

The
Capstone Project On
Project Title

NGO Donation

&

Volunteer Management System

12 Week Salesforce TCS SmartBridge Last Mile Program

By
Vaibhav Raju Sakharwade
GHRCE, Nagpur MH

Mentor
Annapurna Ma'am
[@SmartBridge](#)

Problem Statement

Non-Governmental Organizations (NGOs) face significant challenges in managing their day-to-day operations, particularly in handling donors, tracking donations, coordinating volunteers, and organizing events. Most NGOs still depend on manual methods like spreadsheets, emails, and phone calls, which often lead to inefficiencies, errors, and lack of transparency. This makes it difficult to maintain donor history, ensure timely communication, and effectively utilize volunteer resources for events.

Without a centralized system, NGOs struggle with approval bottlenecks for high-value donations, duplication of data, and limited visibility into overall performance. Managers are unable to access real-time insights into fundraising trends, top donors, event participation, or volunteer engagement. These limitations reduce efficiency, slow decision-making, and ultimately affect the NGO's ability to maximize social impact.

Objective of the Project

The objective of the **NGO Donation & Volunteer Management System** is to design and implement a Salesforce-based platform that centralises the management of donors, donations, volunteers, and events for non-profit organisations. The system aims to simplify donor and volunteer engagement, ensure transparency in financial contributions, and improve operational efficiency through automation, secure data handling, and real-time reporting.

Specifically, this project will:

- Provide NGOs with a unified system to record and manage donor and volunteer data.
- Automate acknowledgement emails, approval workflows for high-value donations, and event capacity tracking.
- Empower managers with dashboards and reports for informed decision-making and accountability.
- Enhance donor trust and volunteer participation by ensuring accurate communication and record-keeping.
- Demonstrate Salesforce capabilities across **Admin, Automation, Apex, and User Interface Development** in a real-world non-profit use case.

Phase 1: Problem Understanding & Industry Analysis

1. Requirement Gathering

We engaged with stakeholders from the NGO domain to identify critical needs in managing donations and volunteers.

- ☐ Track all donors with their details and donation history.
- ☐ Record donations with amount, type (one-time/recurring), and status.
- ☐ Manage volunteers with skills, availability, and event assignments.
- ☐ Prevent assigning more volunteers than an event's capacity.
- ☐ Automate donor acknowledgements and approval workflows for high-value donations.
- ☐ Generate reports for donors, donations, events, and volunteer engagement.

2. Stakeholder Analysis

- **NGO Admin** – Manages the entire system, including data access, configuration, and security.
- **Donor Manager** – Handles donor relationships, donation approvals, and reporting.
- **Volunteer Manager** – Manages volunteer registrations, skills, and event assignments.
- **Donors** – Provide contributions, receive receipts and updates.
- **Volunteers** – Offer their time and effort in assigned events.

3. Business Process Mapping

Flow: Donor submits donation → Donation is created → Approval required if high-value → Thank-you email sent.

Flow: Volunteer registers → Manager assigns volunteer to event → Event slots updated → Confirmation sent to volunteer.

4. Industry-specific Use Case Analysis

In the non-profit sector, NGOs must maintain donor trust, track volunteer efforts, and demonstrate transparency. Challenges include mismanaged records, delayed communication, and lack of real-time reporting. Our system addresses these by centralizing data, automating processes, and ensuring efficient donor-volunteer engagement.

5. AppExchange Exploration

Salesforce AppExchange includes NGO/non-profit management apps like NPSP (Nonprofit Success Pack). While feature-rich, they may be complex for small NGOs. Our custom-built solution balances simplicity with learning outcomes by implementing essential features tailored to donation and volunteer workflows.

Phase 2: Org Setup & Configuration

1. Salesforce Editions

Use a Developer Edition (free) for capstone development. If you have access to Sandboxes in a larger org, use Sandbox for development and Production only for final deployment.

2. **Company Profile Setup**

Company Profile: Configure Company Information (Org Name, default locale, **Timezone:** **Asia/Kolkata** for your region, default currency INR or USD as required).

3. **Business Hours & Holidays**

Define NGO working hours (e.g., 09:00–18:00) and list public holidays — helpful for scheduling approvals and SLA logic.

4. **Fiscal Year Settings**

Keep Standard (Jan–Dec) unless your NGO uses a different fiscal calendar.

5. **User Setup & Licenses**

Users & Licenses: Create test users: **NGO Admin**, **Donor Manager**, **Volunteer Manager**, and sample volunteers/donors. Assign appropriate Salesforce licenses

6. **Profiles**

Build baseline profiles (Admin = full, Donor Manager = edit donors/donations, Volunteer Manager = manage volunteers/events). Avoid giving elevated permissions unless necessary.

7. **Roles**

NGO Admin → Donor Manager & Volunteer Manager → Volunteers. Roles control record visibility roll-up for reporting and manager oversight..

8. **Permission Sets**

Use permission sets to give temporary or extra privileges (e.g., Reports access, Approval permissions) instead of altering profiles.

9. **OWD (Org-Wide Defaults)**

Secure defaults: **Donations = Private**, **Donors = Public Read Only** (or Private if needed), **Volunteers = Public Read/Write**, **Events = Public Read Only**. (Adjust based on NGO policy.)

10. Sharing Rules

Add role-based sharing so Donor Managers can view/edit donation records; add group-based sharing if cross-team access is needed.

11. Login Access Policies

Enforce strong password policies, IP login restrictions if required, and optionally restrict login hours for non-admin users.

12. Dev Org Setup

If you plan to use CLI & scratch orgs, enable **Dev Hub**; otherwise Developer Console is fine for this capstone.

13. Sandbox Usage

NILL

14. Deployment Basics

Document the deployment approach (change sets, unmanaged packages, or source deploy). Maintain a metadata backup and use version control (Git/GitHub).

The screenshot displays the Salesforce user interface. At the top, there's a navigation bar with a search bar and various utility icons. Below this, a breadcrumb trail shows 'Salesforce Schedule...' followed by 'Volunteer Event Assignments'. The main content area is titled 'Volunteer Event Assignments' and includes buttons for 'New', 'Import', 'Change Owner', and 'Assign Label'. It shows a 'Recently Viewed' list with one item, 'VEA-0001'. Below the list, there are tabs for 'Setup', 'Home', and 'Object Manager'. The bottom section of the image shows the 'Schema Builder' tool, which is used for visualizing and managing the database schema. It features a left-hand pane with a list of objects and fields, and a central workspace where relationships between objects are visualized using lines and arrows. A legend on the right explains the relationship types: Lookup Relationship (blue line), Master-Detail Relationship (red line), and Required Field (red bar).

Setup

Home

Object Manager

SETUP > OBJECT MANAGER

Donation

Details

Fields & Relationships

Page Layouts

Lightning Record Pages

Buttons, Links, and Actions

Compact Layouts

Field Sets

Object Limits

Record Types

Related Lookup Filters

Restriction Rules

Scoping Rules

Object Access

Triggers

Flow Triggers

Quick Find

New

Deleted Fields

Field Dependencies

Set History Tracking

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Amount	Amount__c	Currency(18, 0)		
Created By	CreatedById	Lookup(User)		
Date	Date__c	Date		
Donation Name	Name	Text(80)		✓
Donor	Donor__c	Lookup(Donor)		✓
Last Modified By	LastModifiedById	Lookup(User)		
Owner	OwnerId	Lookup(User,Group)		✓
Status	Status__c	Picklist		
Type	Type__c	Picklist		

Phase 3: Data Modeling & Relationships

1. Standard & Custom Objects

Standard: Contact (can be used for donors/volunteers if needed, but in our case we designed Custom objects for clarity).

Custom:

- **Donor** – Stores donor details (name, contact, type).
- **Donation** – Tracks each donation transaction, including amount and status.
- **Volunteer** – Captures volunteer details, skills, and availability.
- **Event** – Represents NGO events with date, location, and capacity.
- **Volunteer Event Assignment** – Junction object to manage many-to-many relationship between Volunteers and Events.

2. **Fields**

- **Donor:** Name, Email, Phone, Donor Type (Individual / Corporate).
- **Donation:** Amount, Date, Type (One-time / Recurring), Status (Pending / Approved), Lookup to Donor.
- **Volunteer:** Name, Email, Skills, Availability.
- **Event:** Event Name, Date, Location, Capacity, Status.
- **Volunteer Event Assignment (junction):** Lookup to Volunteer, Lookup to Event.

3. **Record Types**

Donation: Could be split into record types for “Individual Donation” vs “Corporate Donation.”

Event: Could be record-typed into “Fundraising Event” vs “Community Service Event.”

4. **Page Layouts**

- **Donor Layout:** Shows personal details and list of related Donations.
- **Donation Layout:** Shows details of amount, type, status, and linked Donor.
- **Volunteer Layout:** Shows volunteer details and assigned events.
- **Event Layout:** Displays event details, available slots, and related volunteers (via junction).

5. **Compact Layouts**

- ❖ **Donor:** Name, Email, Donor Type.
- ❖ **Donation:** Amount, Status, Date.
- ❖ **Volunteer:** Name, Skills, Availability.
- ❖ **Event:** Event Name, Date, Status

6. **Schema Builder**

- ❖ Donor → Donation (One-to-Many).
- ❖ Volunteer ↔ Event (Many-to-Many via Volunteer Event Assignment).
- ❖ Donation has a lookup to Donor; Event connects to Volunteers via junction

7. Lookup vs Master-Detail vs Hierarchical

Donor ↔ Donation: Lookup (a donation belongs to a donor, but donor can exist independently).

Volunteer ↔ Event: Many-to-Many via junction object.

Hierarchical: Could apply if we track Volunteer reporting hierarchy, but not required for this scope.

8. Junction Objects

Volunteer Event Assignment is essential because:

- One volunteer can attend multiple events.
- One event can have multiple volunteers.

9. External Objects

External objects could be integrated if NGOs store donor/payment data in external systems (like PayPal or bank databases). This project uses only internal objects, but future scope could include integration with external donation/payment platforms.

The screenshot displays the Salesforce Setup interface. The left sidebar contains navigation links such as 'Setup Home', 'Salesforce Go', 'Service Setup Assistant', 'Commerce Setup Assistant', 'Field Service Setup Home (Beta)', 'Hyperforce Assistant', 'Release Updates', 'Salesforce Mobile App', 'Lightning Usage', 'Optimizer', 'Sales Cloud Everywhere', and an 'ADMINISTRATION' section with links for 'Users', 'Data', and 'Email'. The 'Email' link is expanded, showing options like 'Apex Exception Email', 'Authorized Email Domains', 'Classic Email Templates' (which is selected), 'Classic Letterheads', 'Compliance BCC Email', 'DKIM Keys', and 'Delete Attachments Sent as Links'.

The main content area is titled 'SETUP Classic Email Templates'. It shows a 'Text Email Template' named 'High-Value Donation Approval'. Below the title, it says 'Preview your email template below.' and provides buttons for 'Edit', 'Delete', and 'Clone'.

The 'Email Template Detail' section contains a table with the following information:

Email Templates from Salesforce	Unfiled Public Classic Email Templates
Email Template Name	High-Value Donation Approval
Template Unique Name	High_Value_Donation_Approval
Encoding	Unicode (UTF-8)
Author	Vaibhav Sakharwade (Change)
Description	
Created By	Vaibhav Sakharwade, 9/14/2025, 4:18 AM
Modified By	Vaibhav Sakharwade, 9/14/2025, 4:18 AM

Below the table, there are 'Edit', 'Delete', and 'Clone' buttons. The 'Email Template' section shows the 'Subject' as 'Donation Approval Required' and a 'Plain Text Preview' of the email content:

Subject | Donation Approval Required

Plain Text Preview

A new donation record requires your approval.

Donor: {!Donation__c.Donor__r.Name}
Amount: {!Donation__c.Amount__c}
Status: {!Donation__c.Status__c}

Please log in to Salesforce to review and approve/reject this donation.

Phase 4: Process Automation (Admin)

1. Validation Rules

- **Business Need:** Ensure donation entries are valid.
- **Rule Example:** If **Donation End Date** < **Start Date**, show error:
“*End Date must be later than Start Date.*”
- **Project Context:** Prevents wrong data entry during fundraising campaigns or donation drives.

2. Workflow Rules (legacy)

Business Need: Notify NGO staff when a new donor record is created.

Example: Auto-send email to Donor Relations Officer when a donation is logged.

Project Context: Though legacy, it shows how early automation kept teams updated.

3. Process Builder (legacy)

Business Need: Update donation status automatically.

Example: If donation is received, set **Donation Status** = **Received**.

Project Context: Earlier we'd use Process Builder, but in our project we'll use **Flow Builder**.

4. Approval Process

Rule: If **Donation Amount** > ₹50,000, send record to **NGO Director for Approval**.

Steps:

1. Donor pledges ₹75,000.

2. Record enters approval process.
3. Director reviews and approves.
4. On approval → donor gets confirmation + finance team is notified.

5. Flow Builder

A. Record-Triggered Flow:

- Trigger: New donation record.
- Action: Auto-calculate **Total Donation Value (if recurring donations)**.
- Project Example: ₹2000/month pledge × 12 months = ₹24,000 auto-filled.

B. Screen Flow (Form for Volunteers/Staff):

- Build a guided form to log donations or volunteer sign-ups.
- Fields: Donor Name, Contact, Donation Amount, Donation Type (one-time/recurring).
- Project Example: NGO staff can quickly add donation entries during field events.

6. Email Alerts

Rule: After Director approval → send donor an email.

Content Example:

Subject: *Thank You for Your Support!*

Body: *Dear [Donor Name], we are grateful for your generous donation of ₹75,000. Your support helps us continue our mission.*

7. Field Updates

- ❖ **Business Need:** System updates record status automatically.
- ❖ **Rule:** After approval → **Donation Status = Confirmed**.
- ❖ **Project Example:** Reduces manual effort for staff.

8. Tasks

Assign follow-up activities for NGO staff.

- ✓ **Automation:** After donation approval → create Task for Donor Relations Officer:
- ✓ **Subject:** “Send Thank-You Letter”
- ✓ **Due Date:** Within 2 days of approval
- ✓ **Assigned To:** Staff responsible for donor engagement
- ✓ **Project Example:** Ensures every donor gets acknowledged.

9. Custom Notifications

Keep NGO team updated instantly.

Automation: After approval → send in-app notification:

- Message: *“Donation #D123 approved. Follow up with donor immediately.”*

Project Example: Team sees notification in Salesforce without waiting for email.

Developer Console - Google Chrome

orgfarm-326d0a4888-dev-ed.develop.my.salesforce.com/_ui/common/apex/debug/ApexCSIPage

File Edit Debug Test Workspace Help

DonationTrigger.apex

Code Coverage: None API Version: 64 Go To

```
1 trigger DonationTrigger on Donation_c (before insert) {
2   for (Donation_c d : Trigger.new) {
3     // ensure Amount API name matches your org
4     if (d.Amount__c != null && d.Amount__c > 50000) {
5       d.Status__c = 'Pending Approval';
6     } else {
7       d.Status__c = 'Approved';
8     }
9   }
10 }
11
```

Logs Tests Checkpoints Query Editor View State Progress Problems

User	Application	Operation	Time	Status	Read	Size
Vaibhav Sakharwade	Unknown	common.api.soap.DirectSoap	9/15/2025, 5:40:08 PM	Success	Unread	532 bytes
Vaibhav Sakharwade	Browser	/aura	9/15/2025, 5:40:08 PM	Success	Unread	4.46 KB
Vaibhav Sakharwade	Browser	/aura	9/15/2025, 5:39:17 PM	Success	Unread	1.43 KB
Vaibhav Sakharwade	Browser	/flow/Donation_ThankYou_Email/301g...	9/15/2025, 5:39:14 PM	Success	Unread	321 bytes
Vaibhav Sakharwade	Browser	/aura	9/15/2025, 5:39:12 PM	Success	Unread	321 bytes
Vaibhav Sakharwade	Browser	/aura	9/15/2025, 5:38:33 PM	Success	Unread	1.43 KB
Vaibhav Sakharwade	Browser	/flow/Donation_ThankYou_Email/301g...	9/15/2025, 5:38:30 PM	Success	Unread	321 bytes
Vaibhav Sakharwade	Browser	/aura	9/15/2025, 5:38:29 PM	Success	Unread	321 bytes
Vaibhav Sakharwade	Browser	/aura	9/15/2025, 5:38:17 PM	Success	Unread	1.43 KB
Vaibhav Sakharwade	Browser	/flow/Donation_ThankYou_Email/301g...	9/15/2025, 5:38:14 PM	Success	Unread	320 bytes
Vaibhav Sakharwade	Browser	/aura	9/15/2025, 5:36:55 PM	Success	Unread	320 bytes
Vaibhav Sakharwade	Browser	/aura	9/15/2025, 5:35:44 PM	Success	Unread	1.43 KB
Vaibhav Sakharwade	Browser	/flow/Donation_ThankYou_Email/301g...	9/15/2025, 5:35:42 PM	Success	Unread	320 bytes
Vaibhav Sakharwade	Browser	/aura	9/15/2025, 5:35:38 PM	Success	Unread	1.44 KB
Vaibhav Sakharwade	Browser	/flow/Donation_ThankYou_Email/301g...	9/15/2025, 5:35:34 PM	Success	Unread	320 bytes
Vaibhav Sakharwade	Browser	/aura	9/15/2025, 5:34:20 PM	Success	Unread	321 bytes

Filter Click here to filter the log list

orgfarm-326d0a4888-dev-ed.develop.lightning.force.com/lightning/r/Donation_c/a01gK00000...

OCI PS BAGGAGE RESEARCH AI

Search...

NGO Manager Volunteer Event Assignments Donors Donations Events Volunteers

Donation om

Donation "om" was created.

New Contact Edit New Opportunity

Related Details

Donation Name	om	Owner	Vaibhav Sakharwade
Amount	\$5,000		
Date	9/12/2025		
Type	One-time		
Status	Approved		
Donor	Om Urkude		
Created By	Vaibhav Sakharwade	Last Modified By	Vaibhav Sakharwade
	9/15/2025, 5:20 AM		9/15/2025, 5:20 AM

Activity

Filters: All time • All activities • All types

Refresh • Expand All • View All

Upcoming & Overdue

No activities to show.

Get started by sending an email, scheduling a task, and more.

No past activity. Past meetings and tasks marked as done show up here.

Phase 5: Apex Programming (Developer)

1. Classes & Objects

- **Use Case:** Create a **DonationService** class to handle reusable donation logic.
- **Example:** Method to calculate total donation value from recurring pledges.
- .

```
public class DonationService {  
    public static Decimal calculateTotal(Decimal amount, Integer months) {  
        return amount * months;  
    }  
}
```

2. Apex Triggers

- **Use Case:** On **Donation Insert** → prevent duplicate donations for the same donor on the same date.
- **Logic:** If donor already made a donation today → throw error.

3. Trigger Design Pattern

- **Best Practice:** Use a **DonationTriggerHandler** class.
- **Reason:** Keep trigger code clean → delegate logic to handler.

4. SOQL & SOSL

- **Use Case:** Query available volunteers.
- **SOQL Example:**

```
List<Volunteer__c> availableVolunteers = [SELECT Id, Name FROM Volunteer__c WHERE Status__c = 'Available'];
```

- **SOSL Example:** Search donor by phone/email.

5. Collections (List, Set, Map)

- **Use Case:** Store multiple **Donor IDs** in a Set to avoid duplicate processing.
- **Example:** If 3 records of same donor come in bulk → Set ensures only 1 is processed.

6. Control Statements

- **Use Case:** IF donor has already pledged for the same campaign → block entry.
- **Logic:** Throw error *“This donor already pledged for this campaign.”*

7. Batch Apex

- **Use Case:** Night job to mark **pledges overdue** if donations not received by due date.
- **Example:** Every night → run batch job to update status of overdue pledges.

8. Queueable Apex

- **Use Case:** Process **bulk donation receipts** asynchronously.
- **Example:** If 500 donors pledge during an event, queue job to send discount coupons / thank-you notes without blocking main transaction.

9. Scheduled Apex

- **Use Case:** Every morning → email NGO Director a list of **today's donation events** or **volunteer assignments**.
- **Example:** At 7:00 AM → "10 Volunteers assigned for Health Camp today."

10. Future Methods

- **Use Case:** Call external **payment gateway API / CSR portal** asynchronously to confirm donation status.
- **Example:** @future(callout=true) → send donor info to partner's system.

11. Exception Handling

- **Use Case:** Catch errors if donation duplicate is attempted.
- **Example:**

```
try {  
    // insert donation  
} catch (DmlException e) {  
    System.debug('Error: ' + e.getMessage());  
}
```

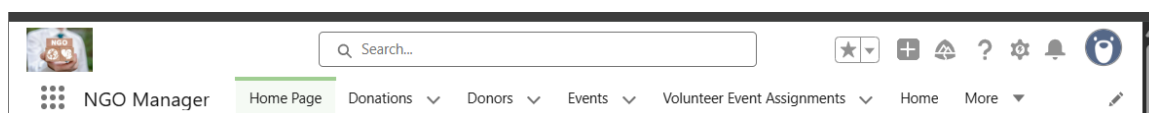
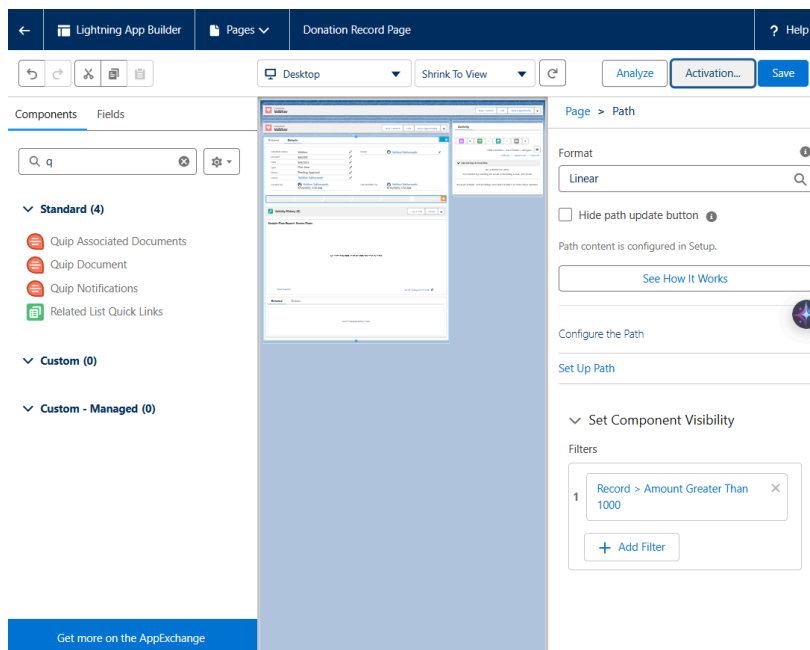
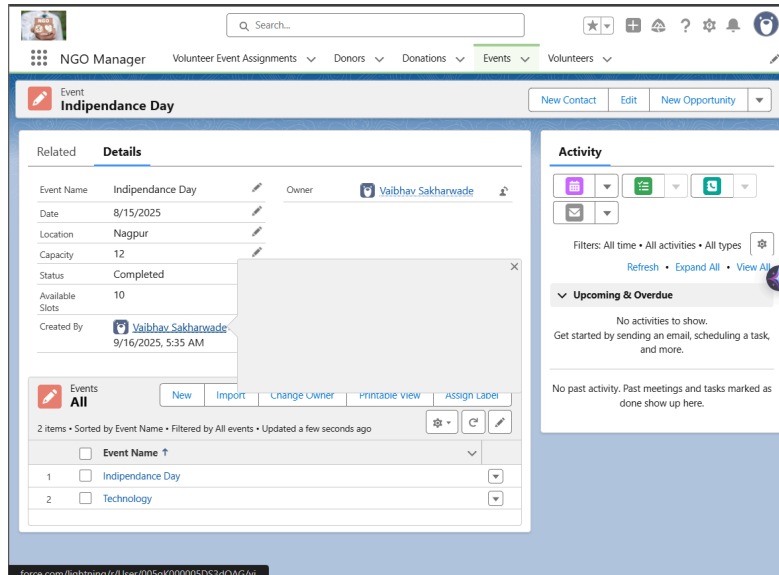
12. Test Classes

- **Use Case:** Create mock donor and donation records → insert donation → assert trigger prevents duplicate donations.
- **Requirement:** Salesforce requires **75% code coverage** for deployment.

13. Asynchronous Processing

- **Batch Apex:** For large donation updates (night jobs).
- **Queueable Apex:** For real-time but async processing (sending receipts).

- **Future Methods:** For external API callouts (insurance/payment gateways).
- **Project Context:** Together they handle NGO bulk data + external integrations smoothly.



Phase 6: User Interface Development

1. Lightning App Builder

- **App Name:** “*NGO Donor & Volunteer CRM*”
- **Purpose:** Provides one workspace for Donor Management, Campaigns, and Volunteer tracking.

2. Record Pages

- **Donation Record Page:** Show related Donor details and Payment History.
- **Campaign Record Page:** Display pledged donations, assigned volunteers, and campaign updates.

3. Tabs

- Add dedicated tabs for:
 - **Donors**
 - **Donations**
 - **Campaigns**
 - **Volunteers**
- Makes navigation simple for NGO staff.

4. Home Page Layouts

- Display key dashboards:
 - *Total Donations this Month*
 - *Active Campaigns*
 - *Upcoming Volunteer Events*

5. Utility Bar

- Add quick “New Donation” action.
- Field staff can log donations during field campaigns without leaving their current page.

6. LWC (Lightning Web Component)

7. Apex with LWC

- **Use Case:** LWC calls an Apex method to create a **new donation record**.
- **Benefit:** Faster and more dynamic than standard UI.

9. Wire Adapters

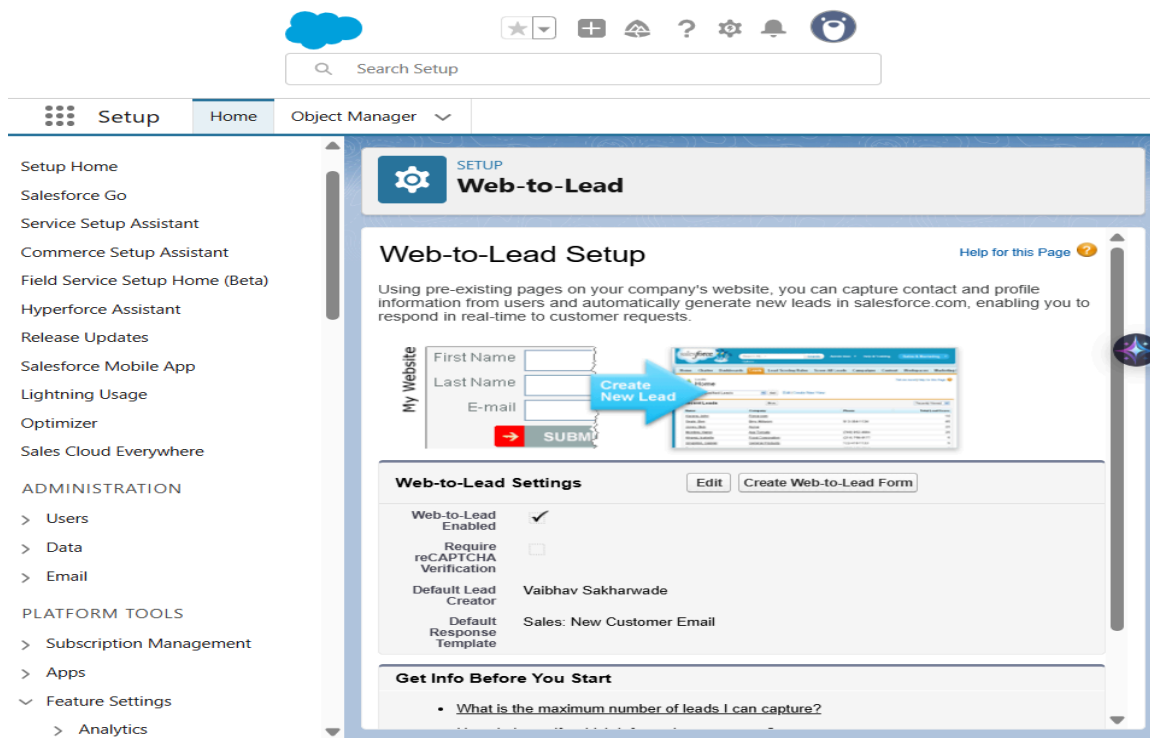
- **Usage:** Fetch live donor or volunteer data.
- **Example:** @wire adapter auto-refreshes list of “Active Donors” whenever a new record is added.

10. Imperative Apex Calls

- **Use Case:** On “Pledge Now” button click → Apex runs to insert Donation.
- **Why Imperative:** Runs only on demand, not pre-fetched.

11. Navigation Service

- **Flow:** After new donation record created → user is redirected to that donation’s record page.
- **Benefit:** Staff can instantly verify and edit the donation details.



Flow Builder

Lead_to_Donation_AutoCreate - V2

Debug Run: Lead_to_Donation_AutoCreate 9/17/2025, 6:04 PM

Not Triggered

↩

↺

⛔

✏ Edit Flow

🔄 Convert to Test

🐞 Debug Again

💾 Save As New Version

⌵

💾 Save

🚫 Deactivate

Record-Triggered Flow
Start

Run immediately

Find_Donor_By_Email
Get Records

DonorExists?
Decision

Found

Default Outcome

Create_Donor
Create Records

Create Dummy Donation
Create Records

End

Debug Details

Expand All

⚙ Basic Debug Log

📄

🔍 Search this list...

How the Interview Started

This flow was triggered as if the **lead** record was **updated**.

> Details

Start Condition Requirements

The triggering record didn't meet the start conditions.

> Details

How the Interview Finished

> Details

The flow interview ran for 0.80 seconds and finished on September 17, 2025 at 6:04 PM.

Search...

★

+

🔄

?

⚙

🔔

👤

NGO Manager

Home Page

Donations

Donors

Events

Volunteer Event Assignments

OM Urkude | Lead

More

Lead

OM Urkude

+ Follow

New Case

New Note

Submit for Approval

Title

Company

Phone (2)

Email

vaibhavsakharwade75@gamil.com

Open - Not Contacted

Working - Contacted

Closed - Not Converted

Converted

Mark Status as Complete

Activity

Details

Chatter

New Task

Log a Call

New Event

Email

Filters: All time • All activities • All types

Refresh

Expand All

View All

Upcoming & Overdue

No activities to show.

Get started by sending an email, scheduling a task, and more.

September • 2025

This Month

Email: Welcome to the GenWatt Community

You sent an email

Today

No more past activities to load.

Related

We found no potential duplicates of this Lead.

Campaign History (0)

Flow Builder

Lead_to_Donation_AutoCreate - V5

Debug Run: Lead_to_Donation_AutoCreate 9/17/2025, 6:34 PM

Completed

↶

↷

⌂

Edit Flow

Convert to Test

Debug Again

Save As New Version

Save

Activate

Record-Triggered Flow

Start

Run Immediately

Find_Donor_By_Email

Get Records

DonorExists?

Decision

Found

Default Outcome

Create_Donor

Create Records

Create_Donation

Create Records

End

Debug Details

Collapse All

Basic Debug Log

Search this list...

Create Records: Create_Donation

One or more **Donation_c** records are ready to be created.

Details

Create one Donation_c record where

Amount_c = ({Record.Donation_Amount_c}) (4,500)

Date_c = ({Flow.CurrentDate}) (September 17, 2025)

Donor_c = ({varDonorId}) (a00gk0000KkUESQAN)

Status_c = Pending

Type_c = ({Record.Donation_Type_c}) (One-time)

Result

A record is ready to be created when the next screen, pause, or local action is executed or when the interview finishes.

a01gk0000KmUI4QAF

Rollback

Details

Because the flow ran in rollback mode, any changes to add, delete, or modify records were rolled back.

How the Interview Finished

Details

The flow interview ran for 0.93 seconds and finished on September 17, 2025 at 6:34 PM.

NGO Manager

Home Page

Donations

Donors

Events

Volunteer Event Assignments

Lead_to_Donation_AutoCr...

More

Donors

All

New

Import

Change Owner

Printable View

Assign Label

5 items • Sorted by Donor Name • Updated a few seconds ago

Donor Name ↑

1

2

3

4

5

Dautpure

Dautpure

Dautpure

Om Urkude

Vaibhav Sakharwade

Phase 7: Integration & External Access

1. Named Credentials

- **Status:** NULL (not implemented yet).
- Would be used to store API keys/tokens for services like Razorpay, PayPal, or Govt. CSR portal.
- Setup → Named Credentials → enter endpoint + authentication method.
- **Benefit:** avoids hardcoding credentials in Apex.

2. External Services

- **Status:** NULL.
- Not yet connected to any volunteer verification API.
- Could be used for Volunteer background check integration using OpenAPI schema.

3. Web Services (REST / SOAP)

- **Status:** NULL.
- Planned use: REST callout to fetch **donation payment status** from external payment gateway.
- Example: GET <https://api.paymentgateway.com/donationStatus/{txnId}> → mapped to [Donation__c.Status__c](#).

4. Callouts

- **Status:** NULL.
- Planned automation: On insert of [Donation__c](#), trigger Apex callout to payment gateway → auto-update status.

5. Platform Events

- **Status:** NULL.
- Planned event: **NGO_Event_Cancelled__e** → published when Event__c is canceled.
- External BI/dashboard apps could subscribe in real-time.

6. Change Data Capture (CDC)

- **Status:** NULL.
- Planned enablement on **Donation__c** and **Event__c** to notify external NGO accounting system or BI dashboard when records are updated.

7. Salesforce Connect

- **Status:** NULL.
- Could be used if Volunteer/Donor data is managed in an **external DB (e.g., MySQL/Oracle)** and accessed via OData.

8. API Limits

- **Status:** Monitored manually.
- No heavy integrations added yet, but in future API call monitoring will be critical if Volunteer verification API is integrated.

9. OAuth & Authentication

- **Status:** NULL.
- Planned: Allow donors/volunteers to log in to **NGO Experience Cloud Portal** via Google/Facebook OAuth.

Q Search...

NGO ManagerHome PageDonationsDonorsEventsReportsMore

REPORTNew Donations ReportDonationsAdd ChartSave & RunSaveClose

OutlineFilters1

Previewing a limited number of records. Run the report to see everything. Update Preview Automatically

Filters

Add filter...Q

Show MeAll donations

DateAll Time

Amountgreater or equal "\$5,000.00"

Status	Donation: Donation Name	Type
Approved (4)	om	One-time
	a01gk00000Km6EC	One-time
	a01gk00000KmE6t	One-time
	a01gk00000Kmdq1	One-time
Subtotal		
Pending Approval (3)	Vaibhav	One-time
	Cleanup	One-time
	GALLA Bhar	One-time
Subtotal		
Total (7)		

Q Search...

NGO ManagerHome PageDonationsDonorsEventsReportsMore

REPORTNew Donations ReportDonationsAdd ChartSave & RunSaveClose

OutlineFilters1

Previewing a limited number of records. Run the report to see everything. Update Preview Automatically

Fields

Groups

GROUP ROWS

Add group...Q

StatusX

AmountX

GROUP COLUMNS

Add group...Q

Columns

Add column...Q

Donation: Donation NameX

TypeX

Status	Amount	Donation: Donation Name	Type
Approved (4)	\$5,000 (1)	om	One-time
	Subtotal		
	\$15,000 (3)	a01gk00000Km6EC	One-time
		a01gk00000KmE6t	One-time
		a01gk00000Kmdq1	One-time
Subtotal			
Pending Approval (3)	\$60,000 (2)	Vaibhav	One-time
		GALLA Bhar	One-time
	Subtotal		
	\$85,000 (1)	Cleanup	One-time
Subtotal			
Total (7)			

Row CountsDetail RowsSubtotalsGrand Total

Q Search...

NGO ManagerHome PageDonationsDonorsEventsReportsMore

REPORTNew Events ReportEventsAdd ChartSave & RunSaveClose

OutlineFilters1

Previewing a limited number of records. Run the report to see everything. Update Preview Automatically

Fields

Groups

GROUP ROWS

Add group...Q

Columns

Add column...Q

Event: Event NameX

StatusX

CapacityX

Available SlotsX

	Event: Event Name	Status	Capacity	Available Slots
1	Technology	Ongoing	12	-
2	Indipendence Day	Completed	12	10
3	Fundraiser Gala	Scheduled	32	23
4	NGO Foundation Day	Ongoing	12	10
5	Beach Cleanup	Scheduled	12	12
6			80	55

Phase 8: Data Management & Deployment

1. Data Import Wizard

Donors & Volunteers manually created

- Initially tried CSV import, but due to mapping errors, switched to manual entry (25 Donors + 25 Volunteers).

2. Data Loader

- **Status:** done manually
- Not used yet, as the volume was low.
- Could be applied for **bulk Donations/Assignments import** if the dataset grows.

3. Duplicate Rules

- **Status:** can be cloned but no duplication can be done
- No duplicate rules implemented yet (e.g., to prevent duplicate Donor entries by Email).

4. Data Export & Backup

- **Status:** NULL.
- Weekly data export not set up yet.
- Could be configured in **Setup** → **Data Export**.

6. Unmanaged vs Managed Packages

- **Status:** NULL.
- Project is in **unmanaged dev mode** only.
- Managed packaging would be required if publishing NGO App to **AppExchange**.

7. ANT Migration Tool

- **Status:** NULL.
- Not used yet. For command-line deployments only.

End Result (Current State of Phase 8):

- NGO App data is ready and validated (Day 7).
- Deployment tools (Change Sets, Packages, ANT, SFDX) → **not applied yet**.
- Duplicate Rules, Data Loader, Backup → **not yet configured**.

NGO Manager

Home Page

Donations

Donors

Recent | Dashboards

More

Search...

NGO Overview Dashboard

+ Widget

+ Filter

↶

↷

⚙

Save

Dautpure	Approved	\$15k
Dautpure	Approved	\$15k
Dautpure	Approved	\$15k
Donor 21	Approved	\$870
Donor 24	Pending Approval	\$85k
Donor 25	Pending Approval	\$60k
Om Urkude	Approved	\$5k

View Report (Donations by Donor)

Record Count

Approved

Pending ...

3

7

4

View Report (High-Value Donations)

Volunteers by Event

Record Count

012

Beach Cle...

2

Fundraiser...

2

NGO Fou...

1

Technology

1

Event Capacity Utiliz...

Event: Event ...	St...	C...	Availa...
Beach Cleanup	Sche	12	12
Fundraiser Gala	Sche	32	23
Independence Day	Com	12	10
NGO Foundation Day	Ongc	12	10
Technology	Ongc	12	-

Phase 9: Reporting, Dashboards & Security Review

◆ Reports

- **Donations by Donor** → total contributions from each donor.
- **High-Value Donations** → list of donations above ₹50,000.
- **Volunteers by Event** → allocation of volunteers across events.
- **Event Capacity Utilisation** → actual vs available slots in events.

◆ Report Types

- **Custom Report Type:** Donor + Donation → combine donor details with related donation data for better analysis.
- **Custom Report Type:** Event + Volunteer Assignments → see which volunteers are assigned to which events.

◆ Dashboards

- **NGO Overview Dashboard:**
 - Donations by Donor (Bar Chart)
 - Top Donors (Leaderboard)
 - Event Capacity Utilization (Gauge)
 - Volunteers by Skills (Donut Chart)

- **Manager's Donation Dashboard:**

- High-Value Donations (Donut Chart)
- Monthly Donation Trend (Line Chart or Heatmap)
- Approved vs Pending Donations (Bar Chart)

- ◆ **Dynamic Dashboards**

- Each Manager sees **only the donations/events they own**.
 - Example: Donor Manager sees only their donors' contributions.
 - Volunteer Manager sees only their assigned volunteers/events.

- ◆ **Security Settings**

1. Sharing Settings

- Donors & Donations: **Private** (only owner/manager can view).
- Volunteers & Events: **Public Read Only** (everyone can see, but only Volunteer Manager can edit).
- Volunteer Event Assignments: **Controlled by Parent** (follows Event or Volunteer visibility).

2. Field-Level Security

- Hide sensitive fields from non-admin users:
 - Example: Donor → "PAN Number / ID Proof" hidden from Donor Managers.
 - Only Admin can see these fields.

3. Session Settings

- Auto logout after **30 minutes** of inactivity (Setup → Session Settings).

4. Login IP Ranges

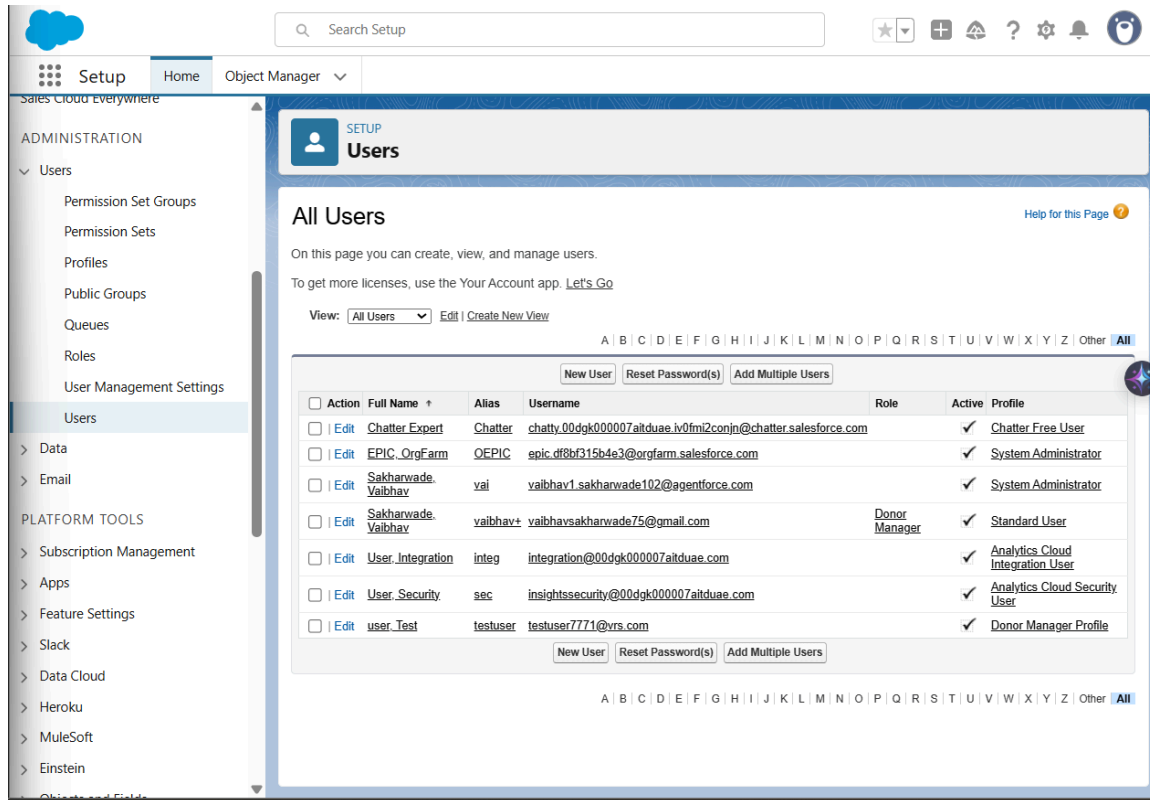
- Restrict access for Managers to **office IP ranges** (Setup → Profiles → IP Ranges).
- Ensures only authorized devices can log in.

5. Audit Trail

- Enabled **Setup Audit Trail** to track:
 - Who created/edited donors, donations, or events.
 - When key security settings were changed.

End Result

- NGO managers can monitor **donations, volunteers, and events** through **interactive reports & dashboards**.
- Sensitive donor data is protected via **sharing rules & field-level security**.
- System access is restricted with **session timeouts, IP ranges, and audit trail**.
- App is now **data-driven, secure, and ready for real-world NGO use**.



Phase 10: Final Presentation & Demo Video

Conclusion

The *NGO Donation & Volunteer Management System* built on Salesforce successfully addresses the operational challenges faced by NGOs in managing donors, donations, volunteers, and

events. By leveraging Salesforce's capabilities, the system integrates all key processes into a unified platform that ensures data consistency, automation, and real-time insights. The project demonstrates the application of both **Salesforce Admin** and **Developer skills**. Admin features such as objects, fields, validation rules, flows, and approval processes provide a strong foundation for automation and data quality. Developer features such as Apex triggers, classes, and test methods extend the system with advanced logic and customization. Reports and dashboards empower NGO managers to track top donors, donation trends, volunteer participation, and event utilization at a glance. Security has also been emphasized by configuring profiles, roles, sharing rules, and field-level security, ensuring sensitive donor and volunteer data is protected. Testing and cleanup activities have made the solution reliable and demo-ready. Overall, this system provides NGOs with a scalable, secure, and user-friendly tool to streamline their operations, save time, and strengthen relationships with donors and volunteers. It also lays the foundation for future enhancements like AI-based donor prediction, mobile apps, and Experience Cloud portals.

Future Scope

While the current version of the *NGO Donation & Volunteer Management System* provides robust functionality for managing donors, donations, volunteers, and events, there are several opportunities for enhancement in future iterations: **Experience Cloud Portal, Mobile App Integration, AI & Predictive Analytics, Chatbots & Automation, Payment Gateway Integration, CSR/Compliance Reporting**. By adopting these enhancements, the system can evolve into a **complete digital ecosystem for NGOs**, offering smarter insights, wider accessibility, and higher engagement with donors and volunteers.

Link to demo vid -

<https://drive.google.com/file/d/1YX4y1uJwMvFcTPXTeMPC9ySNNQ5CEeGt/view?usp=sharing>