To Supply Leftover Food to Poor

1. Project Overview:

The **To Supply Leftover Food to Poor** project aims to reduce food waste and hunger by efficiently collecting and distributing surplus food to underserved communities. Using the **Salesforce platform**, it simplifies logistics, volunteer coordination, and real-time tracking. Donors can report available food, and volunteers are matched to deliver it. The system ensures smooth communication, tracks food deliveries, and collects data to improve operations.The project's long-term goals are to enhance efficiency, provide a better experience for everyone involved, and create a scalable model that can reach more communities. Ultimately, it seeks to reduce food waste, support those in need, and contribute to a more sustainable future.

2. Objectives

Business Goals:

● **Manage Food Donations**: Build a system to track and organize surplus food donations.
● **Improve Coordination**: Streamline the process between collection points, volunteers, and delivery locations for efficiency.
● **Real-Time Tracking & Reporting**: Provide up-to-date data to support decision-making and measure impact.

Specific Outcomes:

● **Custom Objects & Relationships**: Set up tools to track venues, volunteers, drop-off points, and tasks.
● **Real-Time Reports**: Create reports to monitor food distribution metrics in real-time.
● **Dashboards**: Design dashboards to visualize food distribution, volunteer activity, and local needs.

3.Salesforce Key Features and Concepts Utilized:

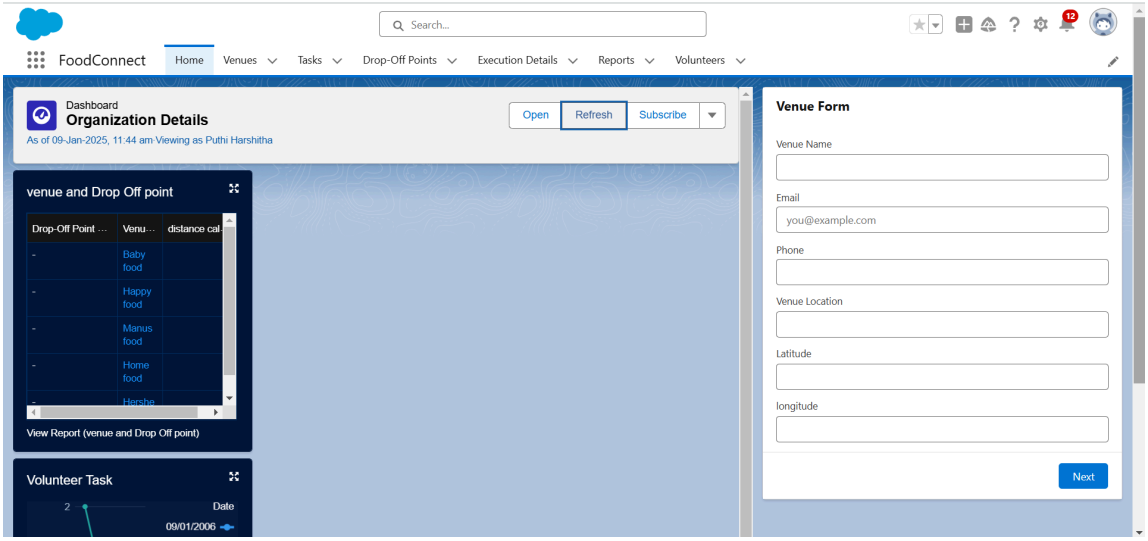
This project uses several Salesforce features to manage food donations and volunteers effectively:

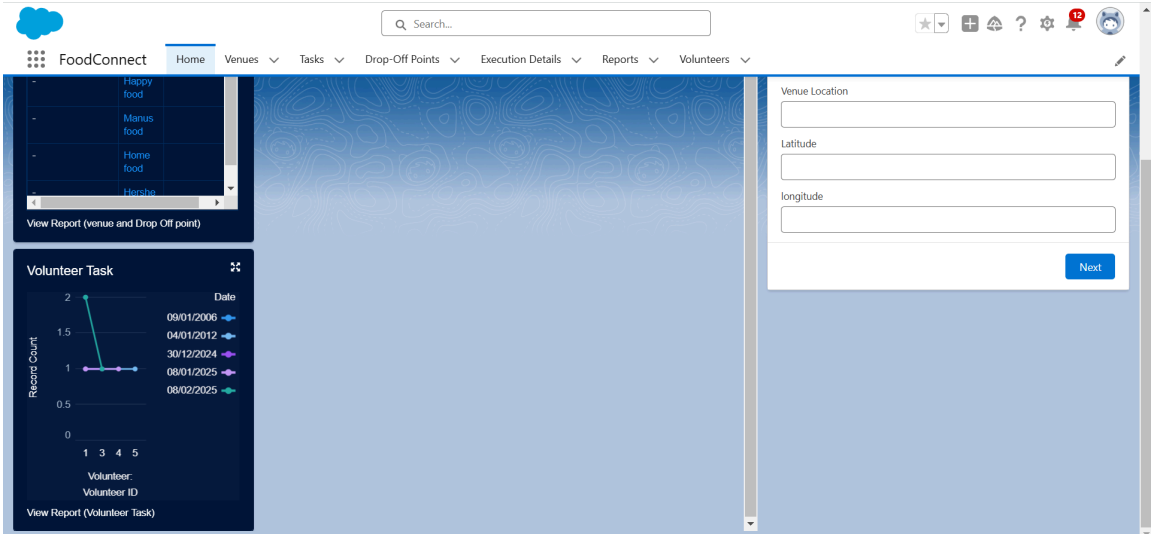
● **Custom Objects**: Created custom objects like **Venue**, **Drop-Off Point**, **Task**, **Volunteer**, and **Execution Details** to track important data.
● **Triggers**: Used a custom **Apex trigger** (DropOffTrigger) to automatically assign distance values, helping match donations with nearby volunteers.
● **Lightning App and Custom Tabs**: Developed the **FoodConnect Lightning App** to simplify navigation and organize all objects in one place.
● **Sharing Rules**: Set up **sharing rules** based on distance to control access, ensuring users only see data relevant to their location.

4.Detailed Steps to Solution Design:

The design and development process followed these key steps:

- **Data Models**: Custom objects such as **Venue**, **Drop-Off Point**, **Task**, **Volunteer**, and **Execution Details** were created, each with relevant fields and relationships (using **Lookup** and **Master-Detail** relationships) to structure and track data effectively.
- **User Interface Design**: Custom tabs were built for each object to allow users to easily navigate through the system. These tabs were added to the **FoodConnect Lightning App**, providing a user-friendly interface for managing the data.
- **Business Logic**: Developed the **DropOffTrigger**, a custom Apex trigger, to automatically calculate and assign distances to the **Distance Calculation** field. This ensures seamless matching of food donations with nearby volunteers and drop-off points based on proximity.
- **Screenshot:**





5.Testing and Validation:

The testing process included:

● **Unit Testing**: Tested **Apex Classes** and **Triggers**, focusing on the **DropOffTrigger** and custom field updates to ensure they worked correctly.

● **User Interface Testing**: Checked the **UI components** for ease of use and accurate data flow in the **FoodConnect App**.

6.Key Scenarios Addressed by Salesforce:

● **Coordinating Food Collection and Distribution**

Managed drop-off points and distances, ensuring efficient food distribution through sharing groups.

● **Volunteer Tracking and Assignment**

Tracked volunteer availability and assigned tasks for smooth food collection and delivery.

● **Feedback and Reporting**

Collected feedback from volunteers, ratings, and tracking served capacity for continuous improvement.

7.Conclusion:

The project successfully used Salesforce to build an efficient system for managing food donations, coordinating volunteers, and delivering to communities in need. It reduces food waste and helps provide food to underserved areas, offering a scalable solution to improve food security.