**🩸 Project Title: Community Blood Donation & Donor Tracker**

* **Industry**: Healthcare / Social Welfare
* **Project Type**: Salesforce CRM Implementation (Community Service + Healthcare)
* **Target Users**: Donors, Hospitals, Blood Bank Administrators, Volunteers

**📝 Problem Statement**

Blood shortages are a recurring challenge in hospitals and blood banks. Manual tracking of donors, last donation dates, and hospital requests leads to delays and inefficiency. Often, hospitals cannot quickly find eligible donors, and donors do not receive timely reminders to donate blood again.

To solve this, we propose a **Salesforce-based Blood Donation & Donor Tracker System** that will:

* Centralize donor and hospital data.
* Automatically match donors to hospital requests based on eligibility.
* Send automated notifications to donors and hospitals.
* Provide dashboards to track blood availability, requests, and donation camps.

**✅ Use Cases**

1. **Donor Management**

* **Capture donor details:** name, age, blood group, contact info, location, last donation date.
* Mark donor as *Eligible/Not Eligible* based on last donation date (≥ 90 days).

1. **Hospital & Blood Request Management**

* Hospitals create blood requests specifying group & units required.
* System auto-matches eligible donors and notifies them.
* Track status: *Pending, In Progress, Fulfilled*.

1. **Donation Camp Management**

* Volunteers schedule and manage donation camps.
* Track participating donors and collected units.

1. **Notifications & Alerts**

* Automated reminders to donors when eligible to donate again.
* Email/SMS to donors when hospital requests match their blood group.

1. **Reporting & Dashboards**

* Donors by blood group & location.
* Pending vs fulfilled requests.
* Monthly/weekly donation reports.
* Upcoming donation camps.

**🔹 Phase 1: Problem Understanding & Industry Analysis**

**Requirement Gathering**

* Donors should be able to register with personal and blood-related details.
* Hospitals should be able to place blood requests.
* System should track donation history and eligibility.
* Automated notifications (email/SMS) required for reminders.
* Admins should have dashboards for insights.

**Stakeholder Analysis**

* **Donors**: Provide blood, receive reminders.
* **Hospitals**: Request blood, track status, fulfil demand.
* **Admins/Blood Bank Staff**: Manage data, monitor dashboards, approve requests.
* **Volunteers**: Organize donation camps, connect donors with hospitals.

**Business Process Mapping**

1. Donor Registration → Save donor details.
2. Hospital creates a Blood Request → System finds eligible donors.
3. Notifications → Donors alerted via email/SMS.
4. Donation Camp → Scheduled & tracked in Salesforce.
5. Admin monitors reports & dashboards.

**Industry-specific Use Case Analysis**

* Healthcare + NGO sector requires **real-time donor availability**.
* Blood banks need **compliance with donation cycle rules** (90 days gap).
* Hospitals require **fast donor matching**.

**AppExchange Exploration**

* Explore Salesforce **Health Cloud** add-ons.
* Explore **SMS/email apps** from AppExchange (e.g., Twilio for SMS, Mailchimp for campaigns).
* Use these if integration is allowed/required.

**🔹 Phase 2: Org Setup & Configuration**

**Salesforce Editions**

* Use **Salesforce Developer Edition** for project.

**Company Profile Setup**

* **Company Name:** Community Blood Donation Portal
* **Default Currency:** INR (₹)
* **Locale & Language:** India (English, DD/MM/YYYY format)
* **Time Zone:** Asia/Kolkata (GMT+5:30)

**Business Hours & Holidays**

* **Business Hours:** 9:00 AM – 6:00 PM (Monday – Saturday).
* **Holidays:** National holidays (dummy setup).

**Fiscal Year Settings**

* Using the **Standard Fiscal Year (Jan–Dec)** for simplicity.
* Ensures financial tracking of donations and events can be reported on a yearly basis.

**User Setup & Licenses**

* **Admin User** – Full system access to manage configurations, security, and reporting.
* **Hospital User** – Access to create/view blood requests and monitor dashboards.
* **Volunteer User** – Access to manage donor records and schedule donation camps.

**Profiles**

* **Admin Profile** – Complete system access with CRUD (Create, Read, Update, Delete) permissions.
* **Hospital Profile** – Restricted to blood requests, dashboards, and reporting features.
* **Volunteer Profile** – Access to donor records, camps, and notifications.

**Roles**

* **Admin Role** – Top-level hierarchy, manages hospitals and volunteers.
* **Hospital Staff Role** – Handles donor requests and fulfilment workflows.
* **Volunteer Role** – Coordinates with donors and manages donation camp events.

Rationale: Role hierarchy ensures data visibility flows from Admin → Hospital Staff → Volunteers.

**Permission Sets**

* **Notification Manager** → Grants permission to send donor reminders and alerts.
* **Report Viewer** → Grants access to view reports/dashboards without editing data.

**OWD (Org-Wide Defaults)**

* **Donor Records** → Private (to protect sensitive health information).
* **Requests** → Public Read/Write (hospitals + admins).
* **Camps** → Public Read/Write (accessible to all users).

**Sharing Rules**

* Hospitals can share requests with other hospitals in case of emergencies.
* Volunteers can share donor lists with Admins for quick allocation.

**Login Access Policies**

* Enable login-as admin to troubleshoot hospital/volunteer accounts.

**Dev Org Setup**

* Salesforce **Developer Org** will be the primary workspace for configuration and implementation.
* All testing, validation, and demo preparation will be performed within this environment.

**Deployment Basics**

* Not applicable for this project, as all configurations and development will be done directly in the Salesforce Developer Org.

**🔹 Phase 3: Data Modelling & Relationships**

**Standard & Custom Objects**

Salesforce provides some standard objects (like Users, Accounts, Contacts), but since our project is domain-specific, we will create custom objects to represent donors, hospitals, requests, and camps.

**Custom Objects & Fields**

**1. Donor**

* **Fields:**
  + Donor Name (Text)
  + Age (Number)
  + Gender (Picklist: Male/Female/Other)
  + Blood Group (Picklist: A+, A-, B+, B-, AB+, AB-, O+, O-)
  + Contact Number (Phone)
  + Email (Email)
  + Location (Text/Geolocation)
  + Last Donation Date (Date)
  + Eligible to Donate? (Formula: TRUE if Last Donation ≥ 90 days ago)

**2. Hospital**

* **Fields:**
  + Hospital Name (Text)
  + Address (Text Area)
  + Contact Person (Text)
  + Contact Number (Phone)
  + Email (Email)
  + City / Region (Text)

**3. Blood Request**

* **Fields:**
  + Request ID (Auto-Number)
  + Requested By (Lookup → Hospital)
  + Blood Group Needed (Picklist)
  + Units Required (Number)
  + Request Date (Date)
  + Status (Picklist: Pending, Approved, Fulfilled, Closed)
  + Assigned Donors (Lookup/Junction with Donor)

**4. Donation Camp**

* **Fields:**
  + Camp Name (Text)
  + Location (Text)
  + Date (Date)
  + Organized By (Lookup → Volunteer/User)
  + Number of Donors Participated (Roll-up Summary)

**5. Donation History (Junction Object)**

* Purpose: Track **many-to-many relationship** between Donors and Requests.
* **Fields:**
  + Donor (Lookup → Donor)
  + Blood Request (Lookup → Blood Request)
  + Units Donated (Number)
  + Donation Date (Date)

**Record Types**

**Do you need it? 👉 Optional.**

* Create **different record types** for Hospital Requests (e.g., Emergency Request, Planned Request).

**Page Layouts**

* **Donor Page Layout** → Show blood group, last donation date, eligibility flag.
* **Request Page Layout** → Show hospital, required units, assigned donors, and status.
* **Camp Page Layout** → Show event details + participating donors.

**Schema Builder**

* Use Salesforce **Schema Builder** to design the relationships visually.
* Helps stakeholders understand data flow:
  + Hospital → Request → Donation History → Donor
  + Volunteer → Camp → Donor Participation

**Relationships**

* **Hospital → Blood Request**: One hospital can create many requests. (Lookup/Master-Detail)
* **Donor → Donation History**: One donor can donate multiple times. (Master-Detail)
* **Blood Request → Donation History**: One request can be fulfilled by multiple donors. (Master-Detail)
* **Volunteer → Donation Camp**: One volunteer organizes multiple camps. (Lookup)

**Rationale**

* The **Donor–Request many-to-many relationship** ensures flexibility (one donor can fulfil multiple requests, and one request can be served by multiple donors).
* The **Eligibility formula field** ensures compliance with the 90-day donation rule.
* Separation of **Hospital, Donor, and Camp objects** keeps data organized and realistic to actual blood bank operations.