# AGILE PROJECT

BLOOD MANAGEMENT SYSTEM WEB APPLICATION

Design Document

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# Table of Contents

# 1.UI/UX Screen Design

Home Page

email abcdefg@gmail.com     About us

## Donate blood and gift someone a precious life.

**Admin Login**

**User Login**

Blood Donation Is The Act Of Giving Blood To Someone Who Needs It. It Is Not Just About Giving Blood, But It Is An Act Of Kindness That Saves The Lives Of Hundreds Of People. These Fifteen Minutes Of Your Life Can Save Someone's Entire Life. You Can't Even Imagine That Donating One Bag Of Blood Can Be So Beneficial To The Human Race. Donating The Blood Without Expecting Or Asking For Any Money Or Gesture Is A Great Act Of Kindness, And If You Are 18 Years Old Or Above, You Should Definitely Take Part In This Act Of Kindness.

Answer to Emergencies
As soon as a new blood request is raised- )

You are someone's Hero
In as little as few minutes, you can become someone's unnamed, unknown, but all-important Hero. Saving a life is a noble work that starts very simply and easily. Donate Blood or donate Money, every form of contribution you make is important, valued and essential in our shared mission to save lives.
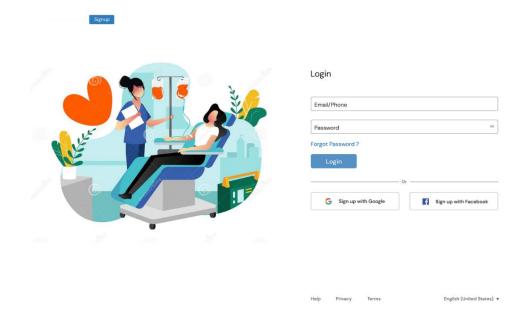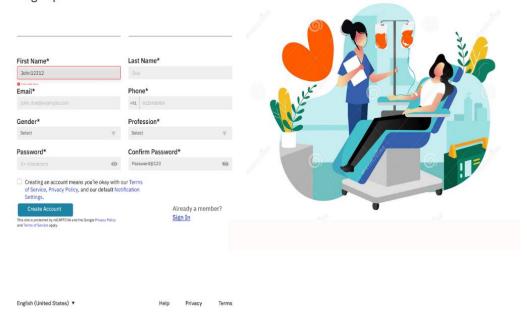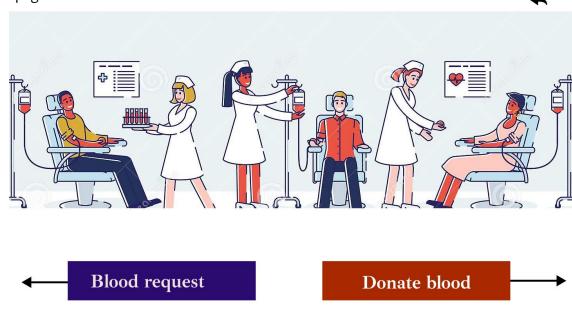
Our Partners

ASTER DM HEALTHCARE

Rajagiri Hospital
reaching out in health

AMRITA HOSPITALS
Exceptional Technology. Compassionate Care

vps | Lakeshore
Global Lifecare

## Login Page

Signup

### Login

Email/Phone

Password 👁

Forgot Password ?

Login

—— Or ——

G Sign up with Google     f Sign up with Facebook

Help     Privacy     Terms          English (United States) ▼

## Sign Up

### Sign up

| First Name* | Last Name* |
|---|---|
| John12312 | Doe |

🔴 Enter valid name

| Email* | Phone* |
|---|---|
| john.doe@example.com | +91  0123456789 |

| Gender* | Profession* |
|---|---|
| Select ▼ | Select ▼ |

| Password* | Confirm Password* |
|---|---|
| 8+ characters 👁 | Password@123 👁 |

☐ Creating an account means you're okay with our Terms of Service, Privacy Policy, and our default Notification Settings.

Create Account

Already a member?
Sign In

This site is protected by reCAPTCHA and the Google Privacy Policy and Terms of Service apply.

English (United States) ▼          Help     Privacy     Terms

User's Homepage



**Blood request** ⟵

⟶ **Donate blood**

English (United States) ▼          Help          Privacy

Register for donation



Once a blood donor,
always a lifesaver.

First Name*
John12312
⊗ Enter valid name

Last Name*

Email*

Phone*
+91

Blood Group*
Select

Last Doanated Date*
Select

Age*

Weight*

English (United States) ▼          Help          Privacy

# Register for Blood



First Name*
John12312
● Enter valid name

Last Name*

Email*

Phone*
+91

Blood Group*
Select

Reason*
Select

Units(100ml in 1unit)*

# Admin's login Page



Signup

## Login

Email/Phone

Password

Forgot Password ?

Login

Or

G   Sign up with Google

f   Sign up with Facebook

**Blood Bank**

Search...

**Dashboard**

| Blood Requests | Received | In Stock |
|---|---|---|
| **12** Total | **12** Total | **14** Total |

- Dashboard
- Receivers
- Donars
- Donations
- Blood Request
- Settings

A+ 3

B+ 1

AB+ 2

O+ 1

A- 3

B- 1

AB- 2

O- 1

---

**Blood Bank**

Search...

**Receivers**

- Dashboard
- Receivers
- Donars
- Donations
- Blood Request
- Settings

ANJU
Blood group A+
Gender      F
APPROVE   REJECT

ANJU
Blood group A+
Gender      F
APPROVE   REJECT

ANJU
Blood group A+
Gender      F
APPROVE   REJECT

ANJU
Blood group A+
Gender      F
APPROVE   REJECT

ANJU
Blood group A+
Gender      F
APPROVE   REJECT

ANJU
Blood group A+
Gender      F
APPROVE   REJECT

ANJU
Blood group A+
Gender      F
APPROVE   REJECT

ANJU
Blood group A+
Gender      F
APPROVE   REJECT

ANJU
Blood group A+
Gender      F
APPROVE   REJECT

ANJU
Blood group A+
Gender      F
APPROVE   REJECT

Search...

**Donar**

| NAME | AGE | PHONE | BLOOD | LAST DONATED | STATUS | STOCK STATUS |
|------|-----|-------|-------|--------------|--------|--------------|
| Arjun | 23 | 902xxxxx | A+ | 03/04/21 | Accept | 1 unit added |
| Richard | 23 | 902xxxxx | A+ | 09/09/21 | Pending | |
| Elon | 23 | 937xxxxx | A+ | 03/10/21 | Reject | |

- Dashboard
- Receivers
- Donar
- Donations
- Blood Request
- Settings

Search...

**Donar**

- Dashboard
- Receivers
- Donar
- Donation
- Blood Request
- Settings

ANJU
Blood group A+
Gender        F
ACCEPT    REJECT

ANJU
Blood group A+
Gender        F
ACCEPT    REJECT

ANJU
Blood group A+
Gender        F
ACCEPT    REJECT

ANJU
Blood group A+
Gender        F
ACCEPT    REJECT

ANJU
Blood group A+
Gender        F
ACCEPT    REJECT

ANJU
Blood group A+
Gender        F
ACCEPT    REJECT

ANJU
Blood group A+
Gender        F
ACCEPT    REJECT

ANJU
Blood group A+
Gender        F
ACCEPT    REJECT

ANJU
Blood group A+
Gender        F
ACCEPT    REJECT

ANJU
Blood group A+
Gender        F
ACCEPT    REJECT

# Blood Bank

**Search...**

## Blood Receivers

| NAME | AGE | REASON | PHONE | BLOOD | UNIT | STATUS | STOCK STATUS |
|------|-----|--------|-------|-------|------|--------|--------------|
| Arjun | 23 | Accident | 902xxxxx | A+ | 3 | Approved | 3 unit deducted |
| Arjun | 23 | Accident | 902xxxxx | A+ | 4 | Approved | 3 unit deducted |
| Arjun | 23 | Accident | 902xxxxx | A+ | 3 | Pending | 3 unit deducted |
| Arjun | 23 | Accident | 902xxxxx | A+ | 3 | Rejected | |

### Sidebar

- Dashboard
- Receivers
- Donar
- Donations
- Blood Request
- Settings

# 2. API Listing with reference to each screen

## 2.1 API Design

1. Authentication

- POST /api/auth/login: Authenticate a user and return a token.
- POST /api/auth/register: Register a new user.

2.Donors

- GET /api/donors: Get a list of all donors.
- POST /api/donors: Create a new donor.
- GET /api/donors/:id: Get information about a specific donor.
- PUT /api/donors/:id: Update information for a specific donor.
- DELETE /api/donors/:id: Delete a specific donor.

3.Blood Banks

- GET /api/bloodbanks: Get a list of all blood banks.
- POST /api/bloodbanks: Create a new blood bank.
- GET /api/bloodbanks/:id: Get information about a specific blood bank.
- PUT /api/bloodbanks/:id: Update information for a specific blood bank.
- DELETE /api/bloodbanks/:id: Delete a specific blood bank.

4.Blood Types

- GET /api/bloodtypes: Get a list of all blood types.
- POST /api/bloodtypes: Create a new blood type.

- GET /api/bloodtypes/:id: Get information about a specific blood type.

- PUT /api/bloodtypes/:id: Update information for a specific blood type.

- DELETE /api/bloodtypes/:id: Delete a specific blood type.


5.Blood Donations

- GET /api/donations: Get a list of all blood donations.

- POST /api/donations: Create a new blood donation.

- GET /api/donations/:id: Get information about a specific blood donation.

- PUT /api/donations/:id: Update information for a specific blood donation.

- DELETE /api/donations/:id: Delete a specific blood donation.


6.Blood Requests

- GET /api/requests: Get a list of all blood requests.

- POST /api/requests: Create a new blood request.

- GET /api/requests/:id: Get information about a specific blood request.

- PUT /api/requests/:id: Update information for a specific blood request.

- DELETE /api/requests/:id: Delete a specific blood request.


2.2 SCREEN DESIGN

1.Login Screen

- POST /api/auth/login: Authenticate a user and return a token.

2.Sign Up Screen

- POST /api/auth/sign up: Register a new user

3.Donor List Screen

- GET /api/donors: Get a list of all donors.

4.Donor Details Screen

- GET /api/donors/:id: Get information about a specific donor.

- PUT /api/donors/:id: Update information for a specific donor.

- DELETE /api/donors/:id: Delete a specific donor.

Blood Type List Screen

- GET /api/bloodtypes: Get a list of all blood types.

Blood Type Details Screen

- GET /api/bloodtypes/:id: Get information about a specific blood type.

- PUT /api/bloodtypes/:id: Update information for a specific blood type.

- DELETE /api/bloodtypes/:id: Delete a specific blood type.

Blood Donation List Screen

- GET /api/donations: Get a list of all blood donations.

Blood Donation Details Screen

- GET /api/donations/:id: Get information about a specific blood donation.

- PUT /api/donations/:id: Update information for a specific blood donation.

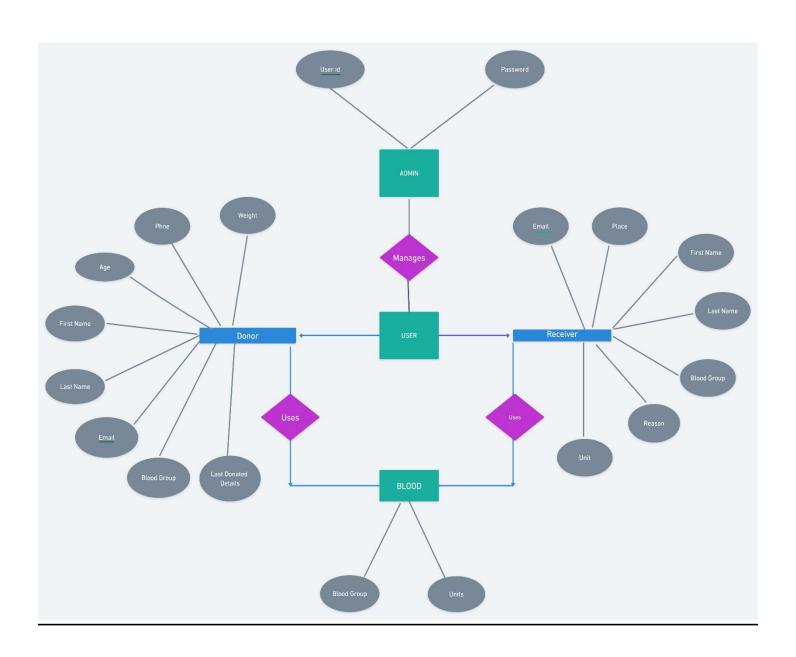- DELETE /api/donations/:id: Delete a specific blood donation.

Blood Request List Screen

- GET /api/requests: Get a list of all blood requests.


Blood Request Details Screen

- GET /api/requests/:id: Get information about a specific blood request.

- PUT /api/requests/:id: Update information for a specific blood request.

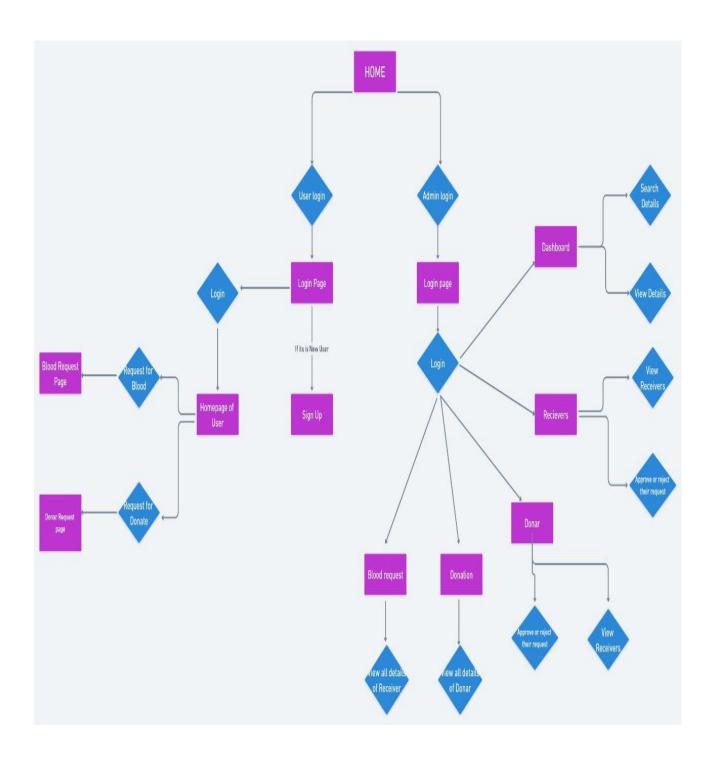- DELETE /api/requests/:id: Delete a specific blood request.

# 3. Entity Relationship Diagram

# 4. Database design diagram



ADMIN

Userid(Varchar 25)   Primary key
Password(Varchar 20)

Manages

DONAR

Email(Varchar 15)Primary key
First name(Varchar 15)
 Last_name(Varchar 15)
Age(Int 5)
Phone(Varchar 15)
Blood_group(Varchar 15)
Last_donated_date(Varchar 15)
Weight(INT 5)

RECEIVER

Uses

Uses

BLOOD

Blood Type(Varchar 15)
Unit (Varchar 5)

# 5.Workflow

# 6. Approx User Story and Task Listing

1.Admin

 User story:

 As an admin of blood bank, he able to manage user accounts,

 track blood request and donations and ensure the security of users

Task listing:

- Develop a user management system that allows admin to approve or delete the blood request of blood receivers and accept or delete the donar 's request.
- Implement authentication and authorization protocols to ensure that only authorized users have access data and resources.
- Design and implement a performance tracking system that allows administrators to evaluate blood stocks

2.Donor

User story:

As a potential blood donor, He /She able to easily find and donate blood so that they can contribute to saving lives and making a positive impact.

Task listing:

- Create a user-friendly online platform that allows potential donors to register their contact and medical information.
- Develop a database of registered donors and their blood types.
-  Integrate the online platform with the blood bank database to ensure accurate tracking of blood donations and compatibility with patients in need.
- Implement security measures such as encryption and two-factor authentication to protect donor information.

3.Recepient

User story:

As a blood recipient, He/she want to be able to find and receive the right type of blood in a timely and safe manner so that I can recover from my illness or injury.

Task listing:

- Develop a system to track blood compatibility data.

- Integrate the patient information system with the blood bank database to ensure accurate tracking of blood donations and compatibility with recipient in need.
- Implement a search feature that allows healthcare providers to find nearby blood donation centers and request specific blood types for their patients.
- Implement security measures such as encryption and authentication to protect patient information.

# 7. Software Architecture Diagram