

LEFTOVER FOOD SUPPLY MANAGEMENT SYSTEM

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1.INTRODUCTION

1.1PROJECT OVERVIEW

The Leftover Food Supply Management System is a Salesforce-based application designed to facilitate the efficient collection and distribution of surplus food to underserved communities. It connects donors with drop-off points and volunteers to ensure timely and hygienic delivery. The system is built to streamline key operations such as donor registration, volunteer task assignment, and delivery tracking. To enhance efficiency and accountability, the application utilizes Salesforce automation tools like Flows, Approval Processes, and Email Alerts.

1.2PURPOSE

The primary goal of this project is to empower organizations to efficiently manage the collection and distribution of surplus food. The system aims to reduce manual effort, improve the accuracy of tracking, and ensure timely coordination among donors, volunteers, and drop-off points.

Of course, Hem. Here is a structured outline for a document on a "Leftover Food Supply Management System," including the sections you requested for the beginning and the end.

1.3 PROBLEM STATEMENT

The core problem is the inefficient and unorganized management of surplus food.

Key challenges include:

- **LACK OF REAL-TIME INFORMATION:** Food donors (e.g., restaurants) have no immediate way to communicate the availability of surplus food to potential recipients (e.g., NGOs, shelters).
- **LOGISTICAL HURDLES:** There is no coordinated system for the timely pickup and delivery of perishable food, leading to spoilage.
- **FOOD SAFETY AND QUALITY CONCERNS:** Recipients have concerns about the safety and hygiene of leftover food, and donors fear liability issues.
- **SCALABILITY ISSUES:** Existing manual efforts by individual organizations are often limited in their geographical reach and cannot scale effectively to meet the demand.
- **DATA AND ANALYTICS GAP:** There is a lack of data on food waste hotspots, donation patterns, and demand, which prevents strategic planning and optimization.

DEVELOPMENT PHASE

Creating Developer Account:

By using this URL - <https://www.salesforce.com/form/developer-signup/?d=pb>

The screenshot shows the 'Sign up for your Developer Edition' page. The background features a dark blue gradient with the Salesforce logo at the top left. The main heading reads: 'Build enterprise-quality apps fast and get hands-on with Agentforce and Data Cloud.' Below it, a call-to-action button says 'Sign up for your Developer Edition.' To the right, there's a form with fields for First name (HEMANATH), Last name (S), Job title (SALES FORCE), Work email (2326KB17@KGCA), Company (KG COLLEGE OF A), and Country/Region (India). A note below the company field states: 'Your org may be provisioned on or migrated to Hyperforce, Salesforce's public cloud infrastructure.' At the bottom, a checkbox is checked, indicating agreement to the 'Main Services Agreement – Developer Services and Salesforce Program Agreement.' A small note below it says: '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.'

Created objects: venue drop off point task volunteer execution details:

The screenshot shows the 'Object Manager' interface for the 'Venue' object. The top navigation bar includes 'SETUP > OBJECT MANAGER'. On the left, a sidebar lists various object settings like 'Fields & Relationships', 'Page Layouts', and 'Buttons, Links, and Actions'. The main 'Details' tab is selected, showing the following information:

Details	Details
Description	
API Name	Venue__c
Singular Label	Venue
Plural Label	Venues
Enable Reports	<input checked="" type="checkbox"/>
Track Activities	<input checked="" type="checkbox"/>
Track Field History	<input checked="" type="checkbox"/>
Deployment Status	Deployed
Help Settings	Standard salesforce.com Help Window

At the bottom, there are standard Salesforce navigation icons: a cloud icon, a search bar with 'Search Setup', and a toolbar with icons for Home, New, Find, Help, and User.

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 Scoping Rules Object Access Triggers Flow Triggers Validation Rules Conditional Field Formatting	Details Description API Name: Drop_Off_Point_c Custom: ✓ Singular Label: Drop-Off Point Plural Label: Drop-Off Points	Enable Reports ✓ Track Activities ✓ Track Field History ✓ Deployment Status Deployed Help Settings Standard salesforce.com Help Window
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[Edit](#) [Delete](#)

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 Flow Triggers Validation Rules Conditional Field Formatting	Details Description API Name: Task_c Custom: ✓ Singular Label: Task Plural Label: Tasks	Enable Reports ✓ Track Activities ✓ Track Field History ✓ Deployment Status Deployed Help Settings Standard salesforce.com Help Window
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[Edit](#) [Delete](#)

http://orodform-0001002224-dev-ed.develop.lightning.force.com/sfc/cmp.ap... [Search Setup](#)

The screenshot shows the Salesforce Setup interface with the 'Object Manager' selected. The top navigation bar includes 'Setup', 'Home', 'Object Manager', and a search bar. The main content area displays the 'Volunteer' object details. On the left, a sidebar lists various configuration tabs: 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, Flow Triggers, Validation Rules, and Conditional Field Formatting. The right side shows the 'Details' tab for the 'Volunteer' object, which includes fields for Description, API Name (set to 'Volunteer__c'), Custom (checked), Singular Label ('Volunteer'), and Plural Label ('Volunteers'). A section for 'Enable Reports' is also present, with 'Track Activities' checked. The bottom of the page shows the URL <https://orgfarm-0e04b022a4-dev-ed.lightning.force.com/one/one.ap...>.

The screenshot shows the Salesforce Setup interface with the 'Object Manager' selected. The top navigation bar includes 'Setup', 'Home', 'Object Manager', and a search bar. The main content area displays the 'Execution Detail' object details. On the left, a sidebar lists various configuration tabs: 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, Flow Triggers, Validation Rules, and Conditional Field Formatting. The right side shows the 'Details' tab for the 'Execution Detail' object, which includes fields for Description, API Name (set to 'Execution_Detail__c'), Custom (checked), Singular Label ('Execution Detail'), and Plural Label ('Execution Details'). A section for 'Enable Reports' is also present, with 'Track Activities' checked. The bottom of the page shows the URL <https://orgfarm-0e04b022a4-dev-ed.lightning.force.com/one/one.ap...>.

Configured fields and relationships

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

Object Manager > **Venue**

Fields & Relationships (8 items, Sorted by Field Label)

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
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)		

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

Object Manager > **Drop-Off Point**

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)		

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

- Header:** Search Setup, Home, Object Manager
- Breadcrumb:** SETUP > OBJECT MANAGER
- Section:** Task
- Left Sidebar (Details & 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
 - Flow Triggers
 - Validation Rules
 - Conditional Field Formatting
- Details Panel:**

Description	API Name	Singular Label	Plural Label
	Task__c	Task	Tasks

Enable Reports
✓
Track Activities
✓
Track Field History
✓
Deployment Status
Deployed
Help Settings
Standard salesforce.com Help Window
- Buttons:** Edit, Delete

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

- Header:** Search Setup, Home, Object Manager
- Breadcrumb:** SETUP > OBJECT MANAGER
- Section:** Task
- Left Sidebar (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
 - Flow Triggers
 - Validation Rules
 - Conditional Field Formatting
- Fields & Relationships Table:**

Fields & Relationships 15 items, Sorted by Field Label					
	FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
	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(200)		
	Number of People Served	Number_of_People_Served__c	Number(18, 0)		
	Owner	OwnerId	Lookup(User,Group)		
	Phone	Phone__c	Phone		
	Rating	Rating__c	Picklist		
	Sponsored By	Sponsored_By__c	Lookup(Venue)		
	Task ID	Task_ID__c	Auto Number		
	Task Name	Name	Text(80)		
- Buttons:** Quick Find, New, Deleted Fields, Field Dependencies, Set History Tracking

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

Setup > OBJECT MANAGER

Execution Detail

Fields & Relationships (5 items, Sorted by Field Label)

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
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)		✓

The screenshot shows the "New Lightning App" setup screen with the following configuration:

App Options

Navigation and Form Factor

- Navigation Style:** Standard navigation (selected)
- Console navigation

Supported Form Factors:

- Desktop and phone (selected)
- Desktop
- Phone

Setup and Personalization

Setup Experience:

- Setup (full set of Setup options) (selected)
- Service Setup

App Personalization Settings:

- Disable end user personalization of nav-items in this app
- Disable temporary tabs for items outside of this app

Back **Next**

12 Queue Management QueueManagement Create and manage queues for your business. 22/08/2023, 12:06 pm Lightning ✓

13 Sales Sales The world's most popular sales force automation (SFA) solution. 22/08/2023, 12:06 pm Classic

Available Items

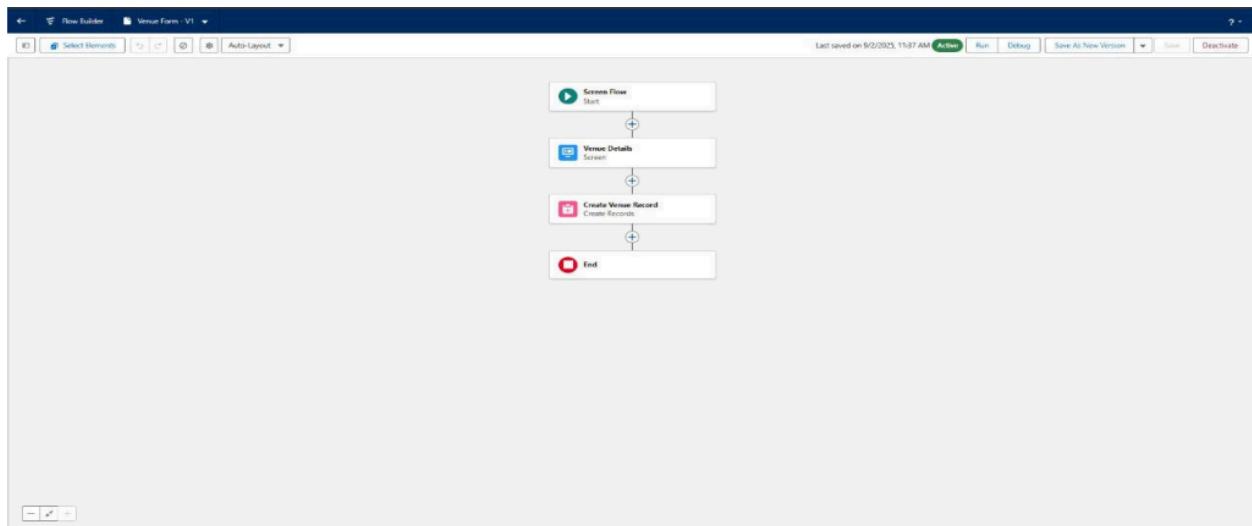
Type to filter list...

- Accounts
- All Sites
- Alternative Payment Methods
- Analytics
- App Launcher
- Appointment Categories
- Appointment Invitations
- Approval Requests
- Asset Action Sources
- Asset Actions

Selected Items

- Home
- Venues
- Tasks
- Drop-Off points
- Execution Details
- Volunteers
- Reports
- Dashboards

▶◀



Last saved on 9/2/2025, 11:37 AM Active Run Debug Save As New Version Deactivate

Edit Screen

Venue Form

Components Fields

Screen Properties

Properties

Label: Venue Details

API Name:

Description:

Stage: Select a stage resource...

Configure Header

Configure Footer

Configure Screen Actions

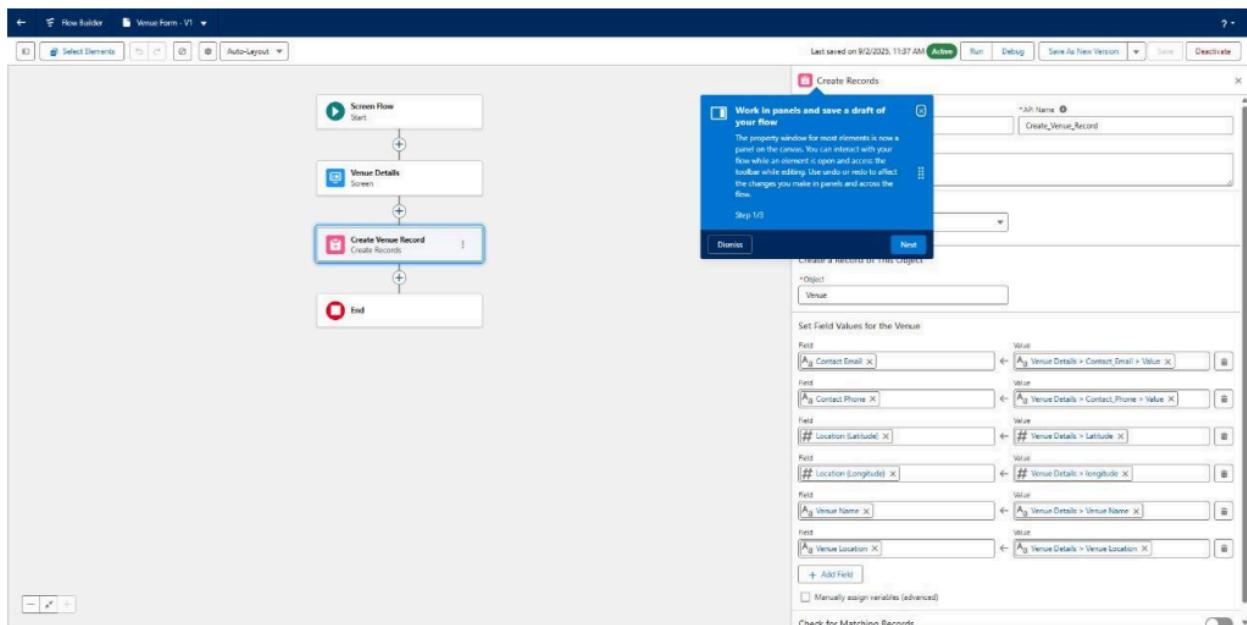
Preview Size: Large

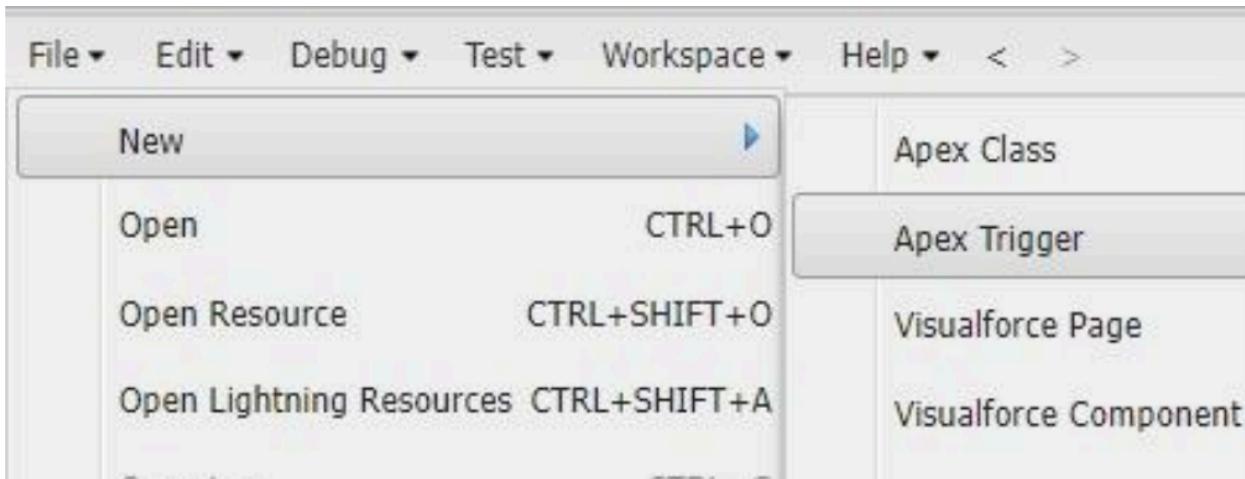
Buttons: Previous, Finish, Cancel, Done

Input (55):

- Action Button
- Add Attendees
- Address
- Call Script
- Cancel Appointment
- Checkbox
- Checkbox Group
- Choice Lookup
- Currency
- Data Table
- Date
- Date & Time
- Dependent Fields
- Display Image
- Email
- Enhanced Message
- File Upload
- Long Text Area
- Lookup

Get more on the AppExchange





New Apex Trigger

Name:

sObject:

Code Coverage: None API Version: 64 Go To

```

1 trigger DropOffTrigger on Drop_Off_point__c (before insert) {
2
3     for(Drop_Off_point__c Drop : Trigger.new){
4
5         Drop.Distance__c = Drop.distance_calculation__c;
6
7     }
8
9 }
10
11 |

```

General Information

First Name	Iksha Foundation	Role	<None Specified>
Last Name	Iksha_Foundation	User License	Salesforce Platform
Alias	iiksh	Profile	NGOs Profile
Email	bhargavipaila1023@gmail.co	Active	<input checked="" type="checkbox"/>
Username	ikshafoundation@sb.com	Marketing User	<input type="checkbox"/>
Nickname	User1711437164226559933	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"/>

New

Action	Label	Group Name	Created By	Created Date
Edit Del	Iksha	Iksha	Bhargavi_Paila	26/03/2024, 2:27 pm
Edit Del	NSS	NSS	Bhargavi_Paila	26/03/2024, 2:27 pm
Edit Del	StreetCause	Street_Cause	Bhargavi_Paila	26/03/2024, 2:26 pm

Outline **Filters (2)**

Groups

- GROUP ROWS
 - Add group...
- Volunteer Name

GROUP COLUMNS

- Add group...

Columns

- Add column...
- Venue Name
- Drop-Off point Name
- # Distance

REPORT ▾ **Volunteer Task ✓ Volunteers with Execution Details and Tasks**

Fields

Outline **Filters**

GROUP ROWS

- Add group...

Volunteer ID

GROUP COLUMNS

- Add group...

Columns

- Add column...
- Volunteer: Volunteer Name
- Task: Task Name
- Execution Detail: Execution Detail Name
- Volunteer: Owner Name
- Task: Date
- Task: Rating

Previewing a limited number of records. Run the report to see everything.

	Volunteer Name ↑	Venue Name ↑	Drop-Off point Name ↓	Distance ↓
- (4)		La Royale Banquet Hall.	Shapur	5.1161
		La Royale Banquet Hall.	Jeedimetla	6,902.9995
		Paradise Garden Function Hall	Suraram Village	28.2332
		Ujwala Grand	-	-
Subtotal				6,936.3488
Total (4)				6,936.3488

Update Preview Automatically

Run

Report

venue and Drop Off point

Use chart settings from report

Display As

Groups

Add group...

Columns

Preview

venue and Drop Off point

Venue Name ↑	Drop-Off point Name	Distance
La Royale Banquet Hall.	Shapur	5.1161
La Royale Banquet Hall.	Jeedimetla	6.9030k
Paradise Garden Function Hall	Suraram Village	28.2332
Ujwala Grand	-	-

[View Report \(venue and Drop Off point\)](#)

Report

Volunteer Task

Use chart settings from report

Display As

X-Axis

Volunteer ID

Y-Axis

Preview

Volunteer Task

Record Count

0.5

1

0

4

2

Volunteer ID

[View Report \(Volunteer Task\)](#)

FoodConnect

DASHBOARDS

Task Execution Details

Last refreshed 16 days ago. Refresh this dashboard to see the latest data.
As of Sep 1, 2025, 11:24 PM (Viewing as dtkk_karma)

Venue and Drop Off point

To view this table, refresh the dashboard.

[View Report](#) As of Sep 1, 2025, 11:24 PM

Volunteer Task

[View Report \(Volunteer Task\)](#) As of Sep 1, 2025, 11:24 PM

shutterstock.com - 2343495535

FoodConnect Home Venues Tasks Drop-Off points Execution Details Volunteers Reports Dashboards

Search...

Task Execution Details
As of 29-Mar-2024, 9:55 am Viewing as Pala Bhargavi

venue and Drop Off point

Venue Name	Drop-Off point	Distance
La Royale Banquet Hall	Shapur	5.116
La Royale Banquet Hall	Jeedimetla	6.903
Paradise Garden Function Hall	Suraram Village	28.23
Ujwala Grand	-	-

[View Report \(venue and Drop Off point\)](#)

Volunteer Task

[View Report \(Volunteer Task\)](#)

Venue Form

Venue Name:

Email: you@example.com

Phone:

Venue Location:

Flow Component: Venue Form
This is a placeholder. Flows don't run in the canvas.

Add Component(s) Here

FUTURE SCOPE OF THE LEFTOVER FOOD SUPPLY MANAGEMENT SYSTEM:

The system will evolve beyond its initial donor-to-NGO model by leveraging AI for intelligent, predictive logistics, forecasting food surpluses, and optimizing distribution routes. The ecosystem will expand significantly to include the entire supply chain, from farmers at the source to individual households at consumption. Critically, the platform will integrate with corporate CSR programs by providing verifiable impact data, and with municipal bodies to inform waste management policies. This transforms it from a simple rescue app into a vital piece of civic infrastructure, building a truly sustainable and circular economy for the community.

ADVANTAGES AND DISADVANTAGES

ADVANTAGES:

- **SOCIAL IMPACT:** Directly addresses hunger and malnutrition by redirecting surplus food to those in need.
- **ENVIRONMENTAL BENEFITS:** Significantly reduces food waste in landfills, which in turn lowers methane gas emissions, a potent greenhouse gas.
- **ECONOMIC BENEFITS:** Donors save money on waste disposal fees. Recipients reduce their food procurement costs.
- **EFFICIENCY AND SCALABILITY:** Automates the matching and logistics process, making it far more efficient and scalable than manual methods.

DISADVANTAGES:

- **FOOD SAFETY AND LIABILITY:** The primary risk. Ensuring the donated food is safe for consumption is a major challenge. A single incident could damage the platform's reputation.
- **LOGISTICAL COMPLEXITY:** Coordinating timely pickups and deliveries for perishable goods is complex and can be costly.
- **TECHNOLOGY ADOPTION:** Both donors and smaller NGOs may be hesitant or lack the resources to adopt a new technology platform.
- **INCONSISTENT SUPPLY:** The availability of surplus food can be unpredictable, making it difficult for recipients to rely on it as a primary source.
- **INITIAL INVESTMENT COST:** Developing, launching, and maintaining the technology platform requires significant initial funding.

CONCLUSION

The Leftover Food Supply Management System presents a powerful, technology-driven solution to the twin problems of food waste and hunger. By creating a transparent and efficient ecosystem, it connects the dots between surplus and scarcity. While challenges related to food safety, logistics, and user adoption exist, they can be mitigated through robust protocols, strategic partnerships, and a user-centric design. The potential social, environmental, and economic benefits overwhelmingly justify the endeavor. This system is not just about managing waste; it is about creating value, fostering community resilience, and ensuring that good food nourishes people, not landfills.

APPENDIX

- Source Code: Provided in Apex Classes and Triggers trigger

DropOffTrigger on Drop_Off_point__c (before insert)

```
{
```

```
for(Drop_Off_point__c Drop : Trigger.new)
```

```
{
```

```
Drop.Distance_c = Drop.distance_calculation_c;
```

```
}
```