Name : Anishkanna
Reg.NO: 2328C0068
EMAIL : anishkanna05@gmail.com
ADITHYA COLLEGE OF ARTS AND SCIENCE

1. Project Overview

FoodConnect is an innovative initiative committed to addressing two critical global issues—food waste and hunger—by leveraging the power of Salesforce technology. Our mission is to create a seamless, tech-driven system that connects surplus food from restaurants, grocery stores, events, and households with communities in need.

Through intelligent logistics, real-time tracking, and efficient volunteer coordination, FoodConnect ensures that leftover food is not discarded but redirected swiftly and safely to those who need it most. By streamlining food collection, optimizing task allocation, and providing transparent reporting, our platform builds trust among donors, empowers volunteers, and guarantees consistent support for recipients. More than just a logistics solution, FoodConnect is a movement to reduce environmental impact, foster a culture of sharing, and establish a scalable, replicable model for food redistribution in communities around the world. With each meal delivered, we're bridging the gap between abundance and need—making a meaningful difference, one connection at a time.

FoodConnect is more than a solution—it's a replicable model that communities everywhere can adopt. Together, we can build a world where no food goes to waste and no person goes hungry.

2. Objectives

At the heart of FoodConnect lies a mission to address food waste and hunger while empowering communities through efficient technology. Our objectives are crafted to deliver measurable impact and foster a culture of sharing and accountability.:

Business Goals:

A. **Reduce Food Waste:** Redirect surplus food from donors such as restaurants, grocery stores, and events to those in need, minimizing wastage and maximizing its value.

B. **Combat Hunger:** Build a reliable network that connects food suppliers with non-profits, shelters, and underserved communities, ensuring timely access to nutritious meals.

C. **Streamline Operations:** Simplify and enhance volunteer coordination, task management, and communication to create a seamless experience for all stakeholders.

D. **Promote Transparency and Accountability:** Leverage technology to provide clear tracking, reporting, and insights into food collection, distribution, and impact.

Specific Outcomes:

a. **A Comprehensive Web Application:**

● Manage venues and drop-off points efficiently.

● Enable real-time task assignment and tracking for volunteers.

● Provide robust reporting and analytics dashboards to measure performance and impact.

b. **Intelligent Automation:**

● Automate the matching of food donations based on location, food type, and urgency to optimize logistics and reduce delays.

c. **Enhanced Communication and Collaboration:**

● Foster real-time updates and coordination among donors, volunteers, and recipients through integrated communication tools.

d. **Data-Driven Insights:**

● Generate actionable insights to continuously improve operations, measure impact, and refine strategies for food redistribution.

3. Salesforce Key Features and Concepts Utilized

FoodConnect leverages the power of Salesforce to create an efficient, user-friendly platform that streamlines food redistribution and volunteer management. Here's how we've utilized Salesforce features to bring this initiative to life.
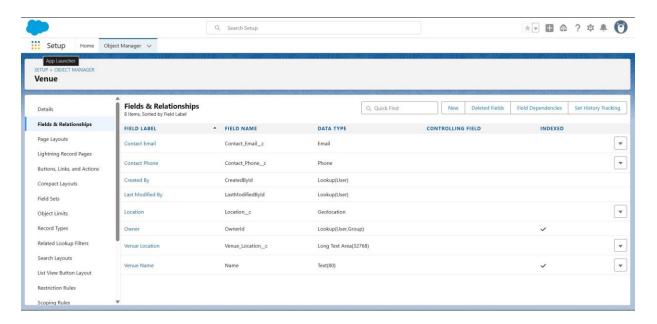
Custom Objects

1. **Venues:** Store vital information about food donation locations, including address, capacity, and contact details, ensuring organized management of distribution points.
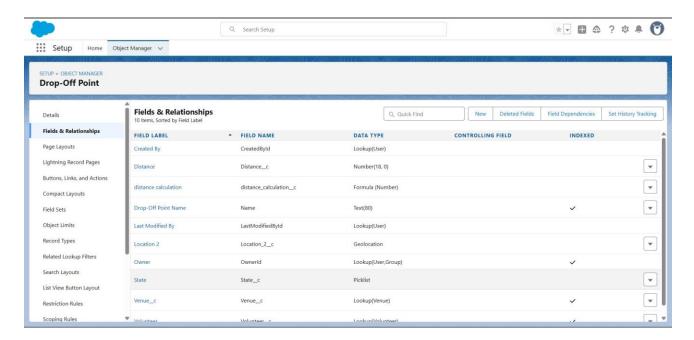
2. **Drop-Off Points:** Record specific delivery locations, making it easier for volunteers to plan and execute tasks effectively.
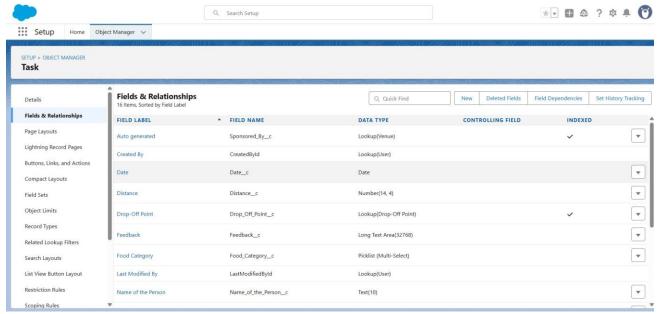

3. **Tasks:** Track and manage volunteer assignments with fields for descriptions, deadlines, and responsible individuals.
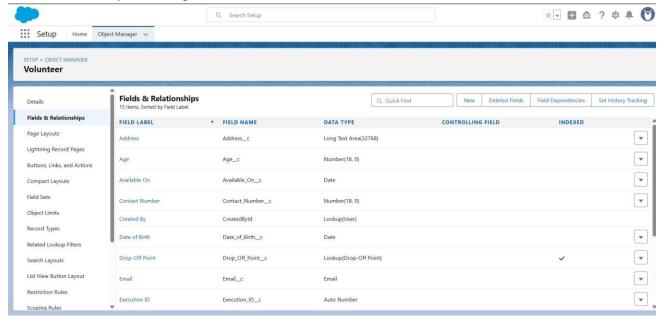
4. **Volunteers:** Maintain a centralized database of volunteers, including their contact details, availability, and assigned tasks.
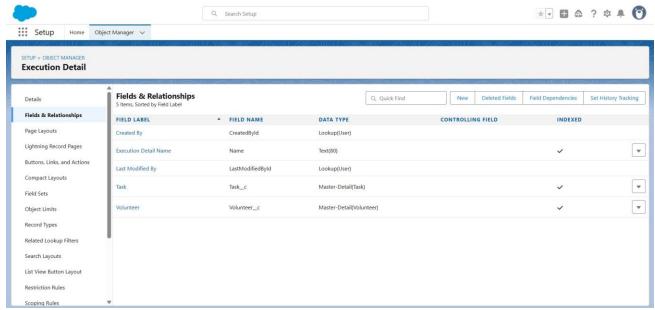

5. **Execution Details:** Document completed tasks, linking them to specific volunteers and drop-off points for a detailed activity history.

Relationships

- **Master-Detail Relationships:** Create structured connections, such as linking tasks to their execution details, ensuring data consistency and logical organization.

- **Lookup Relationships:** Enable flexible associations, like connecting volunteers to drop-off points, allowing for dynamic task allocation based on location and availability.

Automations and Workflows

1. **Flows:** Automate processes like creating venue records or assigning tasks, guiding users through step-by-step workflows to ensure accuracy and efficiency.

2. **Apex Triggers:** Implement custom logic, such as calculating distances between venues and volunteers, to optimize task assignments and reduce delivery times.

Data Sharing and Security

- **Profiles and Roles:** Define user roles with tailored access levels to protect sensitive data while ensuring seamless collaboration.

- **Dashboards:** Provide visual representations of key data, empowering stakeholders to make informed decisions and track progress in real-time.

User Experience Enhancements

- **Lightning App:** Deliver a sleek, intuitive interface that simplifies navigation and ensures users can quickly access essential features.

- **Automated Notifications:** Keep stakeholders informed with real-time alerts about task updates, food collection schedules, and delivery statuses.

4. Detailed Steps to Solution Design

Building FoodConnect involved a structured and thoughtful approach to ensure the platform meets the needs of donors, volunteers, and recipients while leveraging the robust capabilities of Salesforce. Below is a step-by-step breakdown of the design and implementation process:

Step 1: Developer Account Setup

- Registered for a Salesforce Developer account to create a dedicated environment for development and testing.
- Verified the account to unlock full access to Salesforce features, ensuring a smooth setup process.

Step 2: Custom Object Creation

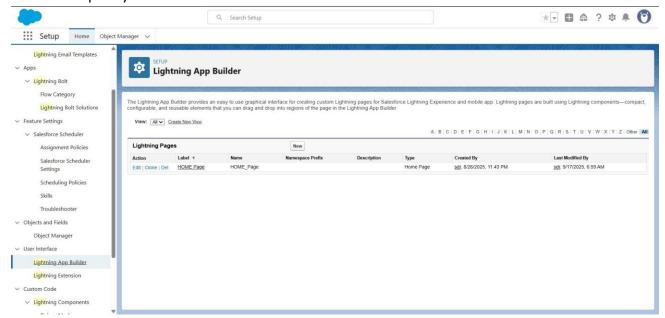- Used Salesforce Object Manager to design custom objects for Venues, Drop-Off Points, Tasks, Volunteers, and Execution Details.
- Configured fields such as text, numbers, dates, and relationships to capture all relevant data, ensuring each object reflects the real-world requirements of food distribution logistics.

Step 3: Custom Tabs for Navigation

- Created custom tabs for each object, improving navigation and making it easier for users to access and manage data.

Step 4: Lightning App Development

- Developed a Lightning App named "FoodConnect" using Salesforce App Manager.
- Included essential navigation items like custom objects, reports, and dashboards to provide a user-friendly interface.
- Assigned user profiles to ensure role-based access and security

Step 5: Establishing Data Relationships

- Defined relationships between objects using Master-Detail and Lookup fields. For example:
  - Master-Detail between Tasks and Execution Details to track completed activities.
  - Lookup between Volunteers and Drop-Off Points to assign tasks efficiently.

Step 6: Field Configuration

- Configured fields for each custom object to capture data accurately. For instance:
  - Venue: Name, Address, Capacity, Contact Information.

○ Tasks: Description, Due Date, Assigned Volunteer.

○ Volunteers: Contact Details, Availability.

Step 7: Flow Design

- Designed a guided screen flow to simplify the process of entering Venue information.
- Automated record creation to ensure data accuracy and reduce manual errors.

Step 8: Trigger Implementation

- Developed Apex triggers to enhance automation, such as calculating distances between venues and volunteers.
- These triggers help assign tasks based on proximity, improving logistical efficiency.

Step 9: User Management and Permissions
- Set up user profiles for administrators, volunteers, and other stakeholders.
- Configured permissions to ensure secure and role-appropriate access to data and functionalities.

Step 10: Reporting and Dashboards
- Created custom report types to analyse key metrics, such as volunteer participation, task completion rates, and food distribution impact.
- Built interactive dashboards to visualize data trends and provide actionable insights, empowering stakeholders to make informed decisions.

5. Testing and Validation

To ensure the FoodConnect solution operates smoothly and fulfils all project requirements, we implemented a comprehensive testing and validation process. This process focused on verifying both technical components and user-facing functionalities to deliver a reliable and effective system.

1. Unit Testing

- **Objective:** Validate the functionality of individual components, including Apex triggers, workflows, and custom objects.
- **Actions:**
  - Tested forms for venues, tasks, and drop-off points to ensure accurate data capture and proper validation.
  - Verified data storage and retrieval for volunteer records, ensuring consistency and error-free information management.
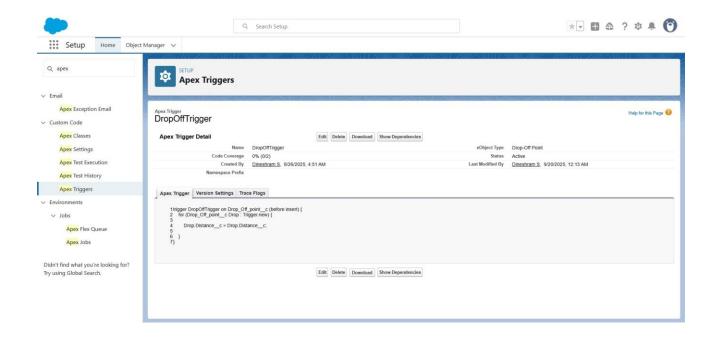 - Confirmed the correct execution of automated calculations, such as distance-based task assignments, to optimize operations.
  - Conducted validation of notification and alert mechanisms to ensure timely communication to users.
  - Tested integration points with external systems, such as messaging services or mapping APIs, to confirm smooth data exchange.
  - Reviewed user permissions and access controls to guarantee data security and appropriate system usage.

2. User Interface Testing

- **Objective:** Ensure the system is intuitive and user-friendly for all stakeholders, including donors, volunteers, and administrators.
- **Actions:**
  - Conducted extensive testing across all pages to verify responsive design and smooth, seamless navigation.

- o Validated that reports and dashboards consistently display accurate, up-to-date data in a clear and easily understandable format.
- o Tested compatibility across a range of devices, with particular emphasis on mobile accessibility to support field agents effectively.
- o Assessed accessibility compliance to ensure the platform is usable by people with disabilities, following WCAG guidelines.
- o Collected and analysed user feedback during testing phases to identify pain points and areas for improvement.
- o Verified proper error messages and notifications are displayed to guide users in case of input mistakes or system issues.

FoodConnect   Home   Venues ⌄   Drop-Off Points ⌄   Tasks ⌄   Volunteers ⌄   Execution Details ⌄   Reports ⌄

Reports
Recent
12 items

Q Search recent reports...   New Report   New Folder   ⚙ ⌄

	Report Name ⌄	Description ⌄	Folder ⌄	Created By ⌄	Created On ⌄	Subscribed
	Sample Flow Report: Screen Flows	Which flows run, what's the status of each interview, and how long do users take to complete the	Public Reports	Automated Process	8/12/2025, 9:46 AM	▼
	Sample Flow Report: Screen Flows					
	Volunteer Task		Custom Reports	Dineshram S	9/7/2025, 3:43 AM	▼
	venue and Drop Off point		Custom Reports	Dineshram S	9/7/2025, 3:51 AM	▼
	Volunteer Task		Custom Reports	Dineshram S	9/7/2025, 3:23 AM	▼
	volunteer execution report		Custom Reports	Dineshram S	9/12/2025, 7:20 AM	▼
	New Report		Custom Reports	Dineshram S	8/26/2025, 7:16 AM	▼
	New Report		Custom Reports	Dineshram S	8/29/2025, 10:37 AM	▼
	New Report		Custom Reports	Dineshram S	8/28/2025, 10:10 AM	▼
	New Report		Custom Reports	Dineshram S	8/26/2025, 7:05 AM	▼
	New Report		Custom Reports	Dineshram S	8/26/2025, 7:12 AM	▼
	New Report		Custom Reports	Dineshram S	8/26/2025, 8:43 AM	▼
	Sample Report: Orchestration Work Items	What orchestration work items were created and what's the current status of each work item?	Public Reports	Automated Process	8/12/2025, 9:46 AM	▼

REPORTS
- Recent
- Created by Me
- Private Reports
- Public Reports
- All Reports

FOLDERS
- All Folders
- Created by Me
- Shared with Me

FAVORITES
- All Favorites

FoodConnect   Home   Venues ⌄   Drop-Off Points ⌄   Tasks ⌄   Volunteers ⌄   Execution Details ⌄   Reports ⌄

Execution Details
All ▼ 📌

New   Import   Printable View   Assign Label

5 items • Sorted by Execution Detail Name • Updated a few seconds ago

Q Search this list...

	Execution Detail Name ↑	
1	☐ Dinesh	▼
2	☐ Food	▼
3	☐ Order	▼
4	☐ Raju	▼
5	☐ Ram order	▼

Drop-Off Points — Recently Viewed

FoodConnect | Home | Venues | Drop-Off Points | Tasks | Volunteers | Execution Details | Reports

Search...

Drop-Off Points
Recently Viewed

6 items • Updated a few seconds ago

New | Import | Change Owner | Assign Label

Search this list...

	Drop-Off Point Name	
1	Sala store delivery	
2	Somu	
3	ram	
4	Das Mall	
5	sam	
6	City Point	

Tasks — Recently Viewed

FoodConnect | Home | Venues | Drop-Off Points | Tasks | Volunteers | Execution Details | Reports

Search...

Tasks
Recently Viewed

7 items • Updated a few seconds ago

New | Import | Change Owner | Assign Label

Search this list...

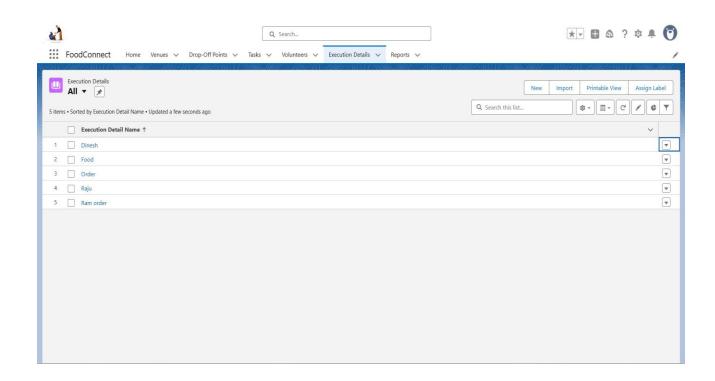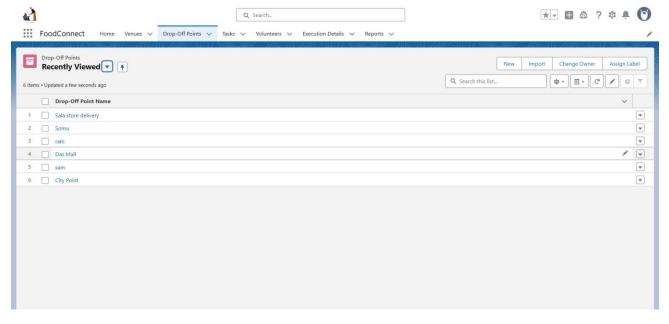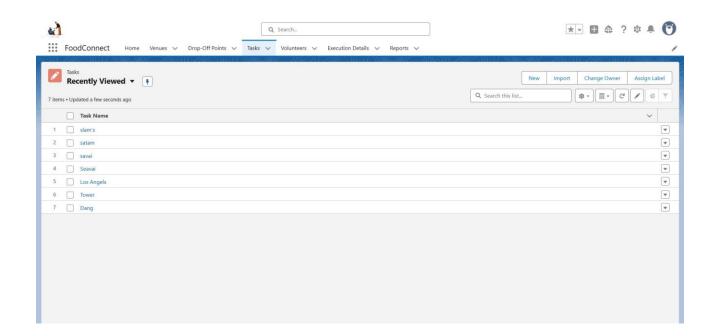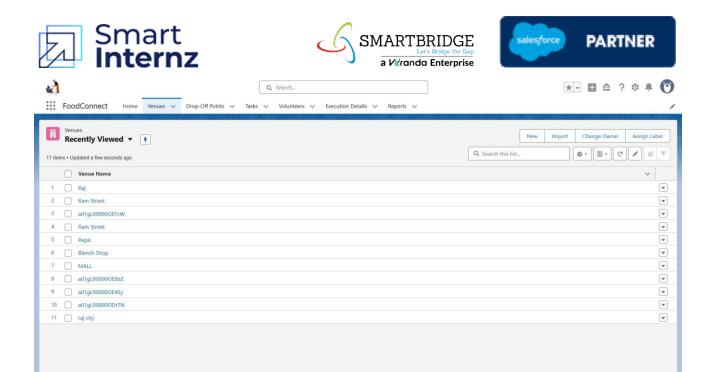|	Task Name	
1	slam's	
2	satam	
3	savai	
4	Seavai	
5	Los Angels	
6	Tower	
7	Dang	

6. Key Scenarios Addressed by Salesforce in the Implementation Project

The FoodConnect project leverages Salesforce's capabilities to address a variety of real-world scenarios, ensuring efficient food redistribution and volunteer management. Below are the key scenarios tackled during the implementation: Salesforce can handle during the implementation.

1. Efficient Management of Food Donation Venues

- Scenario: A donor provides surplus food, and the details of the donation venue need to be recorded accurately.
- Salesforce Solution: Custom objects and fields were created to capture critical venue details, including name, address, capacity, and contact information, ensuring seamless recordkeeping and accessibility.

2. Task Assignment and Tracking for Volunteers

- Scenario: Volunteers need to be assigned tasks based on their availability and proximity to venues or drop-off points.
- Salesforce Solution: Using Master-Detail relationships and Apex triggers, tasks are automatically assigned to the most suitable volunteers, and progress is tracked in real-time through the Tasks object.

3. Coordination of Food Drop-Off Points

- Scenario: Food needs to be delivered to designated drop-off points efficiently and reliably.
- Salesforce Solution: Drop-Off Points were managed as a custom object, with detailed fields for location, capacity, and operational hours, enabling smooth coordination and tracking.

4. Volunteer Engagement and Management

- Scenario: Volunteers need to view their assignments, update their availability, and track their contributions.
- Salesforce Solution: A Volunteers object with a user-friendly interface allows volunteers to manage their profiles and view task details, enhancing engagement and retention.

5. Real-Time Communication and Notifications

- Scenario: Stakeholders require updates on task assignments, delivery schedules, or any changes in plans.
- Salesforce Solution: Automated workflows and notifications ensure that all participants are informed promptly, reducing delays and misunderstandings.

6. Data Integrity and Reporting

- Scenario: Stakeholders need to analyse the impact of food distribution efforts and identify areas for improvement.
- Salesforce Solution: Custom report types and dashboards provide actionable insights into task completion rates, volunteer participation, and food distribution metrics, ensuring data driven decision-making.

7. Automation of Logistical Calculations

- Scenario: Volunteers need to be assigned to venues or drop-off points based on proximity to minimize travel time and enhance efficiency.
- Salesforce Solution: Apex triggers calculate distances between venues and volunteers, automating task assignments and optimizing logistics.

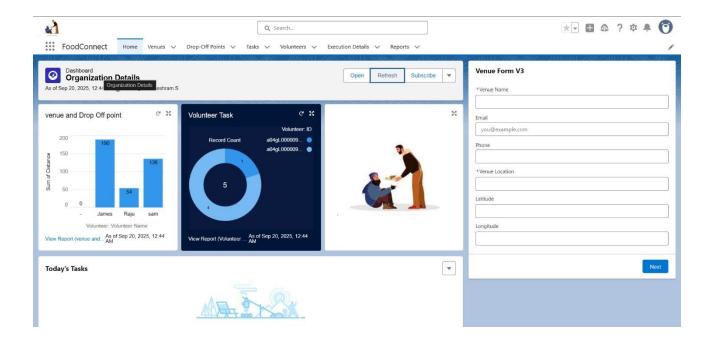### 8. Secure and Role-Based Data Access

- Scenario: Different stakeholders require access to specific information based on their roles.

- Salesforce Solution: Profiles, sharing rules, and public groups ensure that users only access data relevant to their roles, maintaining security and confidentiality.

7. Conclusion

Summary of Achievements:

The FoodConnect project has been an incredibly rewarding journey, and I'm proud of what we've accomplished in addressing both food waste and hunger through the strategic use of Salesforce technology. From day one, the vision was clear: to build a practical, scalable system that connects surplus food with people who need it—and to do it in a way that's sustainable, transparent, and community-driven.

- **Streamlined Food Distribution:** We successfully developed a system that efficiently manages the collection, allocation, and delivery of surplus food—ensuring timely support for underserved communities.

- **Improved Volunteer Management:** With smart task assignments and real-time tracking, volunteers are now more engaged, better coordinated, and empowered to make a real difference.

- **Data-Driven Insights:** Detailed dashboards and reports provide full visibility into food flows, volunteer activity, and overall impact, helping us make better decisions and continuously improve.

- **User-Friendly Lightning App:** A clean, intuitive interface was built for all users—donors, volunteers, and admins—making it easy to navigate and encouraging consistent participation.

- **Operational Efficiency:**
  Automated workflows and triggers replaced manual processes, saving time, reducing errors, and ensuring smooth execution across every stage of the system.

- **Sustainability Impact:** By redirecting food that would have otherwise gone to waste, we're not only feeding people—we're significantly reducing environmental impact, lowering carbon emissions, and supporting responsible consumption.

- **Community Engagement:** FoodConnect has sparked a stronger sense of connection between donors, volunteers, and recipients. It's not just about moving food—it's about building relationships, empathy, and shared purpose.

- **Scalable Framework:** Perhaps one of our most valuable outcomes is that FoodConnect isn't a one-time solution—it's a replicable model. What we've built can be adapted and expanded to other communities, cities, or even countries facing similar challenges.

When technology, compassion, and community come together, they create a powerful force for good—reminding us that true progress happens not just through innovation, but through caring for one another. FoodConnect teaches us that sharing what we have and working together can transform lives, and that every small act of kindness contributes to a greater, lasting impact.