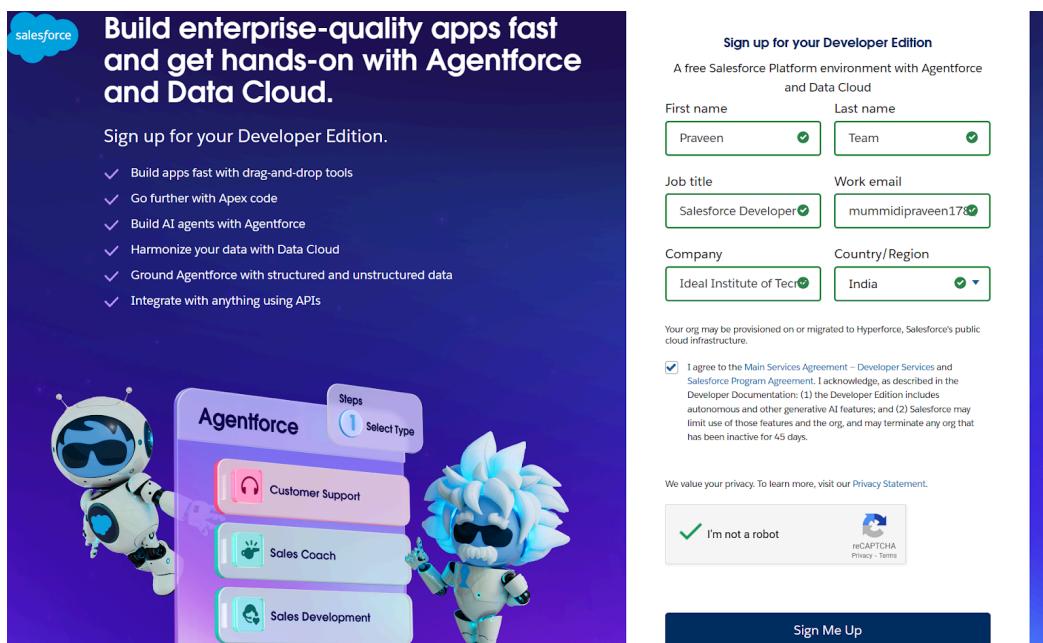
- Week 1: Developer account setup, Object creation
- Week 2: Relationships and fields
- Week 3: Flows, Reports, Dashboards
- Week 4: Trigger development, Sharing rules, Testing

6. Development Phase – Salesforce Guided Project

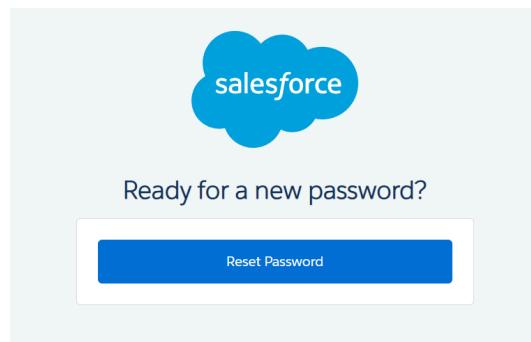
The Development Phase of the given Salesforce project involves building the complete data structure, user interface, business logic, and reporting mechanisms within Salesforce. Here's a structured summary extracted from the document:

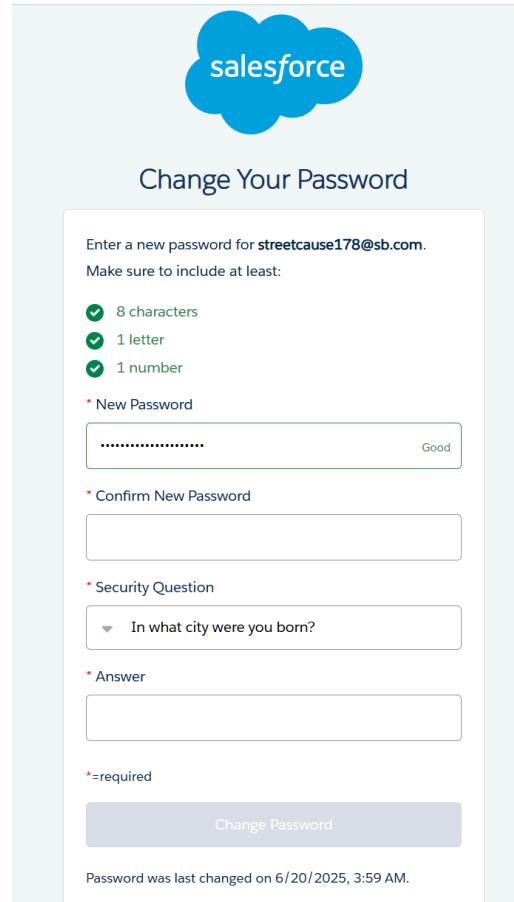
1. Developer Environment Setup

- Create Salesforce Developer Org via developer.salesforce.com/signup



- 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:

- **Venue**

● Drop-Off Point

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

- Name:** Drop-Off Point
- 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 with the 'Object Manager' tab selected. A new custom object is being created with the following details:

- Name:** Task
- 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 Salesforce Setup interface with the 'Object Manager' selected. Under 'SETUP > OBJECT MANAGER', the 'Volunteer' object is selected. The left sidebar lists various configuration options: 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 panel displays the 'Edit Custom Object Volunteer' screen. It includes a 'Custom Object Definition Edit' section with 'Save', 'Save & New', and 'Cancel' buttons. The 'Custom Object Information' section contains fields for 'Label' (Volunteer), 'Plural Label' (Volunteers), and 'Example' fields for Account and Accounts. A checkbox for 'Starts with vowel sound' is unchecked. The 'Object Name' field is set to 'Volunteer' with an example of 'Account'. A 'Description' text area is present but empty. Under 'Context-Sensitive Help Setting', the radio button for 'Open the standard Salesforce.com Help & Training window' is selected. The 'Content Name' dropdown is set to '--None--'.

● Execution Details

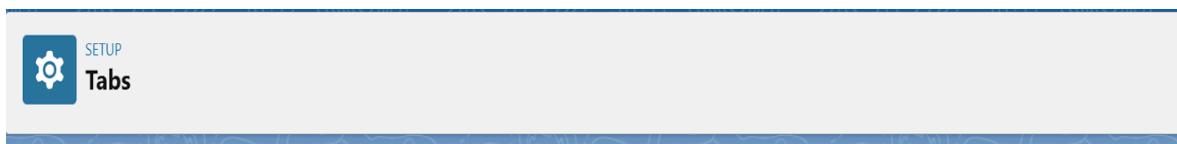
The screenshot shows the Salesforce Setup interface with the 'Object Manager' selected. Under 'SETUP > OBJECT MANAGER', the 'Execution Detail' object is selected. The left sidebar lists various configuration options: Details, Fields & Relationships, Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, Related Lookup Filters, Search Layouts, List View Button Layout, and Restriction Rules. The main panel displays the 'Edit Custom Object Execution Detail' screen. It includes a 'Custom Object Definition Edit' section with 'Save', 'Save & New', and 'Cancel' buttons. The 'Custom Object Information' section contains fields for 'Label' (Execution Detail), 'Plural Label' (Execution Details), and 'Example' fields for Account and Accounts. A checkbox for 'Starts with vowel sound' is unchecked. The 'Object Name' field is set to 'Execution_Detail' with an example of 'Account'. A 'Description' text area is present but empty. Under 'Context-Sensitive Help Setting', the radio button for 'Open the standard Salesforce.com Help & Training window' is selected. The 'Content Name' dropdown is set to '--None--'.

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:



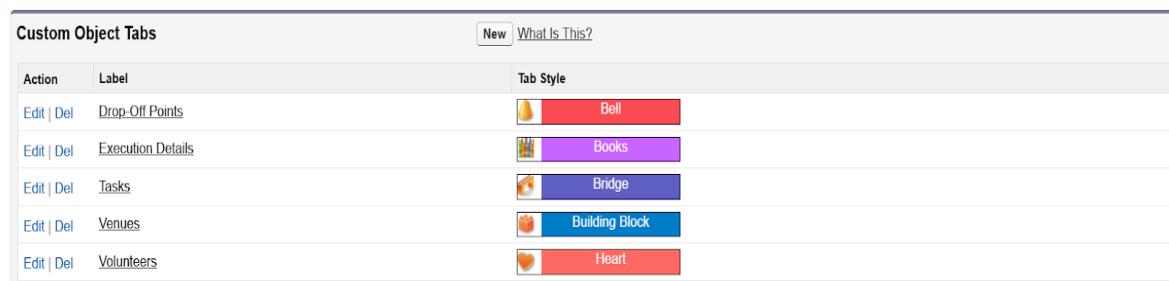
The screenshot shows the 'Tabs' section under 'SETUP'. It lists several custom tabs for different objects:

Action	Label	Tab Style
Edit Del	Drop-Off Points	Bell
Edit Del	Execution Details	Books
Edit Del	Tasks	Bridge
Edit Del	Venues	Building Block
Edit Del	Volunteers	Heart

Custom Tabs

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

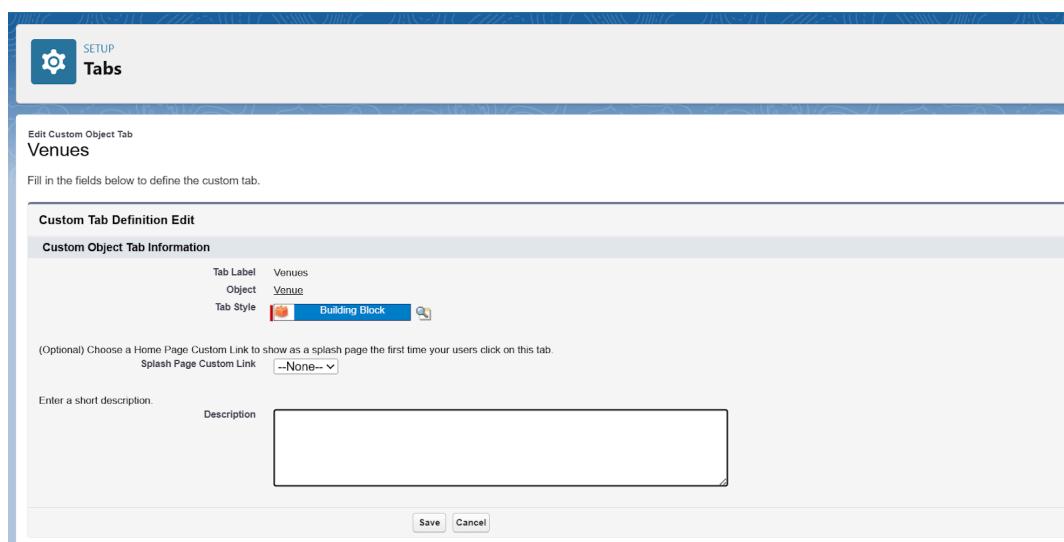
Custom Object tabs look and behave like the standard tabs provided with Salesforce. Web tabs allow you to embed external web applications and content within the Salesforce window. Visualforce t Component tabs allow you to add Lightning components to the navigation menu in Lightning Experience and the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



The screenshot shows the 'Custom Object Tabs' page for the 'Venues' object. It lists five tabs:

Action	Label	Tab Style
Edit Del	Drop-Off Points	Bell
Edit Del	Execution Details	Books
Edit Del	Tasks	Bridge
Edit Del	Venues	Building Block
Edit Del	Volunteers	Heart

- **Venue**



The screenshot shows the 'Edit Custom Object Tab' page for the 'Venues' object. It includes fields for tab label ('Venues'), object ('Venue'), tab style ('Building Block'), splash page custom link ('None'), and a description area.

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: [Empty text area]

Save Cancel

- **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

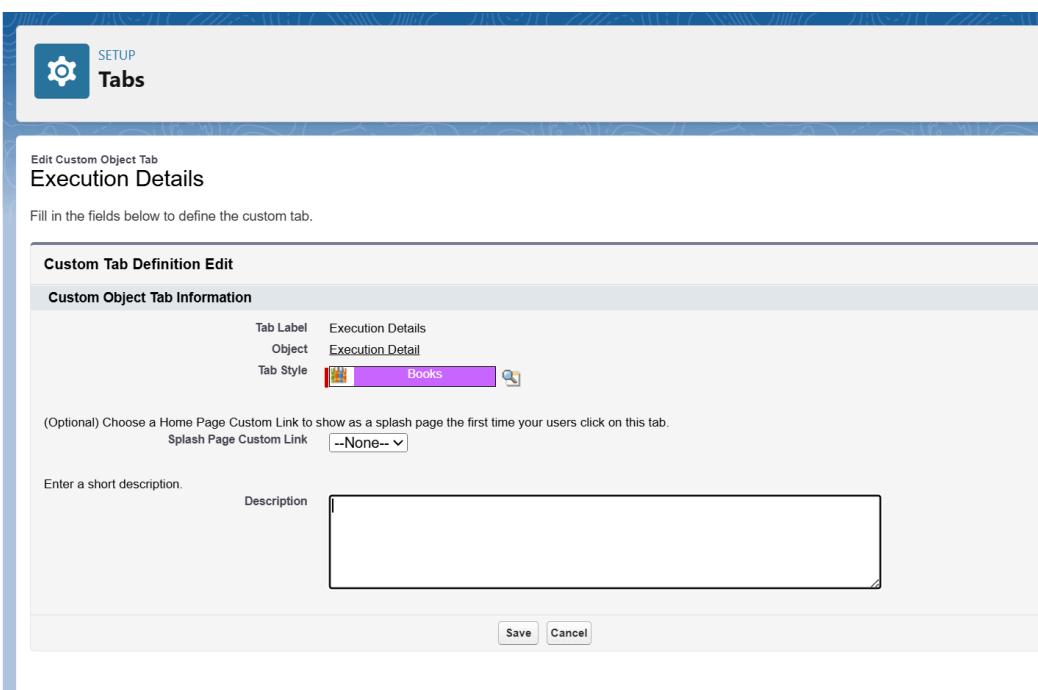
Tab Label	Tasks
Object	Task
Tab Style	

(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.

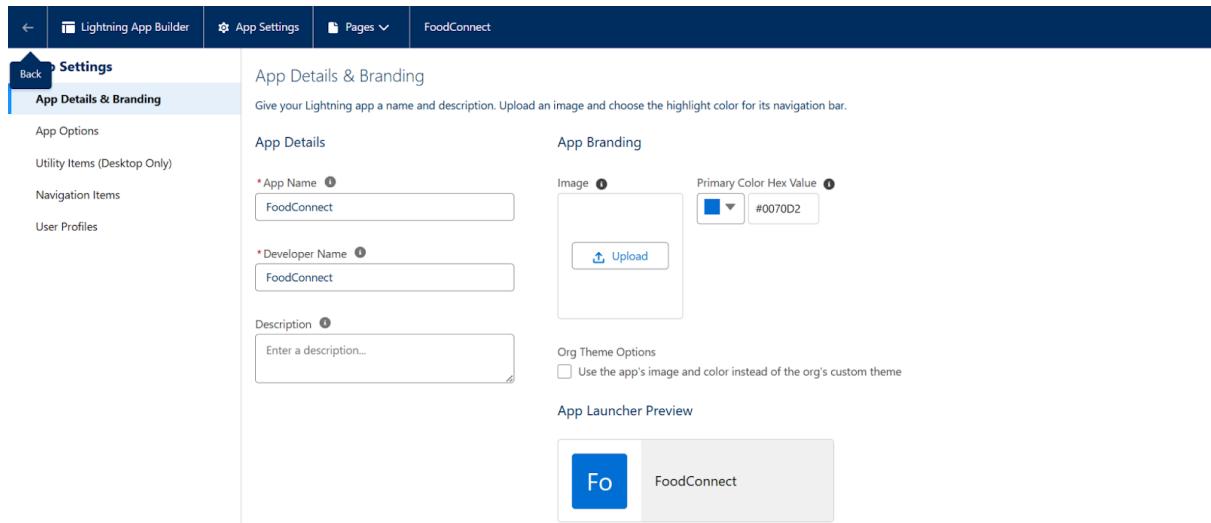
Description

● Execution Details



4. Lightning App Creation

● App Name: *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

Create ▾

- Accounts
- Activation Targets
- Activations
- All Sites
- Alternative Payment Methods
- Analytics
- App Launcher
- Appointment Categories
- Appointment Invitations
- Approval Requests
- Approval Submission Details
- Approval Submissions
- Approval Work Items

Selected Items

- Home
- Venues
- Tasks
- Drop-Off Points
- Execution Details
- Volunteers
- Reports
- 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, Task
 - 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
Page Layouts	Contact Email	Contact_Email__c	Email
Lightning Record Pages	Contact Phone	Contact_Phone__c	Phone
Buttons, Links, and Actions	Created By	CreatedBy	Lookup(User)
Compact Layouts	Last Modified By	LastModifiedBy	Lookup(User)
Field Sets	Location	Location_c	Geolocation
Object Limits	Owner	OwnerId	Lookup(User,Group)
Record Types	Venue Location	Venue_Location__c	Long Text Area(32768)
Related Lookup Filters	Venue Name	Name	Text(80)
Search Layouts			
List View Button Layout			
Restriction Rules			
Scoping Rules			

- **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
Page Layouts	Created By	CreatedBy	Lookup(User)
Lightning Record Pages	Distance	Distance_c	Number(14, 4)
Buttons, Links, and Actions	distance calculation	distance_calculation_c	Formula (Number)
Compact Layouts	Drop-Off Point Name	Name	Text(80)
Field Sets	Last Modified By	LastModifiedBy	Lookup(User)
Object Limits	Location 2	Location_2_c	Geolocation
Record Types	Owner	OwnerId	Lookup(User,Group)
Related Lookup Filters	State	State_c	Picklist
Search Layouts	Venue_c	Venue_c	Lookup(Venue)
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

Fields & Relationships		
15 Items, Sorted by Field Label		
FIELD LABEL	FIELD NAME	DATA TYPE
Created By	CreatedById	Lookup(User)
Date	Date_c	Date
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(16)
Number of People Served	Number_of_People_Served_c	Number(18, 0)
Owner	OwnerId	Lookup(User,Group)
Phone	Phone_c	Phone
		Picklist

<https://xxfarm.B6B8d0f3h-dev-ed.lightning.force.com/salesforce/setup/ObjectManager/>

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

SETUP > OBJECT MANAGER
Volunteer

Fields & Relationships		
14 Items, Sorted by Field Label		
FIELD LABEL	FIELD NAME	DATA TYPE
Address	Address_c	Long Text Area(32768)
Age	Age_c	Number(18, 0)
Available On	Available_On_c	Date
Contact Number	Contact_Number_c	Number(18, 0)
Created By	CreatedById	Lookup(User)
Date of Birth	Date_of_Birth_c	Date
Drop-Off Point	Drop_Off_Point_c	Master-Detail(Drop-Off Point)
Email	Email_c	Email
Execution ID	Execution_ID_c	Auto Number
Gender	Gender_c	Picklist
Last Modified By	LastModifiedById	Lookup(User)

- **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 a "Fields & Relationships" section containing links to various layout-related settings. The main content area is titled "Fields & Relationships" and shows a table with 5 items, sorted by Field Label. The table has columns for 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 create *Venue* records**

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

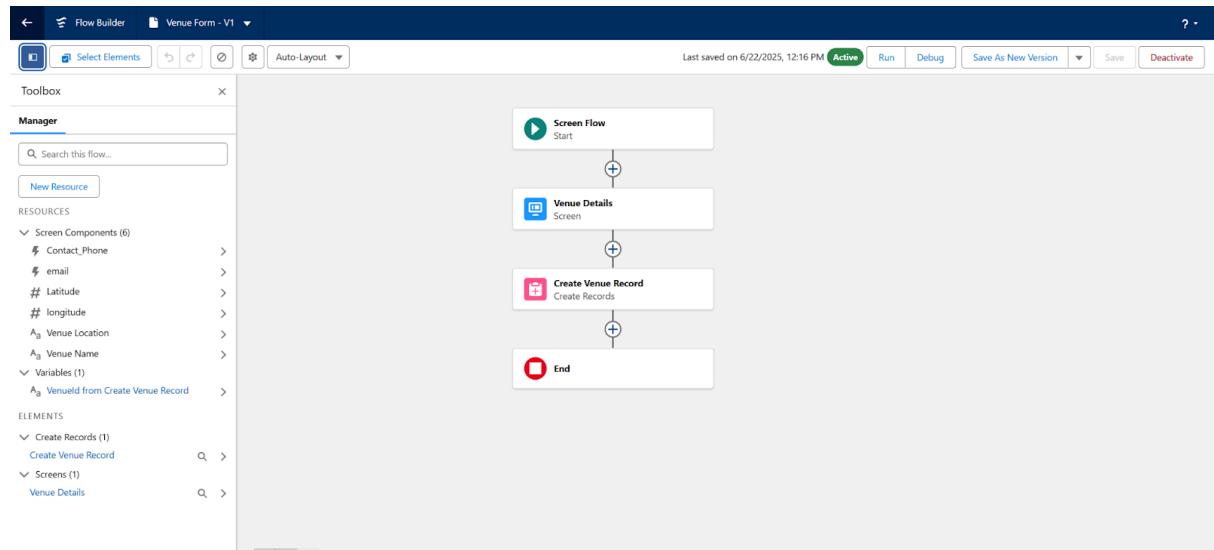
Venue Name
email
Phone
Venue Location

Properties

- * Label: **Venue Details**
- * API Name: **Venue_Details**
- Description:
- Stage: Select a stage resource...
- > Configure Header
- > Configure Footer

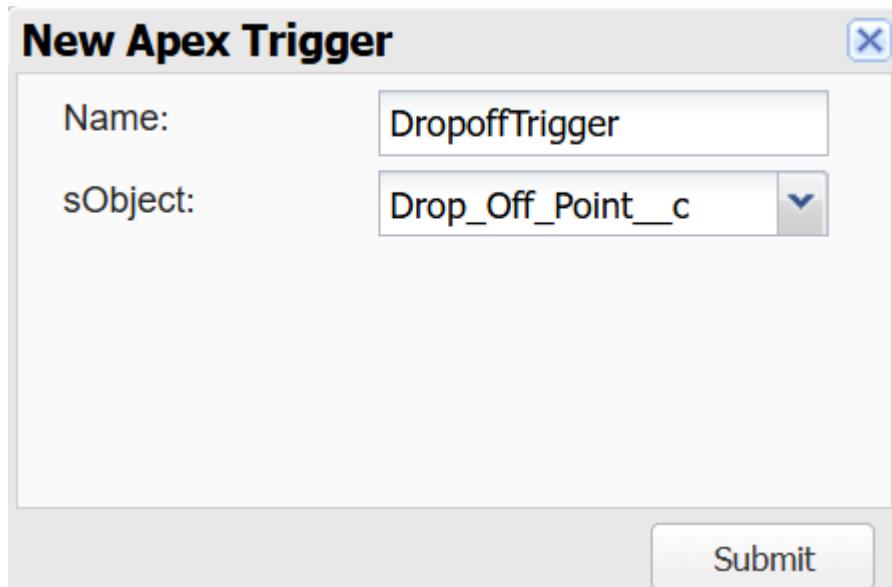
Cancel Done

- Saves data to Venue object



8. Trigger Implementation

- Trigger Name: *DropOffTrigger*
- Object: Drop-Off Point



- Logic: Copies **distance_calculation__c** to **Distance__c** before insert.

The screenshot shows the Salesforce IDE interface. The top navigation bar includes File, Edit, Debug, Test, Workspace, Help, and a user icon. The title bar says 'DropOffTrigger.apxt'. The main area displays the trigger code:

```
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 }
```

Below the code editor is a 'Logs' tab, which is currently active. It shows a table with columns: User, Application, Operation, Time, Status, Read, and Size. There are no entries in the log table.

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 'Profile Edit' screen for the 'NGOs Profile'. At the top, there's a header with a user icon, 'SETUP', and 'Profiles'. Below the header, the profile name 'NGOs Profile' is displayed. A note says 'Set the permissions and page layouts for this profile.' The main form has sections for 'Profile Edit' (Name: NGOs Profile, User License: Salesforce Platform, Description: empty, Custom Profile checked), 'Custom App Settings' (Analytics Studio, App Launcher, FoodConnect all with 'Visible' checked and 'Default' radio button), and 'Service Provider Access' (Platform checked, WDC unchecked). At the bottom, there's a 'Tab Settings' section.

- Created multiple Users (NGO representatives)

User Edit
Iksha Foundation Iksha_Foundation

User Edit

General Information		Actions	
First Name	Iksha Foundation	Role	<None Specified>
Last Name	Iksha_Foundation	User License	Salesforce Platform
Alias	iiksh	Profile	NGOs Profile
Email	mummidipraveen178@gma	Active	<input checked="" type="checkbox"/>
Username	ikshafoundation178@sb.co	Marketing User	<input type="checkbox"/>
Nickname	User175040659182532044	Offline User	<input type="checkbox"/>
Title		Knowledge User	<input type="checkbox"/>
Company		Flow User	<input type="checkbox"/>
Department		Service Cloud User	<input type="checkbox"/>
Division		Site.com Contributor User	<input type="checkbox"/>

User Edit
NSS NSS

User Edit

General Information		Actions	
First Name	NSS	Role	<None Specified>
Last Name	NSS	User License	Salesforce Platform
Alias	nnss	Profile	NGOs Profile
Email	mummidipraveen178@gma	Active	<input checked="" type="checkbox"/>
Username	nss178@sb.com	Marketing User	<input type="checkbox"/>
Nickname	User175041641535847070	Offline User	<input type="checkbox"/>
Title		Knowledge User	<input type="checkbox"/>
Company		Flow User	<input type="checkbox"/>
Department		Service Cloud User	<input type="checkbox"/>
Division		Site.com Contributor User	<input type="checkbox"/>

User Edit
Street Cause Street_Cause

User Edit

General Information		Actions	
First Name	Street Cause	Role	<None Specified>
Last Name	Street_Cause	User License	Salesforce Platform
Alias	sstre	Profile	NGOs Profile
Email	mummidipraveen178@gma	Active	<input checked="" type="checkbox"/>
Username	streetcause178@sb.com	Marketing User	<input type="checkbox"/>
Nickname	User175041682998526099	Offline User	<input type="checkbox"/>
Title		Knowledge User	<input type="checkbox"/>
Company		Flow User	<input type="checkbox"/>
Department		Service Cloud User	<input type="checkbox"/>
Division		Site.com Contributor User	<input type="checkbox"/>

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

Public Groups

A public group is a set of users. It can contain individual users, other groups, the users in a particular role or territory, or the users in a role or territory assigned to a specific account.

View: All ▾ [Edit](#) | [Create New View](#)

Action	Label ↑	Group Name	Created By
Edit Del	Iksha	Iksha	Team, Praveen Kumar
Edit Del	NSS	NSS	Team, Praveen Kumar
Edit Del	Street Cause	Street_Cause	Team, Praveen Kumar

10. Reports and Dashboards

- Custom Report Types created:
 - Venue with Drop-Off and Volunteer
 - Volunteers with Execution Details and Tasks

Custom Report Types

Drop-Off Points with Volunteers with Execution Details

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	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	
Drop-Off Points (A)	with at least one related record from Volunteers (B)
	with at least one related record from Execution Details (C)

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

Object Relationships

Venues (A)

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

with or without related records from Volunteers (C)

A B C

Legend: A (blue), B (orange), C (grey)

- Reports grouped by relevant fields (e.g., Volunteer ID, Name)
- 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
- 30–50 km → Street Cause

12. Home Page Customization

- Created a Lightning Home Page via Lightning App Builder

* Label

* API Name

* Page Type

Template

Description

- Components included:

- Embedded Flow (Venue Form)



- Dashboard view



The screenshot shows the Lightning App Builder interface for creating a custom application. The top navigation bar includes 'Lightning App Builder', 'Pages ▾', 'HOME Page', 'Activation...', and 'Save'. The main workspace displays a 'Dashboard' page with the following components:

- A 'Task Execution Details' card showing 'venue and Drop Off point' data:

Venue Name	Drop-Off Point	Count
Aditya Degree	Ooty	5,666
Aditya Degree	YSR Bridge	6,422
Gandhi Nagar Park	-	-
GRT Hotel	-	-
Ideal Institute of Technology	JNTUK	5,238
Rathna Residency	Jagannadhapur	6,422

- A 'Volunteer Task' card showing a chart of 'Request Count' versus 'Volunteer ID'.
- A placeholder for a 'Flow Component: Venue Form'.
- Two empty slots labeled 'Add Component(s) Here'.

The left sidebar lists available components under 'Standard (43)': 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.

On the right, configuration details for the 'HOME Page' component are shown:

- Page**: HOME Page
- *Label**: HOME Page
- *API Name**: HOME_Page
- *Page Type**: Home Page
- Template**: Standard Home Page
- Description**: (empty)

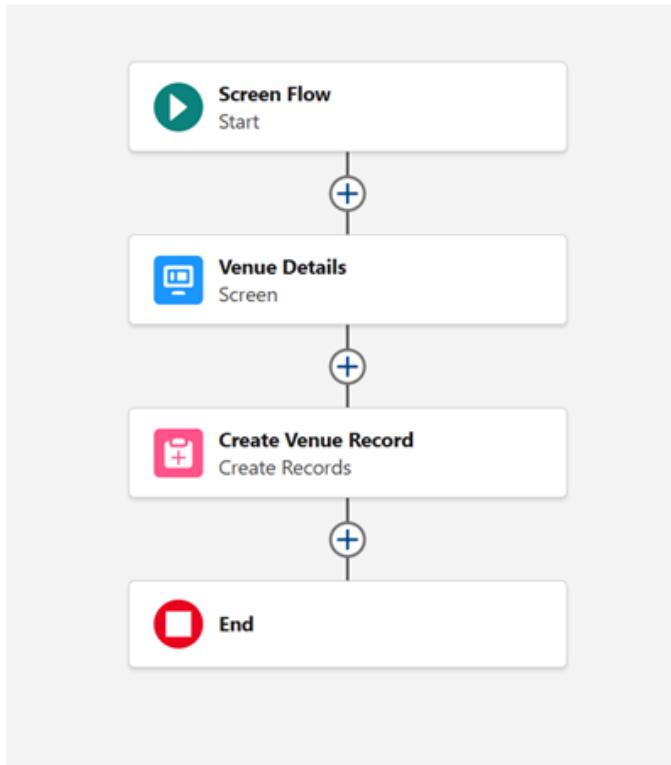
7. FUNCTIONAL AND PERFORMANCE TESTING

Performance Testing

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
□ - (4)	Yati Restaurant	Mysore	7,885.6251			
	Aditya Degree College	YSR Bridge	6,023.7478			
	GRT Hotel	-	-			
	Gandhi Nagar Park	-	-			
Subtotal			13,909.3729			
□ Abhinav (1)	Ideal Institute of Technology	JNTUK	5,235.8486			
Subtotal			5,235.8486			
□ Praveen Kumar (1)	Royal Park	RMC Ground	6,907.1915			
Subtotal			6,907.1915			
□ Renuka (1)	Aditya Degree College	Ooty	5,660.1727			
Subtotal			5,660.1727			
□ Subramanyam (1)	Rathna Recidency	Jaganadhapuram	6,023.7478			
Subtotal			6,023.7478			
Total (8)			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	5.2358k
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

Volunteer Task



[View Report \(Volunteer Task\)](#) 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 of data:

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 an Apex code editor with the file "DropOffTrigger.apxt" open. The code coverage is set to "None" and the API version is "64". The code itself is:

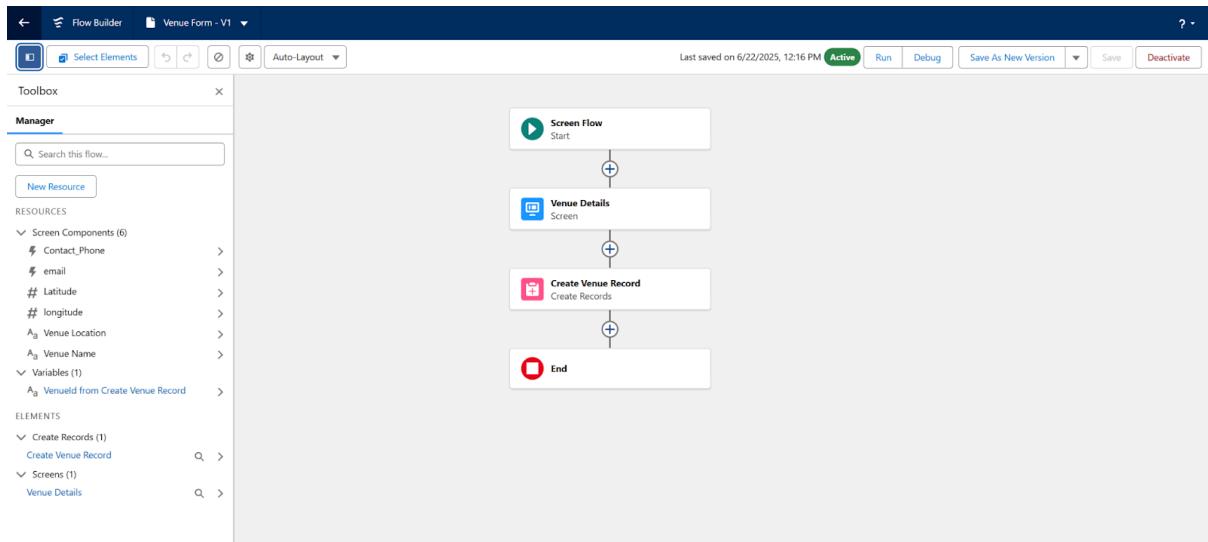
```
1 trigger DropOffTrigger on Drop_Off_point__c (before insert){  
2     for(Drop_Off_point__c Drop : Trigger.new){  
3         Drop.Distance__c = Drop.distance_calculation__c;  
4     }  
5 }
```

8. RESULTS

8.1 Output Screenshots

(Suggested screenshots)

- Flow Designer screen for Venue Form



Venue Form

Venue Name

email

Phone

Venue Location

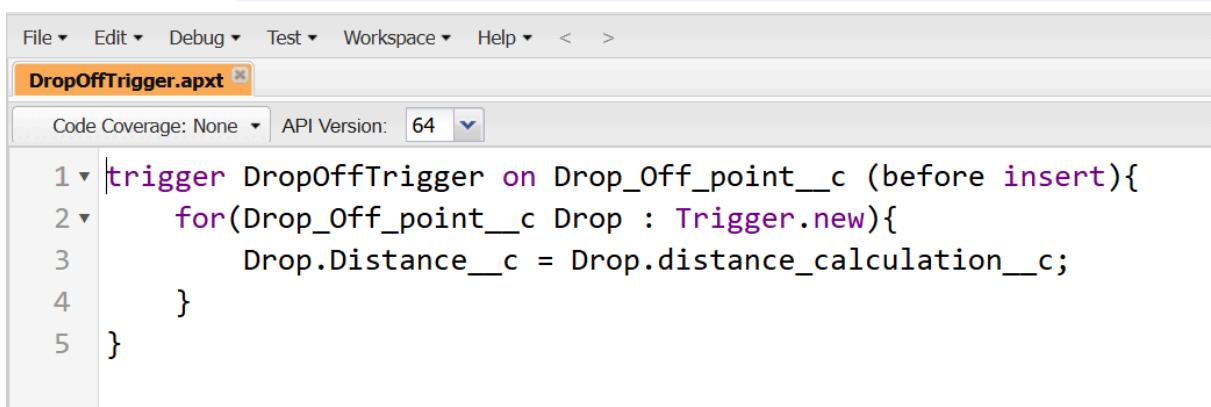
Latitude

longitude

Next

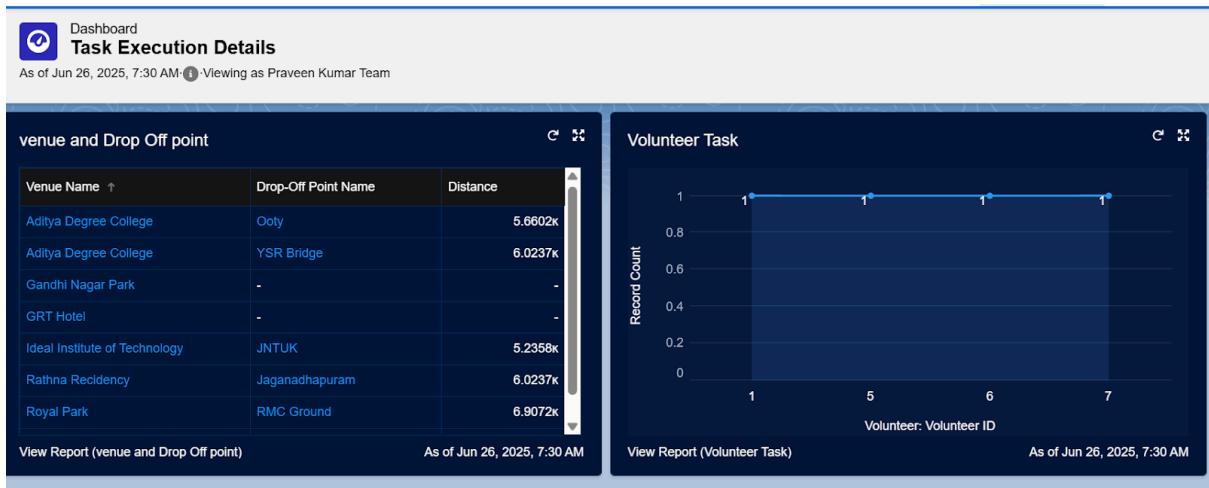
- Trigger test output

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 under the 'SETUP' tab. It displays a list of three public groups:

Action	Label ↑	Group Name	Created By
Edit Del	Iksha	Iksha	Team, Praveen Kumar
Edit Del	NSS	NSS	Team, Praveen Kumar
Edit Del	Street Cause	Street_Cause	Team, Praveen Kumar

The screenshot shows the 'Drop-Off Point Sharing Rules' page. It lists three rules:

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 with the following sections:

- Task Execution Details:** Shows a table of venue and drop-off point data.
- venue and Drop Off point:** A table listing venues like Aditya Degree College, YSR Bridge, etc., with their drop-off point names and distances.
- Volunteer Task:** A chart showing the record count for each volunteer ID.
- Venue Form:** A form for entering venue details like name, email, phone, location, latitude, and longitude.

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 Public Groups** ensure controlled access to data.
- **Sharing Rules** provide location-based access, improving data security and collaboration.

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 usability.
- Visual elements enhance user experience and engagement.

Disadvantages

1. Complex Setup

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

2. Limited Offline Access

- Salesforce is cloud-based—reliable internet is required.
- Not ideal 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 logic.
- 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 external services**—this solution has strong potential to become a **sustainable digital platform** for tackling food insecurity at scale.

11. FUTURE SCOPE

1. Mobile Application Integration

- **Develop a mobile app** for volunteers and NGOs to:
 - Log tasks
 - Update delivery status
 - Submit feedback
- Increases accessibility in remote or low-connectivity areas.

2. Integration with External Platforms

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

3. Automation & AI Recommendations

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

4. Multi-Language and Regional Support

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

5. Advanced Analytics & Impact Reports

- Deeper analytics on:
 - Number of people served
 - Wastage reduction
 - Region-wise performance
- Generate **auto-filled impact reports** for donors and stakeholders.

6. Enhanced Security and Compliance

- Implement **audit trails, encryption, and GDPR compliance** for donor/volunteer data.
- 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.

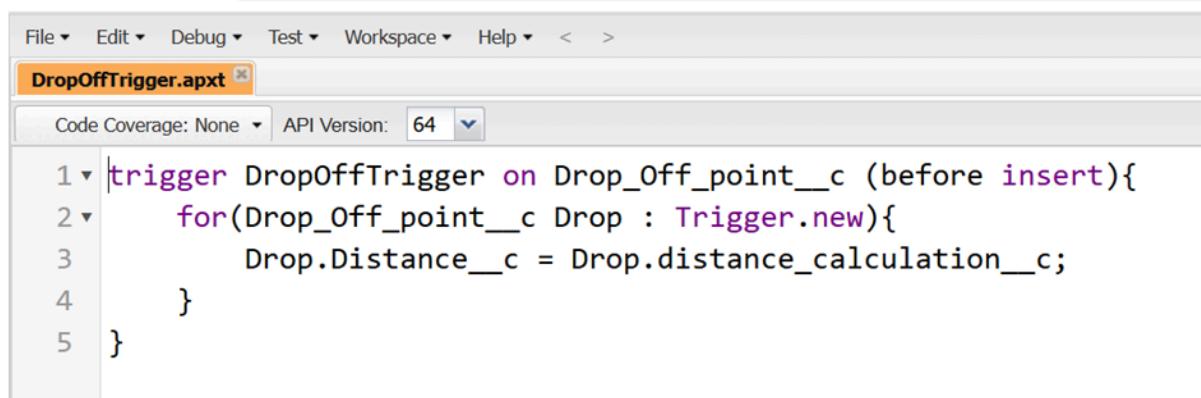
8. Expansion to Other Causes

- Extend the same Salesforce model to:

- **Clothing drives**
- **Blood donation management**
- **Disaster relief logistics**

12. APPENDIX

- **Source Code:** Apex Trigger – DropOffTrigger



The screenshot shows the Salesforce IDE interface with the file 'DropOffTrigger.apxt' open. The code editor displays the following Apex trigger:

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

- **Dataset Link:** Not Applicable

- **GitHub Link**

<https://github.com/Renuka1809/To-Supply-Leftover-food-to-poor>

- **Project Demo Link:**

<https://drive.google.com/file/d/1SUcSTfj1SiA26a4DrYvkHb0Sm1jXhhqw/view?usp=sharing>

