



Transform Yourself

# **BLOOD DONOR MANAGEMENT SYSTEM**

## **PROJECT GUIDE**

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# PROJECT OBJECTIVE

- The system facilitates connections between voluntary blood donors and recipients or organizations in need of blood.
- It enables efficient search and matching of donors based on blood group and location.
- It minimizes response time during medical emergencies.
- It offers a user-friendly online platform for donor registration and information management.
- It promotes awareness and encourages consistent participation in blood donation.

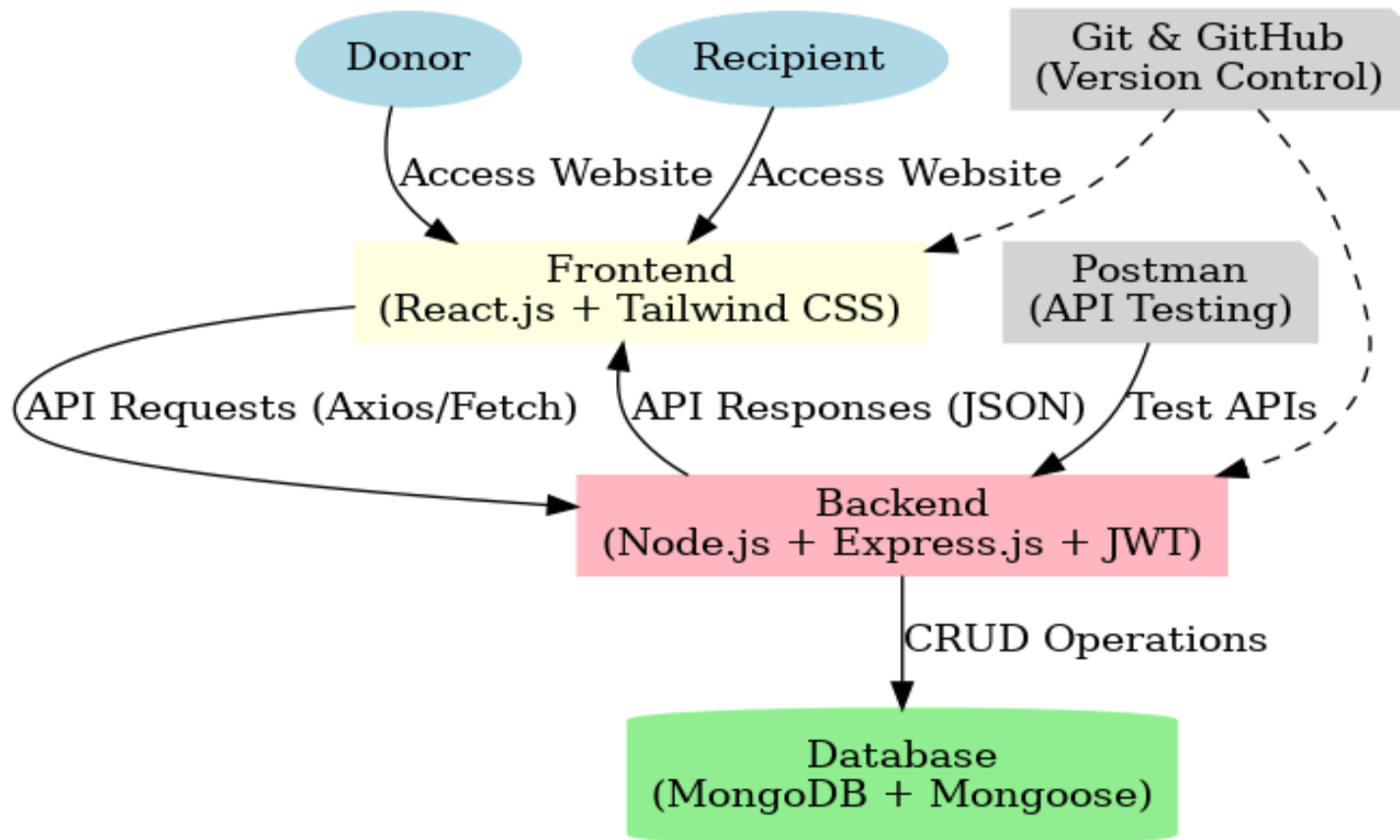
Estd : 1984

# TECHNICAL STACK

- **React.js** – Interactive frontend development
- **Tailwind CSS** – Modern responsive styling
- **Node.js** – Backend runtime environment
- **Express.js** – Server-side API handling
- **MongoDB** – NoSQL database storage
- **Mongoose** – MongoDB data modeling
- **Postman** – API testing tool
- **JWT** – Secure user authentication
- **Git & GitHub** – Code version control and collaboration

Estd : 1984

# ARCHITECTURE



# FEATURES AND FUNCTIONALITY

## Features:

- Donor and recipient registration
- Search donors by blood group and location
- Blood request and response system
- Secure login and authentication
- Mobile-friendly responsive design

## Functionality:

- Donors can update profiles and availability
- Recipients can send and track requests
- System matches donors with recipients
- Stores and manages data in database
- Tests APIs using Postman

# DEMO



BloodBridge

[Home](#) [Donor Registration](#) [Login](#) [Signup](#)

## BLOODBOND

A moment of your time and a pint of your blood is a lifetime of smiles for someone waiting in hope.

[Become a Donor](#)



### Why Donate Blood?



#### Save Lives

Your donation can save up to 3 lives at once.



#### Community Impact

Join a network of heroes making a real difference.



#### Quick & Easy

Donation takes less than 30 minutes of your time.

**500+**

Registered Donors

**1000+**

Lives Saved

**50+**

Cities Covered

## Donor Registration



**A+**

Register as a A+ donor and save lives.



**A-**

Register as a A- donor and save lives.



**B+**

Register as a B+ donor and save lives.



**B-**

Register as a B- donor and save lives.



**O+**

Register as a O+ donor and save lives.



**O-**

Register as a O- donor and save lives.



**AB+**

Register as a AB+ donor and save lives.



**AB-**

Register as a AB- donor and save lives.



## Donor Registration

A few minutes from you could mean a lifetime for someone else.

Full Name

e.g., Priya Narayanan

Email

you@example.com

Phone

+91 98765 43210

Age

18

Gender

Select

Blood Group

Choose group

City

City

State

State

Country

Country

Address

House / Street, Area, Landmark, Pincode

Last Donation (optional)

dd-mm-yyyy



Availability / Preferred Time

e.g., Weekends, 10am-1pm

☐ I confirm that the details provided are accurate and I agree to be contacted for blood donation when needed.

Submit Registration

Reset



# MONGO DB

cloud.mongodb.com/v2/687b405568a5f8036ce3c3fd#/metrics/replicaSet/687b40ec06ca674636f1b742/explorer/test/users/find

Atlas Madhushree... Access Manager Billing All Clusters Get Help Madhushree

blood donor mg... Data Services Charts

Overview

DATABASE

Clusters

SERVICES

Atlas Search

Stream Processing

Triggers

Migration

Data Federation

SECURITY

Quickstart

Backup

Database Access

Network Access

Advanced

Goto

Search Namespaces

test

users

STORAGE SIZE: 36KB LOGICAL DATA SIZE: 1.46KB TOTAL DOCUMENTS: 5 INDEXES TOTAL SIZE: 108KB

Find Indexes Schema Anti-Patterns Aggregation Search Indexes

Generate queries from natural language in Compass

INSERT DOCUMENT

Filter Type a query: { field: 'value' } Reset Apply Options

```
{
  "_id": ObjectId('688d99966e308baeb4926565'),
  "fullName": "Keerthika",
  "username": "Keerthi",
  "password": "$2b$10$C7vjLM2kYWCaMey6uh26a0TxIlT97Z4jruKGJPqzPgJEQHoIRNwTu",
  "gender": "female",
  "bloodgroup": "O+ve",
  "city": "Namakkal",
  "phone": "9812345678",
  "age": 21,
  "address": "Namakkal",
  "createdAt": "2025-08-02T04:52:38.245+00:00",
  "updatedAt": "2025-08-02T04:52:38.245+00:00",
  "__v": 0
}
```

System Status: All Good  
©2025 MongoDB, Inc. Status Terms Privacy Atlas Blog Contact Sales

# GITHUB REPOSITORY

Files

master

Go to file

> backend

> frontend

> public

> src

.env.example

.gitignore

README.md

eslint.config.js

index.html

package-lock.json

package.json

postcss.config.js

tailwind.config.js

vite.config.js

yarn.lock

.gitignore

package-lock.json

package.json

Blood\_donor\_management\_system / frontend /

Add file

...

Madhushree-30

Home page

f3729ef · 15 minutes ago

History

Name	Last commit message	Last commit date
..		
public	project-setup	last month
src	Home page	15 minutes ago
.env.example	.env.example changes	last month
.gitignore	project-setup	last month
README.md	project-setup	last month
eslint.config.js	project-setup	last month
index.html	changes in frontend and package.json	last month
package-lock.json	Home page	15 minutes ago
package.json	Home page	15 minutes ago
postcss.config.js	signup and login	3 weeks ago
tailwind.config.js	signup and login	3 weeks ago
vite.config.js	changes in frontend and package.json	last month
yarn.lock	Home page	15 minutes ago

# REFERENCE

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- MongoDB Documentation – <https://www.mongodb.com/docs/>



**THANK YOU**