

To Supply Leftover Food to Poor

(Salesforce-Based Food Redistribution and Management System)

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1. Ideation Phase:

1.1 Objective:

To create a Salesforce application that helps collect leftover food from venues (restaurants, hotels, events) and distribute it to poor people through registered volunteers and drop-off points.

1.2 Problem Statement:

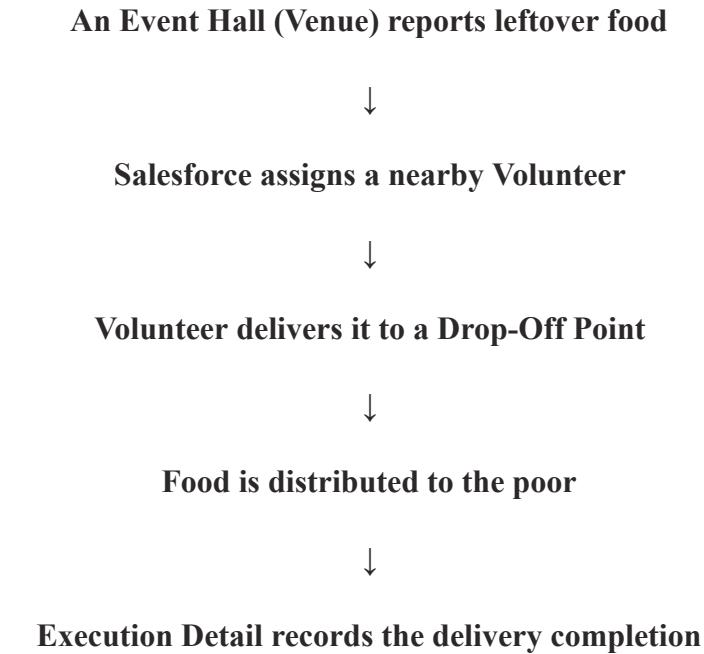
Large amounts of food go to waste at events, hotels, and canteens. Poor people nearby remain hungry because there's no proper system to redistribute surplus food effectively and safely.

1.3 Proposed Solution:

Develop a Salesforce-based solution that:

- Tracks food availability from venues.**
- Uses volunteers to transport food.**
- Uses drop-off points as collection centers.**
- Monitors each task and execution detail to ensure completion and accountability.**
- Tracks the entire journey — Food Donated → Picked → Delivered → Feedback Collected**

Example:



2. Project Planning Phase:

2.1 Goals:

- Automate the redistribution of leftover food.
- Record every step (collection, delivery, distribution).
- Provide dashboards for tracking and reporting.

2.2 Stakeholders:

Role	Description
Venue Manager	Uploads food availability data.
Volunteer	Handles pickup and delivery.
Drop-Off Point Manager	Receives and manages food distribution.
Admin	Oversees operations, users, and system performance.

2.3 Tools in Salesforce:

- **Custom Objects: Venue, Drop-Off Point, Volunteer, Task, Execution Detail.**
- **Automation Tools: Process Builder / Flows for assigning volunteers automatically.**
- **Reports & Dashboards: For monitoring completed deliveries and total food saved.**

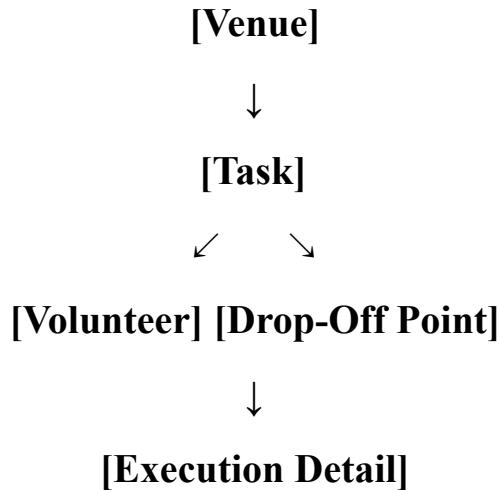
3. Project Design Phase – Data Model and Workflow:

Object	Description	Relationships
Venue	Stores donor info (restaurants, hotels, events).	One Venue → Many Tasks
Drop-Off Point	Locations where food is delivered (NGOs, shelters).	One Drop-Off → Many Execution Details
Volunteer	Registered individuals for pickup/delivery.	One Volunteer → Many Tasks
Task	Represents pickup/delivery work assigned.	Linked to Venue, Volunteer, and Drop-Off Point
Execution Detail	Stores results of the completed delivery.	Linked to Task

3.1 Workflow Automation:

- When Venue adds new leftover food → Salesforce creates a Task automatically.
- Based on location and time, system assigns a Volunteer.
- After completion, Volunteer updates the Execution Detail record.
- Admin can view reports showing all completed deliveries.

3.2 E-R Diagram:



4. Requirement Analysis Phase:

- **Functional Requirements:**

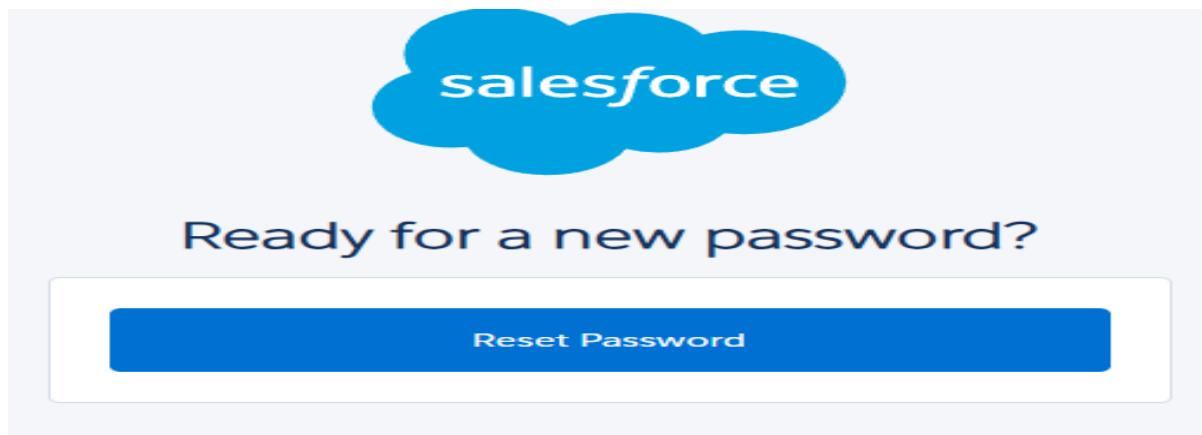
These define what the system must do. For example, it allows venue managers to add leftover food details, automatically creates tasks, assigns volunteers, tracks delivery to drop-off points, and records final execution details with feedback.

- **Non-Functional Requirements:**

These describe how the system should perform. It ensures security through role-based access, maintains data accuracy, supports scalability for many users, automates processes to save time, and provides fast dashboard performance within 3 seconds.

Salesforce developer account creation:

The screenshot shows the "Sign up for your Developer Edition" page. The left side features a dark purple background with the Salesforce logo and text: "Build enterprise-quality apps fast and get hands-on with Agentforce and Data Cloud." Below this is a list of benefits: "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", and "Integrate with anything using APIs". An illustration of a white robot with blue highlights and a smartphone displaying a "Customer Support" app interface are shown. The right side has a white form titled "Sign up for your Developer Edition" with subtext: "A free Salesforce Platform environment with Agentforce and Data Cloud". It includes fields for First name (subha), Last name (kalaiappan), Job title (developer), Work email (subha3062005@gmail.com), Company (salesforce), and Country/Region (India). A note at the bottom states: "Your org may be provisioned on or migrated to Hyperforce, Salesforce's public cloud infrastructure." A checkbox for agreeing to the Main Services Agreement and Program Agreement is checked. A "I'm not a robot" reCAPTCHA field is at the bottom right.



A composite image showing two side-by-side pages. On the left is the standard Salesforce login screen with fields for "Username" and "Password", and buttons for "Log In", "Remember me", and "Forgot Your Password?". On the right is a promotional page for Dreamforce with the heading "Catch every Dreamforce breakthrough." and a subtext about watching groundbreaking moments. It includes a "Stream it now" button.

Create a Object:

A screenshot of the Salesforce Setup interface, specifically the Object Manager. The URL in the browser bar is "orgfarm-c9575ba05-dev-ed.develop.my.salesforce.com/lightning/setup/ObjectManager/01g500000Bps2/Details/view". The page shows the "Venue" object details. On the left is a sidebar with links like "Fields & Relationships", "Page Layouts", "Lightning Record Pages", etc. The main area has tabs for "Details" and "Relationships". Under "Details", there are sections for "Description", "API Name" (set to "Venue__c"), "Custom" (checked), "Singular Label" (set to "Venue"), "Plural Label" (set to "Venues"), and "Enable Reports" (checked). Other settings include "Track Activities", "Track Field History", "Deployment Status" (set to "Deployed"), and "Help Settings". Buttons for "Edit" and "Delete" are at the top right.

SETUP > OBJECT MANAGER
Drop-Off Point

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

Edit | Delete

SETUP > OBJECT MANAGER
Volunteer

Details

Description

API Name: Volunteer__c
Custom: ✓
Singular Label: Volunteer
Plural Label: Volunteers

Enable Reports
✓ Track Activities
✓ Track Field History
✓ Deployment Status
Deployed
Help Settings
Standard salesforce.com Help Window

Edit | Delete

Creating a Custom Tab:

SETUP > TABS

Custom Object Tabs

Action	Label	Tab Style	Description
Edit Del	Drop-Off Points	Chess piece	
Edit Del	Execution Details	Books	
Edit Del	Tasks	Castle	
Edit Del	Venues	Sun	
Edit Del	Volunteers	Cell phone	

Web Tabs
No Web Tabs have been defined.

Visualforce Tabs
No Visualforce Tabs have been defined.

Lightning Component Tabs
No Lightning Component Tabs have been defined.

Create a Lightning App:

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 i

* Developer Name i

Description i

App Branding

Image i

Primary Color Hex Value i

Org Theme Options

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

App Launcher Preview



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 the items that you've included. Navigation items are available only 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...

- i Accounts
- Action Hub
- i Activation Targets
- i Activations Activations
- i All Sites
- i Alternative Payment Methods
- i Analytics
- i App Launcher
- i Appointment Categories
- i Appointment Invitations

Selected Items

- i Home
- i Venues
- i Tasks
- i Drop-Off Points
- i Execution Details
- i Volunteers
- i Reports
- i Dashboards

▲ ▼

Creation of Relationship fields in objects:

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

- Header:** Search Setup, Home, Object Manager.
- Page Title:** SETUP > OBJECT MANAGER
Volunteer
- Left Sidebar:** Details, Fields & Relationships (selected), 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.
- Table:** Fields & Relationships (13 items, sorted by Field Label).

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		
Execution ID	Execution_ID_c	Auto Number		

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

- Header:** Search Setup, Home, Object Manager.
- Page Title:** SETUP > OBJECT MANAGER
Venue
- Left Sidebar:** Details, Fields & Relationships (selected), 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.
- Table:** 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	CreatedBy	Lookup(User)		
Last Modified By	LastModifiedBy	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)	✓	

Setup Home Object Manager

SETUP > OBJECT MANAGER
Drop-Off Point

Fields & Relationships

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
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)		

Setup Home Object Manager

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

Date

Custom Field Definition Detail

Field Information

Field Label	Date	Object Name	Task
Field Name	Date	Data Type	Date
API Name	Date__c		
Description			
Help Text			
Data Owner			
Field Usage			
Data Sensitivity Level			
Compliance Categorization			
Created By	subha.kallapan, 10/24/2025, 1:38 AM	Modified By	subha.kallapan, 10/24/2025, 1:38 AM

General Options

Required Default Value

Validation Rules

No validation rules defined.

Setup Home Object Manager

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 Scoping Rules

Execution Detail Field

Execution Detail Name

Back to Execution Detail

Set Field Level Security | View Field Accessibility | Help for this Page

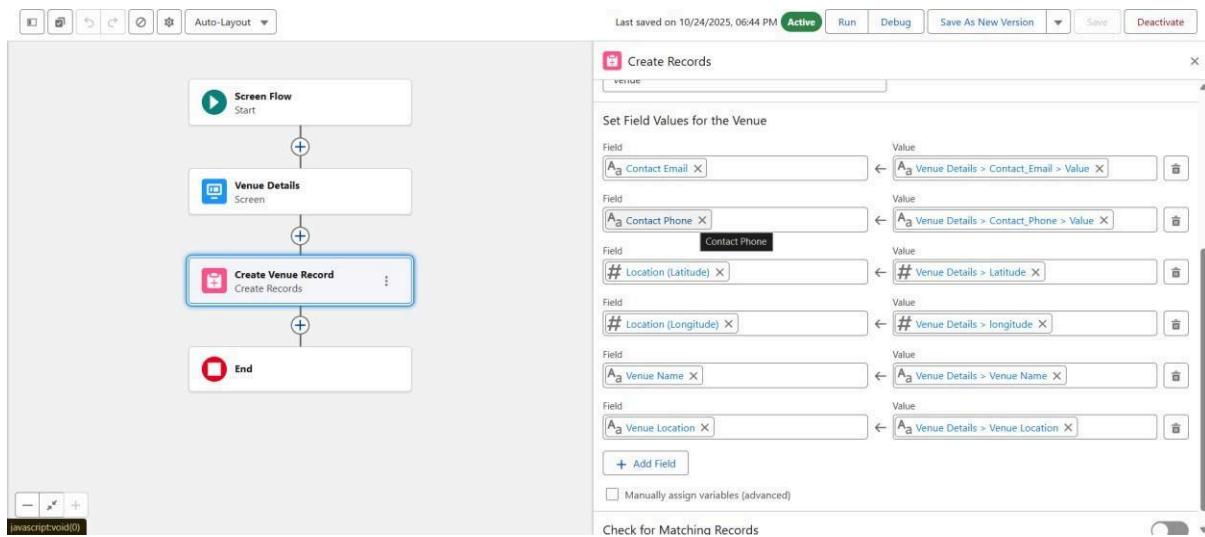
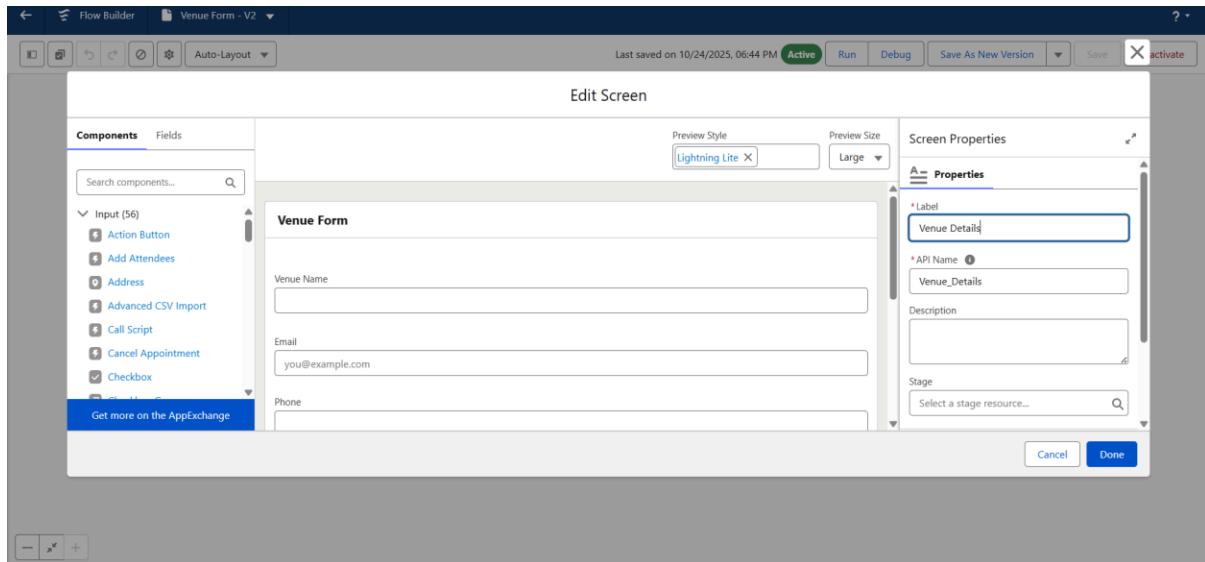
Field Information

Field Label	Execution Detail Name	Field Name	Name
Data Type	Text(80)		
Description			
Data Owner			
Field Usage			
Data Sensitivity Level			
Compliance Categorization			

Validation Rules

No validation rules defined.

Create Flow to create a record in Venue object:



Create a Trigger:

The screenshot shows the Salesforce Developer Console in Google Chrome. The URL is orgfarm-c9575ba0a5-dev-ed.develop.my.salesforce.com/_ui/common/apex/debug/ApexCSIPage. The tab title is DropOffTrigger.apxt. The code editor contains 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;
    }
}
```

Profiles:

The screenshot shows the Salesforce Setup interface. The left sidebar is expanded to show the 'Profiles' section under 'Users'. The main area displays the 'Profiles' page with a single profile listed:

Name	User License	Description	Created By	Modified By
NGOs Profile	Salesforce Platform		subha kallappan, 10/24/2025, 2:23 AM	subha kallappan, 10/24/2025, 7:22 AM

Creation of Users :

The screenshot shows the Salesforce Setup interface. The left sidebar is expanded to show the 'Users' section under 'Users'. The main area displays the 'User Edit' page for a user named 'Iksha Foundation Iksha_Foundation'. The 'General Information' section contains the following fields:

Field	Value
First Name	Iksha Foundation
Last Name	Iksha_Foundation
Alias	iksh
Email	iksha@gmail.com
Username	iksha123@gmail.com
Nickname	User176129786298149855
Title	
Company	Salesforce Platform
Department	
Division	

Other sections visible include 'Role' (None Specified), 'User License' (Salesforce Platform), 'Profile' (NGOs Profile), and 'Active' (checked). There are also sections for 'Marketing User', 'Offline User', 'Knowledge User', 'Flow User', 'Service Cloud User', 'Site.com Contributor User', 'Site.com Publisher User', 'WDC User', 'Data.com User Type' (None), 'Data.com Monthly Addition Limit' (300), and 'Accessibility Mode (Classic Only)'.

All Users

This page allows you to create, view, and manage users. To get more licenses, use the Your Account app. [Let's Go](#)

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

Action	Full Name	Alias	Username	Role	Active	Profile
Edit	akash_ks_Foundation	akash	akash@gmail.com		<input checked="" type="checkbox"/>	NGO Profile
Edit	Chatter Expert	chatty	chatty.000950000000000001ea0euia00auhz@chatter.salesforce.com		<input checked="" type="checkbox"/>	Chatter Free User
Edit	EPIC_OrgFarm	OEPI	epic.d381ae8b9418@orgfarm.salesforce.com		<input checked="" type="checkbox"/>	System Administrator
Edit	Iksha_Foundation_Iksha_Foundation	iksh	iksha123@gmail.com		<input checked="" type="checkbox"/>	NGO Profile
Edit	Kala_ks_Foundation	kala	kalaak124@gmail.com		<input checked="" type="checkbox"/>	NGO Profile
Edit	Kallapani_subha	sub	subha3052005326@agentforce.com		<input checked="" type="checkbox"/>	System Administrator
Edit	User_Integration	integ	integration@000950000000000001ea0team.com		<input checked="" type="checkbox"/>	Analytics Cloud Integration User
Edit	User_Security	sec	insightssecurity@000950000000000001ea0com		<input checked="" type="checkbox"/>	Analytics Cloud Security User

[New User](#) | [Reset Password\(s\)](#) | [Add Multiple Users](#)

Public Groups:

Group: Iksha

Group Information

[Save](#) | [Cancel](#)

Edit Public Group

Label: Group Name: I Required Information

Grant Access Using Hierarchies

Description:

Search: for: Find

Available Members **Selected Members**

Group: js	Group: ks	Iksha Foundation	Iksha_Foundation
Add	Remove		

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 plus all of the users below that role or territory in the hierarchy.

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

Action	Label	Group Name	Created By	Created Date
Edit Del	Iksha	Iksha	kaliapoori_subha	10/24/2025, 2:33 AM
Edit Del	js	js	kaliapoori_subha	10/24/2025, 2:35 AM
Edit Del	ks	ks	kaliapoori_subha	10/24/2025, 2:34 AM

[New](#)

Did't find what you're looking for? Try [Global Search](#).

Report Types:

The screenshot shows the Salesforce Setup interface under the 'Report Types' section. A new report type is being created with the following details:

- Primary Object:** Venues
- Display Label:** Venue with DropOff with Volunteer
- API Name:** Venue_with_DropOff_with_Volunteer
- Description:** Venue with DropOff with Volunteer
- Store in Category:** Other Reports

At the bottom right, there are 'Cancel' and 'Save' buttons.

The screenshot shows the 'Define Report Records Set' step of creating a report type. It defines the related objects:

- A Primary Object:** Venues
- B Drop-Off Points:** A to B Relationship:
 - Each "A" record must have at least one related "B" record.
 - "A" records may or may not have related "B" records.
- C Volunteers:**

To the right, there is a diagram illustrating the relationship between three objects: A, B, and C. A and B overlap, while C is separate. Below the diagram, there are three colored bars corresponding to A, B, and C.

At the bottom right, there are 'Cancel' and 'Save' buttons.

Reports:

The screenshot shows the 'Create Report' interface for the previously defined report type:

- Category:** Recently Used
- Select a Report Type:** Search bar and list of recently used report types, including 'Venue with DropOff with Volunteer'.
- Details:** Right panel showing the report type's description, category, and other metadata.

The 'Details' panel includes:

- Description:** Venue with DropOff with Volunteer
- Category:** Custom
- Start Report** button
- Fields (42)** link
- Created By You:** venue and Drop Off point
- Created By Others:** No Reports Yet
- Objects Used in Report Type:** (empty)

Dashboards:

Sharing Rules:

The screenshot shows the 'Sharing Settings' page in the Salesforce Setup. It lists several categories of sharing rules:

- Work Step Template Sharing Rules**: No sharing rules specified.
- Work Type Sharing Rules**: No sharing rules specified.
- Work Type Group Sharing Rules**: No sharing rules specified.
- Drop-Off Point Sharing Rules**: Action: Criteria
 - Edit | Del (Drop-Off Point: Distance LESS THAN 15)
 - Edit | Del (Drop-Off Point: Distance GREATER THAN 30) AND (Drop-Off Point: Distance LESS OR EQUAL 50)
 - Edit | Del (Drop-Off Point: Distance GREATER THAN 15) AND (Drop-Off Point: Distance LESS OR EQUAL 30)
 Shared With: Group: Iskha, Access Level: Read Only
- Task Sharing Rules**: No sharing rules specified.
- Venue Sharing Rules**: No sharing rules specified.

Home Page:

The screenshot shows the Lightning App Builder interface for creating a new Home Page. The left sidebar lists components, and the main area shows a preview of the page with two cards: 'venue and Drop Off point' and 'Volunteer Task'. The right panel contains the 'Page' configuration settings:

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

Activation: HOME Page

- **The org default** home page is displayed unless more specific assignments are made.
 - **The app default** home page is displayed for specified apps, and overrides the org default.
 - **Any app and profile** assignments are displayed for specified app and profile combinations, and they override all other assignments.
- [Learn more about forecast page assignment in Salesforce Help.](#)

Org Default App Default App and Profile

Set this home page as the default for specific Lightning apps. This page displays for all users using the app unless specific profile-related assignments apply.

The screenshot shows the 'Assignments' dialog box. It displays one assignment for the 'FoodConnect' app:

App Name	Description
FoodConnect	

Buttons at the top right include 'Add Assignments' and 'Remove Assignments'. A 'Close' button is at the bottom right.

5. Performance Testing Phase

In this phase, the complete food supply process is tested to check how well the Salesforce system performs under real-time conditions.

1. Venue Adds Food Data:

When a venue (like a hotel or event hall) adds leftover food details, for example *10 plates of rice*, the system automatically creates a new Task and assigns a nearby Volunteer.

2. Volunteer Updates Status:

Once the volunteer finishes the food pickup and delivery, they update the task status to “Completed.” At this point, an Execution Detail record is automatically generated to confirm the action.

3. Drop-Off Point Confirmation:

When the drop-off location (such as an NGO or shelter) receives the food, the system updates the task status to “Delivered.” This confirms successful delivery.

4. Report Generation:

The system’s performance is checked by generating a weekly summary report, which should display all completed deliveries quickly — ensuring dashboards refresh within 3 seconds.

Conclusion:

The screenshot shows the FoodConnect dashboard titled "Task Execution Details". The top navigation bar includes links for Home, Venues, Tasks, Drop-Off Points, Execution Details, Volunteers, Reports, and Dashboards. A search bar and various dashboard controls are also present.

The main content area displays three cards:

- venue and Drop Off point**: A table with two rows:

Venue Name	Drop-Off Point Name	Distance
js	js	-
ks	ks	-

View Report (venue and ... As of Oct 26, 2025, 9:31 PM)
- Volunteer Task**: A chart showing Record Count versus Volunteer ID. The chart has two points at (1, 1) and (2, 1).

Record Count

Volunteer ID

View Report (Volunteer T ... As of Oct 26, 2025, 9:31 PM)
- Volunteer Task**: An illustration of a volunteer handing a box labeled "DONATE" to another person.

To the right, a "Venue Form" panel contains fields for Venue Name, Email, Phone, Venue Location, Latitude, and Longitude, each with a corresponding input field. A "Next" button is at the bottom right of the form.