

To Supply Leftover Food To Poor

1. Project Overview

This project aims to streamline the process of leftover food distribution using salesforce.

- **Goal:** Efficiently distribute leftover food to reduce food waste and address hunger.
- **Impact:** Reduce food waste, address hunger, and improve the management of food distribution points, tasks and volunteers.
- **Technology:** Salesforce tools manage records, workflows, and data visualization, ensuring seamless operations.

2. Objectives

The project defines measurable goals for societal and operational improvement.

Business Goals:

- Address societal issues like food waste and hunger.
- Enhance operations, transparency, and accountability

Deliverables include:

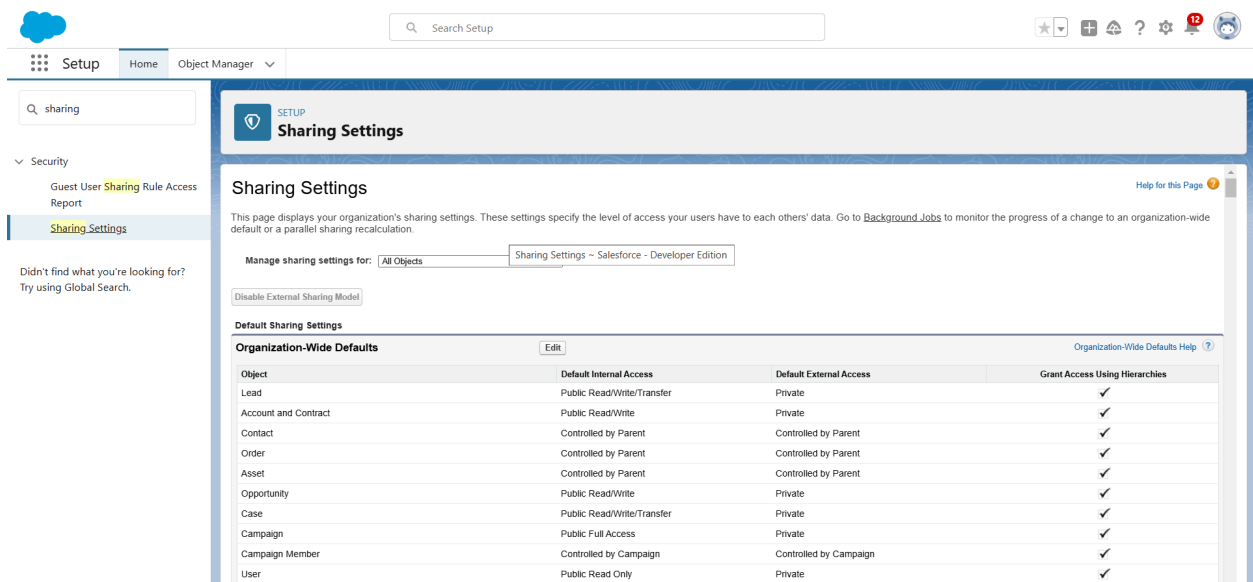
- Custom objects: Drop-off point, Task, Volunteer, and Execution Detail.
- Reports and dashboards for operational insights.
- Automated workflows for efficiency.Creat

3. Salesforce Key Features and Concepts Utilized

- **Custom Objects:** Store essential data for food distribution management.
- **Relationships:**
 - Master-Detail: Strict dependencies (e.g., Execution detail Links to Volunteer or Task).

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- Lookup: Flexible associations (e.g., Drop-off point linked to Venue).
- **Flows:** Automated data entry for venues and other processes.
- **Dashboards:** Visualize drop-off points, task completion rates, and volunteer participation.
- **Sharing Rules:** These control who can view or edit records. Your project uses criteria-based sharing (e.g., by distance).



The screenshot shows the Salesforce Setup page for Sharing Settings. The left sidebar contains navigation links: Setup, Home, Object Manager, and a search bar. The main content area is titled 'Sharing Settings' and includes a description: 'This page displays your organization's sharing settings. These settings specify the level of access your users have to each others' data. Go to [Background Jobs](#) to monitor the progress of a change to an organization-wide default or a parallel sharing recalculation.' Below this, there are tabs for 'Manage sharing settings for: All Objects' and 'Sharing Settings ~ Salesforce ~ Developer Edition'. A 'Disable External Sharing Model' button is also present. The 'Default Sharing Settings' section includes a table for 'Organization-Wide Defaults'.

Object	Default Internal Access	Default External Access	Grant Access Using Hierarchies
Lead	Public Read/Write/Transfer	Private	✓
Account and Contract	Public Read/Write	Private	✓
Contact	Controlled by Parent	Controlled by Parent	✓
Order	Controlled by Parent	Controlled by Parent	✓
Asset	Controlled by Parent	Controlled by Parent	✓
Opportunity	Public Read/Write	Private	✓
Case	Public Read/Write/Transfer	Private	✓
Campaign	Public Full Access	Private	✓
Campaign Member	Controlled by Campaign	Controlled by Campaign	✓
User	Public Read Only	Private	✓

4. Detailed Steps to Solution Design

a) Object Creation:

- **Drop-Off point:**
 - **Purpose:** Tracks food drop-off locations for effective management.
 - **Fields:** Name, location details, Distance, Venue (lookup to venue object).

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SETUP > OBJECT MANAGER
Drop-Off Point

Details

Fields & Relationships
9 Items, Sorted by Field Label

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
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:

- **Purpose:** Manages and tracks tasks related to food distribution.
- **Fields:** Name, date, Rating, Drop-Off point (lookup), Sponsored By (lookup)

SETUP > OBJECT MANAGER
Task

Details

Fields & Relationships
14 Items, Sorted by Field Label

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		
Date	Date__c	Date		
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(20)		
Number of People Served	Number_of_People_Served__c	Number(18, 0)		
Owner	OwnerId	Lookup(User,Group)		✓
Phone	Phone__c	Phone		

● Volunteer:

- **Purpose:** Tracks Individuals involved in food distribution.
- **Fields:** Name, Contact Email, Contact Phone, Assigned tasks (related List)

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Setup > OBJECT MANAGER

Volunteer

Details

Fields & Relationships
12 Items, Sorted by Field Label

Quick Find:

New Deleted Fields Field Dependencies Set History Tracking

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
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		
Gender	Gender__c	Picklist		

https://maharajvjayaramgajapati-c-dev-ed.develop.lightning.force.com/one/app#/setu...

Execution Details:

- **Purpose:** Captures detailed food distribution activity information.
- **Fields:** Name, Linked Volunteer (master-detail), Linked Task (master-detail), Additional Details.

Setup > OBJECT MANAGER

Execution Detail

Details

Fields & Relationships
6 Items, Sorted by Field Label

Quick Find:

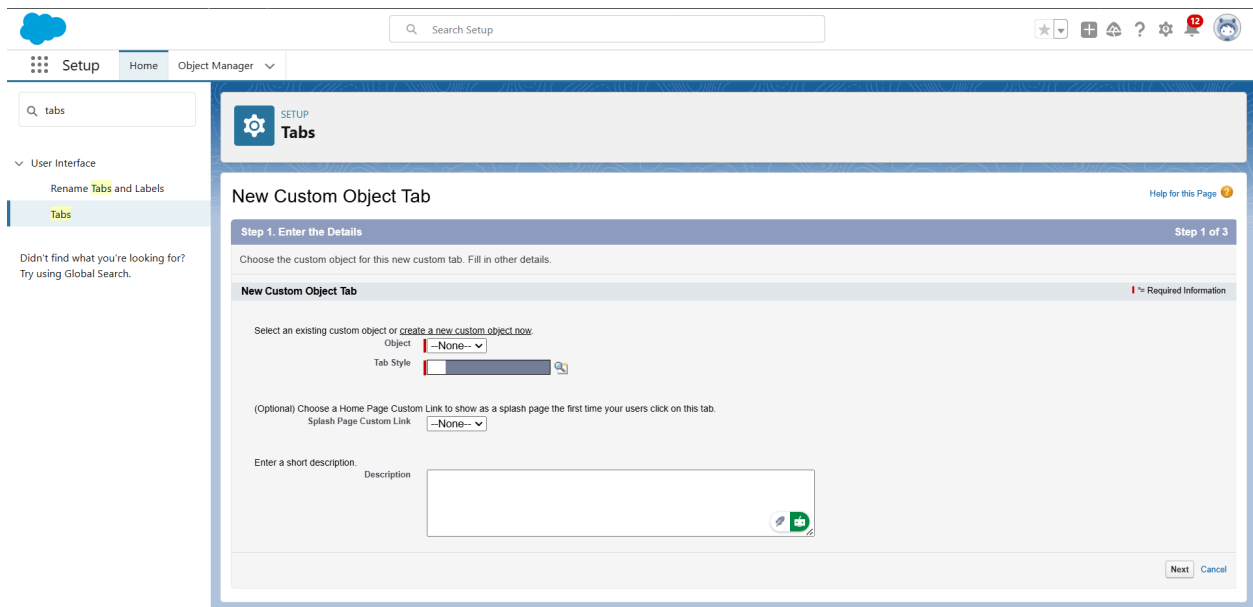
New Deleted Fields Field Dependencies Set History Tracking

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

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b) Tabs Creation:

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









Creating Remaing Tabs:

Create Tabs for all the objects created: Drop-off points, Task, Venue, Volunteer, Execution Details and Dashboards.

Custom Tabs

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

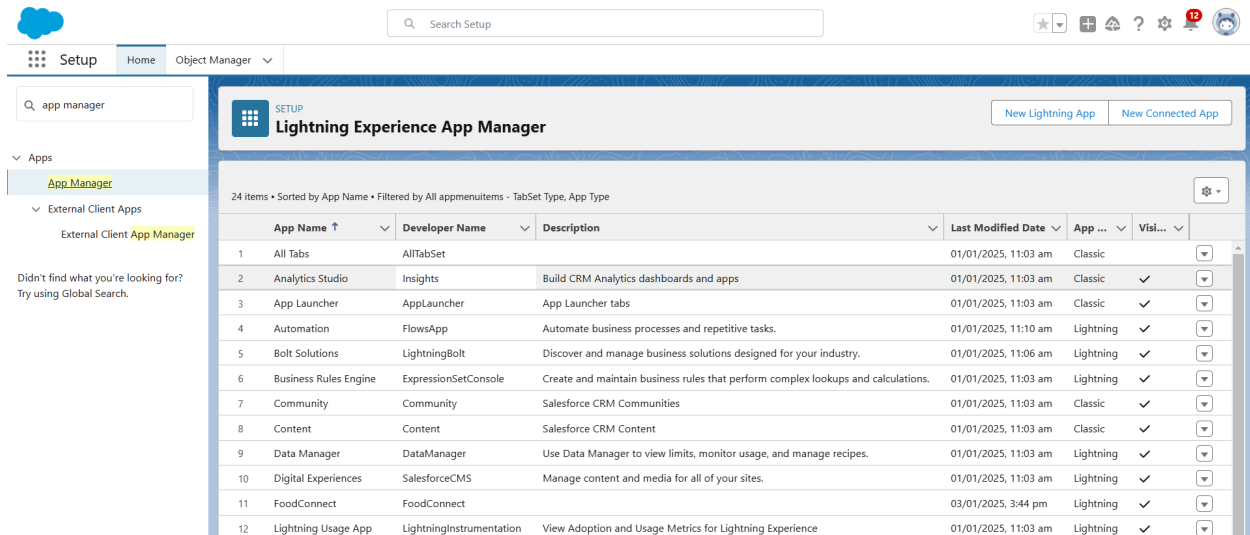
Custom Object tabs look and behave like the standard tabs provided with Salesforce. Web tabs allow you to embed external web applications and content within the Salesforce window. Visualforce tabs allow you to embed Visualforce pages. Lightning Component tabs allow you to add Lightning components to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

Custom Object Tabs New What Is This?			
Action	Label	Tab Style	Description
Edit Del	Dashboards	 Truck	
Edit Del	Drop-Off Points	 Boat	
Edit Del	Execution Details	 Red Cross	
Edit Del	Tasks	 Pencil	
Edit Del	Venues	 Hands	
Edit Del	Volunteers	 Heart	

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c)The Lightning Apps:

1. Go to setup page >> search “app manager” in quick find >> select “app manager” >> click on New lightning App.



Search Setup

Setup Home Object Manager

app manager

Apps

App Manager

External Client Apps

External Client App Manager

Didn't find what you're looking for? Try using Global Search.

SETUP Lightning Experience App Manager

New Lightning App New Connected App

24 items • Sorted by App Name • Filtered by All appmenuitems - TabSet Type, App Type

	App Name ↑	Developer Name	Description	Last Modified Date	App ...	Visi...
1	All Tabs	AllTabSet		01/01/2025, 11:03 am	Classic	
2	Analytics Studio	Insights	Build CRM Analytics dashboards and apps	01/01/2025, 11:03 am	Classic	✓
3	App Launcher	AppLauncher	App Launcher tabs	01/01/2025, 11:03 am	Classic	✓
4	Automation	FlowsApp	Automate business processes and repetitive tasks.	01/01/2025, 11:10 am	Lightning	✓
5	Bolt Solutions	LightningBolt	Discover and manage business solutions designed for your industry.	01/01/2025, 11:06 am	Lightning	✓
6	Business Rules Engine	ExpressionSetConsole	Create and maintain business rules that perform complex lookups and calculations.	01/01/2025, 11:03 am	Lightning	✓
7	Community	Community	Salesforce CRM Communities	01/01/2025, 11:03 am	Classic	✓
8	Content	Content	Salesforce CRM Content	01/01/2025, 11:03 am	Classic	✓
9	Data Manager	DataManager	Use Data Manager to view limits, monitor usage, and manage recipes.	01/01/2025, 11:03 am	Lightning	✓
10	Digital Experiences	SalesforceCMS	Manage content and media for all of your sites.	01/01/2025, 11:03 am	Lightning	✓
11	FoodConnect	FoodConnect		03/01/2025, 3:44 pm	Lightning	✓
12	Lightning Usage App	LightningInstrumentation	View Adoption and Usage Metrics for Lightning Experience	01/01/2025, 11:03 am	Lightning	✓

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

App Name : FoodConnect

Developer Name : will be auto populated

Image : optional [Primary color hex value : keep this default.]

App Details & Branding

Give your Lightning app a name and description. Upload an image and choose the highlight color for its navigation bar.

App Details

* App Name ⓘ

FoodConnect

* Developer Name ⓘ

FoodConnect

Description ⓘ

Enter a description...

App Branding

Image ⓘ

Primary Color Hex Value ⓘ

Image

Primary Color Hex Value

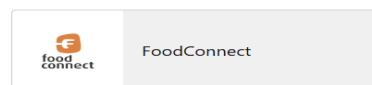
#0070D2

Clear

Org Theme Options

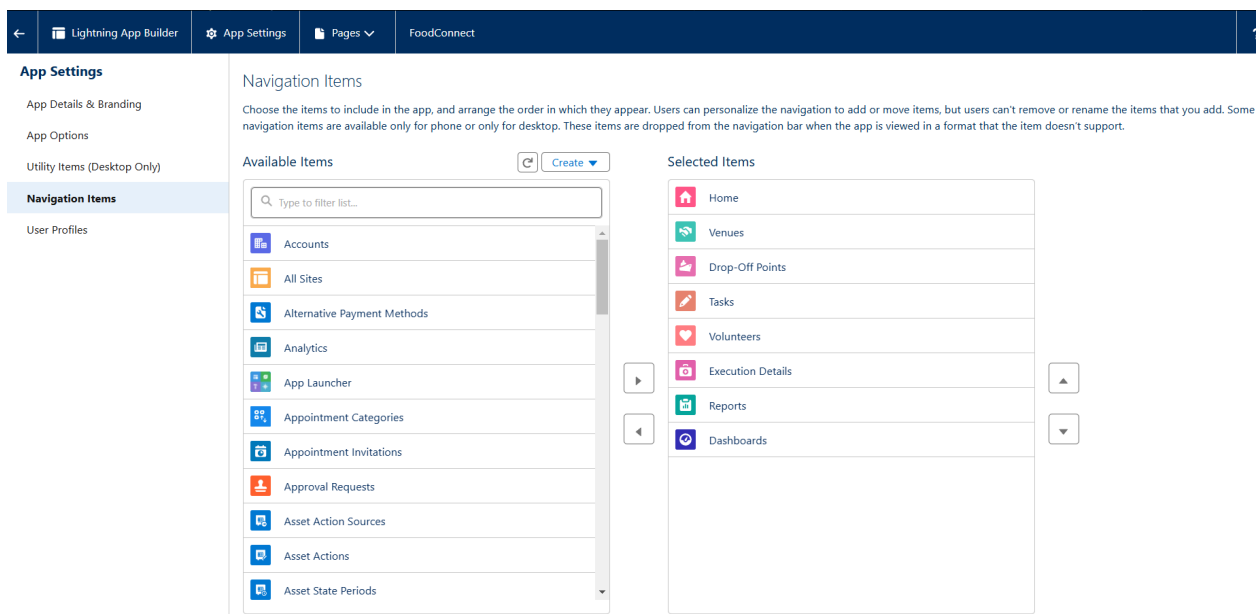
☐ Use the app's image and color instead of the org's custom theme

App Launcher Preview



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3. click Next >> (App option page) Set Navigation Style as Standard Navigation >> Next.
4. Utility Items) keep it as default >> Next.
5. To Add Navigation Items:



The screenshot shows the 'App Settings' section of the Lightning App Builder. The 'Navigation Items' tab is selected. The 'Available Items' list on the left includes: Accounts, All Sites, Alternative Payment Methods, Analytics, App Launcher, Appointment Categories, Appointment Invitations, Approval Requests, Asset Action Sources, Asset Actions, and Asset State Periods. The 'Selected Items' list on the right includes: Home, Venues, Drop-Off Points, Tasks, Volunteers, Execution Details, Reports, and Dashboards. A search bar is present above the 'Available Items' list.

d) Fields:

- Create Relationship Fields in Objects
 1. Create Lookup Relationship Field on Volunteer Object
 2. Create Master Detail Relationship Field on Execution Details Object
 3. Create Lookup Relationship Field on Drop-Off Point Object
 4. Create Lookup Relationship Field on Task Object
- Creation of fields for each Object
 1. Creation of fields for the Drop-Off point object
 2. Creation of fields for the Task object
 3. Creation of fields for the Volunteer object
 4. Creation of fields for the Execution Details object

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e)Flows:

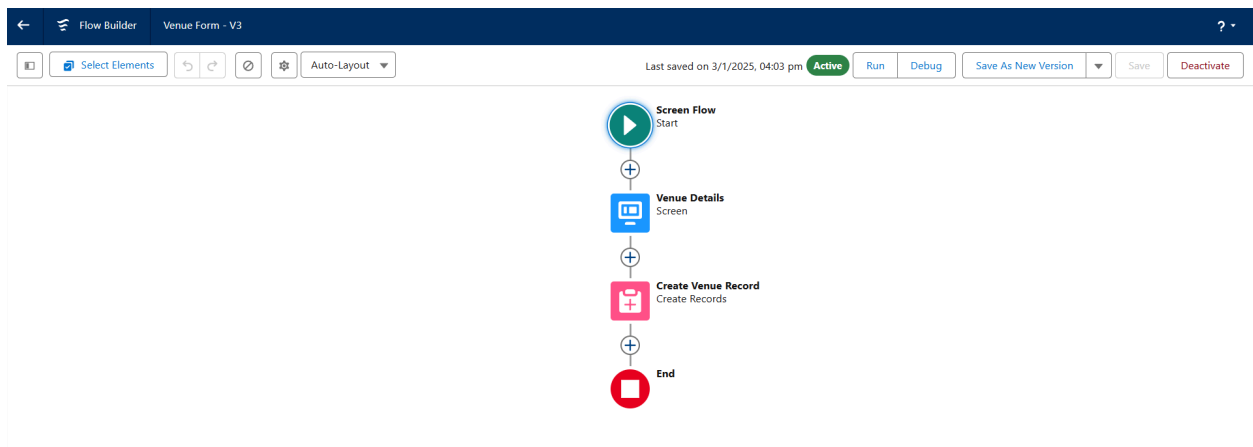
Automates data entry and processes, like recording venue details.

Flow: Venue Flow

a. **Purpose:** To manage and capture detailed information related to food drop-off points.

b. **Components:**

1. Text Component: For entering the venue name.
2. Email Component: For entering the contact email of the venue.
3. Phone Component: For entering the contact phone number of the venue.
4. Text Component: For entering the venue location.
5. Number Components: For entering latitude and longitude values of the venue



f)Creating trigger:

This Trigger is to assign Distance field to the Distance Calculation field. So that we can assign the distance in the sharing rules.

1. Log into the trailhead account, navigate to the gear icon in the top right corner.
2. Click on developer console and you will be navigated to a new console window.
3. Click on the File menu in the toolbar, and click on new >> Trigger.

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4. Enter the trigger name and the object to be triggered.
5. Enter Name : DropOffTrigger
6. sObject: Drop-Off Point

Code:

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

g)Report Types and Dashboards

1. Custom Report Types :

Create report types for venue with Drop-off with Volunteer and Volunteers with Execution Details and Tasks.

2. Reports :

Generate and configure reports using the custom report types to track and analyse relevant data.

3. Dashboards :

Configure dashboards to visualise data from reports and other components,providing insights into the overall distribution process.

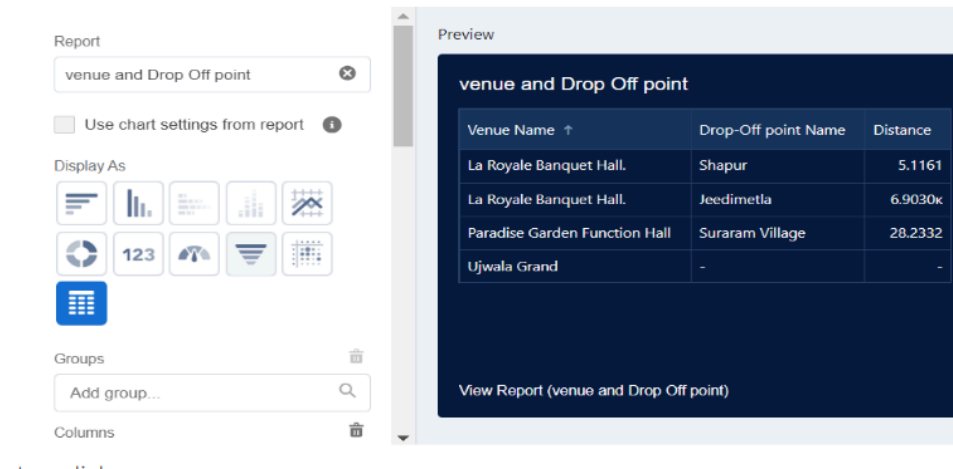
a. Name: Task Execution Details

b. Components:

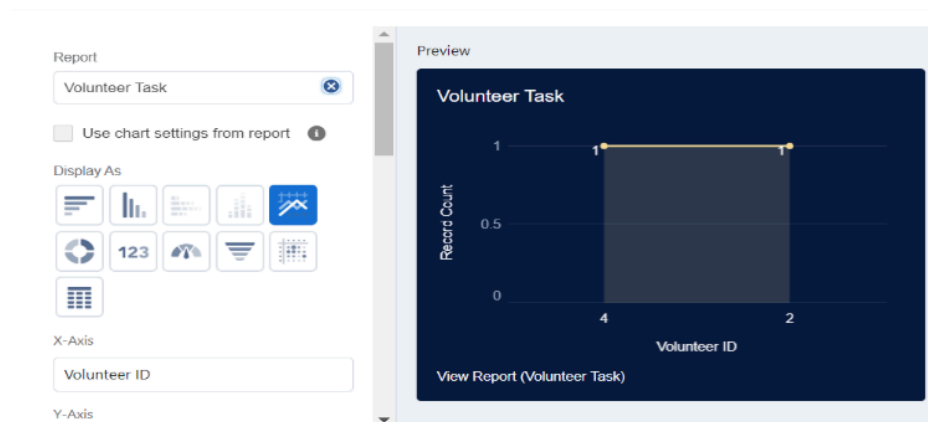
Lightning Table: Displays detailed information about venues and drop-off points, facilitating a comprehensive view of the data.

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Adding Venue and Drop Off Point Report to The Dashboard



Adding Volunteer Task Graph to the Dashboard

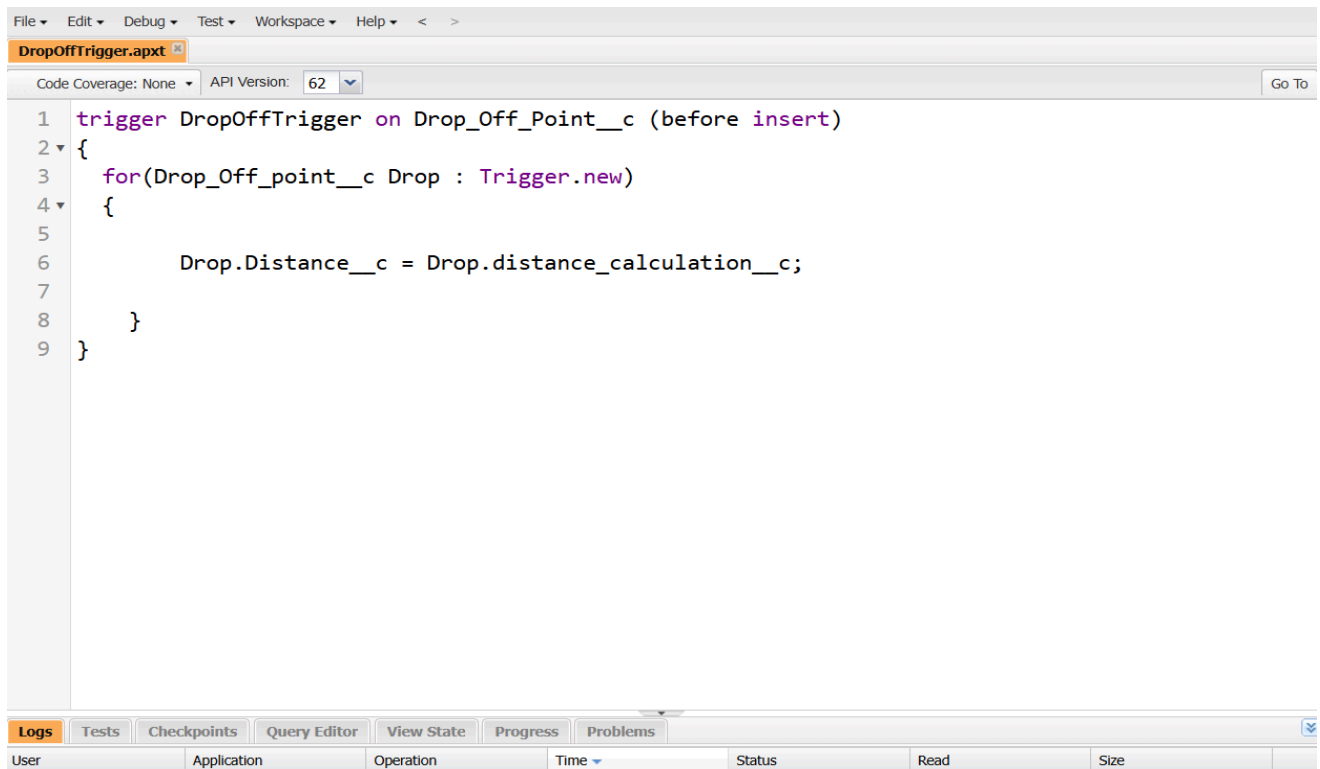


5. Testing and Validation

Ensures that the system works as intended:

- Unit Testing:** Ensures all components (Apex triggers, workflows) operate correctly.
- User Interface Testing:** Verifies user interface usability and correctness.

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```

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

The screenshot shows the Salesforce Apex code editor for a trigger named `DropOffTrigger` on the `Drop_Off_Point__c` object. The trigger is a `before insert` trigger. The code consists of a `for` loop that iterates over the `Trigger.new` collection, and within the loop, it assigns the value of `Drop.distance_calculation__c` to `Drop.Distance__c`. The editor interface includes a menu bar (File, Edit, Debug, Test, Workspace, Help), a toolbar with 'Code Coverage: None' and 'API Version: 62', and a bottom panel with tabs for Logs, Tests, Checkpoints, Query Editor, View State, Progress, and Problems. Below the tabs is a table with columns: User, Application, Operation, Time, Status, Read, and Size.

6. Key Scenarios Addressed by Salesforce in the Implementation Project

This is a use-case analysis showing how the project addresses real-world.

Challenges:

- **Food Distribution Coordinator:** Tracks food drop-off points and related tasks.
- **Volunteer Management:** Links tasks to volunteers for accountability.
- **Data Visibility:** Dashboards and reports improve decision-making and transparency.

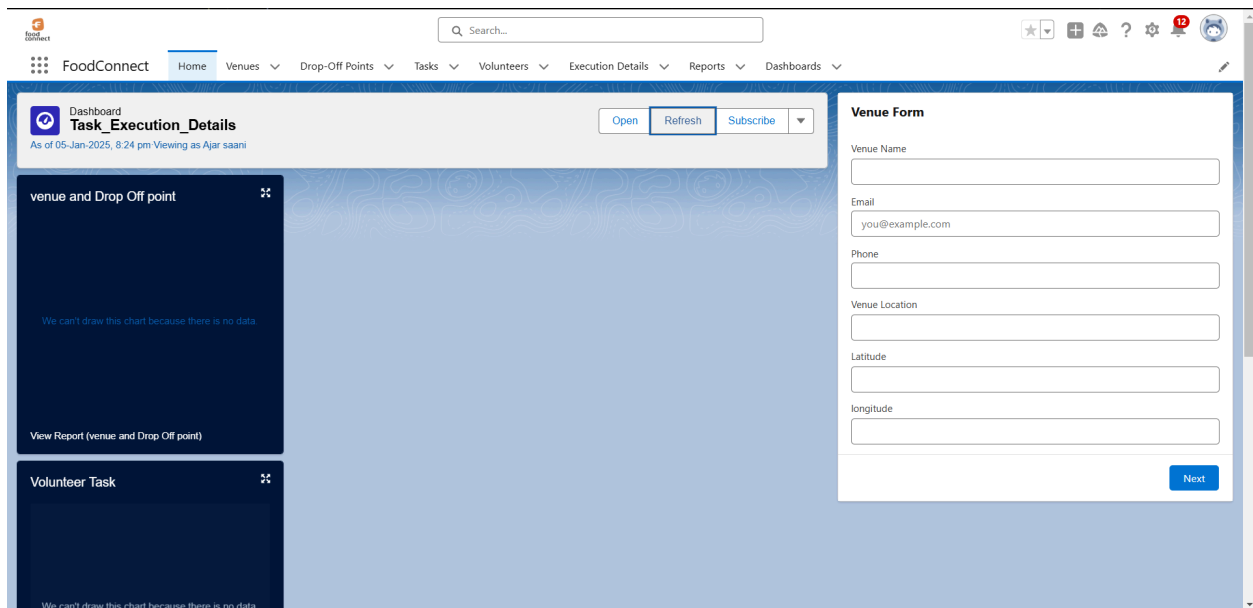
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7. Conclusion

The salesforce Food Connect App successfully enhances food distribution efficiency by leveraging Salesforce's capabilities. It improves coordination and transparency in food donation efforts, addressing food insecurity and maximizing resource utilization.

A brief summary of what the project achieved:

- i. **Outcome:** A functional Salesforce application that enhances food distribution efficiency.
- ii. **Impact:** Improved coordination and transparency in food donation efforts.



The screenshot displays the Salesforce Food Connect application interface. At the top, there is a navigation bar with the 'FoodConnect' logo and a search bar. Below the navigation bar, the main content area is divided into two sections. On the left, there is a 'Task Execution Details' dashboard with a 'venue and Drop Off point' chart and a 'Volunteer Task' section. On the right, there is a 'Venue Form' with fields for Venue Name, Email, Phone, Venue Location, Latitude, and Longitude. The form includes a 'Next' button at the bottom right.