NAAN MUDHALVAN PROJECT REPORT

SB8067- SALESFORCE DEVELOPER

“APPLY LEFTOVER FOOD TO POOR“

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BONAFIDE CERTIFICATE

Certified that is Naan Mudhalvan report "**APPLY LEFTOVER FOOD TO POOR**" is the bonafide work of "**M.RAMANATHAN (912422104032), M.NAVEENKUMAR(912422104026),A.PRAVEENKUMAR(91242210401030), R.RUPESHRADHEV(912422104033)"**

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Submitted for Viva-Voice Examination held on_____

INTERNAL EXAMINER **EXTERNAL EXAMINER**

ACKNOWLEDGEMENT

It is a matter of pride and privilege for me to have done a **NAAN MUDHALVAN PROJECT REPORT** in **"SHANMUGANATHAN ENGINEERING COLLEGE"** and I am sincerely thankful to them for providing this opportunity to me.

I Wish to convey my sincere thanks to the beloved chairperson **Mrs. PICHAPPA VALLIAMMAL**, correspondent **Dr. P. MANIKANDAN B.E**, Director (Academic) **Shri M. SHANMUGANATHAN**, Director (Administration) **Mr. PICHAPPA** and Secretary **Mr. M. VISWANATHAN** for their extensive support.

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1.ABSTRACT

The project **"Apply Leftover Food to Poor"** developed using **Salesforce** is a cloud-based system designed to collect, manage, and distribute surplus food from individuals, restaurants, and events to those in need. This project aims to minimize food wastage while ensuring timely delivery to underprivileged people through a transparent and traceable process.

Using Salesforce's CRM and automation capabilities, the system maintains donor details, food collection records, delivery requests, and volunteer tracking. The platform integrates standard and custom objects, validation rules, flows, and dashboards to automate the workflow — from food donation registration to delivery confirmation.

By leveraging Salesforce's secure and scalable cloud infrastructure, the project provides real-time updates on available food stock, pickup schedules, and delivery status. Automation ensures that food is collected and distributed efficiently, reducing manual effort and improving accountability.

Ultimately, this system promotes social responsibility by connecting donors, volunteers, and beneficiaries through technology — making the process of applying leftover food to the poor more systematic, reliable, and impactful.

2. INTRODUCTION

Food wastage is a global issue that coexists with hunger. Large quantities of edible food are discarded daily by households, restaurants, and events, while millions suffer from food insecurity. The **"Apply Leftover Food to Poor"** project seeks to bridge this gap by developing a Salesforce-based cloud application that connects food donors and distribution volunteers in an efficient network.

Salesforce, a leading CRM platform, enables efficient management of data, users, and workflows in a secure cloud environment. Through Salesforce's low-code tools, this project automates donor registration, food request tracking, pickup scheduling, and reporting.

The application is designed for NGOs, community kitchens, and volunteers who coordinate the collection and distribution of surplus food. It allows donors to register leftover food details, volunteers to confirm pickups, and recipients to acknowledge deliveries. Managers can monitor all operations through reports and dashboards for complete transparency.

To begin, a **Salesforce Developer Org** is created at https://developer.salesforce.com/signup. Custom objects like "Donor," "Food Collection," "Delivery," and "Feedback" are created using **Object Manager**. Each object is configured with relationships, validation rules, and automation flows.

This system replaces manual coordination with a cloud-based, automated model — ensuring that leftover food reaches the needy safely and efficiently.

3.OBJECTIVES

The main objectives of the project are:

- To create a Salesforce-based application for managing surplus food collection and distribution.
- To automate workflows for donor registration, food pickup, and delivery confirmation.
- To ensure transparency and accountability in food distribution using reports and dashboards.
- To utilize validation and matching rules for data integrity and error-free record management.
- To reduce manual coordination and improve efficiency using Salesforce Flows and Apex automation.
- To promote a sustainable and humanitarian approach to leftover food management

4. SYSTEM REQUIREMENTS

4.1 HARDWARE REQUIREMENTS:

- Processor: Intel Core i5 or equivalent
- RAM: 8 GB or higher
- Storage: 256 GB SSD or more
- Internet: Stable high-speed connection

4.2 SOFTWARE REQUIREMENTS:

- Operating System: Windows 10/11, macOS, or Linux
- Salesforce Platform: Developer Edition (free signup)
- Browser: Chrome or Edge (latest version)
- No local installations required; Salesforce is entirely cloud-based

5. MODULES OF THE SYSTEM:

The project consists of the following Salesforce modules:

1. **Donor Module:**
   Manages donor information including name, contact number, address, and food type. Duplicate rules ensure no duplicate donor entries.
2. **Food Collection Module:**
   Tracks details of donated food (quantity, category, expiry time) and schedules pickups. Validation rules ensure the food is safe for delivery within valid time.
3. **Volunteer Module:**
   Assigns volunteers to collect and deliver food. Lookup relationship connects volunteers to food collection records.
4. **Delivery Module:**
   Tracks distribution details — delivery date, recipient location, and delivery status (Pending, Completed). Automation updates records on completion.
5. **Feedback Module:**
   Collects ratings and suggestions from donors and recipients to improve service quality

6.TECHNOLOGIES USED

1. **Salesforce Platform:** For building the CRM-based cloud application.
2. **Apex Triggers:** Used to automate calculations such as assigning volunteers and updating delivery status.
3. **Flows:** For automating notifications, field updates, and data synchronization.
4. **Validation Rules:** To ensure correct data entry (e.g., valid food expiry time).
5. **Reports and Dashboards:** For monitoring donations, deliveries, and volunteer performance.
6. **Email Alerts:** Automatically notify donors and volunteers of food pickup and delivery completion.

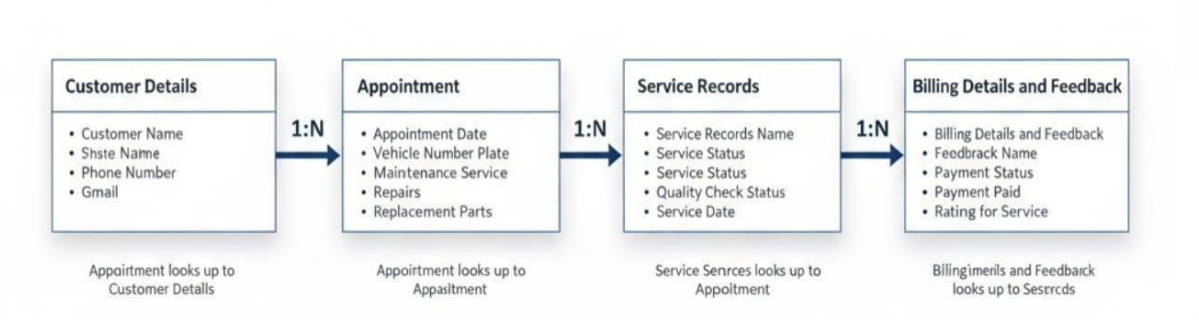
7. SYSTEM DESIGN

ER DIAGRAM

Entity–Relationship (ER) Diagram:

- **Donor → Food Collection:** One donor can contribute multiple food donations.
- **Food Collection → Volunteer:** Each collection is assigned to a specific volunteer.
- **Volunteer → Delivery:** A volunteer can handle multiple deliveries.
- **Delivery → Feedback:** Each delivery is followed by a feedback entry.

This relational model ensures complete data traceability across the system.



8. WORKFLOW DESCRIPTION

- **Donor Registration:**

Donors register food details through a form (food name, quantity, expiry time, pickup address).

- **Food Collection Scheduling:**

System automatically assigns an available volunteer using an Apex trigger based on location and availability.

- **Pickup and Delivery:**

Volunteers collect the food and mark the status as “Picked Up.” Upon delivery, they update the record to “Delivered.”

- **Notification System:**

Automated email alerts are sent to donors confirming food collection and delivery.

- **Feedback Submission:**

After successful delivery, recipients or donors provide feedback through a Salesforce form.

- **Reporting:**

Managers can track real-time statistics like total food collected, total deliveries, and donor participation through dashboards.

9.IMPLEMENTED STEPS

1.Creating Developer Account:

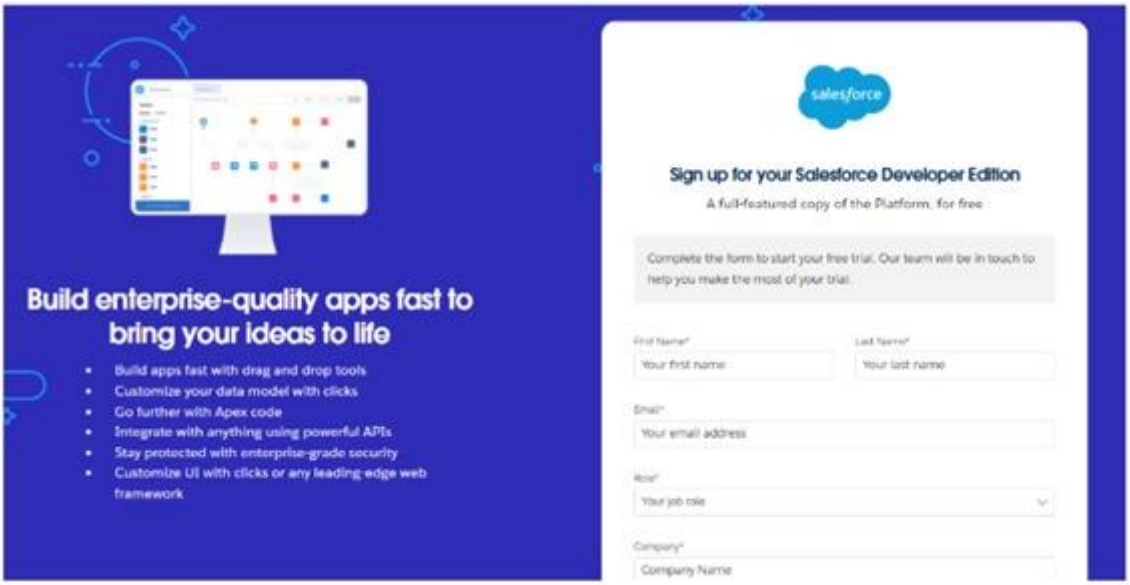


Fig:1.1 Developer Account

2.Account Activation:

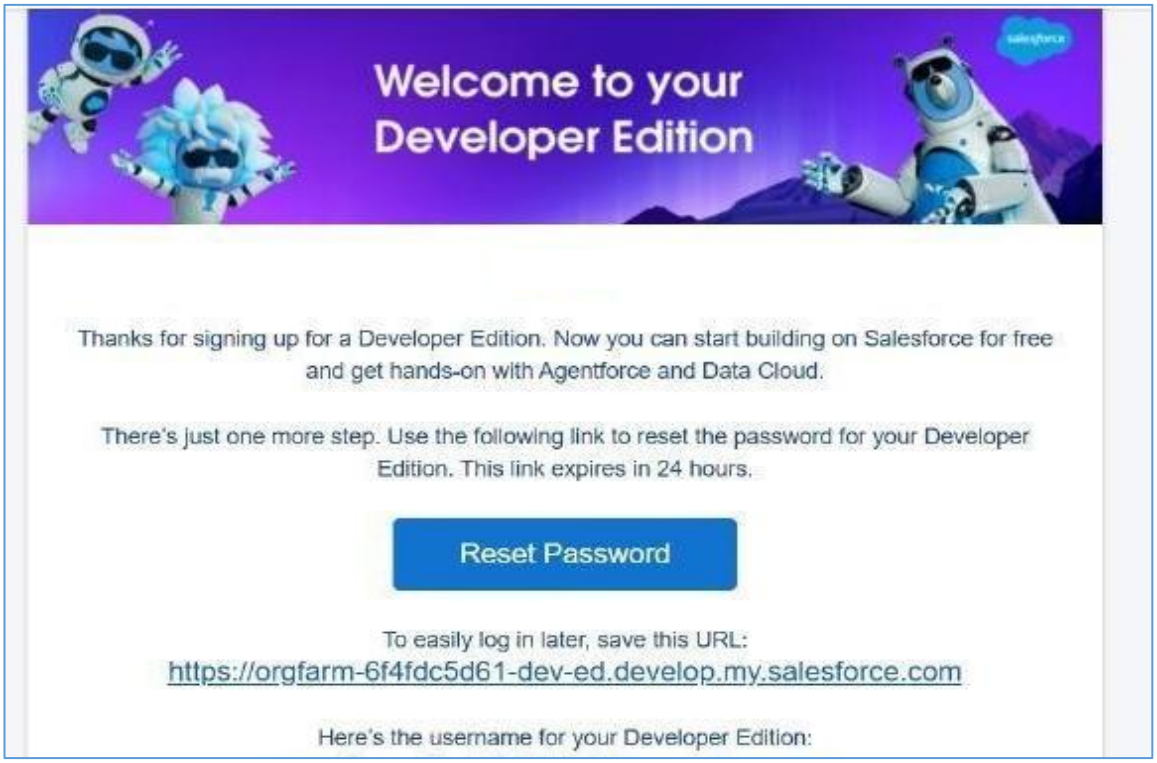


Fig:2.1 Verifying Account

3. Object Creation:

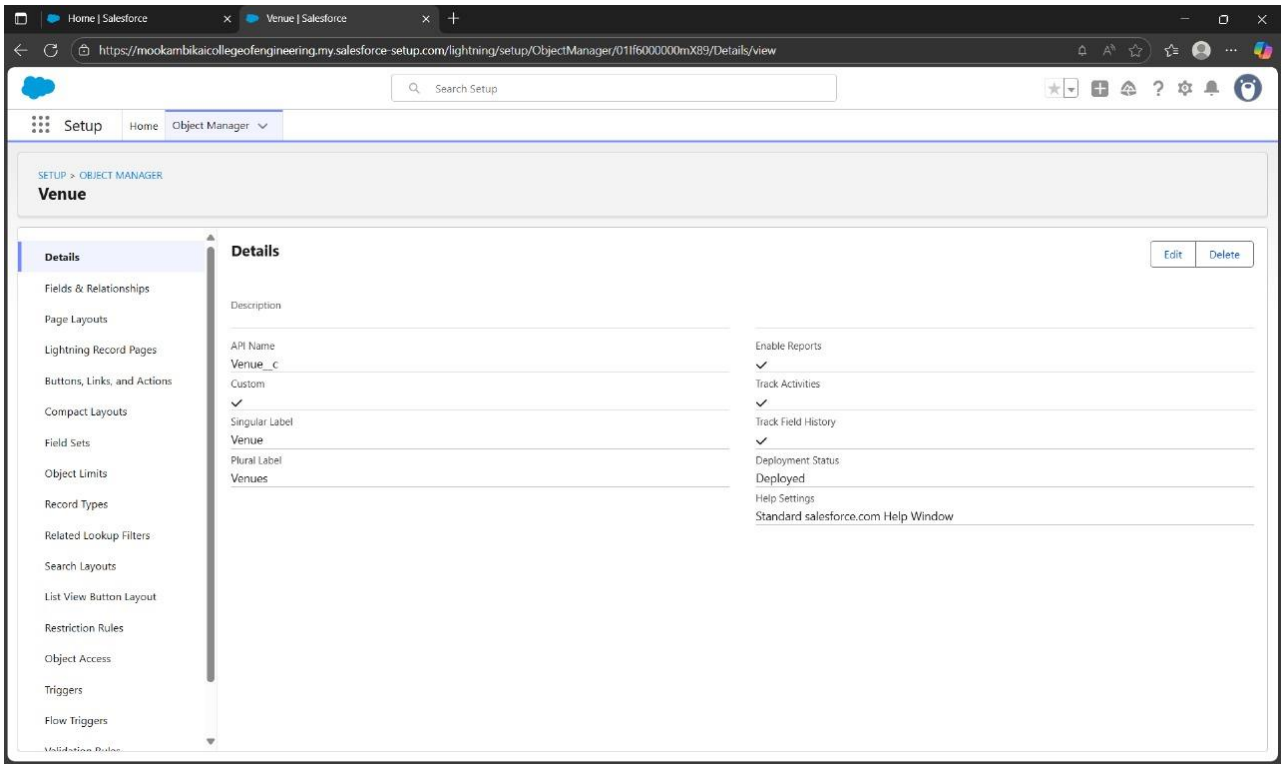


Fig :3.1 Creation of Venue details Object

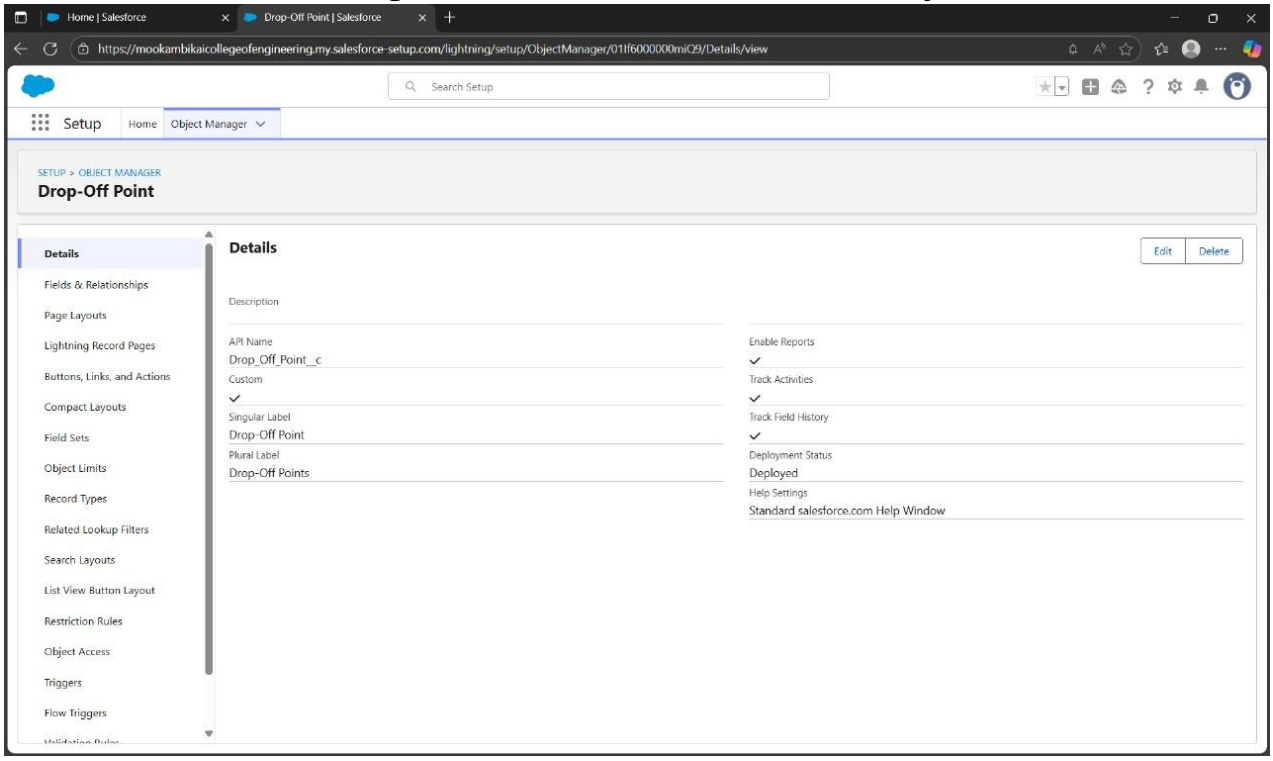


Fig :3.2 Creation of Drop off point Object

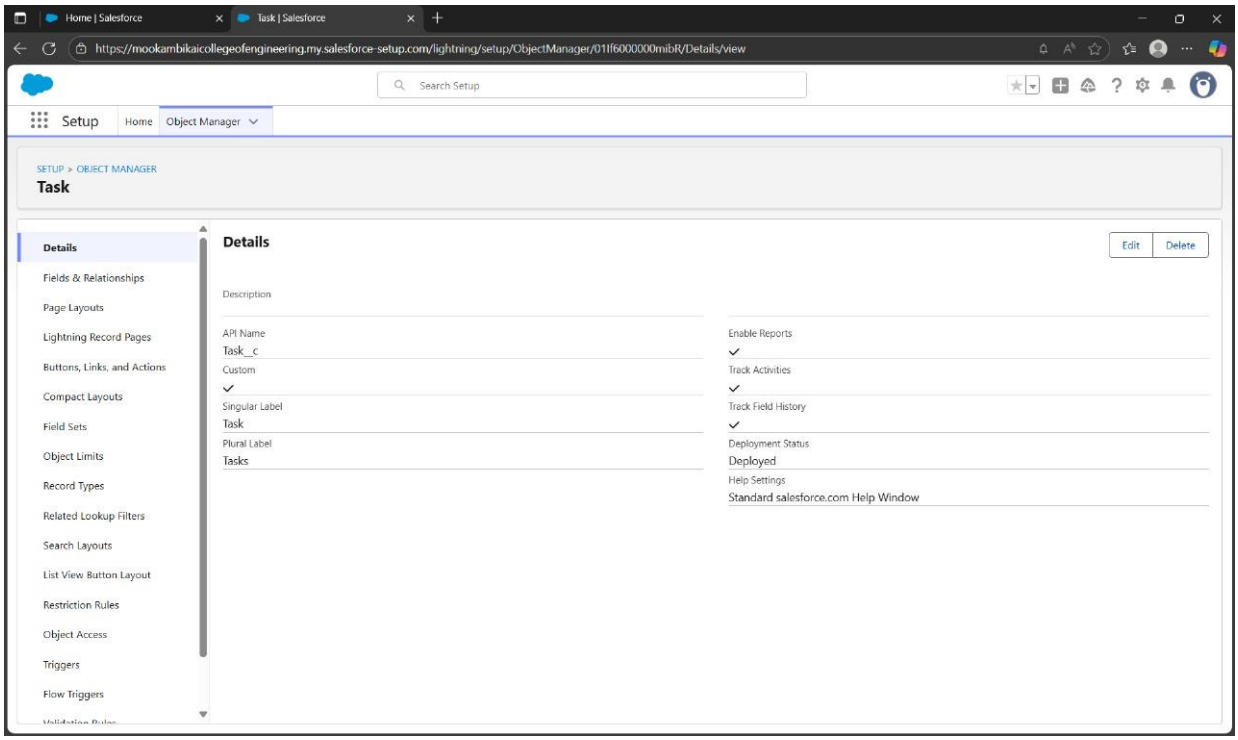


Fig :3.3 Creation of Task records Object

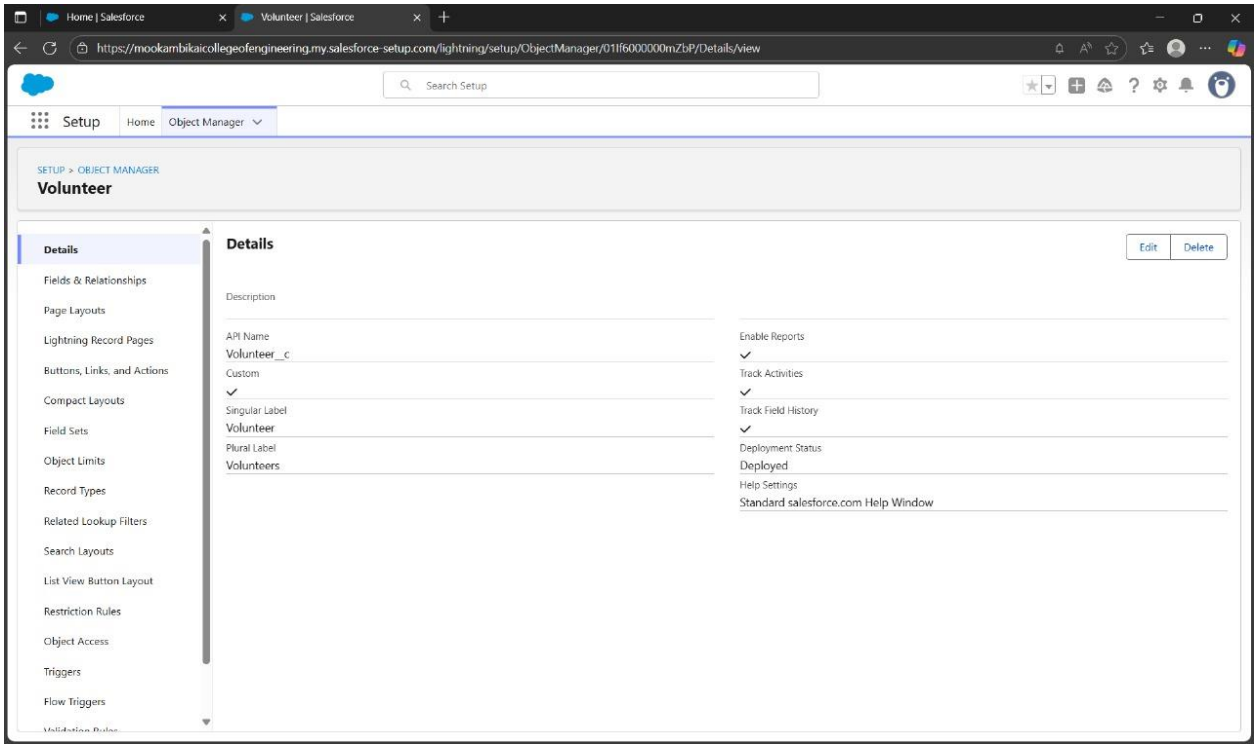


Fig :3.4 Creation of Volunteer details Object

4. Tabs:

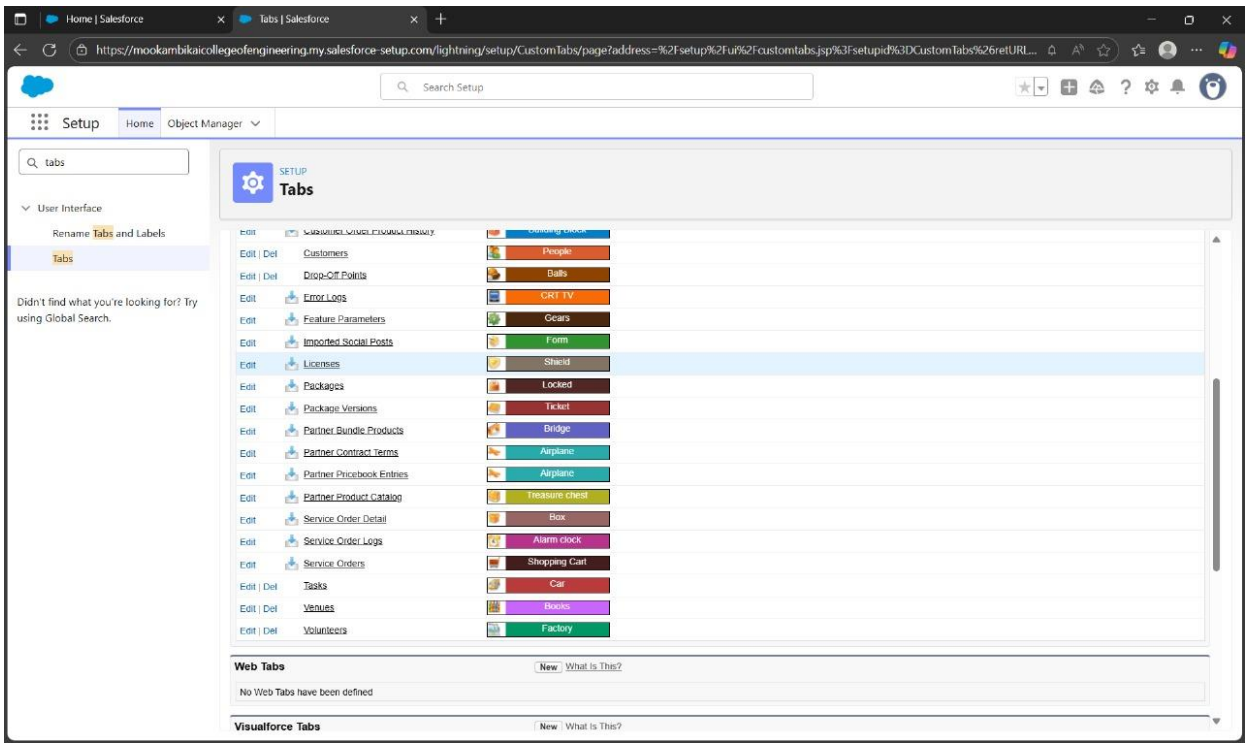


Fig :4.1 Creation of a Custom Tab

5.The Ligthning App:

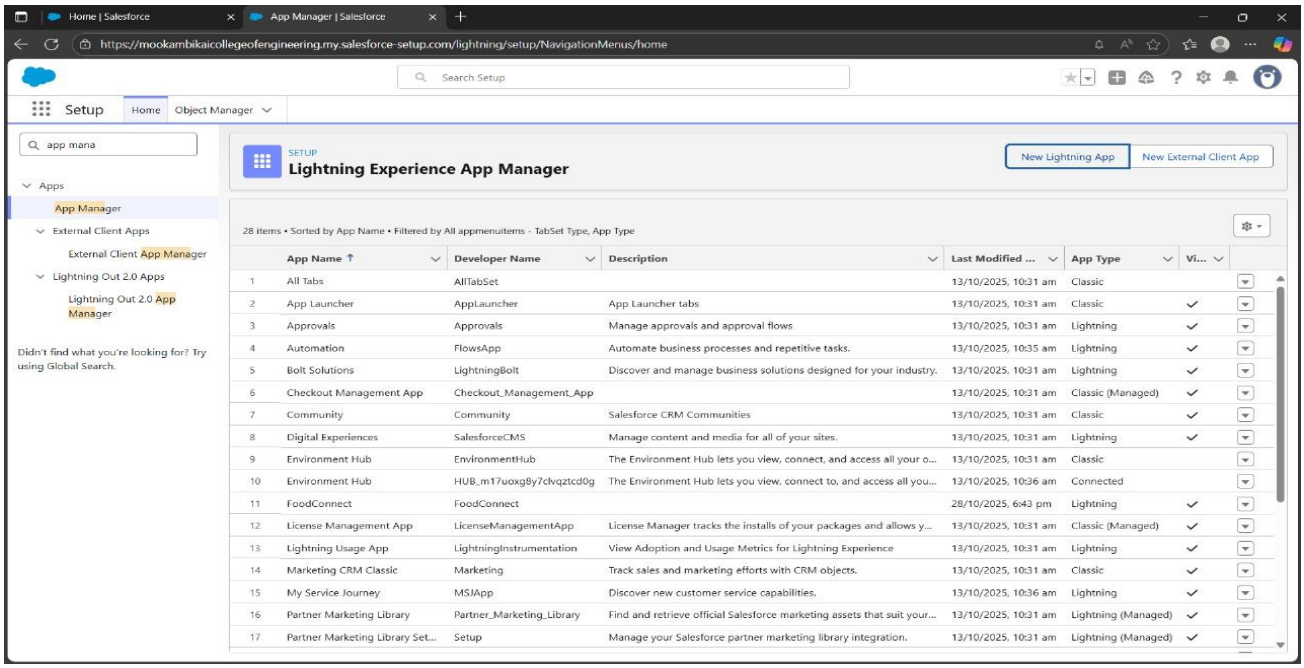


Fig :5.1 Leftover Food To Poor Application

6.Fields:

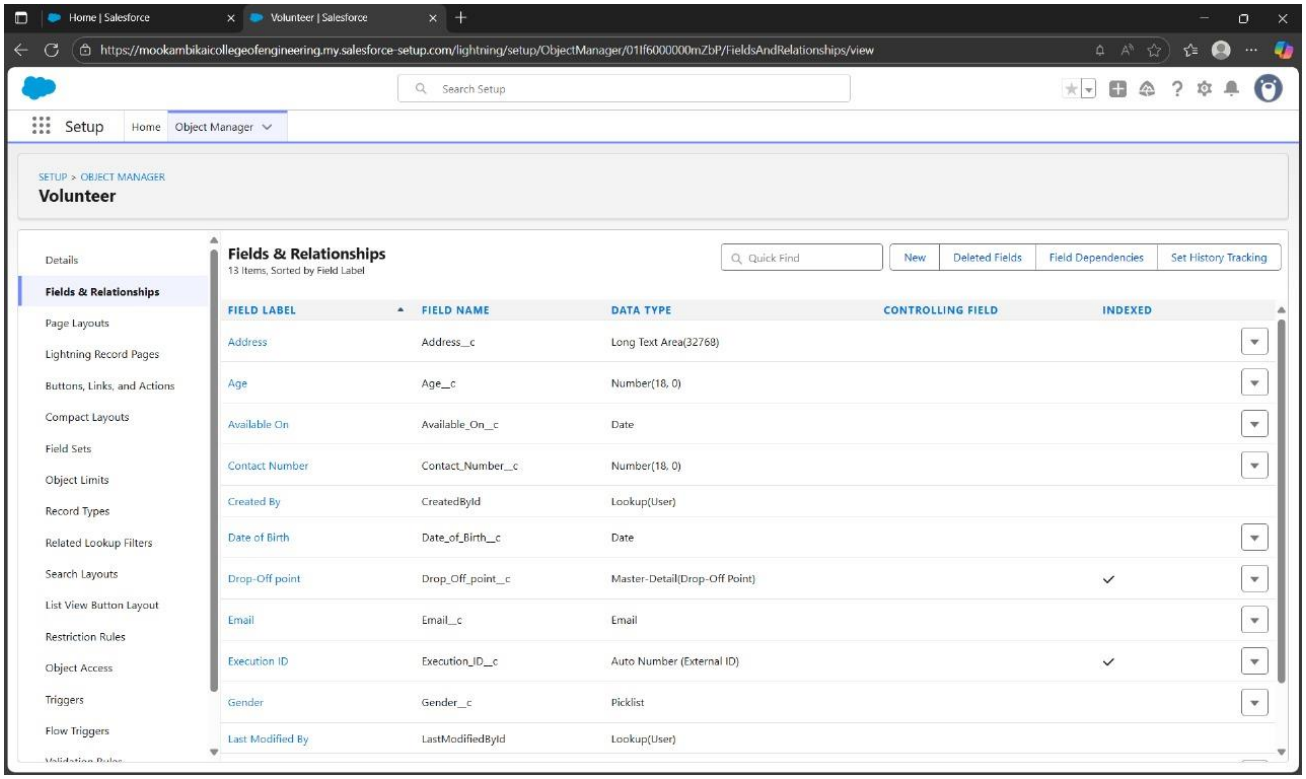


Fig :6.1 Creation of fields for the Customer Details object

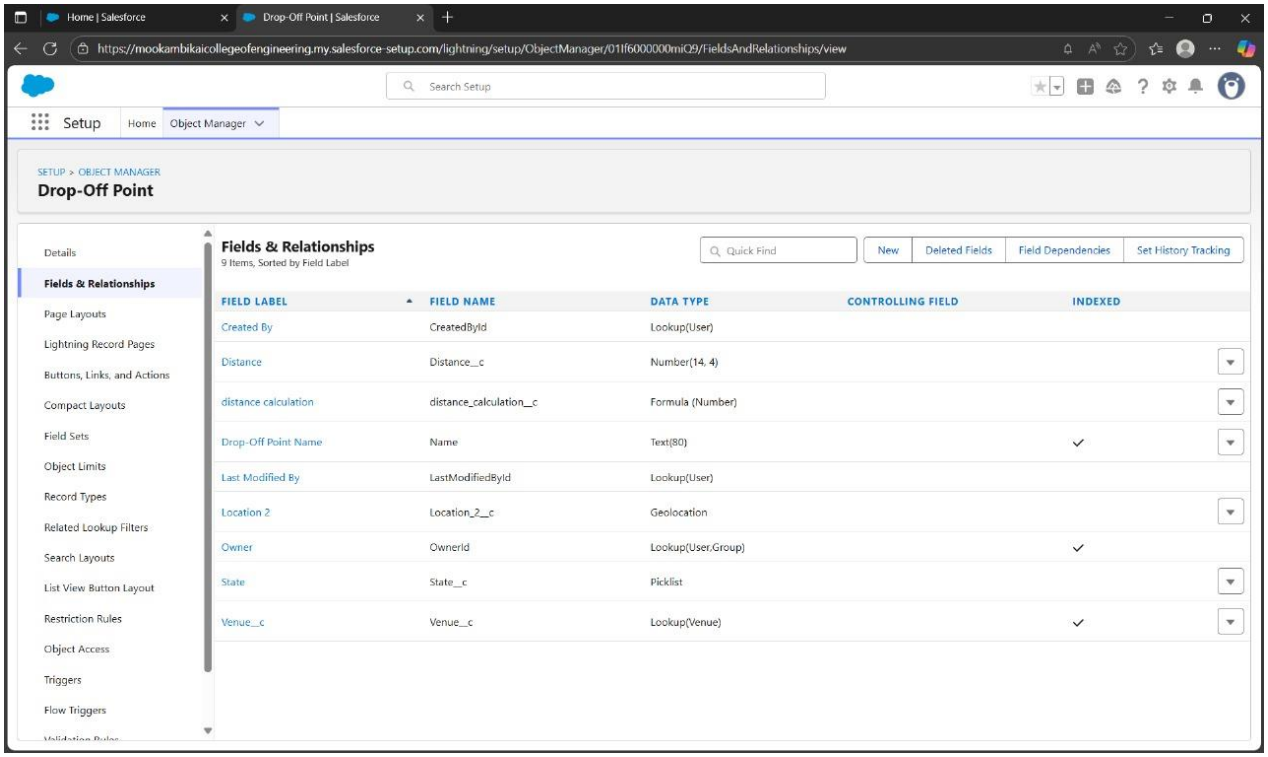


Fig :6.2 Creation of fields for the Appointments object

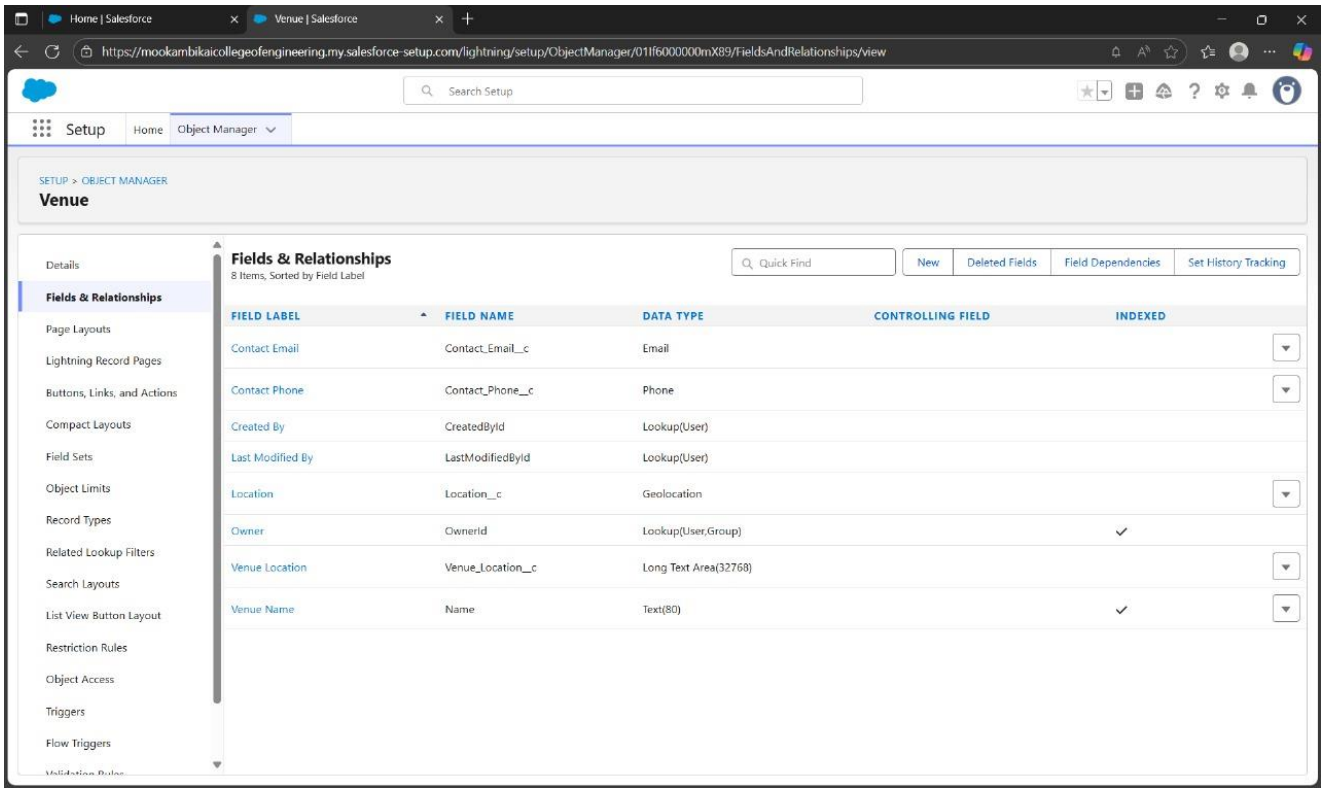


Fig :6.3 Creation of fields for the contact records object

7.FLOW:

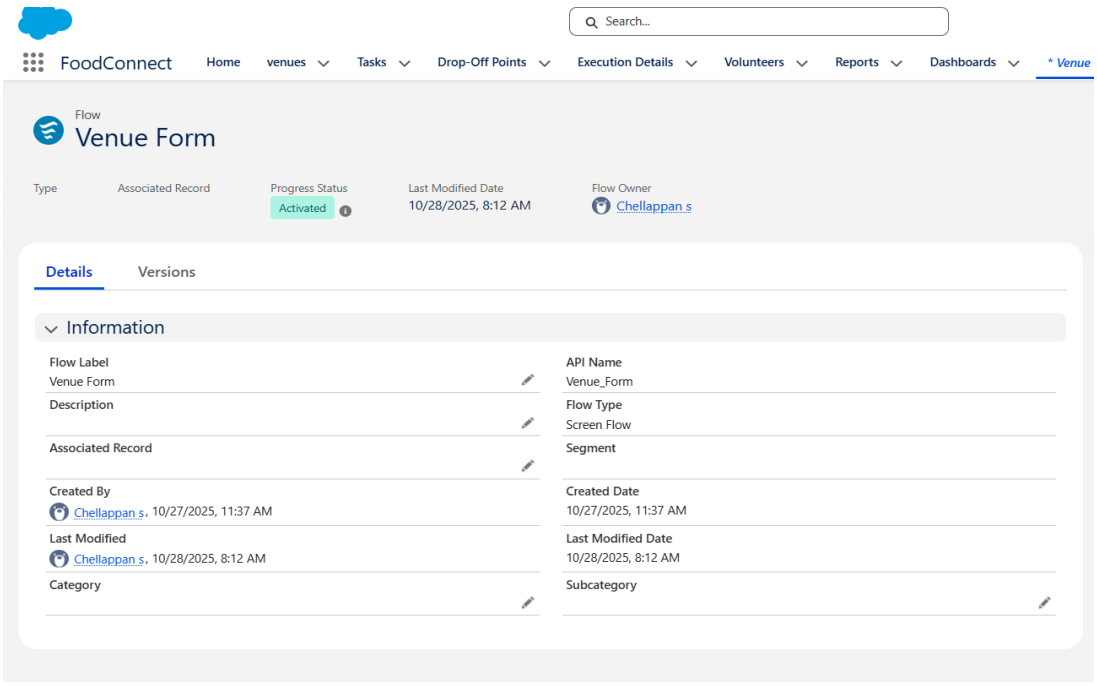


Fig :7.1 create venue flow

8.Trigger:

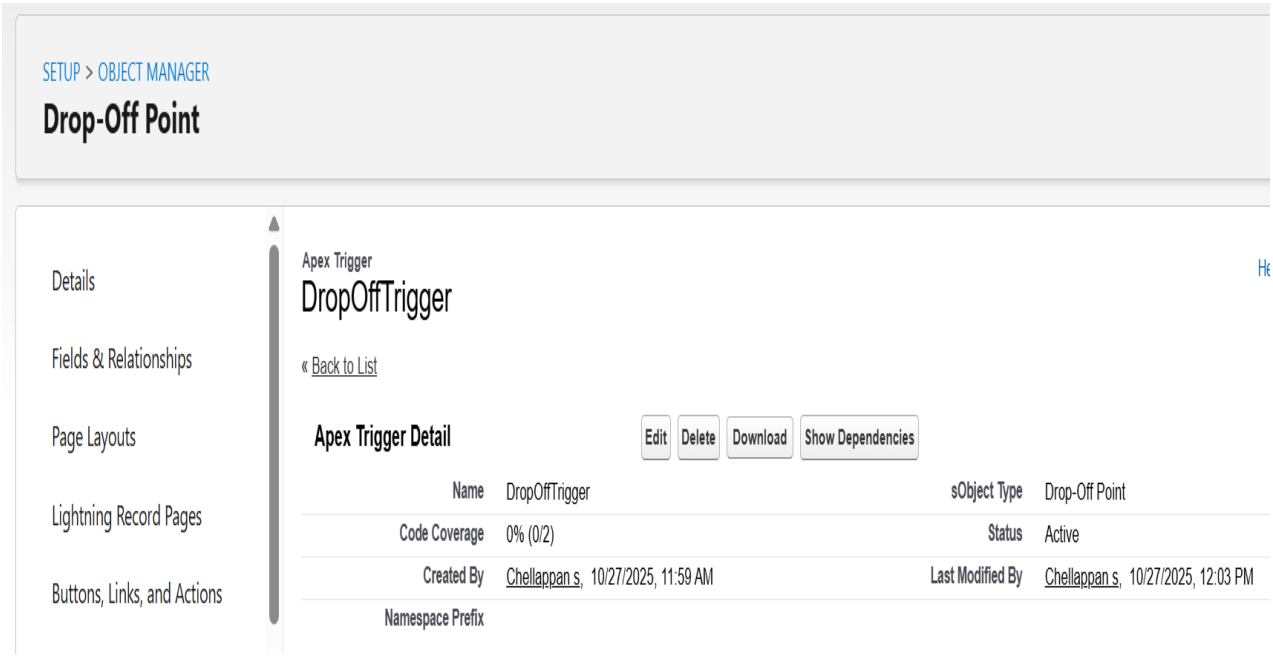


Fig :8.1 Create a Trigger in Object details

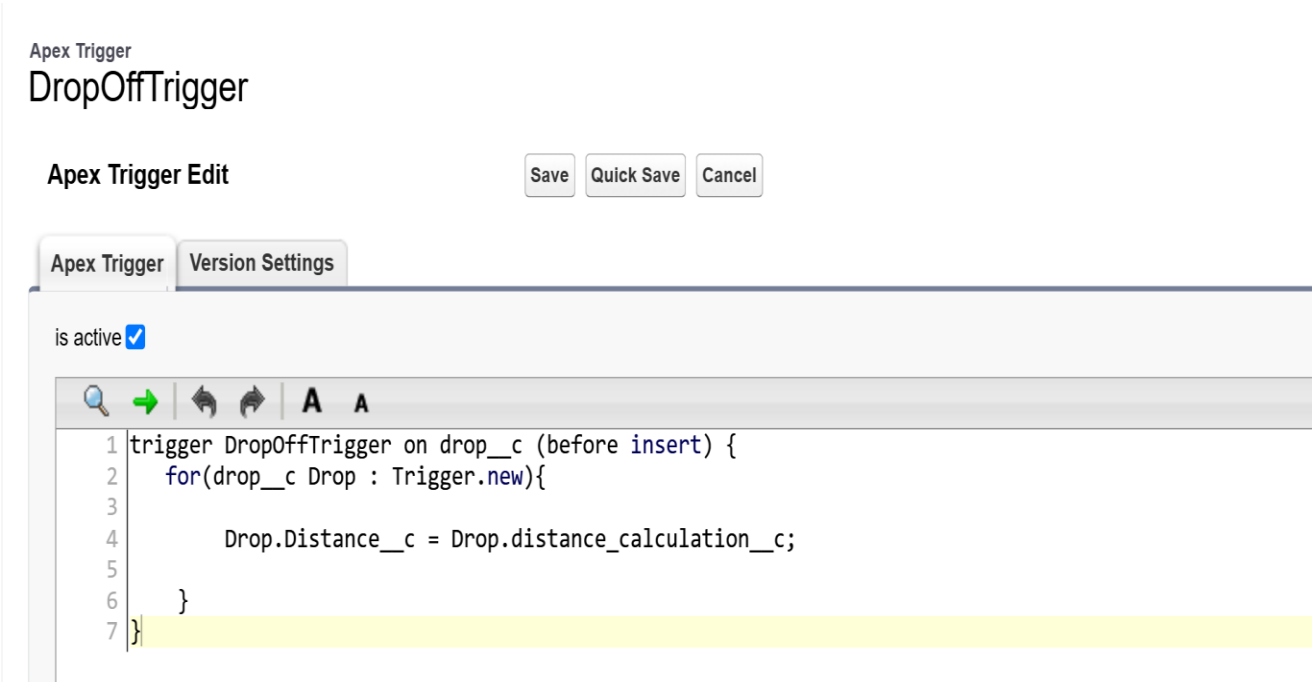


Fig :8.2 Apply Trigger Code in dropOff

9.Profile:

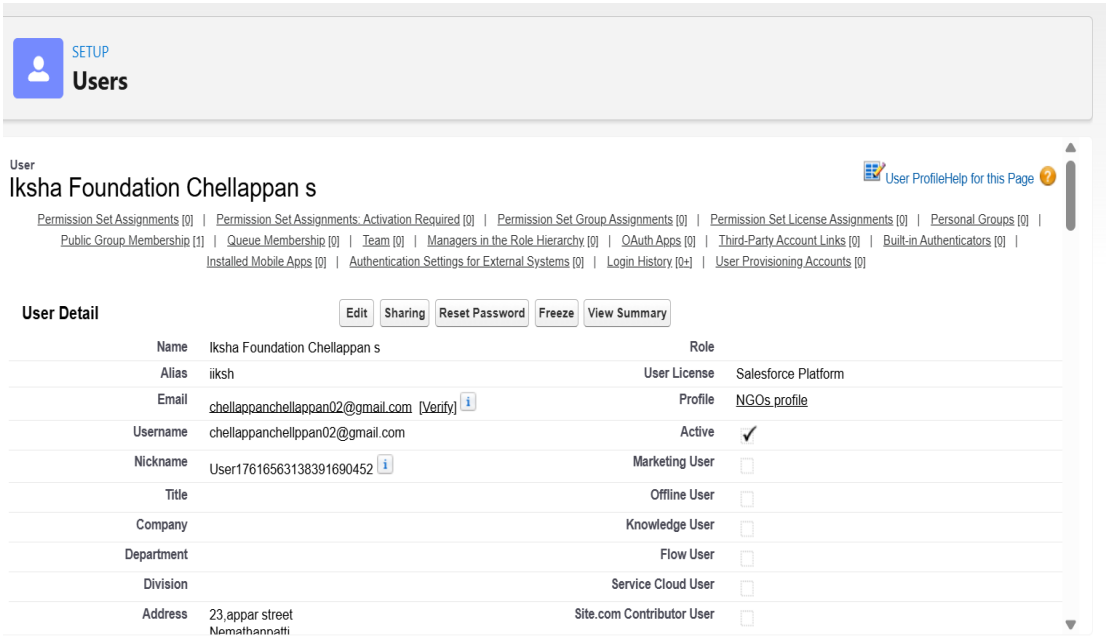


Fig :9.1 IKSHA Profile

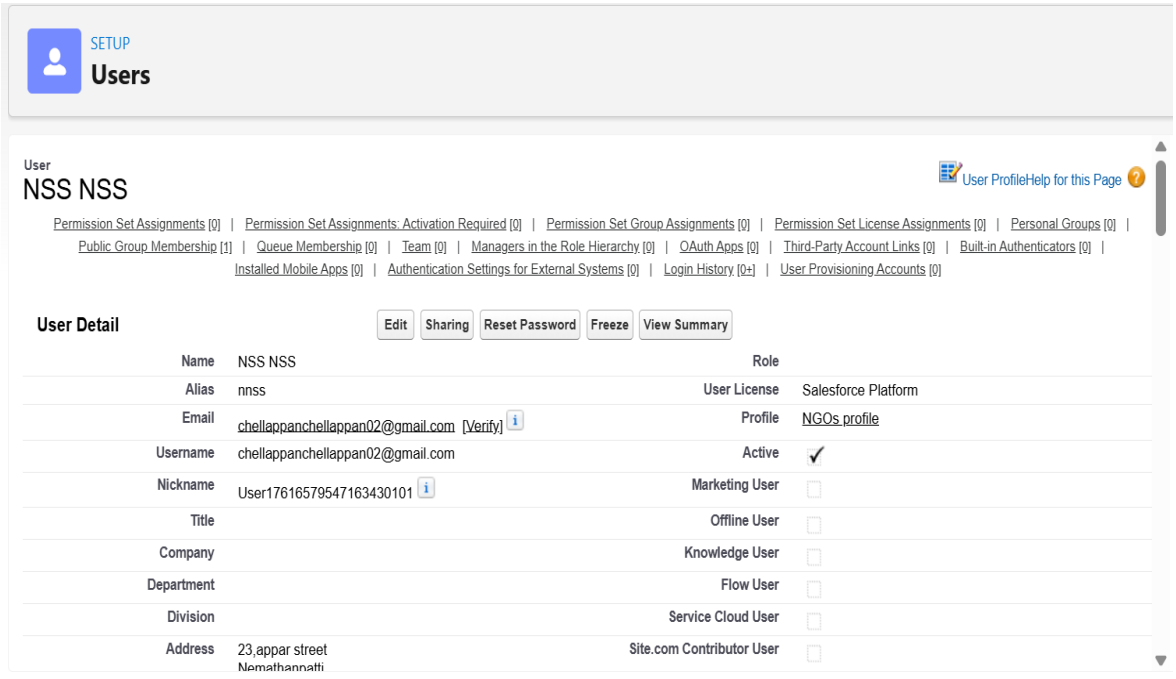
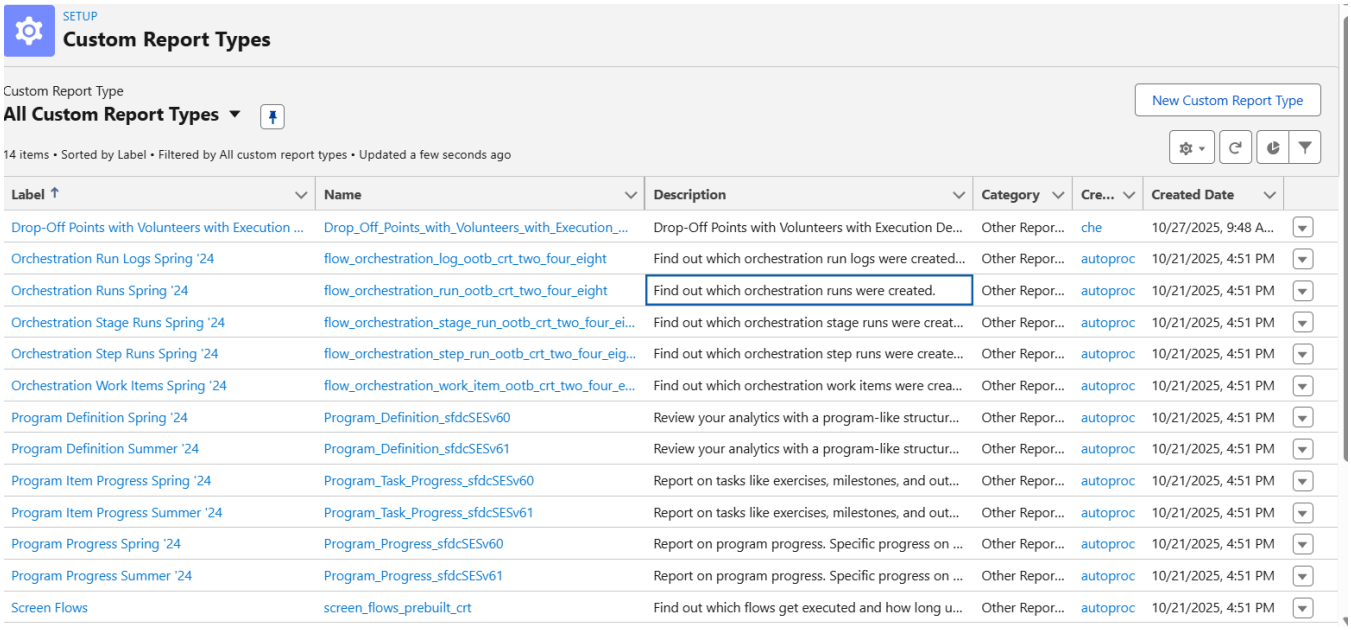


Fig :9.2 NSS Profile

10. Report:



Label	Name	Description	Category	Cre...	Created Date
Drop-Off Points with Volunteers with Execution ...	Drop_Off_Points_with_Volunteers_with_Execution_...	Drop-Off Points with Volunteers with Execution De...	Other Repor...	che	10/27/2025, 9:48 A...
Orchestration Run Logs Spring '24	flow_orchestration_log_ootb_crt_two_four_eight	Find out which orchestration run logs were created...	Other Repor...	autoproc	10/21/2025, 4:51 PM
Orchestration Runs Spring '24	flow_orchestration_run_ootb_crt_two_four_eight	Find out which orchestration runs were created.	Other Repor...	autoproc	10/21/2025, 4:51 PM
Orchestration Stage Runs Spring '24	flow_orchestration_stage_run_ootb_crt_two_four_ei...	Find out which orchestration stage runs were creat...	Other Repor...	autoproc	10/21/2025, 4:51 PM
Orchestration Step Runs Spring '24	flow_orchestration_step_run_ootb_crt_two_four_eig...	Find out which orchestration step runs were create...	Other Repor...	autoproc	10/21/2025, 4:51 PM
Orchestration Work Items Spring '24	flow_orchestration_work_item_ootb_crt_two_four_e...	Find out which orchestration work items were crea...	Other Repor...	autoproc	10/21/2025, 4:51 PM
Program Definition Spring '24	Program_Definition_sfdcSESv60	Review your analytics with a program-like structur...	Other Repor...	autoproc	10/21/2025, 4:51 PM
Program Definition Summer '24	Program_Definition_sfdcSESv61	Review your analytics with a program-like structur...	Other Repor...	autoproc	10/21/2025, 4:51 PM
Program Item Progress Spring '24	Program_Task_Progress_sfdcSESv60	Report on tasks like exercises, milestones, and out...	Other Repor...	autoproc	10/21/2025, 4:51 PM
Program Item Progress Summer '24	Program_Task_Progress_sfdcSESv61	Report on tasks like exercises, milestones, and out...	Other Repor...	autoproc	10/21/2025, 4:51 PM
Program Progress Spring '24	Program_Progress_sfdcSESv60	Report on program progress. Specific progress on ...	Other Repor...	autoproc	10/21/2025, 4:51 PM
Program Progress Summer '24	Program_Progress_sfdcSESv61	Report on program progress. Specific progress on ...	Other Repor...	autoproc	10/21/2025, 4:51 PM
Screen Flows	screen_flows_prebuilt_crt	Find out which flows get executed and how long u...	Other Repor...	autoproc	10/21/2025, 4:51 PM

Fig :10 Report Type

11.Flows:

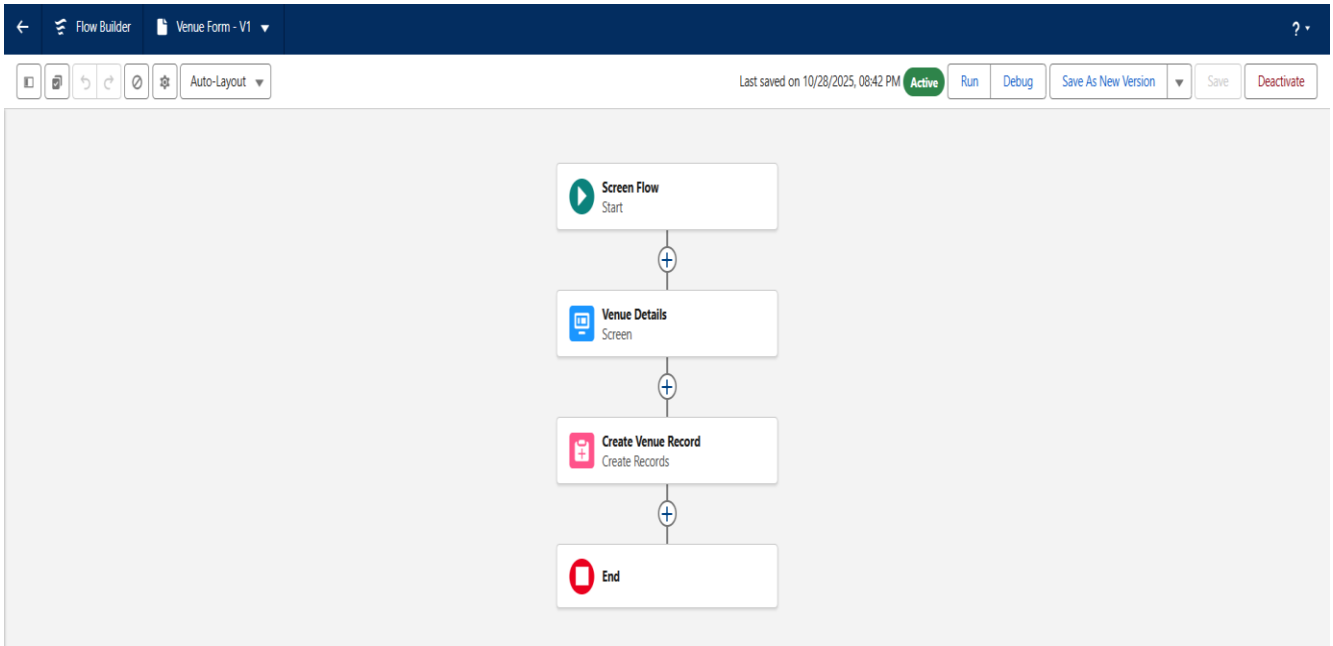


Fig:11.1 Creating a flow

12.Dashboard:

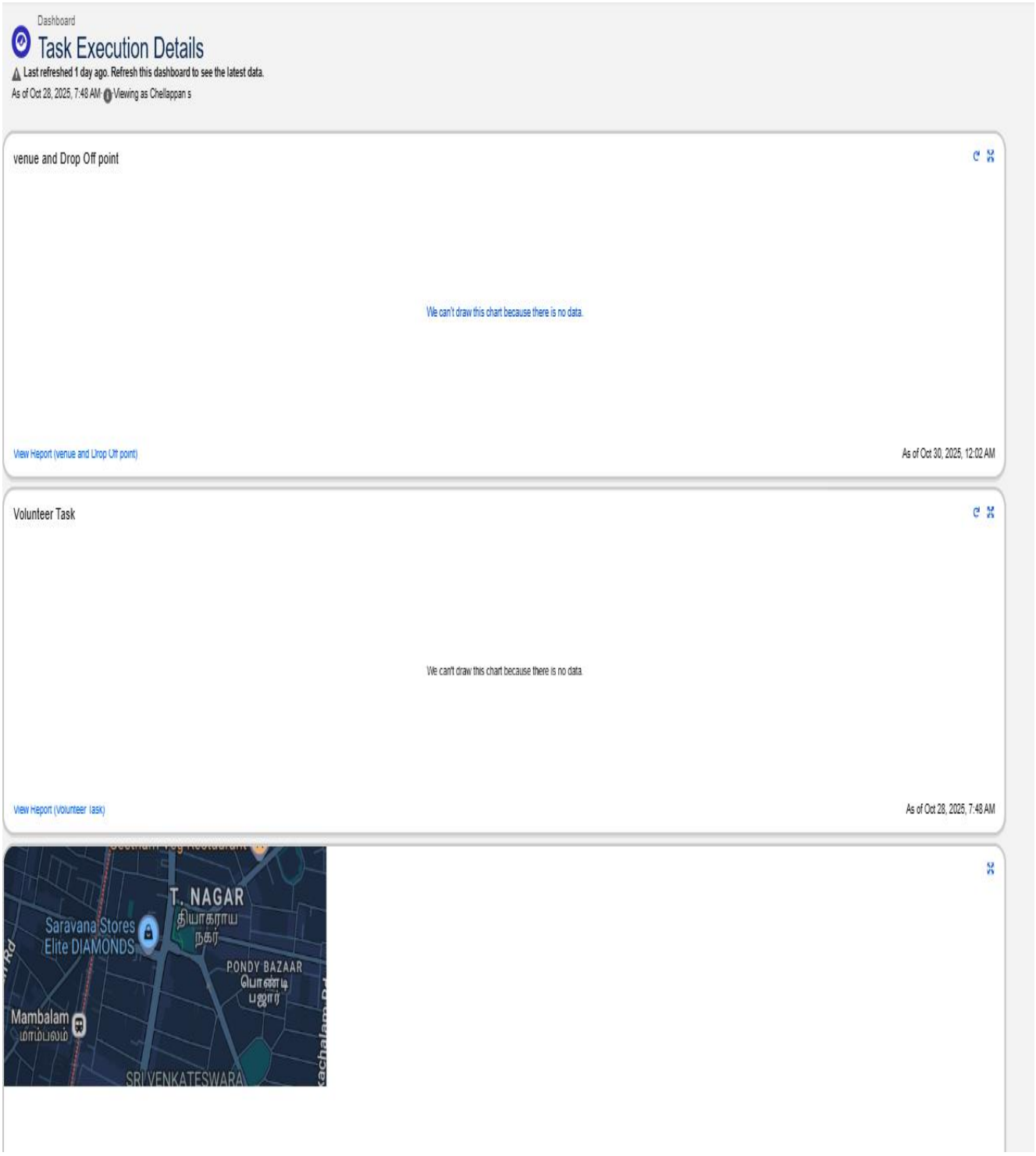


Fig:11.1 Creation of Dashboard

10.EXPECTED OUTCOMES

- Streamlined process of surplus food collection and delivery.
- Real-time tracking of food movement and volunteer activities.
- Reduced manual coordination through automated notifications.
- Improved transparency in the distribution process.
- Enhanced community engagement and donor satisfaction.

11. ADVANTAGES

- Cloud-based accessibility from any location.
- High data security and role-based access control.
- Complete automation reduces human effort.
- Real-time analytics improves decision-making.
- Encourages social responsibility by reducing food waste.
- Eco-friendly — fully paperless management system.

12.FUTURE ENHANCEMENT

- Integrate **Google Maps API** for live tracking of delivery routes.
- Add **mobile app** for donors and volunteers to manage records easily.
- Implement **AI-based prediction** to forecast food demand areas.
- Introduce **IoT-based sensors** to monitor food temperature during delivery.
- Enable **multi-language support** for broader accessibility.
- Integrate **UPI/Online Donation** options for funding delivery logistics.

13.CONCLUSION

The **"Apply Leftover Food to Poor"** project demonstrates how Salesforce can be leveraged to tackle real-world social challenges through technology. The system automates the end-to-end process of surplus food management — from donor registration to recipient feedback — ensuring transparency, efficiency, and accountability.

This project highlights Salesforce's versatility beyond traditional CRM, proving its potential in humanitarian and sustainability-focused initiatives. It contributes to reducing food wastage and supporting underprivileged communities effectively.

14.REFERENCES

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5. Global Food Waste Report – United Nations Environment Programme