Smart Internz

To Supply Leftover food to Poor

1. Project Overview

This project aims to address the critical challenge of food wastage by establishing a system that allows for the efficient donation and distribution of leftover food to those in need. The solution will leverage Salesforce's robust platform, including its custom objects, process automation tools, and user-friendly interfaces to create an effective way for organizations, restaurants, and food banks to manage food donations. The primary goal is to enhance the operational efficiency of food donations, improve tracking, and ultimately increase the amount of food distributed to the poor, aligning with the organization's goal to reduce hunger and minimize waste.

2. Objectives

Business Goals:

- **Food Donation Tracking**: Efficiently track and manage food donations to ensure that the food reaches the intended recipients.
- **Volunteer Management**: Organize volunteers for food pickup, distribution, and outreach.
- **Collaboration with Local Food Banks**: Facilitate partnerships with local food banks and organizations to ensure seamless distribution of food.
- **Reporting and Analytics**: Provide real-time data to assess the success of food distribution efforts, identifying trends and areas for improvement.

Specific Outcomes:

- Develop a user-friendly system for recording food donations, including quantity, type of food, and expiration dates.
- Create a dashboard to visualize donation and distribution data.
- Automate notifications for food pickup and delivery schedules.
- Set up user roles for donors, volunteers, and food bank staff to ensure proper access and security.

3. Salesforce Key Features and Concepts Utilized

- **Custom Objects**:
    - Create custom objects to track food donations, including fields for donor information, food categories, expiration dates, pickup locations, and delivery

locations.

- **Process Automation (Flow Builder & Process Builder)**:
  - Automate workflows for notifying food banks, volunteers, or food donors when food donations are received or ready for distribution.
- **Reports and Dashboards**:
  - Use Salesforce's reporting capabilities to create custom reports and dashboards for tracking food distribution, volunteer engagement, and donor activity.
- **Salesforce Communities**:
  - Implement a Salesforce Community portal for food donors, volunteers, and food bank staff to collaborate and manage their involvement.
- **Apex Triggers and Classes**:
  - Utilize Apex for advanced functionality such as automating complex business rules around food expiration, or verifying food quality checks before distribution.
- **Data Validation**:
  - Create validation rules to ensure that only usable food donations are logged, with checks on expiration dates, quantities, and types of food.

4. Detailed Steps to Solution Design

Step 1: Data Modeling

- **Custom Objects:**
  - **Food Donation Object**: Stores details such as food type, quantity, expiration date, and donor information.
  - **Volunteer Object**: Captures details about each volunteer, including contact info and availability.
  - **Pickup Schedule Object**: Tracks pickup and delivery dates, volunteer assignments, and food bank details.
- **Relationships:**
  - **Food Donation to Volunteer**: One-to-many relationship to track which volunteers are assigned to specific food donations.
  - **Food Donation to Food Bank**: Many-to-many relationship to link food donations with one or more food banks.

Step 2: User Interface Design

- **Food Donation Form**: A user-friendly form for food donors to easily log their donations.
- **Volunteer Dashboard**: Allows volunteers to view upcoming pickup schedules and

available donations for distribution.

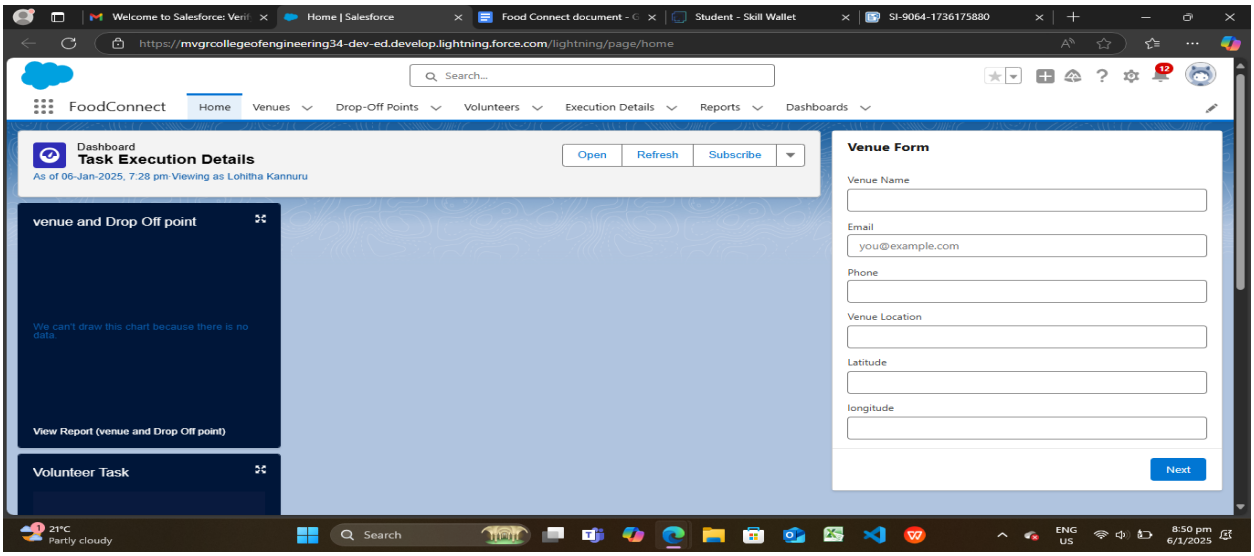
- **Admin Dashboard**: Displays key metrics like the total food donated, food distribution by region, volunteer engagement, etc.

Step 3: Business Logic

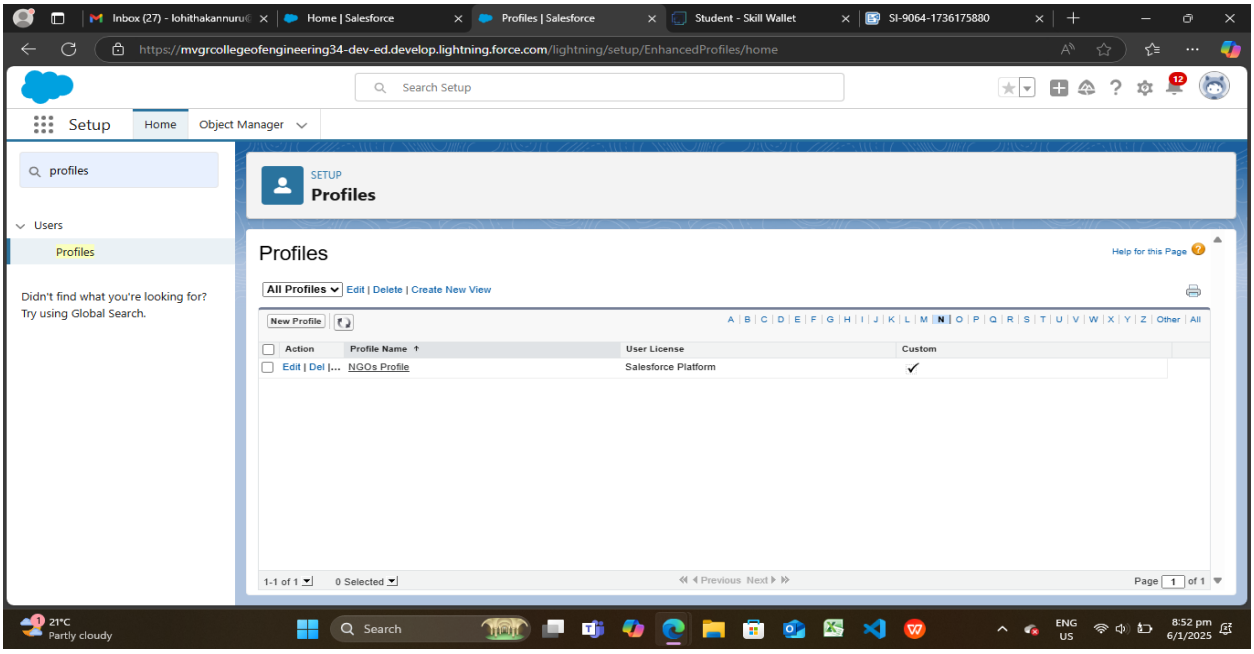
- **Automated Notifications**: Set up automation using Process Builder to notify volunteers when they have an assigned pickup or when food is ready for distribution.
- **Expiration Date Alerts**: Use Flows to alert admins when food donations near their expiration date, ensuring only fresh food is distributed.

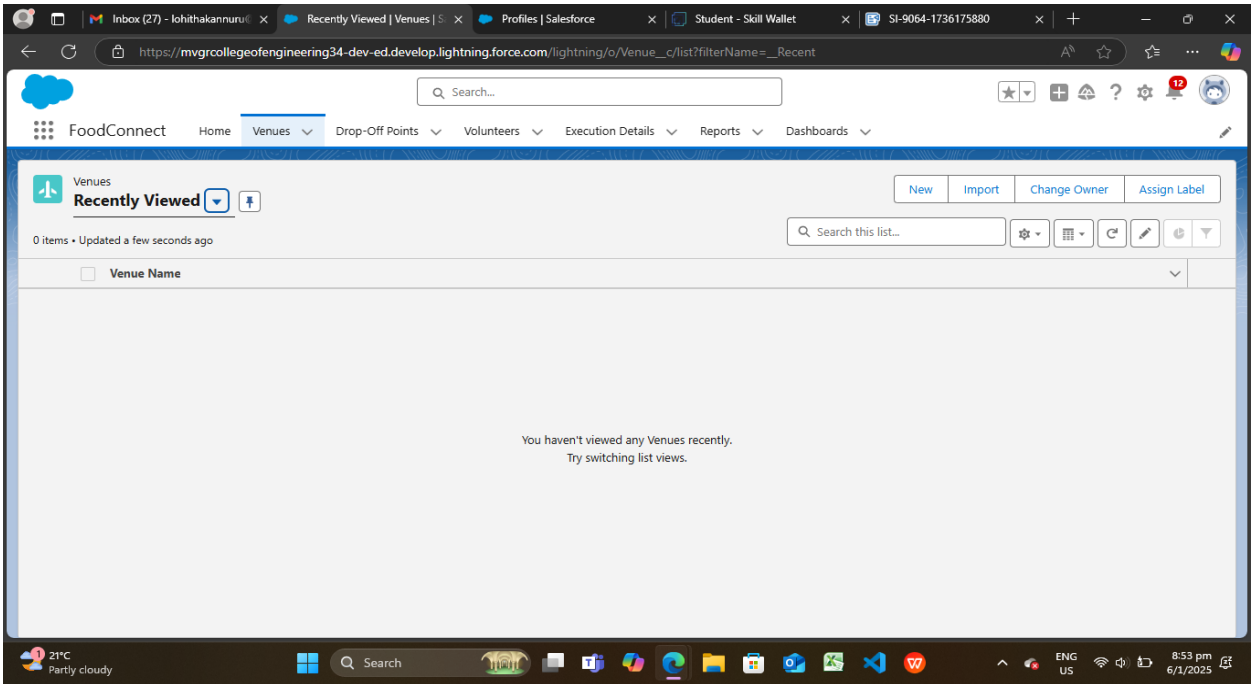
Step 4: Security Model

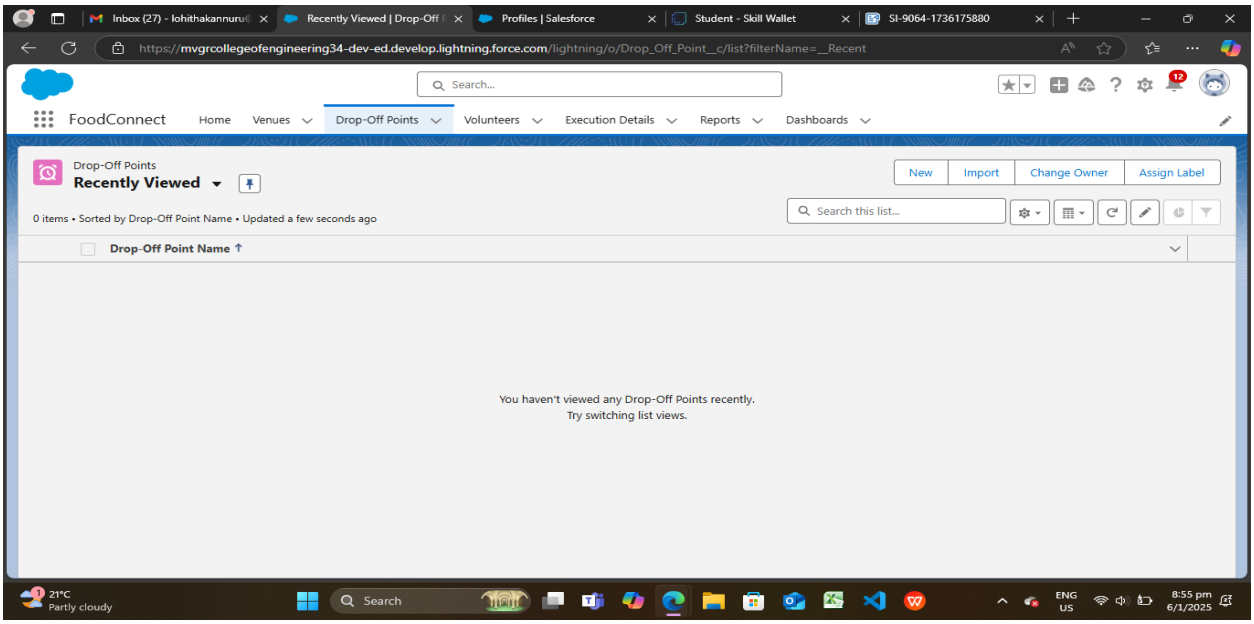
- Implement user profiles with specific permissions (e.g., food donor, volunteer, food bank staff) to control access to sensitive data.

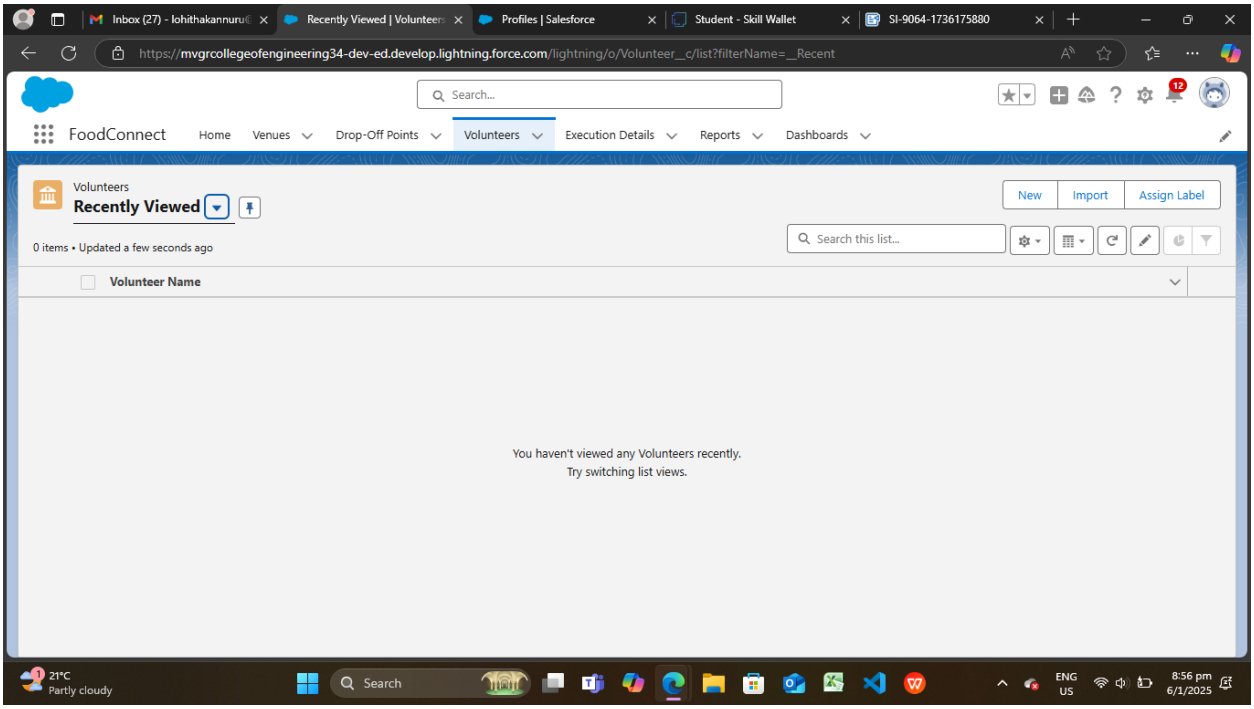


Smart Internz

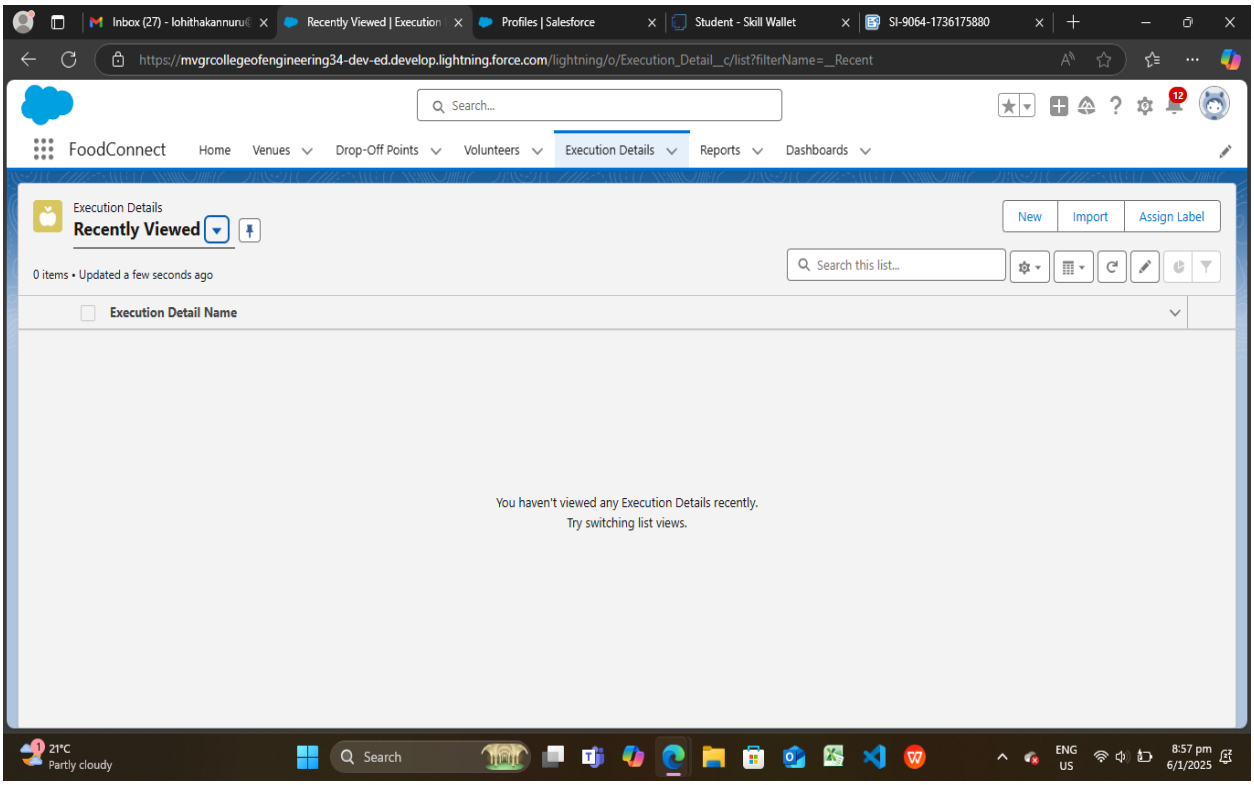








5. Testing and Validation



Unit Testing (Apex Classes, Triggers):

- **Test Data Creation**: Develop test classes to simulate donations, volunteer assignments, and food distribution processes.
- **Trigger Testing**: Validate that triggers are firing as expected, such as alerts for expired food or automated pickup scheduling.

User Interface Testing:

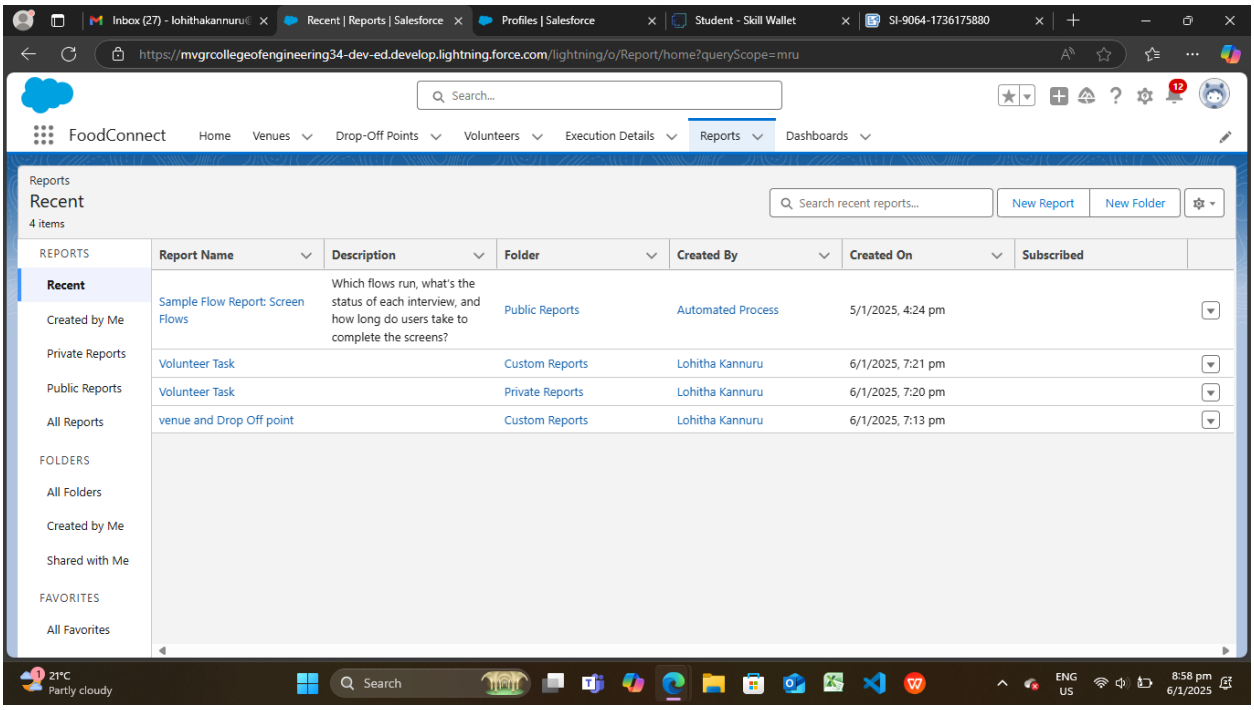
- **Donor Interface**: Test the donation form to ensure data is accurately recorded and that validation rules are working.
- **Volunteer Interface**: Test the volunteer dashboard to ensure volunteers can view upcoming pickup assignments and log their actions.

Integration Testing:

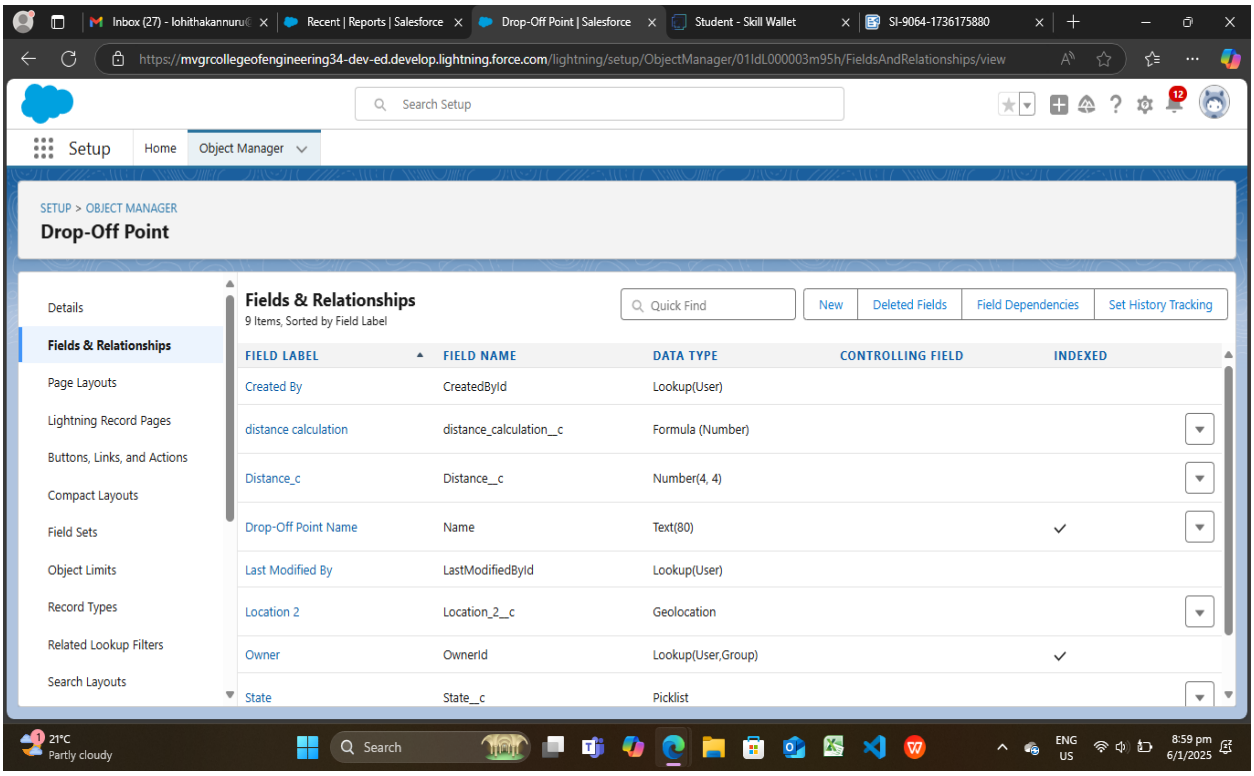
- Ensure that data flows seamlessly between different objects (e.g., donations being linked to food banks and volunteers).

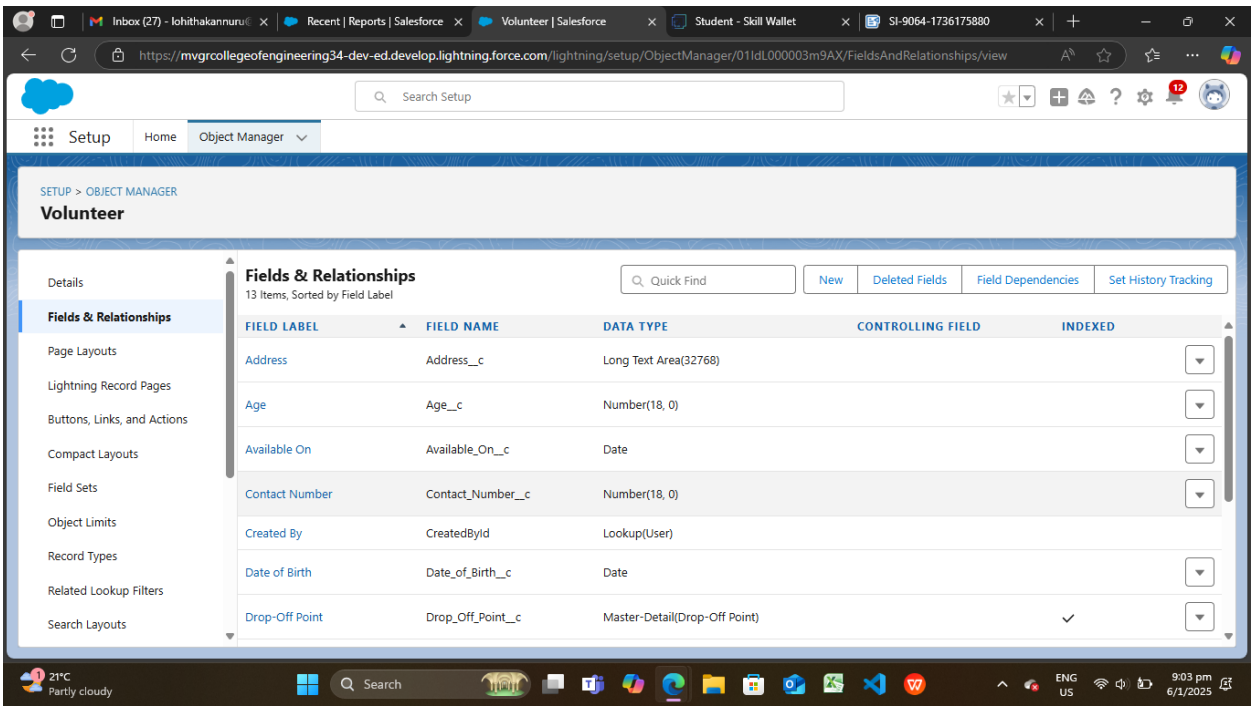
6. Key Scenarios Addressed by Salesforce in the Implementation Project

- **Scenario 1: Donation Logging**
  - A donor logs a new donation. The system records the donation details, checks the expiration date, and stores the data.
- **Scenario 2: Volunteer Assignment**
  - A volunteer is automatically assigned to a food donation based on availability and proximity to the food bank. They receive an email notification.
- **Scenario 3: Pickup Scheduling**
  - A food bank admin sets a pickup schedule, which automatically generates a task for a volunteer. The system tracks the pickup date and notifies both the volunteer and food bank.
- **Scenario 4: Reporting & Analytics**
  - The admin generates a report showing total donations by category or the number of volunteers engaged in a certain time period. Insights are used to improve distribution strategies.



Smart Internz





7. Conclusion

Summary of Achievements:

- The project successfully implemented a comprehensive food donation management system using Salesforce, automating key processes like donation tracking, volunteer scheduling, and pickup notifications.
- Custom dashboards provide real-time insights, enabling better decision-making and resource allocation.
- Through this solution, the organization has significantly increased food distribution efficiency and helped reduce food waste, supporting the long-term goal of alleviating hunger in the community.

This Salesforce-powered solution provides a sustainable framework for organizations to streamline food donation efforts, maximize impact, and make a meaningful difference in the fight against hunger.