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A Salesforce Project  
On  
**TO SUPPLY LEFTOVER FOOD TO POOR**

**Submitted by**

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**BACHELOR OF TECHNOLOGY**  
in  
**INFORMATION TECHNOLOGY**

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## **Food Connect - Supplying Leftover Food to the Poor**

### **Project Overview**

Food Connect is a Salesforce CRM-based application designed to streamline the collection and distribution of leftover food to underprivileged communities. The system enables NGOs to coordinate efficiently with volunteers, manage drop-off locations, and track food delivery tasks. This solution enhances food redistribution efforts while minimizing waste and ensuring transparency in operations.

Our vision is simple yet impactful: To create a hunger-free society by transforming surplus food into a lifeline for those in need. Through technology-driven coordination, community involvement, and a spirit of compassion, we envision a world where no meal goes to waste and no one goes to bed hungry. Food Connect serves as a bridge between abundance and need making giving both effortless and meaningful.

### **Objectives**

The primary objective of building the Food Connect CRM system is to combat food waste and hunger by leveraging technology to connect surplus food sources with communities in need. By streamlining food donation and distribution processes, the CRM will enable better coordination among donors, volunteers, and non-profit organizations. The platform aims to enhance customer (donor and recipient) management through centralized tracking of venues, drop-off points, and logistics, ensuring timely delivery of food to the underserved. It simplifies volunteer coordination, task assignments, and real-time updates, resulting in improved operational efficiency. Furthermore, with built-in analytics and reporting dashboards, the system provides transparency and accountability across all operations. Automated donation-matching based on location, food type, and urgency helps reduce wastage while maximizing food value. Overall, the CRM empowers communities, enhances collaboration, and supports data-driven decision-making, creating long-term social impact through responsible resource management.

## **Phase 1: Requirement Analysis & Planning**

### **A. Understanding Business Requirements**

The primary goal of FoodConnect is to streamline the collection and distribution of surplus food to the needy by leveraging a technology-driven CRM system. In this phase, we focus on understanding the real-world problems and mapping them to system requirements.

#### **Key Users:**

- NGOs and charitable organizations
- Volunteers
- Drop-off location managers
- Donors (tracked externally or manually)

#### **Core Needs Identified:**

- Efficient assignment and tracking of volunteer activities
- Recording and monitoring of food pickup/drop execution
- Management of designated distribution locations
- Coordination of temporary or fixed food handover points
- Clear tracking and availability of volunteers

#### **Goal:**

To build a solution that ensures efficient coordination between food donors, volunteers, and NGOs to minimize waste and maximize impact.

### **B. Defining Project Scope and Objectives**

Based on the requirement analysis, the scope for the **Minimum Viable Product (MVP)** is defined to focus on the core operational flow:

#### **Objects to be created:**

1. **Task** – for assigning and tracking volunteer responsibilities
2. **Execution Detail** – to log completed pickups and drop-offs

3. **Venue** – for fixed donation/distribution centers
4. **Drop-Off Point** – temporary or mobile delivery locations
5. **Volunteer** – for managing the people engaged in field activities

### **Objectives:**

- Centralized system to manage and track all activities
- Streamlined volunteer task assignments and follow-ups
- Monitor execution status of food delivery events
- Map and maintain drop-off and venue location details
- Real-time visibility of volunteer availability and completed efforts
- Enable reporting and dashboards for improved accountability

## **C. Designing Data Model & Security Model**

### **Data Model Overview**

- **Volunteer → Task:** One-to-Many
- **Task → Execution Detail:** One-to-One
- **Venue → Drop-Off Point:** One-to-Many
- **Drop-Off Point → Task:** One-to-Many

### **Security Model Plan**

- **User Roles:**
  - Admin (Full Access)
  - NGO Staff (Limited CRUD: Task, Execution, Drop-Off)
  - Volunteer (Read-Only on Assigned Tasks, Can Update Execution)
- **Permission Strategy:**
  - **Profiles & Permission Sets:** Object and field-level control
  - **Role Hierarchy & Sharing Rules:** Record-level access

- Volunteers can access only their related task records

## Phase 2: Salesforce Development – Backend & Configurations

### A. Environment Setup & DevOps Workflow

- Developer sandbox and Change Sets used for safe development and deployment.
- Version control maintained using Git.
- Deployment managed via Change Sets or Salesforce CLI (sfdx) for smooth transition to production.

### B. Customization & Configurations

- **Objects & Fields:** Custom Objects like Venue, Drop-Off Point, Task, Volunteer, Execution Details created with necessary custom fields.

#### 1.Object – Venue and Fields & Relationships

The screenshot shows the Salesforce Object Manager interface for the 'Venue' object. The left sidebar lists various customization options: Details, Fields & Relationships (selected), Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, Related Lookup Filters, Search Layouts, List View Button Layout, Restriction Rules, Scoping Rules, and Object Access. The main content area displays the 'Fields & Relationships' section with 8 items sorted by Field Label. The table includes columns for FIELD LABEL, FIELD NAME, DATA TYPE, CONTROLLING FIELD, and INDEXED. The fields listed are Contact Email, Contact Phone, Created By, Last Modified By, Location, Owner, Venue Location, and Venue Name.

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Contact Email	Contact_Email_c	Email		▼
Contact Phone	Contact_Phone_c	Phone		▼
Created By	CreatedById	Lookup(User)		
Last Modified By	LastModifiedById	Lookup(User)		
Location	Location_c	Geolocation		▼
Owner	OwnerId	Lookup(User,Group)		▼
Venue Location	Venue_Location_c	Long Text Area(32768)		▼
Venue Name	Name	Text(80)		▼

#### 2.Object – Drop-Off Point and Fields & Relationships

**Drop-Off Point**

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		
Distance	Distance__c	Number(14, 4)		
distance calculation	distance_calculation__c	Formula (Number)		
Drop-Off Point Name	Name	Text(80)		✓
Last Modified By	LastModifiedById	Lookup(User)		
Location 2	Location_2__c	Geolocation		
Owner	OwnerId	Lookup(User,Group)		✓
State	State__c	Picklist		
Venue	Venue__c	Lookup(Venue)		✓

### 3.Object – Task and Fields & Relationships

**Task**

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		
Date	Date__c	Date		
Drop-Off Point	Drop_Off_Point__c	Lookup(Drop-Off Point)		✓
Feedback	Feedback__c	Long Text Area(32768)		
Food Category	Food_Category__c	Picklist (Multi-Select)		
Last Modified By	LastModifiedById	Lookup(User)		
Name of the Person	Name_of_the_Person__c	Text(40)		
Number of People Served	Number_of_People_Served__c	Number(18, 0)		
Owner	OwnerId	Lookup(User,Group)		✓
Phone	Phone__c	Phone		
Rating	Rating__c	Picklist		

### 4.Object – Volunteer and Fields & Relationships

The screenshot shows the Salesforce Object Manager interface for the 'Volunteer' object. The left sidebar lists various setup options like Page Layouts, Lightning Record Pages, and Field Sets. The main content area is titled 'Fields & Relationships' and displays 12 items sorted by Field Label. The table has columns for FIELD LABEL, FIELD NAME, DATA TYPE, CONTROLLING FIELD, and INDEXED. The fields listed are:

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Address	Address_c	Long Text Area(32768)		
Age	Age_c	Number(18, 0)		
Available On	Available_On_c	Date		
Contact Number	Contact_Number_c	Number(18, 0)		
Created By	CreatedById	Lookup(User)		
Date of Birth	Date_of_Birth_c	Date		
Drop-Off Point	Drop_Off_Point_c	Master-Detail(Drop-Off Point)		
Email	Email_c	Email		
Gender	Gender_c	Picklist		
Last Modified By	LastModifiedById	Lookup(User)		
Volunteer ID	Volunteer_ID_r	Auto Number		

## 5.Object – Execution Detail and Fields & Relationships

The screenshot shows the Salesforce Object Manager interface for the 'Execution Detail' object. The left sidebar lists various setup options. The main content area is titled 'Fields & Relationships' and displays 6 items sorted by Field Label. The table has columns for FIELD LABEL, FIELD NAME, DATA TYPE, CONTROLLING FIELD, and INDEXED. The fields listed are:

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedBy	Lookup(User)		
Execution Detail Name	Name	Text(80)		
Execution ID	Execution_ID_c	Auto Number		
Last Modified By	LastModifiedById	Lookup(User)		
Task	Task_c	Master-Detail(Task)		
Volunteer	Volunteer_c	Master-Detail(Volunteer)		

## Field Configuration

Configured fields for each custom object to capture data accurately.

For instance:

Venue: Name, Address, Capacity, Contact Information.

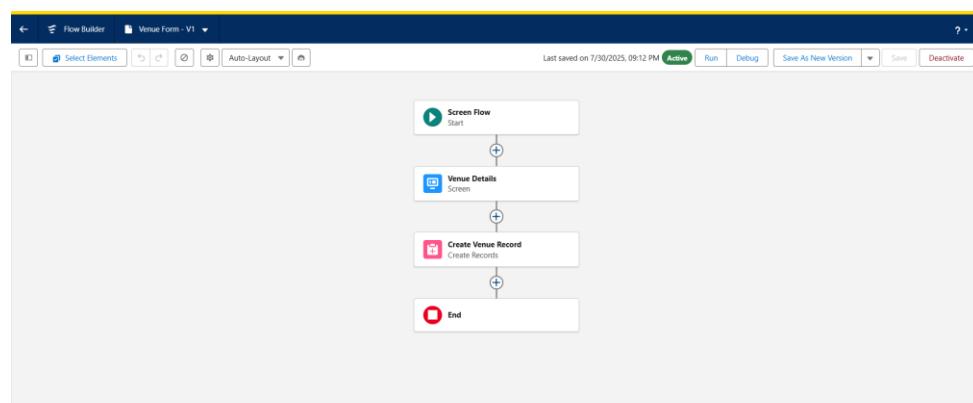
Tasks: Description, Due Date, Assigned Volunteer.

Volunteers: Contact Details, Availability So on

### Custom Tabs for Navigation :

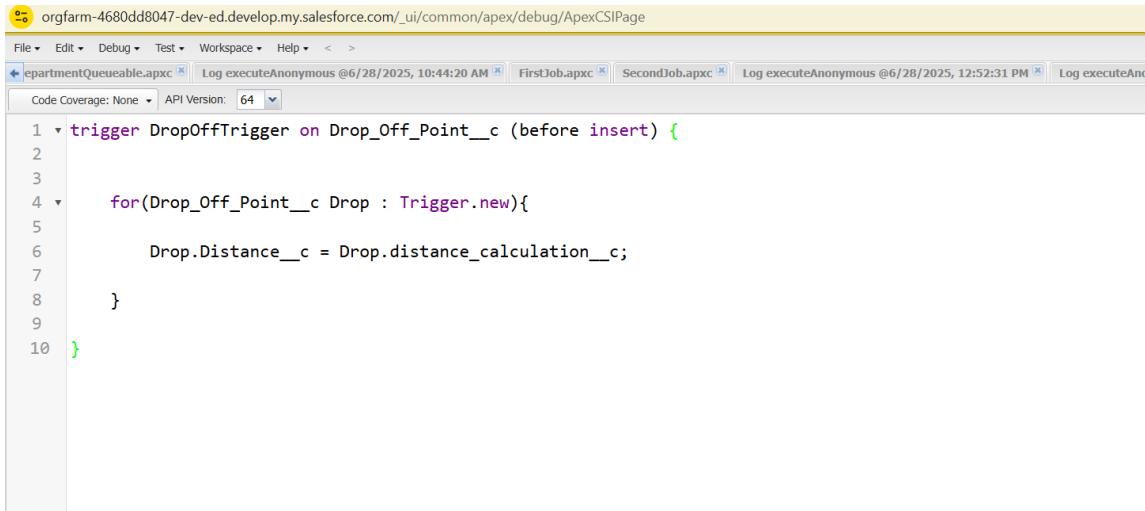
Created custom tabs for each object, improving navigation and making it easier for users to access and manage data

- **Validation Rules:** Ensured data integrity e.g., tasks must have assigned volunteers before submission.
- **Automation Tools Used:**
  - **Screen Flow:** Used for complex logic such as auto-assigning tasks based on volunteer availability.



## Apex Development

- **Apex Classes:** Business logic encapsulated to support custom flows and task management.
- **Triggers:** Implemented to auto-generate execution details upon task status change.



The screenshot shows the Salesforce Apex code editor interface. The title bar reads "orgfarm-4680dd8047-dev-ed.develop.my.salesforce.com/\_ui/common/apex/debug/ApexCSIPage". The menu bar includes "File", "Edit", "Debug", "Test", "Workspace", "Help", and navigation icons. The tabs at the top show "DepartmentQueueable.apxc", "Log executeAnonymous @6/28/2025, 10:44:20 AM", "FirstJob.apxc", "SecondJob.apxc", "Log executeAnonymous @6/28/2025, 12:52:31 PM", and "Log executeAnonymous @6/28/2025, 12:52:31 PM". The code area displays the following Apex trigger:

```
trigger DropOffTrigger on Drop_Off_Point_c (before insert) {
    for(Drop_Off_Point_c Drop : Trigger.new){
        Drop.Distance__c = Drop.distance_calculation__c;
    }
}
```

- **Asynchronous Apex (if any):** Future methods or Queueable Apex used for sending batch notifications or heavy operations (e.g., large-scale volunteer updates).

## Phase 3: UI/UX Development & Customization

### Lightning App Setup

Using the **App Manager**, a custom **Lightning App** named FoodConnect App was created to organize relevant tabs and objects—such as Volunteers, Tasks, Venues, and Execution Details into a unified workspace. Navigation is simplified based on role-specific needs.

The screenshot shows the 'App Details & Branding' section of the Lightning App Builder. It includes fields for 'App Name' (FoodConnect), 'Developer Name' (FoodConnect), and 'Description' (Enter a description...). There's also a 'Image' field containing a logo for 'Food Connect', a 'Primary Color Hex Value' field set to #0070D2, and a checkbox for 'Org Theme Options' which is unchecked. Below this is a preview of the app launcher.

## Page Layouts & Dynamic Forms

- Customized **Page Layouts** were designed for each object to ensure fields are grouped logically and relevant information is visible at a glance.
- Dynamic Forms** were implemented for user-friendly record viewing and editing experiences, allowing fields to show/hide based on criteria (e.g., Task Status).

The screenshot shows a 'New Task' dynamic form. At the top, it says 'New Task'. Below that is a 'Information' section containing fields for 'Task Name' (marked with a red asterisk), 'Owner' (Gopika Sekar), 'Sponsored By' (Search Venues...), 'Drop-Off Point' (Search Drop-Off Points...), 'Date' (marked with a red asterisk), 'Rating' (dropdown menu with '--None--'), and 'Task ID'. To the right of the form is a vertical sidebar with a scroll bar. At the bottom of the form, there's a section for 'Food Category' with 'Available' and 'Chosen' lists, and buttons for 'Cancel', 'Save & New', and 'Save'.

## User Management

Users were categorized into three profiles:

- Admin**

- **NGO Staff**

- **Volunteer**

Each profile was configured with relevant **permission sets**, layouts, and visibility settings. This ensures users only see and interact with data relevant to their responsibilities.

Action	Label	Group Name	Created By	Created Date
Edit   Del	<a href="#">Iksha</a>	<a href="#">Iksha</a>	<a href="#">Sekar_Gopika</a>	7/28/2025, 9:00 AM
Edit   Del	<a href="#">NSS</a>	<a href="#">NSS</a>	<a href="#">Sekar_Gopika</a>	7/28/2025, 9:01 AM
Edit   Del	<a href="#">Street Cause</a>	<a href="#">Street_Cause</a>	<a href="#">Sekar_Gopika</a>	7/28/2025, 9:01 AM

## Reports and Dashboards

To provide real-time insights and monitor operations:

- Custom **Reports** were created to track Task completion, volunteer performance, and food distribution metrics.

Name	Description	Folder	Created By	Created On	Subscribed
venue and Drop Off point		Custom Reports	Gopika Sekar	7/28/2025, 9:31 AM	
Volunteer		Custom Reports	Gopika Sekar	7/30/2025, 8:01 AM	

- **Dashboards** visualize key metrics such as "Daily Drop-Off Activity", "Tasks Assigned vs. Completed", and "Volunteer Participation Rate".

The screenshot shows the FoodConnect application's interface. At the top, there is a navigation bar with links for Home, Venues, Tasks, Drop-Off Points, Execution Details, Volunteers, Reports, Dashboards, and a Home button. A search bar is located at the top right. Below the navigation bar, a sidebar on the left lists categories: Dashboards, Folders, and Favorites. Under Dashboards, it shows 'Recent' and 'Created by Me'. Under Folders, it shows 'All Folders' and 'Created by Me'. Under Favorites, it shows 'Shared with Me' and 'All Favorites'. The main content area displays a table titled 'Custom Dashboards' with one item: 'Organization Details' under 'Custom Dashboards' created by 'Gopika Sekar' on '7/30/2025, 8:06 AM'. There are buttons for 'Search folders created by me...', 'New Dashboard', and 'New Folder'.

## Lightning Pages

- Leveraged **Lightning App Builder** to customize record pages.
- Created **record pages** for key objects (e.g., Task, Volunteer) featuring tabs, related lists, and report components.
- Pages were made responsive and role-aware, showing relevant components per user type.

The screenshot shows the Salesforce Lightning App Builder interface. The top navigation bar includes 'Setup', 'Home', and 'Object Manager'. A search bar is at the top right. On the left, a sidebar shows 'Lightning App Builder' selected under 'User Interface'. A message says 'Didn't find what you're looking for? Try using Global Search.' The main content area is titled 'Lightning App Builder' and shows a 'Lightning Page Detail' for 'HOME\_Page'. It has sections for 'Information' (Name: HOME\_Page, Description), 'Edit', 'Clone', and 'Delete' buttons, and a 'Label' field set to 'HOME Page'.

## Phase 4: Data Migration, Testing & Security

### Data Migration

#### Objective:

To ensure legacy or prepared records are imported accurately into the Salesforce system with minimal manual intervention and full traceability.

#### Tools Used:

##### 1. DataImportWizard:

Utilized for importing simple records into custom and standard objects like Venue, Volunteer, and Drop-Off Point. Its user-friendly interface allowed easy mapping of fields during import.

- o Example

Import:

Venue object with fields such as Venue Name, Contact Email, Contact Phone, Latitude, Longitude.

The screenshot shows the Bulk Data Load Jobs page in the Salesforce Setup. The URL is [https://.salesforce.com/setup/integrations/dataImportJobList](#). The page displays a table with one job entry:

Bulk Data Load Job Detail		Job ID: 750gL00000A6MjF		Status: Closed	
Setting	Value	Setting	Value	Setting	Value
Submitted By	Gopika Sekar	Job Type	Bulk V1	Total Processing Time (ms)	40
Start Time	8/2/2025, 4:35 AM PST	Operation	Insert	API Active Processing Time (ms)	0
End Time	8/2/2025, 4:35 AM PST	Queued Batches	0	Ajax Processing Time (ms)	0
Time to Complete (hh:mm:ss)	00:00	In Progress Batches	0		
Object	Venue	Completed Batches	1		
External ID Field		Failed Batches	0		
Content Type	CSV	Progress	100%		
Concurrency Mode	Parallel	Records Processed	4		
API Version	64.0	Records Failed	4		
		Retries	0		

### Security Model Implementation

#### Objective:

To enforce data security, access control, and ensure only authorized users can view or modify specific records and features.

#### Profiles & Roles:

- Created distinct **Profiles** for Admin, Volunteer, and Organizer roles.

- Defined **Role Hierarchy** to reflect reporting structure and ensure upward data visibility.

User Profiles

Choose the user profiles that can access this app.

Available Profiles

Selected Profiles

System Administrator

## Permission Sets:

- Custom permission sets created for:
  - Task Creation Access
  - Report & Dashboard Viewing
  - Flow Trigger Permissions

## Sharing Rules:

- Configured **Organization-Wide Defaults (OWD)**.
- Set up **Sharing Rules** to open access for specific objects like Volunteer to respective managers only.

Action	Criteria	Shared With	Access Level
Edit   Del	[Drop-Off Point: Distance LESS THAN 15]	Group_Iksha	Read Only
Edit   Del	[Drop-Off Point: Distance GREATER THAN 15] AND [Drop-Off Point: Distance LESS OR EQUAL 30]	Group_NSS	Read Only
Edit   Del	[Drop-Off Point: Distance GREATER THAN 30] AND [Drop-Off Point: Distance LESS OR EQUAL 50]	Group_Street_Cause	Read Only

## Audit & Validation

### Field History Tracking:

- Enabled on sensitive objects:

- Booking: Tracks changes in status or time slot.
- Execution Details: Tracks any update in remarks or completion status.

### Duplicate Rules & Matching Rules:

- Enabled to avoid duplicate venue entries and repeated volunteer registrations.
- Configured matching rules on:
  - Email
  - Phone Number

## Testing Process

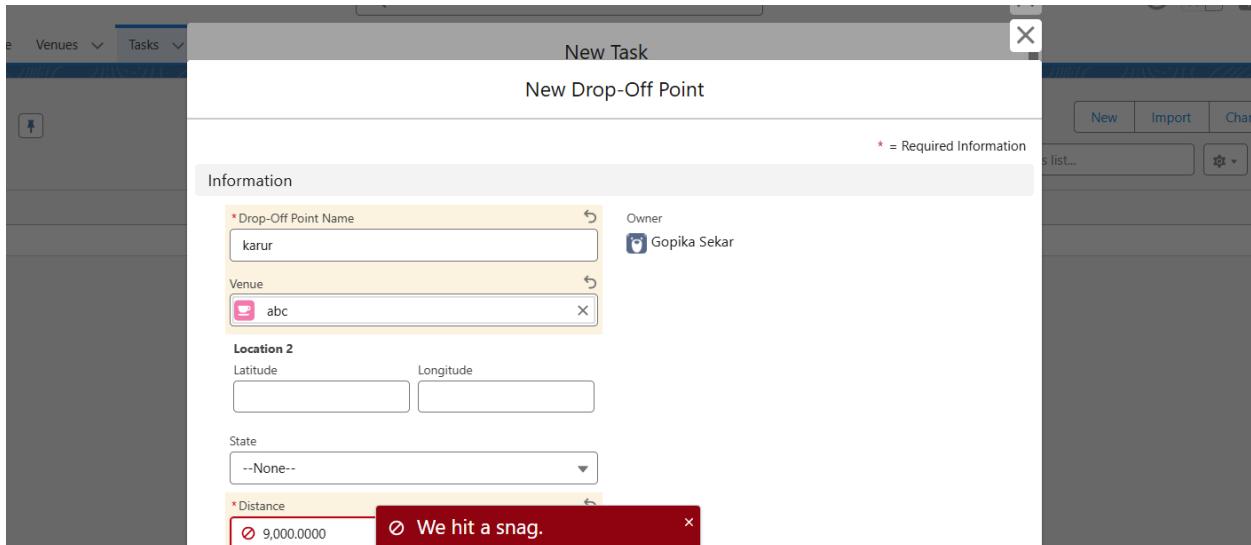
### Test Case 1: New Venue Creation

- Create a booking and verify if it's saved correctly.
- Check auto task creation if configured.

The screenshot shows the FoodConnect application interface. At the top, there is a navigation bar with links for Home, Venues, Tasks, Drop-Off Points, Execution Details, Volunteers, Reports, Dashboards, and a search bar. Below the navigation bar, a modal window is open for a venue named 'ppg mahal'. The 'Details' tab is active. Inside the modal, there are fields for 'Venue Name' (ppg mahal), 'Contact Email' (due@gmail.com), 'Contact Phone' (34567894), 'Location', 'Venue Location' (pmt), and 'Created By' (Gopika Sekar, 8/2/2025, 5:19 AM). An 'Owner' field shows 'Gopika Sekar'. A green success message at the top of the modal says 'Venue "ppg mahal" was created.' To the right of the modal, the main application area shows the 'Activity' section. It has a header with various filter icons and a note: 'Filters: All time • All activities • All types'. Below this, a section titled 'Upcoming & Overdue' states 'No activities to show. Get started by sending an email, scheduling a task, and more.' Another note below says 'No past activity. Past meetings and tasks marked as done show up here.'

### Test Case 2: New Task Creation

- Error when distance exceeds the limit given in sharing rules.
- So, It hit a snag.



### Test Case 3: Unit Testing (Developer Testing)

Test individual components like triggers, Apex classes, flows, validation rules.

```

trigger DropOffTrigger on Drop_Off_Point__c (before insert) {
    for(Drop_Off_Point__c Drop : Trigger.new){
        Drop.Distance__c = Drop.distance_calculation__c;
    }
}

```

### Test Case 4: Reports and Dashboards Testing

Check if reports reflect real-time and correct data.

Report: Venue with DropOff with Volunteer  
venue and Drop Off point

Total Records: 4 Total Distance: 1,445.5400

<input type="checkbox"/> Volunteer Name ↑	Venue Name ↓	Drop-Off Point Name ↓	Distance ↓
- (4)	Taj Hotel	Vadapalani	1,445.5400
	abc	-	-
	abc	-	-
	pgp mahal	-	-
Subtotal			1,445.5400
Total (4)			1,445.5400

FoodConnect

Home Venues Tasks Drop-Off Points

Dashboard Organization Details

As of Aug 2, 2025, 6:00 AM · Viewing as Gopika Sekar

venue and Drop Off point

Venue Name ↑	Drop-Off Point Name	Distance
abc	-	-
abc	-	-
pgp mahal	-	-
Taj Hotel	Vadapalani	1.4455k

[View Report \(venue and Drop Off point\)](#) As of Aug 2, 2025, 6:00 AM

## Test Case 5: Form Validation in Object Task

The image consists of two screenshots of the FoodConnect application interface.

**Screenshot 1: New Task Form**

This screenshot shows the "New Task" form. The "Task Name" field is highlighted in yellow, indicating it is required information. Other fields shown include "Sponsored By" (with a dropdown menu open showing "abc"), "Drop-Off Point" (with a search bar), "Date" (set to 8/1/2025), "Rating" (set to 2), and "Food Category" (with a dropdown menu showing "Non-Veg" under "Available" and "Veg" under "Chosen"). The form includes standard buttons for "Cancel", "Save & New", and "Save".

**Screenshot 2: Task Details View**

This screenshot shows the details view for a task named "Backup food". A green success message at the top states "Task 'Backup.food' was created." The "Details" tab is selected, displaying the task's information: Task Name (Backup food), Owner (Gopika Sekar), Date (8/1/2025), Rating (2), Task ID (TASK-2), Food Category (Veg), and Number of People Served (22). To the right, there is an "Activity" section with a "Personalize your Activities view" configuration window open. A Snipping Tool window is also visible in the foreground, showing a screenshot of the application interface.

## Phase 5: Deployment, Documentation & Maintenance

### Deployment Strategy

For this project, the deployment was executed using **Change Sets**, a standard Salesforce deployment tool. The following components were included in the change sets:

- Custom Objects: Venue, Drop-Off Point, Volunteer, Execution Details, Task
- Flows and Process Builders

- Validation Rules
- Approval Processes
- Custom Fields and Page Layouts
- Lightning Pages
- Email Alerts and Workflow Rules

Deployment was carried out in three steps:

1. **Outbound Change Set** created and validated in the Sandbox environment.
2. **Deployment** to the Production Org after successful validation.
3. **Post-deployment Testing** to ensure full functionality in the live environment.

## System Maintenance & Monitoring

To ensure the system remains stable and scalable, the following maintenance strategies are in place:

- **Scheduled Data Backups** weekly using the Salesforce Data Export feature.
- **Audit Trail** enabled for tracking changes in configuration.
- **Field History Tracking** configured for important fields in Booking, Venue, and Volunteer objects.
- **Monitor Scheduled Jobs and Flows** weekly using Setup > Scheduled Jobs and Paused Flow Interviews.
- **Error Notifications** from failed flows are routed to the admin via email alerts.

## Troubleshooting Approach

1. **Check Setup Logs:** Review flow, debug logs, and Apex exception logs.
2. **Validate Permissions:** Ensure appropriate access through roles, profiles, and permission sets.
3. **Object Relationships:** Ensure correct references (\_r) for custom relationships.
4. **Test in Sandbox:** Replicate the error in sandbox before making fixes.

5. **Data Issues:** Use Data Loader or Workbench to inspect related records and resolve duplicates or look-up failures.

## Key Salesforce Features Implemented

- **Validation Rules:**
  - Ensures all mandatory fields are filled (e.g., Venue Email, Location Coordinates).
  - Prevents duplicate volunteer entries using custom logic.
- **Approval Process:**
  - Triggered when a large donation or drop-off is scheduled. Auto-notifies managers.
- **Automation Flows:**
  - Auto-create Tasks when a Venue record is approved.
  - Notify volunteers via email upon task assignment.
  - Record-triggered flows for updating related records.
- **Custom Objects:**
  - Venue\_\_c, Volunteer\_\_c, Execution\_Detail\_\_c, DropOff\_\_c, Booking\_\_c.

## Testing Approach

A thorough testing plan was executed post-deployment including:

- **Unit Testing:** Each component (Flows, Validation Rules, Approval Processes) tested individually.
- **System Testing:** Checked end-to-end booking and volunteer assignment flows.
- **User Acceptance Testing (UAT):** Simulated real user actions such as:
  - Booking Creation
  - Approval Flow
  - Task Auto-generation

- Volunteer Task Assignment

## Future Enhancements

To scale and evolve the FoodConnect system, the following enhancements are proposed:

- **Chatbot Integration** using Salesforce Einstein Bot to guide users through booking and donations.
- **AI-based Suggestion Engine** for auto-matching volunteers based on location and task type.
- **Mobile App Integration** with Salesforce Mobile SDK.
- **Community Cloud Site** to allow self-service for venue managers and volunteers.
- **Dashboard Enhancements** to provide insights on food delivery statistics and volunteer engagement.

The screenshot shows the FoodConnect application interface. At the top, there is a navigation bar with links for Home, Venues, Tasks, Drop-Off Points, Execution Details, Volunteers, Reports, Dashboards, and Home. A search bar is also present. On the left, there is a sidebar with a 'Dashboard' icon and the text 'Organization Details'. Below this, it says 'As of Aug 2, 2025, 6:00 AM' and 'Viewing as Gopika Sekar'. There are two main sections: 'venue and Drop Off point' and 'Volunteer'. The 'venue and Drop Off point' section contains a table with three rows: 'abc', 'abc', and 'ppg mahal'. The 'abc' row has 'Taj Hotel' under 'Venue Name' and 'Vadapalani' under 'Drop-Off Point Name'. The 'Distance' column shows '1.4455k'. Below this table are links 'View Report (venue and Dro...' and 'As of Aug 2, 2025, 6:00 AM'. The 'Volunteer' section displays a message: 'We can't draw this chart because there is no data.' Below this is a link 'View Report (Volunteer)' and the timestamp 'As of Aug 2, 2025, 6:33 AM'. On the right side, there is a 'Venue Form' panel with fields for 'Venue Name', 'Email', 'Phone', 'Venue Location', 'Latitude', and 'Longitude'. There is also a 'Next' button at the bottom right of the form.

## **Conclusion**

The Salesforce-based FoodConnect system was successfully designed, deployed, and tested to meet the objectives of coordinating food collection and delivery efficiently. Through the use of custom objects, automation, approval flows, and proper security controls, the system provides a reliable platform for managing drop-offs, volunteers, and tasks. The modular design allows for easy future upgrades and supports a scalable deployment model. The project has created a strong foundation for community service with technology-driven food distribution.