To Supply Leftover Food To Poor

Project Title: FoodConnect CRM

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FoodConnect CRM

Project Overview

The FoodConnect CRM is a comprehensive Salesforce application built to manage and optimize the logistics of a food donation organization. The core business purpose is to create an efficient bridge between food donors (Venues) and organizations in need (Drop-Off Points), facilitated by a network of volunteers. The platform centralizes all operational data, automates key processes, and enforces data sharing rules to ensure the right users see the right information. Key features include custom objects for core data, a screen flow for quick data entry, an Apex trigger for data enrichment, custom reports and dashboards for analytics, and a robust security model with custom profiles and sharing rules.

Objectives

The primary goal of the FoodConnect CRM is to enhance the operational capacity and efficiency of the food rescue program. Specific objectives include:

- To establish a normalized database for all Venues, Drop-Off Points, Volunteers, and Tasks.
- To automate the creation of new Venue records via a user-friendly Screen Flow on the home page.
- To automatically populate specific data fields using an Apex Trigger, reducing manual entry and ensuring data consistency.
- To implement a sophisticated security and sharing model that grants data visibility based on specific criteria (e.g., location proximity).
- To provide management with actionable insights through a dynamic dashboard that visualizes key performance indicators.

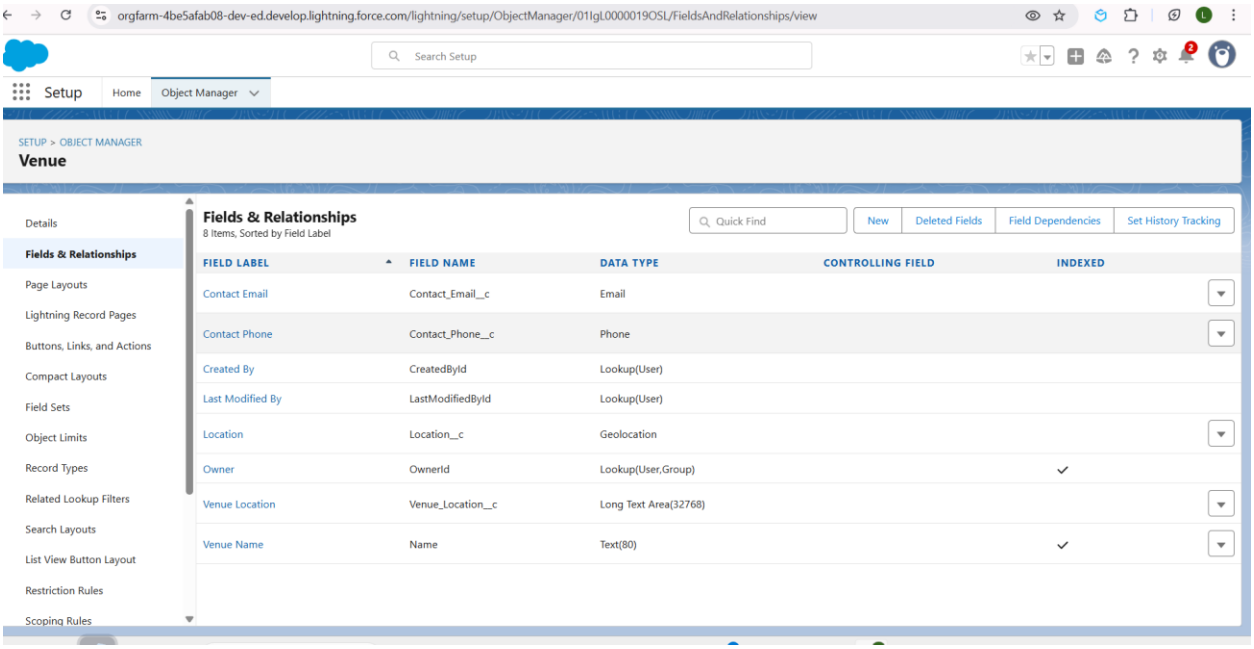
These objectives create business value by streamlining workflows, improving data accuracy, ensuring data security, and enabling data-driven decision-making, which ultimately allows the organization to serve the community more effectively.

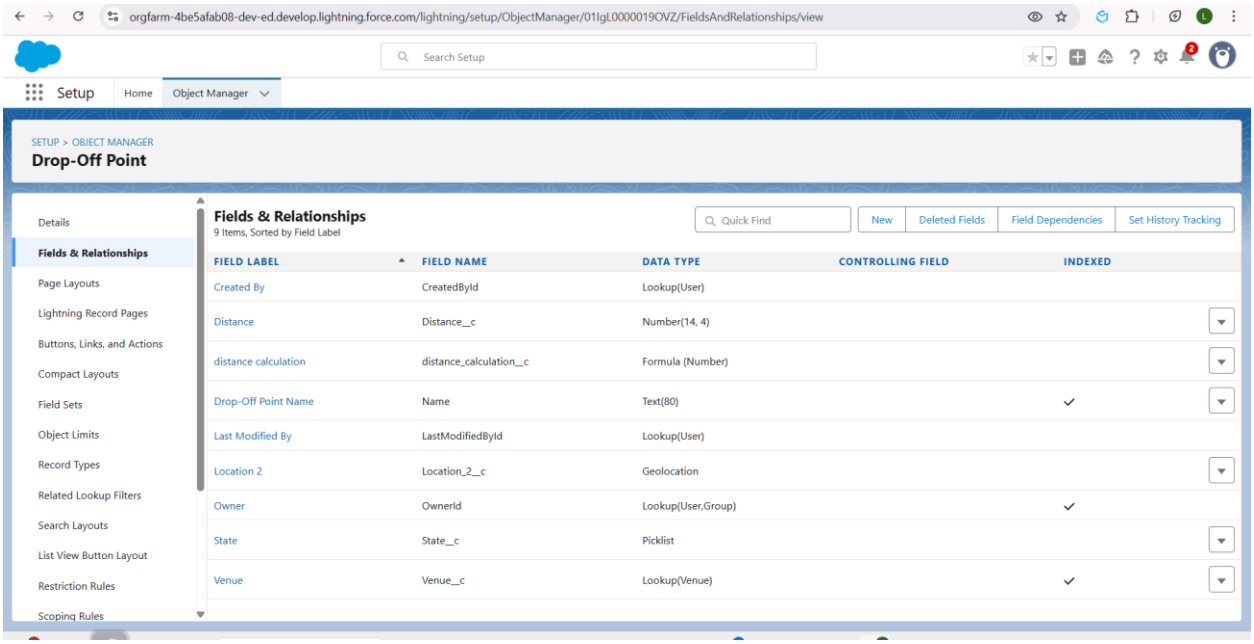
Phase 1: Requirement Analysis & Planning

- **Understanding Business Requirements:** The main challenge was a decentralized and manual process for coordinating food donations, leading to delays and poor data visibility. The system needed to manage entities (venues, volunteers), track activities (tasks), and provide different levels of access to different user groups.
- **Defining Project Scope and Objectives:**

- **Scope:** Build a custom Salesforce Lightning App, "FoodConnect," with custom objects, automation, advanced security, and analytics.
- **Objectives:** Implement the full build as specified in the project guide, including objects, fields, relationships, a flow, a trigger, custom reports/dashboards, and a security model with profiles, users, public groups, and sharing rules.

- **Design Data Model and Security Model:**
  - **Data Model:** A relational data model was created using five custom objects:
    - Venue__c, Drop_Off_Point__c, Volunteer__c, Task__c, and Execution_Details__c.
    - Relationships were established using Lookup and Master-Detail fields to connect tasks to their respective venues, drop-off points, and volunteers.

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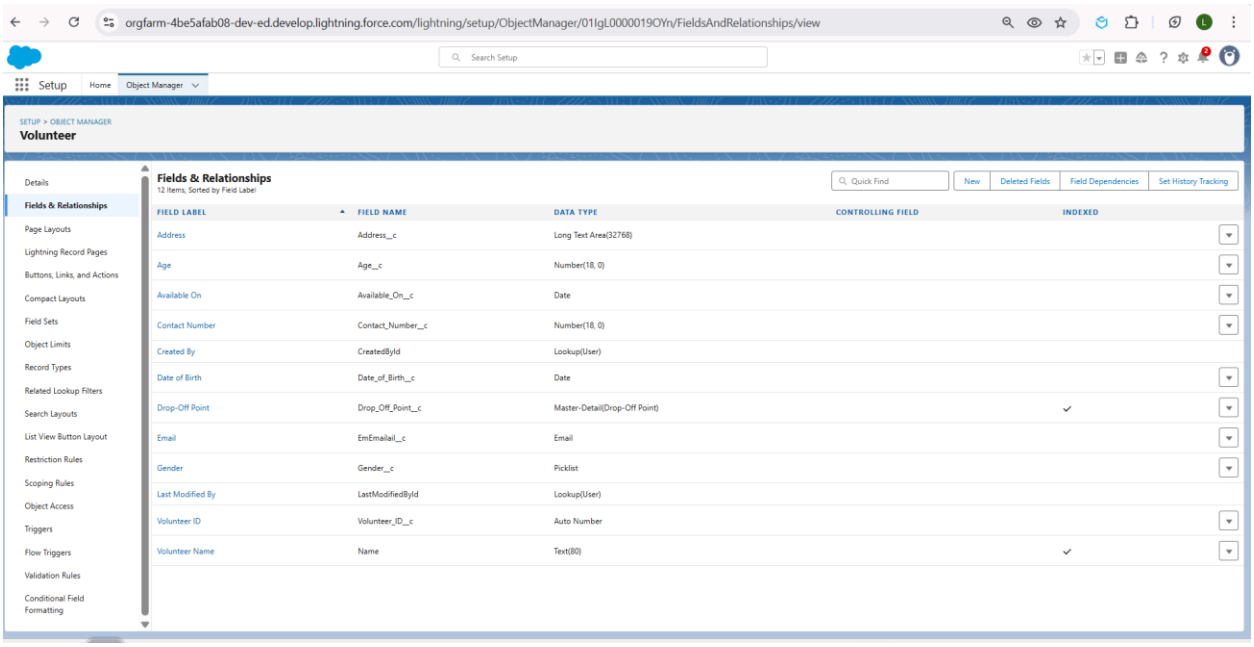
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Restriction Rules
Scoping Rules
Object Access
Triggers
Flow Triggers
Validation Rules
Conditional Field Formatting
Fields & Relationships
12 Items, Sorted by Field Label
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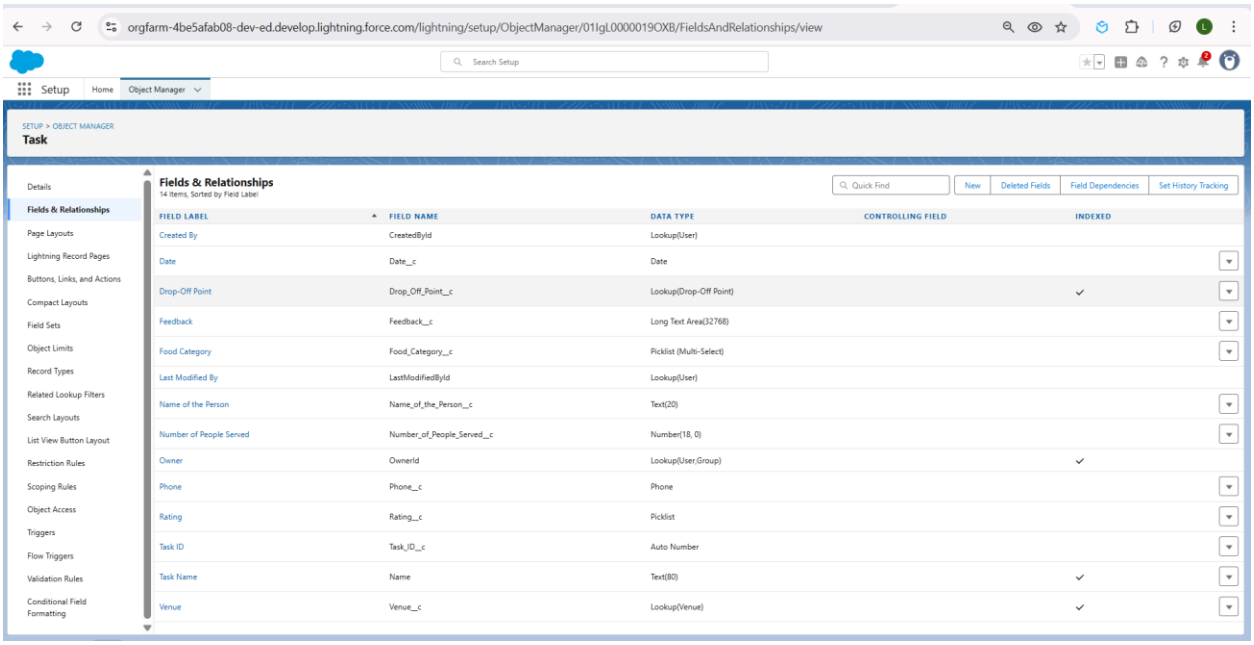
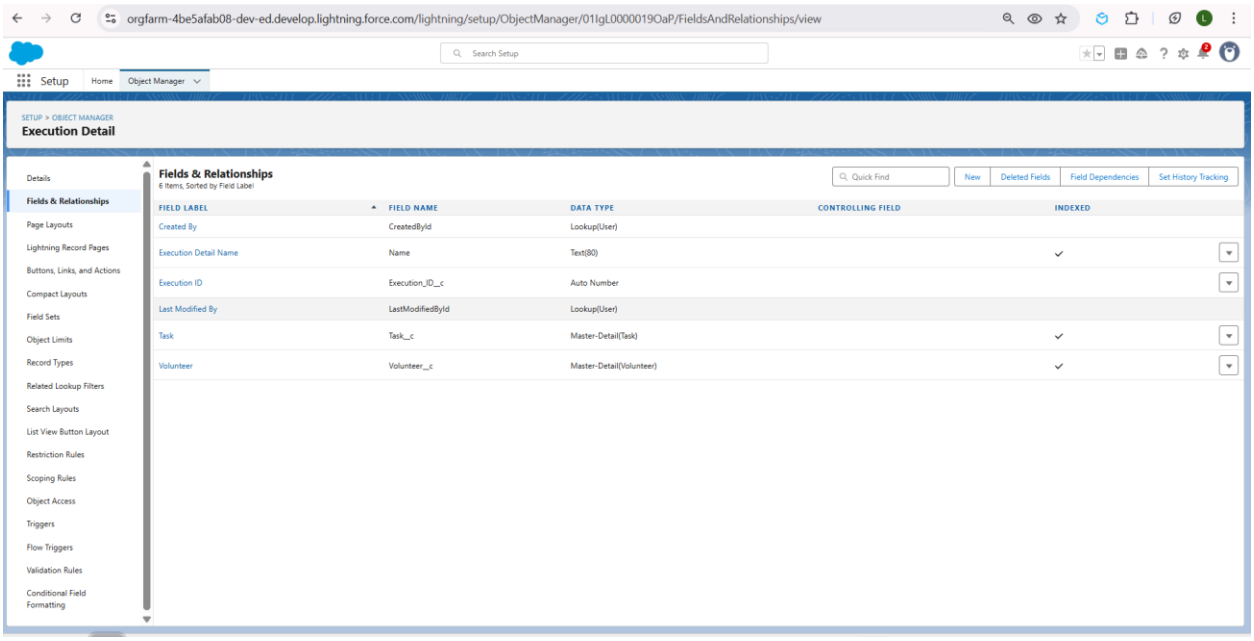
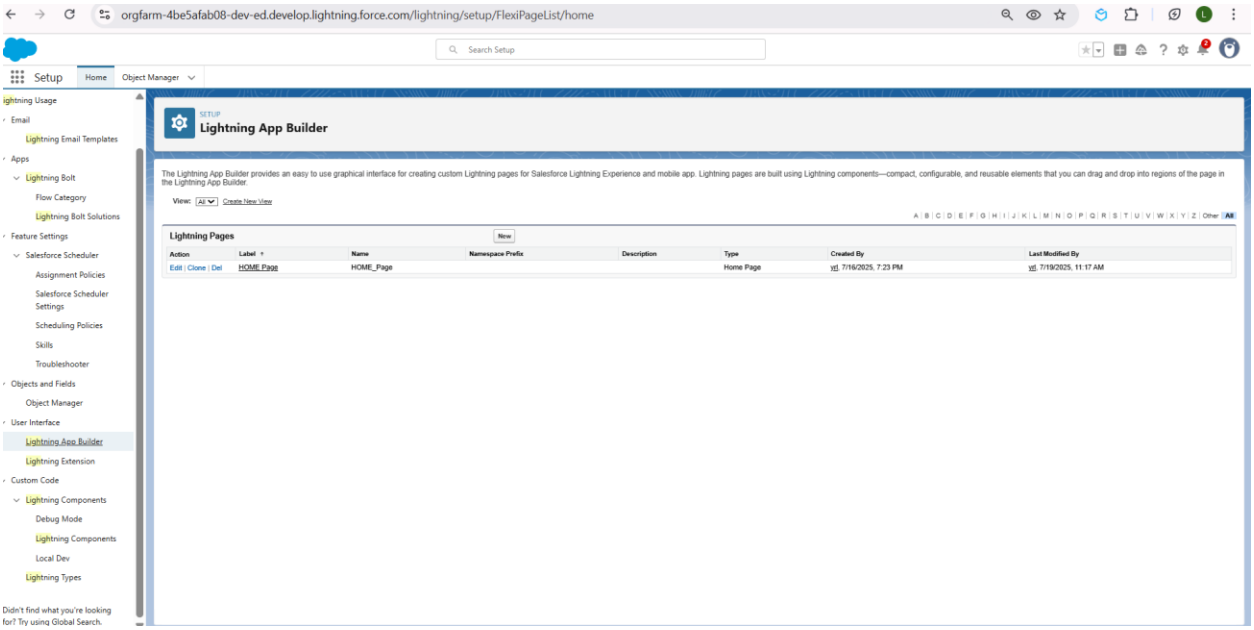




- **Security Model:** A multi-layered security model was designed. It starts with a custom NGOS Profile cloned from the Standard User profile. Record access is then controlled by Public Groups and criteria-based Sharing Rules to segment data visibility.

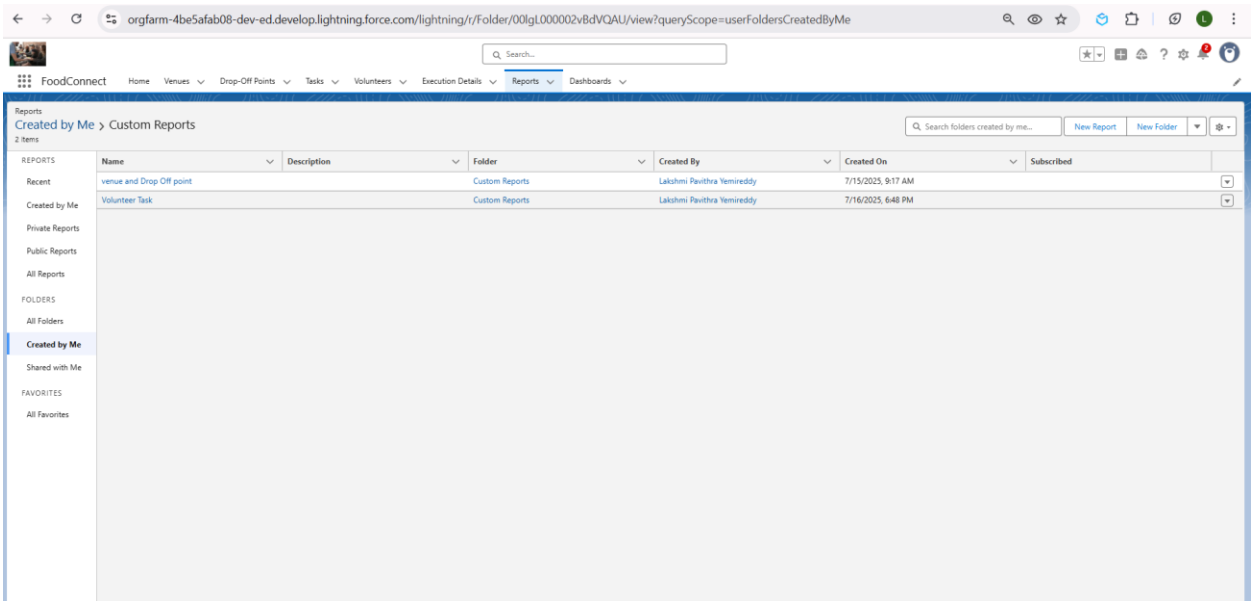


Phase 2: Salesforce Development - Backend & Configurations

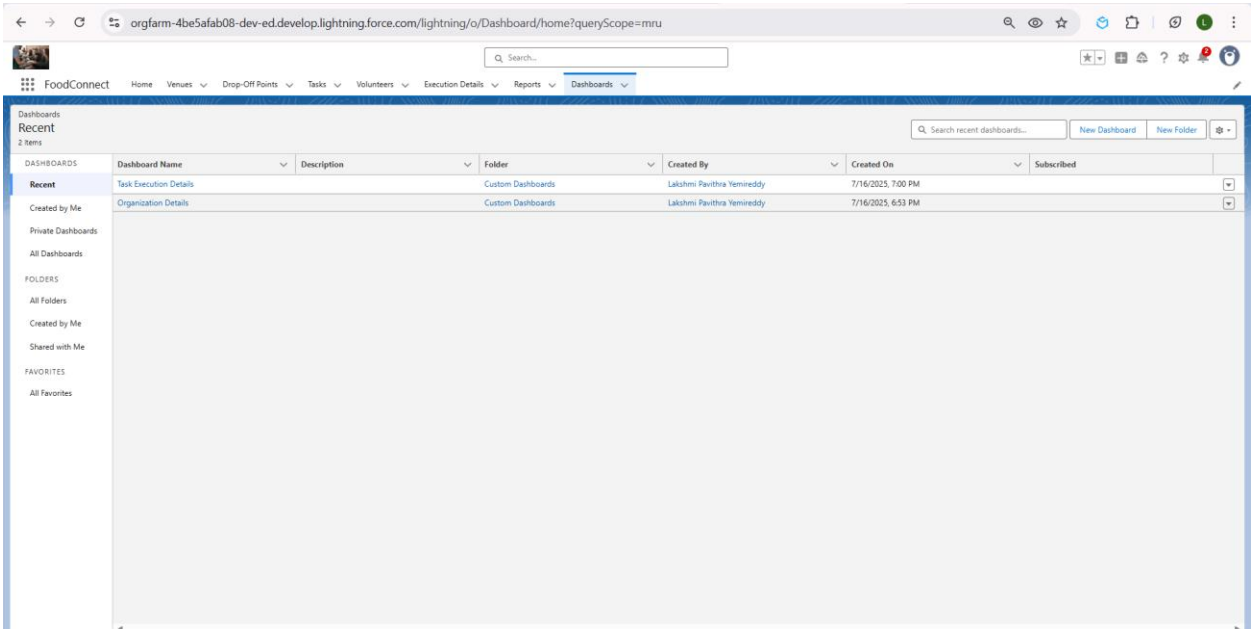
- **Setup Environment:** The project was developed entirely within a Salesforce Developer Edition org.
- **Customization of Objects, Fields, Validation Rules, Automation:**
    - **Objects and Fields:** All custom objects and fields were created as per the project specifications. This includes Text, Number, Picklist, Date, and Formula fields.
    - **Automation (Flows):** A **Screen Flow** named "Venue Form" was created to allow users to quickly create a Venue record directly from the Home Page. This flow captures all necessary details (Name, Email, Location, etc.) and creates the record, improving user experience.
    - **Apex Trigger:** An Apex Trigger named **DropOffTrigger** was created on the Drop_Off_Point__c object. This before insert trigger automatically populates the Drop_distance_calculation__c field based on other inputs, ensuring data consistency and automating a data-entry step.

Phase 3: UI/UX Development & Customization

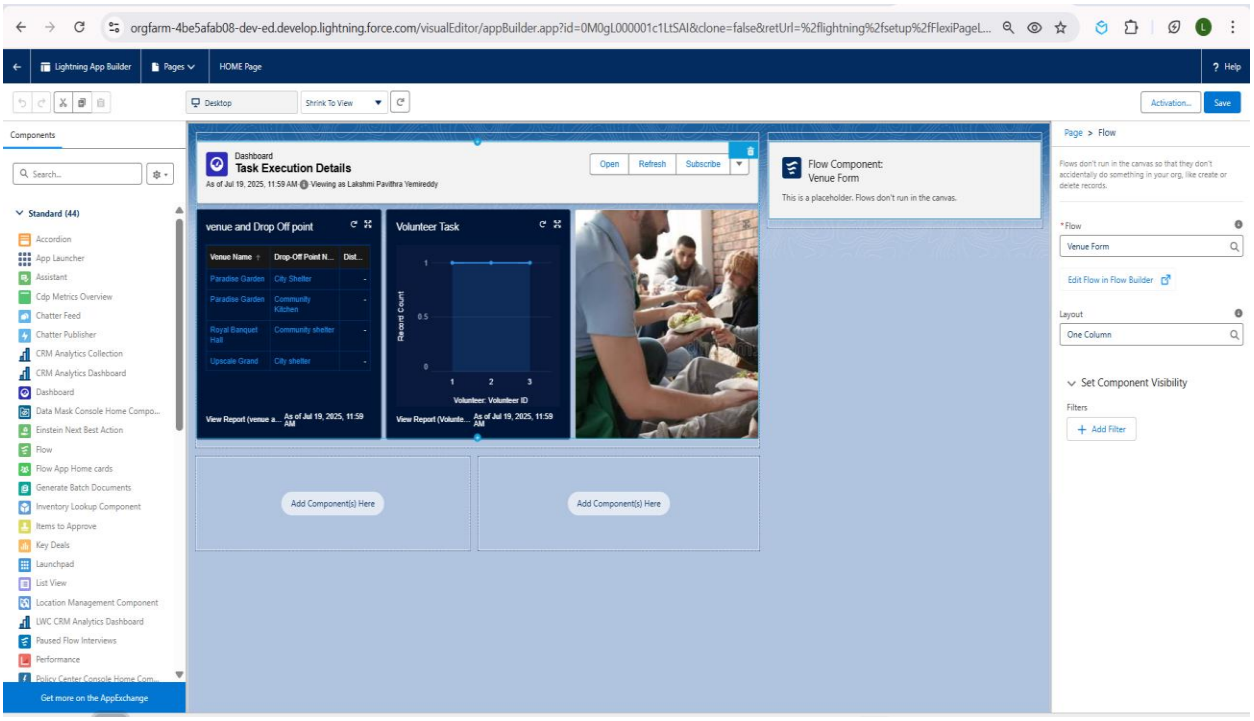
- **Lightning App Setup:** The "FoodConnect" Lightning App was created, configured with a custom logo, and assigned the necessary navigation tabs.
- **User Management:** Three users were created, including Isha Foundation, and assigned the custom NGOS Profile to ensure they have the correct permissions.
- **Reports and Dashboards:**
    - **Report Types:** A custom report type was created to join Venue, Drop-Off Point, and Volunteer objects, allowing for comprehensive reporting across related data.
    - **Reports:** Two primary reports were built: "venue and Drop Off point" and "Volunteer Task".



- **Dashboard:** A "Task Execution Details" dashboard was created and embedded on the Home Page. It features a list view of tasks, a chart visualizing tasks per volunteer, and a decorative image.



- **Lightning Pages:** The Home Page was customized using the Lightning App Builder to create an information-rich landing page for users, featuring the main dashboard and the "Venue Form" flow.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Inventory Lookup Component
Items to Approve
Key Deals
Launchpad
List View
Location Management Component
LWC CRM Analytics Dashboard
Paused Flow Interviews
Performance
Get more on the AppExchange
Dashboard
Task Execution Details
As of Jul 19, 2025, 11:59 AM
Viewing as Lakshmi Pavithra Yemireddy
Open
Refresh
Subscribe
venue and Drop Off point
Venue Name
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Paradise Garden
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Royal Banquet Hall
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Upscale Grand
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Add Component(s) Here
Add Component(s) Here
Flow Component:
Venue Form
This is a placeholder. Flows don't run in the canvas.
Page > Flow
Flows don't run in the canvas so that they don't accidentally do something in your org, like create or delete records.
*Flow
Venue Form
Edit Flow in Flow Builder
Layout
One Column
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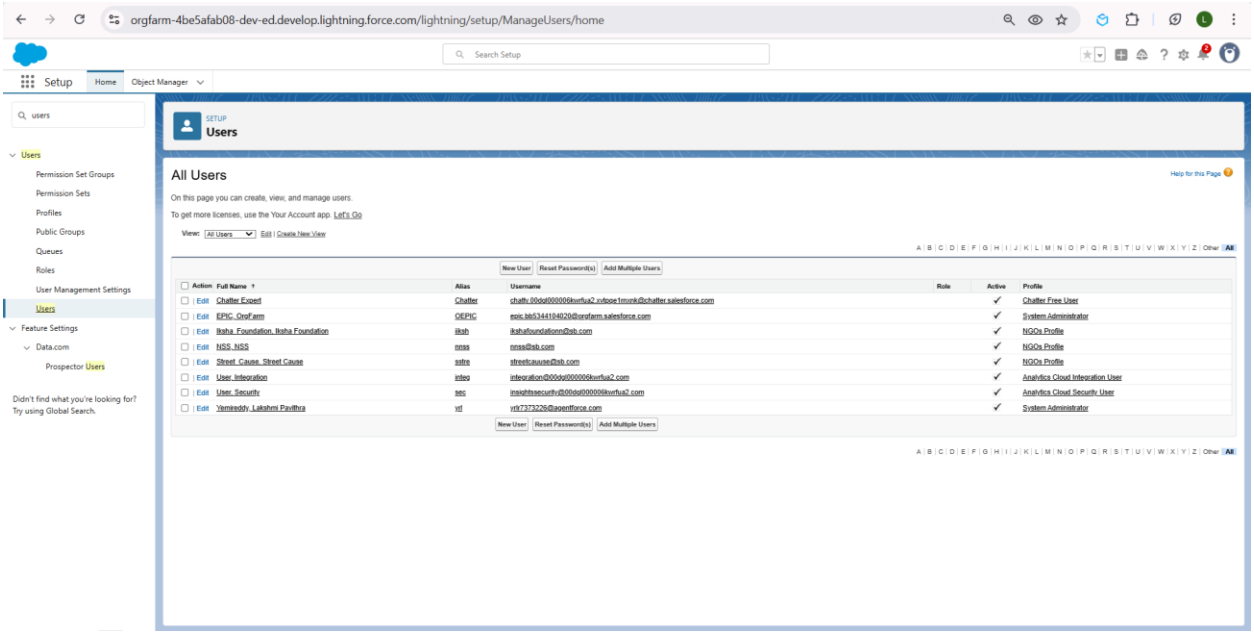
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SETUP
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Help for this Page
On this page you can create, view, and manage users.
To get more licenses, use the Your Account app. Let's Go
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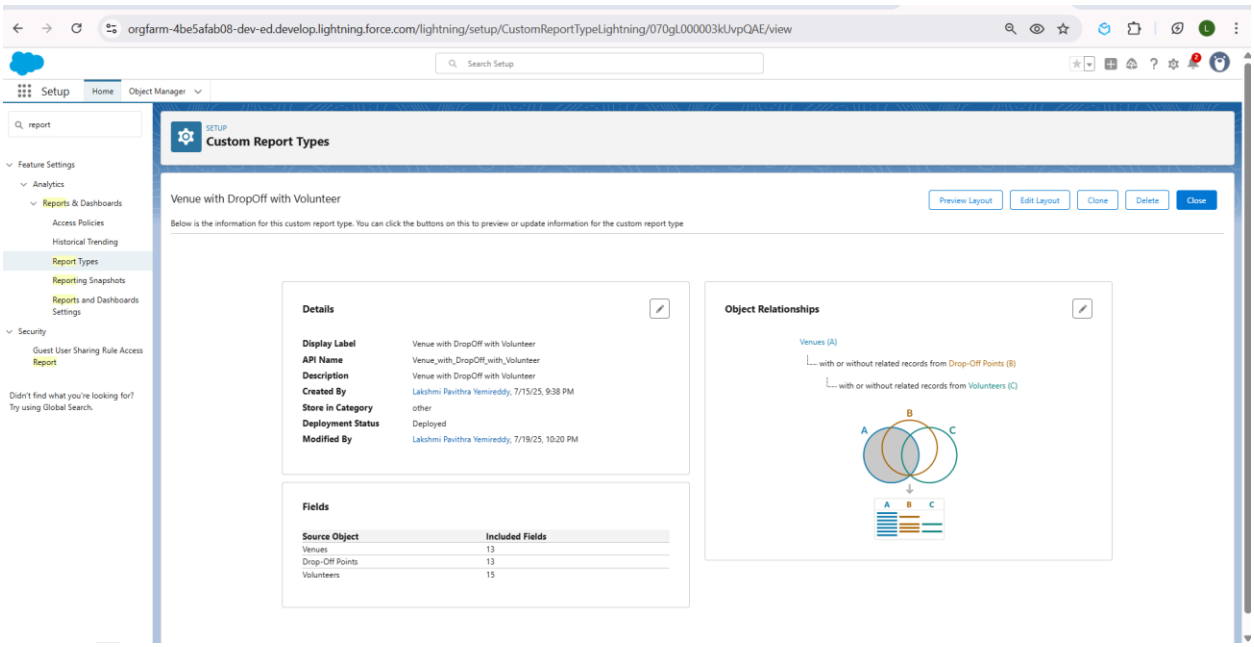
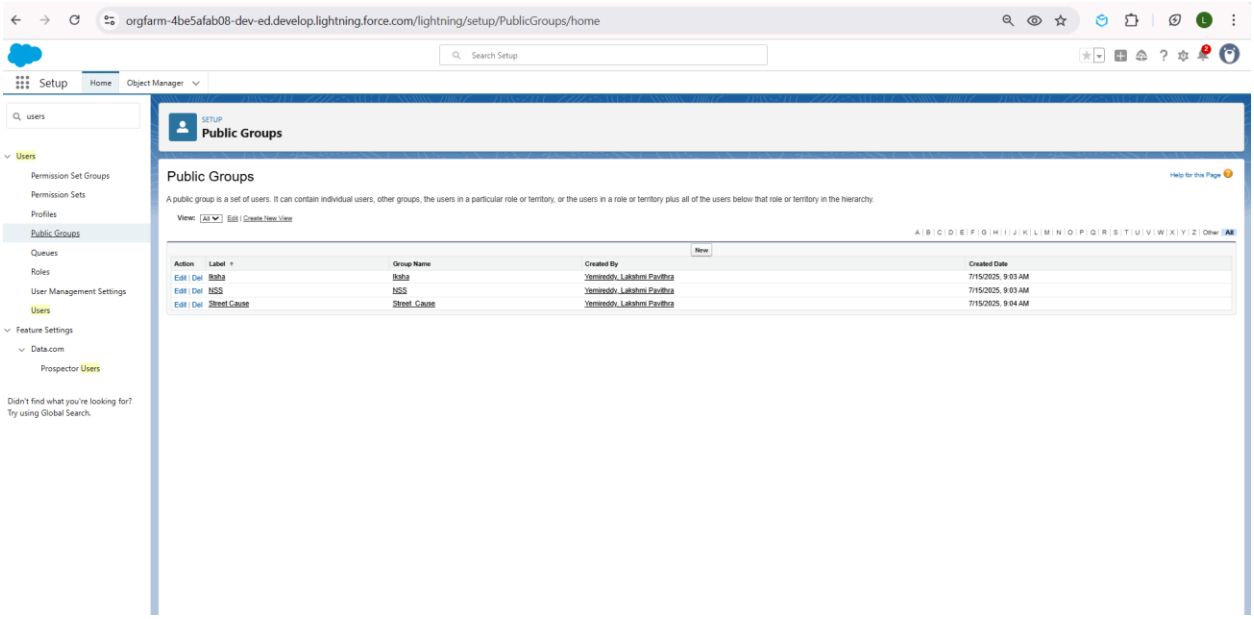
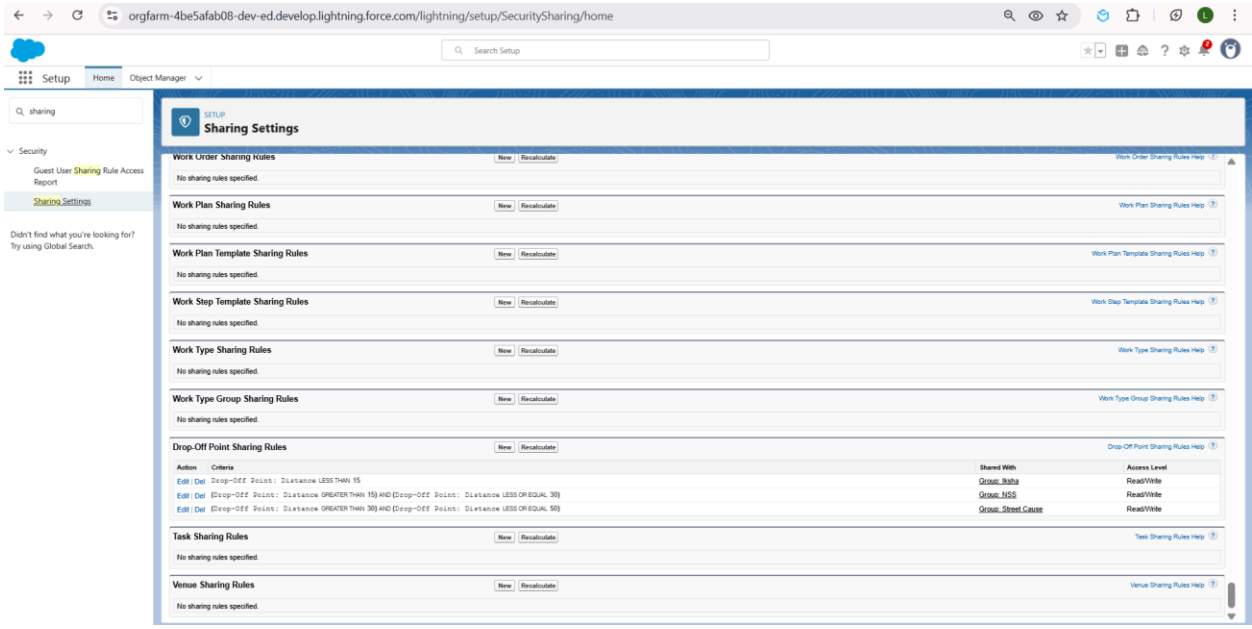


Phase 4: Data Migration, Testing & Security

- **Data Loading Process:** Initial data was entered manually to test functionality and populate the dashboard.
- **Profiles, Roles and Role Hierarchy, Permission sets, Sharing Rules:**
    - **Profiles:** A custom NGOS Profile was created to define the baseline permissions for non-admin users.
    - **Public Groups:** Two public groups, Isha and NGOS, were created to group users for sharing purposes.



- **Sharing Rules:** Three criteria-based sharing rules were created on the Drop-Off Point object. These rules use the Distance field to automatically grant read/write access to records to specific public groups. For example, records with a distance less than 15 are shared with the Isha group, while records with a distance between 15 and 30 are shared with the NGOS group. This is a critical feature for segmenting regional data.

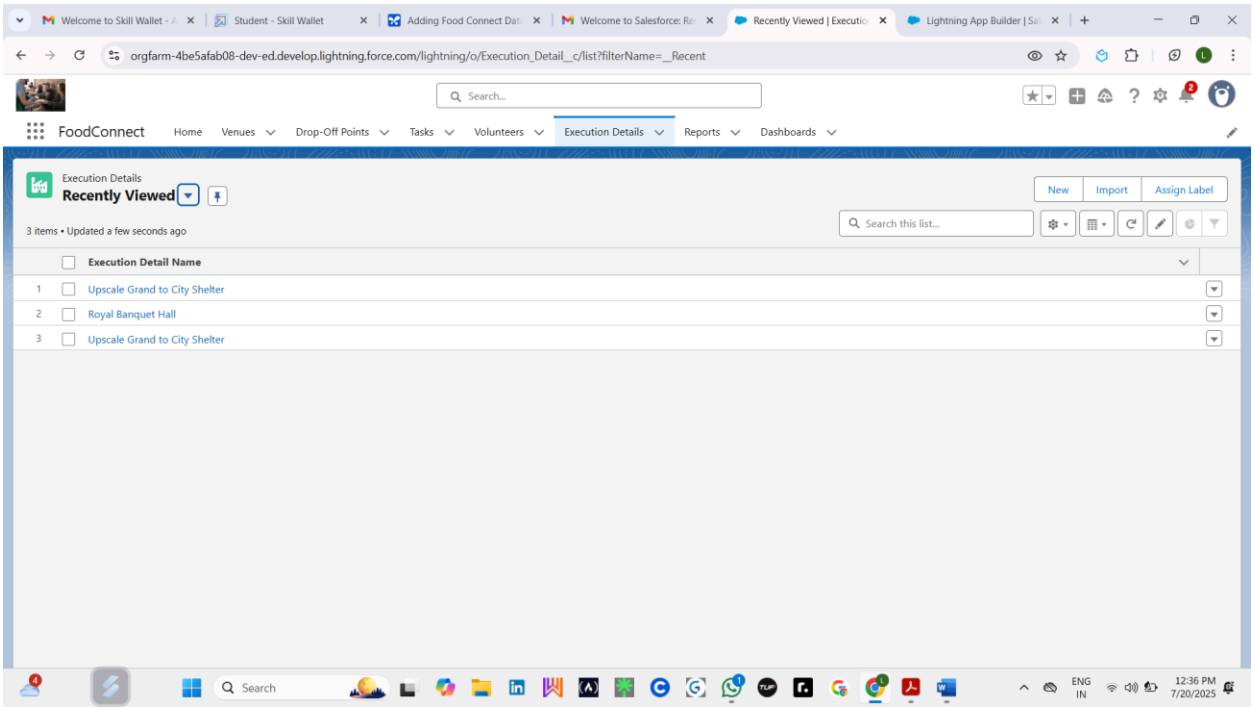


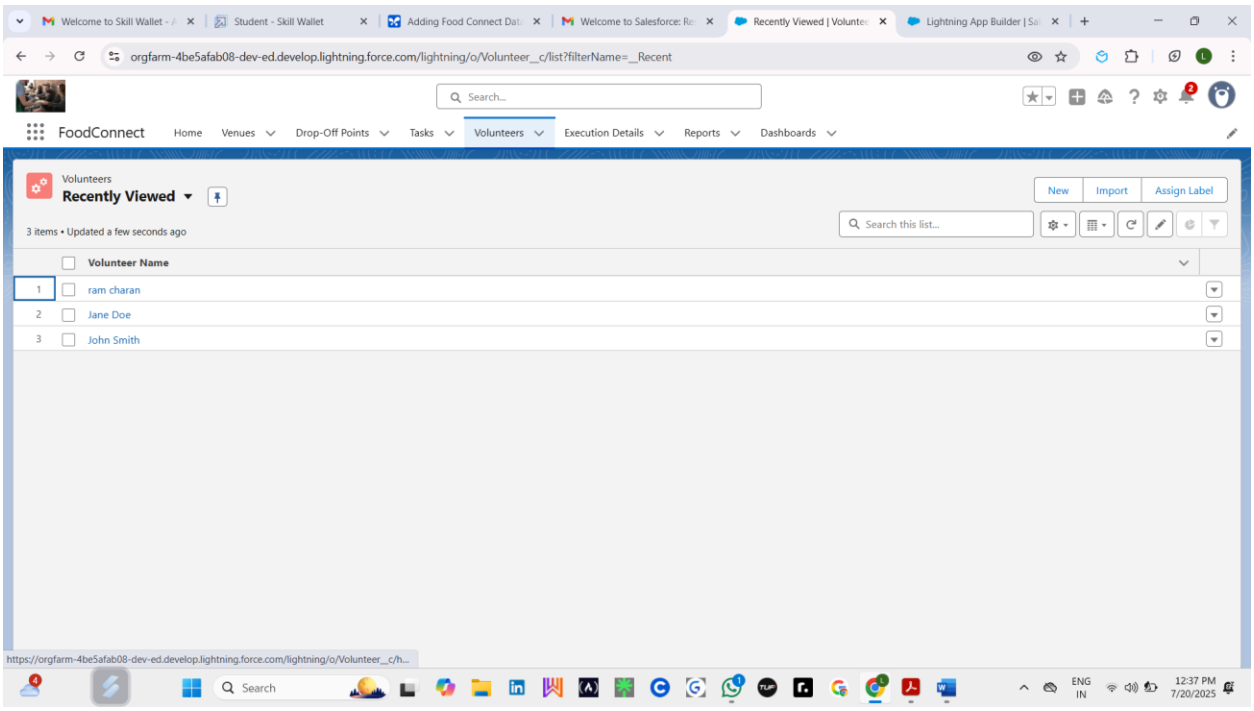
- **Preparation of Test Cases:** Functional testing was performed.
  - **Test Case Example (Sharing Rule):**

- **Test Case ID:** TC-002
- **Feature:** Sharing Rule for Distances < 15.
- **Steps:**
    1. Log in as a System Administrator.
    2. Create a Drop-Off Point record with a Distance of 10.
    3. Log in as user 'Isha Foundation' (who is in the 'Isha' public group).
    4. Attempt to view and edit the new Drop-Off Point record.
- **Expected Result:** The user 'Isha Foundation' can successfully view and edit the record.
- **Actual Result:** As expected.
- **Status:** Pass.

Phase 5: Deployment, Documentation & Maintenance

- **Deployment Strategy:** For a real-world scenario, all components (Objects, Fields, Flow, Trigger, Profiles, Sharing Rules, Reports, Dashboard, etc.) would be packaged into a **Change Set** and deployed from the development environment to a UAT/Staging Sandbox for further testing before final deployment to Production.

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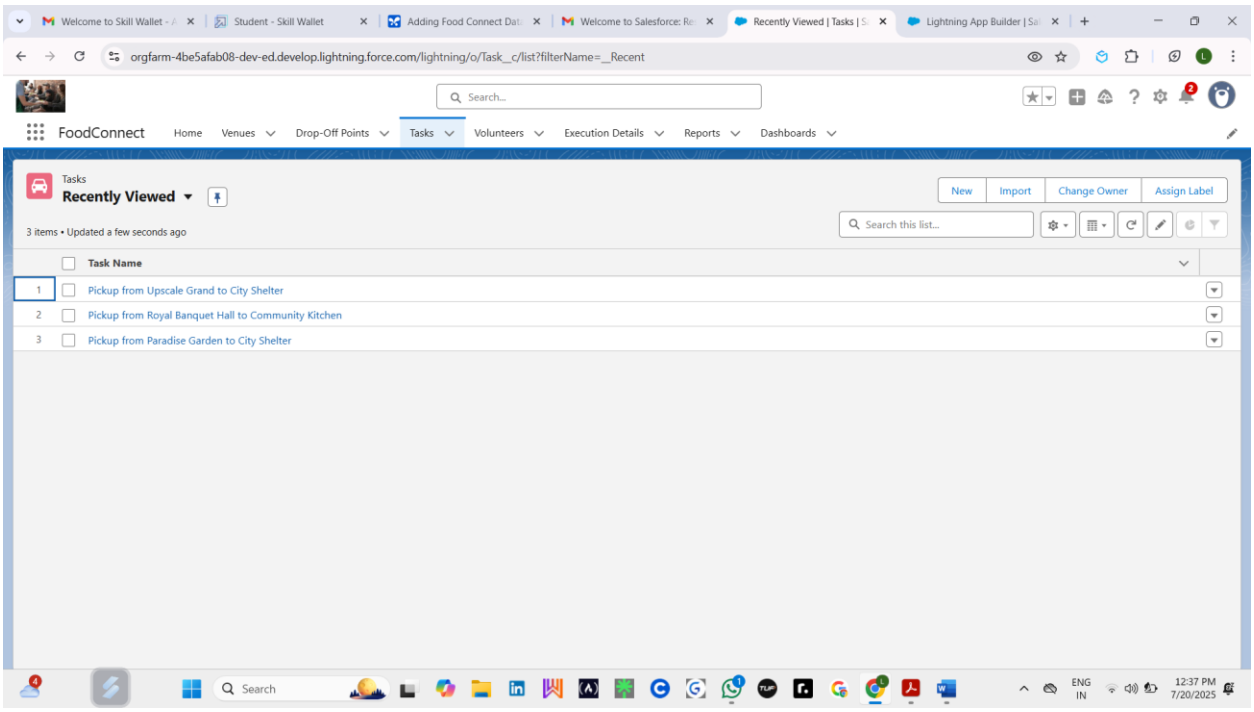
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FoodConnect
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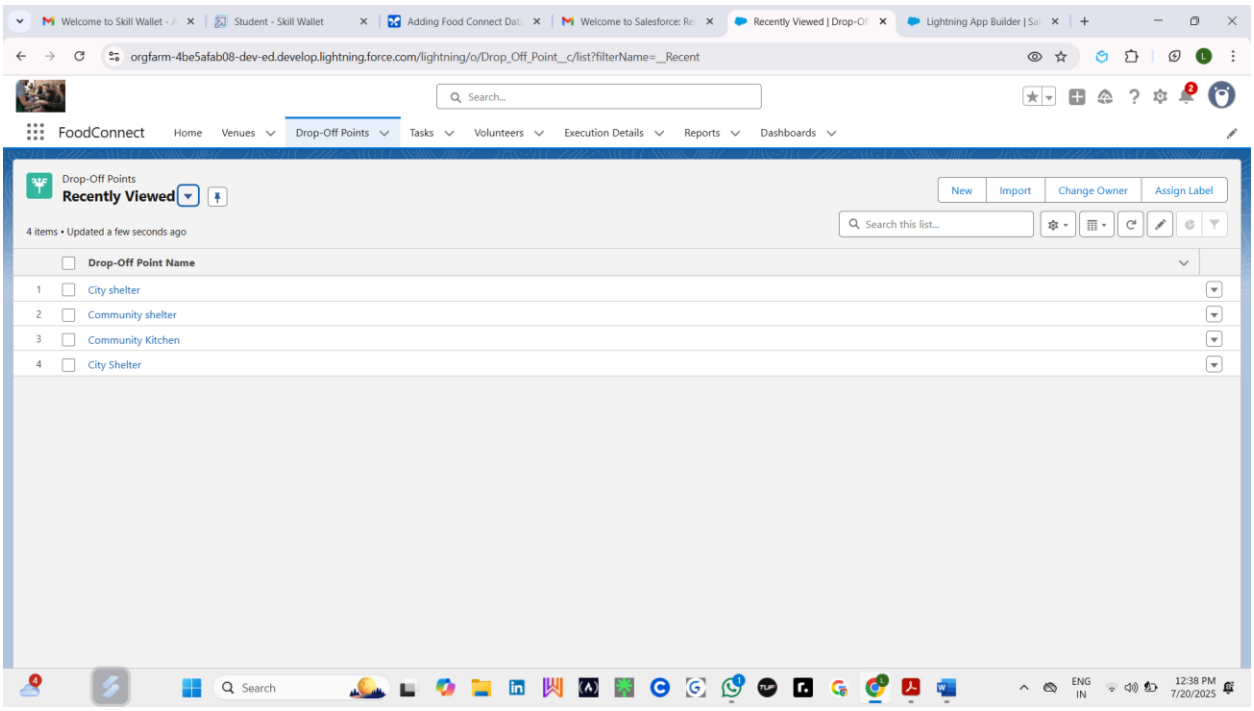
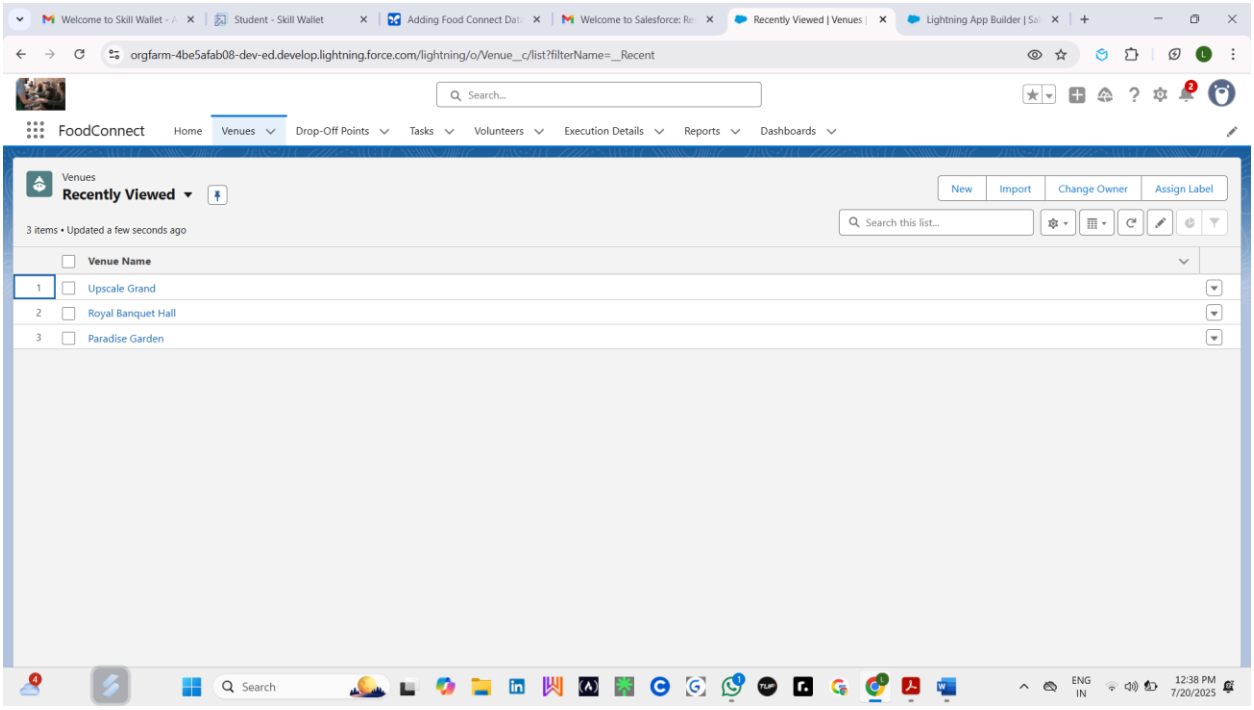
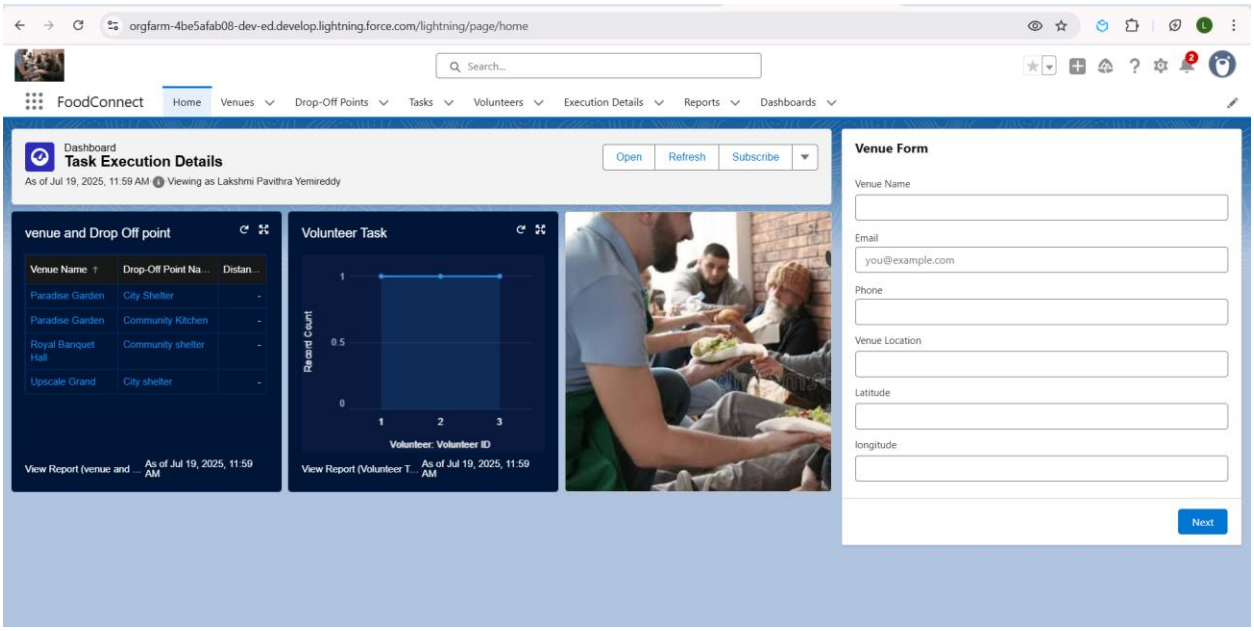
2 Pickup from Royal Banquet Hall to Community Kitchen
3 Pickup from Paradise Garden to City Shelter





- **Maintenance & Troubleshooting:** Maintenance involves user management and monitoring system performance. Troubleshooting would involve analyzing debug logs for the Apex Trigger or using the Flow debug tool to resolve any issues.



Conclusion

By leveraging the Salesforce platform's declarative and programmatic capabilities, the FoodConnect project successfully established a streamlined and transparent system for managing surplus food donations. Through efficient coordination with volunteers and timely delivery to beneficiaries, the project effectively addresses food insecurity while maximizing the utilization of available resources. The implementation of automation and a robust security model ensures the platform is both efficient and secure.