





Project Title Project to Supply Leftover Food to the Poor Using Salesforce

Submitted by

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1. Project Overview

This project addresses the challenge of food waste and hunger by leveraging Salesforce technology to facilitate the distribution of surplus food to those in need. Through this solution, we aim to efficiently connect donors, such as restaurants and grocery stores, with organizations that assist the needy. Utilizing Salesforce CRM as the core platform, the project enables real-time tracking of donations, manages logistics, and ensures timely delivery. This initiative promotes transparency, accountability, and improved resource allocation within the network of food donors and recipients.

2. Objectives

 Business Goals: Reduce food waste and combat hunger by connecting food suppliers with non-profits and shelters.

Specific Outcomes:

- Establish a reliable network of food donors and recipients.
- Automate the matching process of food donations based on location, food type, and urgency.
- Enable field agents to track deliveries and update statuses in real-time.

3. Salesforce Key Features and Concepts Utilized

- Objects: Custom objects created for Drop-Off Points, Tasks, Execution Details, Volunteers, and Venues to manage data specific to the project.
- **Tabs**: Custom tabs for key objects like Venues, Execution Details, and Volunteers, improving data organization and accessibility.
- **Lightning App**: Built for a smooth and user-friendly interface.
- **Fields**: Custom fields for storing detailed information about tasks, volunteer details, and drop-off points.







- Flows: Automated workflows for creating records and notifying users.
- **Triggers**: Apex triggers to enforce business logic and ensure data consistency.
- Profiles and Users: Defined specific roles and access levels to secure and organize data handling.
- Public Groups: Grouped users for simpler sharing and permissions management.
- Report Types: Created to facilitate custom reporting and track metrics like volunteer efficiency and food distribution effectiveness.
- Dashboards: Visual representation of key metrics, enabling better decisionmaking and operational insights.
- Sharing Rules: Used to extend access to records for users in public groups, ensuring secure and organized data sharing across the system.

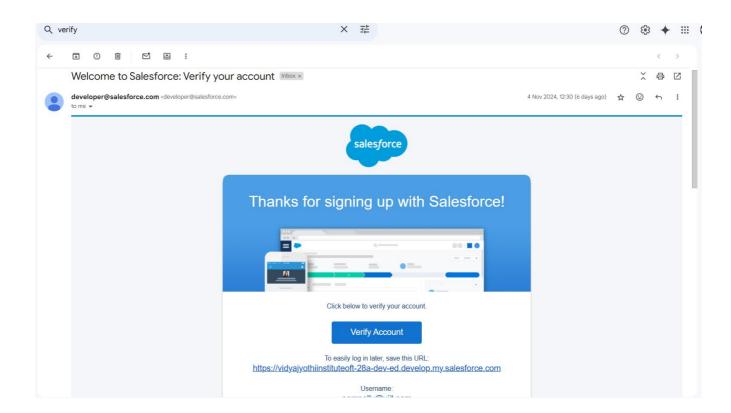
4. Detailed Steps to Solution Design

The solution design involved creating custom objects, fields, tabs, and lightning applications to build a user-friendly interface. Each object was carefully tailored to meet the unique data requirements for the project:

- **Data Model**: Custom objects (Drop-Off Points, Volunteers, etc.) organized data effectively, while relationships between objects streamlined the distribution workflow.
- **User Interface**: Custom tabs and Lightning components facilitated easy access to information, optimized for mobile use.
- **Business Logic**: Flows and triggers automated donation alerts, assignment of volunteers, and tracking of delivery updates to ensure a smooth process.

salesforce developer account creation

- Creating a developer org in salesforce
- Account Activation









Object

In Salesforce, an object is a database table that stores data related to a specific entity, such as customers, products, or sales transactions. Objects are the building blocks of Salesforce data models.

There are two types of objects in Salesforce:

- 1. **Standard Objects:** These are pre-built objects provided by Salesforce, such as Accounts, Contacts, Leads, and Opportunities, which cover common business processes.
- 2. **Custom Objects:** These are user-defined objects created to store data unique to a particular business or application. Custom objects can have custom fields, relationships, and custom logic through workflows and triggers.

Objects are essential for organizing and managing data within the Salesforce platform.

To create an object:

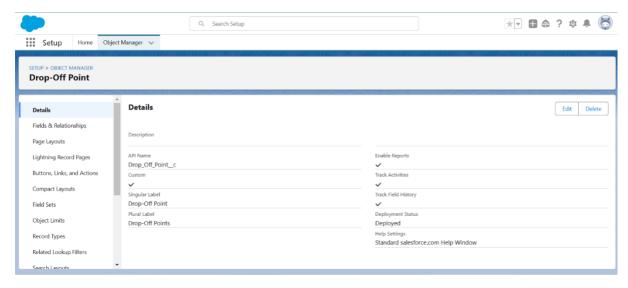
Here, We have Created All the objects which where asked.

a. Drop-Off Point

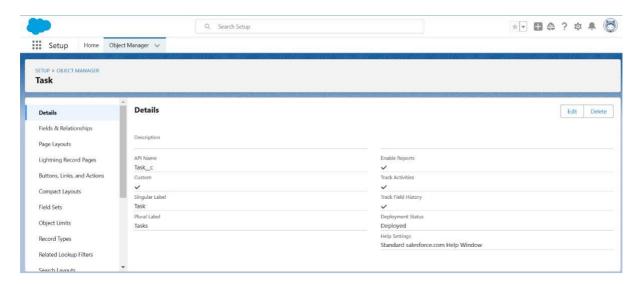




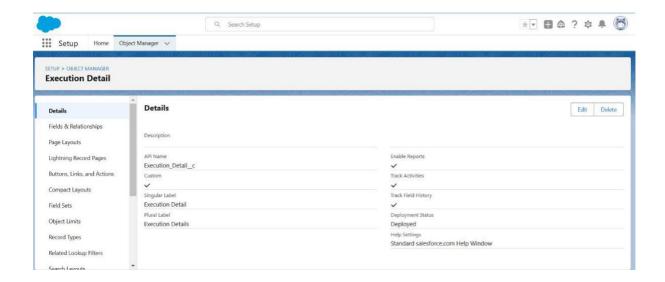




b. Task



c. Execution Detail

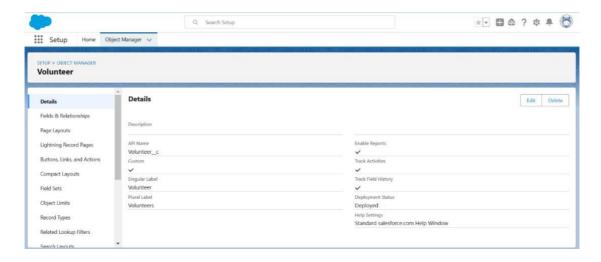




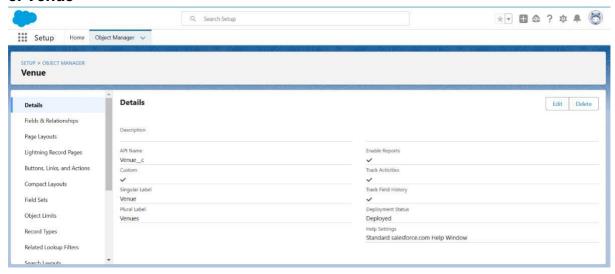




d. Volunteer



e. Venue



Tab:

What is Tab?

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

· Creating a Custom

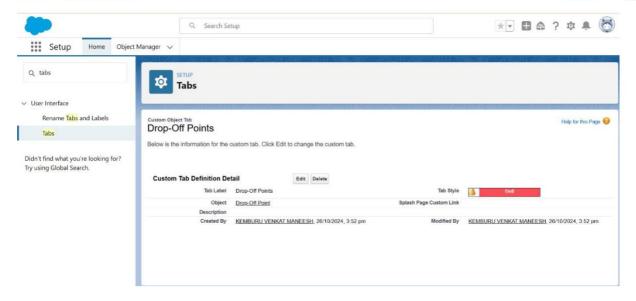
Tab Create Venues Tab

I) Drop-Off Point Tab

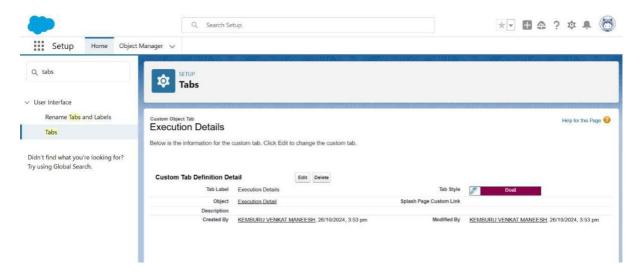








II) Execution Details Tab

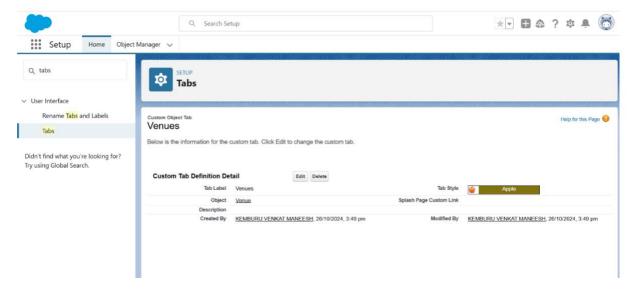


III) Venues Tab

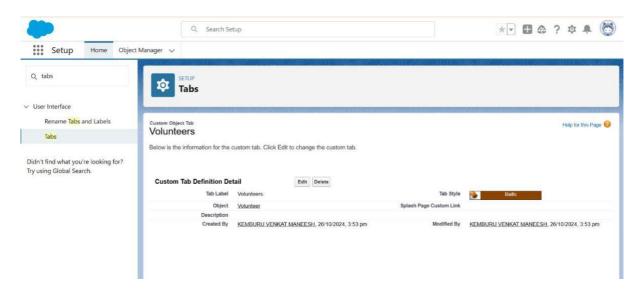








IV) Volunteers Tab



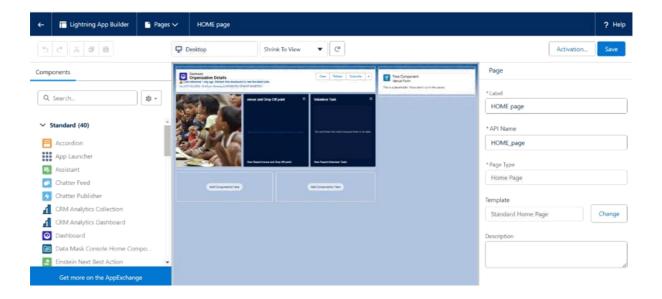
4. Create a Lightning App

Will create a lightning app page-







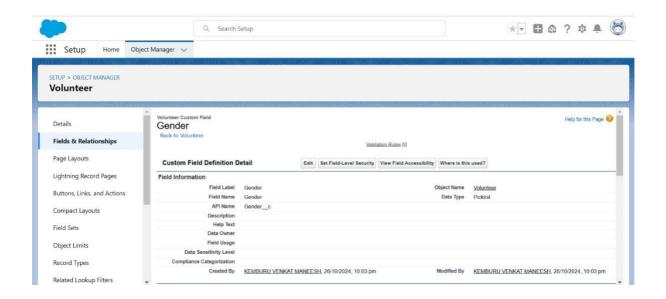


5)Fields

What is a Field?

Fields are specific data points within an object where individual pieces of information are stored. They are akin to columns in a database table and can hold various types of data, such as text, numbers, or dates.

Creation of Fields for the Volunteer Object - Gender

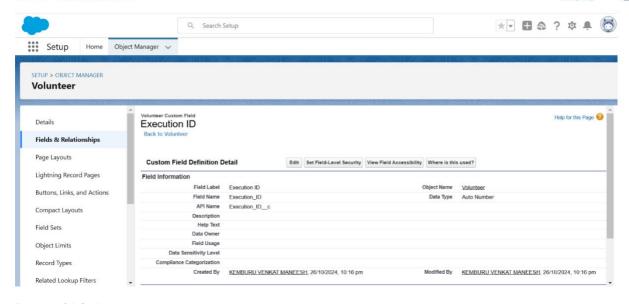


Execution ID

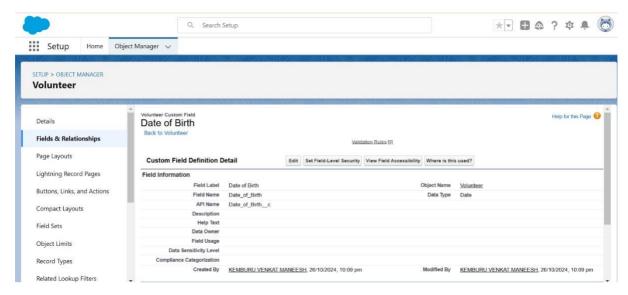




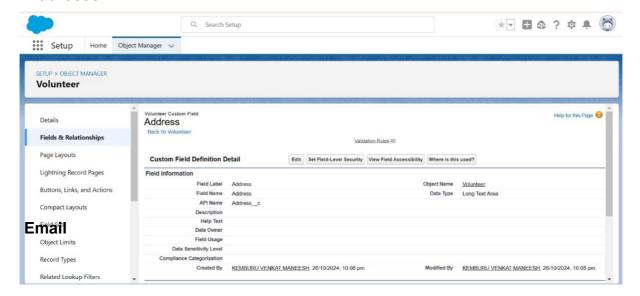




Date of birth



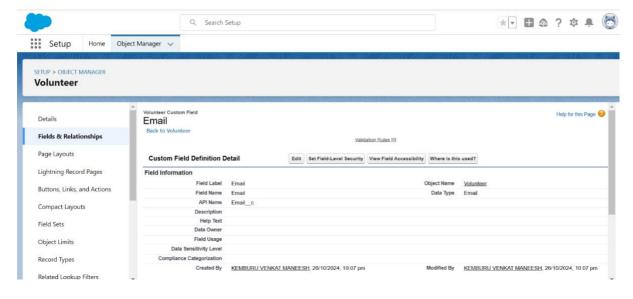
Addresss



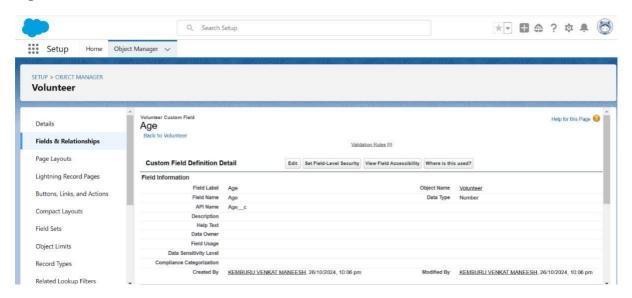








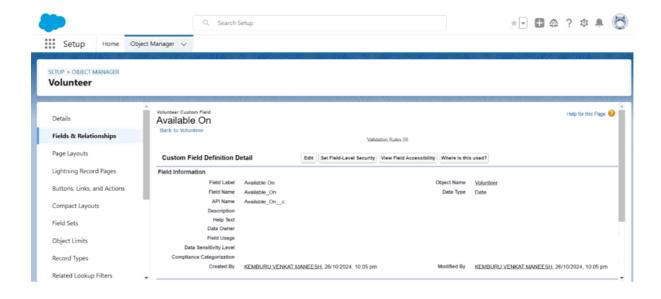
Age



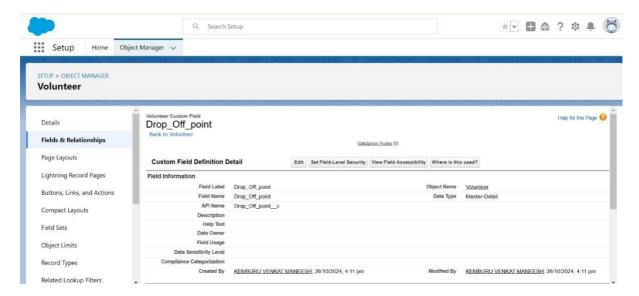








Drop_off_point

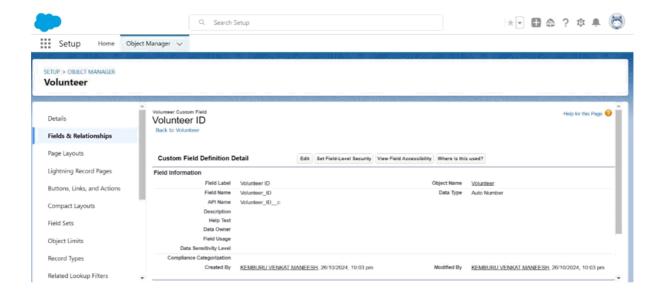


Volunteer ID



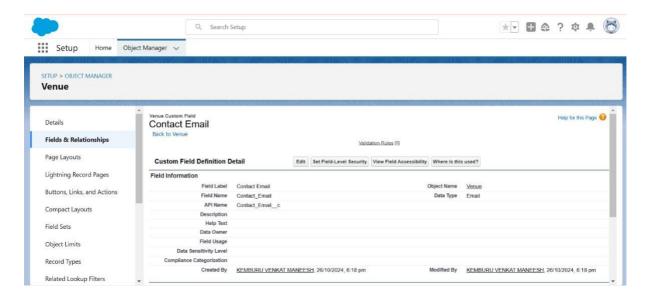






Creation of Fields for the Venue Object

Contact Email

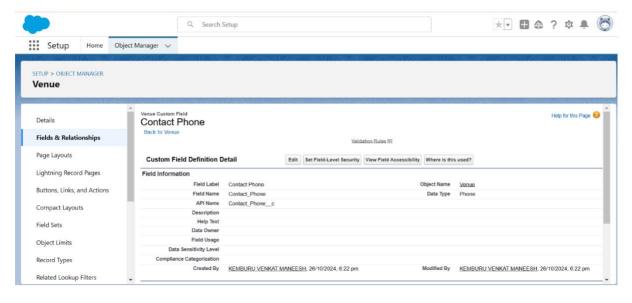


Contact Phone

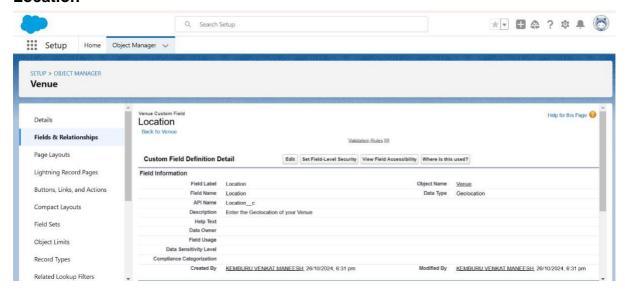








Location

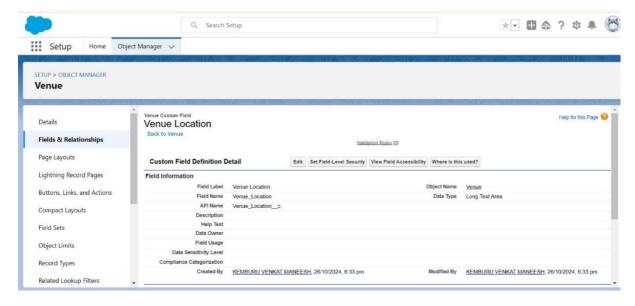


Venue Location

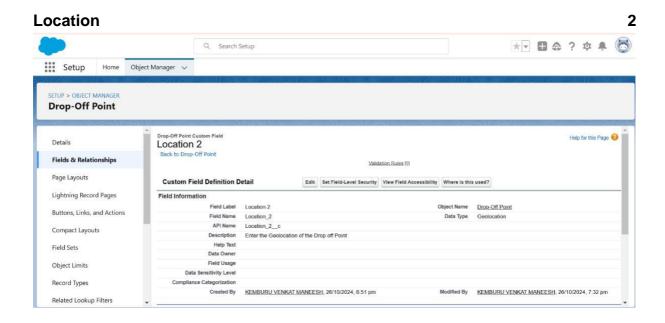








Creation of Fields for the Drop-Off Point Object

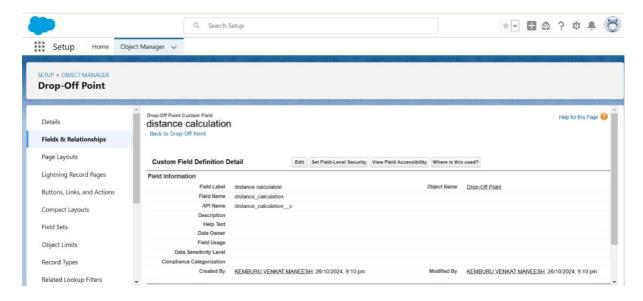






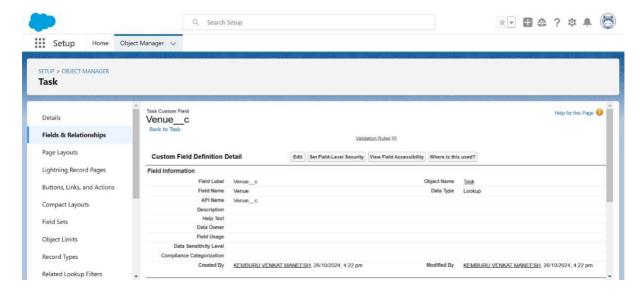


distance Calculation



Creation of Fields for the Task Object

Venue_c

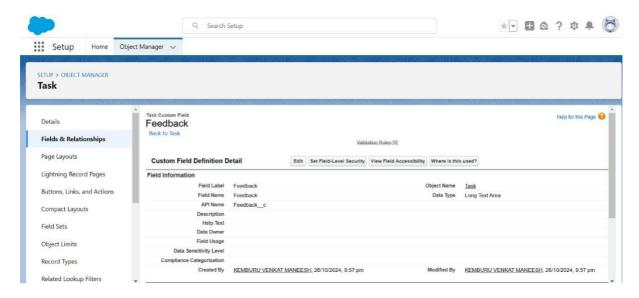




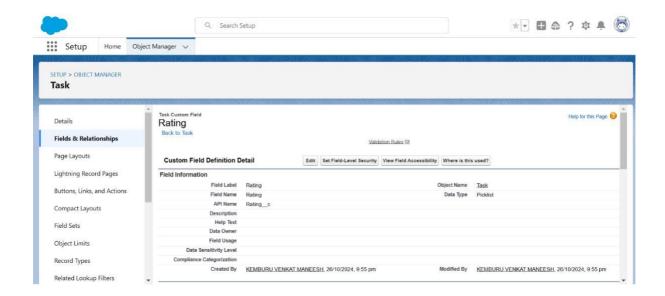




Feedback



Rating

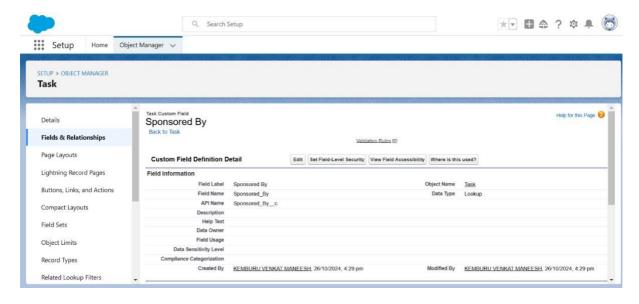




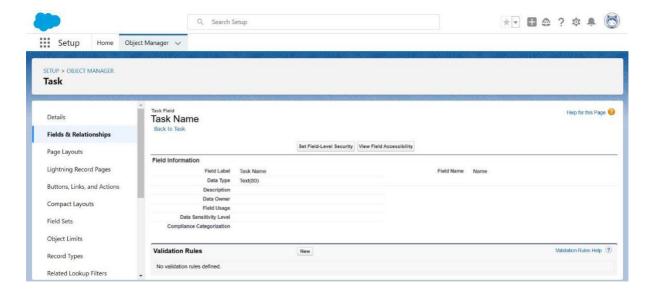




Sponsored By



Task Name

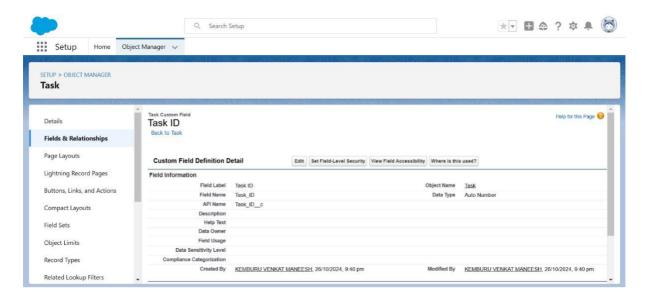




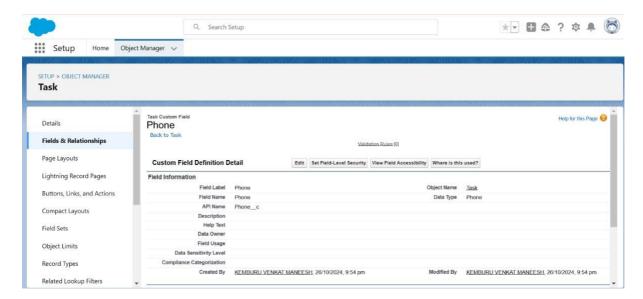




Task ID



Phone

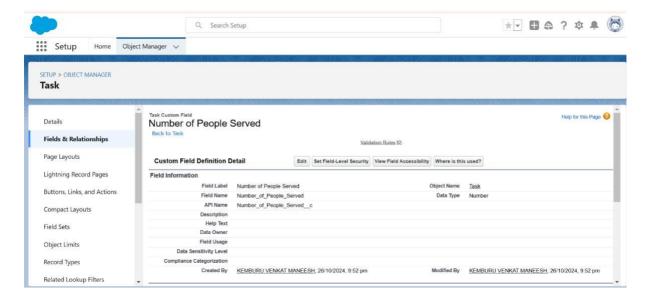




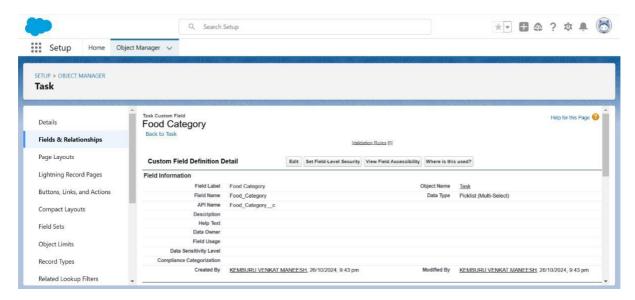




Number of People Served



Food Category

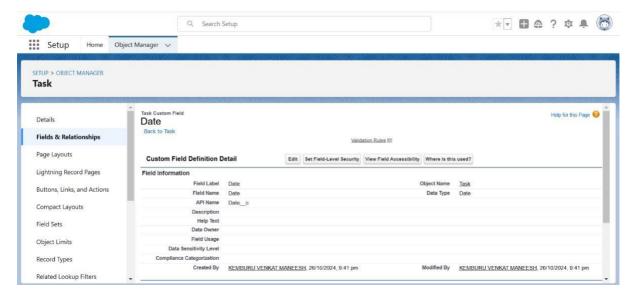






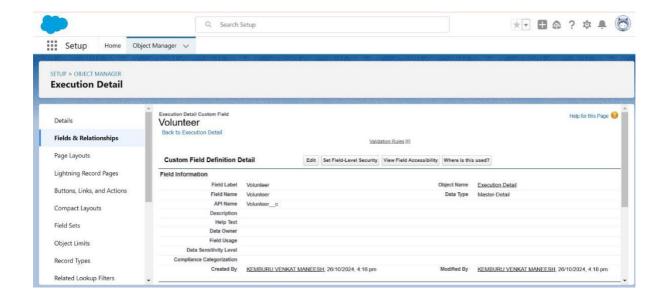


Date



Creation of Fields for the Execution Details

Object Volunteer

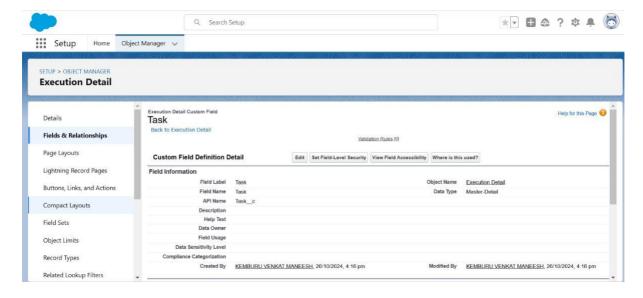








Task

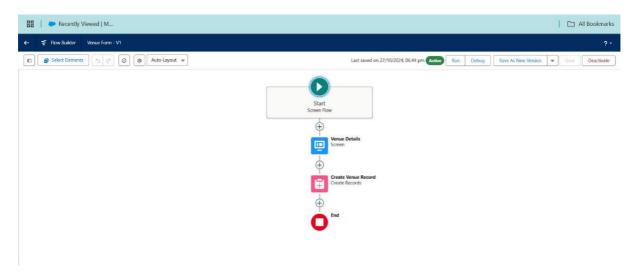


6) Flows

What is a Flow?

Flows are automation tools that allow users to create complex business processes and workflows using a visual interface. They can automate tasks, guide users through steps, and integrate with other systems.

Flow to Create a Record in Venue Object









7) Trigger

What is a Trigger?

A trigger is a piece of Apex code that executes before or after specific database events on objects, such as insertions, updates, or deletions. Triggers are used to perform custom actions or enforce business rules.

Trigger Code

8) Profiles

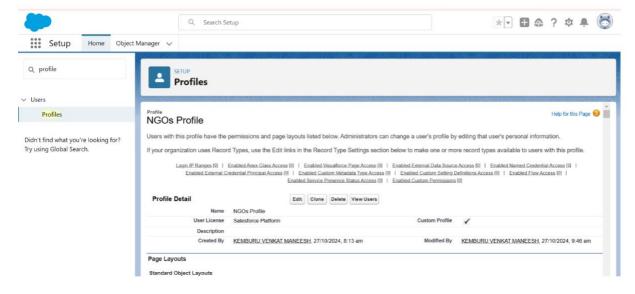
What is a Profile?

Profiles define a user's permissions and access settings, controlling what users can see and do within the application. They specify the objects, fields, and functions a user can access.









9) Users

What is a User?

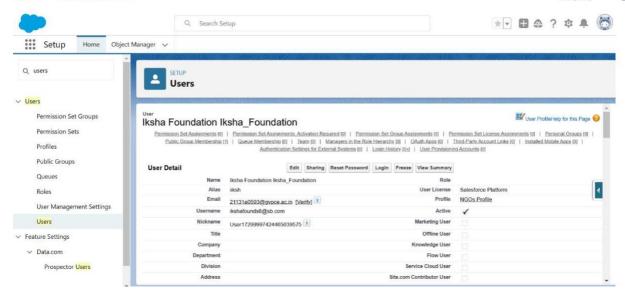
Users are individuals who have login access to the Salesforce organization. Each user has a unique username, profile, and role, determining their access levels and permissions within the system.

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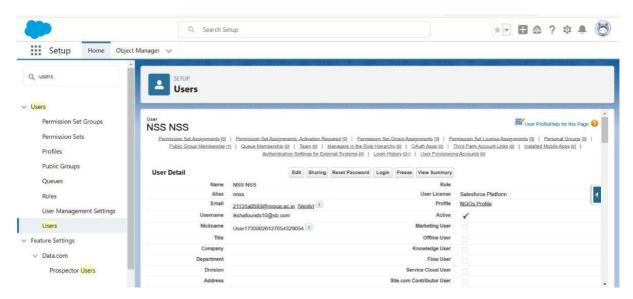




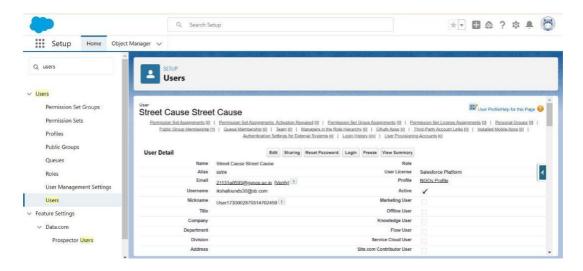




NSS



Street Cause







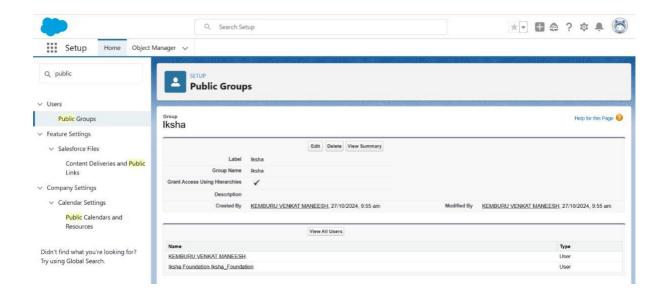


10) Public Groups

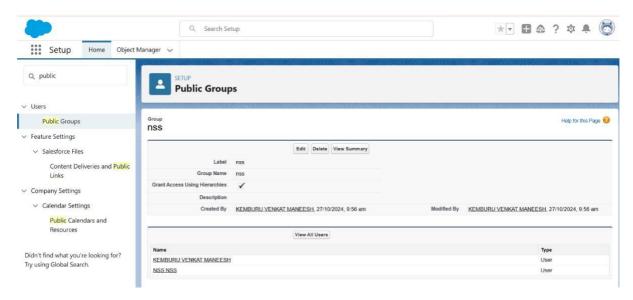
What is a Public Groups?

Public groups are collections of users, roles, and other groups that can be used to simplify sharing rules and access settings. They help manage data visibility and permissions across multiple users.

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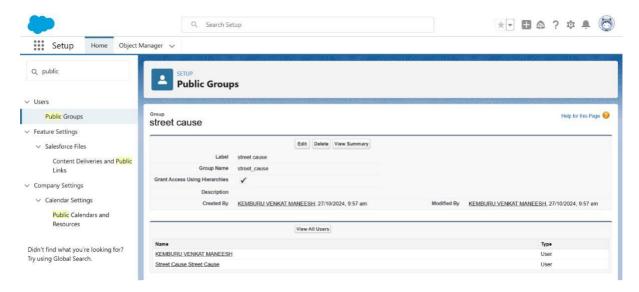








street cause

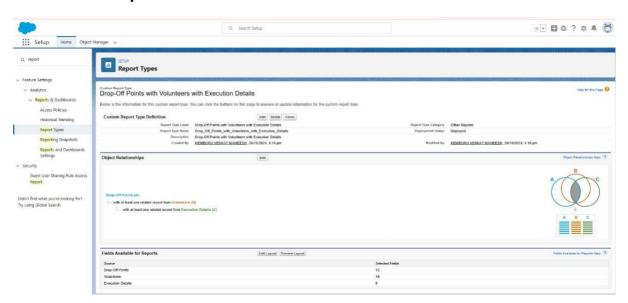


11) Report Types

What is a Report Type?

Report types define the set of records and fields available for a report. They determine which objects, and their relationships can be included, allowing users to create customized reports based on specific criteria.

Venue with DropOff with Volunteer



12) Dashboards

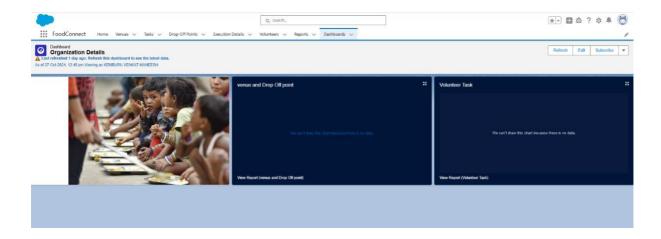






What is a Dashboard?

Dashboards are visual displays of key metrics and reports, providing a snapshot of business performance. They consist of multiple components like charts, graphs, and tables, offering insights and data visualization for decision-making.



13) Sharing Rules

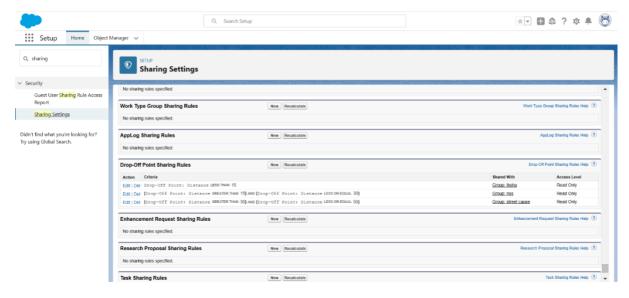
What is a Sharing Rule?

sharing rules are used to extend access to records to users in public groups or roles. They allow administrators to define additional criteria for sharing records beyond what is granted by default through profiles and roles, ensuring appropriate data access across the organization.









5. Testing and Validation

To ensure the robustness of the system, the project incorporated multiple layers of testing:

- Unit Testing: For Apex classes and triggers, confirming all business logic performed as expected.
- **User Interface Testing**: Conducted to ensure a smooth and user-friendly experience, especially for mobile field agents updating delivery statuses.

6. Key Scenarios Addressed by Salesforce in the Implementation Project

The project handles various real-life scenarios:

- Automated matching of food donations based on location and urgency.
- Real-time status updates for field agents during deliveries.
- Detailed reporting to track and evaluate donation efficiency, volunteer participation, and overall impact.







7. Conclusion

Summary of Achievements: This project successfully created a streamlined and transparent system for managing surplus food donations, reducing food waste, and addressing hunger. Through efficient coordination of donations and volunteer efforts, the solution maximized the positive impact on food security for underserved communities.

