

To Supply Leftover Food to Poor

College: 7155 - PSG Institute of Technology and Applied Research

Team ID: NM2024TMID00722

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1. Project Overview

Food Connect is a project created as an initiative designed to streamline the process of gathering and distributing surplus food to individuals in need. The objective is to deliver an all-encompassing solution using Salesforce to manage food collection points, coordinate volunteers, and handle distribution tasks. We aim to enhance operational efficiency, promote transparency, and ensure data accuracy in food distribution efforts, contributing to the broader goals of sustainable food access and reducing food waste.

2. Objectives

Business Goals:

The project seeks to improve the efficiency and transparency of surplus food collection and distribution processes by utilizing Salesforce. By reducing food waste and supporting sustainable food access for those in need, the project fosters community collaboration through organized food logistics.

Specific Outcomes:

- Optimized collection and distribution workflows that reduce operational costs.
- An intuitive dashboard to monitor drop-off points, volunteer involvement, and food distribution status.
- Accurate data reporting on food collection, distribution, and volunteer engagement.
- Greater accessibility to food resources for underserved populations.

3. Salesforce Key Features and Concepts Utilized

This project harnesses essential Salesforce functionalities to build a seamless and effective food distribution network:

1. Custom Objects and Relationships
 - Created custom objects such as Venue, Drop-Off Point, Task, Volunteer, and Execution Details to track and manage key data.
 - Established lookup relationships between objects to maintain data consistency and simplify access.
2. Tabs and Lightning App (Food Connect)
 - Configured tabs for each object to ensure easy navigation within the Food Connect Lightning app.
 - Customized the Lightning app for a streamlined experience, including branding and organization.

3. Screen Flows

- Built a Venue Form using Screen Flow to capture important venue details, including location coordinates, for precise drop-off management.

4. Apex Triggers

- Developed Apex triggers to automate tasks, such as calculating the distance between venues and drop-off points, enabling optimized logistics and efficient route planning.

5. Users and Public Groups

- Created specific users and public groups (e.g., Iksha Foundation, NSS, StreetCos) for effective team collaboration and data access control.

6. Reports and Dashboards

- Designed custom report types and reports to provide insights into volunteer activity, food distribution status, and drop-off points.
- Created a dashboard integrated with the homepage to offer real-time visibility into project metrics and progress.

7. Homepage Integration

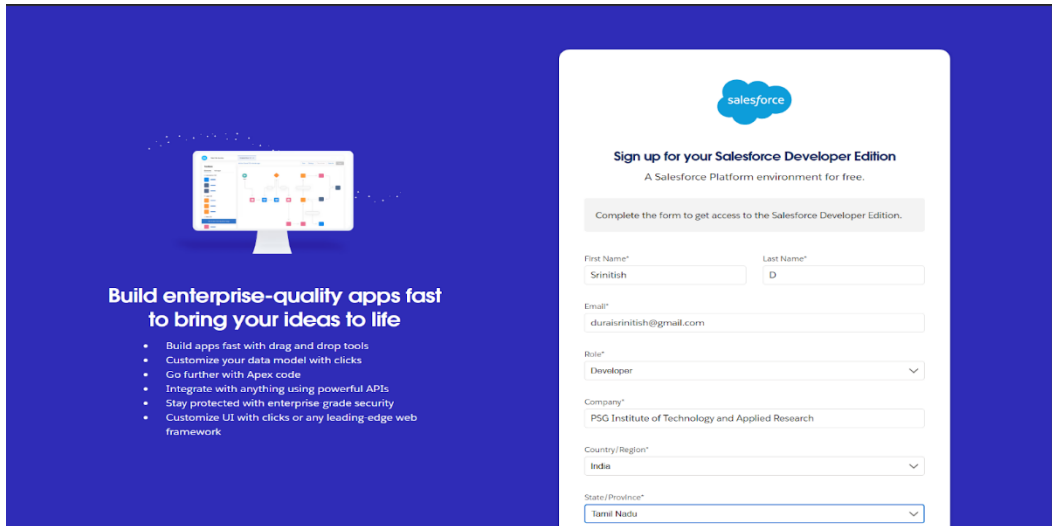
- Integrated the dashboard on the homepage for centralized data monitoring, allowing stakeholders to track the project's impact at a glance.

These Salesforce features collectively ensure that the project operates with high efficiency, transparency, and data-driven decision-making to maximize food distribution effectiveness.

4. Detailed Steps to Solution Design

1. Created Salesforce Developer Account

- In order to access a development environment where we could construct and modify the application, we first created a Salesforce Developer Account. The tools required to design, test, and launch the application were made available by this configuration.



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Sign up for your Salesforce Developer Edition
A Salesforce Platform environment for free.

Complete the form to get access to the Salesforce Developer Edition.

First Name* Srinithish Last Name* D

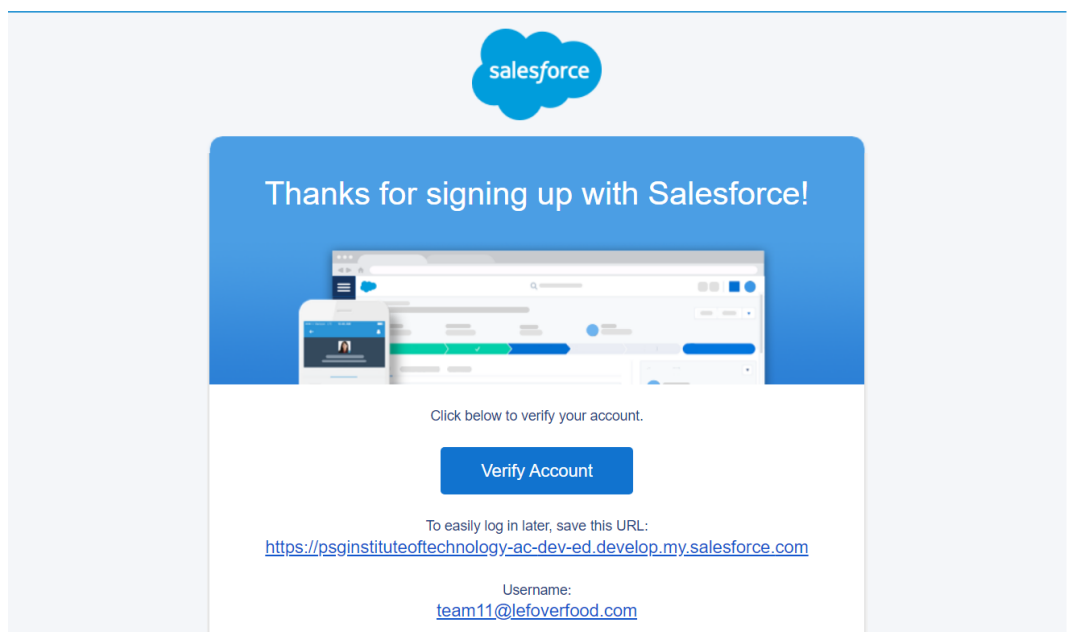
Email* duraisrinithish@gmail.com

Role* Developer

Company* PSG Institute of Technology and Applied Research

Country/Region* India

State/Province* Tamil Nadu



2. Defined Objects

- Five primary objects—Venue, Drop off Point, Task, Volunteer, and Execution Details—were created in Object Manager.
- Each object was designed to store relevant data, such as location details in Venue, task information in Task, and volunteer records in Volunteer.

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Validation Rules

Details

Description

API Name

Venue__c

Custom

✓

Singular Label

Venue

Plural Label

Venues

Enable Reports

✓

Track Activities

✓

Track Field History

✓

Deployment Status

Deployed

Help Settings

Standard salesforce.com Help Window

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Validation Rules

Details

Description

API Name

Drop_Off_Point__c

Custom

✓

Singular Label

Drop-Off Point

Plural Label

Drop-Off Points

Enable Reports

✓

Track Activities

✓

Track Field History

✓

Deployment Status

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Object Access

Triggers

Flow Triggers

Validation Rules

Details

Description

API Name

Task_c

Custom

✓

Singular Label

Task

Plural Label

Tasks

Enable Reports

✓

Track Activities

✓

Track Field History

✓

Deployment Status

Deployed

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Triggers

Flow Triggers

Validation Rules

Details

Description

API Name

Volunteer__c

Custom

✓

Singular Label

Volunteer

Plural Label

Volunteers

Enable Reports

✓

Track Activities

✓

Track Field History

✓

Deployment Status

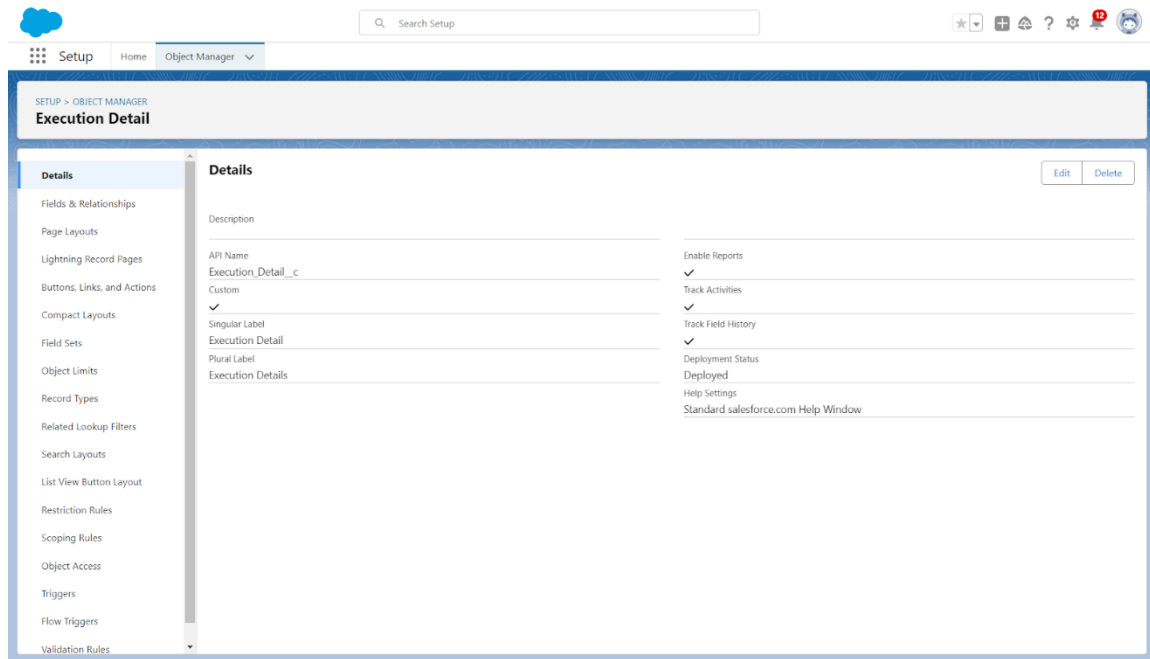
Deployed

Help Settings

Standard salesforce.com Help Window

Edit

Delete



3. Configured Tabs

- Corresponding tabs were created for each of the main objects to facilitate easy access within Salesforce.
- Tabs for Venue, Drop off Point, Task, Volunteer, and Execution Details were set up, allowing users to navigate directly to these data points and manage records effectively.

Custom Tabs

[Help for this Page](#)

You can create new custom tabs to extend Salesforce functionality or to build new application functionality.

Custom Object tabs look and behave like the standard tabs provided with Salesforce. Web tabs allow you to embed external web applications and content within the Salesforce window. Visualforce tabs allow you to embed Visualforce pages. Lightning Component tabs allow you to add Lightning components to the navigation menu in Lightning Experience and the mobile app. Lightning Page tabs allow you to add Lightning Pages to Lightning Experience and the mobile app.

Custom Object Tabs

New

What Is This?

Action	Label	Tab Style	Description
Edit Del	Venues	 Building	

Web Tabs

New

What Is This?

No Web Tabs have been defined

Visualforce Tabs

New

What Is This?

No Visualforce Tabs have been defined

Lightning Component Tabs

New

What Is This?

No Lightning component tabs have been defined

Lightning Page Tabs

New

What Is This?

No Lightning Page Tabs have been defined

Custom Tabs

[Help for this Page](#)

You can create new custom tabs to extend Salesforce functionality or to build new application functionality.

Custom Object tabs look and behave like the standard tabs provided with Salesforce. Web tabs allow you to embed external web applications and content within the Salesforce window. Visualforce tabs allow you to embed Visualforce pages. Lightning Component tabs allow you to add Lightning components to the navigation menu in Lightning Experience and the mobile app. Lightning Page tabs allow you to add Lightning Pages to Lightning Experience and the mobile app.

Custom Object Tabs			
		New	What Is This?
Action	Label	Tab Style	Description
Edit Del	Drop-Off Points	Box	
Edit Del	Execution Details	Hammer	
Edit Del	Tasks	Wrench	
Edit Del	Venues	Building	
Edit Del	Volunteers	People	

Web Tabs	
New	
What Is This?	
No Web Tabs have been defined	

Visualforce Tabs	
New	
What Is This?	
No Visualforce Tabs have been defined	

Lightning Component Tabs	
New	
What Is This?	
No Lightning component tabs have been defined	

Lightning Page Tabs	
New	
What Is This?	
No Lightning Page Tabs have been defined	

4. Developed the Lightning App

- We created a custom Lightning App named "Food Connect" to consolidate all project functionalities.
- The app was configured with specific branding, navigation items, and user access settings, which made it intuitive and easy to use for project participants.

New Lightning App

Choose the items to include in the app, and arrange the order in which they appear. Users can personalize the navigation to add or move items, but users can't remove or rename the items that you add. Some navigation items are available only for phone or only for desktop. These items are dropped from the navigation bar when the app is viewed in a format that the item doesn't support.

Available Items

Create

Type to filter list...

Accounts

All Sites

Alternative Payment Methods

Analytics

App Launcher

Appointment Categories

Appointment Invitations

Approval Requests

Asset Action Sources

Asset Actions

Selected Items

Home

Venues

Tasks

Drop-Off Points

Execution Details

Volunteers

Reports

Dashboards

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Next

	App Name ↑	Developer Name	Description	Last Modified ...	App ...	Vis...	
1	All Tabs	AllTabSet		15/10/2024, 8:31 pm	Classic		▼
2	Analytics Studio	Insights	Build CRM Analytics dashboards and apps	15/10/2024, 8:31 pm	Classic	✓	▼
3	App Launcher	AppLauncher	App Launcher tabs	15/10/2024, 8:31 pm	Classic	✓	▼
4	Automation	FlowsApp	Automate business processes and repetitive tasks.	15/10/2024, 8:35 pm	Lightning	✓	▼
5	Bolt Solutions	LightningBolt	Discover and manage business solutions designed for your industry.	15/10/2024, 8:31 pm	Lightning	✓	▼
6	Business Rules Engine	ExpressionSetConsole	Create and maintain business rules that perform complex lookups and calculations.	15/10/2024, 8:35 pm	Lightning	✓	▼
7	Community	Community	Salesforce CRM Communities	15/10/2024, 8:31 pm	Classic	✓	▼
8	Content	Content	Salesforce CRM Content	15/10/2024, 8:31 pm	Classic	✓	▼
9	Data Manager	DataManager	Use Data Manager to view limits, monitor usage, and manage recipes.	15/10/2024, 8:31 pm	Lightning	✓	▼
10	Digital Experiences	SalesforceCMS	Manage content and media for all of your sites.	15/10/2024, 8:31 pm	Lightning	✓	▼
11	FoodConnect	FoodConnect		15/10/2024, 9:49 pm	Lightning	✓	▼
12	Lightning Usage App	LightningInstrumentation	View Adoption and Usage Metrics for Lightning Experience	15/10/2024, 8:31 pm	Lightning	✓	▼
13	Marketing CRM Classic	Marketing	Track sales and marketing efforts with CRM objects.	15/10/2024, 8:31 pm	Classic	✓	▼
14	Platform	Platform	The fundamental Lightning Platform	15/10/2024, 8:31 pm	Classic		▼
15	Queue Management	QueueManagement	Create and manage queues for your business.	15/10/2024, 8:31 pm	Lightning	✓	▼
16	Sales	Sales	The world's most popular sales force automation (SFA) solution	15/10/2024, 8:31 pm	Classic		▼
17	Sales	LightningSales	Manage your sales process with accounts, leads, opportunities, and more	15/10/2024, 8:31 pm	Lightning	✓	▼
18	Sales Console	LightningSalesConsole	(Lightning Experience) Lets sales reps work with multiple records on one screen	15/10/2024, 8:31 pm	Lightning	✓	▼
19	Salesforce Chatter	Chatter	The Salesforce Chatter social network, including profiles and feeds	15/10/2024, 8:31 pm	Classic	✓	▼

5. Added Fields to Objects

- Custom fields were defined within each object to capture the necessary details:
 - Venue: Location, contact information, capacity.
 - Task: Type of food, quantity, delivery date, and assigned volunteers.
 - Volunteer: Availability, contact information, and skills.
 - Execution Details: Logs with dates, food types, and quantities distributed.
- Validation rules were also established to ensure data integrity, such as requiring fields like contact information and dates.

SETUP > OBJECT MANAGER

Venue

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Scoping Rules

Object Access

Triggers

Flow Triggers

Validation Rules

Fields & Relationships

8 Items, Sorted by Field Label

Q Quick Find

New

Deleted Fields

Field Dependencies

Set History Tracking

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)		✓

SETUP > OBJECT MANAGER

Task

Details

Fields & Relationships

Page Layouts

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Restriction Rules

Scoping Rules

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Triggers

Flow Triggers

Validation Rules

Fields & Relationships

7 Items, Sorted by Field Label

Q Quick Find

New

Deleted Fields

Field Dependencies

Set History Tracking

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		
Drop-Off Point	Drop_Off_point__c	Lookup(Drop-Off Point)		✓
Last Modified By	LastModifiedById	Lookup(User)		
Owner	OwnerId	Lookup(User,Group)		✓
Task Name	Name	Text(80)		✓
Venue	Sponsored_By__c	Lookup(Venue)		✓
Venue__c	Venue__c	Lookup(Venue)		✓

SETUP > OBJECT MANAGER

Volunteer

Details

Fields & Relationships

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

Object Access

Triggers

Flow Triggers

Validation Rules

Fields & Relationships

4 Items, Sorted by Field Label

Q Quick Find

New

Deleted Fields

Field Dependencies

Set History Tracking

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED	
Created By	CreatedById	Lookup(User)			
Drop-Off Point	Drop_Off_point__c	Master-Detail(Drop-Off Point)		✓	▼
Last Modified By	LastModifiedById	Lookup(User)			
Volunteer Name	Name	Text(80)		✓	▼

SETUP > OBJECT MANAGER

Execution Detail

Details

Fields & Relationships

Page Layouts

Lightning Record Pages

Buttons, Links, and Actions

Compact Layouts

Field Sets

Object Limits

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Related Lookup Filters

Search Layouts

List View Button Layout

Restriction Rules

Scoping Rules

Object Access

Triggers

Flow Triggers

Validation Rules

Fields & Relationships

5 Items, Sorted by Field Label

Q Quick Find

New

Deleted Fields

Field Dependencies

Set History Tracking

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED	
Created By	CreatedById	Lookup(User)			
Execution Detail Name	Name	Text(80)		✓	▼
Last Modified By	LastModifiedById	Lookup(User)			
Task	Task__c	Master-Detail(Task)		✓	▼
Volunteer	Volunteer__c	Master-Detail(Volunteer)		✓	▼

SETUP > OBJECT MANAGER

Drop-Off Point

Details

Fields & Relationships

Page Layouts

Lightning Record Pages

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Object Limits

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Related Lookup Filters

Search Layouts

List View Button Layout

Restriction Rules

Scoping Rules

Object Access

Triggers

Flow Triggers

Validation Rules

Fields & Relationships

8 Items, Sorted by Field Label

Q Quick Find

New

Deleted Fields

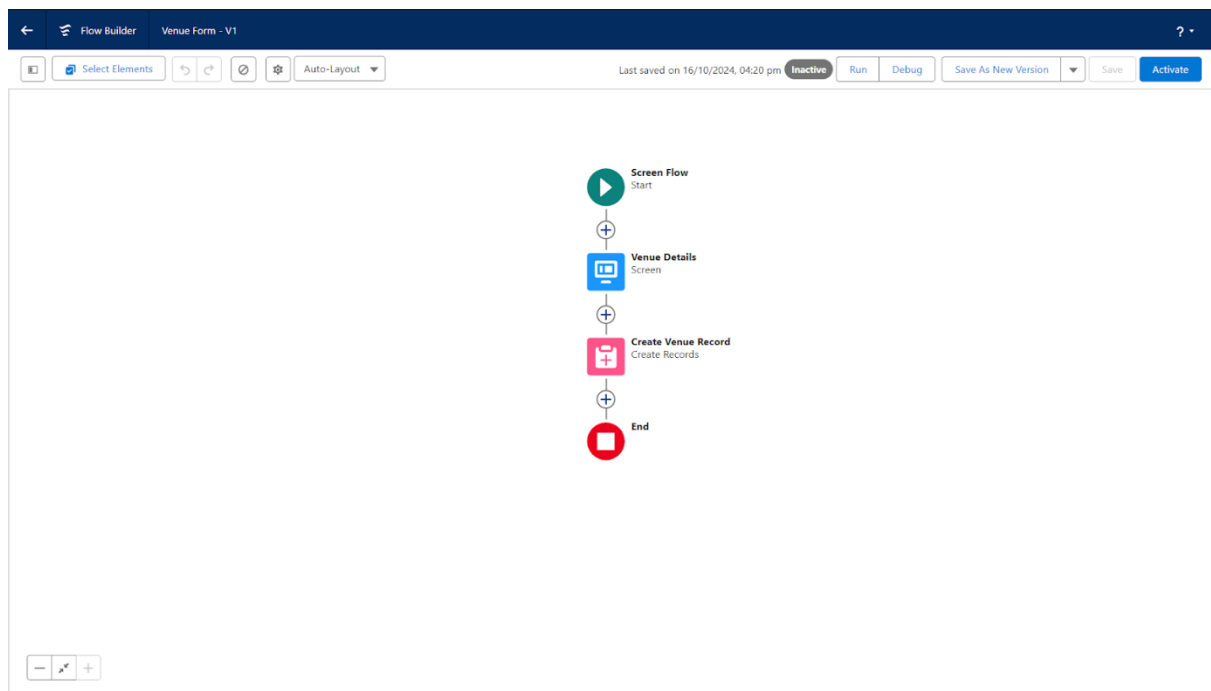
Field Dependencies

Set History Tracking

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		
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)		✓

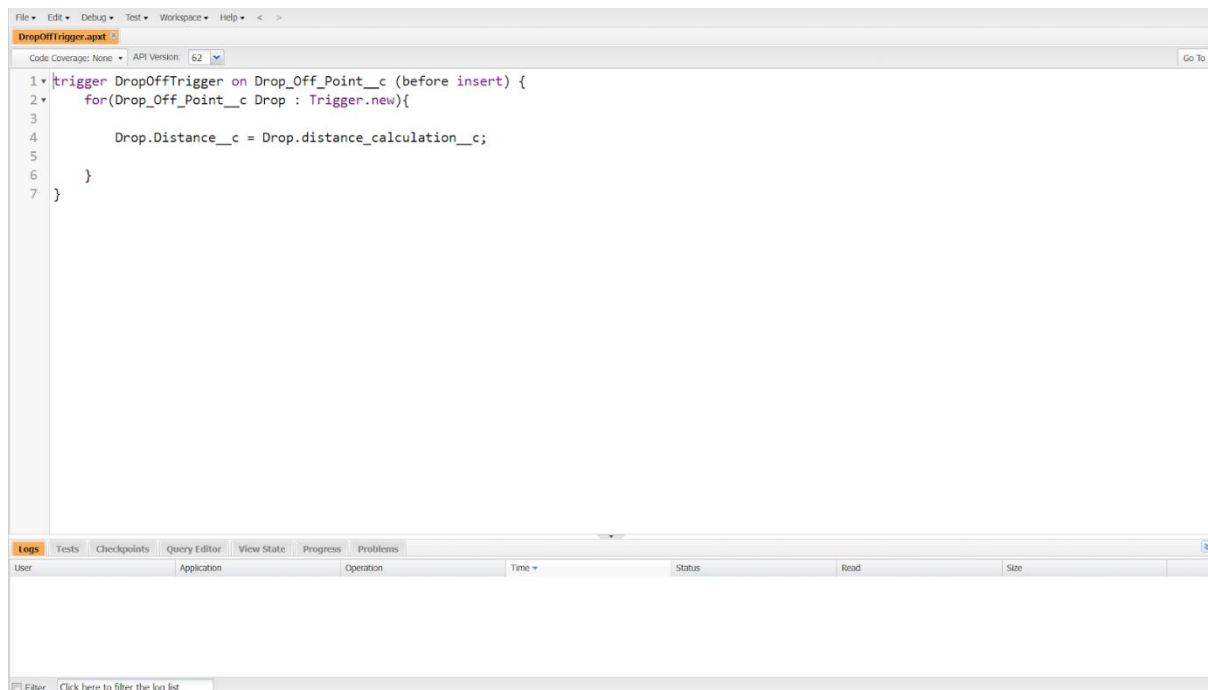
6. Created Flows for Data Entry

- We developed a Screen Flow called "Venue Form" to capture venue details in a step-by-step format.
- The flow included fields for venue name, email, phone, location, latitude, and longitude, making data entry faster and more accurate.



7. Implemented Apex Triggers

- An Apex Trigger was created to automate specific functions, including calculating the distance between drop-off points and venues.
- This automation facilitated optimized routing for volunteers and increased the system's efficiency by reducing manual calculations.



The screenshot shows the Salesforce IDE interface with an Apex Trigger named 'DropOffTrigger.apex'. The trigger is implemented as a 'before insert' trigger on the 'Drop_Off_Point__c' object. The code logic is as follows:

```
1 trigger DropOffTrigger on Drop_Off_Point__c (before insert) {  
2     for(Drop_Off_Point__c Drop : Trigger.new){  
3  
4         Drop.Distance__c = Drop.distance_calculation__c;  
5  
6     }  
7 }
```

The IDE interface includes a menu bar (File, Edit, Debug, Test, Workspace, Help), a toolbar with 'Code Coverage: None' and 'API Version: 62', and a bottom panel with tabs for 'Logs', 'Tests', 'Checkpoints', 'Query Editor', 'View State', 'Progress', and 'Problems'. The 'Logs' tab is active, showing a table with columns: User, Application, Operation, Time, Status, Read, and Size.

8. Created Users for Different Roles

- We added users representing various partner organizations, such as Iksha Foundation, NSS, and StreetCos.
- Each user was assigned a profile that granted appropriate access based on their role, ensuring secure and organized collaboration within the project.

SETUP

Users

All Users

Help for this Page

On this page you can create, view, and manage users.

To get more licenses, use the Your Account app. [Let's Go](#)

View:

All Users

Edit

Create New View

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z Other All

New User

Reset Password(s)

Add Multiple Users

Action	Full Name ↑	Alias	Username	Role	Active	Profile
<input type="checkbox"/> Edit	Chatter Expert	Chatter	chatty.00ddm00000dwk7auah.cptb8owjdiil@chatter.salesforce.com		✓	Chatter Free User
<input type="checkbox"/> Edit	D. Srinilish	SD	team11@lefoverfood.com		✓	System Administrator
<input type="checkbox"/> Edit	Iksha_Foundation_Iksha Foundation	iksh	ikshafoundation007@sb.com		✓	NGOs Profile
<input type="checkbox"/> Edit	NSS_NSS	nss	nss007@sb.com		✓	NGOs Profile
<input type="checkbox"/> Edit	Street_Cause_Street Cause	ssire	streetcause007@sb.com		✓	NGOs Profile
<input type="checkbox"/> Edit	User_Integration	integ	integration@00ddm00000dwk7auah.com		✓	Analytics Cloud Integration User
<input type="checkbox"/> Edit	User_Security	sec	insightssecurity@00ddm00000dwk7auah.com		✓	Analytics Cloud Security User

New User

Reset Password(s)

Add Multiple Users

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z Other All

10. Established Public Groups

- Public groups, including Iksha, NSS, and StreetCos, were created to streamline data sharing and collaboration among the project’s participants.
- These groups facilitated quick sharing of reports, records, and tasks, enhancing collaboration between different organizations involved.

SETUP

Users

All Users

Help for this Page

On this page you can create, view, and manage users.

To get more licenses, use the Your Account app. [Let's Go](#)

View:

All Users

Edit

Create New View

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z Other All

New User

Reset Password(s)

Add Multiple Users

Action	Full Name ↑	Alias	Username	Role	Active	Profile
<input type="checkbox"/> Edit	Chatter Expert	Chatter	chatty.00ddm00000dwk7auah.cptb8owjdiil@chatter.salesforce.com		✓	Chatter Free User
<input type="checkbox"/> Edit	D. Srinilish	SD	team11@lefoverfood.com		✓	System Administrator
<input type="checkbox"/> Edit	Iksha_Foundation_Iksha Foundation	iksh	ikshafoundation007@sb.com		✓	NGOs Profile
<input type="checkbox"/> Edit	NSS_NSS	nss	nss007@sb.com		✓	NGOs Profile
<input type="checkbox"/> Edit	Street_Cause_Street Cause	ssire	streetcause007@sb.com		✓	NGOs Profile
<input type="checkbox"/> Edit	User_Integration	integ	integration@00ddm00000dwk7auah.com		✓	Analytics Cloud Integration User
<input type="checkbox"/> Edit	User_Security	sec	insightssecurity@00ddm00000dwk7auah.com		✓	Analytics Cloud Security User

New User

Reset Password(s)

Add Multiple Users

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z Other All

11. Defined Report Types

- Custom report types were created to structure data relationships, such as "Drop off Points with Volunteers with Execution Details."
- These report types were essential in providing a foundation for generating reports tailored to the project’s needs.

SETUP

Report Types

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z Other All

New Custom Report Type

Action	Label ↑	Description	Category	Deployed	Created By Alias	Created Date
Edit Del	Drop-Off Points with Volunteers with Execution Details	Drop-Off Points with Volunteers with Execution Details	Other Reports	✓	SD	15/10/2024
Edit Del	Orchestration Run Logs Spring '24	Find out which orchestration run logs were created and what happened in their associated orchestration runs.	Other Reports	✓	autoproc	15/10/2024
Edit Del	Orchestration Runs Spring '24	Find out which orchestration runs were created.	Other Reports	✓	autoproc	15/10/2024
Edit Del	Orchestration Stage Runs Spring '24	Find out which orchestration stage runs were created and the current status of each run.	Other Reports	✓	autoproc	15/10/2024
Edit Del	Orchestration Step Runs Spring '24	Find out which orchestration step runs were created and the current status of each run.	Other Reports	✓	autoproc	15/10/2024
Edit Del	Orchestration Work Items Spring '24	Find out which orchestration work items were created, who's the associated assignee, and what's the current status of each work item.	Other Reports	✓	autoproc	15/10/2024
Edit Del	Program Definition Spring '24	Review your analytics with a program-like structure. See each program task, target day, results, and more directly in a report and dashboard.	Other Reports	✓	autoproc	15/10/2024
Edit Del	Program Definition Summer '24	Review your analytics with a program-like structure. See each program task, target day, results, and more directly in a report and dashboard.	Other Reports	✓	autoproc	15/10/2024
Edit Del	Program Item Progress Spring '24	Report on tasks like exercises, milestones, and outcomes progress. Overall program progress isn't captured in this report.	Other Reports	✓	autoproc	15/10/2024
Edit Del	Program Item Progress Summer '24	Report on tasks like exercises, milestones, and outcomes progress. Overall program progress isn't captured in this report.	Other Reports	✓	autoproc	15/10/2024
Edit Del	Program Progress Spring '24	Report on program progress. Specific progress on milestones and exercises aren't captured in this report.	Other Reports	✓	autoproc	15/10/2024
Edit Del	Program Progress Summer '24	Report on program progress. Specific progress on milestones and exercises aren't captured in this report.	Other Reports	✓	autoproc	15/10/2024
Edit Del	Screen Flows	Find out which flows get executed and how long users take to complete each flow screen.	Other Reports	✓	autoproc	15/10/2024
Edit Del	Venue with DropOff with Volunteer	Venue with DropOff with Volunteer	Other Reports	✓	SD	16/10/2024
Edit Del	Volunteers with Execution Details and Tasks	Volunteers with Execution Details and Tasks	Other Reports	✓	SD	16/10/2024

Show me fewer ▲ records per list page

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z Other All

SETUP

Report Types

Custom Report Type

Venue with DropOff with Volunteer

Help for this Page ?

Below is the information for this custom report type. You can click the buttons on this page to preview or update information for the custom report type.

Custom Report Type Definition

Edit

Delete

Clone

Report Type Label	Venue with DropOff with Volunteer	Report Type Category	Other Reports
Report Type Name	Venue_with_DropOff_with_Volunteer	Deployment Status	Deployed
Description	Venue with DropOff with Volunteer		
Created By	Smritish D., 16/10/2024, 5:16 pm	Modified By	Smritish D., 16/10/2024, 5:16 pm

Object Relationships


Edit

Object Relationships Help ?

Venues (A)

with or without related records from Drop-Off Points (B)

with or without related records from Volunteers (C)



Fields Available for Reports

Edit Layout

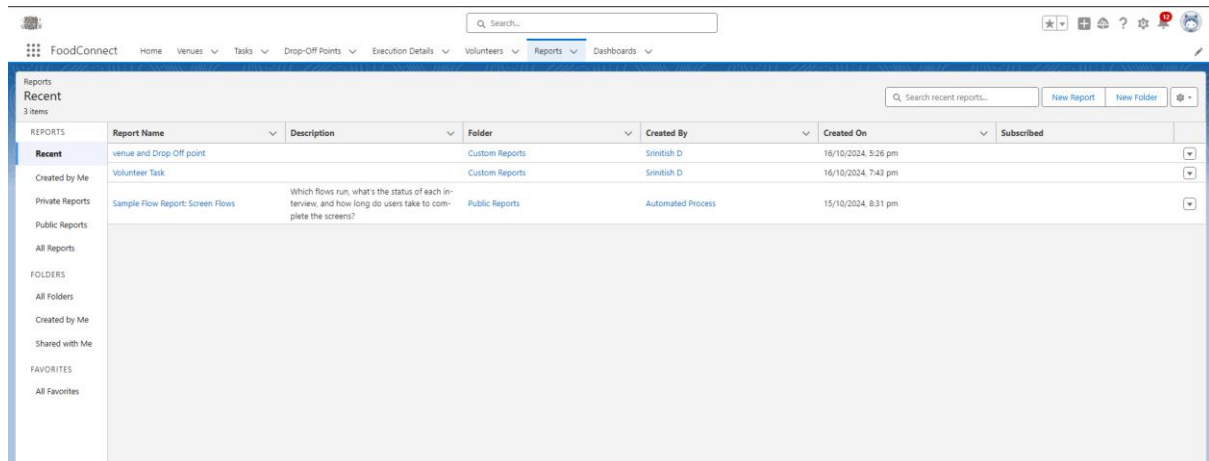
Preview Layout

Fields Available for Reports Help ?

Source	Selected Fields
Venues	13
Drop-Off Points	13

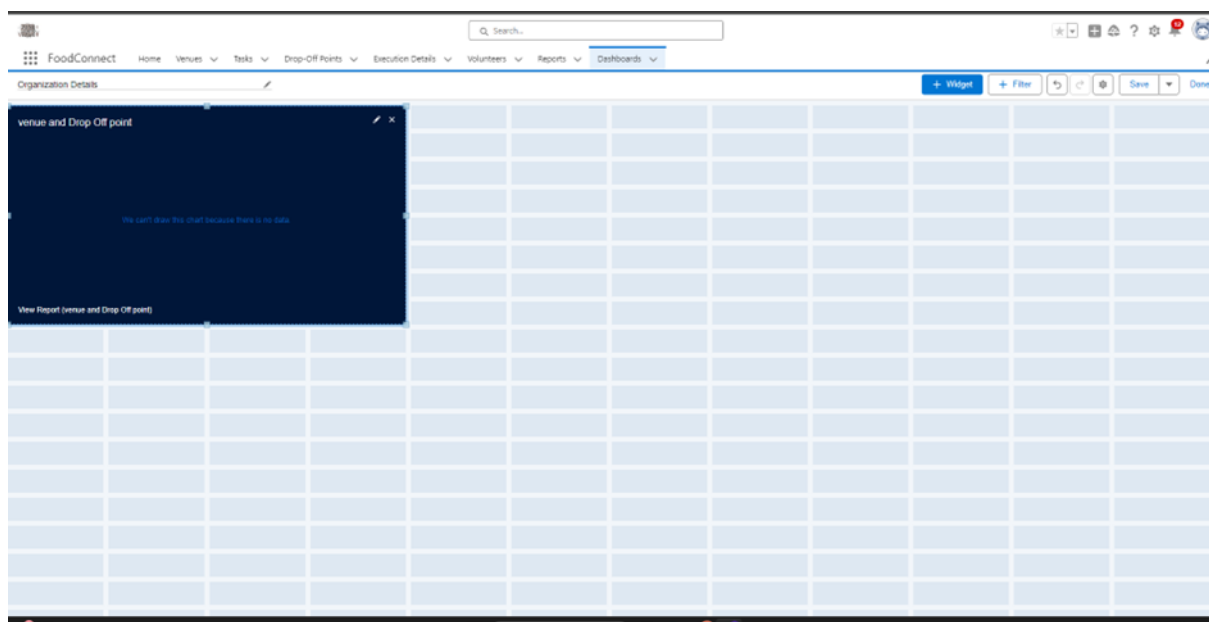
12. Created Custom Reports

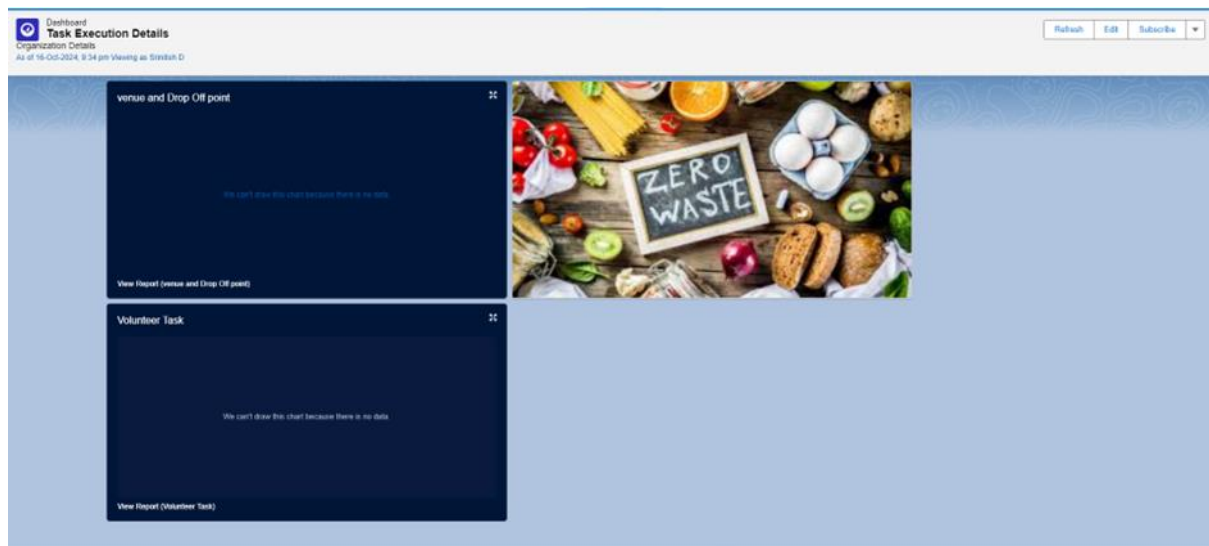
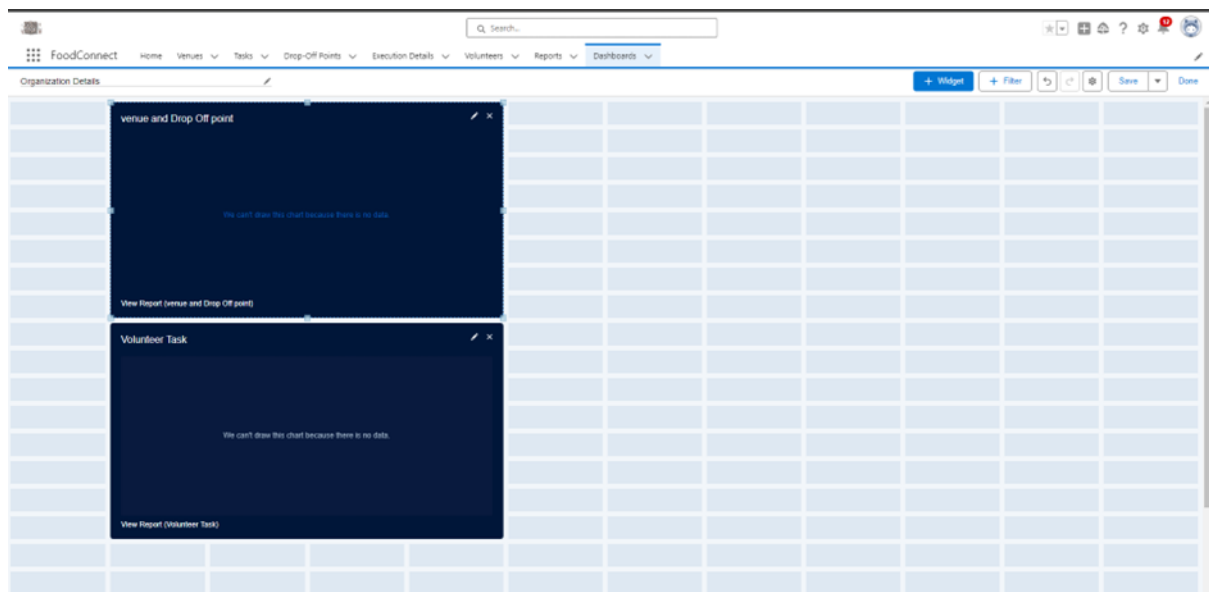
- We built several custom reports to monitor key performance metrics, such as volunteer activity, drop-off locations, and distribution data.
- Scheduled reports were configured to send regular updates to stakeholders, ensuring they were informed about project progress and performance.



13. Developed a Dashboard

- A centralized dashboard was designed to display project metrics, including the number of venues, volunteer activities, food quantities, and distributions.
- The dashboard provided a real-time overview, improving transparency and making data easily accessible for quick decision-making.





14. Configured Sharing Rules

- Sharing rules were set up to control record-level access, allowing specific groups to view or edit relevant data.
- This ensured that data privacy was maintained, while also enabling collaborative efforts where necessary.

Action	Criteria	Shared With	Access Level
Edit Del	(Drop-Off Point: Distance LESS THAN 15)	Group_Baha	Read/Write
Edit Del	(Drop-Off Point: Distance GREATER THAN 15) AND (Drop-Off Point: Distance LESS OR EQUAL 30)	Group_NSS	Read/Write
Edit Del	(Drop-Off Point: Distance GREATER THAN 30) AND (Drop-Off Point: Distance LESS OR EQUAL 50)	Group_StreetCause	Read/Write

15. Integrated Dashboard with Homepage

- The dashboard was integrated into the Salesforce homepage to centralize access and enhance visibility.
- Key metrics, recent activities, and tasks were displayed on the homepage, making it convenient for team members to monitor the project's status at a glance.

The screenshot displays the Salesforce homepage with the FoodConnect dashboard integrated. The dashboard is titled "Task Execution Details" and shows organization details for "FoodConnect". It features a navigation bar with tabs for Home, Venues, Tasks, Drop-Off Points, Execution Details, Volunteers, Reports, and Dashboards. The main content area is divided into three sections: "venue and Drop Off point", "Volunteer Task", and "Venue Form".

venue and Drop Off point

Venue Name	Drop-Off Point Name	Distance
Race Course	-	-
Singapore	-	-

Volunteer Task

We can't draw this chart because there is no data.

Venue Form

Venue Name:

Email:

Phone:

Venue Location:

Latitude:

Longitude:

5. Testing and Validation

i. Unit Testing (Apex Classes, Triggers)

Apex Trigger:

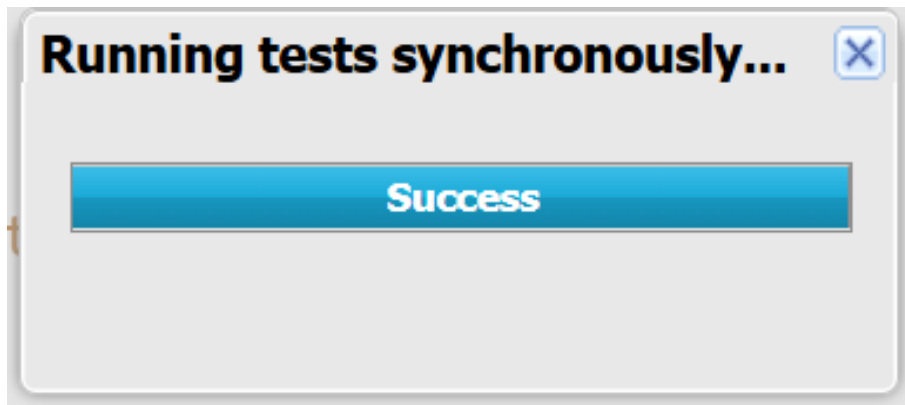
```
trigger DropOffTrigger on Drop_Off_Point__c (before insert) {  
    for (Drop_Off_Point__c drop : Trigger.new) {  
        drop.Distance__c = drop.distance_calculation__c;  
    }  
}
```

Test Class:

```
@isTest  
private class TestDropOffTrigger {  
    @isTest  
    static void testDropOffTrigger() {  
        Drop_Off_Point__c dropOffPoint = new Drop_Off_Point__c(  
            Name = 'Test Drop Off Point'  
        );  
        insert dropOffPoint;  
        Drop_Off_Point__c queriedPoint = [SELECT Distance__c FROM  
Drop_Off_Point__c WHERE Id = :dropOffPoint.Id];  
        System.assert(queriedPoint.Distance__c != null, 'Distance__c should be  
populated by the trigger');  
    }  
}
```

STEPS:

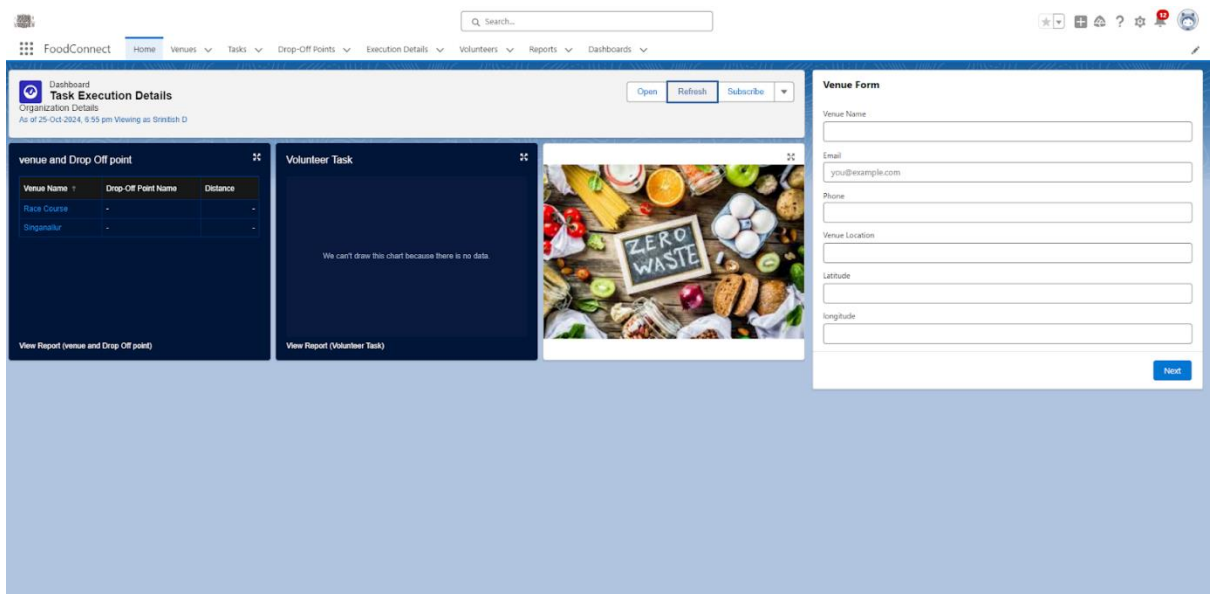
- Created a Test Record: Created a simple Drop_Off_Point__c record.
- Inserted the Record: Insert the record to trigger the trigger.
- Verified the Update: Check if the Distance__c field is updated by the trigger.
- Go to Setup > Apex Test Execution.
- Click Run after selecting your test.



ii. User Interface Testing

User Interface have been tested with various types of data and edge cases.

- **Verify Layout:** Ensure the dashboard loads correctly with all components (charts, reports, tables) visible.
- **Check Data Accuracy:** Validate that the displayed data matches the source reports or records.
- **Test Filters:** Ensure dashboard filters (e.g., date, region) update data correctly when applied.
- **Check Interactivity:** Verify clickable elements (charts, links) lead to the expected actions or pages.
- **Test Responsiveness:** Confirm the dashboard displays correctly across different devices (desktop, tablet, mobile).



6. Conclusion

Summary of Achievements:

The Salesforce Food Supply Project successfully created an efficient, transparent, and scalable system to manage the collection and distribution of surplus food to those in need. Key accomplishments include:

- **Comprehensive Data Management:** Implemented custom objects, tabs, and fields to manage critical data on venues, drop-off points, volunteers, tasks, and execution details, ensuring organized and accessible records.
- **Automated Processes:** Developed flows and Apex triggers for data entry and automation, enhancing operational efficiency by reducing manual input and improving accuracy.
- **Enhanced Collaboration:** Configured user profiles, public groups, and sharing rules to enable secure collaboration among participating organizations while protecting data privacy.
- **Real-Time Monitoring:** Created custom reports and a centralized dashboard integrated with the homepage to provide stakeholders with real-time visibility into project metrics and activities.
- **Improved Decision-Making:** Designed a structured, user-friendly system that streamlined the food distribution process, facilitating quick and informed decision-making.

The project achieved its primary objectives by leveraging Salesforce's platform, resulting in a robust system that supports the mission of providing food to the needy efficiently and transparently. This initiative exemplifies how technology can be used for impactful, community-driven projects.