

Project Title: Distributing Leftover Food to the Needy

1. Project Overview:

This initiative aims to address food wastage while combating hunger by connecting food

donors (restaurants, events, households) with local charities and underprivileged communities.

A user-friendly platform facilitates the collection and distribution of surplus food to shelters,

reducing food waste and providing nourishment to those in need. Through real-time tracking

and notifications, the project ensures transparency and efficiency, fostering a sustainable,

compassionate community.

2. Objectives:

Business Goals:

- Effective Volunteer and Resource Coordination: Streamline volunteer management, venue allocation, and task distribution for improved operational efficiency.
 - Insightful Reporting: Develop customized reports and dashboards to aid data-driven decision-making.
 - Enhanced Platform Accessibility: Provide easy access to key data for NGOs, improving collaboration and transparency.
 - Process Automation: Automate key tasks to minimize manual efforts and enhance operational accuracy.
- Specific Outcomes:

- Centralized Data System:
 - Creation of custom objects (Venue, Drop-Off Point, Task, Volunteer, Execution Details) for a cohesive data structure.

- Relationships among objects to ensure efficient data management.
- Streamlined Access Control:
- Creation of user profiles, public groups, and sharing rules for role-based data visibility.

- Custom Reports & Dashboards:
- Development of reports like “Venue with Drop-Off Point & Volunteer” and “Volunteers with Tasks & Execution Details.”

- Dashboards for real-time insights, such as “Organizational Performance.”
- User Interface Design:

- A custom app (“FoodConnect”) with an intuitive interface for managing the organization's operational data.

- Dashboards, flows, and other components embedded into the home page.
- Automation:
- Automation of routine tasks like calculating distances between locations and creating necessary records.

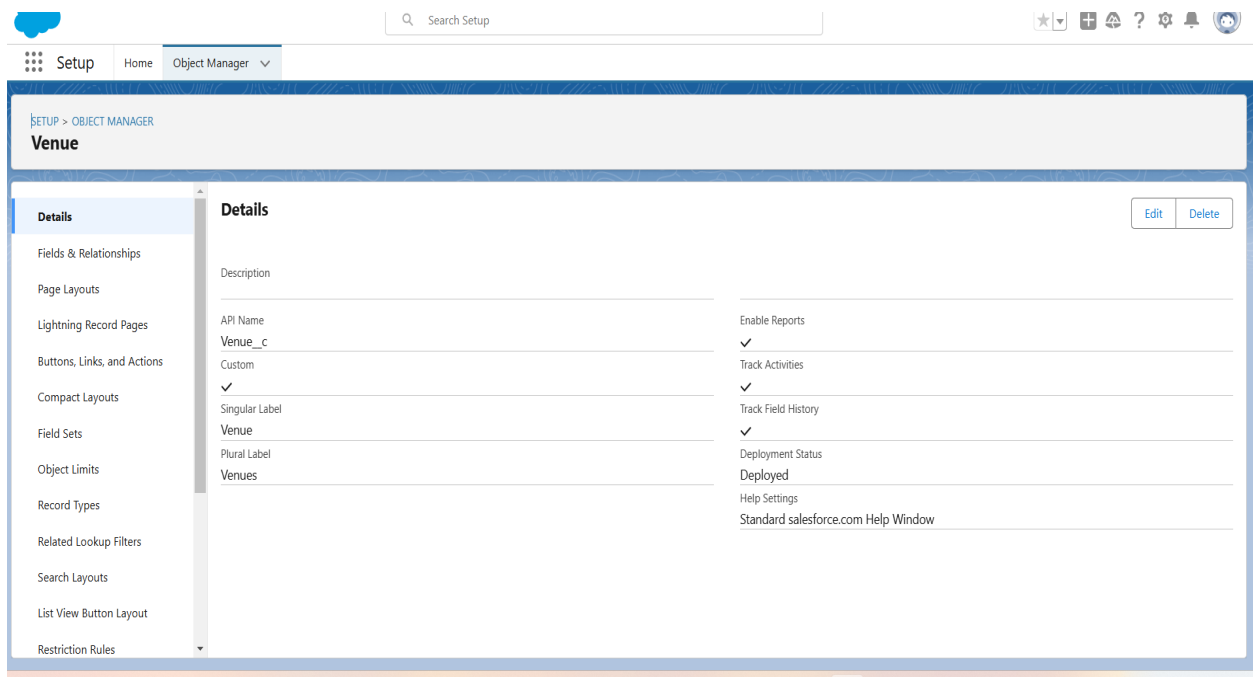
- 3. Salesforce Features Utilized:**
- Custom Objects & Relationships:
- Venue Object: Includes fields such as contact details and location, linked with Drop-Off Points.

- Drop-Off Point Object: Contains geolocation fields and calculation formulae, linked to Venues.

- Task & Volunteer Objects: Manage task assignment and volunteer participation with appropriate relations.

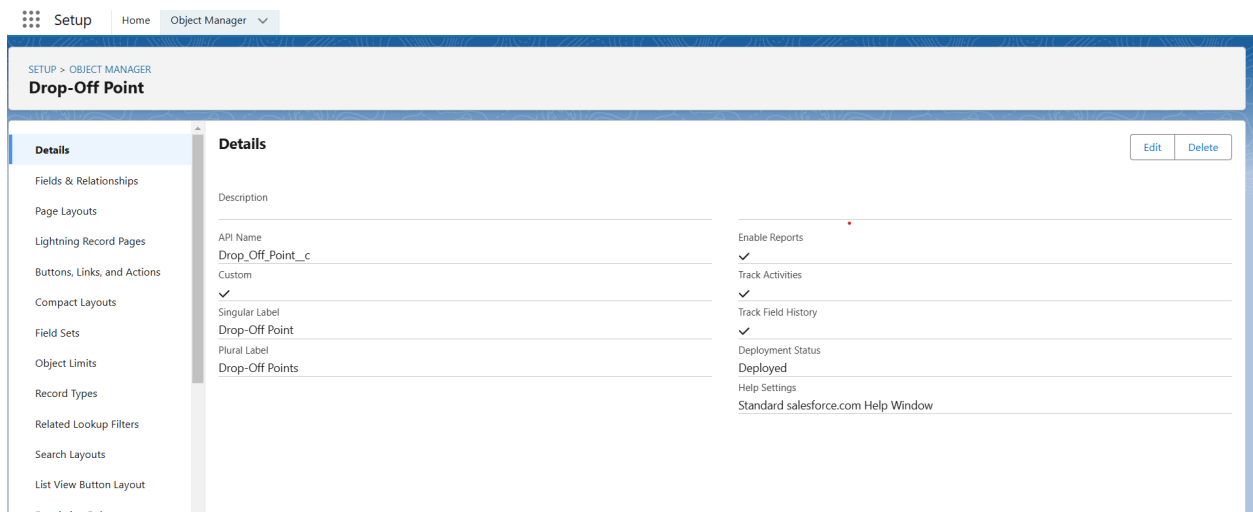
- User Profiles & Access Control:
- Custom user profiles for distinct NGO access and role-based permissions.
- Sharing rules and public groups for secure data access and collaboration across multiple NGOs.

- Reports & Dashboards:
 - Custom reports to track volunteer and task performance, along with detailed organizational insights.
 - Dashboards displaying key metrics and trends to enhance operational visibility.



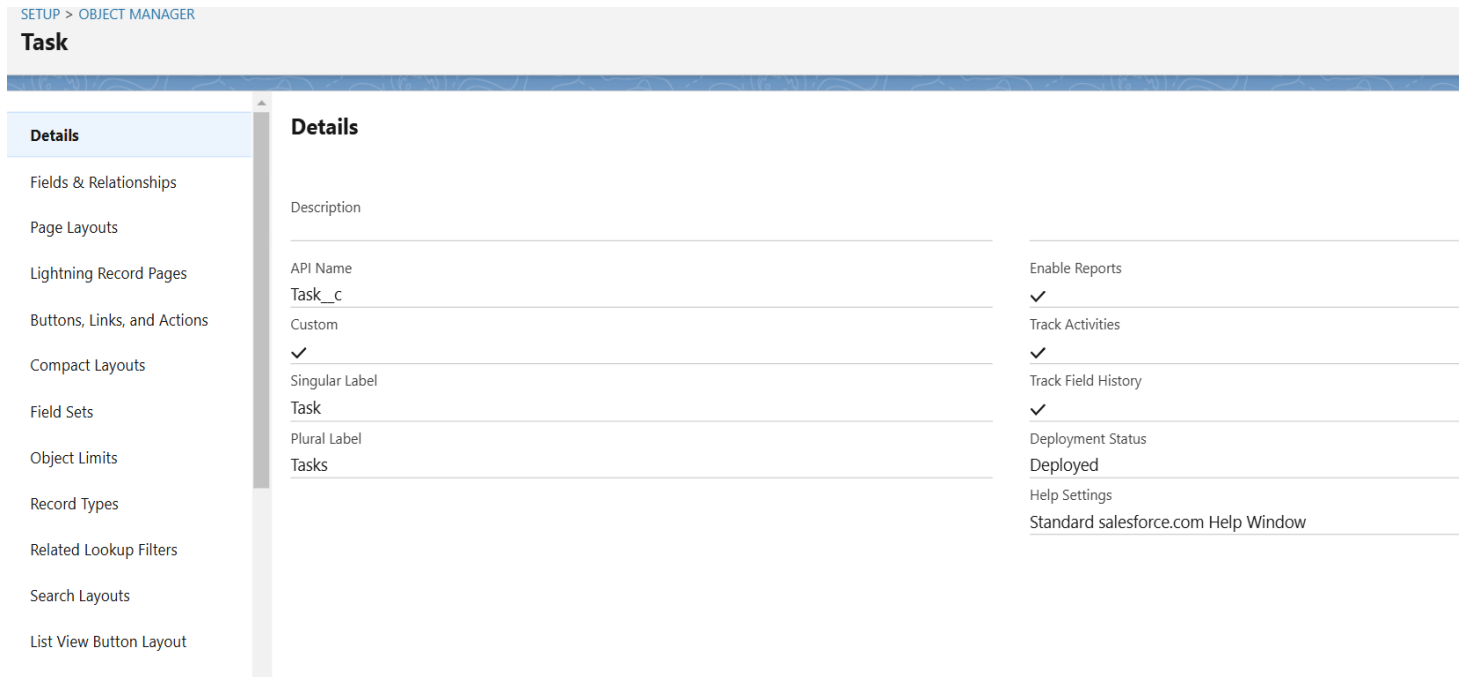
4. Solution Design Steps:

Step 1: Data Model Design



- Custom objects and relationships designed for efficient data handling.
- Example: A Task object linked to Venue and Volunteer objects.

Step 2: User Interface Design

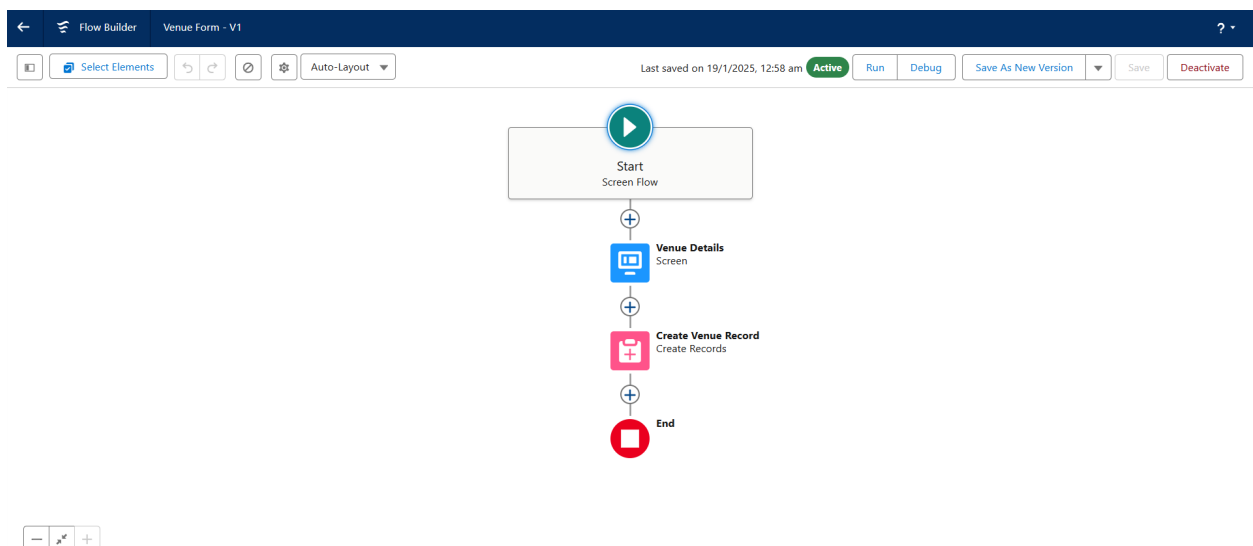


- Custom navigation and dashboards created to ensure an intuitive user experience within the Lightning App (FoodConnect).

- Example of interface layout: [Add Image Placeholder Here]

Step 3: Automation & Business Logic

- Flows: Automation of venue and task assignments.



```
vishnuinstituteoftechnology82-dev-ed.develop.my.salesforce.com/_ui/common/apex/debug/ApexCSIPage?action=selectExtent&extent=apextrigger
File Edit Debug Test Workspace Help < >
DropOffTrigger.appt
Code Coverage: None API Version: 62 Go To
1 trigger DropOffTrigger on Drop_Off_Point__c (before insert) {
2     for(Drop_Off_point__c Drop : Trigger.new){
3
4         Drop.Distance__c = Drop.distance_calculation__c;
5     }
6 }
```

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

Object Limits
11 Items, Sorted by Item

ITEM	USAGE	LIMIT	% USED	MESSAGE
Active Lookup Filters	0	5	0%	
Active Validation Rules	0	100	0%	
Active Workflow Rules	0	50	0%	
Approval Processes	0	500	0%	
Custom Fields	10	500	2%	
Custom Relationship Fields	1	40	2%	
Rollup Summary Fields	0	25	0%	
Sharing Rules (Both Owner- and Criteria-based)	0	300	0%	
Sharing Rules (Criteria-based Only)	0	50	0%	
Total Workflow Rules	0	500	0%	
VLOOKUP Functions	0	10	0%	

- Triggers: Automating distance calculation between venues and drop-off points.

Step 4: Create Users & Access Control

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

Object Limits
10 Items, Sorted by Item

ITEM	USAGE	LIMIT	% USED	MESSAGE
Active Lookup Filters	0	5	0%	
Active Validation Rules	0	100	0%	
Active Workflow Rules	0	50	0%	
Approval Processes	0	500	0%	
Custom Fields	2	500	0%	
Custom Relationship Fields	2	40	5%	
Sharing Rules (Both Owner- and Criteria-based)	0	300	0%	
Sharing Rules (Criteria-based Only)	0	50	0%	
Total Workflow Rules	0	500	0%	
VLOOKUP Functions	0	10	0%	

- Defined user profiles and sharing rules to ensure smooth collaboration.

Step 5: Reports & Dashboards

- Reports for monitoring venue participation, volunteer tasks, and execution details.
- Dashboards for real-time insights

The screenshot shows the FoodConnect dashboard. At the top, there's a navigation bar with tabs: Home, Venues, Tasks, Drop-Off Points, Execution Details, Volunteers, Reports, and Dashboards. The main content area is divided into several sections:

- Organization Details:** Shows the organization name "FoodConnect" and a date "As of 22-Jan-2025, 11:48 pm Viewing as Sai Deepak NARAMAMIDI".
- Venue and Drop Off point:** A table listing venues and their drop-off points.

Venue Name	Drop-Off Po...	Vol...	Di...
La Royale Banquet Hall.	-	-	-
Paradise Garden Function Hal	bhimavaram	DEEP AK	40
Ujwala Grand	hyderabad	-	51
La Royale Banquet Hall.	Shapur	Anjun	51
La Royale Banquet Hall.	Shapur	-	51
- Volunteer Task:** A section showing volunteer tasks with a "Record Count" of 1 for two tasks.
- Venue Form:** A form for adding a new venue, including fields for Venue Name, Email, Phone, Venue Location, Latitude, and Longitude.

5. Testing & Validation:

- Unit Testing: Test Apex classes, triggers, and flows to validate logic functionality.
- User Interface Testing: Ensure seamless navigation across all app features, including home page, reports, and dashboards.
- Data Accuracy Testing: Validate proper data flow and visibility based on user roles and sharing rules.

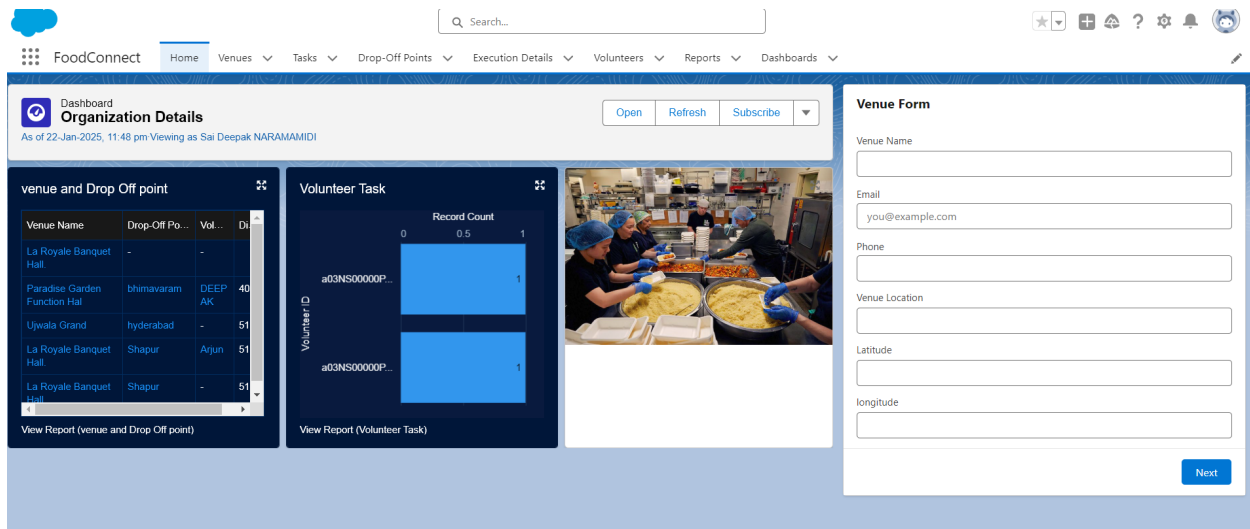
The screenshot shows the Salesforce Setup page. The left sidebar has a search bar and a list of tabs: User Interface, Rename Tabs and Labels, and Tabs. The main content area is titled "Custom Tabs" and includes a "New" button and a "What is This?" link. Below this, there's a table of Custom Object Tabs:

Action	Label	Tab Style	Description
Edit Del	Drop-Off Points	Big top	
Edit Del	Execution Details	Flag	
Edit Del	Tasks	CRT TV	
Edit Del	Venues	Bell	
Edit Del	Volunteers	Globe	

Below the table, there's a section for "Web Tabs" and "Visualforce Tabs", both with "New" and "What is This?" links.

6. Key Scenarios Addressed:

- Volunteer & Task Management: Track and manage volunteers effectively, ensuring task completion.
- Location-Based Operations: Leverage geolocation fields to optimize distance calculations for drop-off point assignments.
- Custom Reporting: Detailed insights through custom reports and dashboards, facilitating quick decision-making.
- Process Automation: Automating data-handling tasks like calculating distances and assigning tasks.



7. Conclusion:

The Salesforce-based solution streamlined NGO operations, enhanced task management, and improved data accessibility through custom objects and automated features. The system allows for optimized food distribution, improved volunteer coordination, and better data-driven decision-making. This project highlights Salesforce's capacity to address complex organizational needs, ultimately supporting a sustainable and compassionate community.

8. Created By:

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