

Project Title: To Supply Leftover Food to Poor

Category: Salesforce

Skills Required: Salesforce Developer

1. Project Overview

This section summarizes the purpose and scope of your project. It explains what your project aims to achieve:

- a. **Goal:** To streamline the process of leftover food distribution using Salesforce.
- b. **Impact:** Reducing food waste and addressing hunger by efficiently managing food drop-off points, tasks, and volunteers.
- c. **Technology:** Salesforce provides the tools to manage records, workflows, and data visualization, making the process seamless.

2. Objectives

Defines measurable and actionable goals for the project.

Business Goals:

- d. What organizational or societal issue the project addresses (e.g., food waste, hunger).

- e. How the project will improve operations, transparency, or accountability.

Specific Outcomes:

- f. These are tangible deliverables (e.g., custom objects, reports, flows) created during the project.

Objects created :

1. Drop-Off Point:

- a. **Purpose:** The Drop-OffPoint object captures essential details about locations where food is dropped off. This helps in tracking and managing food distribution points effectively.

b. Fields:

- **Drop-OffPoint Name:** A text field representing the name of the drop-off point.
- **Location Details:** A text field for additional details about the drop-off point location.
- **Distance:** A number field that records the distance from the drop-off point to the delivery area.
- **Venue:** A lookup relationship field linking to the Venue object to provide a connection between drop-off points and venues.

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

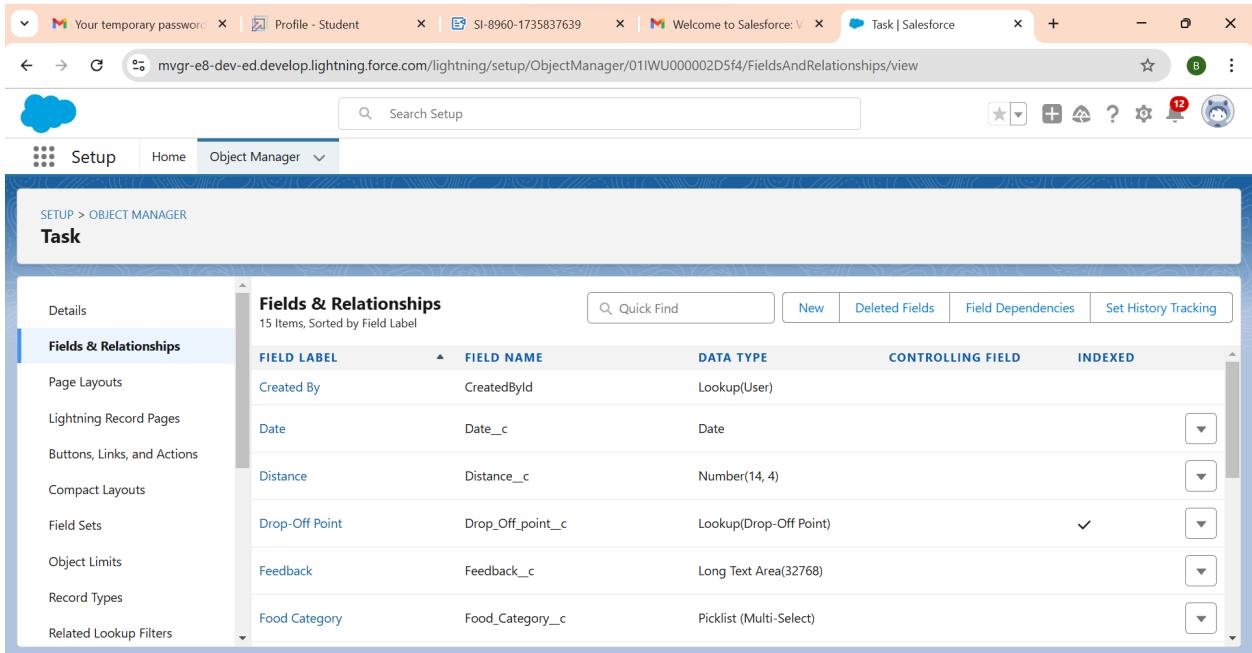
- Setup Path:** SETUP > OBJECT MANAGER > Drop-Off Point
- Left Sidebar:** Shows links for Setup, Home, and Object Manager.
- Main Content:**
 - Section:** Fields & Relationships
 - Count:** 9 Items, Sorted by Field Label
 - Table:** Lists the following fields:

	Field Name	Type	Description
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	Venue_c	Lookup(Venue)	

2. Task:

- a. Purpose: The Task object is used to manage and track various tasks related to food distribution, including assigning tasks to volunteers and recording task details.

- b. Fields:
 - Task Name: A text field representing the name of the task.
 - Date: A date field indicating when the task is scheduled or completed.
 - Rating: A numeric field used to rate the task performance.
 - Drop-Off Point: A lookup relationship field linking to the Drop-Off Point object to associate tasks with specific drop-off points.
 - Sponsored By: A lookup relationship field linking to the Drop-Off Point object to indicate the sponsor of the task.



The screenshot shows the Salesforce Object Manager interface for the 'Task' object. The top navigation bar includes tabs for 'Your temporary password', 'Profile - Student', 'SI-8960-1735837639', 'Welcome to Salesforce!', and 'Task | Salesforce'. Below the navigation is a search bar and a toolbar with icons for star, plus, minus, and other setup functions. The main area has a sidebar on the left with links like 'Setup', 'Home', and 'Object Manager'. The main content area is titled 'Task' under 'SETUP > OBJECT MANAGER'. It displays a table of fields and relationships. The table has columns for 'FIELD LABEL', 'FIELD NAME', 'DATA TYPE', 'CONTROLLING FIELD', and 'INDEXED'. The data in the table is as follows:

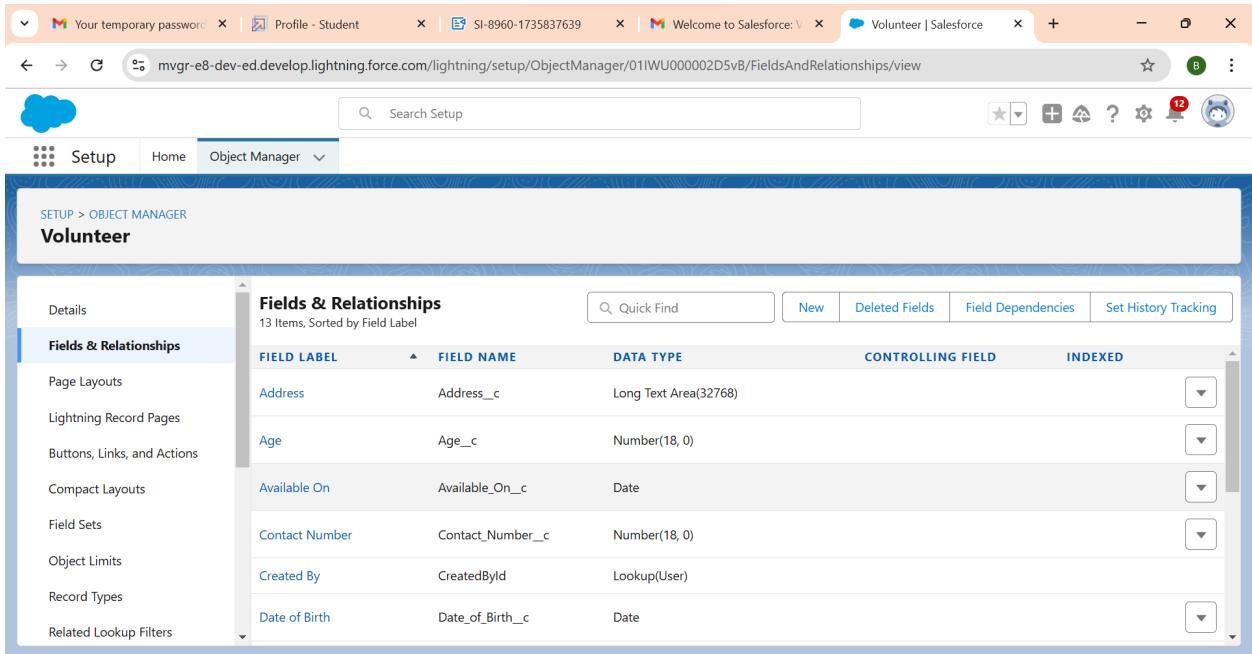
FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		
Date	Date_c	Date		
Distance	Distance_c	Number(14, 4)		
Drop-Off Point	Drop_Off_point_c	Lookup(Drop-Off Point)	✓	
Feedback	Feedback_c	Long Text Area(32768)		
Food Category	Food_Category_c	Picklist (Multi-Select)		

3. Volunteer:

- a. **Purpose:** The Volunteer object keeps track of individuals who are involved in the food distribution process, including their contact information and assigned tasks.

b. **Fields:**

- Volunteer Name: A text field for the name of the volunteer.
- Contact Email: An email field for the volunteer's contact email.
- ContactPhone: A phone field for the volunteer's contact number.
- AssignedTasks: A related list showing tasks assigned to the volunteer.



The screenshot shows the Salesforce Object Manager interface for the 'Volunteer' object. The top navigation bar includes tabs for 'Your temporary password', 'Profile - Student', 'SI-8960-1735837639', 'Welcome to Salesforce!', and 'Volunteer | Salesforce'. Below the bar are standard browser controls and a search bar labeled 'Search Setup'. The main area has a blue header with 'SETUP > OBJECT MANAGER' and the object name 'Volunteer'. On the left, a sidebar lists various setup categories: Details, Fields & Relationships (which is selected and highlighted in blue), Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, and Related Lookup Filters. The main content area is titled 'Fields & Relationships' and displays a table of 13 items, sorted by Field Label. The table columns are: FIELD LABEL, FIELD NAME, DATA TYPE, CONTROLLING FIELD, and INDEXED. The data in the table is as follows:

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	CreatedBy	Lookup(User)		
Date of Birth	Date_of_Birth__c	Date		

4. Execution Detail:

- a. Purpose: The Execution Detail object captures detailed information about food distribution activities, including which volunteers and task are associated with each distribution.
- b. Fields:
 - Execution DetailName: A text field for naming the execution detail record.
 - Volunteer: A master-detail relationship field linking to the Volunteer object to associate execution details with a specific volunteer.
 - Task: A master-detail relationship field linking to the Task object to associate execution details with a specific task.
 - Details: A text field for additional information about the execution.

The screenshot shows the Salesforce Setup interface with the title 'Execution Detail' under 'Object Manager'. On the left, there's a sidebar with various setup categories like Details, Fields & Relationships, Page Layouts, etc. The main area displays a table titled 'Fields & Relationships' with the following data:

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedBy	Lookup(User)		
Execution Detail Name	Name	Text(80)		✓
Last Modified By	LastModifiedBy	Lookup(User)		✓
Task	Task_c	Master-Detail(Task)		✓
Volunteer	Volunteer_c	Master-Detail(Volunteer)		✓

3. Salesforce Key Features and Concepts Utilized

Custom Objects:

These are specific data structures you create in Salesforce to store information.

For your project:

- g. **Drop-OffPoints:** Records details of food collection locations.
- h. **Tasks:** Tracks what needs to be done and who is responsible.
- i. **Volunteers:** Manages contact information and task assignments.
- j. **ExecutionDetails:** Links volunteers and tasks for each food distribution.

Relationships:

Defines how these objects interact with each other:

- k. **Master-Detail Relationship:** A strict relationship where a child object (e.g., Execution Detail) depends on its parent (Volunteer or Task).
- l. **Lookup Relationship:** A more flexible connection, such as Drop-Off Points being associated with Venues.

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 Sharing Settings page. At the top, there are four tabs: Your temporary password, Profile - Student, SI-8960-1735837639, and Welcome to Salesforce. Below the tabs, the URL is mvgr-e8-dev-ed.lightning.force.com/lightning/setup/SecuritySharing/home. The page title is "Sharing Settings". The left sidebar has a search bar and sections for Security (Guest User Sharing Rule Access Report, Sharing Settings), and a note about Global Search. The main content area is titled "Sharing Settings" and contains four sections: "Work Type Group Sharing Rules", "Drop-Off Point Sharing Rules", "Task Sharing Rules", and "Venue Sharing Rules". Each section has "New" and "Recalculate" buttons. The "Drop-Off Point Sharing Rules" section shows three criteria rows:

Action	Criteria	Shared With	Access Level
Edit Del	Drop-Off Point: Distance LESS THAN 15	Group: Iksha	ReadWrite
Edit Del	(Drop-Off Point: Distance GREATER THAN 15) AND (Drop-Off Point: Distance LESS OR EQUAL 30)	Group: nss	ReadWrite
Edit Del	(Drop-Off Point: Distance GREATER THAN 30) AND (Drop-Off Point: Distance LESS OR EQUAL 50)	Group: street_cause	ReadWrite

Custom Tabs

The screenshot shows the Salesforce Tabs page. At the top, there are four tabs: Your temporary password, Profile - Student, SI-8960-1735837639, and Welcome to Salesforce. Below the tabs, the URL is mvgr-e8-dev-ed.lightning.force.com/lightning/setup/Tabs. The page title is "Tabs". The left sidebar has a search bar and sections for User Interface (Rename Tabs and Labels, Tabs), and a note about Global Search. The main content area is titled "Custom Tabs" and includes a "Help for this Page" link. It states: "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." The "Custom Object Tabs" section shows a table:

Action	Label	Tab Style	Description
Edit Del	Drop-Off Points	Apple	
Edit Del	Execution Details	Computer	
Edit Del	Tasks	Ticket	
Edit Del	Venues	Box	
Edit Del	Volunteers	Star	

Flows and Dashboards:

- m. **Flow:** Automates data entry and processes, like recording venue details.
- n. **Dashboards:** Summarize and visualize key metrics, such as
 - the number of drop-offs or task completion rates.

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

4.Detailed Steps to Solution Design

Describes how the solution was built, step-by-step:

Custom Object Creation:

- o. Each object (like Drop-Off Point or Volunteer) was created in Salesforce's Object Manager, with specific fields and relationships defined.

Sharing Rules:

- p. Configured in Sharing Settings to ensure the right people (Iksha, NSS, etc.) have access based on distance.

Lightning App Builder Configuration:

- q. Created a "Home Page" that includes flows and dashboards for easier navigation.

Report Types and Dashboards:

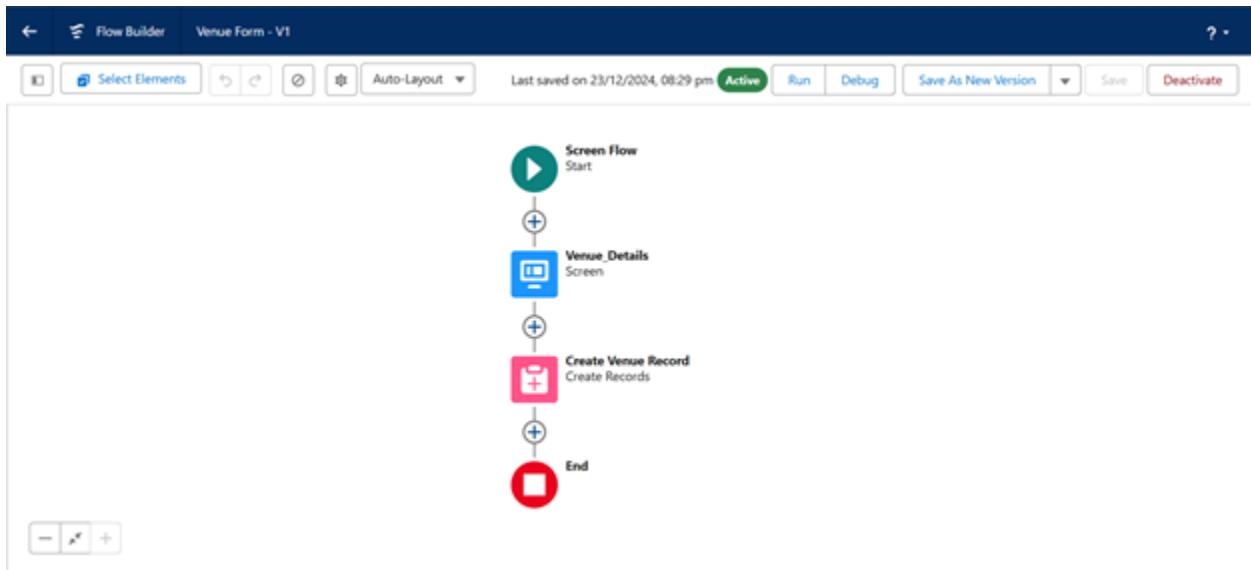
- r. Custom reports link different objects for analysis, and

dashboards present this data in an easy-to-understand format.

Flows Diagram

1. 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.



1. Dashboard:

- a. **Name:** Task Execution Details

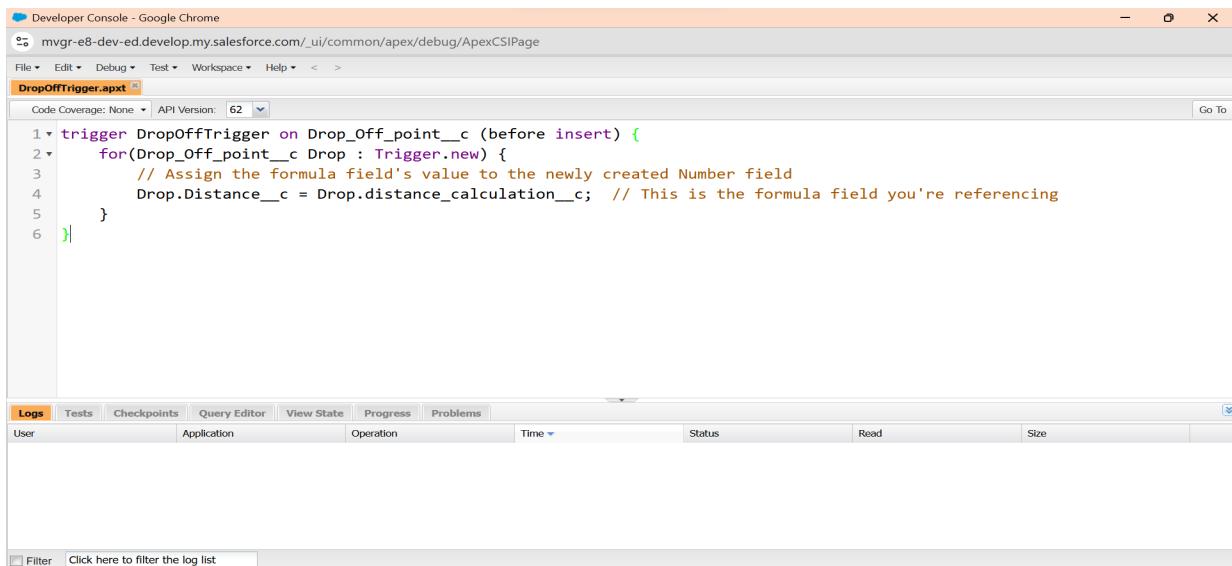
- b. **Components:**

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

5. Testing and Validation

Ensures that the system works as intended:

- a. Unit Testing: Verifies that each component (e.g., Apex triggers, workflows) operates correctly.
- b. UI Testing: Checks the user interface for errors or usability issues.



The screenshot shows the Salesforce Developer Console in Google Chrome. The URL is mvgr-e8-dev-ed.develop.my.salesforce.com/_ui/common/apex/debug/ApexCSIPage. The page 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) {
        // Assign the formula field's value to the newly created Number field
        Drop.Distance__c = Drop.distance_calculation__c; // This is the formula field you're referencing
    }
}
```

Below the code editor is a log viewer with tabs for Logs, Tests, Checkpoints, Query Editor, View State, Progress, and Problems. The Logs tab is selected. The log table has columns for User, Application, Operation, Time, Status, Read, and Size. There are no logs listed.

The screenshot shows the Salesforce Setup interface with the 'Users' page open. The left sidebar has 'Users' selected. The main area displays a list of users with the following columns: Action, Full Name, Alias, Username, Role, Active, and Profile. The list includes:

Action	Full Name	Alias	Username	Role	Active	Profile
<input type="checkbox"/> Edit	Chatter Expert	Chatter	chatty@00dwu00000em7vb2ar.nvbpwfmuybn@chatter.salesforce.com		<input checked="" type="checkbox"/>	Chatter Free User
<input type="checkbox"/> Edit	Iksha_Foundation_Iksha Foundation	iksh	ruchi@bv.com		<input checked="" type="checkbox"/>	NGOs Profile
<input type="checkbox"/> Edit	nss_nss_nss nss	nsss	balu@nss.com		<input checked="" type="checkbox"/>	NGOs Profile
<input type="checkbox"/> Edit	Piradi_Balu	BPira	balu@mvr.com		<input checked="" type="checkbox"/>	System Administrator
<input type="checkbox"/> Edit	street_cause_street cause	sstre	streetcausebalu@sb.com		<input checked="" type="checkbox"/>	NGOs Profile
<input type="checkbox"/> Edit	User_Integration	integ	integration@00dwu00000em7vb2ar.com		<input checked="" type="checkbox"/>	Analytics Cloud Integration User
<input type="checkbox"/> Edit	User_Security	sec	insightssecurity@00dwu00000em7vb2ar.com		<input checked="" type="checkbox"/>	Analytics Cloud Security User

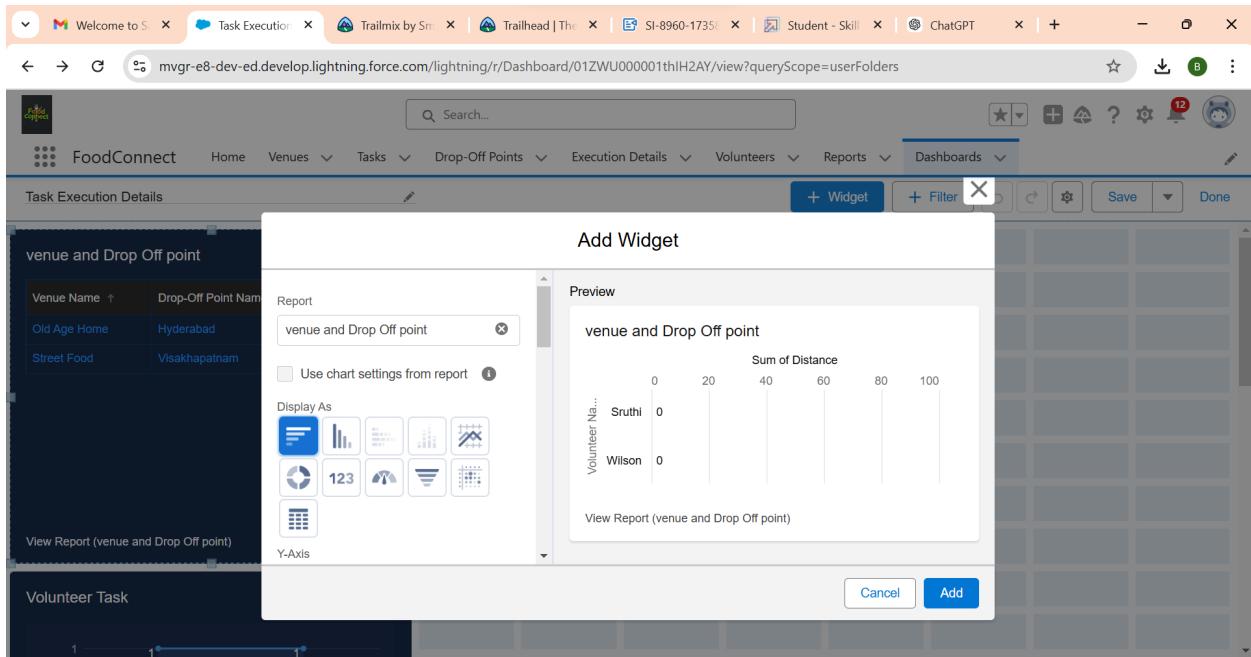
6.Key Scenarios Addressed by Salesforce

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

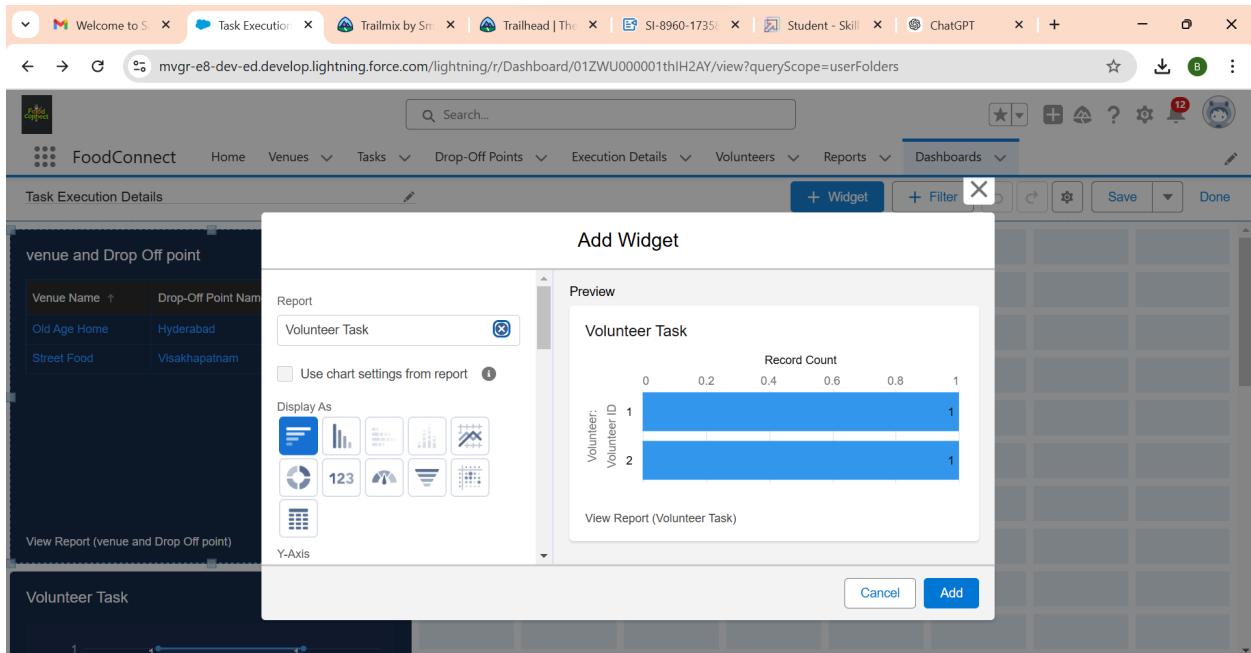
challenges:

- a. Food Distribution Coordination: Tracks where food is dropped off and which tasks are related.
- b. VolunteerManagement: Links tasks to specific volunteers for accountability.
- c. Data Visibility: Dashboards and reports provide insights into operations, helping improve decision-making

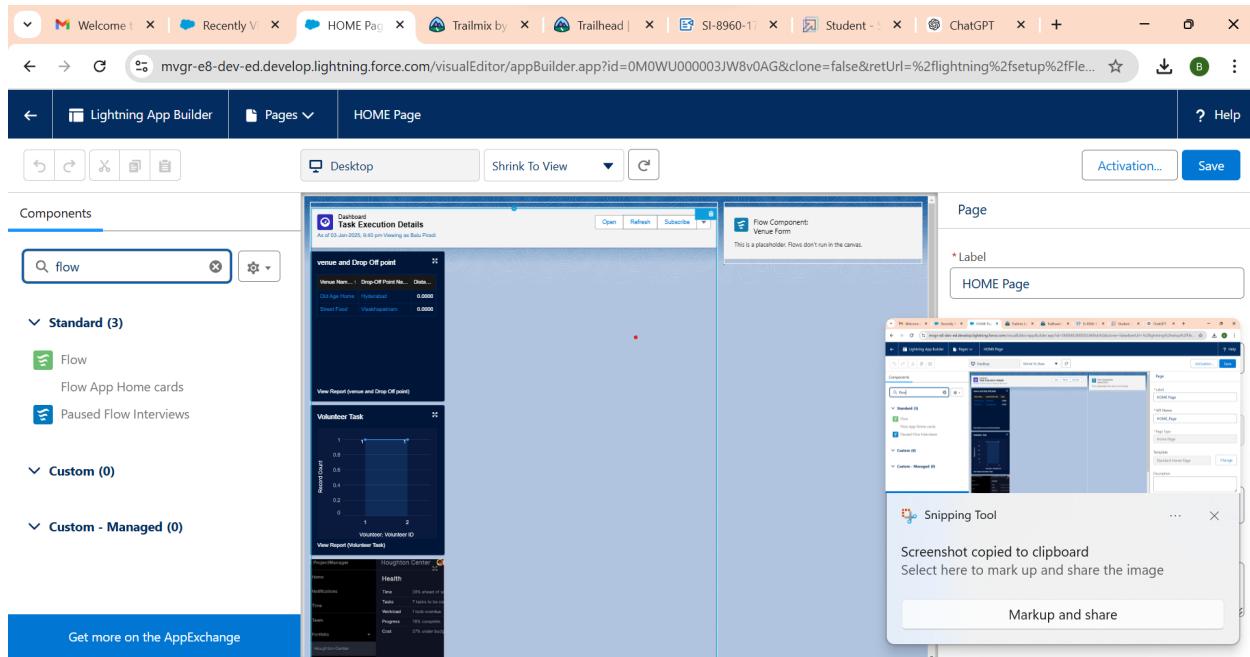
Adding Venue and Drop Off PointReport to The Dashboard



Adding Volunteer Task Graph to the Dashboard



Adding Flow to Home page using Lightning app Builder



7. Conclusion

A brief summary of what the project achieved:

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

The screenshot shows the FoodConnect application interface. At the top, there's a navigation bar with various tabs like Home, Venues, Tasks, Drop-Off Points, Execution Details, Volunteers, Reports, and Dashboards. Below the navigation bar, there's a search bar and a toolbar with icons for refresh, subscribe, and other functions.

The main content area has two main sections:

- Task Execution Details:** A dashboard showing "venue and Drop Off point" data with a table:

Venue Na...	Drop-Off Point ...	Dis...
Old Age Home	Hyderabad	0.000
Street Food	Visakhapatnam	0.000

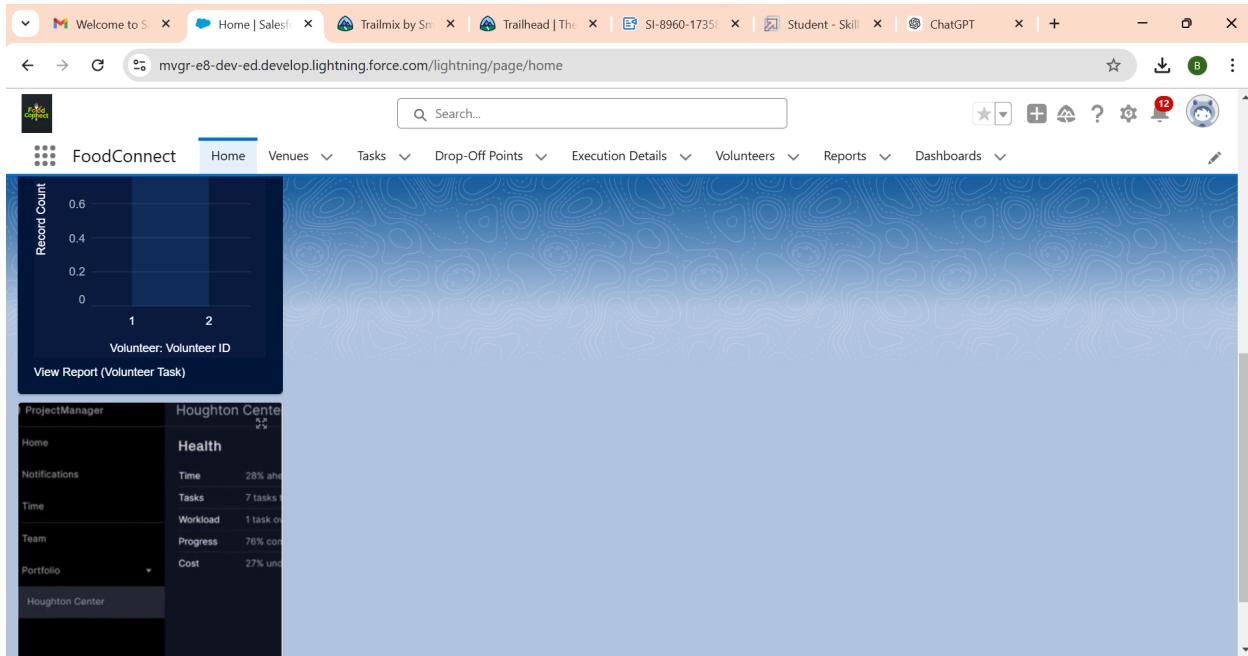
Below the table is a "Volunteer Task" section with a chart showing "Record Count" (Y-axis, 0 to 1) versus "Volunteer ID" (X-axis, 1, 2). The chart shows two points at (1, 1) and (2, 1). There are also links to "View Report (venue and Drop Off point)" and "View Report (Volunteer Task)".
- Venue Form:** A form for entering venue details:

Venue Name	<input type="text"/>
Email	<input type="text"/> you@example.com
Phone	<input type="text"/>
Venue Location	<input type="text"/>
Latitude	<input type="text"/>
longitude	<input type="text"/>

A "Next" button is located at the bottom right of the form.

Home Page(Long ScreenShot)

This screenshot is identical to the one above, showing the FoodConnect Home page with the "Task Execution Details" dashboard and the "Venue Form" section. The data in the tables and the form fields are the same.



By leveraging the Salesforce platform, the project successfully established a streamlined and transparent system for managing surplus food donations. Through efficient coordination with volunteers and timely delivery to beneficiaries, the project effectively addressed food insecurity while maximizing the utilization of available resources.