To Supply Leftover Food to Poor

# Project Brief

# This project serves as a practical example of leveraging technology to address societal challenges like food insecurity. By utilizing the Salesforce platform, the initiative demonstrates how digital tools can optimize resource management, enhance volunteer coordination, and facilitate the timely delivery of surplus food to underserved communities. The approach focuses on minimizing food waste through effective operational strategies and real-time oversight, providing a sustainable framework for resource distribution. This initiative not only highlights the practical application of technology in solving real-world problems but also fosters an understanding of collaboration and efficiency in achieving social impact goals.

# Goals

### **Key Business Objectives:**

* Develop a streamlined framework for effectively managing surplus food donations.
* Strengthen coordination among collection centers, volunteer networks, and delivery hubs to maximize outreach.
* Integrate real-time tracking and analytics tools to support strategic decision-making and evaluate impact.

### **Expected Outcomes:**

* Customized data entities and relationships designed to organize venues, volunteers, distribution points, and tasks.
* Established an analytics system to generate actionable insights into food allocation and distribution processes.
* Created dashboards to visualize key metrics, including engagement levels, volunteer participation, and location-specific demand trends.

# Salesforce Features Employed

Salesforce Capabilities Leveraged in the Initiative:

* Customized Data Entities: Defined tailored objects to manage information related to venues, tasks, and volunteer activities efficiently.
* Automation Scripts: Designed an Apex trigger, *DistanceAssigner*, to automate the calculation and assignment of distance-based values.
* Lightning Application: Built a centralized solution, *FoodBridge Lightning App*, incorporating custom modules for seamless and intuitive navigation.
* Controlled Access: Implemented rule-based permissions to ensure data visibility adheres to user roles and proximity requirements.

# Solution Design Workflow

### **Key Steps in the Initiative**

* **Data Architecture**: Designed data models for venues, drop-off points, tasks, and volunteer interactions, ensuring comprehensive field mapping for accurate data representation.
* **User Interface**: Crafted and implemented intuitive navigation features within the FoodBridge App for a seamless user experience.
* **Business Logic**: Developed the DistanceAssigner logic to automate and optimize proximity-based task allocation.
* **Visual Features**: Incorporated interactive components to boost user engagement and improve overall usability.

# Validation and Testing

### **Quality Assurance Steps**

* **Component Testing**: Ensured the functionality and reliability of individual scripts, such as Apex Classes and automation triggers, through rigorous validation.
* **Interface Testing**: Evaluated user workflows to verify consistency and ensure accurate data synchronization across all application features.

# Key Use Cases Addressed

* **Scenario 1: Food Redistribution Coordination**  
  Developed efficient systems to manage drop-off locations and optimize delivery routes based on distance calculations.
* **Scenario 2: Volunteer Engagement**  
  Implemented streamlined processes for monitoring volunteer activities and assigning tasks to maximize productivity.
* **Scenario 3: Feedback Mechanisms**  
  Established a structured feedback loop to evaluate performance metrics and guide continuous improvements.

# Summary

By leveraging Salesforce, this project implemented a scalable system to efficiently manage food redistribution, volunteer coordination, and delivery operations. The platform significantly reduces food wastage while maximizing social impact, focusing on reaching underserved communities.