

# Project Report

## FoodConnect - To donate leftover food to poor

**Project Title: FoodConnect - Surplus Food Donation Management System**

### Project Overview

The **FoodConnect** project aims to create an efficient, transparent, and automated platform for managing surplus food donations. It leverages the Salesforce platform to streamline the process of connecting donors, volunteers, and beneficiaries to address food insecurity. Through this system, the objective is to reduce food wastage while maximizing the effective utilization of available food resources. The project involves creating criteria-based sharing rules, designing a custom homepage, and integrating automated workflows to ensure timely and accurate food distribution.

### Objectives

1. **Track Surplus Food Donations:** Enable the effective management of food donations through a robust Salesforce-based system.
2. **Efficient Coordination:** Streamline communication between donors, volunteers, and beneficiaries.
3. **User Access Control:** Implement sharing rules to grant users access to relevant records based on specific criteria such as proximity.
4. **Real-Time Tracking and Reporting:** Provide real-time information through dashboards for better decision-making and monitoring.
5. **User-Friendly Interface:** Develop a simple and intuitive interface for easy navigation of the platform by volunteers, donors, and administrators.

### Technologies and Tools Used

- **Salesforce Platform:** The backbone of the application, providing cloud-based CRM services and enabling automation.
- **Salesforce Lightning App Builder:** Used to design the user interface, including the home page and components.
- **Salesforce Flow:** Implemented to automate food donation tracking and notifications.
- **Salesforce Dashboards:** Visualized key metrics for real-time decision-making and process management.

## Key Features

1. **Proximity-Based Sharing:** Donors and volunteers are grouped based on the distance of the food donation for timely and efficient coordination.
2. **Automated Food Donation Tracking:** The integration of flows ensures automatic updates to food donation records, reducing manual effort.
3. **Real-Time Monitoring:** Dashboards provide users with up-to-date information about the status of food donations and deliveries.
4. **User Access Control:** Sharing rules ensure that only authorized individuals and groups have access to donation data based on proximity.
5. **User-Friendly Interface:** The homepage is designed to allow users to easily navigate and manage donations, and track delivery statuses.

## Step-by-Step Process:

### 1. Field Creation for Task Object:

The first task was to create custom fields in the **Task** object to streamline data entry and task management.

- **Distance Field:**
  - **Field Label:** Distance
  - **Field Name:** Distance
  - **Length:** 14
  - **Decimal Places:** 4
- **Task ID Field:**
  - **Field Label:** Task ID
  - **Field Name:** Auto-generated
  - **Display Format:** TASK-{0}
  - **Starting Number:** 1
- **Date Field:**
  - **Field Label:** Date
  - **Field Name:** Date
- **Picklist (Multi-Select) Field for Food Categories:**
  - **Field Label:** Food Category
  - **Field Name:** Food Category
  - **Values:** Veg, Non-Veg, Salad, Snack
- **Number Field for Number of People Served:**
  - **Field Label:** Number of People Served
  - **Field Name:** Number\_of\_People\_Served
- **Text Field for Name of Person:**
  - **Field Label:** Name of the Person
  - **Field Name:** Name\_of\_the\_Person
- **Phone Field for Contact Number:**
  - **Field Label:** Phone

- **Field Name:** Phone
- **Picklist Field for Rating:**
  - **Field Label:** Rating
  - **Field Name:** Rating
  - **Values:** 1, 2, 3, 4, 5
- **Long Text Area for Feedback:**
  - **Field Label:** Feedback
  - **Field Name:** Feedback

## 2. Field Creation for Volunteer Object:

Custom fields were also created in the **Volunteer** object to collect essential data about each volunteer.

- **Volunteer ID Field (Auto Number):**
  - **Field Label:** Volunteer ID
  - **Field Name:** Auto-generated
- **Picklist for Gender:**
  - **Field Label:** Gender
  - **Field Name:** Gender
  - **Values:** Female, Male
- **Date Field for Available On:**
  - **Field Label:** Available On
  - **Field Name:** Available On
- **Number Field for Age:**
  - **Field Label:** Age
  - **Field Name:** Age
- **Email Field for Contact Email:**
  - **Field Label:** Email
  - **Field Name:** Email
- **Number Field for Contact Number:**
  - **Field Label:** Contact Number
  - **Field Name:** Contact\_Number
- **Text Area Field for Address:**
  - **Field Label:** Address
  - **Field Name:** Address
- **Date Field for Date of Birth:**
  - **Field Label:** Date of Birth
  - **Field Name:** Date\_of\_Birth

## 3. Flow Creation for Venue Record:

A **Screen Flow** was created for the **Venue** object to collect venue details from users and create new venue records.

- **Venue Details Flow:**

- Components added: Text (Venue Name), Email (Contact Email), Phone (Contact Phone), Text (Venue Location), and Number (Latitude, Longitude).
- The flow collects the venue details and stores them in the **Venue** object using a **Create Record** element.

#### 4. Trigger Creation for Distance Calculation:

A **Trigger** was created to automatically populate the **Distance** field in the **Drop-Off Point** object based on the **distance\_calculation** field value.

```
trigger DropOffTrigger on Drop_Off_point__c (before insert) {
  for(Drop_Off_point__c Drop : Trigger.new){
    Drop.Distance__c = Drop.distance_calculation__c;
  }
}
```

This ensures that the distance is automatically calculated and populated when a new record is inserted.

#### 5. Profile and User Management:

Custom **Profiles** were created to define access permissions for users based on their roles:

- **NGOs Profile:** A custom profile was cloned from the standard platform user to allow users from non-governmental organizations (NGOs) to access relevant data and manage tasks.
- **User Creation:**
  - Users were created for different NGOs with roles and access to specific fields and reports. The users include: Iksha Foundation, and other NGOs.

#### 6. Report Creation:

Two main reports were created to track key data:

- **Venue and Drop-Off Point Report:**
  - Report type: Venue with DropOff with Volunteer
  - Grouped by Volunteer Name
  - Columns: Venue Name, Drop-Off Point Name, Distance
- **Volunteer Task and Execution Report:**
  - Report type: Volunteers with Execution Details and Tasks
  - Grouped by Volunteer ID
  - Columns: Volunteer Name, Task Name, Execution Detail Name, Owner Name, Task Date, Task Rating

#### 7. Public Group Creation:

Public groups were created to manage access to records based on the users' roles.

- **Iksha Group:** Includes Iksha Foundation and System Administrator
- Additional public groups were created for other users and organizations as needed.

## 8.Salesforce Sharing Rules Configuration

To ensure appropriate access control to food donation records, three key sharing rules were created:

1. **Rule 2 (Distance between 15-30 km):**
  - **Label:** Rule 2
  - **Rule Name:** Rule\_2
  - **Rule Type:** Based on criteria.
  - **Criteria:** Records with Distance greater than 15 km and less than or equal to 30 km.
  - **Share With:** Public Group - **NSS** (Nonprofit Support System).
2. **Rule 3 (Distance between 30-50 km):**
  - **Label:** Rule 3
  - **Rule Name:** Rule\_3
  - **Rule Type:** Based on criteria.
  - **Criteria:** Records with Distance greater than 30 km and less than or equal to 50 km.
  - **Share With:** Public Group - **Street Cause**.

These rules ensure that users and groups have access to records based on the proximity of the food donations, enabling timely delivery and coordination.

## 9.Homepage Creation Using Lightning App Builder

The homepage of the **FoodConnect** application was created to provide users with quick access to key functionalities:

1. **Navigate to Setup:** Search for **Lightning App Builder** and select **New**.
2. **Home Page:** Name the new page **FoodConnect Home Page**.
3. **Layout Selection:** Choose **Standard Home Page** layout.
4. **Add Components:**
  - **Flow:** Drag the **Flow** component into the right section, configuring it to use the **Venue Flow**, which automates the process of food donation tracking.
  - **Dashboard:** Drag the **Dashboard** component into the first section to provide real-time insights and metrics related to food donations.
5. **Save and Activate** the page.
6. **Assignments:** Assign this homepage to the **FoodConnect App**.

The result is a user-friendly home page that ensures easy navigation for volunteers, donors, and administrators. The flow automation ensures that the user experience is efficient, reducing the time spent manually tracking donations.

## 10. Flow and Dashboard Integration

The flow component is integrated with the Salesforce platform to automate processes such as food donation tracking, updating donation status, and notifying volunteers about the latest requests. Dashboards were created to visualize critical metrics, such as the number of active

donations, pending deliveries, and volunteer assignments. These metrics provide users with real-time updates on the status of food donations.

## HOME Page

The screenshot shows the FoodConnect Home Page dashboard. At the top, there is a search bar and a navigation menu with items like Home, Venues, Drop-Off Points, Tasks, Volunteers, Execution Details, Reports, and Dashboards. The main content area is divided into three sections: 'venue and Drop Off point', 'Volunteer Task', and 'Venue Form'. The first two sections display error messages: 'We can't draw this chart because there is no data.' and 'We can't draw this chart because there is ...'. The third section, 'Venue Form', contains input fields for Venue Name, Email, Phone, Venue Location, Latitude, and Longitude. A 'Next' button is located at the bottom right of the form.

## Results and Impact

- **Efficiency Improvements:** Automation through flows minimized manual tracking of food donations, reducing time and effort for volunteers and administrators.
- **Better Coordination:** Proximity-based sharing ensured that food donations were allocated and distributed effectively to nearby beneficiaries and volunteers.
- **Increased Transparency:** The dashboards and flow integration provided real-time information on donation status, helping donors, volunteers, and administrators make informed decisions.
- **Greater Community Impact:** The project helped maximize food resource utilization and contributed to reducing food waste and addressing food insecurity in the community.

## Conclusion

The **FoodConnect** project successfully harnessed the power of Salesforce to address food insecurity through streamlined food donation management. By leveraging sharing rules, flow automation, and dashboards, the platform provided a transparent, efficient, and user-friendly system for managing surplus food donations. The integration of proximity-based sharing rules and real-time tracking features ensured the timely delivery of food to beneficiaries, ultimately reducing food wastage and enhancing the community's ability to meet food needs.

