

DEPARTMENT OF INFORMATION TECHNOLOGY
GOVERNMENT COLLEGE OF TECHNOLOGY
(An Autonomous Institution affiliated to Anna University)
COIMBATORE - 641 013

18IVA727 – SALESFORCE DEVELOPER

DECEMBER 2024

This is to certify that this project work entitled

TO SUPPLY LEFTOVER FOOD TO POOR

is the bonafide record of project work done by



of B.E. / B.Tech. (Information Technology) during the year 2024 - 2025

Submitted for the Project Viva-Voce examination held on _____

Internal Examiner

External Examiner

To Supply Leftover Food to Poor

College: 7177 – Government College of Technology, Coimbatore

TEAM - 4

Team Members:

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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

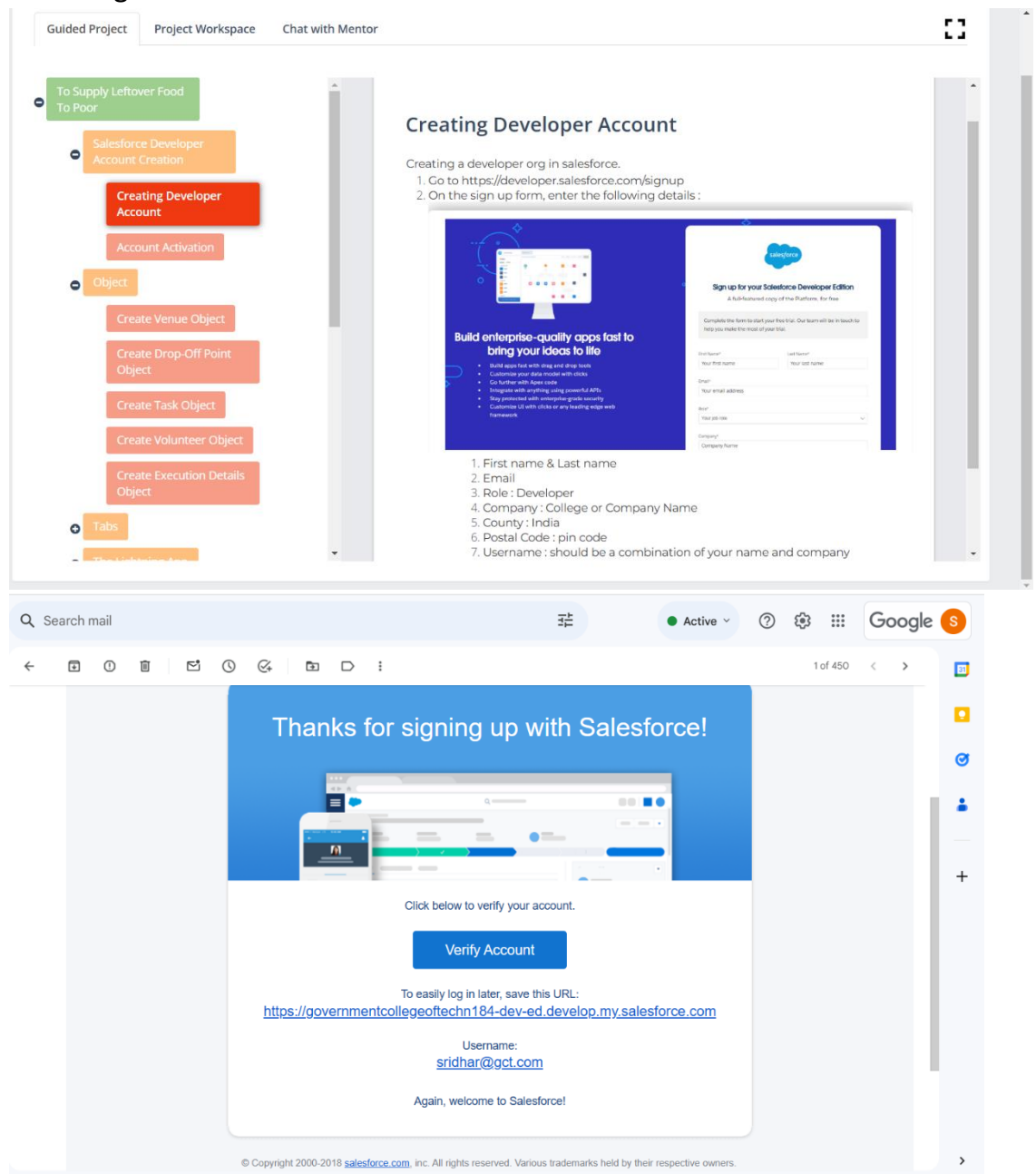
- Integrated the dashboard on the homepage for centralized data monitoring, allowing stakeholders to track the project's impact at a glance.

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.



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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Triggers

Flow Triggers

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

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Standard salesforce.com Help Window

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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
Deployed

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Standard salesforce.com Help Window

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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

Help Settings

Standard salesforce.com Help Window

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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

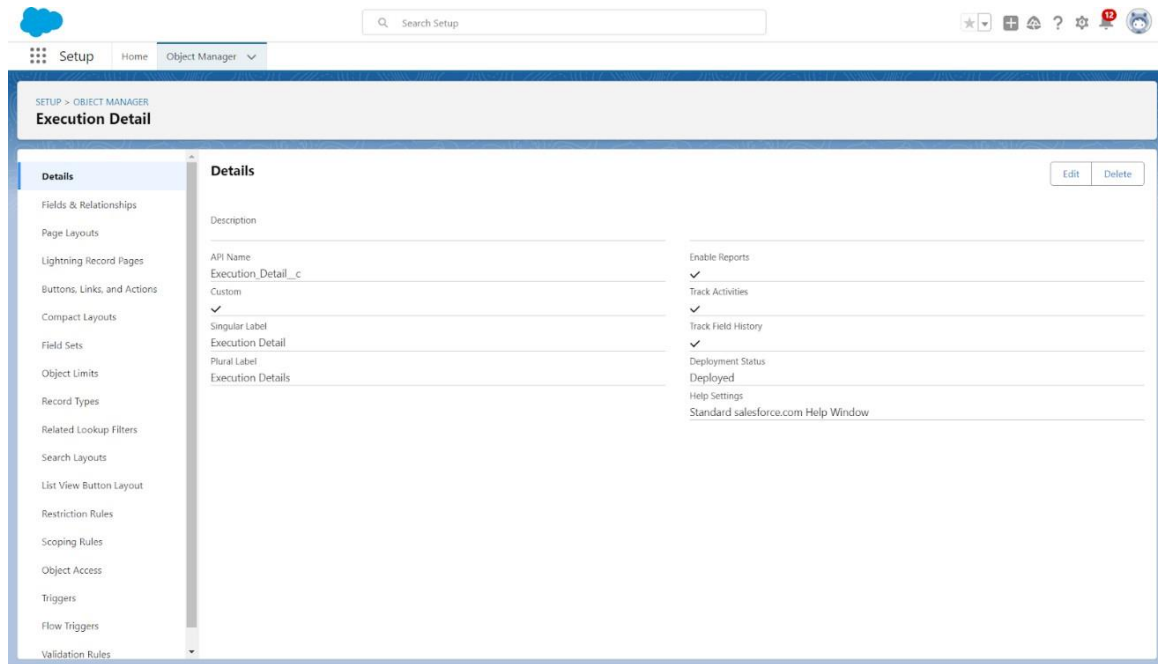
Deployed

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](#)

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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

Back

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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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

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Buttons, Links, and Actions

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Scoping Rules

Object Access

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

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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

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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

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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

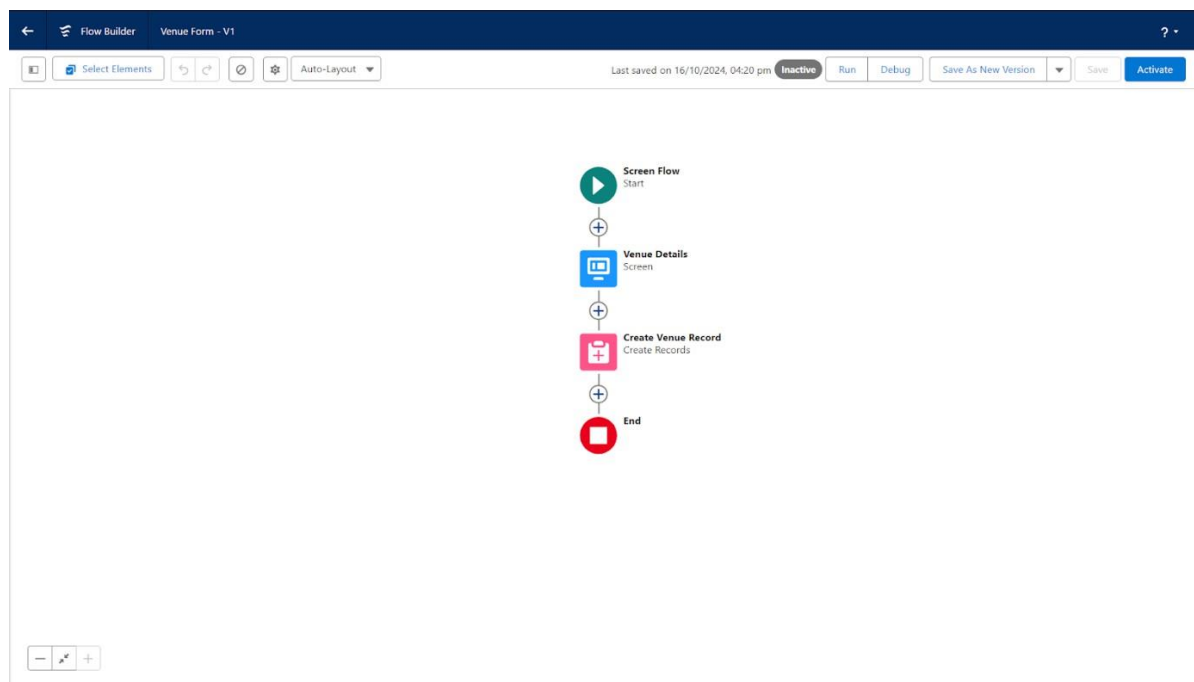
Field Dependencies

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)		✓

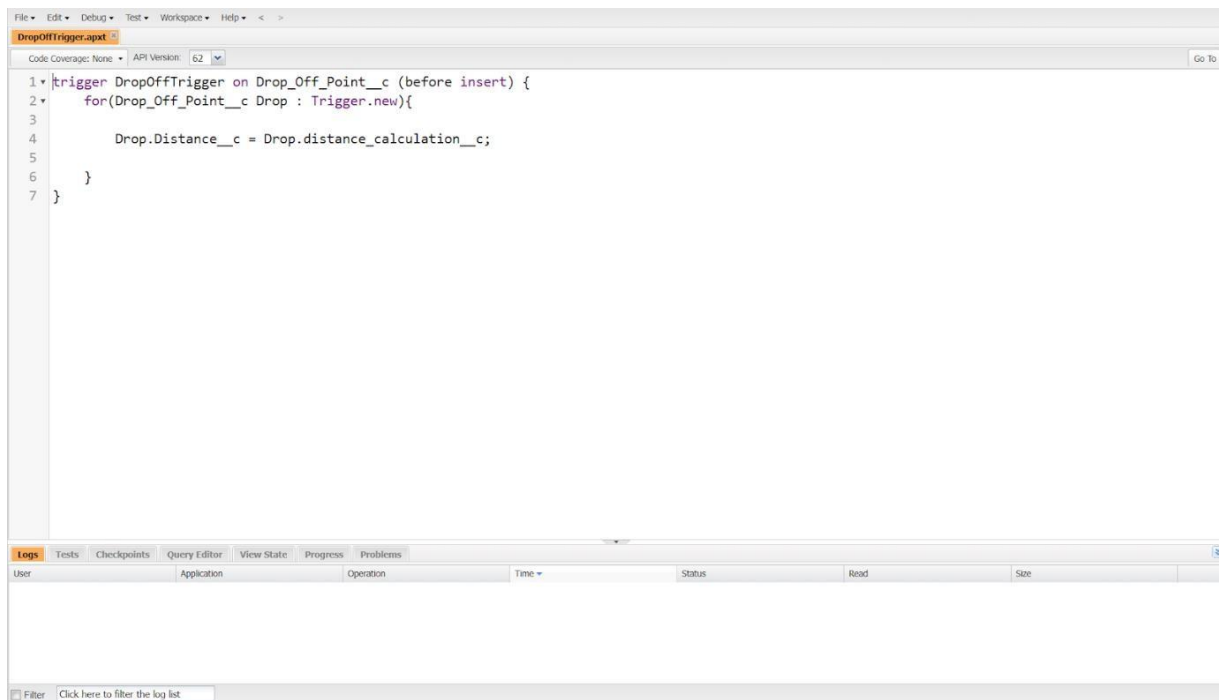
6. Created Flows for Data Entry

- 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.



8. Created Users for Different Roles

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

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Home

Object Manager

users

Users

Permission Set Groups

Permission Sets

Profiles

Public Groups

Queues

Roles

User Management Settings

Users

Feature Settings

Data.com

Prospector Users

Didn't find what you're looking for?

Try using Global Search.

Search Setup

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SETUP

Users

All Users

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

New User

Reset Password(s)

Add Multiple Users

Action	Full Name	Alias	Username	Role	Active	Profile
<input type="checkbox"/>	Chatter Expert	Chatter	chatty.00dns000007otxd2a0.ty308dgdztzw@chatter.salesforce.com		✓	Chatter Free User
<input type="checkbox"/> Edit	E. SRIDHAR	SE	sridhar@gct.com		✓	System Administrator
<input type="checkbox"/> Edit	Iksha_Foundation. Iksha Foundation	iksh	srid.71772118145@gct.ac.in		✓	NGOs Profile
<input type="checkbox"/> Edit	NSS_NSS	nnss	sridharswar3@gmail.com		✓	NGOs Profile
<input type="checkbox"/> Edit	Street_Cause_Street_Cause	sstre	sridhare716@gmail.com		✓	NGOs Profile
<input type="checkbox"/> Edit	User_Integration	integ	integration@00dns000007otxd2a0.com		✓	Analytics Cloud Integration User
<input type="checkbox"/> Edit	User_Security	sec	insightssecurity@00dns000007otxd2a0.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

9. Established Public Groups

- Public groups, including Iksha, NSS, and Street_Cause, 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.

Search Setup

12

ct Manager

SETUP

Public Groups

Public Groups

A public group is a set of users. It can contain individual users, other groups, the users in a particular role or territory, or the users in a role or territory plus all of the users below that role or territory in the hierarchy.

View: All | Edit | Create New View

New

Action	Label	Group Name	Created By	Created Date
Edit Del	Iksha	Iksha	E. SRIDHAR	25/11/2024, 11:12 pm
Edit Del	NSS	NSS	E. SRIDHAR	25/11/2024, 11:14 pm
Edit Del	Street_Cause	Street_Cause	E. SRIDHAR	25/11/2024, 11:15 pm

10. 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

Edit Del	Drop-Off Points with Volunteers with Execution Details	Drop-Off Points with Volunteers with Execution Details	Other Reports	✓	SE	25/11/2024
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	25/11/2024
Edit Del	Orchestration Runs Spring '24	Find out which orchestration runs were created.	Other Reports	✓	autoproc	25/11/2024
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	25/11/2024
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	25/11/2024
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	25/11/2024
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	25/11/2024
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	25/11/2024
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	25/11/2024
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	25/11/2024
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	25/11/2024
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	25/11/2024
Edit Del	Screen Flows	Find out which flows get executed and how long users take to complete each flow screen.	Other Reports	✓	autoproc	25/11/2024
Edit Del	Venue with DropOff with Volunteer	Venue with DropOff with Volunteer	Other Reports	✓	SE	25/11/2024
Edit Del	Volunteers with Execution Details and Tasks	Volunteers with Execution Details and Tasks	Other Reports	✓	SE	26/11/2024

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	SRIDHARE, 25/11/2024, 11:20 pm	Modified By	SRIDHARE, 26/11/2024, 10:20 am

Object Relationships

Edit

Object Relationship Help

Venues (A)

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

with or without related records from Volunteers (C)

A

B

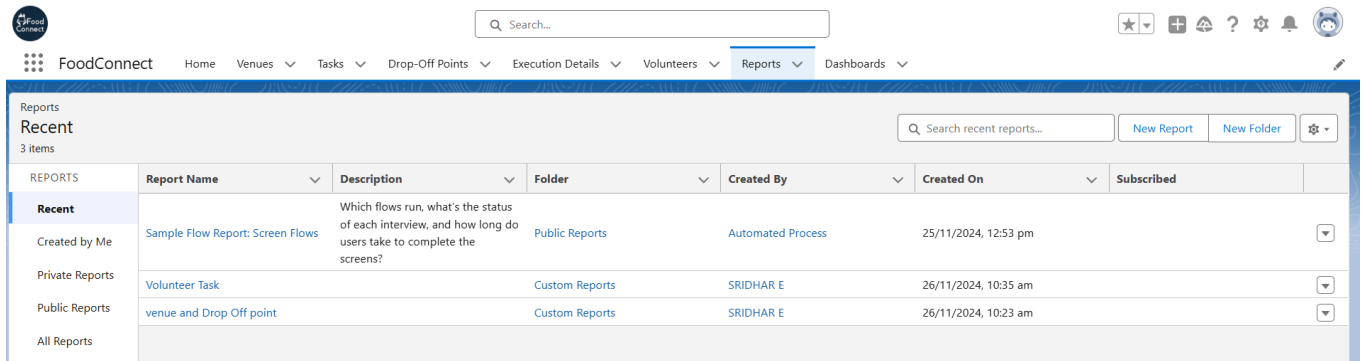
C

13:11

26-11-2024

11. 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.

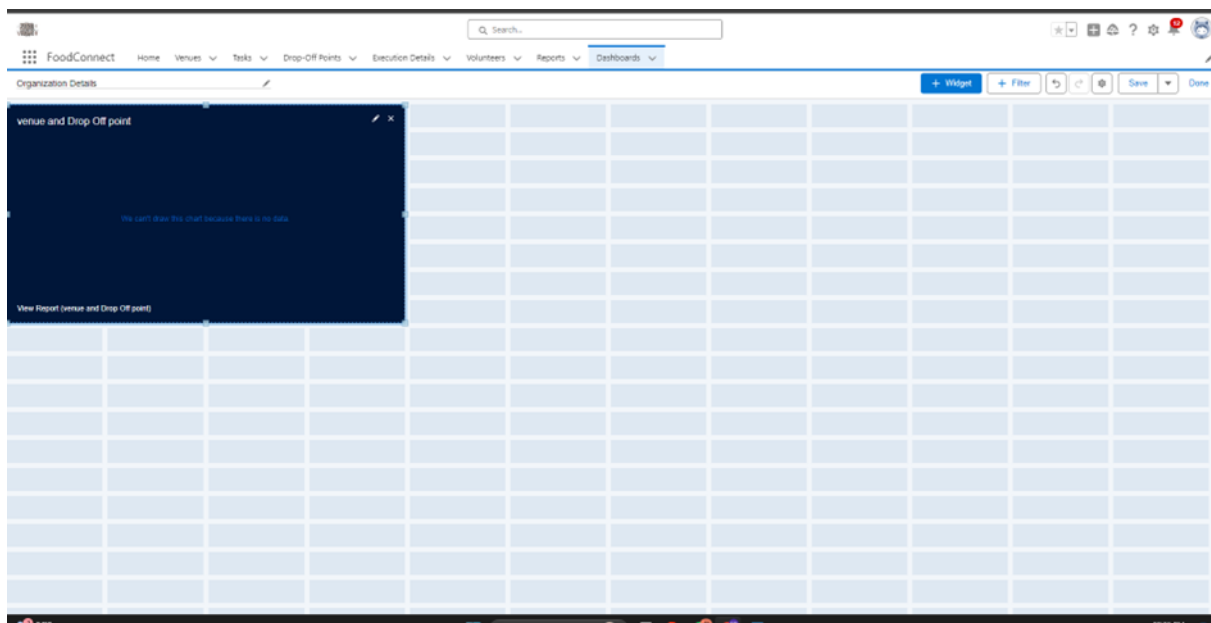


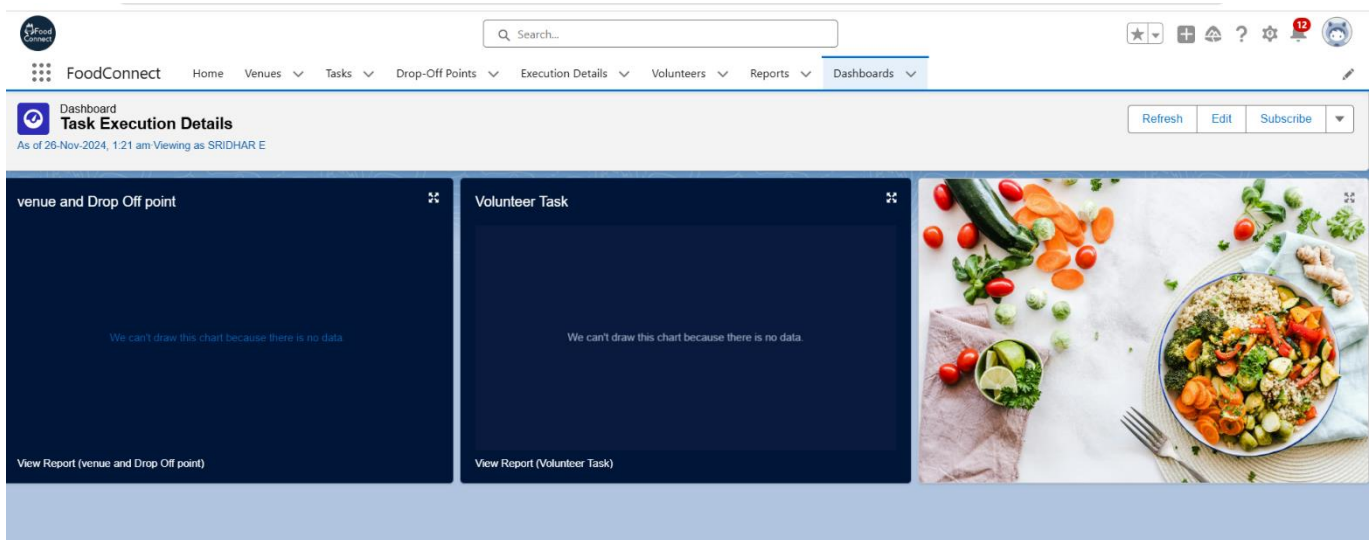
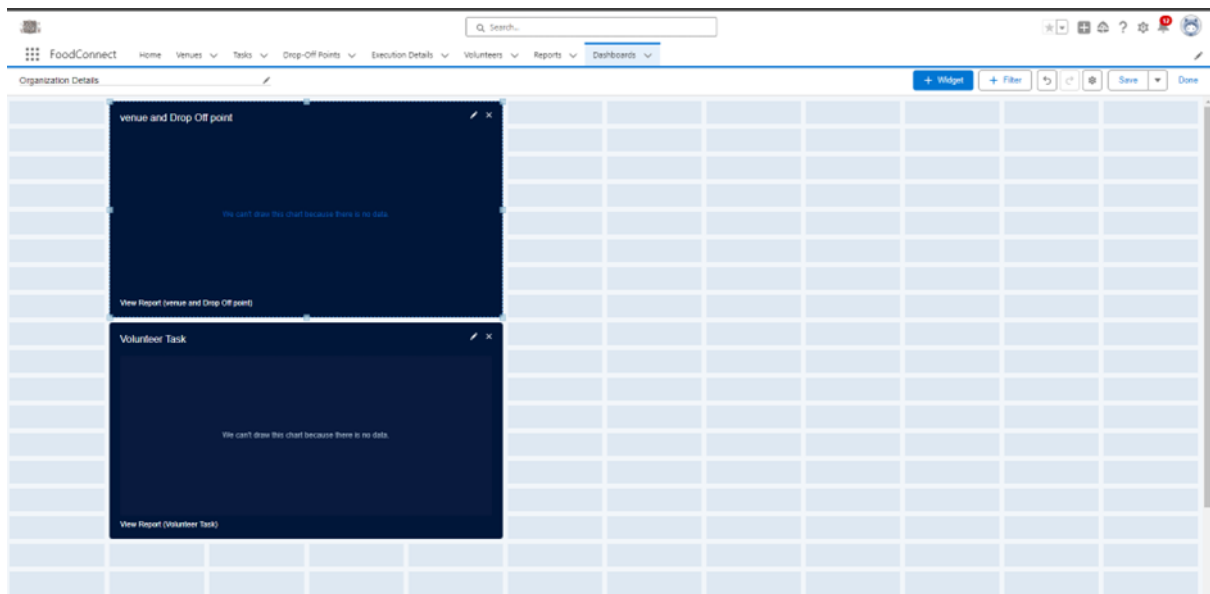
The screenshot shows the 'Reports' section of the FoodConnect application. It features a search bar, a 'New Report' button, and a 'New Folder' button. Below these is a table with columns: Report Name, Description, Folder, Created By, Created On, and Subscribed. The table lists three reports: 'Sample Flow Report: Screen Flows', 'Volunteer Task', and 'venue and Drop Off point'. The first report is categorized under 'Public Reports' and 'Automated Process', while the other two are under 'Custom Reports' and created by 'SRIDHAR E'.

REPORTS	Report Name	Description	Folder	Created By	Created On	Subscribed
Recent	Sample Flow Report: Screen Flows	Which flows run, what's the status of each interview, and how long do users take to complete the screens?	Public Reports	Automated Process	25/11/2024, 12:53 pm	
Created by Me	Volunteer Task		Custom Reports	SRIDHAR E	26/11/2024, 10:35 am	
Private Reports	venue and Drop Off point		Custom Reports	SRIDHAR E	26/11/2024, 10:23 am	
Public Reports						
All Reports						

12. 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.





13. 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.

Drop-Off Point Sharing Rules		Drop-Off Point Sharing Rules Help (?)	
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: Sheet Camps	Read/Write

14. 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 Lightning App Builder interface. The top navigation bar includes the Salesforce logo, a search bar, and various utility icons. The left sidebar lists navigation options: Setup Home, Service Setup Assistant, Commerce Setup Assistant, Hyperforce Assistant, Release Updates, Lightning Experience Transition Assistant, Salesforce Mobile App, Lightning Usage, and Optimizer. The main content area is titled "Lightning App Builder" and includes a description of the tool. Below this, there is a "View" dropdown set to "All" and a "Create New View" link. A table titled "Lightning Pages" lists the following data:

Action	Label	Name	Namespace Prefix	Description	Type	Created By	Last Modified By
Edit Clone Del	HOME_Page	HOME_Page			Home Page	SE, 26/11/2024, 1:07 pm	SE, 26/11/2024, 1:07 pm

Below the table, there is a "New" button and a "Lightning Pages" section. The bottom part of the image shows a preview of the "FoodConnect" dashboard, which includes sections for "Organization Details", "venue and Drop Off point", "Volunteer Task", and a "Venue Form" with fields for Venue Name, Email, Phone, Venue Location, Latitude, and Longitude.

5. Testing and Validation

i. Unit Testing (Apex Classes, Triggers)

Apex Trigger:

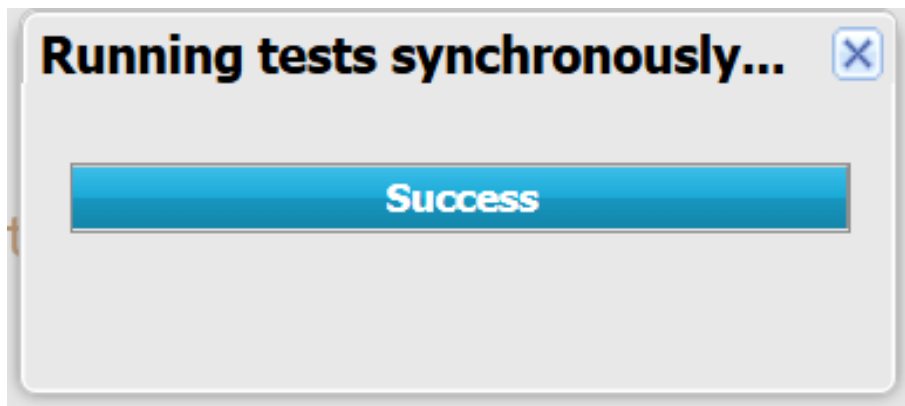
```
trigger DropOffTrigger on Drop_Off_Point__c (before insert) {  
    for (Drop_Off_Point__c drop : Trigger.new) {  
        drop.Distance__c = drop.distance_calculation__c;  
    }  
}
```

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:

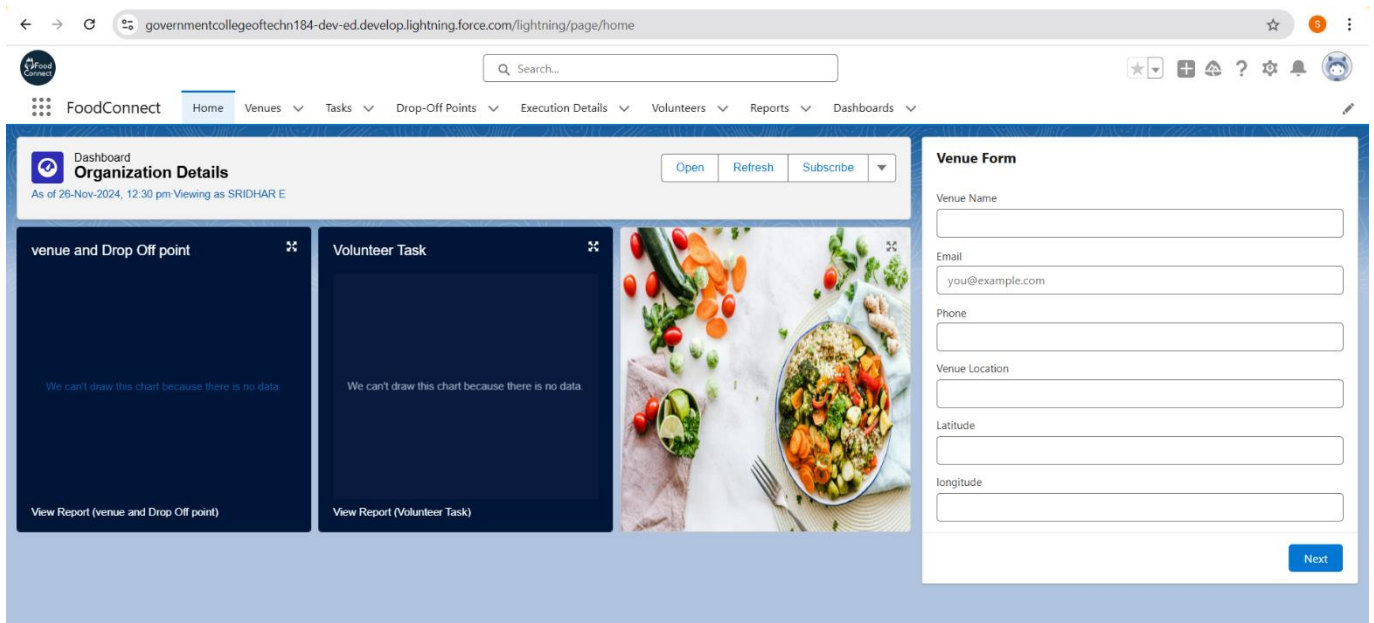
- Created a Test Record: Created a simple Drop_Off_Point__c record.
- Inserted the Record: Insert the record to trigger the trigger.
- Verified the Update: Check if the Distance__c field is updated by the trigger.
- Go to Setup > Apex Test Execution.
- Click Run after selecting your test.



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.