

To Supply Leftover Food To Poor

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COLLEGE CODE : Bru36

TEAM ID: NM2025TMID26400

TEAM SIZE : 4

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Project Overview : Food wastage is a critical issue when large quantities of edible food are discarded while many people remain hungry. This project uses Salesforce CRM to build an application that manages the collection and distribution of leftover food. The system connects donors, drop-off points, volunteers, and NGOs to streamline the supply chain. With the help of custom objects, flows, triggers, and reports, the process is automated and transparent. The project demonstrates how technology can be applied to reduce food wastage and serve social welfare.

Objectives :

- Enhance Food Distribution Efficiency: Enable real-time tracking of leftover food collection and delivery to needy recipients.
- Ensure Transparency: Maintain accurate records of donations and recipient details to improve accountability.
- Improve Volunteer Coordination: Automate scheduling, notifications, and task assignments for volunteers.
- Optimize Resource Management: Track surplus food inventory and allocation for minimal waste.
- Enhance Real-Time Visibility: Provide live updates of available leftover food and its distribution status for donors, volunteers, and receivers.

Promote Social Impact: Build a transparent and efficient system that encourages more participation from donors and volunteers in helping the poor.

Phase 1: Requirement Analysis & Planning:-

To Supply Leftover Food to Poor:

Utilizing Salesforce, our project streamlines surplus food collection and distribution to the needy, ensuring efficiency and transparency.

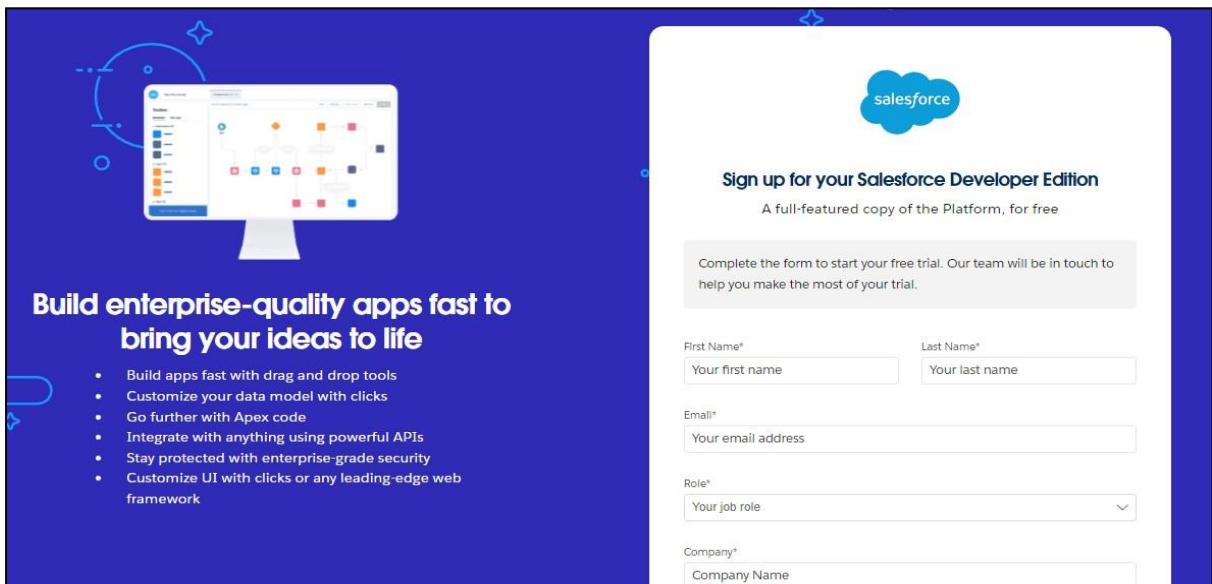
Phase 2: Salesforce Development – Backend & Configurations:-

Milestone 1: Salesforce developer account creation

Activity 1: Creating Developer Account

Creating a developer org in salesforce.

1. Go to <https://developer.salesforce.com/signup>

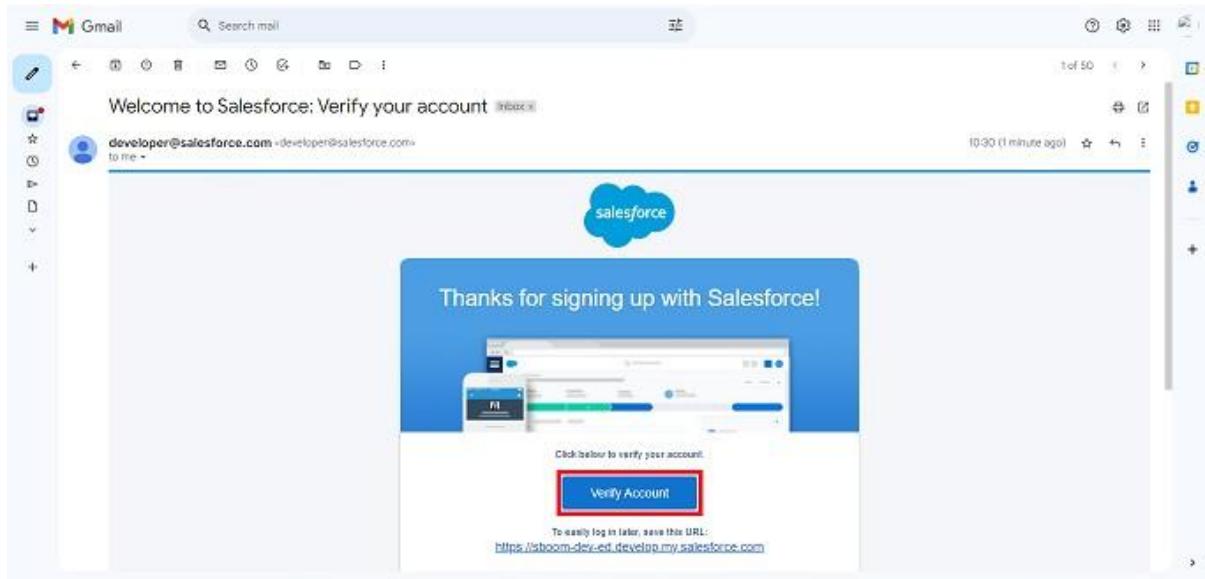


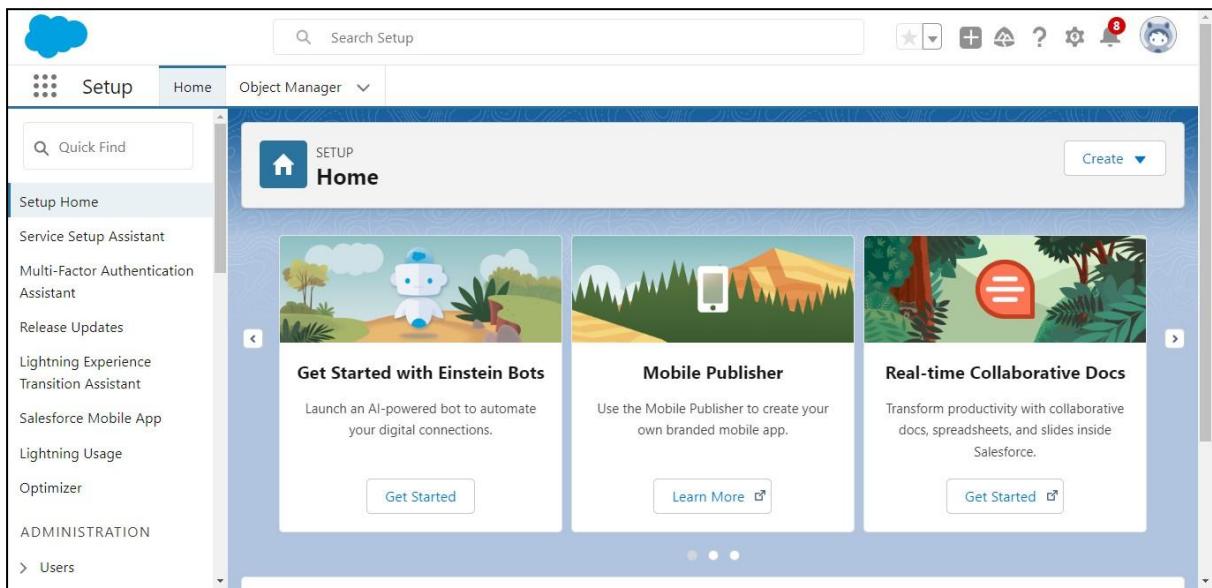
2. On the sign up form, enter the following details :

First name & Last name ,Email ,Role : Developer ,Company : College or Company Name ,County : India ,Postal Code : pin code , Username : should be a combination of your name and company This need not be an actual email id, you can give anything in the format : username@organization.com

Activity 2: Account Activation

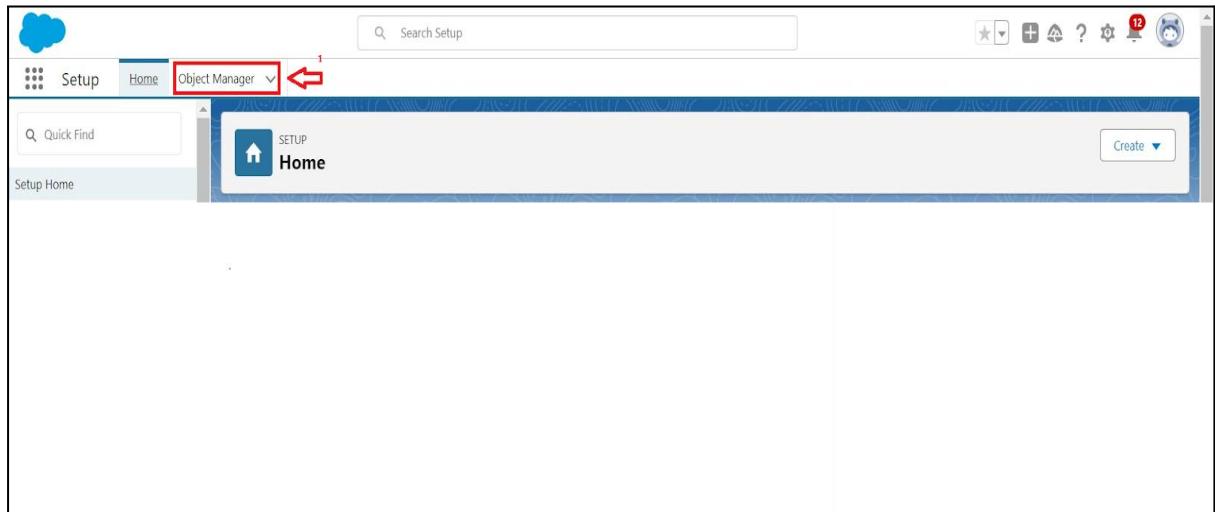
1. Go to the inbox of the email that you used while signing up. Click on the verify account to activate your account. The email may take 5-10mins.

A screenshot of a "Change Your Password" form. The title is "Change Your Password". It asks for a new password that includes at least 8 characters, 1 letter, and 1 number. The "New Password" field contains "....." and has a "Good" status message. The "Confirm New Password" field also contains "....." and has a "Match" status message. Below these are "Security Question" and "Answer" fields. The "Security Question" dropdown is set to "In what city were you born?". The "Answer" field contains "asdfghjkl". A large red box highlights the entire "New Password", "Confirm New Password", "Security Question", and "Answer" section, and the "Change Password" button below it.



Milestone 2 : OBJECT :-

To Navigate to Setup page:



Object Classification
When these settings are enabled, this object is classified as an Enterprise Application object. When these settings are disabled, this object is classified as a Light Application object. [Learn more](#).

Allow Sharing
 Allow Bulk API Access
 Allow Streaming API Access

Deployment Status
 In Development
 Deployed

Search Status
When this setting is enabled, your users can find records of this object type when they search. [Learn more](#)

Allow Search 1

Object Creation Options (Available only when custom object is first created)

Add Notes and Attachments related list to default page layout
 Launch New Custom Tab Wizard after saving this custom object

2 →

SETUP
New Custom Object

Custom Object Definition Edit

Custom Object Information
The singular and plural labels are used in tabs, page layouts, and reports.

Label: Example: Account 1
Plural Label: Example: Accounts

Starts with vowel sound:

The Object Name is used when referencing the object via the API.

Object Name: 2 Example: Account

Description:

Context-Sensitive Help Setting:
 Open the standard Salesforce.com Help & Training window
 Open a window using a Visualforce page

Content Name: 3

Enter Record Name Label and Format
The Record Name appears in page layouts, key lists, related lists, and reports. For example, the Record Name for Account is "Account Name" and for Case it is "Case Number". Note that the Record Name field is always called "Name" when referenced via the API.

Record Name: 4 Example: Account Name

Data Type: 5 Text

Optional Features

Allow Reports 6
 Allow Activities
 Track Field History

1. Click on Save.

Activity 1: Create Venue Object:-

Activity 2: Create Drop-Off Point Object:-

Activity 3: Create Task Object:-

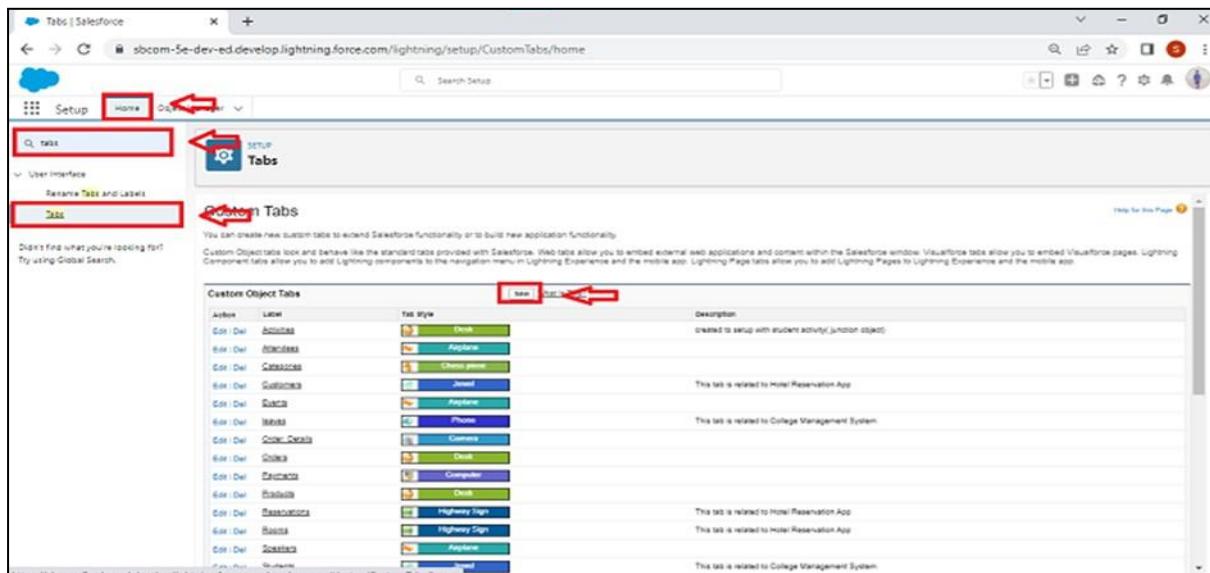
Activity 4: Create Volunteer Object:-

Activity 5: Create Execution Details Object:-

Milestone 3 : TABS :-

Activity 1: Creating a Custom Tab:-

To create a Tab:(Venue)



Activity 2: Creating Remaining Tabs:-

Phase 3: UI/UX Development & Customization:

Milestone 4: THE LIGHTNING APP:- Create a Lightning App:

To create a lightning app page

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

The screenshot shows the Salesforce App Manager interface. The top navigation bar includes tabs for 'Setup', 'Home', 'Object Manager', and 'App Manager'. The 'App Manager' tab is highlighted with a red box. Below the navigation, there's a search bar and a 'New Lightning App' button with a red arrow pointing to it. A 'Clone App(Beta)' link is also highlighted with a red box. The main content area displays a list of apps with columns for 'App Name', 'Developer Name', 'Description', 'Last Modified', 'App Type', and 'V...'. A note at the bottom says 'Enable App Cloning' is turned off.

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

- App Name : FoodConnect
- Developer Name : This will auto populated
- Image : optional (if you want to give any image you can otherwise not mandatory)
- Primary color hex value : keep this default.

3. Then click Next >> (App option page) Set Navigation Style as Standard Navigation >> Next.

The screenshot shows the 'New Lightning App' configuration page. On the left, a sidebar lists various app categories like Data, Apps, and Lightning. The main panel has a title 'New Lightning App' and a sub-section 'App Options'. It contains two main sections: 'Navigation and Form Factor' and 'Setup and Personalization'. In 'Navigation and Form Factor', 'Standard navigation' is selected. In 'Setup and Personalization', 'Setup (full set of Setup options)' is selected. At the bottom, there are several tabs: 'Back', 'Next', and others. The 'Next' button is highlighted with a blue border. The status bar at the bottom shows steps 12 and 13, with descriptions for each step.

. To Add Navigation Items:

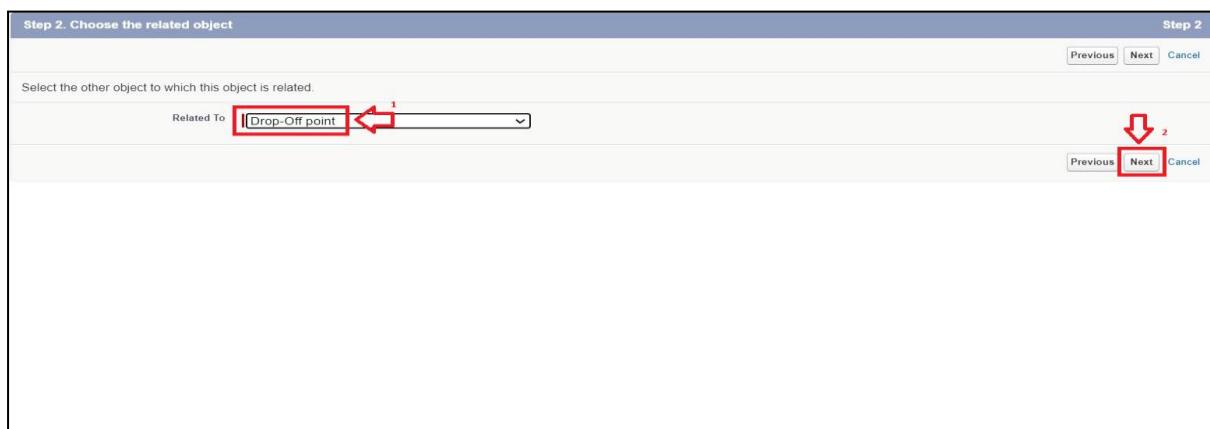
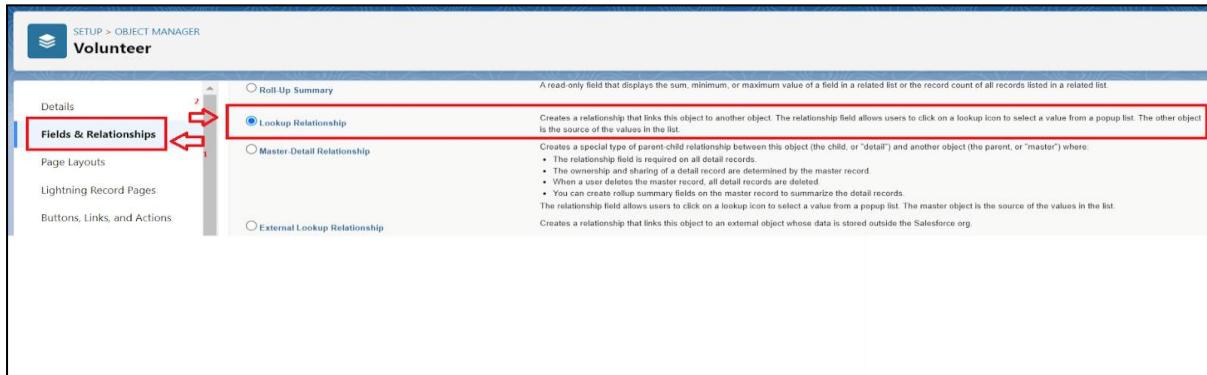
The screenshot shows two panels side-by-side. The left panel, titled 'Available Items', contains a search bar at the top followed by a list of items with icons: Accounts, All Sites, Alternative Payment Methods, Analytics, App Launcher, Appointment Categories, Appointment Invitations, Approval Requests, Asset Action Sources, and Asset Actions. The right panel, titled 'Selected Items', lists items with icons: Home, Venues, Tasks, Drop-Off points, Execution Details, Volunteers, Reports, and Dashboards. Between the two panels are four navigation buttons: a magnifying glass icon, a right-pointing arrow, a left-pointing arrow, and a downward-pointing arrow.

To Add User Profiles:

The screenshot shows the 'User Profiles' configuration screen for a 'New Lightning App'. It has two main sections: 'Available Profiles' and 'Selected Profiles'. In the 'Available Profiles' section, there is a search bar containing 'System administrator' with a red box and a delete icon. Below it is a red double-headed arrow pointing between the two sections. In the 'Selected Profiles' section, 'System Administrator' is listed with a red box. At the bottom, there is a horizontal slider with five dots and a red double-headed arrow, followed by a 'Save & Finish' button with a red box and a red arrow pointing to it.

Milestone 5: FIELDS :-

Activity 1: Creation of Relationship Fields in Object:-



- 1) Creation of Master-Detail Relationship Field on Execution Detail Object:
- 2) Creation of Master-Detail Relationship Field on Execution Detail Object:
- 3) Creation of Look-Up Relationship Field on Drop-off Point Object:
- 4) Creation of Lookup Relationship Field on Task Object:
- 5) Creation of Lookup Relationship Field on Task Object:

Activity 2: Creation of Fields for Venue Object:-

Activity 3: Creation of Fields for Drop-Off Point Object:-

The screenshot shows the 'Formula Options' dialog box. The 'Formula Return Type' is set to 'Number' and 'Decimal Places' is set to '4'. Below the formula input area, there is a note: 'Enter your formula and click Check Syntax to check for errors. Click the Advanced Formula subtab to use additional fields, operators, and functions.' An example formula is provided: `Fahrenheit = 1.8 * Celsius_c + 32`. The formula being entered is: `distance calculation (Number) = DISTANCE(Location_2__c , Venue_Location__c , 'km')`. The entire formula input field is highlighted with a red box.

Activity 4: Creation of Fields for Task Object:-

Activity 5: Creation of Fields for the Volunteer Object:-

Activity 6: Creation of Fields for the Execution Details Object:-

Milestone 6: FLOWS :-

Create Flow to create a Record in Venue Object:

The screenshot shows the 'Edit Screen' of a flow named 'NGO Flow'. On the left, there is a sidebar with 'Components' and 'Fields' tabs, and a search bar. Below that is a list of components: Input (51), Address, Call Script, Cancel Appointment, Checkbox, Checkbox Group, Choice Lookup, etc. A blue button at the bottom says 'Get more on the AppExchange'. The main area contains a form with four fields: 'Venue Name' (1), 'Email' (2), 'Phone' (3), and 'Venue Location' (4). To the right of the form is a detailed configuration panel for the 'Venue Name' field. It includes: 'Label' (5) set to 'Venue Name', '* API Name' (6) set to 'Venue_Name', and a 'Done' button (7) at the bottom right. Other sections in the panel include 'Require', 'Default Value', 'Set Component Visibility', and 'Validate Input'.

This would look like:

Create a Record of This Object

* Object
Venue

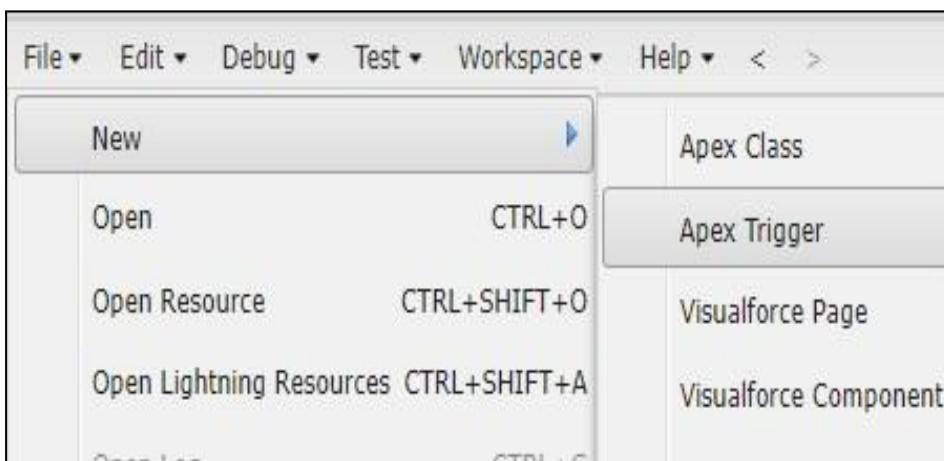
Set Field Values for the Venue

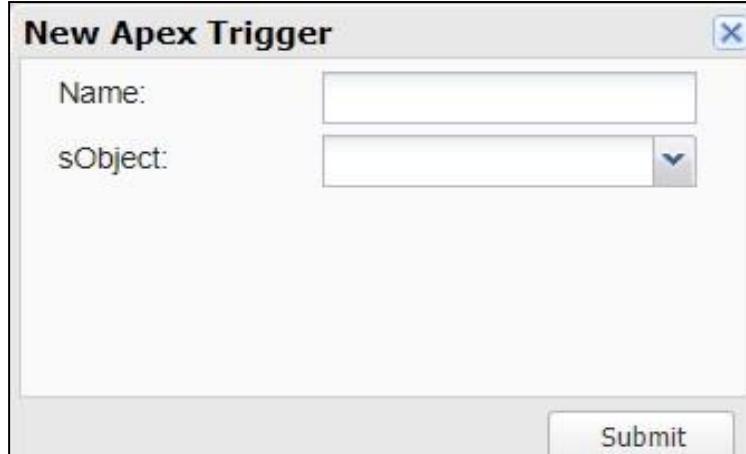
Field	Value
Contact_Email__c	Aa Contact_Email > Value X
Contact_Phone__c	Aa Contact_Phone > Value X
Name	Aa Venue_Name X
Venue_Location__c	Aa location X

:

Milestone 7: TRIGGER :-

Activity 1: Create a Trigger :





Activity 2: Trigger Code :

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

Code:

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

Phase 4 : Data Migration, Testing & Security Milestone 8

: PROFILES :-

1. Go to setup page >> type Profiles in Quick Find bar >> click on Profiles >> click on 'S'
2. Click on Clone beside Standard Platform User.
3. Under Clone Profile:
Profile Name : NGOs Profile
4. Then click on Save.

Milestone 8 : CREATION OF USERS :-

In our Project we consider them as NGO's.

Activity 1: Creation of User1 :-

General Information	
First Name	Iksha Foundation
Last Name	Iksha_Foundation
Alias	iiksh
Email	bhargavipaila1023@gmail.com
Username	ikshafoundation@sb.com
Nickname	User1711437164226559933
Title	
Company	
Department	
Division	
Role	<None Specified>
User License	Salesforce Platform
Profile	NGOs Profile
Active	<input checked="" type="checkbox"/>
Marketing User	<input type="checkbox"/>
Offline User	<input type="checkbox"/>
Knowledge User	<input type="checkbox"/>
Flow User	<input type="checkbox"/>
Service Cloud User	<input type="checkbox"/>
Site.com Contributor User	<input type="checkbox"/>

Activity 2 : Creation of User2 and User3 :-

1.	<table border="1"><tbody><tr><td><input type="checkbox"/> Edit Login</td><td>Iksha_Foundation, Iksha Foundation</td><td>iiksh</td><td>ikshafoundation@sb.com</td><td><input checked="" type="checkbox"/> NGOs Profile</td></tr><tr><td><input type="checkbox"/> Edit Login</td><td>NSS, NSS</td><td>nss</td><td>nss@sb.com</td><td><input checked="" type="checkbox"/> NGOs Profile</td></tr><tr><td><input type="checkbox"/> Edit Login</td><td>Street_Cause, Street Cause</td><td>sstre</td><td>streetcause@sb.com</td><td><input checked="" type="checkbox"/> NGOs Profile</td></tr></tbody></table>	<input type="checkbox"/> Edit Login	Iksha_Foundation, Iksha Foundation	iiksh	ikshafoundation@sb.com	<input checked="" type="checkbox"/> NGOs Profile	<input type="checkbox"/> Edit Login	NSS, NSS	nss	nss@sb.com	<input checked="" type="checkbox"/> NGOs Profile	<input type="checkbox"/> Edit Login	Street_Cause, Street Cause	sstre	streetcause@sb.com	<input checked="" type="checkbox"/> NGOs Profile
<input type="checkbox"/> Edit Login	Iksha_Foundation, Iksha Foundation	iiksh	ikshafoundation@sb.com	<input checked="" type="checkbox"/> NGOs Profile												
<input type="checkbox"/> Edit Login	NSS, NSS	nss	nss@sb.com	<input checked="" type="checkbox"/> NGOs Profile												
<input type="checkbox"/> Edit Login	Street_Cause, Street Cause	sstre	streetcause@sb.com	<input checked="" type="checkbox"/> NGOs Profile												

9 PUBLIC GROUPS :-

Activity 1 : Creation of Public Group 1 :

Activity 2 : Creation of Public Group 2 and 3:-

New				
Action	Label ↑	Group Name	Created By	Created Date
Edit Del	<u>Iksha</u>	<u>Iksha</u>	<u>Bhargavi Paila</u>	26/03/2024, 2:27 pm
Edit Del	<u>NSS</u>	<u>NSS</u>	<u>Bhargavi Paila</u>	26/03/2024, 2:27 pm
Edit Del	<u>Street Cause</u>	<u>Street_Cause</u>	<u>Bhargavi Paila</u>	26/03/2024, 2:26 pm

Milestone 10: REPORT TYPES :-

Activity 1: Creation of Venue with DropOff with Volunteer Reports :-

Activity 2 : Creation of Volunteers with Execution Details and Tasks :-

11 REPORTS :-

Activity 1 : Creation of Report on Venue with DropOff with Volunteer :-

The screenshot shows a report configuration interface with the following details:

Outline tab selected.

Groups section:

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

Columns section:

- Add column...
- Venue Name: X (highlighted)
- Drop-Off point Name: X
- # Distance: X

Filters tab selected, showing 2 filters applied.

Preview message: 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

Activity 2 : Creation of Report on Volunteers with Execution Details and Tasks :-

The screenshot shows the Salesforce Report Builder interface. The title bar includes tabs for 'doc1 - Google Docs', 'Title- To Supply Leftover...', '- Student', 'Write objectives like these', 'Your existing Salesforce Data', and 'Report Builder | Salesforce'. The main area displays a report titled 'Volunteers with Execution Details and Tasks'. The report configuration pane on the left shows 'Outline' selected under 'Fields'. It includes sections for 'Groups' (with 'GROUP ROWS' and 'Add group...') and 'Columns' (with 'Add column...'). The 'Filters' section at the top right contains dropdowns for 'Volunteer ID', 'Volunteer Name', 'Execution Detail Name', 'Task: Task Name', and 'Created Date'. A message in the center says 'No records returned in preview. Try running the report or editing report filters.' with two bullet points: 'Set the Available On filter to All Time' and 'Edit other filters in the filter panel.' At the bottom, there are checkboxes for 'Row Counts', 'Detail Rows', 'Subtotals', and 'Grand Total', all of which are checked. The status bar at the bottom right shows 'ENG' and '12:42 PM'.

12 DASHBOARDS :-

Activity 1 : Adding venue and Drop Off point Report to the Dashboard :-

Report

venue and Drop Off point X

Use chart settings from report i

Display As

Groups

Add group... X

Columns

X

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 \(venue and Drop Off point\)](#)

Activity 2 : Adding Volunteer Task Report to the Dashboard :-

Report

Volunteer Task X

Use chart settings from report i

Display As

X-Axis

Volunteer ID

Y-Axis

Preview

Volunteer Task

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

Activity 3: Adding a Picture to the Dashboard (Optional) :-

The dashboard interface includes:

- Dashboard Task Execution Details**: Shows the date and time of the view.
- Refresh**, **Edit**, and **Subscribe** buttons.
- venue and Drop Off point** card: A table with columns **Venue Name ↑**, **Drop-Off point Name**, and **Distance**. Data includes:

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	-	-
- Volunteer Task** card: A chart showing the record count for each volunteer ID. The Y-axis is "Record Count" (0, 0.5, 1) and the X-axis is "Volunteer ID" (1, 2, 4). The chart shows 1 record for ID 1, 1 record for ID 2, and 4 records for ID 4.
- Background Image**: A photograph of a person wearing a green shirt and a white glove handing a small white bowl of food to another person.

Milestone 13 : SHARING RULES :-

Drop-Off point Sharing Rules		New	Recalculate	Drop-Off point Sharing Rules Help
Action	Criteria	Shared With	Access Level	
Edit Del	Drop-Off point: Distance LESS OR EQUAL 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	

Phase 5 : Deployment, Documentation & Maintenance

Milestone 14 : HOME PAGE :-

Activity 1 : Creation of Home Page :-

The screenshot shows a dashboard titled "Task Execution Details". It includes a table for "venue and Drop Off point" and a bar chart for "Volunteer Task". A placeholder for a "Flow Component" is also present.

venue and Drop Off point

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

Volunteer Task

Record Count

Volunteer ID

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

The screenshot shows a more polished version of the dashboard with a search bar and navigation menu at the top.

FoodConnect

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

Task Execution Details

As of 29-Mar-2024, 9:55 am Viewing as Paila Bhargavi

venue and Drop Off point

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

Volunteer Task

Record Count

Volunteer ID

Venue Form

Venue Name
Email
Phone
Venue Location

Next

CONCLUSION

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.

The project “*To Supply Leftover Food to Poor using Salesforce*” has been successfully implemented and demonstrates the practical application of Salesforce CRM for social good.

- Project Achievements:

- Streamlined the process of collecting and distributing leftover food.
- Ensured real-time coordination between donors, volunteers, and NGOs.
- Automated workflows through custom objects, fields, Flows, and Apex triggers.
- Improved transparency using reports, dashboards, and sharing rules.
- Enhanced usability with Lightning App, Home Page, and role-based security.

- Student Learning Outcomes:

- Hands-on skills in Salesforce development and CRM customization.
- Improved problem-solving through real-time use case implementation.
- Team collaboration in handling requirement analysis, development, and testing.
- Exposure to industry-relevant tools and project lifecycle management.

Future Scope:

- Integration with mobile platforms to allow easier donor and volunteer participation.
- Use of advanced analytics and AI to predict demand and optimize food distribution.
- Collaboration with more NGOs, hotels, and community centers for greater reach.
- Expansion to a multi-region system, ensuring maximum utilization of surplus food.

Advantages:

1. Reduces Food Waste

- Leftover food that would otherwise be thrown away gets used meaningfully.
- Helps address the global issue of food wastage.

2. Fights Hunger

- Provides meals to those who cannot afford to buy food.
- Helps improve the nutrition and health of underprivileged communities.

3. Promotes Social Responsibility

- Encourages individuals, restaurants, and companies to be socially responsible.
- Builds a culture of sharing and caring in society.

4. Environmental Benefits

- Reducing food waste also reduces the environmental impact (like methane emissions from landfills).
- Saves the energy and resources used in food production.

5. Cost-effective Charity

- It doesn't require extra food production—just better food management.
- Can be a low-cost way for organizations and businesses to give back.

6. Improves Public Image

- Restaurants, hotels, and corporates can enhance their public image through charitable

Disadvantages:

1. Food Safety Risks

- Leftover food can spoil easily, leading to health issues like food poisoning if not handled properly.

2. Legal Issues

- Donors may fear being held legally responsible if someone gets sick from the donated food.

3. Logistical Problems

- It can be difficult to collect, store, and distribute the food quickly before it goes bad.

4. Inconsistent Availability

- Leftovers are unpredictable, making it hard to provide regular meals to those in need.

5. Lack of Dignity

- Some recipients may feel disrespected or embarrassed receiving "leftover" food.

6. Quality Concerns

- The food might not always be nutritious, fresh, or suitable for everyone's dietary needs.

7. Dependency Risk

- Relying too much on donated food may prevent long-term solutions to poverty and hunger.