



Transform Yourself

BLOOD DONOR MANAGEMENT SYSTEM

PROJECT GUIDE

Mrs.P.Ramya

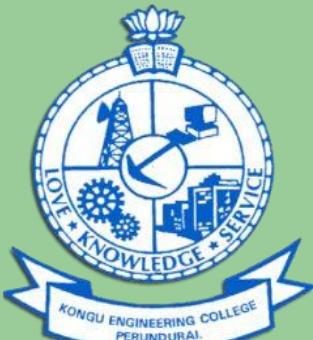
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PROJECT MEMBER

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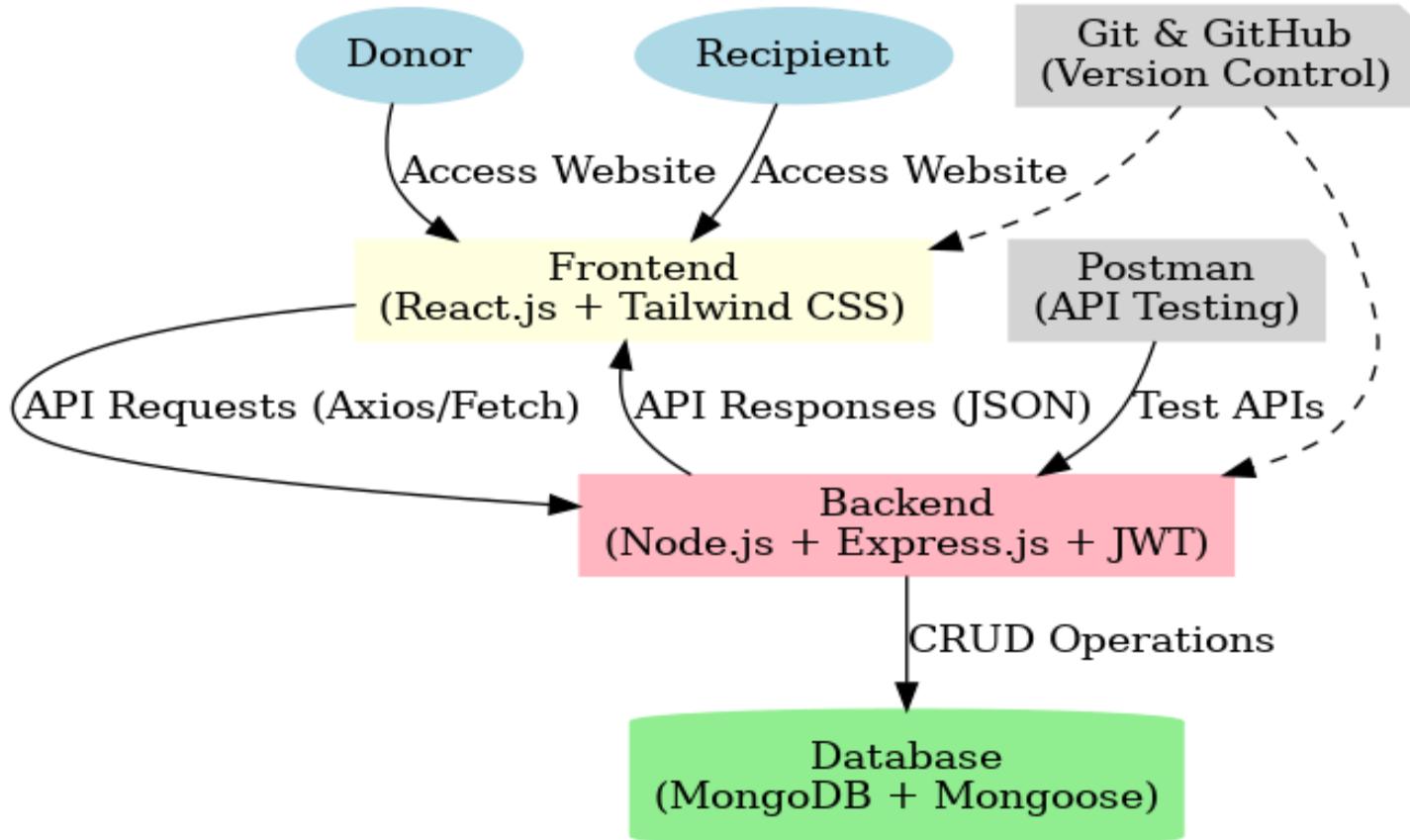
PROJECT OBJECTIVE

- 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.

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

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.



BloodBridge

Home Donor Registration Login Signup

Donor Registration

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

Full Name

Email

Phone

Age

Gender

Blood Group

City

State

Country

Address

Last Donation (optional)

Availability / Preferred Time

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

MONGO DB

The screenshot shows the MongoDB Compass interface for a database named 'test'. The 'users' collection is selected. A single document is displayed with the following fields and values:

```
_id: ObjectId('688d99966e308baeb4926565')
fullname : "Keerthika"
username : "Keerthi1"
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
```

The left sidebar shows the 'Clusters' tab is active, along with other sections like 'SERVICES' and 'SECURITY'. The bottom footer indicates 'System Status: All Good'.

GITHUB REPOSITORY

The screenshot shows a GitHub repository interface. On the left, there's a sidebar with navigation links like Home, Profile, and GitHub Pages. Below that is a file tree for the 'master' branch, showing files and folders such as backend, frontend (which is expanded), 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, and package.json. Some files like README.md, eslint.config.js, index.html, package.json, postcss.config.js, tailwind.config.js, vite.config.js, and yarn.lock are highlighted in grey. The main area displays the commit history for the 'frontend' branch. At the top of the commit list is a message from 'Madhushree-30' titled 'Home page'. The commits are listed in reverse chronological order, with the most recent at the bottom. Each commit includes the file name, a brief message, and the date it was last committed.

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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- American Red Cross. (2023). *Blood donation facts and statistics*. Retrieved from <https://www.redcrossblood.org/>
- React.js Documentation – <https://react.dev/>
- Tailwind CSS Documentation – <https://tailwindcss.com/docs>
- MongoDB Documentation – <https://www.mongodb.com/docs/>

THANK YOU



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