



**TO SUPPLY LEFT OVER FOOD TO POOR**

**P.PRATHIBA - 922222104036**

**K.P.KEZIAH - 922222104024**

**S.HARINI - 922222104013**

**S.HARSHINI - 922222104015**

## Ideation Phase

### The Problem Statements

Date	31 October 2025
Team ID	NM2025TMID05871
Project Name	To Supply Leftover Food To Poor
Maximum Marks	2Marks

#### Customer Problem Statement:

Every day, large amounts of leftover food from hotels, restaurants, functions, and households go to waste, while many poor and homeless people struggle to get even one meal a day. There is no proper system to collect, store, and distribute this excess food efficiently before it gets spoiled. This leads to both food wastage and hunger coexisting in the same community. Therefore, there is a need for a reliable platform that connects food donors with needy people or charitable organizations in real time, ensuring that safe, edible leftover food reaches those who need it the most.

<b>Problem Statement</b>	<b>I am (Customer)</b>	<b>I am trying to</b>	<b>But</b>	<b>Because</b>	<b>Which makes me free</b>
PS-1	A Restaurant Owner	Donate leftover Food to needy people	There is no proper platform to connect with near by NGOs or poor	I don't know where or how to distribute the food	Frustrated and helpless seeing food Wasted daily

			Communit ies	safety before it gets spoiled	
PS-2	A Volunteer/N GO worker	Collect and Distribut ed leftover food from doners	It's hard to identify available food sources in time	There's no centraliz ed system to track food availabili ty and location	Stressed and disappoint ed when unable to reach people in need

### **Problem Statement PS-1:**

As a restaurant owner, I am trying to donate leftover food to poor and homeless people, but there is no proper system to collect and distribute it efficiently. Because of this, I often have to throw away edible food, which makes me feel frustrated and guilty. A reliable platform to connect food donors with volunteers or NGOs could help reduce food waste and feed the hungry.

### **Problem Statement PS-2:**

As a volunteer, I am trying to collect and distribute leftover food from restaurants and events to poor people, but it's difficult to locate and collect the food on time. Because there is no centralized system to track where food is available, I often miss opportunities to help the needy.

This makes me feel disappointed, as a lot of food goes to waste while people remain hungry.

## **Empathize & Discover**

Date	31 October 2025
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Maximum Marks	4 Marks

### **Empathy Map Canvas:**

The main users of this project are poor and homeless people who struggle daily to find food, along with restaurant owners, event organizers, and volunteers who wish to help but lack an organized system. The users say that they often see large amounts of food being wasted in restaurants and events while many people go hungry.

Restaurant owners and event managers say that they want to donate leftover food but do not know the right process or place to give it safely. Poor people say they are unaware of where such food is distributed.

**Empathy Map Canvas**

Designed for:

Designed by:

Date:

Version:

**1 WHO are we empathizing with?**  
 Who is the person we want to understand?  
 What is the situation they are in?  
 What is their role in the situation?

**GOAL**  
**2 What do they need to DO?**  
 What do they need to do differently?  
 What job(s) do they want or need to get done?  
 What decision(s) do they need to make?  
 How will we know they were successful?

**7 What do they THINK and FEEL?**  
**PAINS**  
 What are their fears, frustrations, and anxieties?

**GAINS**  
 What are their wants, needs, hopes and dreams?

**6 What do they HEAR?**  
 What are they hearing others say?  
 What are they hearing from friends?  
 What are they hearing from colleagues?  
 What are they hearing second-hand?

**3 What do they SEE?**  
 What do they see in the marketplace?  
 What do they see in their immediate environment?  
 What do they see others saying and doing?  
 What are they watching and reading?

**5 What do they DO?**  
 What do they do today?  
 What behavior have we observed?  
 What can we imagine them doing?

**4 What do they SAY?**  
 What have we heard them say?  
 What can we imagine them saying?

What other thoughts and feelings might motivate their behavior?

Last updated on 16 July 2017. Download a copy of this canvas at <https://generativemag.com/empathy-map/>
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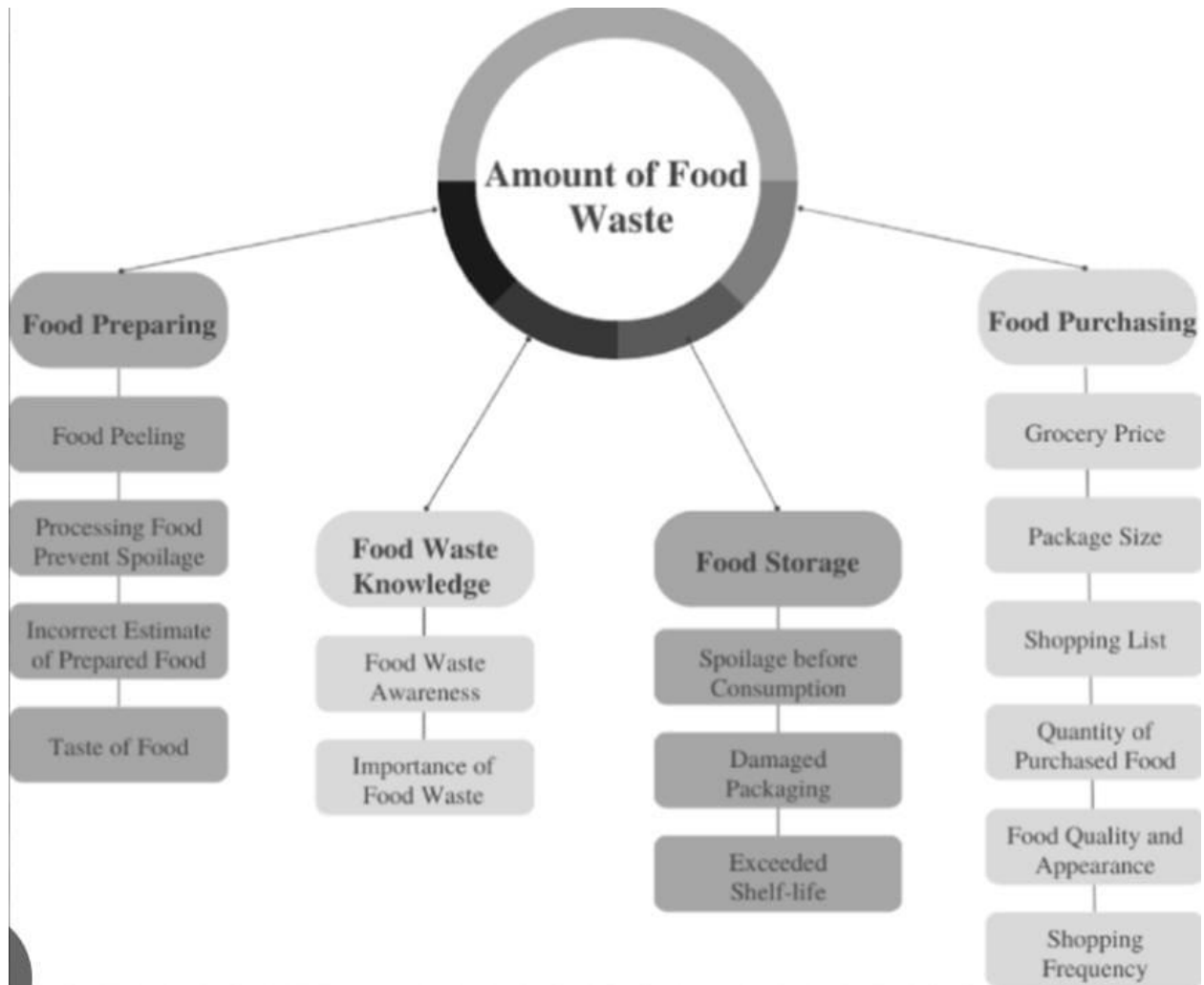
## Brainstorm & Idea Prioritization

Date	31 October 2025
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Project name	To supply leftover food to poor
Maximum Marks	4 Marks

### To supply leftover food to poor:

This guided project demonstrates how to create a system that helps distribute leftover food from restaurants, hotels, and events to poor and needy people. The idea focuses on reducing food wastage while ensuring that the food reaches the hungry in a safe and timely manner.

## Step 1: Team Gathering, Collaboration, and Select the Problem Statement



## Step-2: Brainstorm, Idea Listing and Grouping:

### Idea Listing:

Create a mobile app to connect donors and NGOs.

Add GPS tracking for food pickup and delivery.

Send instant notifications to volunteers.

Include a food safety checklist.

Partner with NGOs and local authorities.

Use food collection vans for large donations.

Launch awareness campaigns to reduce food waste.

### **Idea prioritization:**

After generating and grouping different ideas, the team prioritized them based on their feasibility, impact, and ease of implementation. Among all the ideas discussed, developing a mobile application named “Food Connect” was given the highest priority because it provides a simple and effective way to connect food donors, NGOs, and volunteers in real time. The next high-priority idea was adding GPS tracking and notification features, which would help locate nearby donors and ensure quick food collection before it gets wasted.



## Project Planning Phase

**Project planning (product Backlog, Sprint planning , Stories, Story points)**

Date	31 October 2025
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### **product Backlog, Sprint Schedule and Estimation**

<b>Sprint</b>	<b>Functional Requirement</b>	<b>User Story Number</b>	<b>User Story Task</b>	<b>Story Points</b>	<b>Priority</b>	<b>Team Members</b>
Sprint -1	Donar Registration	USN-1	As a donor, I can register and share leftover food details	3	High	Keziah
Sprint -1	NGO/Receiver Registration	USN-2	As an NGO, I can register to receive available	3	High	Prathiba



			food donations .			
Sprint -2	GPS and Location Tracking	USN-3	As a volunteer, I can view donor and receiver locations on a map.	4	High	Harini
Sprint -2	Food Safety Verification	USN-4	As an admin, I can verify food quality before pickup.	3	Medium	Harshini
Sprint -3	Notification System	USN-5	As a user, I get notifications when food is available nearby.	3	Medium	Keziah
Sprint -3	Report and feedback	USN-6	As a user, I can submit feedback after food delivery.	2	low	Prathiba
Sprint -4	Documentation	USN-7	As a developer,	2	Medium	Harini

			I want to document the app features and process flow			
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Sprint	Total story points	Duration	Sprint start date	Sprint End Date	Story Points Completed	Sprint Release date
Sprint-1	20	6 days	31 May 2025	5 June 2025	20	5 June 2025
Sprint-2	20	6 days	6 June 2025	11 June 2025	20	11 June 2025
Sprint-3	20	6 days	12 June 2025	18 June 2025	19	18 June 2025
Sprint-4	20	6 days	19 June 2025	25 June 2025	20	25 June 2025

### Velocity:

Average velocity = (Total Story Points Completed) / (Total Duration in Days)

Total: 79 points over 24 days → Velocity = 3.29 points/day

## Burndown Chart:

A burndown chart represents the remaining work versus time for the project.

In this project, it helps track progress on developing the “Food Connect” app — showing how quickly each sprint completes user stories such as donor registration, GPS tracking, and notifications

## Project Design Phase

### Problem Solution Fit:

Date	31 October 2025
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### Problem Solution Fit:

The Problem–Solution Fit means identifying a real-world problem faced by the community and developing a suitable solution that effectively addresses it. This phase helps ensure that the solution meets the needs of both food donors and receivers while creating social impact by reducing food wastage and hunger.

### Purpose:

1. Solve the issue of food wastage by efficiently connecting donors and NGOs.

2. Deliver leftover food to poor and needy people on time.
3. Build public awareness and trust by maintaining food safety and hygiene.
4. Use technology to make the food-sharing process quick ,transparent, and sustainable



## Project design Phase

### Proposed solution

Date	31 October 2025
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Maximum Marks	2 Marks

### Proposed Solution:

S.no	Parameter	Description
1	<b>Problem Statement</b>	Every day, large quantities of edible food are wasted in

	<b>(Problem to be solved)</b>	restaurants, hotels, and events, while many poor people struggle without meals. There is no organized system to collect and distribute leftover food safely and efficiently.
<b>2</b>	<b>Idea / Solution Description</b>	The solution is to create a mobile application called "Food Connect" that connects food donors (hotels, restaurants, and individuals) with NGOs and volunteers who can collect and deliver the food to the needy. The app uses GPS to locate nearby donors and recipients in real time, ensuring quick distribution before food gets spoiled
<b>3</b>	<b>Novelty / Uniqueness</b>	The idea integrates technology with social service by building a real-time, location-based platform for managing surplus food. It ensures

		transparency, food safety, and time efficiency, which makes it stand out from traditional donation systems.
<b>4</b>	<b>Social Impact / Customer Satisfaction</b>	The project directly helps reduce hunger, improves the living conditions of poor people, and minimizes food wastage. Donors also experience satisfaction by contributing to society through a simple and reliable system.
<b>5</b>	<b>Business Model (Revenue Model)</b>	The app can collaborate with NGOs, sponsors, and local governments. Revenue can be generated through advertisements, partnerships, and CSR (Corporate Social Responsibility) programs from restaurants and food chains.

<b>6</b>	<b>Scalability of the Solution</b>	The system can be expanded to multiple cities and integrated with government food safety programs. In the future, features like AI-based food prediction and cold storage tracking can be added to reach a larger audience.
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### **Conclusion:**

The project “To Supply Leftover Food to Poor” provides an innovative and practical solution to the growing issue of food wastage and hunger. By using technology to bridge the gap between food donors and the needy, this system ensures that safe, edible food is redirected to those in need instead of being thrown away. The Food Connect app creates a network of donors, volunteers, and NGOs, enabling fast and transparent food distribution.

### **Project Design Phase:**

#### **Solution Architecture**

Date	31 October 2025
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Maximum Marks	4 Marks

## **Solution Architecture**

### **Goals of the Architecture**

- a. Build a digital platform to connect food donors (restaurants, hotels, individuals) with NGOs and volunteers.
- b. Ensure safe and timely delivery of leftover food before it spoils.

### **Key Components:**

1. Donor Module: For restaurants, hotels, and individuals to register leftover food.
2. Volunteer/NGO Module: To receive food pickup and delivery requests.
3. Database: Stores donor, food item, location, and delivery details.

### **Development Phases:**

- 1) Design donor and volunteer registration modules.
- 2) Develop database for storing food and location details.
- 3) Integrate GPS and notification systems
- 4) Build and test food request and delivery workflow.
- 5) Implement admin dashboard for monitoring and reporting.

### **Solution Architecture Description:**



The proposed solution architecture is designed to create an efficient and safe system for redistributing surplus food to the needy. The Food Connect application serves as a link between donors, NGOs, and volunteers through a digital platform. Donors can easily upload food availability details, while volunteers and NGOs can view nearby donation alerts via GPS tracking and respond for collection.



## Project design phase-II

### Solution requirements(Functional and Non-functional)

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### Functional Requirements:

FR No.	Functional Requirements	Sub Requirements
FR-1	Donor Registration	Restaurants, hotels, and individuals can register using mobile number, email, or Google sign-in.
FR-2	Food Donation Entry	Donors can upload details of leftover food (quantity, type, and pickup time).
FR-3	Volunteer/NGO Registration	NGOs and volunteers can register and verify their profiles.
FR-4	Food Request & Pickup	Volunteers receive alerts about nearby donations and accept pickup requests.

<b>FR-5</b>	GPS Tracking	Real-time tracking of donor and delivery locations.
<b>FR-6</b>	Notification System	Automatic alerts for new donations, confirmations, and delivery updates
<b>FR-7</b>	Admin Dashboard	Admin can monitor all users, donations, and delivery activities.

### Non-Functional Requirements:

<b>FR No.</b>	<b>Non-Functional Requirements</b>	<b>Description</b>
<b>NFR-1</b>	Usability	The interface should be user-friendly for donors, NGOs, and volunteers
<b>NFR-2</b>	Security	All user data and food details should be stored securely with login authentication.
<b>NFR-3</b>	Reliability	The system should ensure accurate and timely food delivery without data loss.
<b>NFR-4</b>	Performance	The system should process donations and notifications

		quickly without delays.
<b>NFR-5</b>	Availability	The platform should be available 24/7 for donation and delivery operations.
<b>NFR-6</b>	Scalability	The system should handle an increasing number of donors and NGOs as it expands.

## Project Design Phase-II

### Data Flow Diagram & User Stories

#### Data Flow Diagrams:

A Data Flow Diagram (DFD) represents the flow of information in the system. It shows how data enters and leaves the system, what processes it undergoes, and how it is stored. In the project “To Supply Leftover Food to Poor,” the DFD illustrates how food donations are received, verified, and delivered to the needy through registered NGOs and volunteers. The system ensures smooth coordination between donors, NGOs, volunteers, and the admin, maintaining transparency and accountability.

#### User Stories:

User stories define what different users need from the system in simple, goal-focused language. In this project, they help ensure

timely food collection and delivery while maintaining food quality and transparency.

User Type	Functional-Requirements	User Story Number	User Story	Acceptance Criteria	Priority	Release
Donar	Food Donation	USN-1	As a donor, I want to register and submit leftover food details for donation .	The system should allow donors to upload food details with location and quantity.	High	Sprint -1
Volunteer /NGO	Food Collection	USN-2	As a volunteer, I want to receive alerts about nearby donations and confirm pickup	Volunteers should receive real-time notifications for food availability within their area	High	Sprint -2

Admin	Monitoring	USN-3	As an admin, I want to monitor donations and deliveries to ensure proper distribution	Admin should have access to reports, maps, and delivery logs for all completed donations.	Medium	Sprint -2
System	Notification Management	USN-4	As a system, I want to automatically notify NGOs and donors about food status updates.	Notifications must be triggered instantly upon donation submission and delivery confirmation.	High	Sprint -2
Receiver	Feedback Collection	USN-5	As a receiver, I want to give feedback	The system should allow receivers	Low	Sprint -3

			about food quality and service.	to submit simple feedback forms after receiving food.		
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## Project Design Phase-II

### Technology Stack (Architecture & Stack)

Date	31 October 2025
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Maximum Marks	4 Marks

### Technical Architecture:

The system enables restaurants, hotels, and households to donate leftover food, which is collected and distributed to nearby NGOs and needy people using a cloud-based application

**Table-1:Components And Technologies:**

S No.	Components	Description	Technology
1	User Interface	Users (Donors, Volunteers, NGOs) interact through a	HTML, CSS, JavaScript, Bootstrap, React

		web/mobile app	
2	Cloud Database	Managed and backed up on cloud server	AWS RDS / Firebase
3	File Storage	Stores food images and logs	AWS S3 / Firebase Storage

**Table-2: Application Characteristics:**

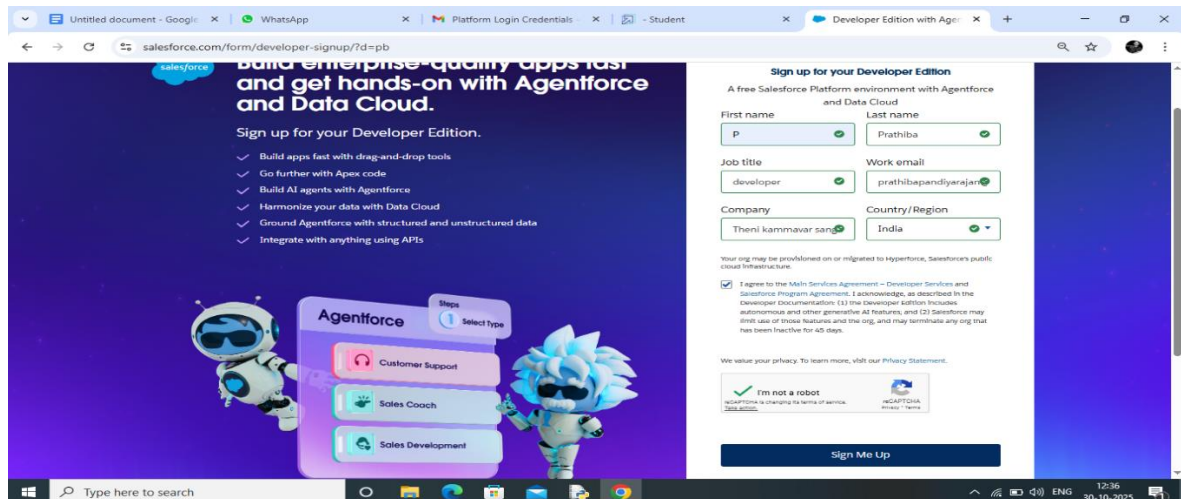
<b>S.No.</b>	<b>Characteristics</b>	<b>Description</b>	<b>Technology</b>
1	Open-Source Frameworks	Entire system built using open-source technologies	Django, React, MySQL
2	Security Implementation	Role-based login for Donor, Volunteer, NGO	Django Authentication, JWT
3	Scalable Architecture	Cloud-based and horizontally scalable	AWS Cloud Architecture
4	Availability	High availability with cloud backup and load balancing	AWS Auto Scaling / Cloud Load Balancer



# Creating developer account

- I created my developer account using the link below

<https://developer.salesforce.com/signup>



## Object

To create an object:

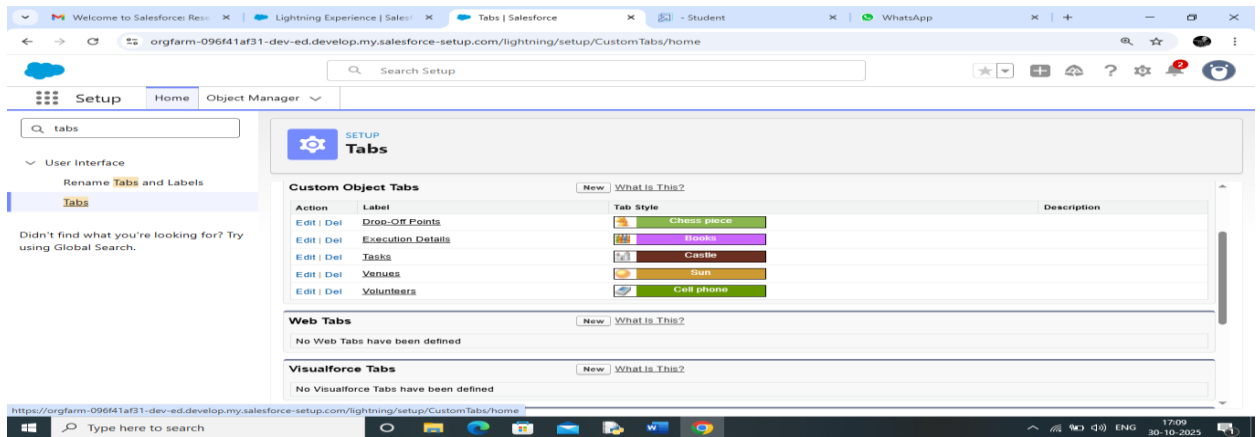
From the setup page >> Click on Object Manager >> Click on Create >> Click on Custom Object.

1. Venue object
2. Drop off point object
3. Task object
4. Execution detail object

## Tabs

To Create a Tab:

1. Go to setup page >> type Tabs in Quick Find bar >> click on tabs >> New (under custom object tab)

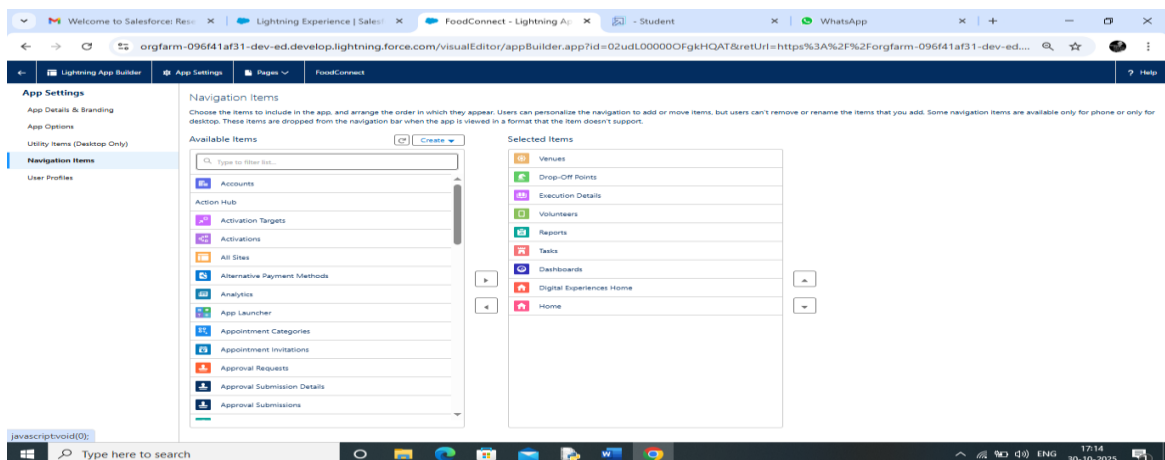


Now create the Tabs for the remaining Objects, they are “Drop-Off Point, Task, Volunteer, Execution Details”.

## The Lightning App

Create a Lightning App:

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



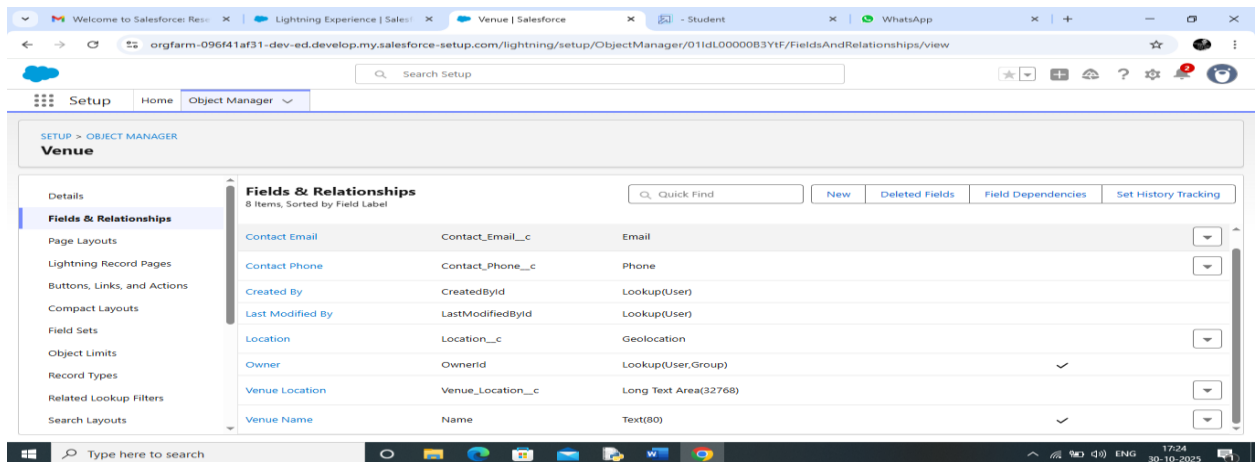
# Fields

## Creation of Relationship fields in objects:

1. Go to setup >> click on Object Manager >> type object name(Volunteer) in the search bar >> click on the object.

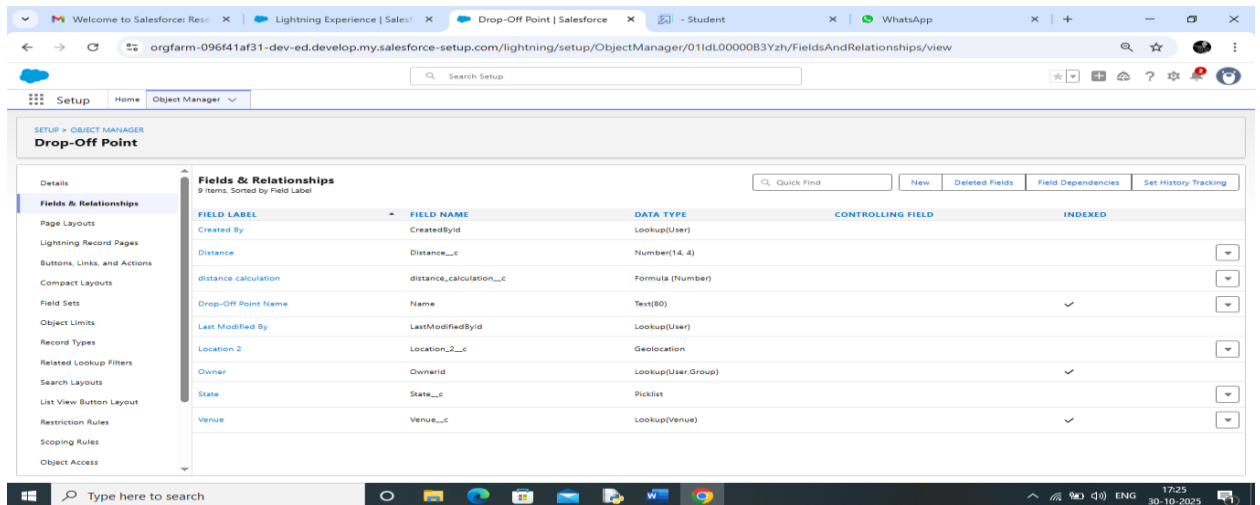
## Creation of fields for the Venue objects:

1. Contact email
2. Contact phone
3. Location
4. Venue location



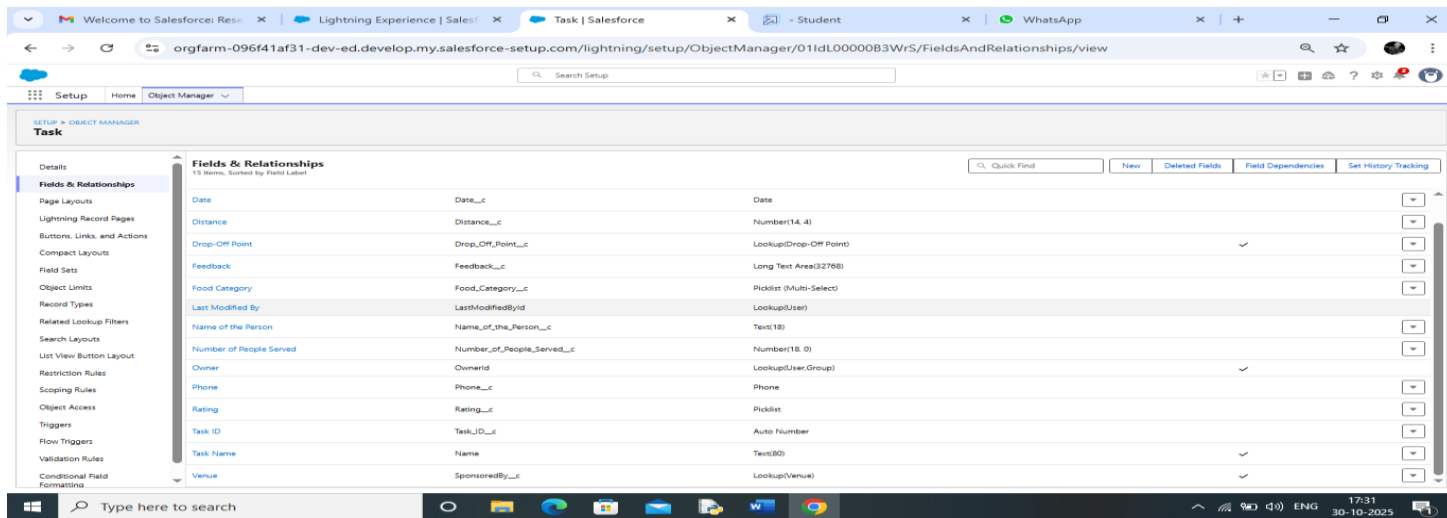
## Creation of fields for the Drop-Off point objects:

- 1.location
- 2.distance calculation
- 3.distance



## Creation of fields for the Task object

- 1.Task ID
- 2.date
- 3.food category
- 4.Number of People Served
- 5.Name of the person
6. Phone
7. Rating
8. Feedback

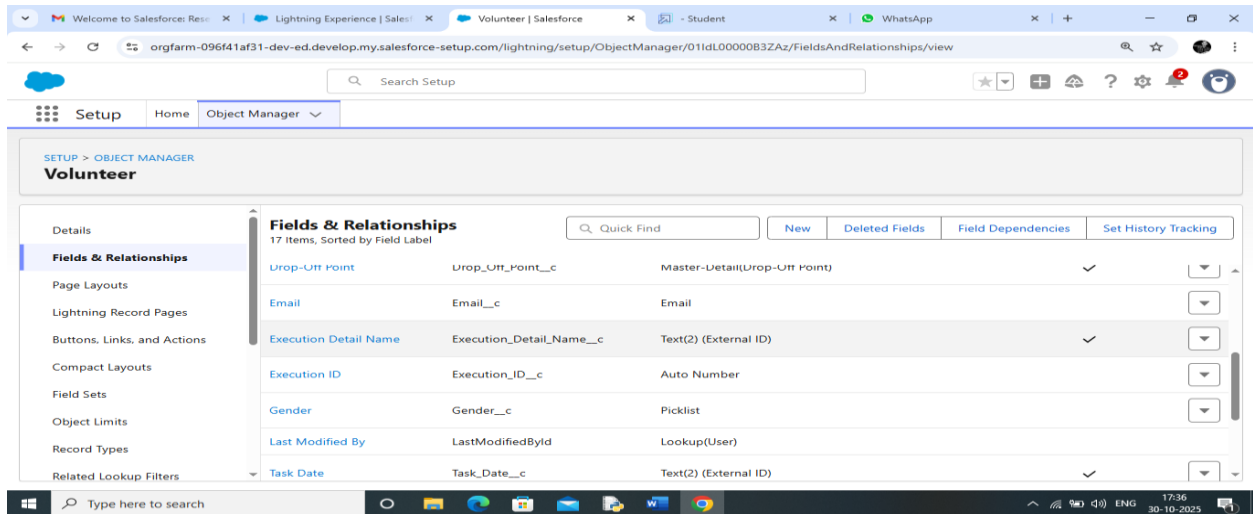


## Creation of fields for the Volunteer object:

- 1.Volunteer ID
- 2.Gender
- 3.Available On
- 4.Age
- 5.Email
- 6.Contact Number
- 7.Address
- 8.Date of Birth

## Creation of fields for the Execution Details object:

- 1.Execution ID



# FLOWS

## Create Flow to create a record in Venue object:

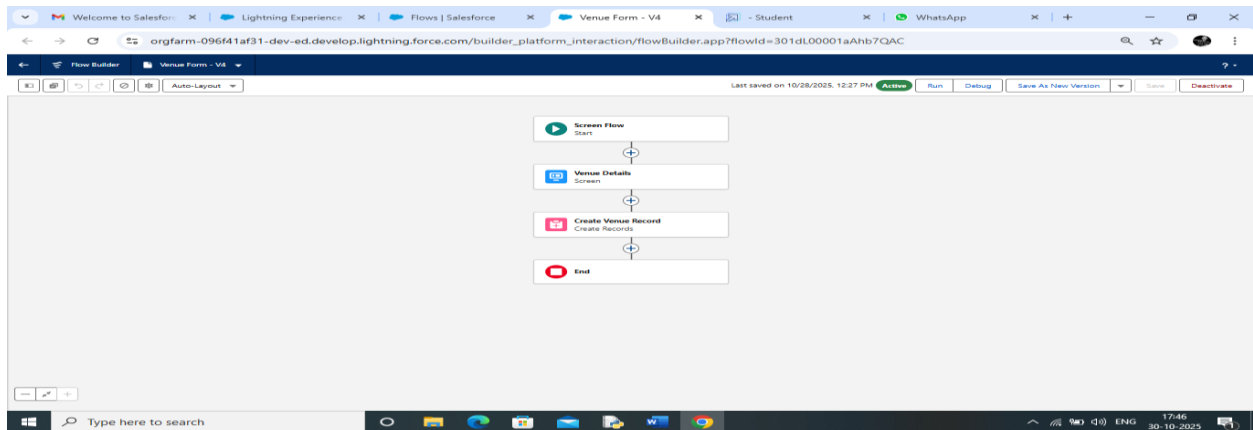
1. Go to setup >> type Flow in quick find box >> Click on the Flow and Select the New Flow.

Select the Screen flow. Click on create.

- 1.Venue Details
- 2.venue name
3. Email
4. Phone
5. Venue location
6. Latitude
7. Longitude

1. Click on the '+' icon in between Venue details and end, and click on create record element.

Now label it as Venue record



## Trigger

Create a Trigger:

1. Log into the trailhead account, navigate to the gear icon in the top right corner.
2. Click on developer console and you will be navigated to a new console window.
3. Click on the File menu in the toolbar, and click on new >> Trigger.
4. Enter the trigger name and the object to be triggered.

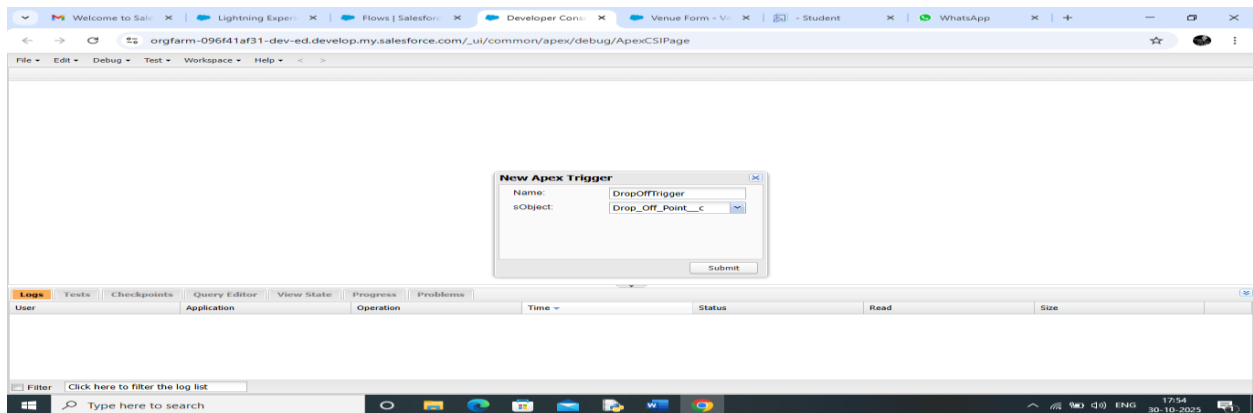
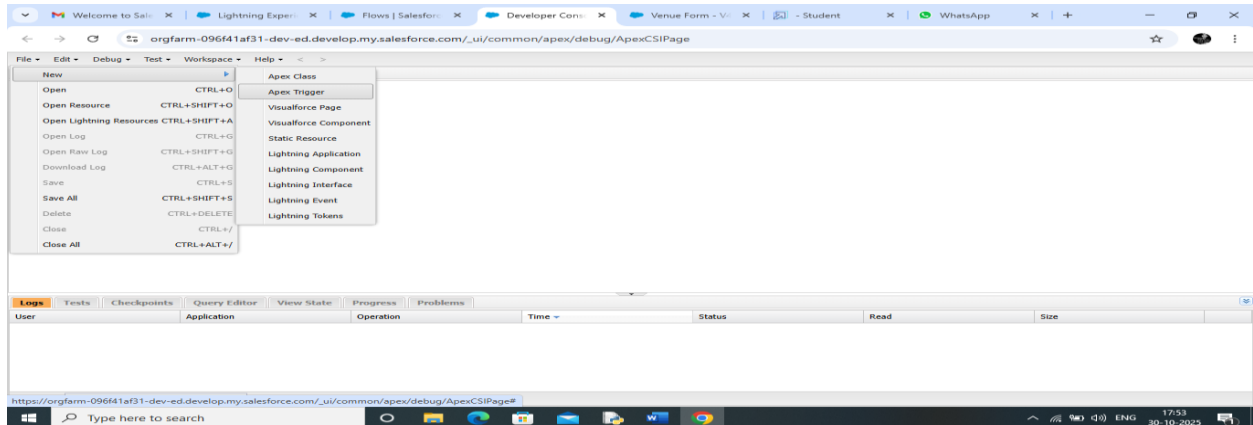
## Trigger Code

```
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

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:
4. Profile Name : NGOs Profile

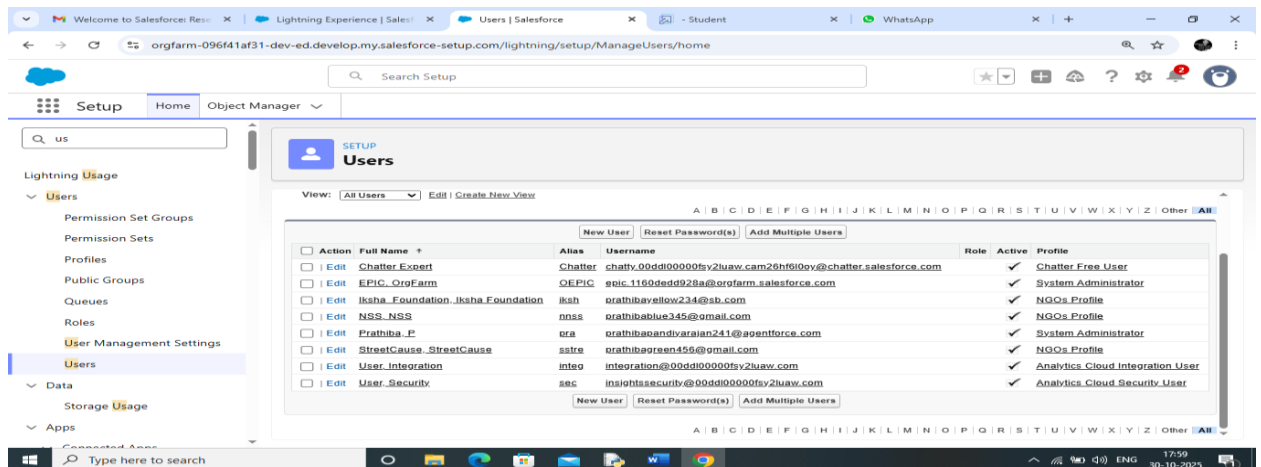


5. Then click on Save

## Creation of Users

1. Go to setup page >> type users in Quick Find bar >> click on users>> New user. In General Information give details as: (Note : create users as per your wish NGO's)

- Iksha foundation
- NSS
- Street Cause



## Public Groups

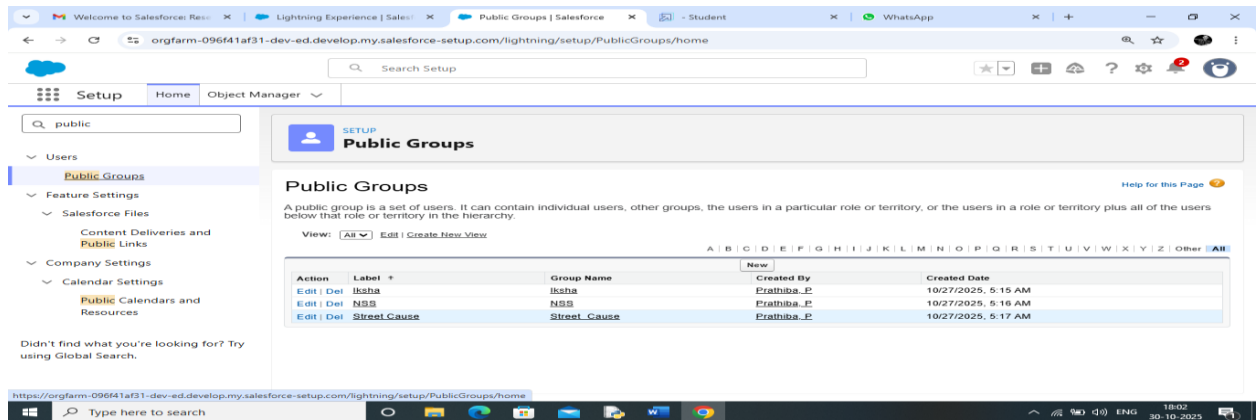
Creation of Public Group :

1. Go to setup page >> type Public Groups in Quick Find bar >> click on Public Groups >> click on New.

2. Under Group Information:

- 1. Iksha

- 2.NSS
- 3.Street Cause

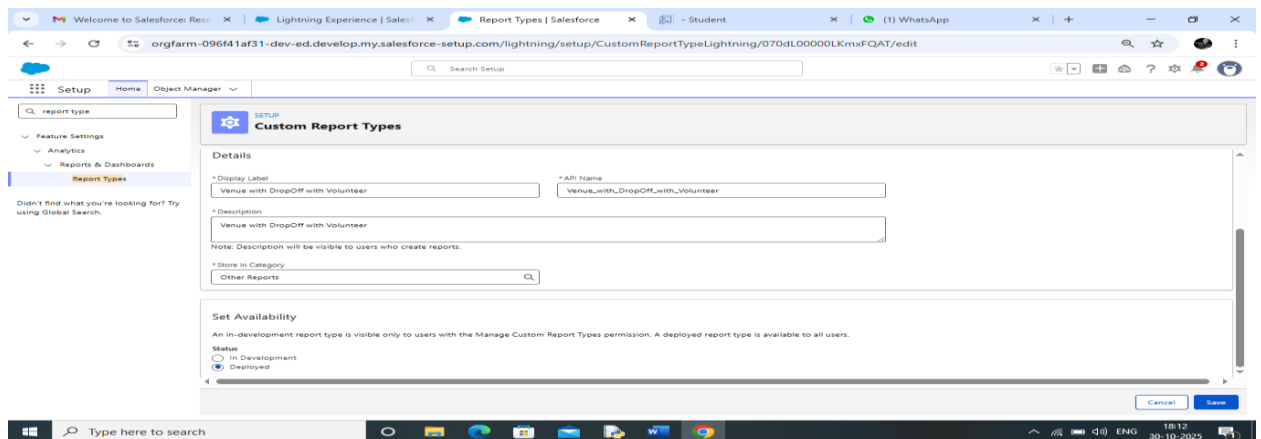


## Report Types

Creation of Report Types:

1. Go to setup page >> type Report Types in Quick Find bar >> click on Report Types >> click on Continue >> Click on New Custom Report Type.
2. In Define the Custom Report Type:
3. Primary Object : Select Venues
4. Report Type Label : Venue with DropOff with Volunteer
5. Report Type Name : Venue\_with\_DropOff\_with\_Volunteer
6. Description : Venue with DropOff with Volunteer
7. Store in Category : Select Other Reports
8. Deployment Status : Deployed
9. Click on Next

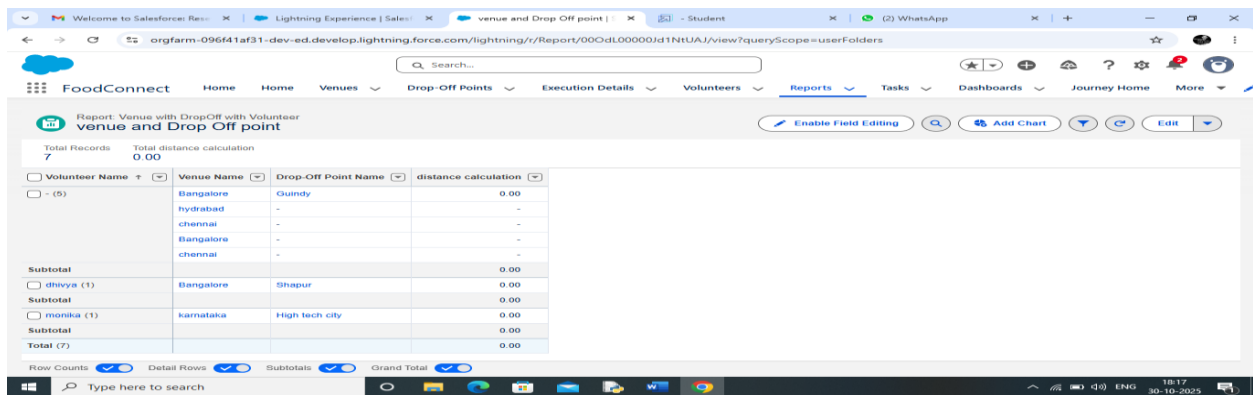
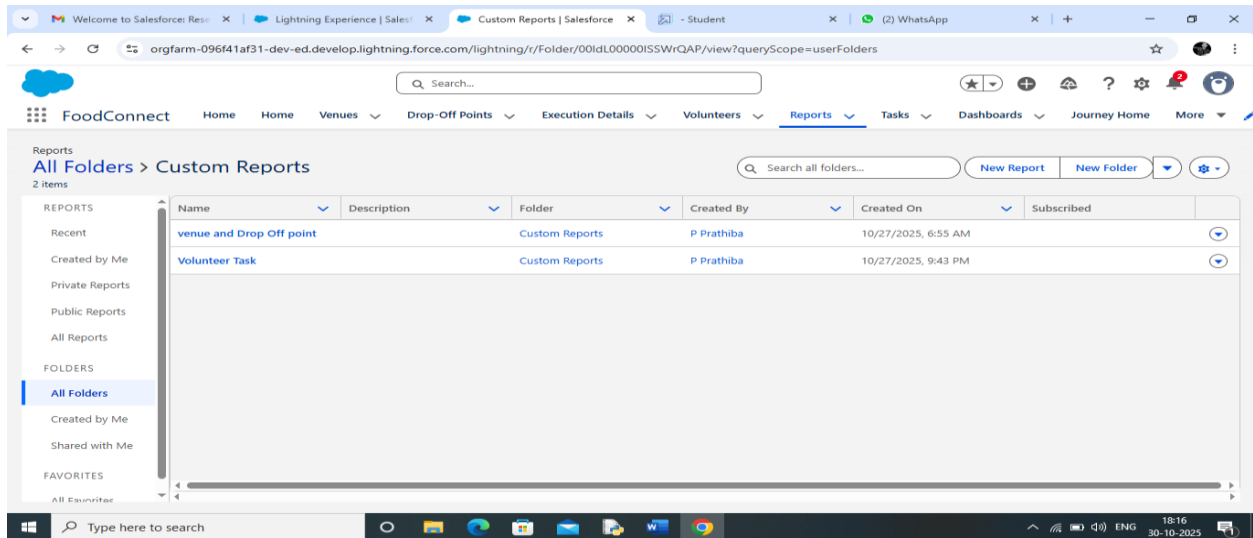
10. Near Click to relate another Object Select Drop-Off Points.
11. And also select "A" records may or may not have related "B" records.
12. Now again Near Click to relate another Object Select Volunteers.
13. Now click on Save



The screenshot shows the Salesforce Setup interface for creating a Custom Report Type. The browser address bar indicates the URL: `orgfarm-09641af31-dev-ed.develop.my.salesforce-setup.com/lightning/setup/CustomReportTypeLightning/070dL00000LKmxFQAT/edit`. The left sidebar shows the navigation menu with 'Setup' selected, and 'Report Types' highlighted under the 'Reports & Dashboards' section. The main content area is titled 'Custom Report Types' and contains two sections: 'Details' and 'Set Availability'. In the 'Details' section, the 'Display Label' is 'Venue with DropOff with Volunteer', the 'API Name' is 'Venue\_with\_DropOff\_with\_Volunteer', and the 'Description' is 'Venue with DropOff with Volunteer'. A note states: 'Note: Description will be visible to users who create reports.' The 'Store in Category' dropdown is set to 'Other Reports'. In the 'Set Availability' section, the status is set to 'Deployed' (radio button selected). At the bottom right of the form, there are 'Cancel' and 'Save' buttons.

## Reports

Creation of Report on Venue with DropOff with Volunteer:



1. Go to the app(FoodConnect) >> click on the reports tab
2. Click on New Folder.
  - a. Folder Label : Custom Reports
  - b. Folder Unique Name : CustomReports
3. Open Custom Reports and click on New Report
4. Select Report Type : Venue with DropOff with Volunteer
5. In GROUP ROWS : Add Volunteer Name
6. In Columns : Add Venue Name, Drop-Off point Name, Distance.

7. Now click on Save & Run.
8. Give Label as :
9. Report Name : venue and Drop Off point
10. Report Unique Name : Auto Populated
11. Click on Select Folder and select Custom Report, then click on Save.

## Creation of Report on Volunteers with Execution Details and Tasks:

1. Go to the app(FoodConnect) >> click on the reports tab
2. Click on Custom Reports Folder and click on New Report
3. Select Report Type : Volunteers with Execution Details and Tasks.
4. Then click on Start Report.
5. In GROUP ROWS : Volunteer ID
6. In Columns : Add Volunteer : Volunteer Name, Task : Task Name, Execution Detail : Execution Detail Name, Volunteer: Owner Name, Task: Date, Task : Rating.

Report: Volunteers with Execution Details and Tasks

Volunteer Task

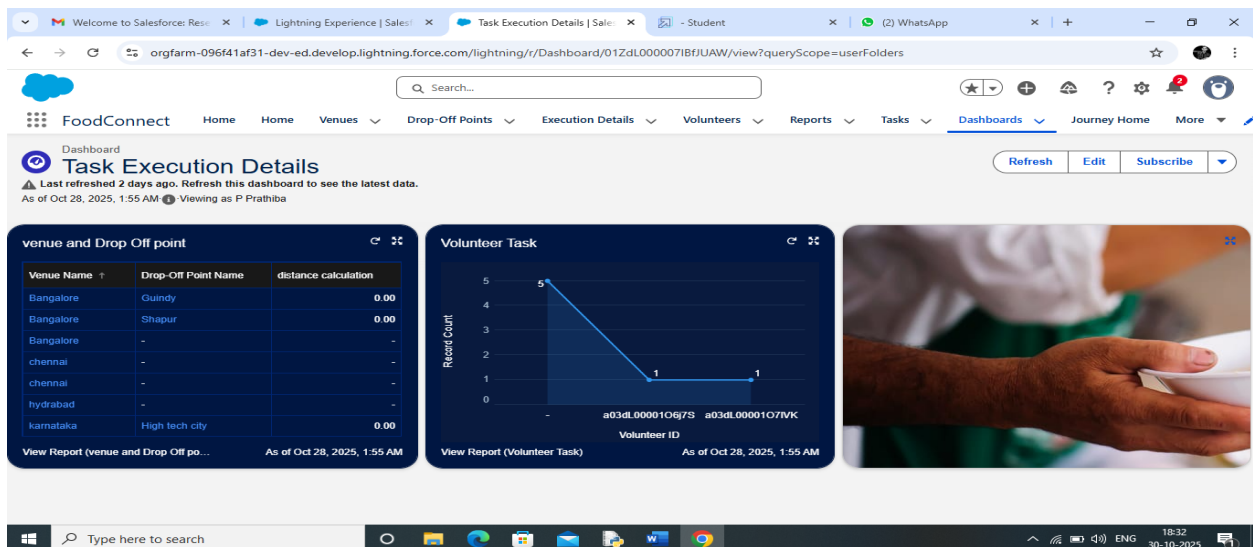
Total Records: 7

Volunteer ID	Volunteer Name	Task Name	Execution Detail Name	Task Date	Task Rating
- (5)	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
Subtotal					
a03dL00001O6j75 (1)	monika	PP	Vo	27	5
Subtotal					
a03dL00001O7IVK (1)	dhivya	PP	Vo	27	5
Subtotal					
Total (7)					

Row Counts: Detail Rows Subtotals Grand Total

# Dashboards

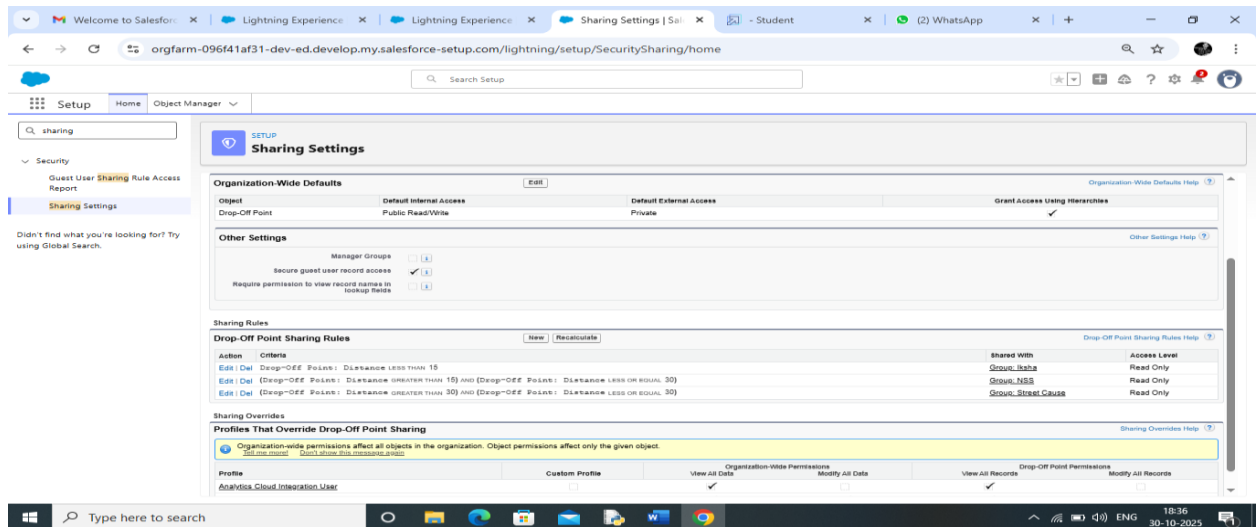
1. Adding venue and Drop Off point Report to the Dashboard:
2. Adding Volunteer Task Report to the Dashboard
3. Adding a Picture to the Dashboard (Optional)



## Sharing Rules

### Creation of sharing rules:

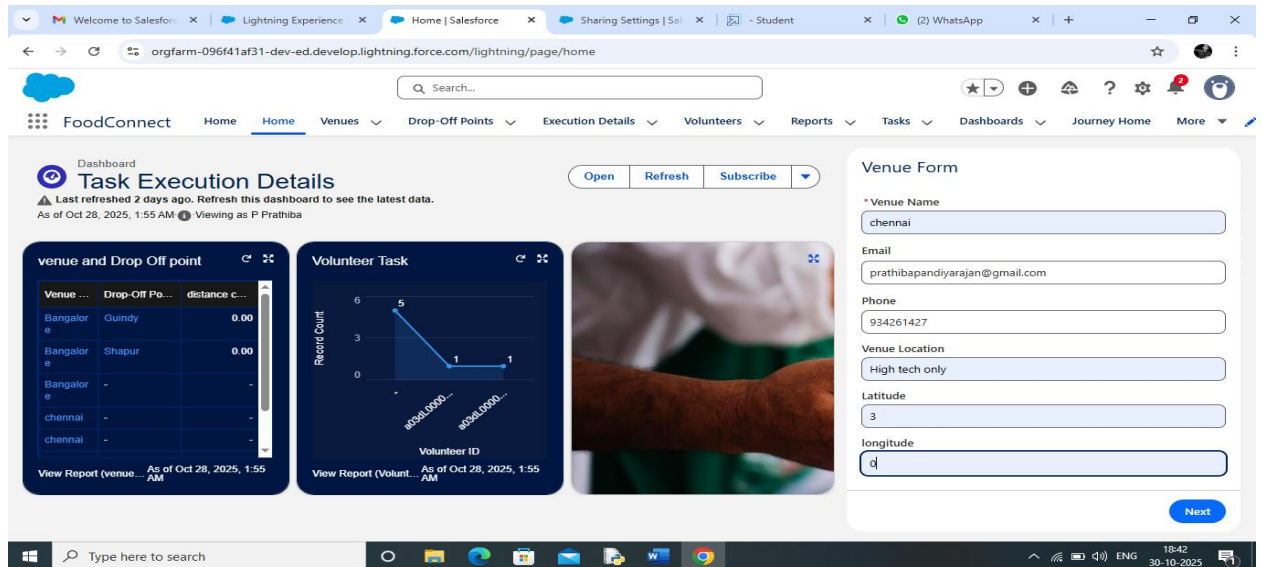
1. Go to setup >> type Sharing Settings in quick find box >> Click on the Sharing Settings.
2. Scroll down and find Drop-Off point Sharing Rules.



# Home Page

Creation of sharing rules:

1. Go to setup >> type Lightning App Builder in quick find box >> Click on the Lightning App Builder and Select the New.
2. Select Home Page and give Label as HOME Page.
3. Select Standard Home Page.
4. Near Components search for Flow and Drag and Drop in Right Side Section.



## 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.



