

Food Waste Tracking CRM – Project Report

A Capstone Project

Table of Contents

- **Phase 1:** Problem Understanding & Industry Analysis
- **Phase 2:** Org Setup and Configuration
- **Phase 3:** Data Modelling and Relationships
- **Phase 4:** Process Automation (Admin)
- **Phase 5:** Apex Programming (Developer)
- **Phase 6:** User Interface Development
- **Phase 7:** Integration & External Access
- **Phase 8:** Data Management & Deployment
- **Phase 9:** Reporting, Dashboards & Security Review

Phase 1: Problem Understanding & Industry Analysis

Goal

Understand the challenges of food waste in the hospitality sector and identify opportunities to streamline donations using Salesforce.

1. Requirement Gathering

- Track surplus food donations from restaurants/hotels.
- Match donations with suitable NGOs/Food Banks.
- Automate NGO assignment based on food type, capacity, and location.
- Enable NGOs to accept/decline donations.
- Ensure timely pickups via alerts and reminders.

- Generate dashboards to track impact (e.g., meals saved, waste reduced).

2. Stakeholder Analysis

- **Admin** – manages system, oversees escalations.
- **Donor (Restaurant/Hotel)** – logs surplus food donations.
- **NGO/Food Bank** – accepts or declines donations, arranges pickup.
- **Pickup Agent** – executes food collection and delivery.
- **End Beneficiaries** – indirectly benefit via reduced food waste.

3. Business Process Mapping

- **Current (as-is):** Manual calls/spreadsheets, delayed pickups, food expiry.
- **Target (to-be):** Centralized Salesforce CRM → automatic NGO assignment, alerts, and real-time tracking.

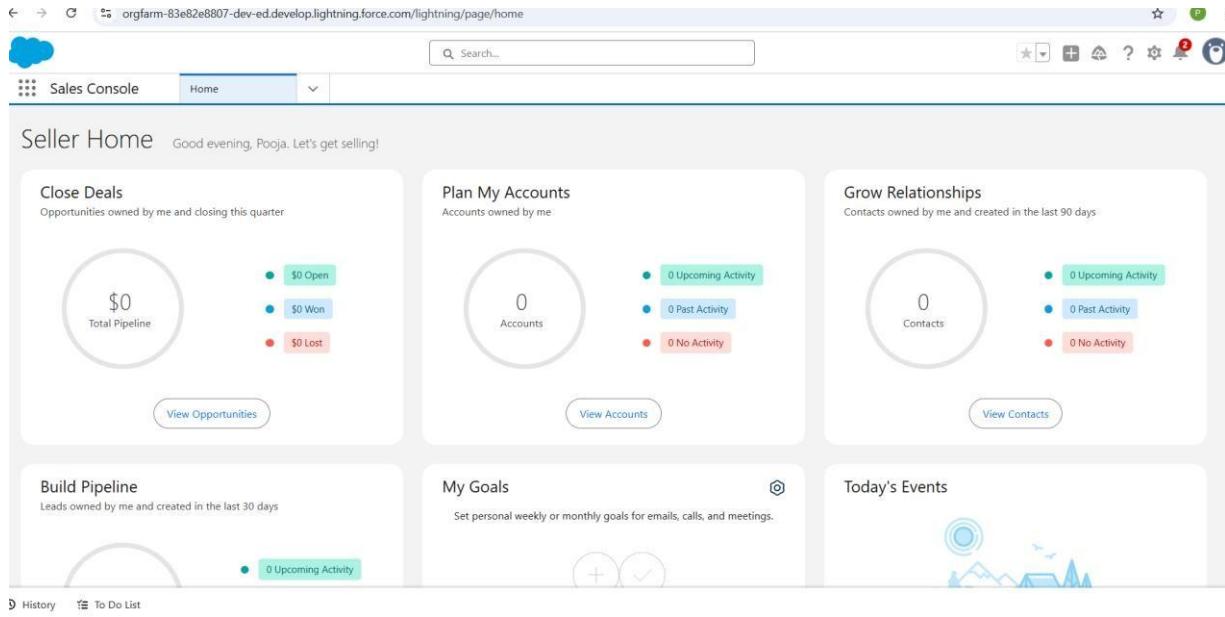
4. Industry-specific Use Case Analysis

- Restaurant logs surplus food.
- NGO accepts donation via portal.
- System creates pickup request.
- Pickup completed before expiry.
- Admin monitors via dashboard.

Phase 2: Org Setup & Configuration (Food Waste Tracking CRM)

Step 1: Salesforce Edition

1. Go to developer.salesforce.com.
2. Sign up for a **Free Developer Org** (activation email will be sent).
3. Log in and confirm **Lightning Experience** is enabled (top right gear → check if Lightning is active).

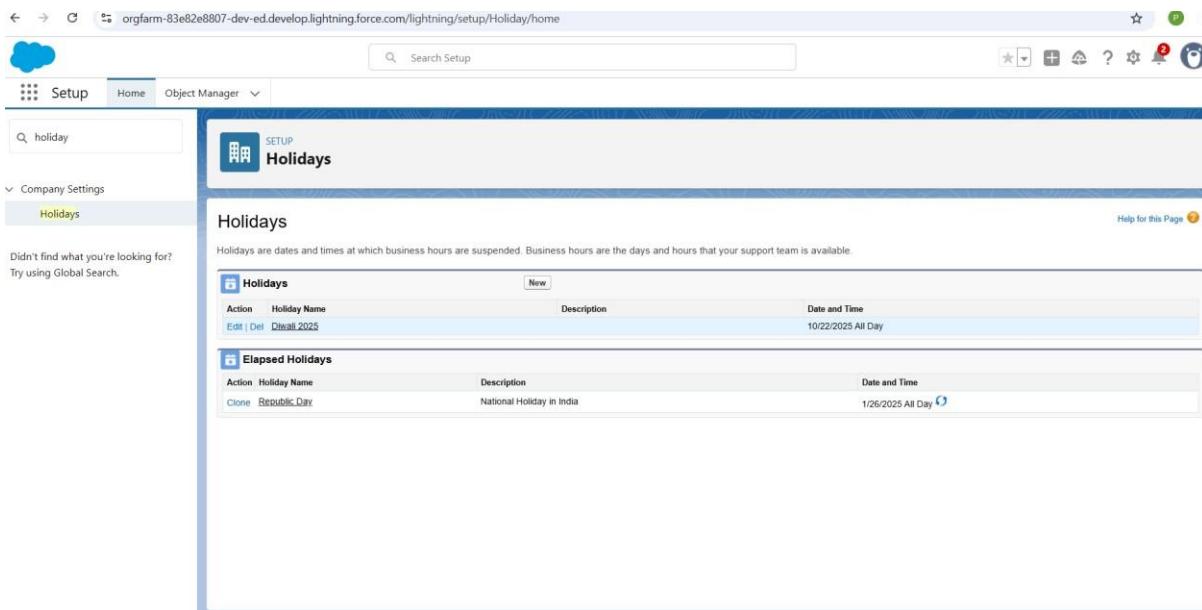


Step 2: Company Profile Setup

1. Click **Setup → Company Information**.
2. Click **Edit** and set:
 - Company Name: Food Waste Tracking CRM ○
 - Default Time Zone: Asia/Kolkata (IST) ○
 - Locale: English (India) ○ Currency: INR
3. Save.

Step 3: Business Hours & Holidays

1. In Setup, search **Business Hours**.
 - Name: Food Donation Operations ○ Hours: 9:00 AM – 9:00 PM
2. In Setup, search **Holidays**.
 - Add at least 2 holidays (e.g., Republic Day 26-Jan, Diwali date). ○ Check All-Day Event.
 - For repeating holidays (e.g., Independence Day), select **Recurring Holiday**.



The screenshot shows the Salesforce Holidays setup page. The URL in the browser is `orgfarm-83e82e8807-dev-ed.develop.lightning.force.com/lightning/setup/Holiday/home`. The page title is "Holidays". A sub-header says "Holidays are dates and times at which business hours are suspended. Business hours are the days and hours that your support team is available." There are two tables: "Holidays" and "Elapsed Holidays".

Action	Holiday Name	Description	Date and Time
Edit Del	Diwali 2025		10/22/2025 All Day

Action	Holiday Name	Description	Date and Time
Clone	Republic Day	National Holiday in India	1/26/2025 All Day

Step 4: Fiscal Year Settings

1. In Setup, search **Fiscal Year**.
2. Keep **Standard Fiscal Year (Jan–Dec)**.
 - Start Month: January ○ Fiscal Year Name: 2025 (for Jan–Dec 2025).

Step 5: User Setup & Licenses

1. Setup → Users → Users → New User.
2. Create:
 - **Admin User** – License: Salesforce, Profile: System Administrator.
 - **Donor User** – License: Salesforce/Platform, Profile: Standard User.
 - **NGO User** – License: Salesforce/Platform, Profile: Standard User.
 - **Reviewer User** – License: Salesforce, Profile: Read Only.
3. Use unique usernames (email-style, e.g., donor.crm2025@gmail.com).

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Best Before	Best_Before__c	Date/Time		
Created By	CreatedById	Lookup(User)		
Donation Name	Donation_Name__c	Auto Number		
Food Donation Name	Name	Text(80)		
Food Type	Food_Type__c	Picklist		
Last Modified By	LastModifiedById	Lookup(User)		
Owner	OwnerId	Lookup(User,Group)		
Prepared On	Prepared_On__c	Date/Time		
Quantity	Quantity__c	Number(8, 2)		
Status	Status__c	picklist		

Step 6: Profiles

1. Setup → **Profiles**.
2. Clone Standard User → Name Donor Profile.
 - Permissions: Create/Read **Food Donation**. No delete.

The screenshot shows the Salesforce Setup interface with the 'Profiles' tab selected. The left sidebar shows 'Users' and 'Profiles'. The main area displays the 'Donor Profile' settings. It includes sections for 'Food Donations' (Tab Settings: Default On), 'Record Types and Page Layout Assignments' (assigning 'Food Donation Layout' to Master Record Type), and 'Object Permissions' (enabling Create and Read permissions for Food Donation). A search bar at the top and a toolbar with various icons are also visible.

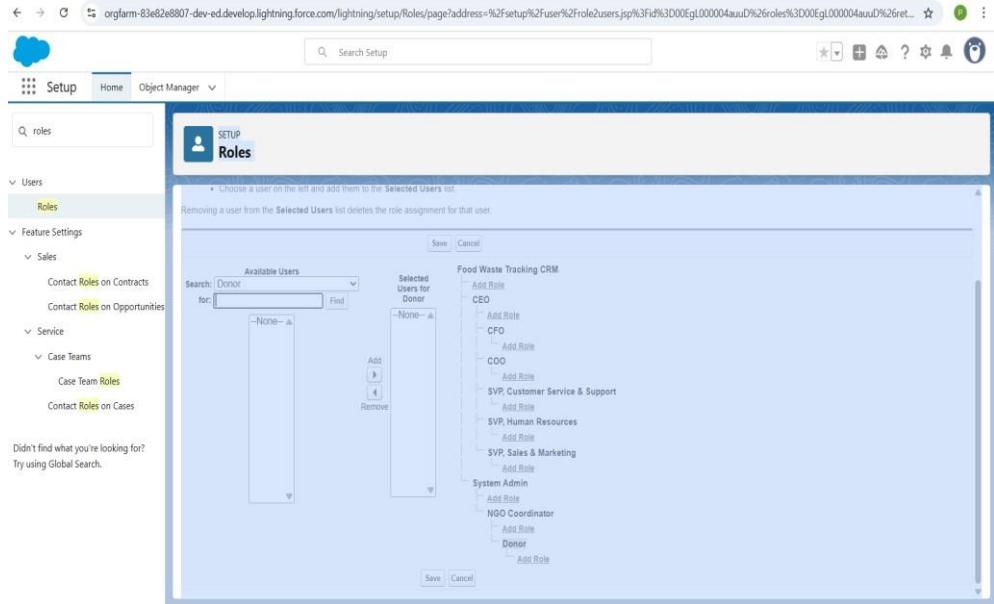
3. Clone Standard User → Name NGO Profile.
- Permissions: Read/Update assigned **Food Donation + Pickup Request**.

The screenshots show the 'Profiles' section in the Salesforce Setup. The top screenshot is for the 'Food Donations' object, and the bottom screenshot is for the 'Pickup Requests' object. Both profiles are named 'NGO Profile'. The 'Object Settings' tab is selected. The 'Record Types and Page Layout Assignments' section shows a single record type ('Master') assigned to a specific page layout. The 'Object Permissions' section lists various permissions (Read, Create, Edit, Delete, View All Records, Modify All Records) with checkboxes indicating whether they are enabled or disabled.

4. Admins → keep **System Administrator Profile** (full access).

Step 7: Roles

1. Setup → **Roles** → Set Up Roles.
2. Create hierarchy:
 - Top: System Admin ○ Middle: NGO Coordinator ○ Bottom: Donor



3. Assign users to roles.

- Donors under Donor role.
- NGOs under NGO Coordinator role.

Step 8: Permission Sets

1. Setup → Permission Sets → New.

- Name: Reports Access.
- Add permissions: Run Reports, View Dashboards, Create Dashboards.

2. Assign this set to NGO and Admin users.

The screenshot shows the Salesforce Setup interface with the 'Permission Sets' page selected. On the left, a sidebar lists 'Users', 'Permission Set Groups', and 'Custom Code'. The main area displays a permission set named 'Reporting Access' with the following details:

- Description:** Gives access to Reports and Dashboards
- License:** Salesforce
- Session Activation Required:**
- Permission Set Groups Added To:** 0
- API Name:** Reporting_Access
- Namespace Prefix:**
- Created By:** Pooya Ladhaee, 9/26/2025, 1:29 PM
- Last Modified By:** Pooya Ladhaee, 9/26/2025, 1:29 PM

The 'Apps' section shows assigned apps like Assigned Apps, Assigned Connected Apps, Object Settings, App Permissions, Apex Class Access, and Visualforce Page Access.

Step 9: Organization-Wide Defaults (OWD)

1. Setup → Sharing Settings.
2. Set defaults:
 - Food Donation → Private.
 - Pickup Request → Controlled by Parent.
 - Donor → Private.
 - NGO → Public Read-Only.
3. Save.

The screenshot shows the Salesforce Setup interface with the 'Sharing Settings' page selected. The left sidebar lists 'Security' and 'Sharing Settings'. The main area shows sharing configurations for various objects:

Object	Sharing Configuration	Setting
Shipping Configuration Set	Public Read Only	Private
Streaming Channel	Public Read/Write	Private
Tableau Host Mapping	Public Read Only	Private
User Presence	Public Read Only	Private
Waitlist	Private	Private
Web Cart Document	Private	Private
Work Order	Private	Private
Work Plan	Private	Private
Work Plan Template	Private	Private
Work Step Template	Private	Private
Work Type	Private	Private
Work Type Group	Public Read/Write	Private
Donor	Private	Private
Food Donation	Private	Private
NGO	Public Read Only	Private
Pickup Request	Private	Private

At the bottom, there are sections for 'Other Settings' and checkboxes for 'Standard Report Visibility', 'Manual User Record Sharing', 'Manager Groups', 'Secure guest user record access', and 'Require permission to view record names in lookup fields'.

Step 10: Sharing Rules

1. In **Sharing Settings**, scroll to **Food Donation Sharing Rules**.
2. Create new rule:
 - Label: Share Donations with NGO.
 - Based on criteria: Assigned NGO field is not blank. ○ Share with: Role = NGO Coordinator. ○ Access: Read/Write.

The screenshot shows the Salesforce Sharing Settings page. The URL is orgfarm-83e82e8807-dev-ed.develop.lightning.force.com/lightning/setup/SecuritySharing/page?address=%2Fsetup%2Fown%2FshareRule.jsp%3Fid%3D02egL0000001uzR%26entity%3Da00%26retl. The page title is "Sharing Settings". On the left, there's a sidebar with "Sharing Settings" selected. The main content area is titled "Food Donation Sharing Rule". It says: "Use sharing rules to make automatic exceptions to your organization-wide sharing settings for defined sets of users." and "Note: 'Roles and subordinates' includes all users in a role, and the roles below that role." Below this, it says "You can use sharing rules only to grant wider access to data, not to restrict access." The sharing rule details are as follows:

Label	Share Donations with NGO
Rule Name	Share_Donations_with_NG <small>i</small>
Description	(empty)
Food Donation: owned by members of	Role: NGO Coordinator
Share with	Role: NGO Coordinator
Access Level	Read/Write
Created By	Pooja Ladhwani, 9/26/2025, 1:50 PM

At the bottom right, it says "Modified By Pooja Ladhwani, 9/26/2025, 1:50 PM". At the very bottom are "Save" and "Cancel" buttons.

Step 11: Login Access Policies

1. Setup → Profiles → Donor Profile → Edit.
2. Under **Login Hours**:
 - Allow access only 9:00 AM – 9:00 PM.
3. Save.

Day	Start Time	End Time	
Sunday	9:00 AM	9:00 PM	Clear times
Monday	9:00 AM	9:00 PM	Clear times
Tuesday	9:00 AM	9:00 PM	Clear times
Wednesday	9:00 AM	9:00 PM	Clear times
Thursday	9:00 AM	9:00 PM	Clear times
Friday	9:00 AM	9:00 PM	Clear times
Saturday	9:00 AM	9:00 PM	Clear times

[Clear all times](#)

Step 12: Developer Org Setup

- Your **Developer Edition** org acts as a sandbox for this project.
- Confirm at the top: Food Waste Tracking CRM (Developer Edition).

Organization Name	Phone
Food Waste Tracking CRM	Default Locale: English (India)
Primary Contact: OrgFarm EPIC	Default Language: English
Division: India	Default Time Zone: (GMT+05:30) India Standard Time (Asia/Kolkata)
Fiscal Year Starts In: January	Currency Locale: Hindi (India) - INR
Activate Multiple Currencies: <input type="checkbox"/>	Used Data Space: 344 KB (7%) [View]
Enable Data Translation: <input type="checkbox"/>	Used File Space: 17 KB (0%) [View]
Newsletter: <input checked="" type="checkbox"/>	API Requests, Last 24 Hours: 0 (15,000 max)
Admin Newsletter: <input checked="" type="checkbox"/>	Streaming API Events, Last 24 Hours: 0 (10,000 max)
Hide Notices About System Maintenance: <input type="checkbox"/>	Restricted Logins, Current Month: 0 (0 max)
Hide Notices About System Downtime: <input type="checkbox"/>	Salesforce.com Organization ID: 000lgL00000C25eD
Locale Formats: ICU	Organization Edition: Developer Edition
	Instance: CAN98

Created By: OrgFarm EPIC, 9/18/2025, 9:49 PM | Modified By: Pooja Ladha, 9/26/2025, 1:47 PM

Step 13: Deployment Basics

- In real projects:
 - **Change Sets** → For moving metadata from Sandbox to Production.
 - **Salesforce CLI (SFDX)** → For advanced deployments.

Phase 3 — Data Modeling & Relationships

1. Create Custom Objects

Setup → Object Manager → Create → Custom Object

- **Donor** → Donor__c → Record Name: Text (Donor Name)
- **NGO** → NGO__c → Record Name: Text (NGO Name)
- **Food Donation** → Food_Donation__c → Record Name: Auto Number: DON-{0000}
- **Pickup Request** → Pickup_Request__c → Record Name: Auto Number: PCK{0000}

The screenshot shows the Salesforce Object Manager page. At the top, there are tabs for Setup, Home, and Object Manager. A search bar at the top right contains the text "food". Below the search bar, there is a "Schema Builder" button and a "Create" button. The main area displays a table with one item:

Label	API Name	Type	Description	Last Modified	Deployed
Food Donation	Food_Donation__c	Custom Object		9/26/2025	✓

The screenshot shows the same Salesforce Object Manager page as above, but with a context menu open over the "Food Donation" row. The menu items are: "+ New Object", "RECENT RECORDS", "Pickup Request", and "NGO". The main table content remains the same.

2. Add Fields to Objects

Setup → Object Manager → Select Object → Fields & Relationships → New For

Donor (Donor__c):

- Email (Text)
- Phone (Phone)
- Address (Text Area)

Fields & Relationships					
	FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Contact Person	Contact_Person__c	Text(18)			
Created By	CreatedById	Lookup(User)			
Email	Email__c	Email			
Food Type Accepted	Food_Type_Accepted__c	Picklist (Multi-Select)			
Last Modified By	LastModifiedById	Lookup(User)			
NGO Name	Name	Text(80)		✓	
Owner	OwnerId	Lookup(User,Group)		✓	
Phone Number	Phone_Number__c	Phone			
Registration Number	Registration_Number__c	Text(12)			

For NGO (NGO__c):

- Location (Text)
- Contact Person (Text)
- Capacity (Number)

For Food Donation (Food_Donation__c):

- Donation Date (Date)
- Quantity (Number)
- Food Type (Picklist: Perishable, Non-Perishable)
- Donor (Lookup → Donor)

Fields & Relationships				
12 Items, Sorted by Field Label				
FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Best Before	Best_Before__c	Date/Time		
Created By	CreatedById	Lookup(User)		
Donation Name	Donation_Name__c	Auto Number		
Donor	Donor__c	Lookup(Donor)		✓
Food Donation Name	Name	Text(80)		✓
Food Type	Food_Type__c	Picklist		
Last Modified By	LastModifiedById	Lookup(User)		
NGO	NGO__c	Lookup(NGO)		✓
Owner	OwnerId	Lookup(User,Group)		✓
Scoping Rules	Drained_On__c	Date/Time		

For Pickup Request (Pickup_Request__c):

- Request Date (Date)
- Status (Picklist: Pending, Approved, Completed)
- NGO (Lookup → NGO)
- Food Donation (Lookup → Food Donation)

3. Relationships

- **Food Donation → Lookup → Donor** → Each donation is linked to a Donor.
- **Pickup Request → Lookup → Food Donation** → Each request is linked to a donation.
- **Pickup Request → Lookup → NGO**
→ Each request is linked to an NGO.

Setup > Object Manager
NGO

Fields & Relationships
10 Items, Sorted by Field Label

Contact Person	Contact_Person_c	Text(18)
Created By	CreatedById	Lookup(User)
Email	Email_c	Email
Food Type Accepted	Food_Type_Accepted_c	Picklist (Multi-Select)
Last Modified By	LastModifiedById	Lookup(User)
NGO Name	Name	Text(80)
Owner	OwnerId	Lookup(User,Group)
Phone Number	Phone_Number_c	Phone
Registration Number	Registration_Number_c	Text(12)
Service Area	Service_Area_c	Text(18)

4. Record Types

Setup → Object Manager → Food Donation → Record Types → New

- **Perishable Donation** → Default for Volunteers
- **Non-Perishable Donation** → Available for All Profiles

Setup > Object Manager
Food Donation

Record Type
Non-Perishable Donation
Edit

Field	Value
Record Type Label	Non-Perishable Donation
Record Type Name	Non_Perishable_Donation
Namespace Prefix	
Description	
Created By	Pooja Ladhwani, 9/27/2025, 11:44 AM
Modified By	Pooja Ladhwani, 9/27/2025, 11:44 AM

Picklists Available for Editing

Action	Field	Modified Date
Edit	Food Type	9/27/2025, 11:44 AM
Edit	Status	9/27/2025, 11:44 AM

Step 4: Page Layouts

Purpose: How the record looks on the screen.

Steps:

1. Object Manager → Select Object → Page Layouts → Edit
2. Drag fields into sections: “Donation Details”, “Donor Info”
3. Drag Related Lists (e.g., Pickup Requests)
4. Click Save

The screenshot shows the Salesforce Object Manager interface for the 'Food Donation' object. The left sidebar has a 'Page Layouts' section selected. The main area displays a table titled 'Page Layouts' with one item: 'Food Donation Layout'. The table includes columns for 'PAGE LAYOUT NAME', 'CREATED BY', and 'MODIFIED BY'. The 'CREATED BY' column shows 'Pooja Ladhwani, 9/26/2025, 4:58 AM' and the 'MODIFIED BY' column shows 'Pooja Ladhwani, 9/27/2025, 11:51 AM'. The top right of the page has a 'Quick Find' search bar and 'New' and 'Page Layout Assignment' buttons.

Step 5: Compact Layouts

Purpose: Fields that appear in the top highlights of a record.

Steps:

1. Object Manager → Select Object → Compact Layouts → New
2. Name it → Add key fields (e.g., Donor Name, Email, Donation Date)
3. Save → Set as Primary

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

- Header:** Search Setup, Home, Object Manager.
- Breadcrumbs:** SETUP > OBJECT MANAGER > Food Donation.
- Section:** Compact Layouts (selected).
- Page Title:** Perishable Compact Layout.
- Form Fields:**
 - Label: Perishable Compact Layout
 - API Name: Perishable_Compact_Layout
 - Included Fields: Donation Name, Donor, Food Type, Best Before, Quantity
- Buttons:** Edit, Clone, Delete, Compact Layout Assignment.
- Object Name:** Food Donation.
- Timestamps:** Created By: Pooja Ladhwani, 9/27/2025, 11:56 AM; Modified By: Pooja Ladhwani, 9/27/2025, 11:56 AM.
- Help:** Help for this Page.

6. Field-Level Security

Setup → Object Manager → Food Donation → Fields & Relationships → Select Field → Set Field-Level Security

- Volunteer:** Can see Donor Name, Quantity, Food Type (Read-only).
- NGO Manager:** All fields visible.
- Admin:** Full access.

7. Related Lists & Buttons

Setup → Object Manager → Food Donation → Page Layouts → Edit Layout

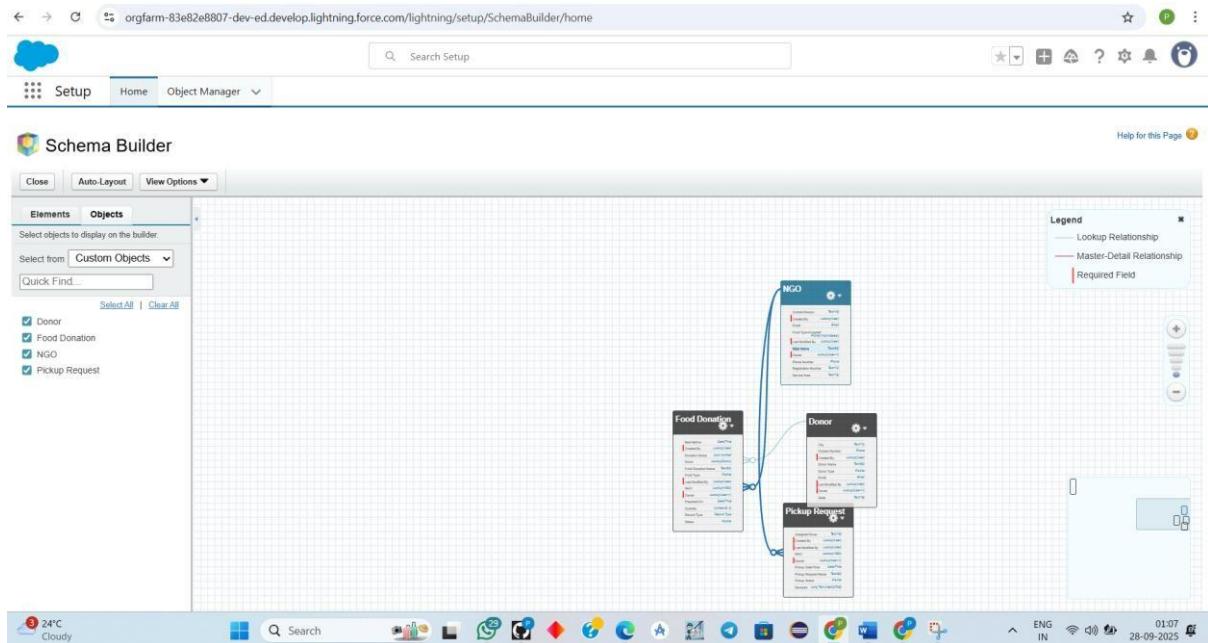
- Pickup Requests** → Request Date, Status
- Activity History** → Subject, Status, Due Date
- Quick Actions** → New Pickup Request, New Task

8. Schema Builder Verification

Setup → Schema Builder → Add Donor, NGO, Food Donation, Pickup Request

- Food Donation** → Lookup → Donor

- **Pickup Request → Lookup → Food Donation**
- **Pickup Request → Lookup → NGO**



Phase 4 : Process Automation (Admin)

1. Validation Rules

Object: Food Donation

Rule: Quantity should be more than 0

- Setup → Object Manager → Food Donation → Validation Rules → New
- Formula:

Quantity__c <= 0

- Error Message: “Quantity must be greater than 0.”

The screenshot shows the Salesforce Object Manager interface. At the top, there's a navigation bar with icons for back, forward, search, and various settings. Below it, a blue header bar says "Object Manager". Underneath, a white page titled "Food Donation Validation Rule" displays a table of validation rule details. The table has two columns: "Validation Rule Detail" and "Active". The active row shows:

Rule Name	Quantity_Check	Active
Error Condition Formula	Quantity__c <= 0	
Error Message	Quantity must be greater than 0	Error Location
Description		Quantity
Created By	Pooja.Ladhawee, 9/27/2025, 12:58 PM	Modified By
		Pooja.Ladhawee, 9/27/2025, 12:58 PM

At the bottom of the table, there are "Edit" and "Close" buttons.

2. Workflow Rules

Object: Pickup Request

Rule: When Pickup Request is created and Status = Pending, notify NGO.

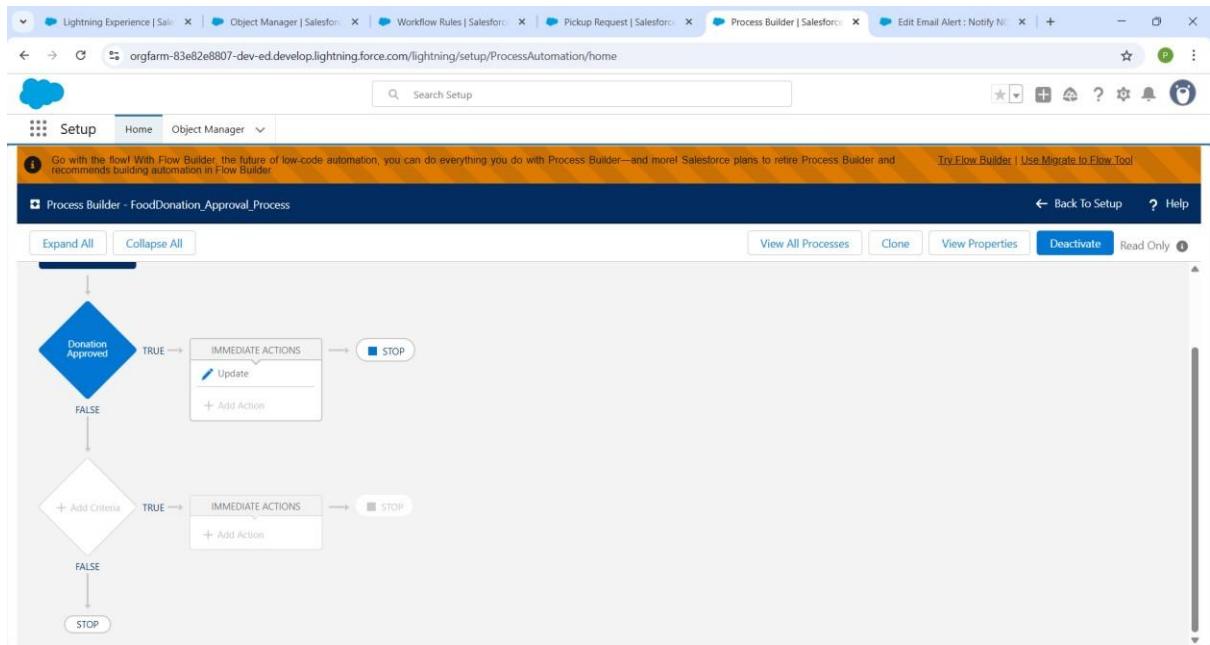
- Setup → Workflow Rules → New → Object: Pickup Request
- Criteria: Status = 'Pending'
- Actions:
 - **Email Alert:** Notify NGO
 - **Task:** Assign volunteer to collect food

3. Process Builder

Object: Food Donation

Rule: When donation is approved → update Pickup Request & notify donor

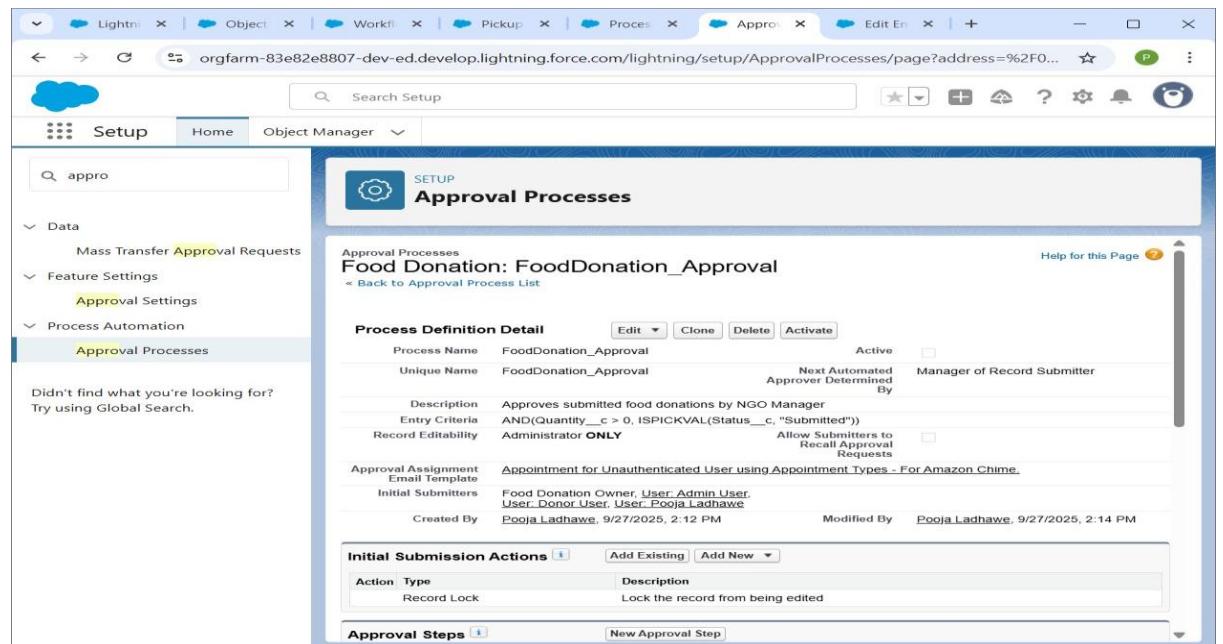
- Setup → Process Builder → New → Object: Food Donation
- Criteria: Status = 'Approved'
- Actions:
 - Update related Pickup Request → Status = "Ready"
 - Send Email Alert → Donor



4. Approval Process

Object: Food Donation

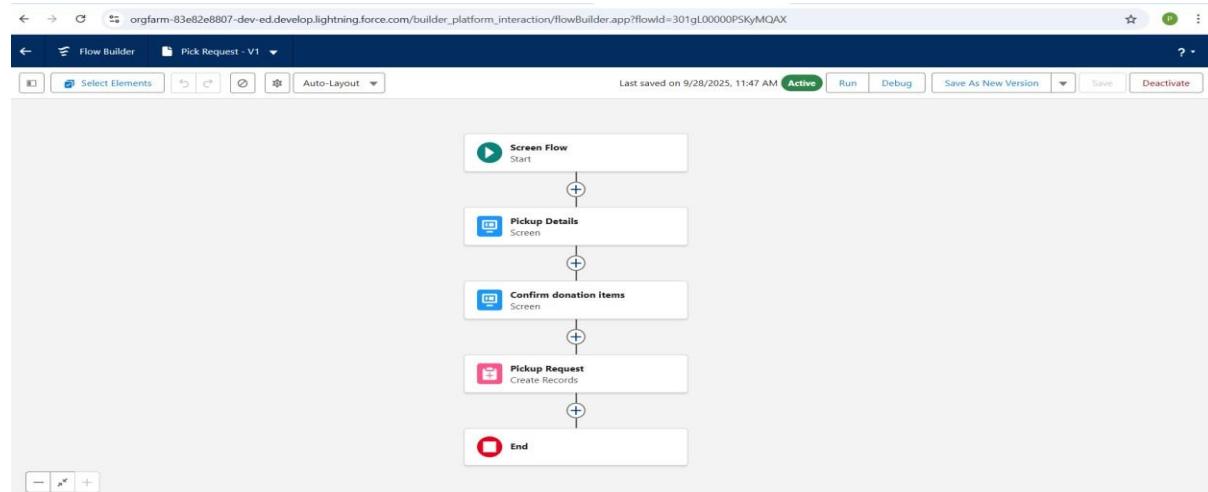
- Entry Criteria: Quantity > 0 AND Status = 'Submitted'
- Approver: NGO Manager
- Actions:
 - On submission → Notify approver
 - On approval → Change Status = Approved
 - On rejection → Notify donor



5. Flow Builder

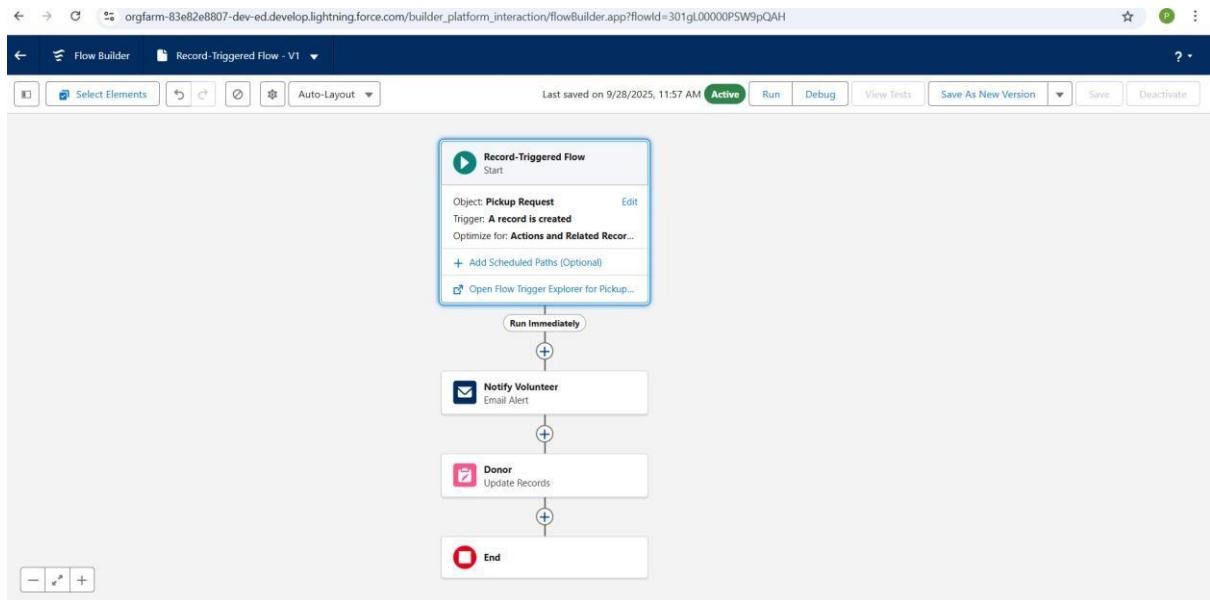
a) Screen Flow

- Purpose: Volunteer enters pickup details
- Object: Pickup Request



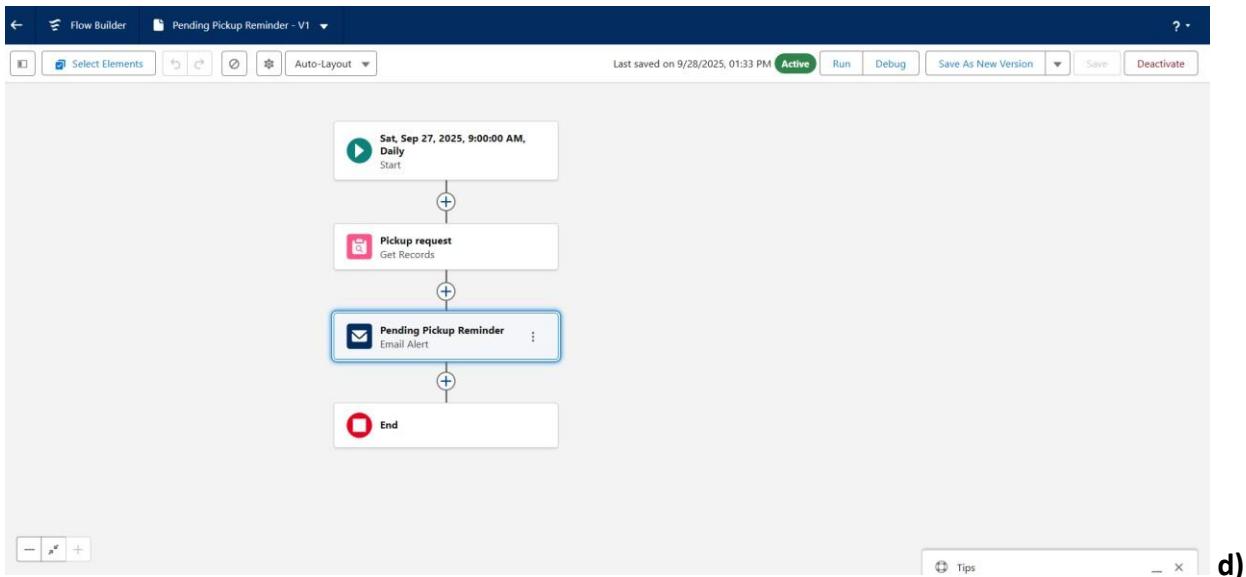
b) Record-Triggered Flow

- Purpose: When Pickup Request is created → notify volunteer & update donor
- Trigger: Pickup Request created



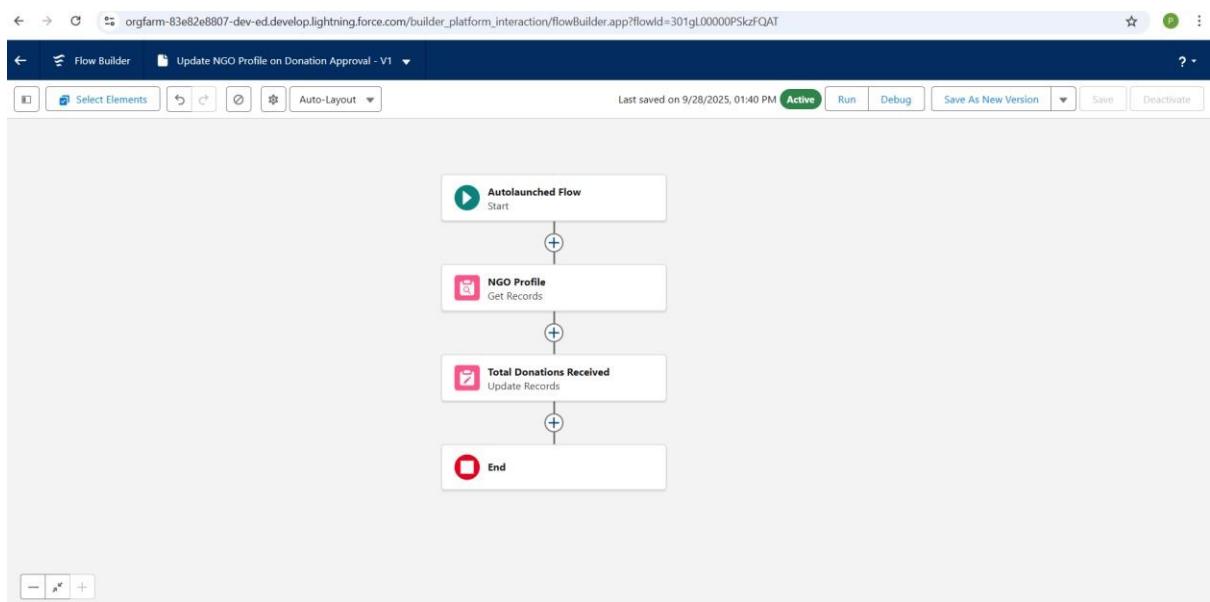
c) Scheduled Flow

- Purpose: Daily report of pending donations → send to manager
- Object: Pickup Request
- Schedule: Every day at 9 AM



Auto-Launched Flow

- Purpose: After approval of Food Donation → update related NGO Profile



6. Email Alerts

- Object: Food Donation / Pickup Request
- Examples:

- Notify NGO: New Pickup Request ○

Notify Donor: Donation Approved

The screenshot shows the Salesforce Setup interface with the 'Email Alerts' page selected. The left sidebar shows navigation options like 'Process Automation' and 'Workflow Actions'. The main area displays a table of 'All Email Alerts' with the following data:

Action	Description	Email Template Name	Object	Last Modified Date
Edit Del	Notify NGO about new food donation	Appointment for Unauthenticated User using Appointment.Types - For third party.	Food Donation	9/27/2025
Edit Del	Notify NGO about new food donation	Appointment for Unauthenticated User using Appointment.Types - For Amazon Chime.	Food Donation	9/28/2025
Edit Del	Notify NGO about new pickup request	Appointment for Unauthenticated User using Appointment.Types - For Amazon Chime.	Pickup Request	9/27/2025
Edit Del	Notify submitter (donor) that donation was rejected	Appointment for Unauthenticated User using Appointment.Types - For Amazon Chime.	Food Donation	9/27/2025

7. Field Updates

- Object: Pickup Request
- Example: Status = Pending → Completed after pickup

8. Tasks

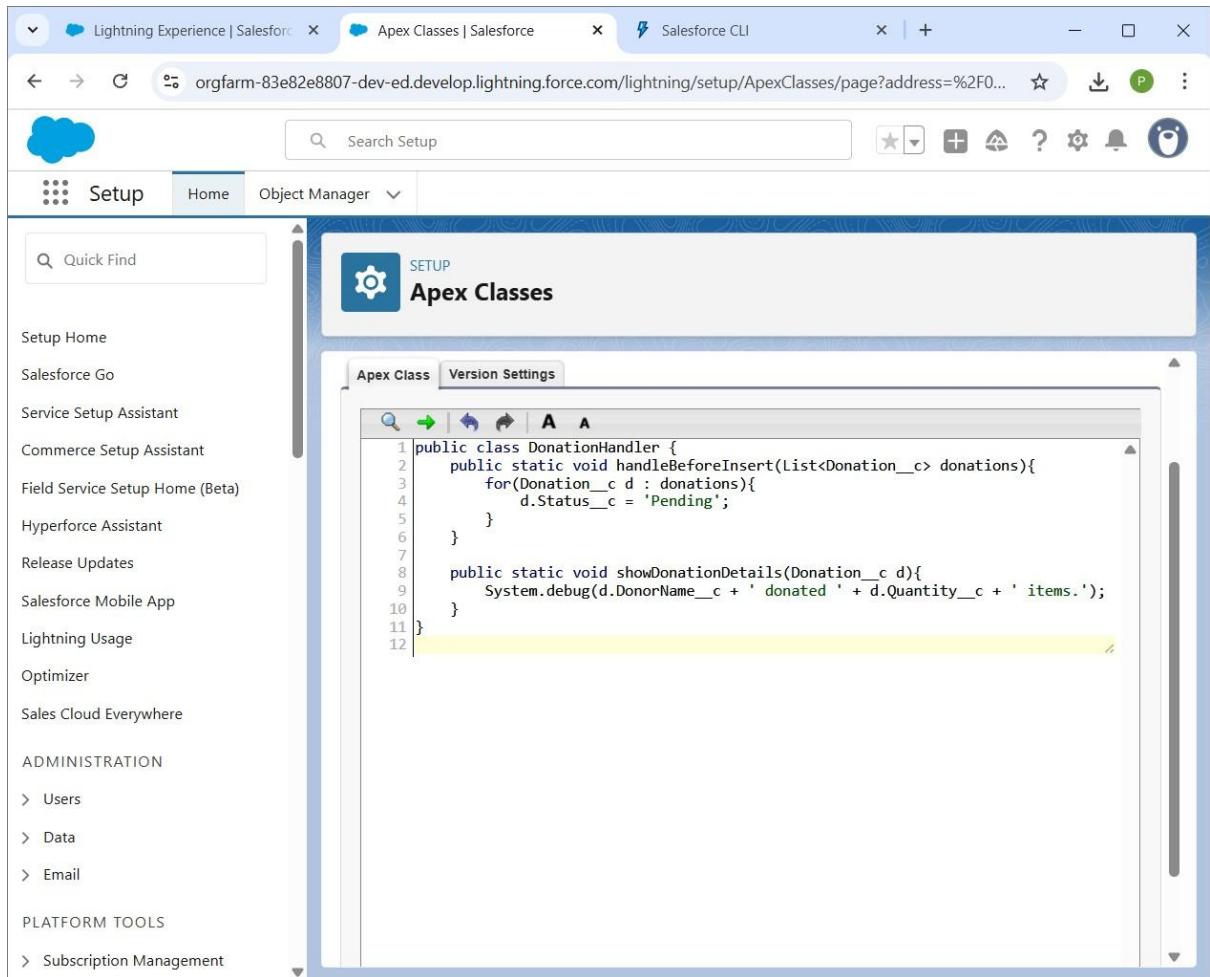
- Object: Pickup Request
- Create task for volunteer → collect food within 24 hrs

9. Custom Notifications

- Object: Pickup Request / Food Donation
- Example: Notify donor inside Salesforce when NGO confirms pickup

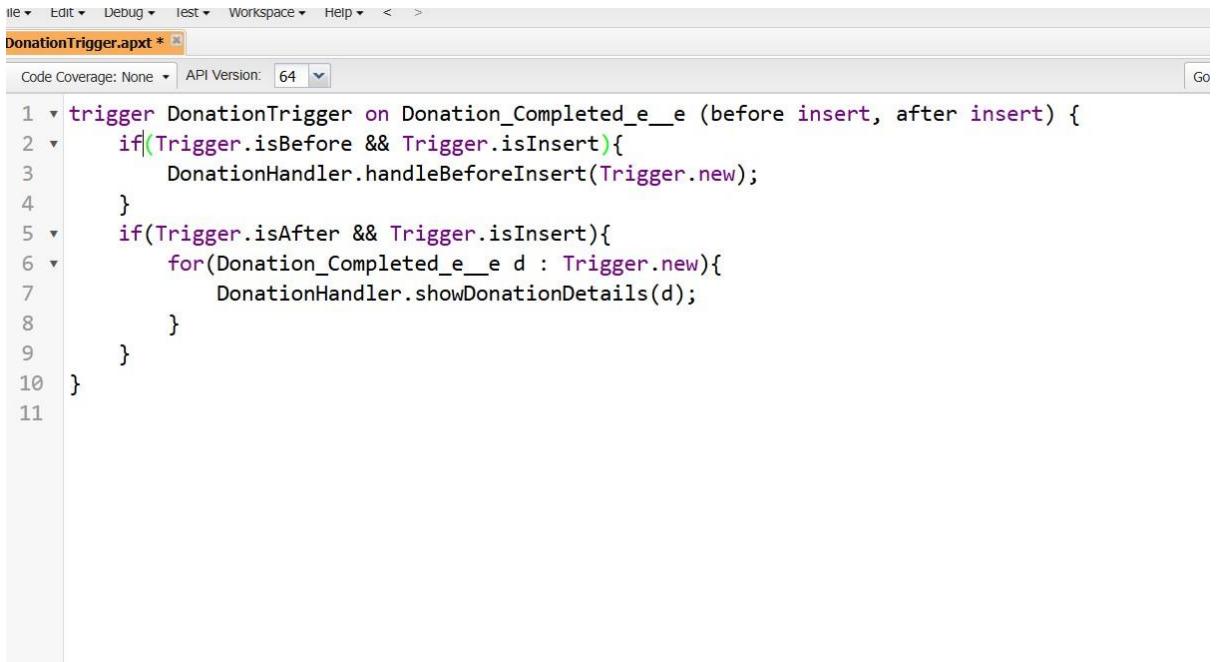
Phase 5 :Apex Programming (Developer)

1. Apex Classes



2. Apex Triggers

- **Trigger:** Code executed before/after DML (insert, update, delete).
- **Before Trigger:** Used to validate/modify records before saving.
- **After Trigger:** Used for operations after record is saved (like sending notifications).

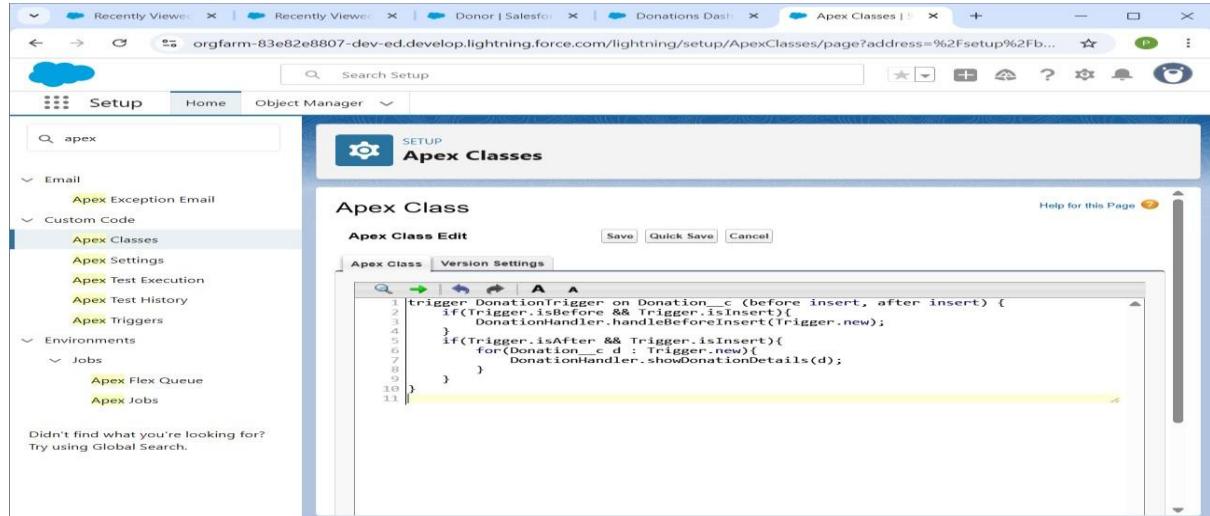


```
trigger DonationTrigger on Donation_Completed__e (before insert, after insert) {
    if(Trigger.isBefore && Trigger.isInsert){
        DonationHandler.handleBeforeInsert(Trigger.new);
    }
    if(Trigger.isAfter && Trigger.isInsert){
        for(Donation_Completed__e d : Trigger.new){
            DonationHandler.showDonationDetails(d);
        }
    }
}
```

3. Trigger Design Pattern

- **Why: Avoid logic duplication, bulk-safe coding.**
- **Pattern: One trigger per object, logic in handler class.**

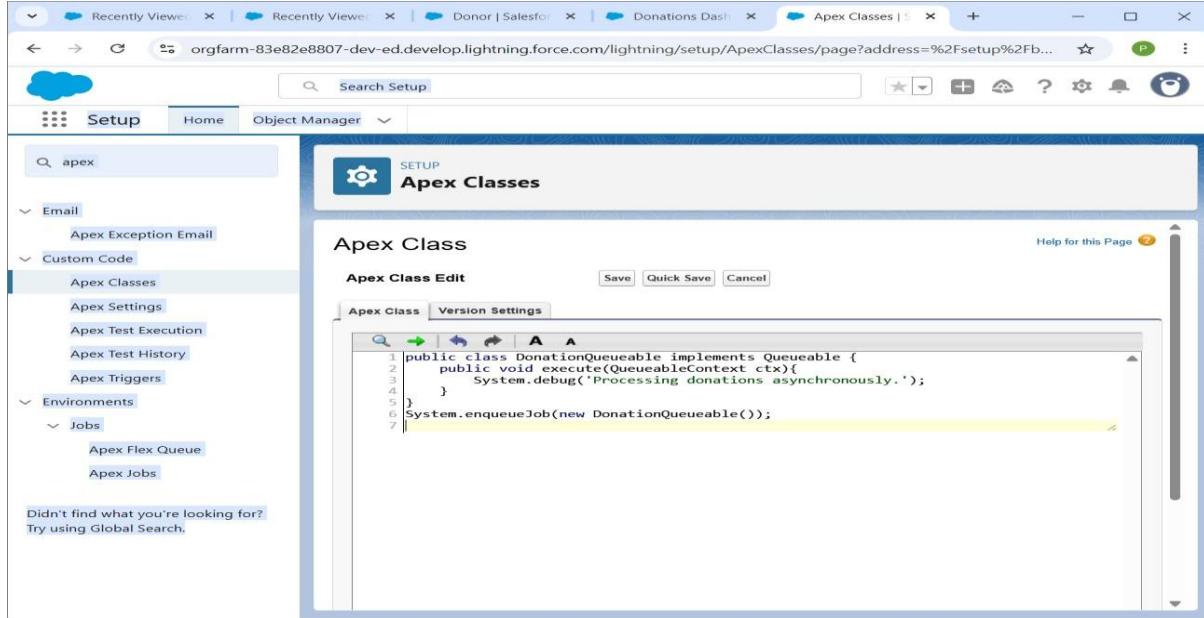
}



4. Scheduled Apex

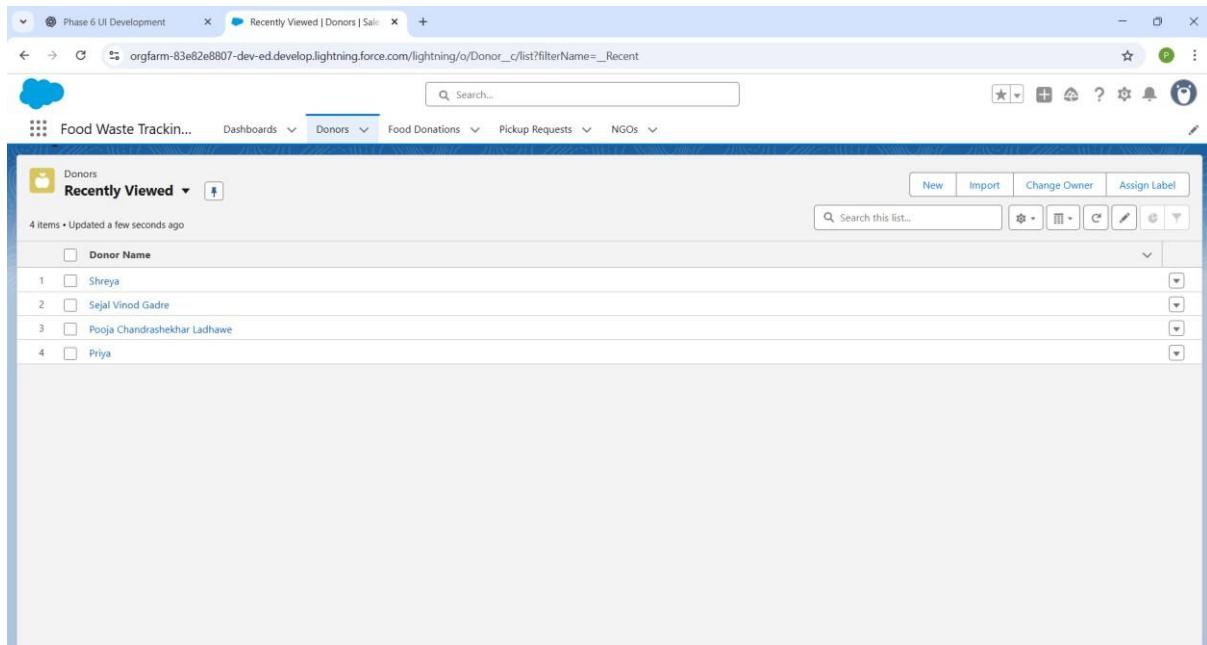
- Run Apex at scheduled intervals.

5. Queueable Apex



Phase 6: User Interface Development

1. **Lightning App Builder** ○ Setup → App Manager → New (Create NGO App)
 - Setup → App Manager → NGO App → Edit → Add Tabs (Donors, NGOs, Food Donations, Pickup Requests, Dashboards)



2. Apex With LWC

- VS Code → Create LWCs for showing **Donation List, Pickup Requests, NGO Details**
- Connect LWCs with Apex (e.g., DonationController)

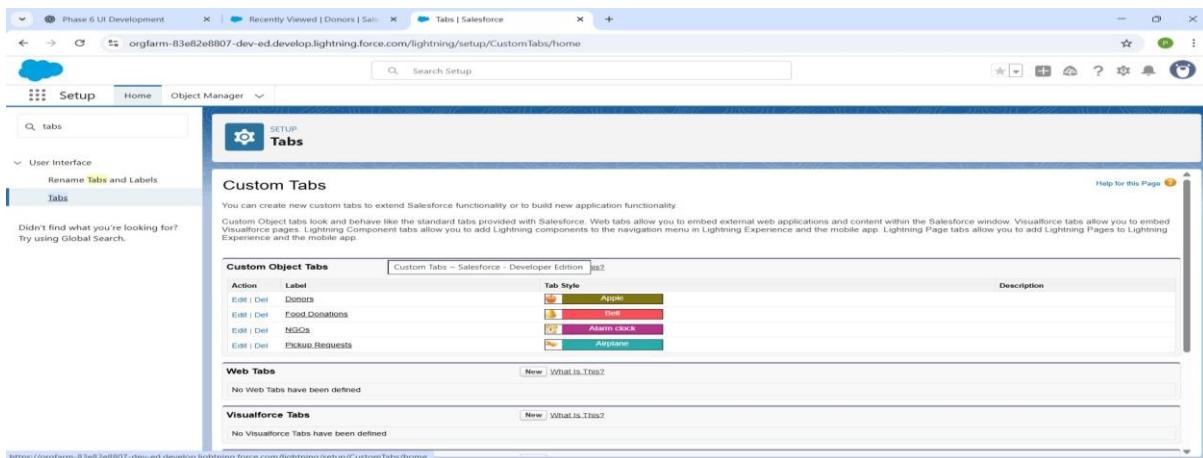
```
VC
// File: DonationController.cls
public with sharing class DonationController {

    // Get all Donations (cacheable = true means data can be stored temporarily)
    @AuraEnabled(cacheable=true)
    public static List<Donation__c> getDonations() {
        return [
            SELECT Id, DonorName__c, Quantity__c, Status__c
            FROM Donation__c
            ORDER BY CreatedDate DESC
        ];
    }

    // Create new Donation (imperative call)
    @AuraEnabled
    public static Donation__c createDonation(String donorName, Integer qty) {
        Donation__c d = new Donation__c(
            DonorName__c = donorName,
            Quantity__c = qty,
            Status__c = 'Pending'
        );
        insert d;
        return d;
    }
}
```

3. Tabs

- Setup → Quick Find → Tabs → New Tabs for (NGO, Donor, Food Donation, Pickup Request)



4. Quick Actions

- Setup → Object Manager → Food Donation → Buttons, Links, and Actions → New Action (e.g., **New Pickup Request**)
- Setup → Object Manager → NGO → Buttons, Links, and Actions → New Action (e.g., **Assign Volunteer**)

5. Reports

- Setup → Reports → Create Report → Example:

- Food Donations by Donor
- Pending Pickup Requests
- NGO-wise Donations

6. Dashboard ○ Setup → Dashboards → New Dashboard → Example:

Phase 7: Integration & External Access

1. Platform Events ○ Setup → Platform Events → New. ○ Create

Event Donation_Completed__e. ○ Add field: DonationId. ○

Publish event in Apex/Flow → Check in Event Monitoring.

The screenshot shows the Salesforce Setup interface with the 'Platform Events' page open. The left sidebar navigation includes 'Platform', 'MuleSoft', 'Einstein', 'Custom Code', 'Integrations', and 'Security'. Under 'Integrations', 'Platform Events' is selected. The main content area displays the 'Platform Event Definition Detail' for 'Donation_Completed__e'. It shows the following details:

Singular Label	Plural Label	Description
Donation_Completed__e	Donation_Completed__es	Deployment Status: Deployed
Object Name: Donation_Completed__e	API Name: Donation_Completed__e	
Event Type: High Volume		
Published Behavior: Publish Immediately		
Created By: Pooja Ladhawne, 9/28/2025, 7:26 AM	Modified By: Pooja Ladhawne, 9/28/2025, 7:26 AM	

Below this, the 'Standard Fields' section lists:

Action	Field Label	Field Name	Data Type	Controlling Field	Indexed
Created By	Created By	CreatedBy	Lookup(User)		
Created Date	Created Date	CreatedDate	Date/Time		
Event UUID	Event UUID	EventUuid	Text(36)		
Replay ID	Replay ID	ReplayId	External Lookup		

The 'Custom Fields & Relationships' section is empty.

2. Change Data Capture

- Setup → Change Data Capture → Enable for your object (e.g., Food_Donation__c).
- Now Salesforce will stream record changes.

The screenshot shows the Salesforce Setup interface with the 'Change Data Capture' page open. The left sidebar navigation includes 'change', 'Apps', 'Integrations', and 'Identity'. Under 'Integrations', 'Change Data Capture' is selected. The main content area displays the 'Available Entities' and 'Selected Entities' sections. In the 'Available Entities' section, 'food' is typed into a search bar, and the results show 'Food' and 'Food Donation (Food_Donation__c)'. The 'Food Donation (Food_Donation__c)' entry is selected and appears in the 'Selected Entities' list.

Phase 8: Data Management & Deployment

1. Data Import Wizard

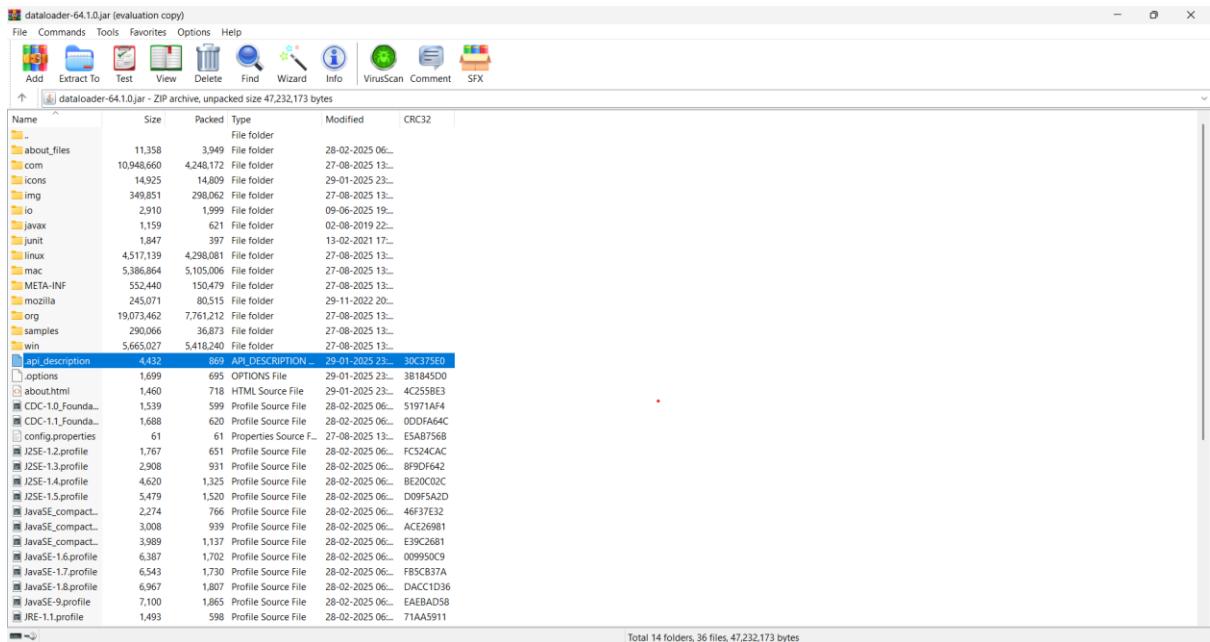
- App Launcher → Data Import Wizard.
- Choose object (e.g., Donor).
- Upload CSV file (Name, Phone, Email).
- Run → Check if records are created.

The screenshot shows the Salesforce Setup interface. In the global search bar, 'data impo' is typed. On the left, under 'Integrations', 'Data Import Wizard' is selected. The main content area displays the 'Bulk Data Load Jobs' detail page for a job with ID '750gL00000EHjqM'. The page includes a table with the following data:

Job ID	750gL00000EHjqM	Job Type	Bulk V1	Status	Closed
Submitted By	Pooja Ladhwani	Operation	Upsert	Total Processing Time (ms)	77
Start Time	9/28/2025, 7:38 AM PST	Queued Batches	0	API Active Processing Time (ms)	30
End Time	9/28/2025, 7:38 AM PST	In Progress Batches	0	Apex Processing Time (ms)	0
Time to Complete ([hh]:mm:ss)	00:01	Completed Batches	1		
Object	Donor	Failed Batches	0		
External ID Field	Name	Progress	100%		
Content Type	CSV	Records Processed	20		
Concurrency Mode	Parallel	Records Failed	20		
API Version	64.0	Retries	0		

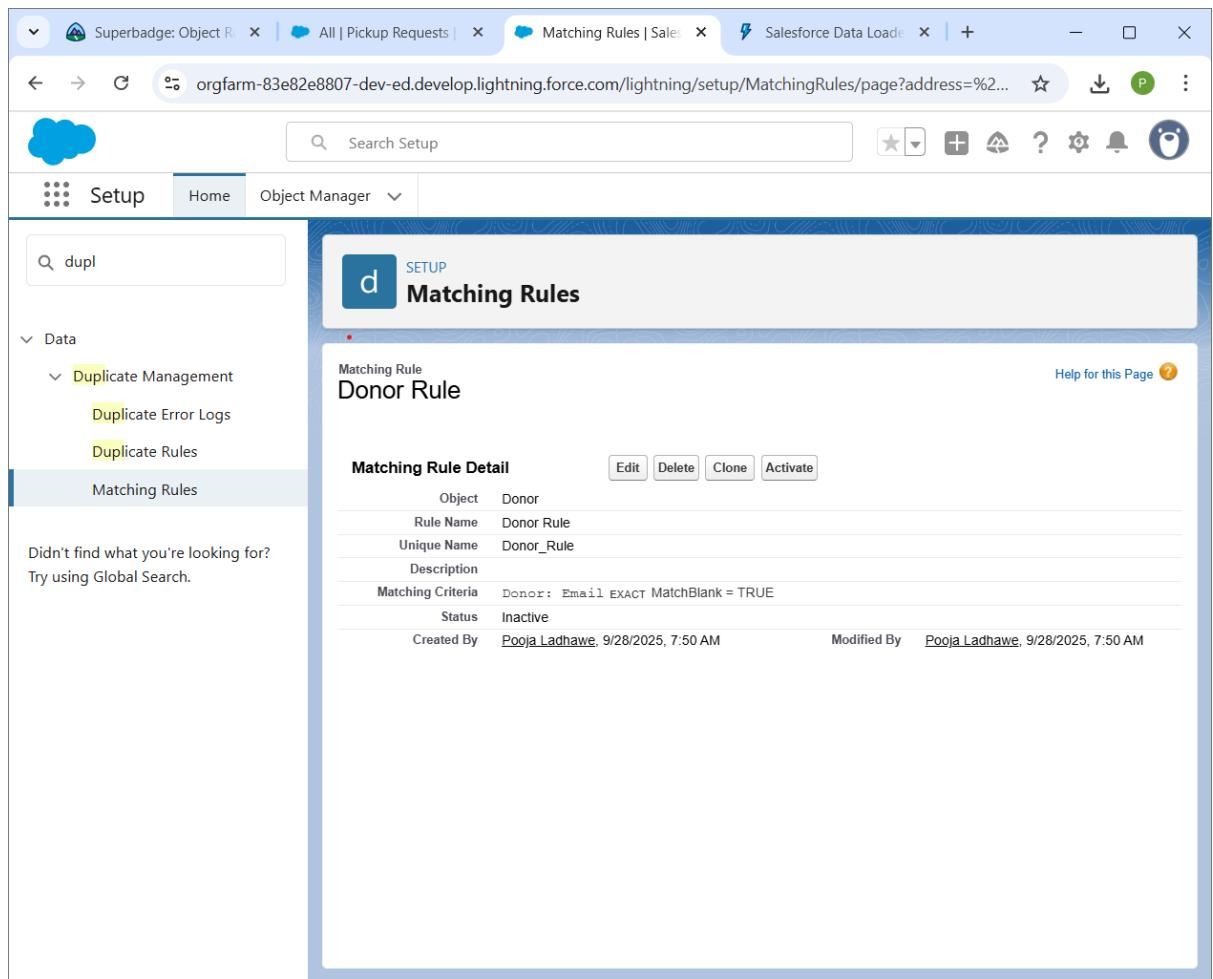
2. Data Loader

- Download Salesforce Data Loader (from Setup).
- Login → Insert 100+ test records using CSV.
- Try Export & Delete also.



3. Duplicate Rules

- Setup → Duplicate Rules → New Rule (on Donor).
- Match by Email.
- Activate → Try creating same email donor twice → error shows.



4. Data Export & Backup

- Setup → Data Export → Schedule Weekly Export.

The screenshot shows the Salesforce Setup interface with the 'Data' section selected. On the right, the 'Data Export' page is displayed under the 'Monthly Export Service' heading. A scheduled export for '10/1/2025, 5:00 PM' is shown, queued by 'Pooja Ladhwani'. The export file encoding is set to 'ISO-8859-1 (General US & Western European, ISO-LATIN-1)'. Buttons for 'Export Now' and 'Schedule Export' are visible.

Superbadge: Object Rel x | All | Pickup Requests x | Data Export | Salesforce Data Loader x | - | X

orgfarm-83e82e8807-dev-ed.develop.lightning.force.com/lightning/setup/DataManagementExport/page?address... ☆ | Download | P | More

Setup Home Object Manager

Search Setup

data

Data

- Big Objects
- Conversation Transcript Export
- Data Export**
- Data Integration Metrics
- Data Integration Rules
- Duplicate Management**
- Duplicate Error Logs
- Duplicate Rules
- Matching Rules
- Mass Delete Records
- Mass Transfer Approval Requests
- Mass Transfer Records
- Mass Update Addresses
- Picklist Settings
- Schema Settings
- State and Country/Territory

SETUP

Data Export

Monthly Export Service

Help for this Page ?

Next scheduled export:
10/1/2025, 5:00 PM

Export Now | Schedule Export

Your export has been queued. You will receive an email notification when it is completed.

Scheduled By: Pooja Ladhwani

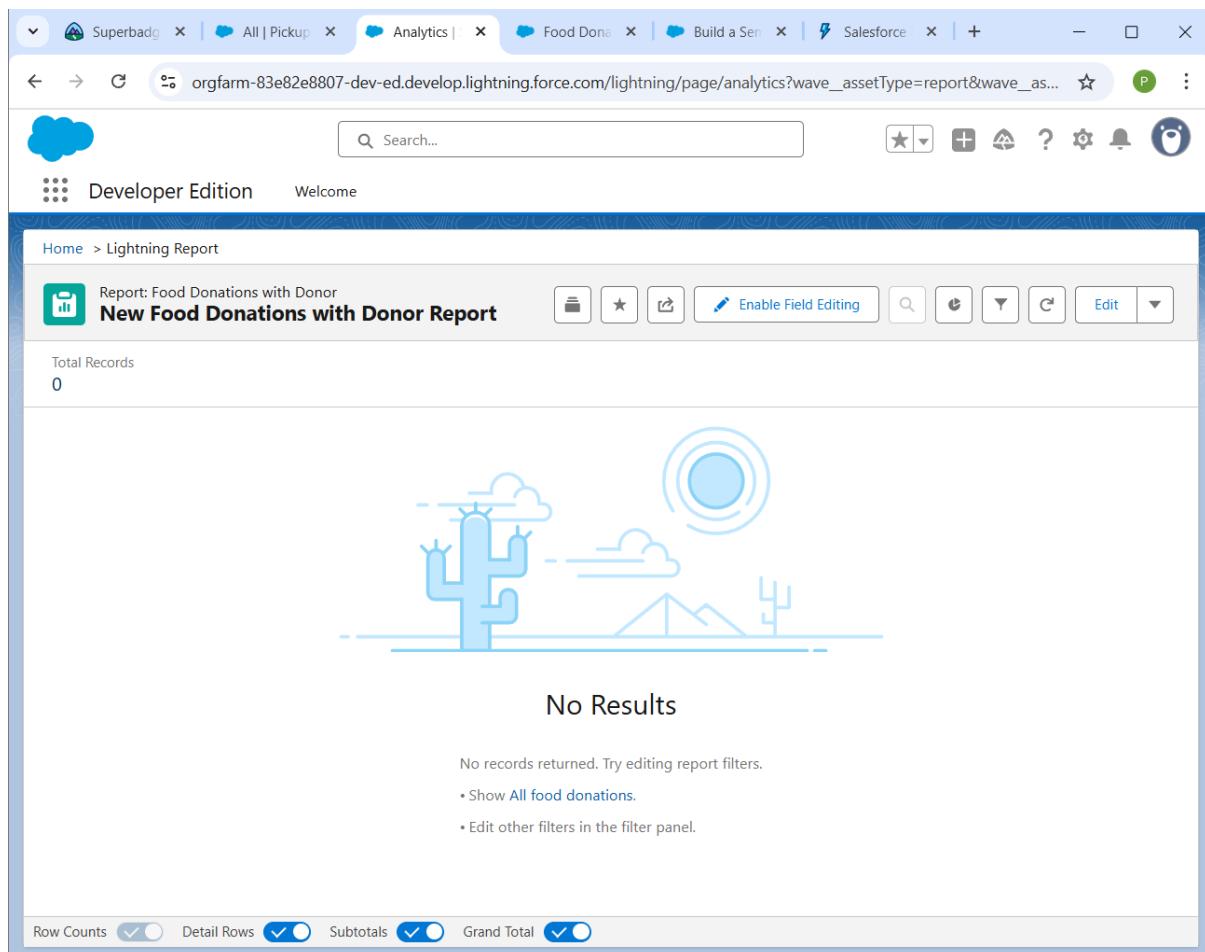
Schedule Date: 9/28/2025

Export File Encoding: ISO-8859-1 (General US & Western European, ISO-LATIN-1)

Phase 9: Reporting, Dashboards & Security Review

1. Reports

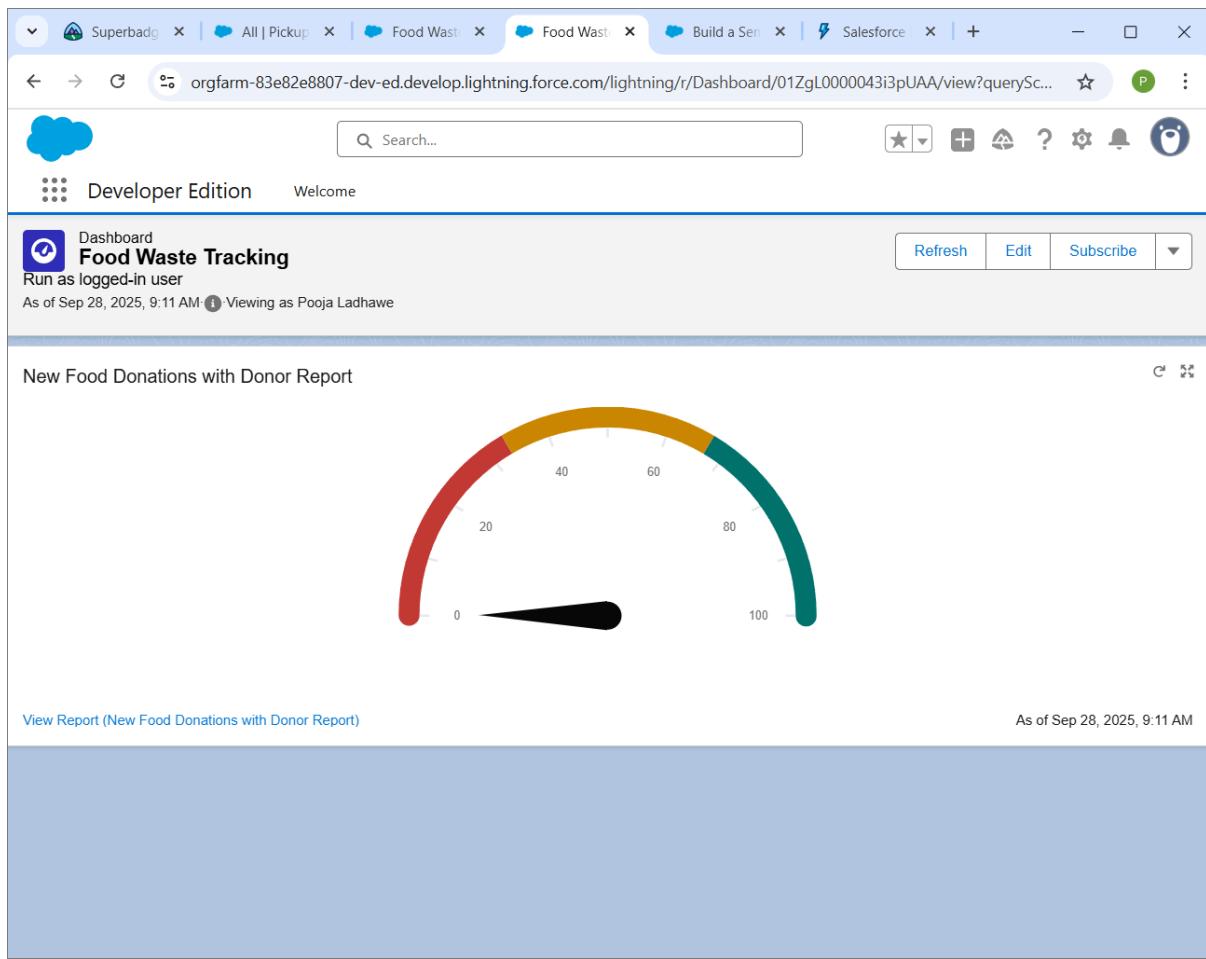
- o App Launcher → Reports → New Report.
- o Choose “Donors with Food Donations”.
- o Create:
 - **Tabular** → List all donations.
 - **Summary** → Group by NGO.
 - **Matrix** → Group by Donor vs NGO.



The screenshot shows the Salesforce Lightning Report interface. At the top, there's a browser-like header with tabs for Superbadg, All | Pickup, Analytics, Food Dona, Build a Sen, and Salesforce. Below that is the Salesforce navigation bar with icons for Home, Developer Edition, and Welcome. The main content area has a title "Report: Food Donations with Donor" and a sub-title "New Food Donations with Donor Report". It displays "Total Records 0". Below this is a decorative graphic of a cactus and a sun. The text "No Results" is centered, followed by the message "No records returned. Try editing report filters." with two bullet points: "Show All food donations." and "Edit other filters in the filter panel.". At the bottom, there are buttons for Row Counts, Detail Rows, Subtotals, and Grand Total, each with a checked checkbox.

2. Dashboards

- o App Launcher → Dashboards → New Dashboard.
- o Add report charts (Pie chart: Donation Type, Bar chart: NGO-wise).



3. Dynamic Dashboard

- In Dashboard Settings → “Run as logged-in user”.
- Test: Admin sees all, NGO sees only their data.

4. Sharing Settings

- Setup → Sharing Settings → Change OWD for Food Donation = Private.
- Create Sharing Rule → “NGO role can see assigned donations”.

The screenshot shows the Salesforce Sharing Settings page. The left sidebar has a search bar with 'sharing' typed in and a 'Security' section with 'Sharing Settings' selected. The main area is titled 'Sharing Settings' and lists various objects with their sharing levels: Public Read Only or Private. Most objects have 'Private' checked, except for 'Shipping Carrier', 'Shipping Carrier Method', 'Shipping Configuration Set', 'Streaming Channel', 'Tableau Host Mapping', 'User Presence', 'User Provisioning Request', 'Waitlist', 'Web Cart Document', 'Work Order', 'Work Plan', 'Work Plan Template', 'Work Step Template', 'Work Type', 'Work Type Group', 'Donor', 'Food Donation', 'NGO', and 'Pickup Request'. At the bottom, there are 'Other Settings' and a 'Help' link.

Object	Sharing Level	Setting
Shipping Carrier	Public Read Only	Private
Shipping Carrier Method	Public Read Only	Private
Shipping Configuration Set	Public Read Only	Private
Streaming Channel	Public Read/Write	Private
Tableau Host Mapping	Public Read Only	Private
User Presence	Public Read Only	Private
User Provisioning Request	Private	Private
Waitlist	Private	Private
Web Cart Document	Private	Private
Work Order	Private	Private
Work Plan	Private	Private
Work Plan Template	Private	Private
Work Step Template	Private	Private
Work Type	Private	Private
Work Type Group	Public Read/Write	Private
Donor	Private	Private
Food Donation	Private	Private
NGO	Public Read Only	Private
Pickup Request	Private	Private

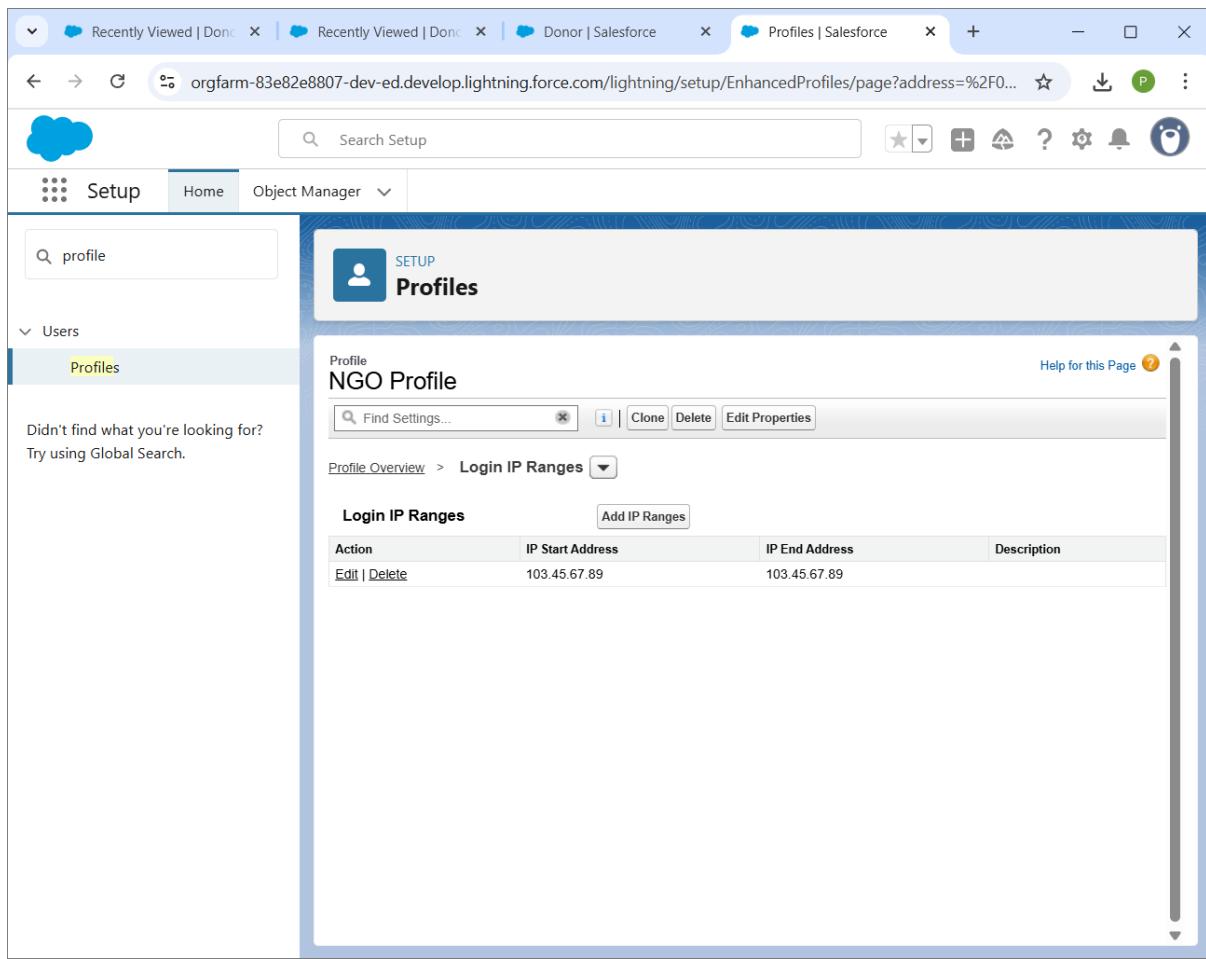
5. Field Level Security (FLS)

- Setup → Object Manager → Donor → Fields → Phone → Set Field-Level Security → Hide for NGO Profile.

The screenshot shows the Salesforce Object Manager interface. The top navigation bar has three tabs: 'Recently Viewed | Donors | Sale', 'Recently Viewed | Donors | Sale', and 'Donor | Salesforce'. The main title is 'SETUP > OBJECT MANAGER' followed by 'Donor'. On the left, a sidebar lists various setup categories like 'Details', 'Fields & Relationships' (which is selected), 'Page Layouts', etc. The main content area is titled 'Donor Custom Field Email'. It shows the 'Custom Field Definition Detail' for the 'Email' field. The 'Field Information' section includes details such as 'Field Label: Email', 'Object Name: Donor', 'Field Name: Email', 'Data Type: Email', 'API Name: Email__c', and 'Description: Help Text'. The 'General Options' section includes checkboxes for 'Required' (unchecked), 'Unique' (unchecked), 'External ID' (unchecked), and 'Default Value' (unchecked). A status bar at the bottom shows the URL: <https://orgfarm-83e82e8807-dev-ed.develop.lightning.force.com/lightning/setup/ObjectManager/01lgL000002O4vl/FieldsAndRelationships/00NgL00001iSSCQ/view>.

6. Login IP Ranges

- o Setup → Profiles → Select NGO Profile → Add Login IP range (like 192.168.x.x).



7. Audit Trail

- Setup → View Setup Audit Trail.
- See who changed what (last 6 months).

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

Header: Recently Viewed | Done | Recently Viewed | Done | Donor | Salesforce | Users | Salesforce

Search Bar: Search Setup

Navigation: Setup (selected), Home, Object Manager

User Detail Page:

User: Pooja Ladhawne

Role: System Administrator

Active: Yes

Profile: Marketing User

Company: Salesforce

Department: Service Cloud User

Division: Site.com Contributor User

Address: (No address listed)

Time Zone: (GMT-07:00) Pacific Daylight Time (America/Los_Angeles)

Locale: English (United States)

Language: English

Delegated Approver: (No approver listed)

Data.com User Type: View

Manager: (No manager listed)

Accessibility Mode: (No mode listed)

Buttons: Edit, Sharing, Change Password, View Summary

Help: User Profile Help for this Page