

# DonarLink

DISASTER RELIEF & DONATION DISTRIBUTION TRACKER

# Phase 1. Project Title

#### Introduction

Disaster relief operations often face problems like delayed aid, lack of proper donation tracking, and mismanagement of supplies. **DonarLink** is a Salesforce-based system created to solve these issues.

It allows organizations to track donations, manage supplies, assign volunteers automatically, monitor distributions, and view real-time dashboards. The goal is to make relief operations faster, transparent, and well-organized.

#### **Problem Statement**

Currently, disaster relief operations are handled manually using spreadsheets and phone calls. This causes:

- Delayed supply distribution.
- Volunteers are not being used properly.
- Poor visibility for management.
- Risk of excess or shortage of relief items.

#### **Objectives**

DonarLink solves these by:

- Centralising all data (donors, supplies, volunteers, distributions).
- Automating volunteer assignment.
- Sending alerts for low supplies.

• Providing dashboards for real-time decisions.

#### **Key Features**

- 1. **Donor Management** Store donor details, type of donation, and amount.
- 2. **Supply Management** Track items, quantity, supplier, and expiry dates.
- 3. **Volunteer Management** Record volunteer details, auto-assign tasks, update availability.
- 4. **Distribution Tracking** Record where supplies go, how much, and who delivered.
- 5. **Automation & Alerts** Auto-assign volunteers, send low-stock alerts.
- 6. **Reports & Dashboards** Visual charts for donations, supplies, and volunteer activities.

#### **Technology Stack**

- Salesforce Developer Edition (Lightning Experience)
- Custom Objects & Relationships
- Flows & Apex Triggers for automation
- Reports & Dashboards
- **Lightning App Builder** for UI

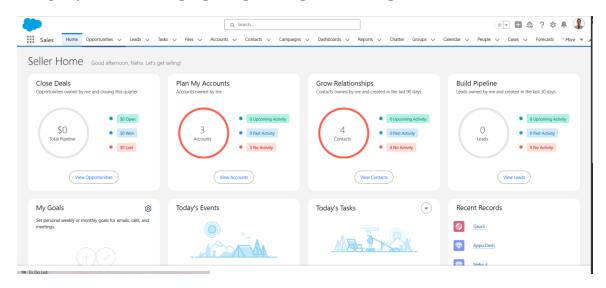
#### **Benefits**

• Faster and fairer relief distribution.

- Better volunteer management.
- Transparency for donors and management.
- Reduced manual errors.
- Real-time decision-making.

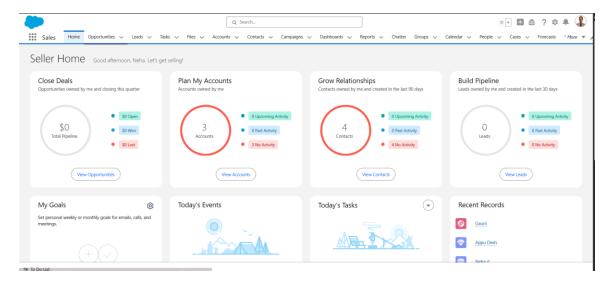
# Phase 2. Org Setup & Configuration

In this phase, we set up the Salesforce Developer Edition for building DonarLink. This involves accessing the Salesforce environment, configuring company details, and preparing the org for development.



Salesforce Home Page

- $\square$  Explain that the home page provides a centralised view for your Salesforce environment.
- ☐ Mention tabs like Home, App Launcher, Setup, and how you navigate to "Setup" for configuring objects and automation.

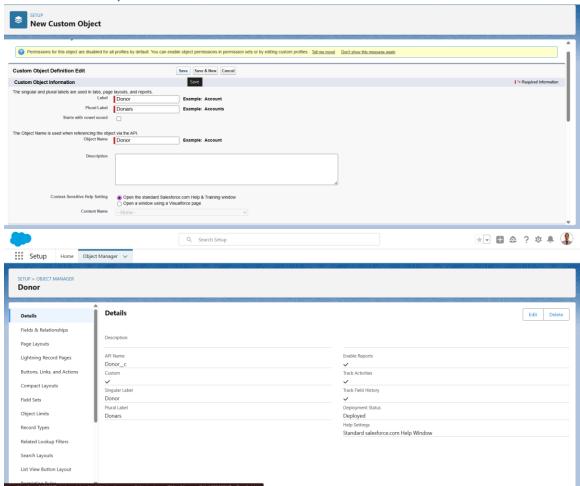


Company Info Setup

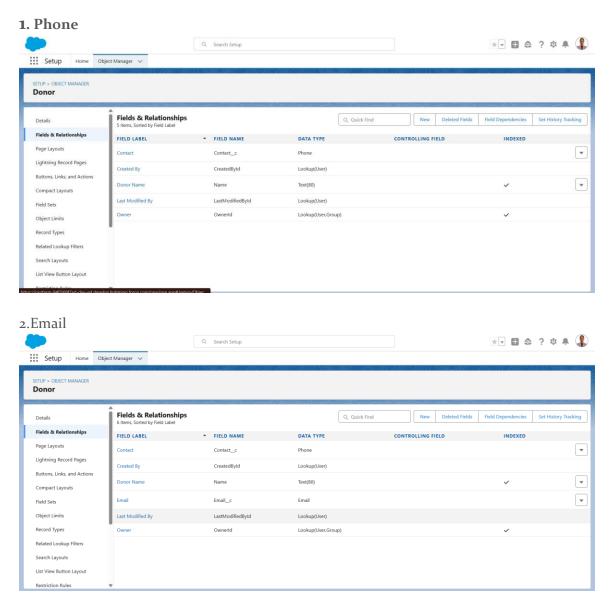
# Phase 3. Data Modeling & Relationships

This phase focuses on designing the data structure for DonarLink. It ensures all donations, volunteers, and distributions are tracked efficiently. Salesforce's Object Manager and Schema Builder are used.

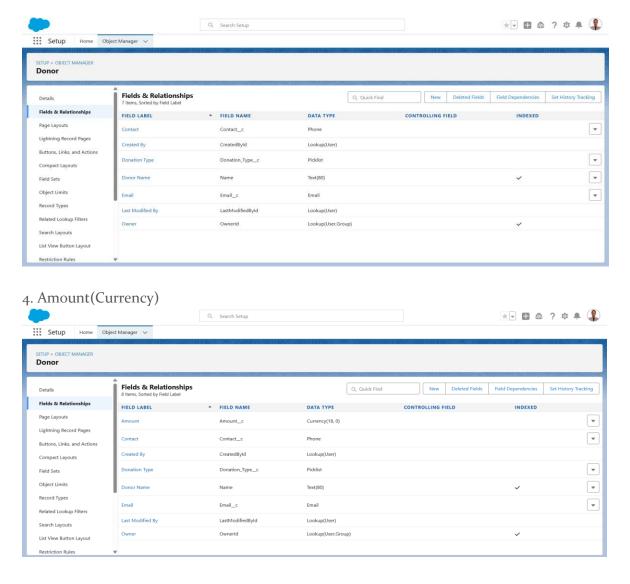
- **Custom Objects & Fields**
- o Donor Object



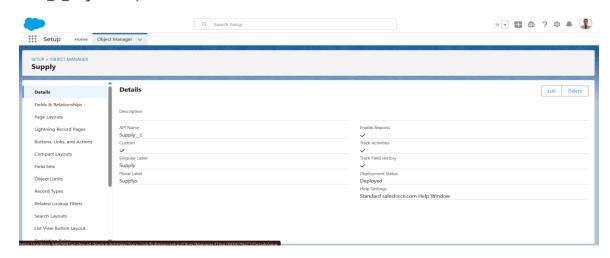
Fields & Relationships of Donar Object



3. Donation Type (Picklist)

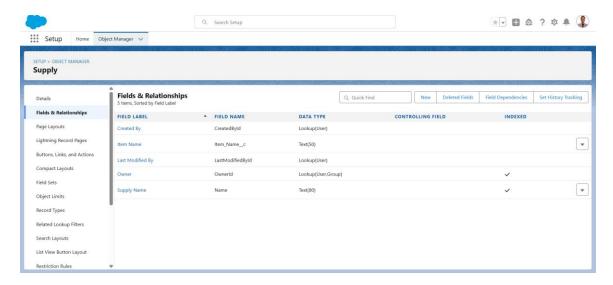


## Supply Object

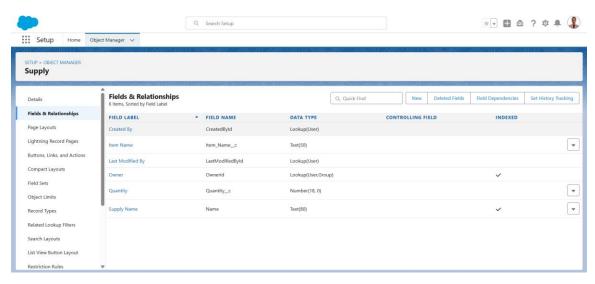


## Fields and Relationships of Supply Object

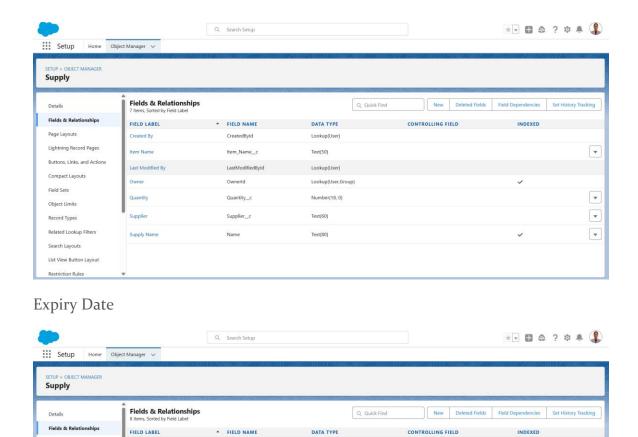
#### Item Name



#### Quantity(Number)



Supplier



Lookup(User)

Text(50)

Lookup(User,Group)

Number(18, 0)

Text(60)

Text(80)

CreatedByld

Expiry\_Date\_\_c

Item\_Name\_\_c

LastModifiedByld
OwnerId

Quantity\_c

Supplier\_c

## Volunteer Object

Last Modified By

Supply Name

Buttons, Links, and Actions

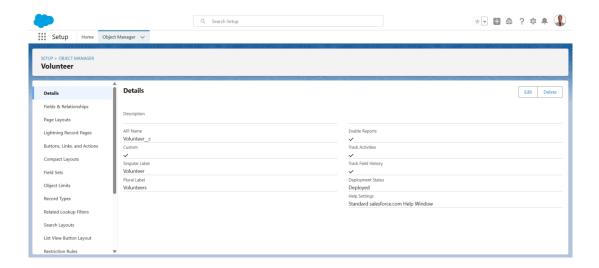
Related Lookup Filters

List View Button Layout

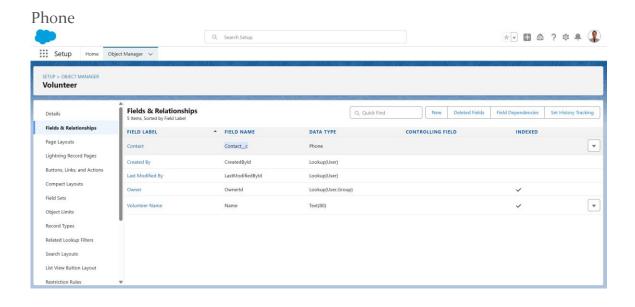
-

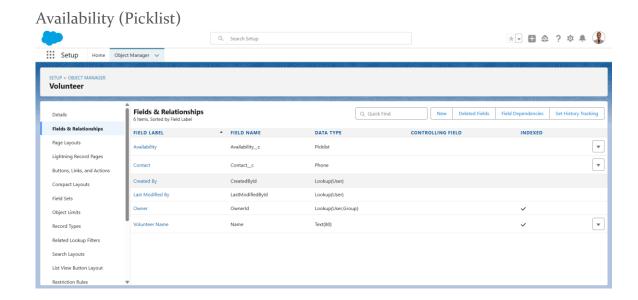
-

•

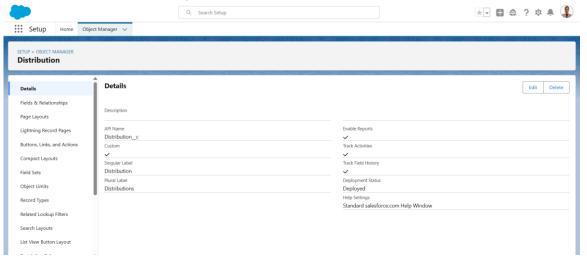


## Fields and Relationship of Volunteer object

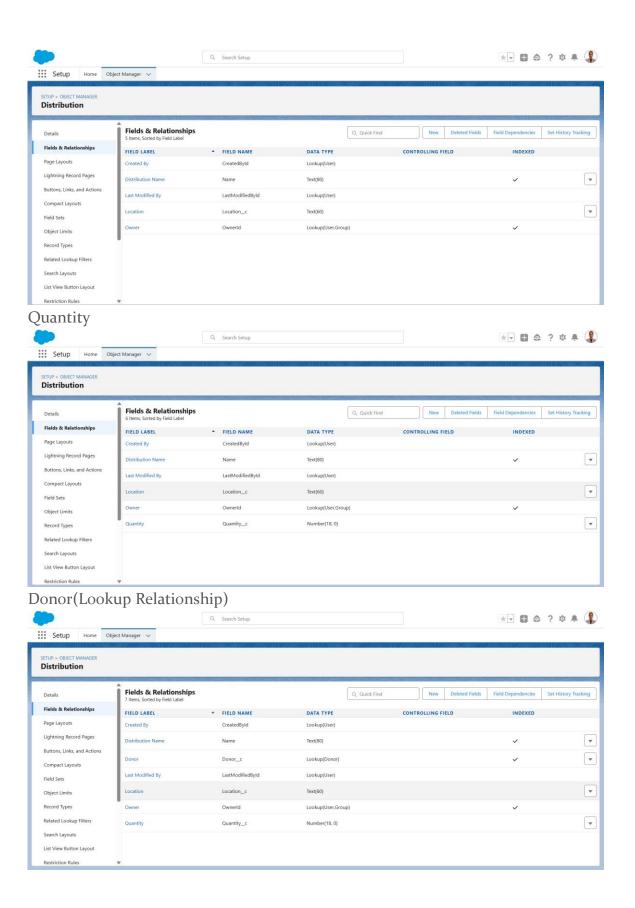




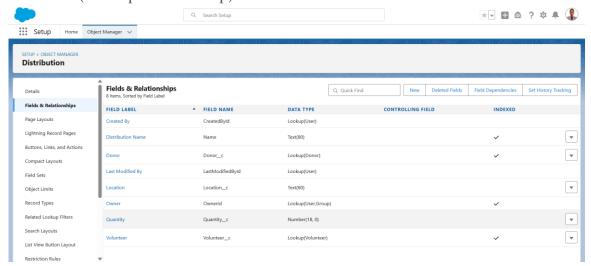
Distribution Object



Location

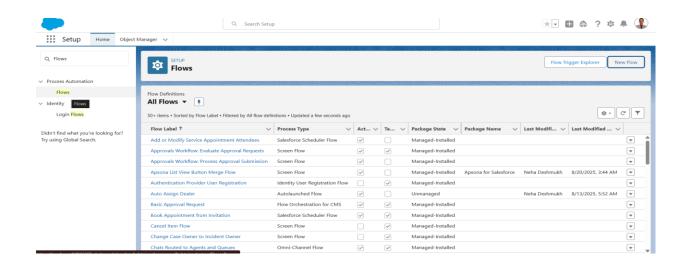


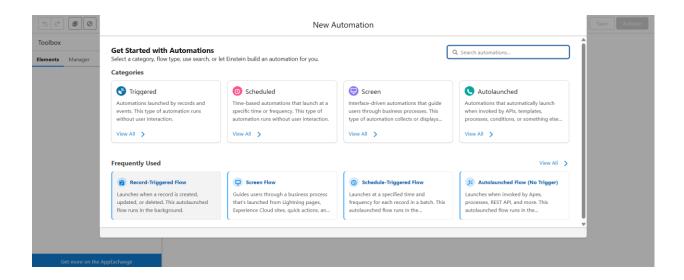
#### Volunteer(Lookup Relationship)

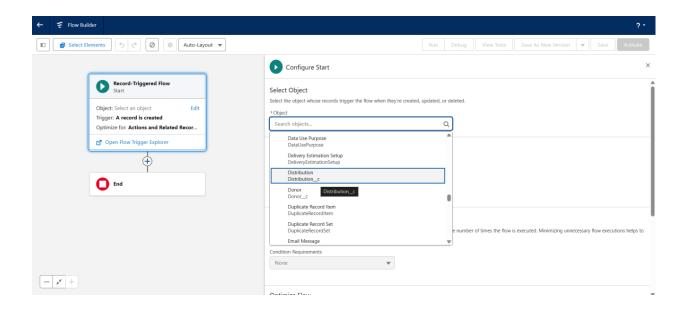


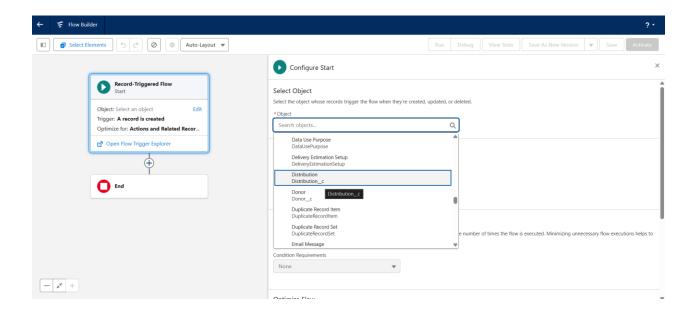
## **Phase 4. Process Automation**

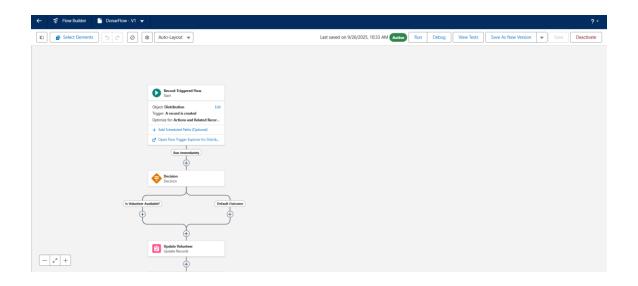
Automation reduces manual work. In DonarLink, volunteers are automatically assigned to distributions using Flows, and validation rules ensure data integrity.







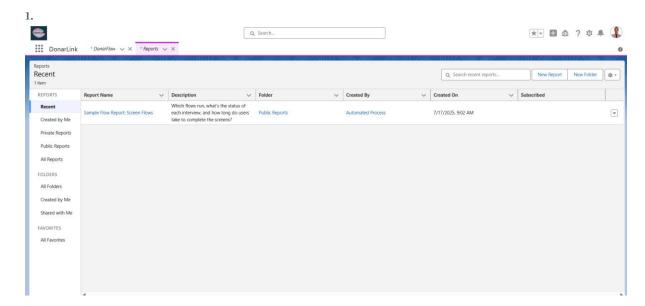




- $\Box$  when a new Distribution record is created, the system finds an available volunteer and assigns them.
- ☐ Mention the logic behind the flow: checking volunteer availability, matching skills (if applicable), and updating the Distribution record.

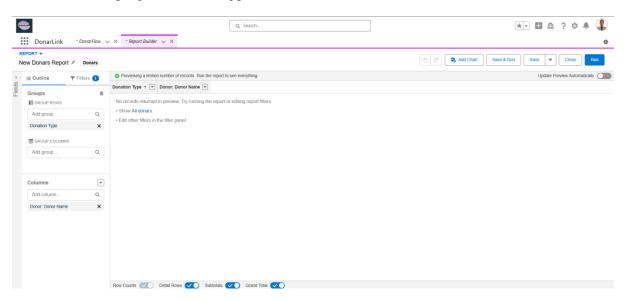
## Reports

- $\circ$  Donor  $\rightarrow$  Group by Donation Type.
- Supply  $\rightarrow$  Filter Quantity < 10.
- Volunteer → Show Availability



2. Select Object (Donor, Supply, Volunteer, Distribution).

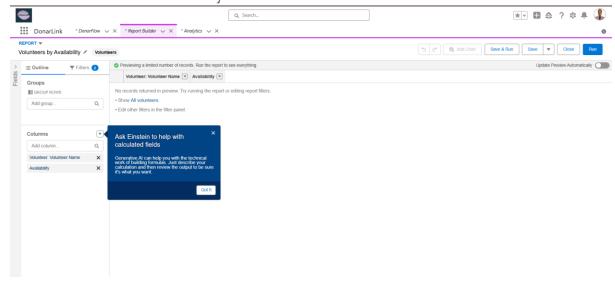
Donor  $\rightarrow$  Group by Donation Type.



Supply  $\rightarrow$  Filter Quantity < 10.



#### Volunteer $\rightarrow$ Show Availability.



# Phase 5. Apex Programming

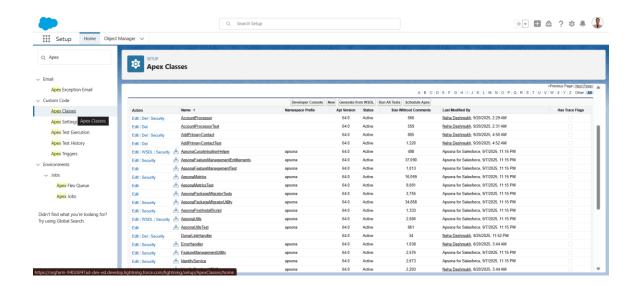
In this phase, we implemented custom logic that could not be handled by standard Salesforce automation. Apex programming allows us to extend Salesforce functionality and automate complex processes.

## Trigger Implementation:

A trigger was created on the **Distribution** object to automatically assign a volunteer whenever a new distribution record is created. The trigger ensures that available volunteers are allocated efficiently without manual intervention.

Handler Class:

A handler class was developed to contain the business logic for the trigger. The class checks volunteer availability and updates the Distribution record accordingly. Using a separate handler class improves maintainability and follows best practices by keeping triggers simple and declarative.



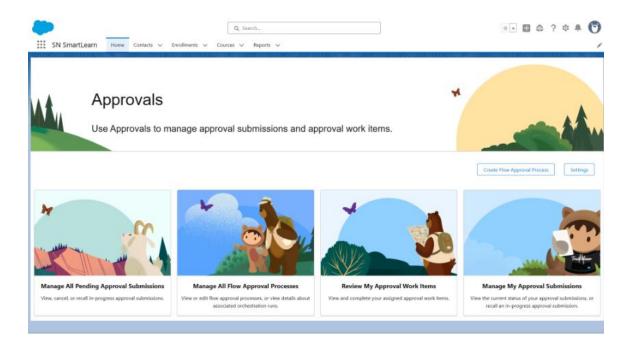
# Phase 6. User Interface Development

Lightning App & Tabs:

Action: You created the SN SmartLearn Lightning App.

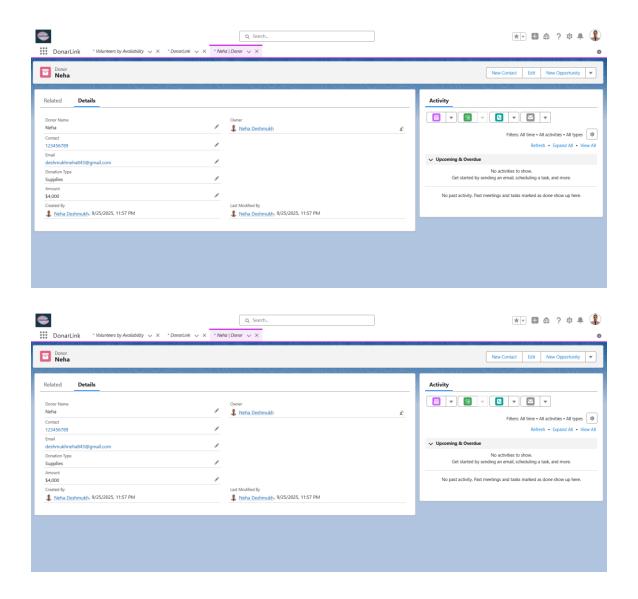
**Use**: This provides a dedicated, branded workspace for your Admissions Team and instructor, separating their work from other functions in Salesforce. The Tabs (Home, Students, Courses, etc.)

Provide easy, one-click navigation to the most important objects

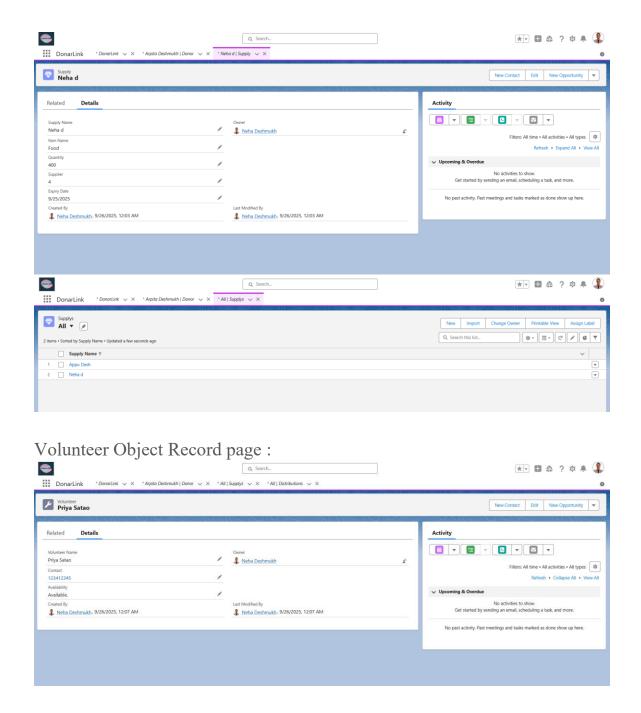


Record Pages

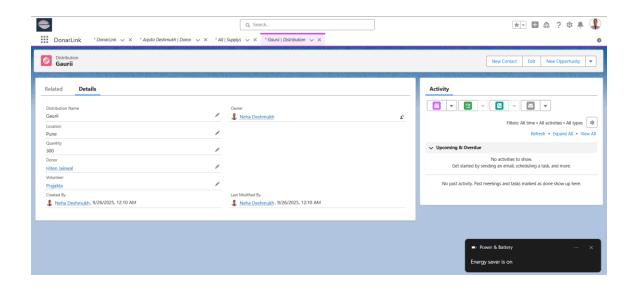
Donar Object Record page:



Supply Object Record page:



Distribution Object Record Page:



# Phase 7. Integration and External Access

In this phase, we focused on extending the functionality of DonarLink by integrating external systems and enabling secure access for authorized users outside the Salesforce platform. Integration ensures that data can flow seamlessly between DonarLink and other applications, improving operational efficiency and real-time reporting.

#### 1. External System Integration:

DonarLink can be integrated with external applications such as email services, payment gateways, and third-party inventory management systems. Integration allows:

- Automatic notification to volunteers via email when assigned to a distribution.
- Synchronization of supply data with external inventory systems to prevent stock discrepancies.
- Real-time updates of donor information from external CRM systems.

#### 2. API Access:

- Salesforce REST and SOAP APIs were used to enable secure data exchange.
- External applications can create, update, or retrieve records in DonarLink (e.g., adding a new donation, updating supply quantity).
- API access is protected using OAuth 2.0 authentication, ensuring only authorized systems can access sensitive data.

#### 3. Community & External User Access:

- Salesforce Communities or Experience Cloud can be configured to allow volunteers or partner organizations to log in and view their assignments.
- Access is role-based, ensuring users only see data relevant to them.
- Volunteers can confirm participation or update availability, reducing administrative workload.

## 4. Security and Data Protection:

• All external access is governed by Salesforce profiles, permission sets, and sharing rules.

• Sensitive information such as donor contact details and volunteer assignments are encrypted and accessible only to authorized users.