  

To Supply Leftover Food to Poor

**Project Overview**

To Supply Leftover Food to Poor" project aims to streamline food collection, volunteer management, and delivery to various drop-off locations. By leveraging the Salesforce platform, the solution will simplify data administration and enable real-time tracking. The project's long-term goals include reducing food waste and supporting underserved communities by enhancing operational efficiency, user experience, and data quality.

**Objectives**

**Business Goals:**

1. Develop a practical plan for managing surplus food.

2. Simplify coordination between delivery, volunteers, and collection locations to increase the effectiveness of food distribution.

3. Enable real-time tracking and reporting to aid impact analysis and decision-making.

**Specific Outcomes:**

1. Custom objects and relationships were created to manage locations, volunteers, drop-off locations, and work assignments.

2. A real-time reporting system provides insights into food distribution.

3. Dashboards display food distribution, volunteer participation, and location-specific requirements.

**Salesforce Key Features and Concepts Utilized**

The project leverages several Salesforce features, including:

1. New Objects: Custom objects were created to track data, such as Venue, Drop-Off Point, Task, Volunteer, and Execution Details.

2. Triggers: An Apex trigger called **DropOffTrigger** was implemented to automatically set distance values.

3. Lightning App with Custom Tabs: The Food Connect Lightning App was developed with custom tabs to provide easy navigation across all objects.

4. Sharing Rules: Sharing rules were configured based on distance to control user access.

# Detailed Steps to Solution Design

The design and development process consisted of the following steps:

* + **Data Models:** Created data models for Venue, Drop-Off Point, Task, Volunteer, and Execution Details, defining the essential fields and establishing associations, including Lookup and Master-Detail relationships.
  + **User Interface Design:** Designed custom tabs to enable seamless navigation within the **FoodConnect** Lightning App.
  + **Business Logic:** Implemented the **DropOffTrigger** to automatically populate the Distance Calculation field, streamlining rule assignments.

## Screenshots:

**Screenshot of the UI**

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# Testing and Validation

The testing strategy included:

* + **Unit Testing:** Conducted unit for Apex Classes and Triggers,including the **DropOffTrigger** and updates to custom field.
  + **User Interface Testing:** Validated each user interface component for ease of use and accurate data flow across bespoke tabs and the ***FoodConnect*** App.

# Key Scenarios Addressed by Salesforce in the Implementation Project

## Scenario 1: Coordinating Food Collection and Distribution

* + - Establish drop-off points and coordinate distances with specified sharing groups.

## Scenario 2: Volunteer Tracking and Assignment

* + - Ensured effective food collection and delivery by monitoring volunteer availability and tasks.

## Scenario 3: Feedback and Reporting

* + - Volunteers can provide feedback on deliveries, gather ratings, and track capacity for future improvements.

# Conclusion

**Summary of Achievements:** The project successfully leveraged Salesforce to create an efficient system for managing food donations, coordinating volunteers, and ensuring timely delivery to designated locations. This platform has played a key role in reducing food waste and advancing the mission of providing food to underserved areas, offering a scalable and sustainable solution to food security.