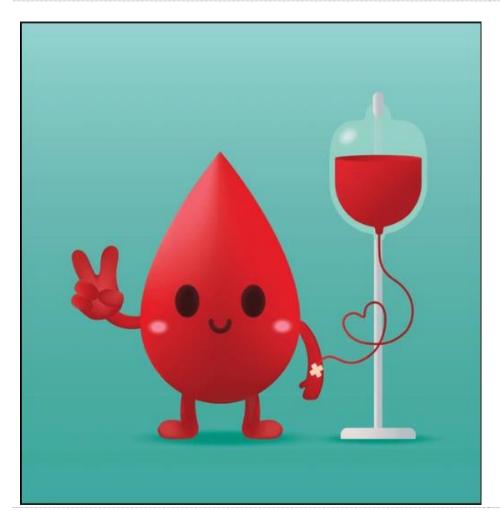


# BLOOD BANK & DONATION MANAGEMENT SYSTEM

# Project Blood

## **Participants**

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**Introduction :-**

## **Project Overview:-**

The Blood Bank Management System is designed to streamline the process of blood donation and blood requests. It manages the data of donors and acceptors, including their personal information, blood types, donation histories, and blood requests.

#### Scope:

The project covers the following functionalities:

- User Registration
- Login/Logout
- Profile Management
- Blood Donation Scheduling
- Blood Requesting
- Search & Display Features
- Admin Dashboard (user interface) for Managing the System
- Messaging between Donors and Acceptors
- Report Generation

## Data Model Requirements:-

#### **Entities:-**

User: UserID (PK), Name, Email, Password, Phone No., Address, UserType (Donor/Acceptor).

Donor: DonorID (PK, FK), BloodType, LastDonationDate, TotalDonations.

Acceptor: AcceptorID (PK, FK), BloodType, RequestDate, Status.

BloodDonation: DonationID (PK), DonorID (FK), DonationDate, BloodType, Quantity, Health Criteria.

BloodRequest: RequestID (PK), AcceptorID (FK), RequestDate, BloodType, Quantity, Status.

Location: LocationID (PK), Address, City, State, ZipCode.

#### Relationships:

- A Donor can have multiple BloodDonations.
- An Acceptor can make multiple BloodRequests.
- Both Donor and Acceptor are types of User.
- BloodDonations and BloodRequests are linked to Location.

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## Functional Requirements:-

#### User Roles:-

Donor: Register, update profile, schedule donation, view donation history.

Acceptor: Register, request blood, update profile, view request history.

Admin: Manage users, manage blood inventory, view reports.

#### **Features:-**

- User Registration: Donor and acceptor registration with verification.
- Login/Logout: Secure authentication for users.
- Profile Management: Update personal information for both donors and acceptors.
- Blood Donation: Donors can schedule donations and view their donation history.
- Blood Request: Acceptors can request blood and view request status.
- Search: Search for blood donors or acceptors by various criteria.
- Admin Dashboard: Overview of system statistics, user management, and inventory management.
- Messaging: Communication between donors and acceptors.
- Reports: Generate various reports related to blood donations and requests.

## Rough Implementations

#### 1. Donor Table

**Attribute Description** 

Donor ID Primary key, unique identifier for

each donor

Name of the donor

Contact Information Contact details of the donor Blood Type Blood type of the donor

Donor Status Status of the donor (active/inactive)

Health Criteria Health-related eligibility criteria for

donation

#### 2. Recipient Table

**Attribute Description** 

Recipient ID Primary key, unique identifier for each recipient

Name of the recipient

Contact Information Contact details of the recipient

Blood Type Needed Blood type needed by the recipient

Request Status Status of the blood request (pending/fulfilled)

Medical Information Relevant medical information related to the request

#### 3. <u>Blood Donation Table</u>

#### Attribute

#### **Description**

Donation ID Primary key, unique identifier for each donation

Donor ID Foreign key referencing Donor ID in Donor table

Donation Date Date when the donation was made

Blood Type Blood type donated

Additional Details Additional details related to the donation

Expiry Date Date When Blood unit Expires

Availability Status Status Indicating if the units is in stock or out of stock.

# **Database Sample output (expected):-**

