To Supply Leftover Food to Poor

1. Project Overview

This project, ***To Supply Leftover Food to Poor***, is designed to address the coordination challenges in the logistics of food collection, volunteer management, and delivery to multiple drop-off points efficiently. The solution leverages the Salesforce platform to streamline data management and enable real-time tracking. This project aims to enhance **operational efficiency**, **user experience**, and **data accuracy** while supporting the long-term goals of reducing food wastage and aiding underserved communities.

2. Objectives

Business Goals:

- Create a robust system to manage surplus food donations.
- Streamline coordination between collection points, volunteers, and delivery to maximize food distribution efficiency.
- Enable real-time tracking and reporting to support decision-making and impact assessment.

Specific Outcomes:

- Development of custom objects and relationships to track venues, volunteers, drop-off points, and task assignments.
- A reporting system for real-time insights on food distribution metrics.
- Dashboards for visualizing food supply distribution, volunteer involvement, and location-based needs.

3. Salesforce Key Features and Concepts Utilized

This project utilizes several Salesforce features, including:

- **Custom Objects**: Created Venue, Drop-Off Point, Task, Volunteer, and Execution Details objects for data tracking.
- **Triggers**: Implemented custom Apex trigger (***DropOffTrigger***) for auto-assigning distance values.
- **Lightning App and Custom Tabs**: Developed a ***FoodConnect*** Lightning App to organize and simplify navigation across all objects.

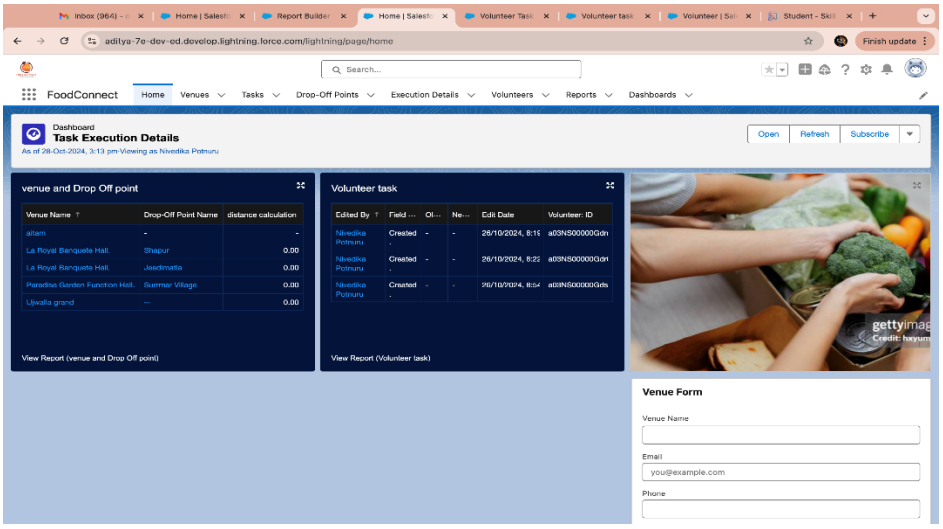
- **Sharing Rules**: Configured sharing rules based on distance criteria to facilitate access control for users based on proximity.

4. Detailed Steps to Solution Design

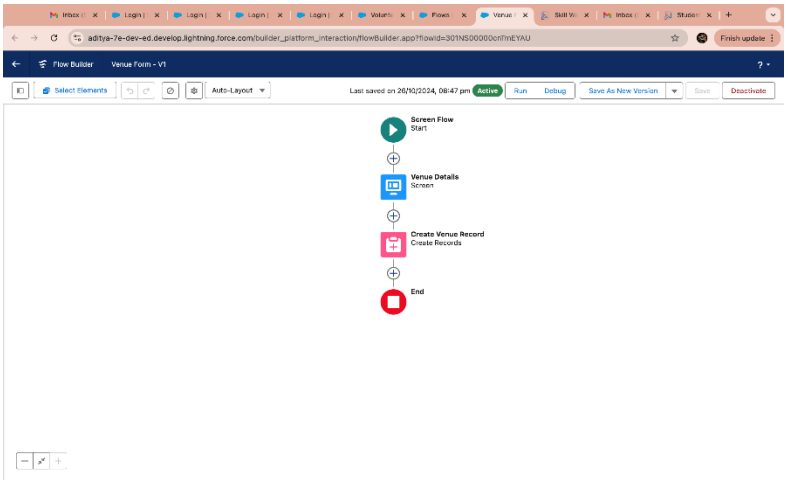
The design and development process included the following steps:

- **Data Models**: Created custom objects (Venue, Drop-Off Point, Task, Volunteer, Execution Details) with relevant fields and relationships (Lookup and Master-Detail).
- **User Interface Design**: Built custom tabs for easy navigation and added them to the ***FoodConnect*** Lightning App.
- **Business Logic**: Developed the ***DropOffTrigger*** to automatically assign distances to the Distance Calculation field for seamless rule assignment.
- **Screenshots**:

Screenshot of the UI



Screenshot of the Flow.



5. Testing and Validation

The approach to testing involved:

- **Unit Testing**: Conducted testing of Apex Classes and Triggers, specifically for ***DropOffTrigger*** and custom field updates.
- **User Interface Testing**: Validated each UI component, ensuring ease of use and data flow accuracy across custom tabs and the ***FoodConnect*** App.

6. Key Scenarios Addressed by Salesforce in the Implementation Project

- **Scenario 1: Coordinating Food Collection and Distribution**:
  - Managed by creating and associating drop-off points and coordinating distances with specific sharing groups.
- **Scenario 2: Volunteer Tracking and Assignment**:
  - Monitored volunteer availability and tasks to ensure efficient food collection and delivery assignments.
- **Scenario 3: Feedback and Reporting**:
  - Enabled volunteers to provide feedback on deliveries, collect ratings, and track served capacity for future improvements.

7. Conclusion

Summary of Achievements: Leveraging Salesforce, the project successfully established a streamlined system for managing food donations, volunteer coordination, and delivery to designated locations. This platform effectively reduces food wastage while supporting the goal of distributing food to underserved communities, demonstrating a scalable and impactful approach to food security.