Phase 1: NGO Donor & Volunteer Management CRM

Problem Understanding & Industry Analysis Goal: To understand what challenges NGOs face in managing donors, volunteers, and funds, and how a CRM can make their work easier and more transparent. Requirement Gathering

• "We have so many donors, but we don't have one place to see their history and preferences."

• "We spend hours generating receipts and sending thank-you messages manually."

• "Funds get spread across multiple projects, but it's hard to track exactly where they went."
• "Volunteers sign up to help, but managing their schedules is chaotic."

• "Our donors want to know the impact of their contribution, we need clear reports." So, the system must:

• Track all donors and their donations.

• Generate automated receipts.

• Show where money is being used.

• Manage volunteer records and schedules.

• Produce impact reports that can be shared with donors. Stakeholder Analysis

• Admin: Sets up Salesforce and makes sure everything works smoothly.

• NGO Manager: Wants a big-picture view — which projects are running, how much funding is available, and what outcomes have been achieved.

• Donor Relations Officer: Wants to maintain good relationships with donors, thank them, and encourage them to keep contributing.

• Volunteer Coordinator: Needs to schedule volunteers, assign them to events, and make sure they feel valued.

• Finance Team: Cares about receipts, compliance, and ensuring money is properly allocated.

• Donors: Want to know their money is being used well and transparently.

• Volunteers: Want to contribute their time but need clarity about when, where, and how they are needed.

Business Process Mapping

1. A donor contributes (maybe online, maybe in person).

2. Their details and the donation are logged in the CRM.

3. A receipt is instantly generated and emailed to them, along with a thank-you note.

4. The NGO allocates the donation to a project; for example, “Child Education Drive.”

5. Volunteers are assigned shifts to execute the project.

6. Once the project is done, an impact report (like “200 children received books”) is generated.

7. This report is sent back to the donor, so they feel connected and motivated to support again.

Industry-specific Use Case Analysis

• Donors give money, but they want to see trust and transparency.

• Funds are usually tied to specific causes or campaigns, so tracking is essential.

• Volunteers are as important as funds — without them, projects don’t succeed.

• NGOs must show impact (numbers, stories, outcomes) to survive and grow. AppExchange Exploration There are existing nonprofit apps (like Salesforce Nonprofit Success Pack - NPSP). But for learning, we’ll build a simplified custom CRM with objects for Donors, Volunteers, Donations, Campaigns, and Fund Allocation

Phase 2 : Step-by-Step: Org Setup & Configuration

1. Salesforce Editions — check & pick one

Why: The Salesforce Edition determines what features are available (e.g., Sandboxes, API access, license types).

Steps:

1. Setup → Quick Find → **Company Information**.
2. Look at **Organization Edition** and **User Licenses**.

For learning/practice: Use a **Developer Edition** (free) or Trailhead Playground.
For production NGOs: Consider **Enterprise Edition + Nonprofit Cloud (NPSP)**.

2. Company Profile Setup (Company Information & Org Defaults)

Why: Defines org-level defaults for time zone, currency, locale, and identity.

Steps:

1. Setup → Quick Find → **Company Information** → **Edit**.
2. Fill in:
    - **Company Name** (e.g., *Helping Hands NGO*)
    - **Primary Contact / Phone / Address**
    - **Default Time Zone** → Asia/Kolkata
    - **Locale & Language** → English (India)
    - **Default Currency** → INR

Extras:

- To support multiple currencies: Setup → Company Settings → **Currency Management** (irreversible in production).

3. Business Hours & Holidays

Why: Used for scheduling volunteers/events and case escalation rules.

Business Hours:

1. Setup → Quick Find → **Business Hours** → **New Business Hours**.
2. Name: "NGO Business Hours", Time Zone = Asia/Kolkata.
3. Define Mon–Sat: 9:00 AM – 6:00 PM; leave Sunday blank.
4. Save.

Holidays:

1. Setup → Quick Find → **Holidays** → **New Holiday**.
2. Add “Independence Day” (15 Aug), “Gandhi Jayanti” (2 Oct), etc. → **Save**.
3. Open each holiday → **Add Business Hours** → assign “NGO Business Hours”.

4. Fiscal Year Settings

Why: Ensures reporting and rollups follow your NGO’s fiscal calendar.

Salesforce names fiscal years by the year they **end** (e.g., Apr 2025–Mar 2026 = FY2026).

Steps:

1. Setup → Quick Find → **Fiscal Year**.
2. Choose **Standard Fiscal Year**.
3. Set **Start Month = April** (India).
4. Save.

5. User Setup & Licenses

Why: Users need accounts with licenses and roles to access the system.

Create User:

1. Setup → Quick Find → **Users** → **New User**.

2. Fill:
    - Name, Email, Username (must be unique across Salesforce).
    - License (Salesforce / Platform / Chatter Free).
    - Profile (choose from available).
    - Role (assign later if roles are set up).
3. Save.

Check Licenses: Setup → Company Information → **User Licenses** (used vs available).

Example Mapping for NGO:

- NGO Manager → Salesforce License + NGO Manager Profile
- Finance Officer → Salesforce License + Finance Profile
- Volunteers → Platform / Chatter Free + Volunteer Profile

6. Profiles — Create & Configure

Why: Profiles control object, field, and system permissions.

Steps:

1. Setup → Profiles → choose a standard profile → **Clone**.

2. Name (e.g., Finance Profile) → Save.

3. Edit **Object Settings**: Donations → check Read/Create/Edit/Delete as required.
4. Adjust **Field-Level Security** to hide sensitive donor info.
5. Configure **Tab Settings** (Default On/Off/Hidden) and **Assigned Apps**.
6. Set **System Permissions** (e.g., Export Reports).
7. (Optional) Restrict with **Login Hours / IP Ranges**.
8. Assign to users via User record.

7. Roles — Data Visibility Hierarchy

Why: Controls who can see records owned by others. Higher roles inherit access.

Steps:

1. Setup → Roles → **Set Up Roles**.
2. Click **Add Role** under a parent.
   - Executive Director (top role)
   - NGO Manager → Finance Officer, Donor Relations Officer, Volunteer Coordinator → Volunteers.
3. Save and assign users.

8. Permission Sets — Grant Extra Access

Why: Add permissions without cloning/editing profiles.

Steps:

1. Setup → Permission Sets → **New**.
2. Label & API Name → Save.
3. Add Object Settings, Field Permissions, or System Permissions.
    - Example: "Export Reports Access" → grant only to Finance users.
4. Assign users → **Manage Assignments** → Add.

9. OWD (Organization-Wide Defaults)

Why: Defines baseline visibility for each object.

Steps:

1. Setup → Sharing Settings → **Edit OWD**.
2. Set:
    - Donors (Contacts) = Private
    - Donations (Custom Object) = Private
    - Volunteers = Public Read/Write
    - Campaigns = Public Read Only
3. Save.

10. Sharing Rules

Why: Open up access beyond OWD (e.g., team-wide visibility).

Steps:

1. Setup → Sharing Settings → scroll to object → **New Sharing Rule**.
2. Select **Owner-Based** or **Criteria-Based**.
3. Define which records to share → with which Roles/Groups → and at what Access Level.
4. Save.

Create Public Groups: Setup → Public Groups → **New** → add Users/Roles.

11. Login Access Policies & Security

Why: Control when/how users log in and enable admin support.

Steps:

1. Setup → Login Access Policies → enable **Administrators can log in as any user**.
2. In Profiles → set **Login Hours / IP Ranges** as needed.
3. Setup → Session Settings → configure session timeout & HTTPS.

4. Setup → Multi-Factor Authentication → enforce MFA for all.

12. Dev Org Setup

Why: Build/test safely without touching Production.

Steps:

1. Sign up at developer.salesforce.com or use Trailhead Playground.
2. Setup → My Domain → register & deploy a unique domain.

3. Setup → Dev Hub → enable (if using Scratch Orgs).
4. Optional: AppExchange → install **Nonprofit Success Pack (NPSP)**.

Phase 3: Data Modeling & Relationships

1) Standard & Custom Objects

- **Standard Objects**: Already in Salesforce (Account, Contact, Campaign, Opportunity).
- **Custom Objects**: You create your own (e.g., Donation, Volunteer, Program).
  Setup → **Object Manager** → **Create** → **Custom Object**.

2) Fields

- Add data points like Amount, Date, Status.
- Example: On Donation create a field Donation Amount (Currency).
  Object Manager → pick object → **Fields & Relationships** → **New**.

Home | Salesforce
Attendance | Salesforce
Donation | Salesforce
Salesforce_Project_Phases_Admin
https://orgfarm-5d88acfea1-dev-ed.develop.lightning.force.com/lightning/setup/ObjectManager/01IgL000002ILrF/FieldsAndRelationships/view
Search Setup
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
Fields & Relationships
9 Items, Sorted by Field Label
Quick Find
New
Deleted Fields
Field Dependencies
Set History Tracking
FIELD LABEL
FIELD NAME
DATA TYPE
CONTROLLING FIELD
INDEXED
Anonymous
Anonymous__c
Checkbox
Contact
Contact__c
Master-Detail(Contact)
Created By
CreatedById
Lookup(User)
DONAR ID
DONAR_ID__c
Master-Detail(Donar)
DONARAM
DONARAM__c
Number(16, 2)
Donation Name
Name
Text(80)
DonationAmount
DonationAmount__c
Currency(16, 2)
DonationDate
DonationDate__c
Date
Last Modified By
LastModifiedById
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Home | Salesforce
Attendance | Salesforce
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https://orgfarm-5d88acfea1-dev-ed.develop.lightning.force.com/lightning/setup/ObjectManager/01IgL000002ILrF/FieldsAndRelationships/00NgL00001ga6Hh/view
Search Setup
Setup
Home
Object Manager
SETUP > OBJECT MANAGER
Donation
Validation Rules [0]
Custom Field Definition Detail
Edit
Set Field-Level Security
View Field Accessibility
Where is this used?
Field Information
Field Label
DonationAmount
Object Name
Donation
Field Name
DonationAmount
Data Type
Currency
API Name
DonationAmount__c
Description
Help Text
Data Owner
Field Usage
Data Sensitivity Level
Compliance Categorization
Created By
MANJIRI WATT, 9/19/2025, 7:23 AM
Modified By
MANJIRI WATT, 9/19/2025, 7:23 AM
General Options
Required
Default Value
Currency Options
Length
16
Decimal Places
2
Validation Rules
New
Validation Rules Help
No validation rules defined.
Back To Top
Always show me more records per related list

3) Record Types

- Let you separate processes/layouts within one object.
- Example: Contact = Individual Donor vs Institutional Donor.
  Object Manager → pick object → **Record Types → New**.

4) Page Layouts

- Control which fields/sections show on a record page.

- Example: Individual Donor layout hides company fields, Institutional layout shows them

- Object Manager → pick object → **Page Layouts → Edit/New**.

5) Compact Layouts

- Control fields shown in the record header & Salesforce mobile.
- Example: Show Name, Email, Phone for Donor at top.
  Object Manager → pick object → **Compact Layouts → New**.

6) Schema Builder

- Visual, drag-and-drop view of all objects and fields.

- Useful for seeing relationships at once.
  Setup → search **Schema Builder**.

7) Lookup vs Master-Detail vs Hierarchical Relationships

- **Lookup**: Loose link (child can exist alone). Ex: Donation → Donor.
- **Master-Detail**: Tight link (child depends on parent, rollups possible). Ex: Attendance → Event.

- **Hierarchical**: Only on User object (manager relationships).
  Object Manager → Fields → New → choose relationship type.

8) Junction Objects

- Used for many-to-many.
- Example: Attendance links Volunteers ↔ Events.

Create custom object with two **Master-Detail** fields.

9) External Objects

- Bring in data stored outside Salesforce (via Salesforce Connect).
- Example: Link external donor DB without importing all records.
  Setup → search **External Data Sources** → New → Validate & Sync.

Phase 4 — Automate & Enforce Rules

1) Validation Rules

- **Purpose:** Block bad data at save (e.g., Donation ≤ 0)
- **Setup:** Object Manager → Donation → Validation Rules → New
- **Formula:** Donation_Amount__c <= 0
- **Error Message:** Donation Amount must be greater than 0 → Save & Test

2) Workflow Rules (legacy)

- **Use:** Simple automation (Task/Email)
- **Setup:** Workflow Rules → New → Object = Donation → Criteria: Donation_Amount__c > 0 → Add Task/Email → Activate
- **Tip:** Prefer **Flow** for all new automations

3) Process Builder (legacy)

- **Use:** Multi-step automation (update fields, send email)
- **Example:** Donation created → Acknowledged__c = True + Email
- **Setup:** Process Builder → New → Donation → Criteria: Donation_Amount__c > 0 → Immediate Action: Update Records → Activate
- **Tip:** Use Flow instead; Process Builder is retiring

4) Approval Process

- **Use:** Route for approvals (finance/leadership)
- **Example:** Donations ≥ ₹1,00,000 → Approval
- **Setup:** Approval Processes → Donation → Jump Start → Entry Criteria: Donation_Amount__c >= 100000 → Approver: Finance → Final Approval: Update Status = Approved + Email → Activate

5) Flow Builder

- **Screen Flow:** Volunteer intake → create Contact
- **Record-Triggered Flow:** Donation created → send Email + create Task + Custom Notification
- **Scheduled Flow:** Daily check → donations without receipts → send Email/Task
- **Autolaunched Flow:** Reusable logic (subflow)

Tip: Use **Before-save** for fast field updates, **After-save** for emails/tasks/notifications.

6) Email Alerts

- Create **Lightning Email Template** → Setup → Email Alerts → attach to Flow/Workflow/Approval
- Use merge fields for dynamic content (e.g., donor name, donation amount)

7) Field Updates

- **Flow:** Update $Record fields automatically (e.g., Acknowledged__c = True)
- **Legacy:** Workflow Field Update → attach to Workflow or Approval Process

8) Tasks

Flow Create Records → map fields:

- Subject = Send Thank You - {!$Record.Name}
- WhoId = $Record.Donor__c, WhatId = $Record.Id
- OwnerId = $Record.OwnerId, Status = Not Started, Priority = Normal

9) Custom Notifications

- Setup → Notification Builder → New → Name: New_Donation_Notification → Channels: Desktop & Mobile
- Flow → Action → Send Custom Notification → Title, Body, Recipient Ids → Activate

Phase 5 – Apex Essentials

1) Classes

- **Use:** Store reusable logic and calculations.
- **Example:** Calculate total donation including taxes or fees.
- **Setup:** Setup → Apex Classes → New → Add calculation methods → Save

2) Apex Triggers (Before/After Insert/Update/Delete)

Use: Automatically perform actions when a record is created/updated.

Step-by-Step Instructions:

1. Go to Setup → Object Manager → Donation → Triggers → New.
2. Write a simple trigger:
3. Click Save.

3) SOQL

- **Use:** Query and retrieve records from Salesforce.
- **Example:** Fetch all donations with Amount ≥ ₹1,000.
- **Setup:** Developer Console → Query Editor → SELECT Id, Name, Amount__c FROM Donation__c WHERE Amount__c >= 1000 → Execute

4) Collections: List, Set, Map

Use: Handle multiple records efficiently.

1. **Go to Developer Console → Debug → Open Execute Anonymous Window**

Click Execute → Check Logs → Debug Only to see the output.

- **List** → keeps order, allows duplicates.
- **Set** → unique values only.
- **Map** → key-value pairs; very useful in triggers for fast lookups.

5) Control Statements (if, for, while)

Use: Apply conditions and loops to process multiple records.

1. Developer Console → Debug → Open Execute Anonymous Window

   Click Execute → Check Logs → Debug Only

6) Exception Handling (Try / Catch)

Use: Handle errors when inserting/updating/deleting records.

Step-by-Step:

1. Developer Console → Debug → Open Execute Anonymous Window
2. Click Execute → Check Logs → Debug Only

7) Test Classes

- **Use:** Verify that Apex code works correctly and is deployable.
- **Example:** Test DonationHelper class calculation method.
- **Setup:** Setup → Apex Classes → New → Create test methods → Save → Run in Apex Test Execution

Phase 6 : User Interface Development

1) Lightning App Builder

Purpose: Customize pages without code.

Steps:

1. Go to **Setup → Lightning App Builder → New**.
2. Choose **App Page**, **Home Page**, or **Record Page** depending on your need.
3. Give the page a **name** and click **Next**.
4. Use the **drag-and-drop editor** to add components like charts, lists, or key metrics.
5. Click **Save** → **Activate** → Choose where the page will be visible (Org Default, App Default, or Profile-specific).

2) Record Pages

Purpose: Customize how individual records (like Donations) are displayed.

Steps:

1. Go to **Setup → Lightning App Builder → Record Page → New**.
2. Select the object (e.g., **Donation**) and give the page a **name**.
3. Arrange components such as **Record Details**, **Related Lists**, and **Reports/Charts**.

4. Click **Save** → **Activate** → Set visibility for **Org Default or specific App/Profile**.

3) Tabs

Purpose: Organize Salesforce apps and make navigation easier.

Steps:

1. Go to **Setup → App Manager → Edit App**.
2. Click **Navigation Items** → Add the objects or tabs you want (e.g., Donations, Contacts, Reports).
3. Rearrange tab order if needed.

4. Click **Save** → Open the app to verify tabs appear correctly.

4) Home Page (quick overview dashboard)

Make a simple home page for donors team:

1. Setup → **Lightning App Builder** → **New** → Choose **Home Page** → **Next**.
2. **Label:** NGO Home - Donations → choose template → **Finish**.
3. Add components:
   - **Rich Text** — Title: Welcome to NGO Donor App → Body: Quick view: today's donations, top donors, and quick actions.
   - **Report Chart** — choose Total Donations by Month.
   - **List View** or **Recent Items** — show Recent Donations.
4. **Save** → **Activate** → Assign to NGO Donor App (or Org Default).

5) Utility Bar / Utility Items

- **Use:** Provide quick-access tools at the bottom of the app (e.g., Notes, Recent Items, Tasks).
- **Steps:**
  1. Go to **Setup → App Manager → Edit App → Utility Bar**.
  2. Click **Add** to include components like **Notes, Recent Items, or Custom Tools**.
  3. Configure **labels, icons, and order** of items.
  4. Click **Save** → Activate the app.

Phase 7 – Integration & External Access

Step 1: Remote Site Settings

This is needed before you can make any callouts (even simple APIs).

1. Go to **Setup** → search **Remote Site Settings**.
2. Click **New Remote Site**.
    - Remote Site Name: NGO_API
    - Remote Site URL: https://example.com
    - Active
3. Save.

Step 2: Named Credentials (easy way to store API endpoint + authentication)

1. Go to **Setup** → search **Named Credentials**.
2. Click **New Named Credential**.
    - Label: NGO_Donor_Integration
    - Name: NGO_Donor_Integration
    - URL: https://example.com/api *(external service URL)*
    - Save.

Step 3: Platform Events

- Use when you want to **notify other systems** (e.g., donation created).

1. Setup → **Platform Events** → New Event.
    - Label: Donation_Event
    - Fields: Donation_Amount, Donor_Name, etc.

2.

Step 4: Change Data Capture (CDC)

- Use when you want external systems to track Salesforce record changes.

1. Setup → **Change Data Capture**.
2. Select objects: e.g., **Donation__c**, **Donor__c**.
3. Save.

Step 5: API Limits

- Go to **Setup → System Overview** → check **API Usage**.
- Free Salesforce edition gives **15,000 API calls/day** (varies by license).

Phase 8 – Data Management & Deployment

1) Data Import Wizard

1. Go to **Setup** → Search for **Data Import Wizard** → Click **Launch Wizard**.
2. Select the **object** you want to import (e.g., **Donations**, **Contacts**).
3. Click **Choose CSV File** → Upload your CSV file containing the data.
4. Click **Map Fields** → Ensure each CSV column is mapped to the correct Salesforce field.
5. Click **Start Import** → Wait until the process finishes.
6. Review the **Import Results** → Fix errors if any.

2) Data Loader

1. Download **Salesforce Data Loader** → Install → Open → Log in with Salesforce credentials.
2. Select **Insert**, **Update**, **Upsert**, or **Export** depending on your need.
3. Choose the **object** (e.g., Donations) → Upload the CSV file.
4. Map CSV columns to Salesforce fields.
5. Click **Next** → Click **Finish/Run** to start the process.
6. After completion, check **success and error logs** to verify records.

3) Duplicate Rules

1. Go to **Setup** → Search **Duplicate Management** → Click **Duplicate Rules**.
2. Click **New Rule** → Select the object (e.g., **Donation**).
3. Define **Matching Criteria** → Example: Donor Name + Email.
4. Set **Action** for duplicates → **Alert** or **Block**.

5. Click **Save** → Click **Activate**.

4) Data Export & Backup

1. Go to **Setup** → Search **Data Export** → Click **Export Now** or **Schedule Export**.
2. Select the **objects** you want to backup (e.g., Donations, Contacts).
3. Click **Start Export** → Wait for the export process.

4. Download the **ZIP file** → Extract CSV files → Store securely.

5) Change Sets

1. Go to **Setup** → Search **Outbound Change Sets** → Click **New**.
2. Give a **Name** and **Description** → Click **Save**.
3. Click **Add Components** → Select the components to deploy

4. Click **Upload** → Choose the **target org** (Production).
5. In **target org**, go to **Inbound Change Sets** → Select the uploaded set → Click **Deploy**.

Phase 9 – Reporting, Dashboards & Security Review

Step 1: Create "All Donors" Tabular Report

1. App Launcher → Reports → **New Report**
2. Select **Contacts/Donor** → Continue
3. Drag fields: **Name, Email, Phone**
4. Filters → **Date = All Time**
5. Save & Run → Name: All Donors → Folder: Private Reports

Step 2: Create "Monthly Donations" Report

1. Reports → New Report → **Opportunities** → Continue
2. Drag fields: **Opportunity Name, Amount, Close Date**
3. Filters: **Stage = Closed Won**, **Close Date = This Year**
4. Group by **Close Date → Calendar Month**
5. Summarize **Amount → Sum**
6. Save → Name: Monthly Donations → Folder: Private Reports

Step 3: NGO Dashboard

- Dashboards → New Dashboard → Folder: Private → Name: NGO Dashboard
- Add Component 1 → Monthly Donations → Bar Chart → Title: "Donations per Month"
- Add Component 2 → All Donors → Table/Metric → Title: "Total Donors"
- Arrange layout → Save & Run

Step 4: Sharing Settings

1. Setup → Search **Sharing Settings**
2. Check **Organization-Wide Defaults (OWD)**:
    - Contacts & Donations → **Private**
3. Create sharing rules only if multiple users need access

Object	Default Internal Access	Default External Access	Grant Access Using Hierarchies
Lead	Public Read/Write/Transfer	Public Read/Write/Transfer	✓
Account and Contract	Public Read Only	Public Read Only	✓
Contact	Private	Private	✓
Order	Controlled by Parent	Controlled by Parent	✓
Asset	Controlled by Parent	Controlled by Parent	✓
Opportunity	Public Read/Write	Private	✓
Case	Public Read/Write/Transfer	Private	✓
Campaign	Public Read Only	Public Read Only	✓
Campaign Member	Controlled by Campaign	Controlled by Campaign	✓
User	Public Read Only	Public Read Only	✓
Activity	Private	Private	✓
Calendar	Hide Details and Add Events	Hide Details and Add Events	✓
Price Book	Use	Use	✓
Product	Public Read/Write	Public Read/Write	✓
Individual	Public Read/Write	Private	✓
Voice Call	Private	Private	✓
Activation Target	Private	Private	✓
Activation Target Internal Organization Access	Private	Private	✓

Step 5: Step Field-Level Security

1. Setup → Object Manager → Choose object (e.g., Donation)
2. Fields & Relationships → Select field → **Set Field-Level Security**
3. Check/uncheck profiles → Save
    - Hide sensitive fields like **Donor Email** and **Phone**

Step 6: Audit Trail (Optional)

1. Setup → Search **View Setup Audit Trail**
2. Review admin changes → download logs if needed