

Project Title: Supplying Leftover Food to the Poor

Project Overview

The aim of this project is to build a Salesforce-based application to manage the collection and distribution of leftover food to the poor. This system facilitates seamless interaction between food donors (venues), drop-off points, volunteers, and the execution team. It also automates critical tasks like task assignment, volunteer tracking, and reporting to ensure efficient food delivery and resource allocation.

Technologies Used

- Salesforce Lightning Platform
- Custom Objects and Relationships
- Flows and Automation
- Reports and Dashboards
- Profiles and Public Groups
- Trigger Automation
- Apex (for customization)

Project Setup and Development Details

1. Salesforce Developer Account Creation

- Setup of a Salesforce Developer account to build the application.
- Configured basic settings for users, roles, profiles, and permissions.

2. Object Creation

- **Venue Object:**
 - This object is created to store information about food donation venues (e.g., restaurants, event locations, households).

- **Drop-Off Point Object:**
 - Created to store locations where food is collected and distributed from (e.g., shelters, community centers).
- **Task Object:**
 - Stores information about tasks related to food collection, distribution, and volunteer assignment.
- **Volunteer Object:**
 - Tracks details of the volunteers, their availability, and assigned tasks.
- **Execution Details Object:**
 - Holds information regarding the execution of food deliveries, the status of food collection, and task completion.

3. Tabs

- **Custom Tabs:**
 - Custom tabs were created to represent the different objects such as Venue, Drop-Off Point, Task, Volunteer, and Execution Details.

4. The Lightning App

- Created a custom Salesforce Lightning app that organizes all the objects (Venue, Drop-Off Point, Task, Volunteer, Execution Details) into a cohesive interface.

Field Creation

- **Relationship Fields:** Created relationship fields (Lookups, Master-Detail) between various objects to ensure proper linkages.
- **Venue Object Fields:** Fields like Venue Name, Address, Contact Info were created to store venue-specific data.
- **Drop-Off Point Fields:** Fields for location, operating hours, and capacity were added.
- **Task Object Fields:** Fields for task descriptions, status, and assigned volunteers were created.
- **Volunteer Object Fields:** Created fields to track volunteer name, contact info, availability, and skills.
- **Execution Details Fields:** Created fields to track task progress, status, and time of delivery.

5. Flows

- Automated workflow and processes using Salesforce Flows to trigger notifications and assign tasks automatically to volunteers once a donation is logged at a Venue.

6. Trigger

- Created an Apex Trigger that auto-updates the status of tasks and execution details based on changes in object values (e.g., task completion).

7. Profiles and Public Groups

User and Profile Creation

- Created multiple user profiles (e.g., for Venue Managers, Volunteers, and Administrators) to define role-based access within the system.

Public Groups

- **Public Group 1:** Created for all volunteers to assign tasks.
- **Public Group 2:** Created for venue and drop-off managers to manage food collection.

8. Reports and Report Types

Report Creation

- **Venue with Drop-Off Point and Volunteer:** This report consolidates data from Venues, Drop-Off Points, and Volunteers for management overview.
- **Volunteers with Execution Details and Tasks:** Provides insights into volunteer performance, tasks assigned, and execution status.

9. Dashboards

Dashboard Creation

- **Venue and Drop-Off Point Report:** Added the venue and drop-off point report to the dashboard for easy visualization of food distribution metrics.
- **Volunteer Task Report:** Added volunteer task reports to visualize volunteer participation and task completion.
- **Optional Additions:** Option to add images (such as logos or visual representations) to the dashboard for enhanced visibility.

10. Sharing Rules

- Implemented sharing rules to allow specific users to view or edit data based on their role, ensuring that venue managers and volunteers see relevant data only.

11. Home Page

- Customized the Home Page to provide quick access to the dashboard, key metrics, and quick links to critical reports and tasks.

12. Conclusion

This project successfully streamlined the process of collecting and distributing leftover food by leveraging Salesforce's automation tools. The system tracks and manages key objects, assigns tasks to volunteers, provides comprehensive reports, and visualizes data through interactive dashboards.