

Supply Left Over Food To Poor

College Name : IDEAL INSTITUTE OF TECHNOLOGY

Team ID : LTVIP2025TMID31177

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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 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

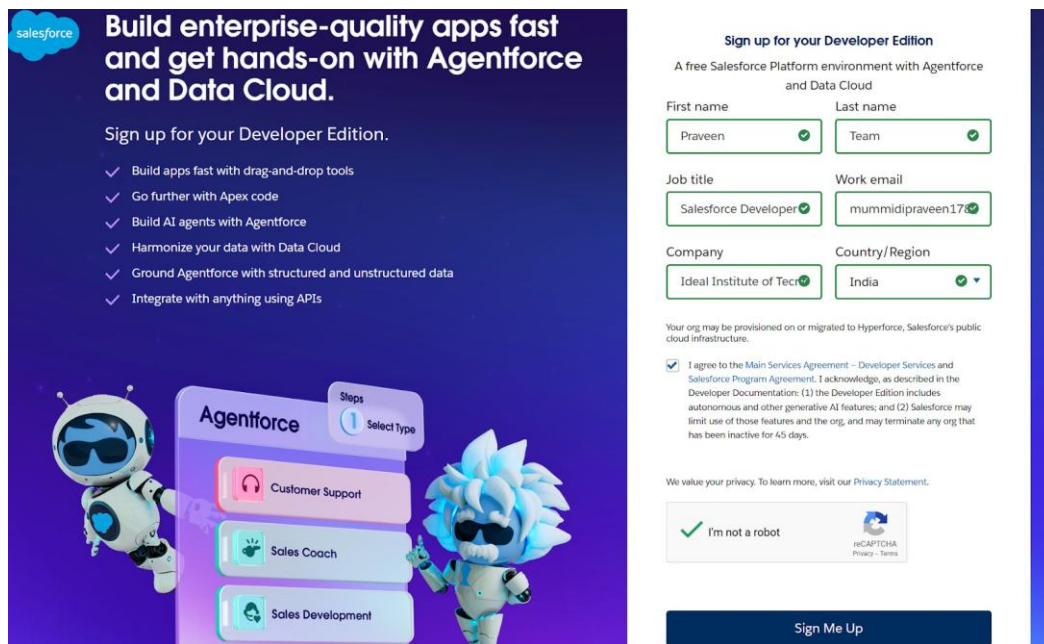
- Week 1: Developer account setup, Object creation
- Week 2: Relationships and fields
- Week 3: Flows, Reports, Dashboards
- Week 4: Trigger development, Sharing rules, Testing

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 v i a developer.salesforce.com/signup



Build enterprise-quality apps fast and get hands-on with Agentforce and Data Cloud.

Sign up for your Developer Edition.

- ✓ Build apps fast with drag-and-drop tools
- ✓ Go further with Apex code
- ✓ Build AI agents with Agentforce
- ✓ Harmonize your data with Data Cloud
- ✓ Ground Agentforce with structured and unstructured data
- ✓ Integrate with anything using APIs

Steps
1 Select Type

- Customer Support
- Sales Coach
- Sales Development

Sign up for your Developer Edition
A free Salesforce Platform environment with Agentforce and Data Cloud

First name: Praveen ✓ Last name: Team ✓

Job title: Salesforce Developer ✓ Work email: mummidipraveen17@gmail.com ✓

Company: Ideal Institute of Technology ✓ Country/Region: India ✓

Your org may be provisioned on or migrated to Hyperforce, Salesforce's public cloud infrastructure.

☒ I agree to the Main Services Agreement – Developer Services and Salesforce Program Agreement. I acknowledge, as described in the Developer Documentation: (1) the Developer Edition includes autonomous and other generative AI features; and (2) Salesforce may limit use of those features and the org, and may terminate any org that has been inactive for 45 days.

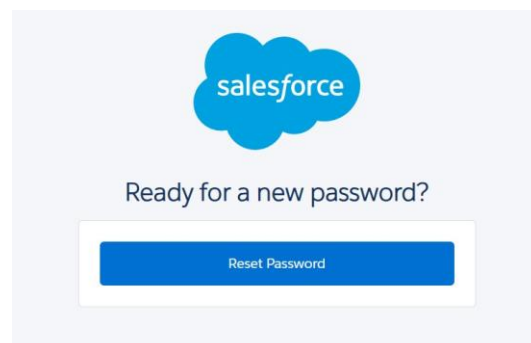
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☒ I'm not a robot reCAPTCHA Privacy - Terms

Sign Me Up

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

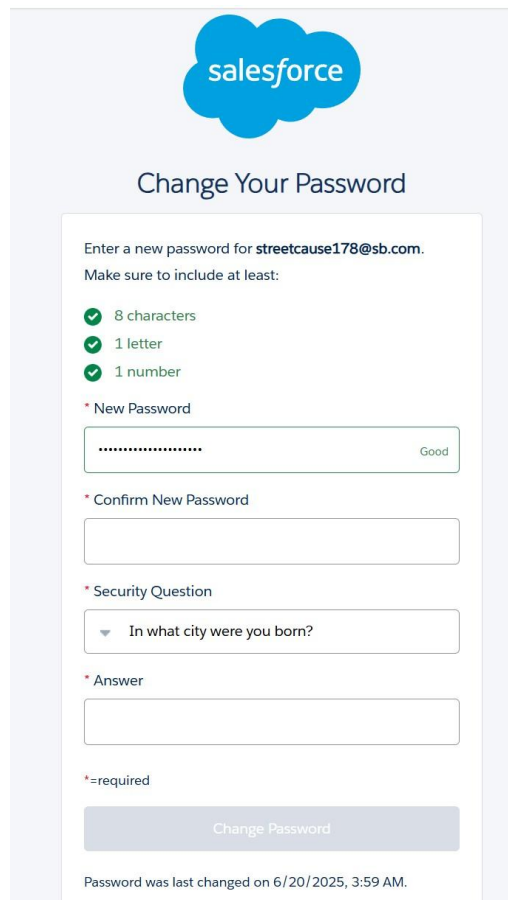
□ □



salesforce

Ready for a new password?

Reset Password

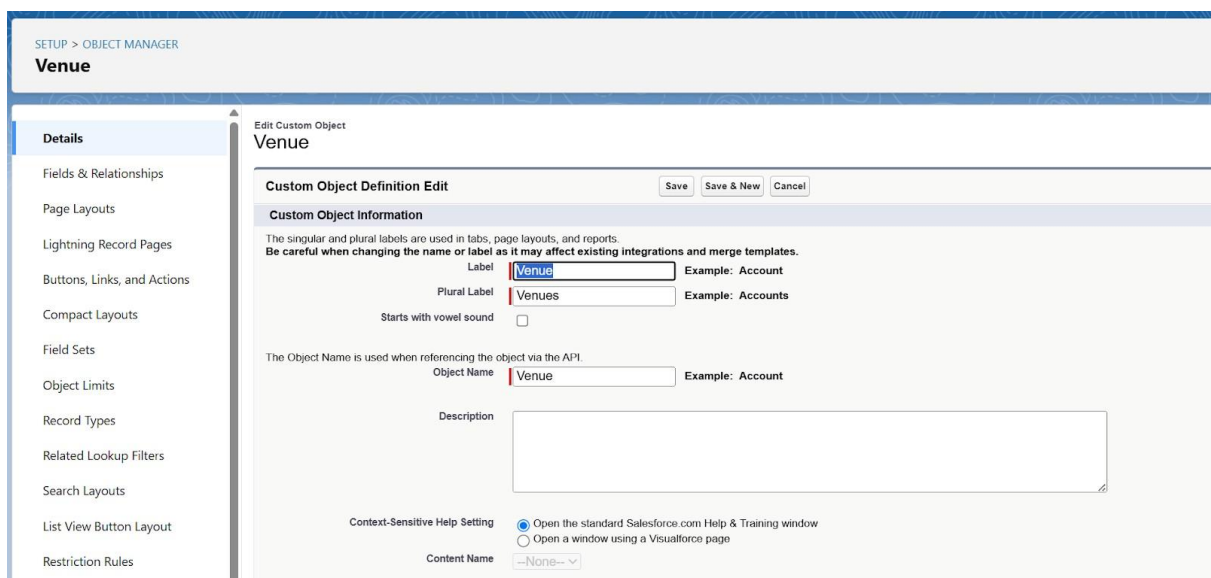


The image shows the Salesforce 'Change Your Password' interface. At the top is the Salesforce logo. Below it, the title 'Change Your Password' is centered. The main form area contains instructions to enter a new password for the user 'streetcause178@sb.com'. It lists password requirements: 8 characters, 1 letter, and 1 number, all of which are checked with green icons. There are three required fields: 'New Password' (with a strength indicator 'Good'), 'Confirm New Password', and 'Security Question' (with a dropdown menu showing 'In what city were you born?'). An 'Answer' field follows. A note indicates that an asterisk (*) denotes a required field. At the bottom is a 'Change Password' button and a message stating the password was last changed on 6/20/2025 at 3:59 AM.

2. Custom Object Creation

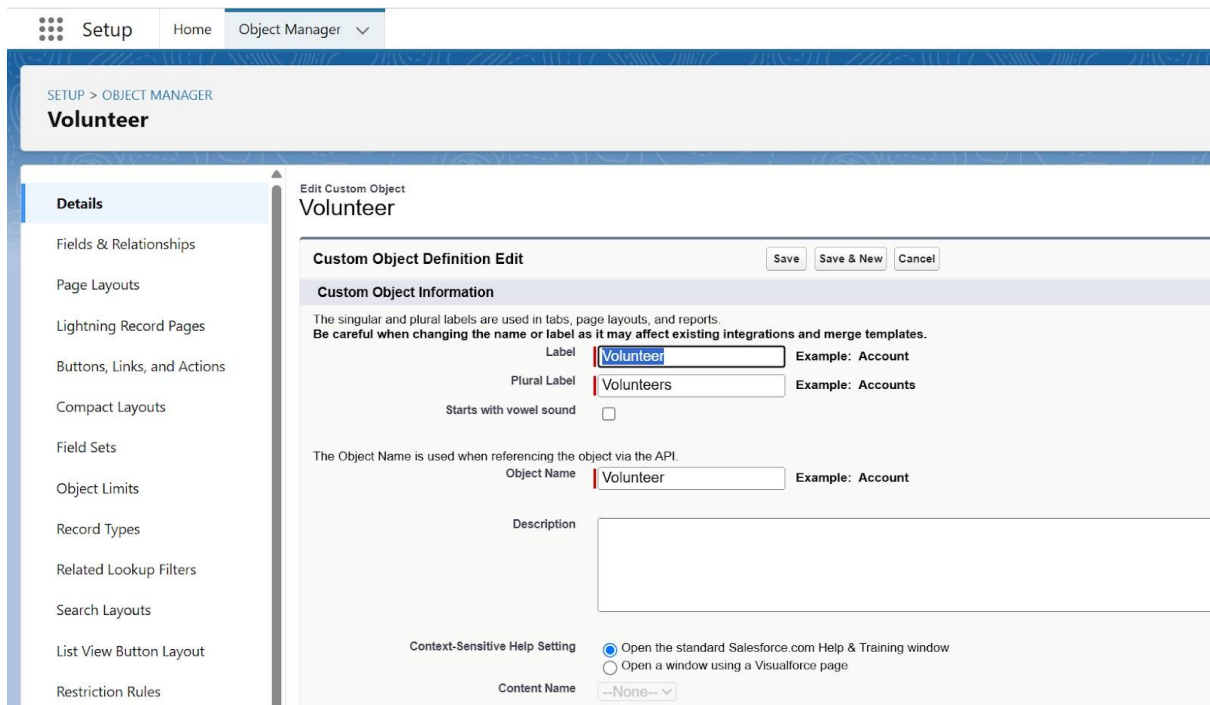
Created several key custom objects to model real-world entities:

- **Venue**



The image displays the 'Edit Custom Object' page for a custom object named 'Venue' in Salesforce. The left sidebar shows the 'Details' section with various configuration options like 'Fields & Relationships', 'Page Layouts', and 'Lightning Record Pages'. The main content area is titled 'Custom Object Definition Edit' and includes a 'Custom Object Information' section. This section contains fields for 'Label' (Venue), 'Plural Label' (Venues), and 'Object Name' (Venue), each with an example. There is also a 'Description' field and a 'Context-Sensitive Help Setting' section with two radio button options. A 'Content Name' dropdown is set to 'None'.

Volunteer



The screenshot shows the Salesforce Setup interface for the 'Volunteer' custom object. The top navigation bar includes 'Setup', 'Home', and 'Object Manager'. The left sidebar lists various configuration options under 'Details'. The main content area is titled 'Edit Custom Object Volunteer' and contains the 'Custom Object Definition Edit' form. This form includes fields for 'Label' (Volunteer), 'Plural Label' (Volunteers), 'Object Name' (Volunteer), and a 'Description' text area. It also features a 'Context-Sensitive Help Setting' with radio buttons and a 'Content Name' dropdown menu.

Setup > OBJECT MANAGER

Volunteer

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
- Restriction Rules

Edit Custom Object
Volunteer

Custom Object Definition Edit

Save Save & New Cancel

Custom Object Information

The singular and plural labels are used in tabs, page layouts, and reports.
Be careful when changing the name or label as it may affect existing integrations and merge templates.

Label Volunteer Example: Account

Plural Label Volunteers Example: Accounts

Starts with vowel sound ☐

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

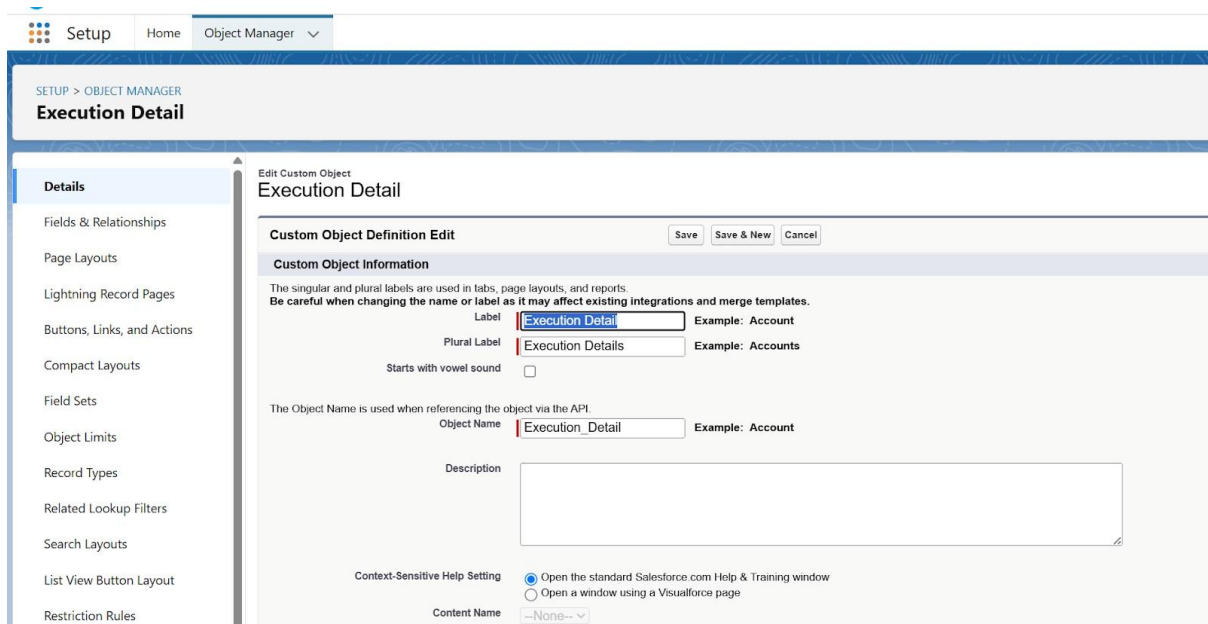
Object Name Volunteer Example: Account

Description

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

Content Name --None--

- Execution Details



The screenshot shows the Salesforce Setup interface for the 'Execution Detail' custom object. The top navigation bar includes 'Setup', 'Home', and 'Object Manager'. The left sidebar lists various configuration options under 'Details'. The main content area is titled 'Edit Custom Object Execution Detail' and contains the 'Custom Object Definition Edit' form. This form includes fields for 'Label' (Execution Detail), 'Plural Label' (Execution Details), 'Object Name' (Execution_Detail), and a 'Description' text area. It also features a 'Context-Sensitive Help Setting' with radio buttons and a 'Content Name' dropdown menu.

Setup > OBJECT MANAGER

Execution Detail

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
- Restriction Rules

Edit Custom Object
Execution Detail

Custom Object Definition Edit

Save Save & New Cancel

Custom Object Information

The singular and plural labels are used in tabs, page layouts, and reports.
Be careful when changing the name or label as it may affect existing integrations and merge templates.

Label Execution Detail Example: Account

Plural Label Execution Details Example: Accounts

Starts with vowel sound ☐

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

Object Name Execution_Detail Example: Account

Description

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

Content Name --None--

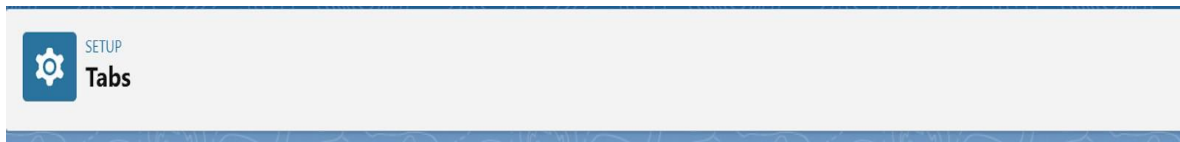
Each object includes:

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

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

3 . Tab Creation






Custom tabs created for:



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

Custom Object Tabs			New	What Is This?
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**

 This image shows the 'Edit Custom Object Tab' page for the 'Venues' tab in Salesforce Setup. The page has a blue header with the 'SETUP' logo and 'Tabs'. Below the header, the title 'Edit Custom Object Tab Venues' is displayed. A message states: 'Fill in the fields below to define the custom tab.' The main section is titled 'Custom Tab Definition Edit' and contains a 'Custom Object Tab Information' section. This section shows the 'Tab Label' as 'Venues', the 'Object' as 'Venue', and the 'Tab Style' as 'Building Block' with a magnifying glass icon. Below this, there is an optional section for 'Choose a Home Page Custom Link to show as a splash page the first time your users click on this tab'. The 'Splash Page Custom Link' is set to '--None--'. There is a text input field for 'Enter a short description.' with a 'Description' label. At the bottom, there are 'Save' and 'Cancel' buttons.

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	 Bell 


(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	 Bridge 

(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 a 'SETUP Tabs' interface for editing a custom object tab. The title is 'Execution Details'. Below the title, it says 'Fill in the fields below to define the custom tab.' The main section is 'Custom Tab Definition Edit' with a sub-section 'Custom Object Tab Information'. It contains fields for 'Tab Label' (Execution Details), 'Object' (Execution Detail), and 'Tab Style' (Books). There is an optional field for 'Splash Page Custom Link' set to '--None--'. A 'Description' text area is also present. At the bottom are 'Save' and 'Cancel' buttons.

4. Lightning App Creation

- **App Name : *FoodConnect***

The screenshot shows the 'App Details & Branding' setup screen in the Lightning App Builder. The left sidebar shows 'Settings' with 'App Details & Branding' selected. The main area is divided into 'App Details' and 'App Branding'. 'App Details' has fields for 'App Name' (FoodConnect), 'Developer Name' (FoodConnect), and 'Description'. 'App Branding' has an 'Image' upload button, a 'Primary Color Hex Value' dropdown set to '#0070D2', and an 'Org Theme Options' checkbox. At the bottom is an 'App Launcher Preview' showing a blue icon with 'Fo' and the text 'FoodConnect'.

Navigation Style: Standard

Navigation and Form Factor

* 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...

📊 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

Create ▼

▶

◀

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

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
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

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)

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

SETUP > OBJECT MANAGER

Drop-Off Point

Details
Fields & Relationships
Page Layouts
Lightning Record Pages
Buttons, Links, and Actions
Compact Layouts
Field Sets
Object Limits
Record Types
Related Lookup Filters
Search Layouts
List View Button Layout
Restriction Rules

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)

- **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
- 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
- Object Access
- Triggers

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

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

SETUP > OBJECT MANAGER

Volunteer

- 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
- Restriction Rules
- Scoping Rules
- Object Access
- Triggers

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)

SETUP > OBJECT MANAGER

Execution Detail

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

Fields & Relationships

5 Items, Sorted by Field Label

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

Components

Fields

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

Venue Form

Venue Name

email

you@example.com

Phone

Venue Location

Preview Size

Large

Screen Properties

Properties

* Label

Venue Details

* API Name

Venue_Details

Description

Stage

Select a stage resource...

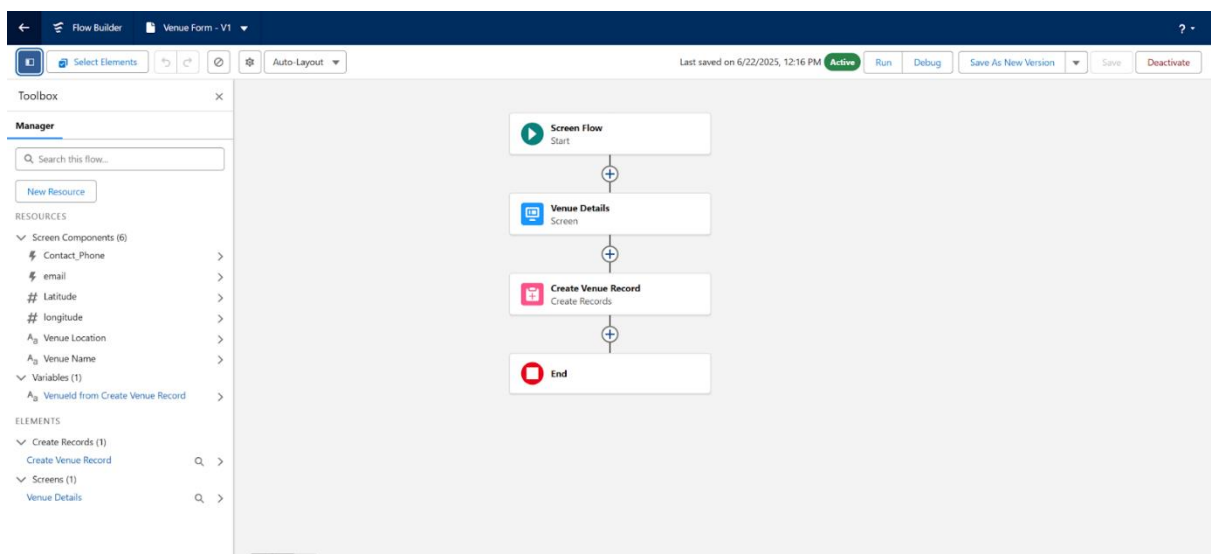
> Configure Header

> Configure Footer

Cancel

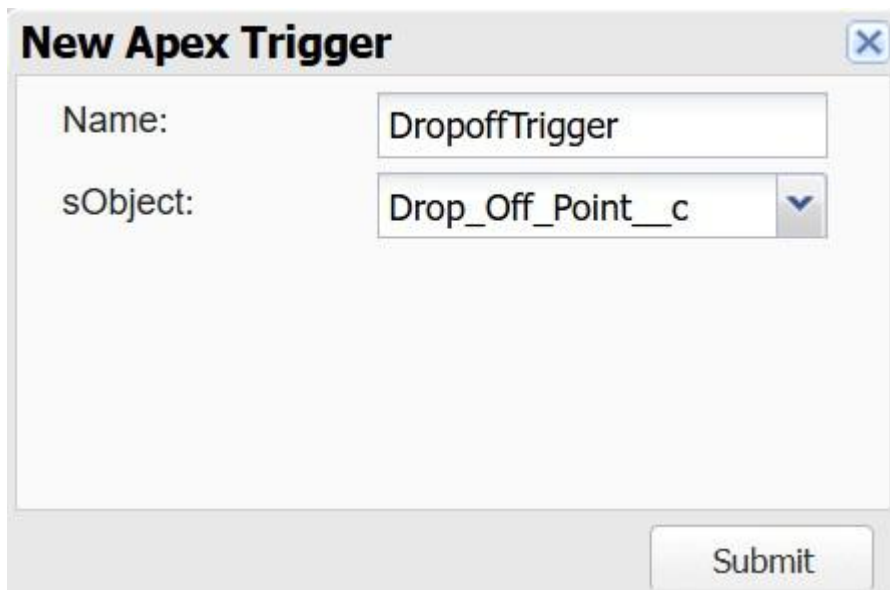
Done

- Saves data to Venue object



8 . Trigger Implementation

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



The image shows a 'New Apex Trigger' dialog box. It has a title bar with a close button. Inside, there are two labels: 'Name:' and 'sObject:'. The 'Name:' field contains the text 'DropoffTrigger'. The 'sObject:' field is a dropdown menu showing 'Drop_Off_Point__c'. At the bottom right, there is a 'Submit' button.

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



The image shows an IDE window with the title 'DropOffTrigger.apex'. The code is as follows:

```
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 }
```

The IDE interface includes a menu bar (File, Edit, Debug, Test, Workspace, Help), a toolbar with 'Code Coverage: None' and 'API Version: 64', and a status bar at the bottom with tabs for Logs, Tests, Checkpoints, Query Editor, View State, Progress, and Problems. The status bar also displays columns for User, Application, Operation, Time, Status, Read, and Size.

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' page for a custom profile named 'NGOs Profile'. The page is part of the Salesforce Setup interface, specifically under 'Profiles'. The 'Name' field is set to 'NGOs Profile', the 'User License' is 'Salesforce Platform', and the 'Custom Profile' checkbox is checked. The 'Description' field is empty. Below the profile information, there are sections for 'Custom App Settings', 'Service Provider Access', and 'Tab Settings'. The 'Custom App Settings' section is expanded, showing a table of app settings.

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

- Created multiple Users (NGO representatives)

SETUP Users

User Edit
Iksha Foundation Iksha_Foundation

User Edit Save Save & New Cancel

General Information

First Name	Iksha Foundation	Role	<None Specified>
Last Name	Iksha_Foundation	User License	Salesforce Platform
Alias	iksh	Profile	NGOs Profile
Email	mummidipaveen178@gme	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"/>

SETUP Users

User Edit
NSS NSS

User Edit Save Save & New Cancel

General Information

First Name	NSS	Role	<None Specified>
Last Name	NSS	User License	Salesforce Platform
Alias	nnss	Profile	NGOs Profile
Email	mummidipaveen178@gme	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"/>

SETUP Users

User Edit
Street Cause Street_Cause

User Edit Save Save & New Cancel

General Information

First Name	Street_Cause	Role	<None Specified>
Last Name	Street_Cause	User License	Salesforce Platform
Alias	ssstre	Profile	NGOs Profile
Email	mummidipaveen178@gme	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)

SETUP

Public Groups

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.

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

SETUP

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

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, 6/18/23, 11:01 PM

Store in Category other

Deployment Status Deployed

Modified By Praveen Kumar Team, 6/18/23, 11:01 PM

Fields

Source Object	Included Fields

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

Preview Layout

Edit Layout

Clone

Delete

Close

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

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)

Fields

Source Object	Included Fields
Venues	13

- 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

[Change](#)

Description

- **Components included:**

- **Embedded Flow (Venue Form)**



- **Dashboard view**



The screenshot displays the Lightning App Builder interface. At the top, a dark blue header bar contains navigation links: 'Lightning App Builder', 'Pages', and 'HOME Page'. Below this, a toolbar includes 'Back', 'Desktop', 'Shrink To View', and 'Activation...' buttons. The main workspace is divided into three sections:

- Components:** A sidebar on the left lists 43 standard components, including Accordion, App Launcher, Assistant, Cdp Metrics Overview, Chatter Feed, Chatter Publisher, CRM Analytics Collection, CRM Analytics Dashboard, Dashboard, Data Mask Console Home Compo..., Einstein Next Best Action, Flow, Flow App Home cards, Generate Batch Documents, Inventory Lookup Component, Items to Approve, and Key Deals.
- Preview:** The central area shows a preview of the 'Task Execution Details' dashboard. It features a table titled 'venue and Drop Off point' with columns for Venue Name, Drop-Off Point, and a numerical value. The table lists venues like 'Ardya Degree' and 'Gandhi Nagar Park'. To the right of the table is a 'Volunteer Task' section with a bar chart showing 'Planned Count' for various volunteer IDs. Below the preview are two placeholder boxes labeled 'Add Component(s) Here'.
- Configuration:** The right sidebar contains configuration options for the 'Flow Component: Venue Form'. It includes fields for 'Label' (set to 'HOME Page'), 'API Name' (set to 'HOME_Page'), and 'Page Type' (set to 'Home Page'). There is also a 'Template' section with a 'Standard Home Page' option and a 'Description' field.

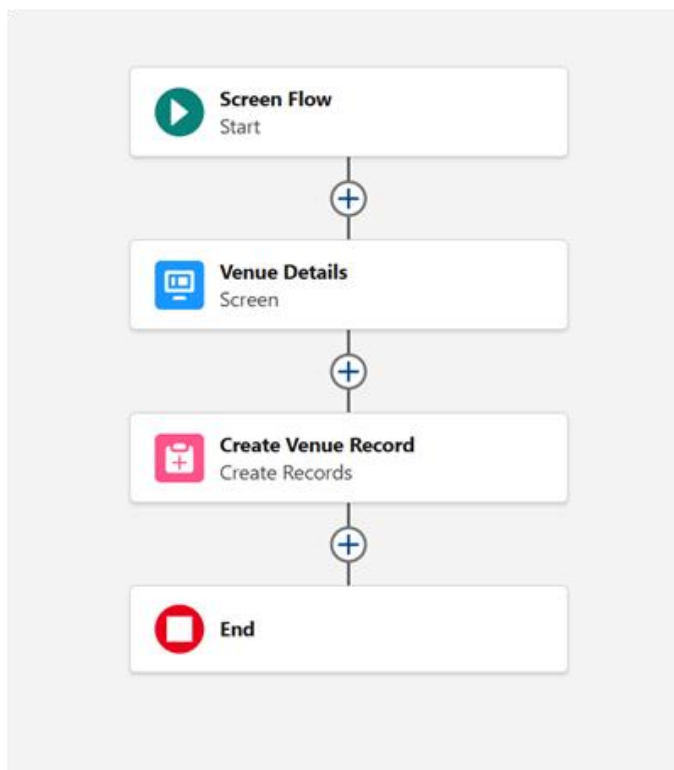
7 . FUNCTIONAL AND PERFORMANCE TESTING

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.

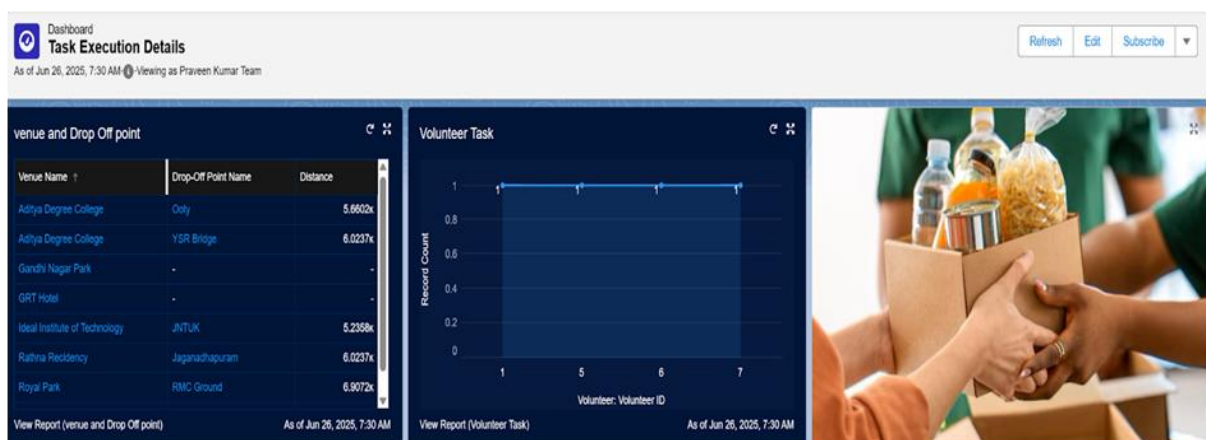
These reports should load in under 5 seconds.

<div>  <div>Report: Venue with DropOff with Volunteer</div> </div> <div>venue and Drop Off point</div>			
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	-	-
Subtotal			13,909.3729
<input type="checkbox"/> Abhinav (1)	Ideal Institute of Technology	JNTUK	5,235.8486
Subtotal			5,235.8486
<input type="checkbox"/> Praveen Kumar (1)	Royal Park	RMC Ground	6,907.1915
Subtotal			6,907.1915
<input type="checkbox"/> Renuka (1)	Aditya Degree College	Ooty	5,660.1727
Subtotal			5,660.1727
<input type="checkbox"/> 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.



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.

Drop-Off Point Sharing Rules		New	Recalculate
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.

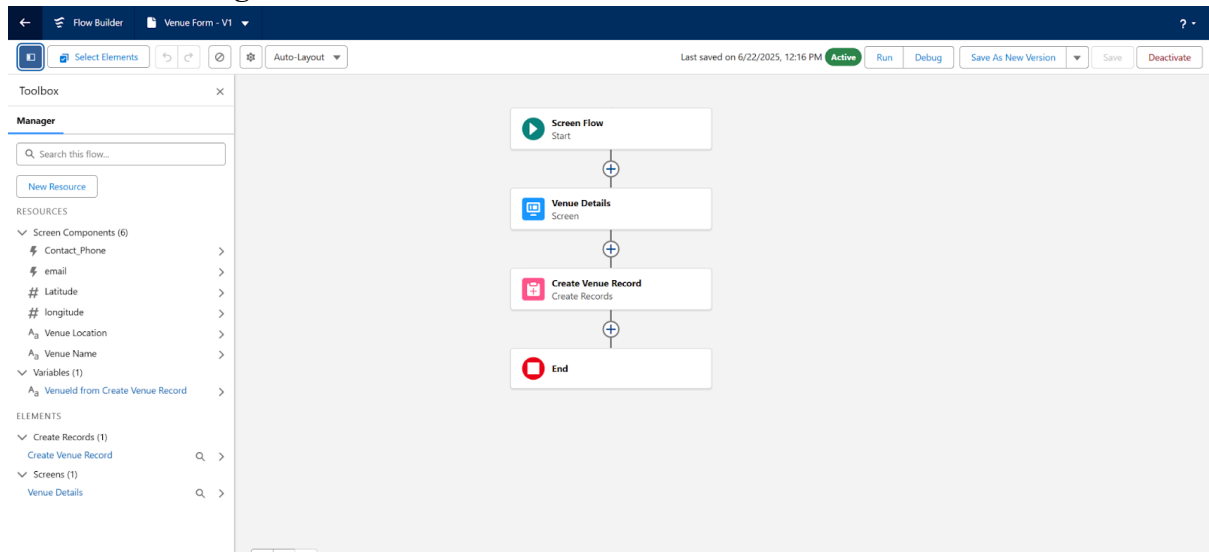
```
File ▾ Edit ▾ Debug ▾ Test ▾ Workspace ▾ Help ▾ < >
DropOffTrigger.apxt
Code Coverage: None ▾ API Version: 64 ▾
1 trigger DropOffTrigger on Drop_Off_point__c (before insert){
2     for(Drop_Off_point__c Drop : Trigger.new){
3         Drop.Distance__c = Drop.distance_calculation__c;
4     }
5 }
```

8 . RESULTS

8.1 Output Screenshots

(Suggested screenshots)

- **Flow Designer screen for Venue Form**



Venue Form

Venue Name

email

Phone

Venue Location

Latitude

longitude

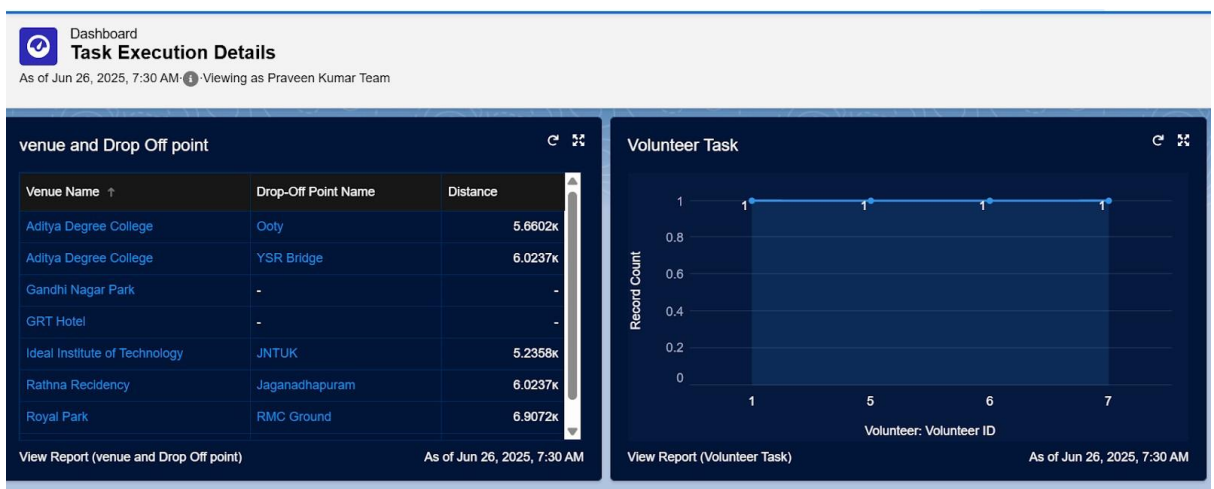
Next

- **Trigger test output**


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

```
File Edit Debug Test Workspace Help < >
DropOffTrigger.apxt
Code Coverage: None API Version: 64
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 }
```

- **Dashboards with line charts and tables**



- Public Group and Sharing Settings



SETUP

Public Groups

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

View:


All

 | [Edit](#) | [Create New View](#)


New			
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

Drop-Off Point Sharing Rules		<div>NewRecalculate</div>	
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



Q Search...



FoodConnect

Home Venues Tasks Drop Off Points Execution Details Volunteers Reports Dashboards

Dashboard

Task Execution Details

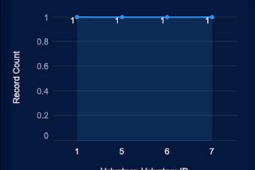
As of Jun 26, 2025, 7:30 AM Viewing as Praveen Kumar Team

venue and Drop Off point


Venue Name ↑	Drop-Off Point N...	Dist...
Aditya Degree College	Ooty	5.6602h
Aditya Degree College	YSR Bridge	6.0237h
Gandhi Nagar Park	-	-
GRT Hotel	-	-
Ideal Institute of Technology	JNTUK	5.2356h
Rathna Residency	Jaganadhapuram	6.0237h
Royal Park	RMC Ground	6.9072h

View Report (venue and Dro... As of Jun 26, 2025, 7:30 AM

Volunteer Task



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



Venue Form

Venue Name

email

you@example.com

Phone

Venue Location

Latitude

Longitude

Next

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

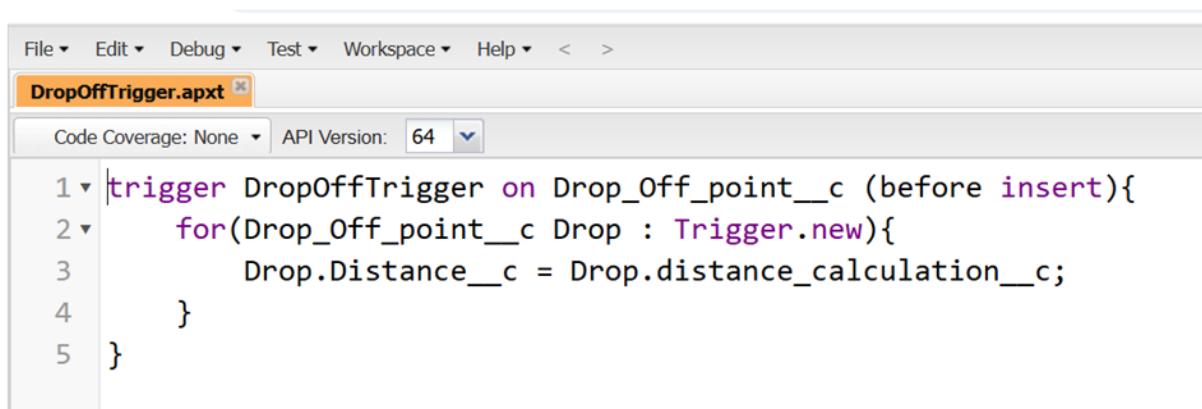
- Use badges, scores, or leaderboards to **motivate volunteers** .
- Encourage competition and recognition across NGOs.

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



```
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 }
```

- **Dataset Link** : Not Applicable
- **GitHub Link** : <https://github.com/PraveenMummidi29/To-Supply-Left-Over-Food-To-Poor>
- **Project Demo Link** : https://drive.google.com/file/d/1U1ZRivyw9J_V-V-4LUeS83RFiZcHRsSsW/view?usp=sharing

