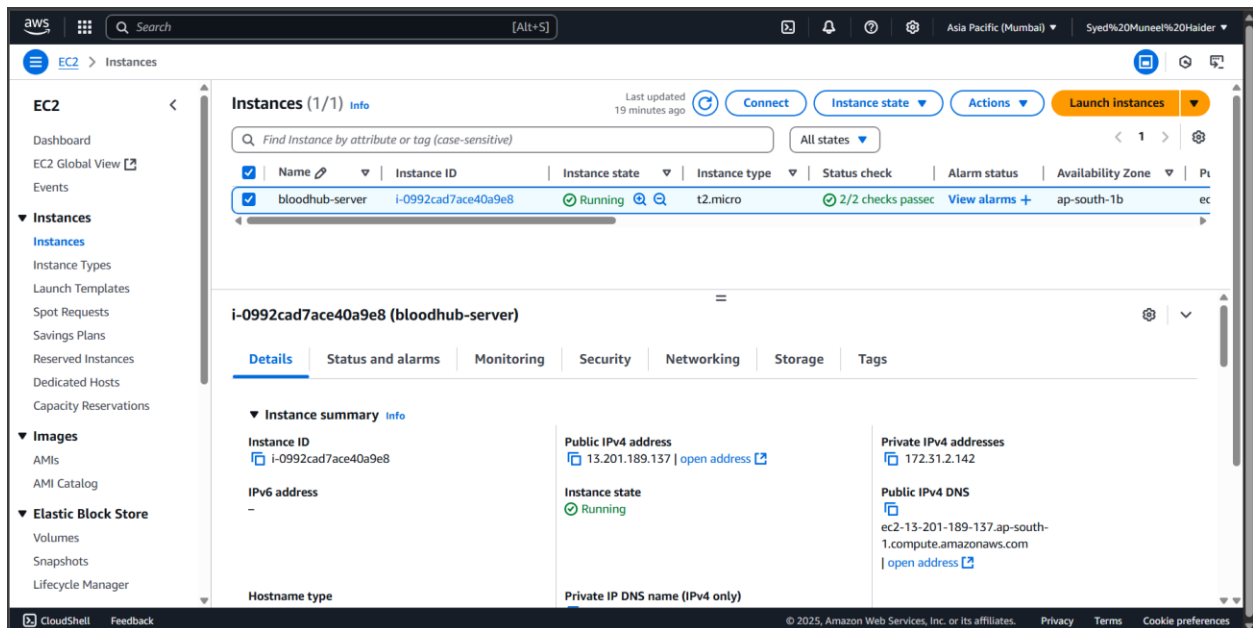


GitHub: <https://github.com/MuneelHaider/BloodHub>

BACKEND:

1. LAUNCHING EC2 INSTANCE:



2. Connecting to EC2 Machine:

```
PS D:\BloodHub\BloodHub> ssh -i D:\BloodHub\Bloodhub\bloodhubKey.pem ec2-user@13.201.189.137
#_
~\_ ##### Amazon Linux 2023
~\_ #####
~\_ \#####\
~\_  \###\
~\_   \#/\_ https://aws.amazon.com/linux/amazon-linux-2023
~\_    V~!_>
~\_   _/
~\_  _/
~\_ _/m/'
[ec2-user@ip-172-31-2-142 ~]$ sudo yum update -y
```

3. Using Docker to build the images and up the containers:

```
[ec2-user@ip-172-31-2-142 server]$ docker build -t bloodhub-backend .
[+] Building 33.8s (10/10) FINISHED
=> [internal] load build definition from Dockerfile                                docker:default 0.0s
=> => transferring dockerfile: 229B                                              0.0s
=> [internal] load metadata for docker.io/library/node:18                        2.3s
=> [internal] load .dockerignore                                                 0.0s
=> => transferring context: 2B                                                    0.0s
=> [1/5] FROM docker.io/library/node:18@sha256:867be01f97d45cb7d89a8ef0b328d23e8207412ebec4564441ed8cabc8cc4ecd 24.0s
=> => resolve docker.io/library/node:18@sha256:867be01f97d45cb7d89a8ef0b328d23e8207412ebec4564441ed8cabc8cc4ecd 0.0s
=> => sha256:867be01f97d45cb7d89a8ef0b328d23e8207412ebec4564441ed8cabc8cc4ecd 6.41kB / 6.41kB 0.0s
```

4. Checking and confirmation if containers are up.

```
=> exporting to image                                                            0.1s
=> => exporting layers                                                            0.1s
=> => writing image sha256:5b8b37e626d3199a967df436d09eed3dab470f9f4fbd28ee9ad60d28412d219e 0.0s
=> => naming to docker.io/library/bloodhub-backend                             0.0s
[ec2-user@ip-172-31-2-142 server]$ docker run -d -p 5000:5000 --env-file .env bloodhub-backend
d484e30b8c00b5ca137331bf82a9110f1bb89a2f898a1f08b08e7860a95bef0e
[ec2-user@ip-172-31-2-142 server]$ docker ps
CONTAINER ID   IMAGE          COMMAND                  CREATED        STATUS        PORTS
d484e30b8c00   bloodhub-backend "docker-entrypoint.s..." 13 seconds ago Up 12 seconds 0.0.0.0:5000->5000/tcp, :::5000->5000/tcp
[ec2-user@ip-172-31-2-142 server]$
```

5. Security group created for EC2 Instance.

Security groups



sg-0204f6a9a1a285248 (launch-wizard-2)

FRONTEND:

1. Created new IAM role for Elastic Beanstalk Instance:

The screenshot displays the AWS IAM console interface. On the left, the navigation pane shows the 'Identity and Access Management (IAM)' section with 'Roles' selected. The main content area features a green notification banner at the top indicating the successful creation of the 'aws-elasticbeanstalk-ec2-role'. Below this, the 'Roles (4)' section provides a brief explanation of IAM roles and includes a search bar and a list of existing roles. The roles listed are 'aws-elasticbeanstalk-ec2-role', 'aws-elasticbeanstalk-service-role', 'AWSServiceRoleForSupport', and 'AWSServiceRoleForTrustedAdvisor'. At the bottom, the 'Roles Anywhere' section is visible, offering a 'Manage' button for non-AWS workloads.

2. New environment and application created:

The screenshot displays the AWS Elastic Beanstalk console for the 'Bloodhub-front-env' environment. The left sidebar shows the navigation menu with 'Elastic Beanstalk' selected, and 'Environments' expanded. The main content area shows the 'Bloodhub-front-env' environment details.

Environment overview

- Health: Ok
- Environment ID: e-nrjrzxgu6p
- Domain: Bloodhub-front-env.eba-ruucqppz.ap-south-1.elasticbeanstalk.com
- Application name: bloodhub-front

Platform

- Platform: Node.js 22 running on 64bit Amazon Linux 2023/6.5.1
- Running version: v7
- Platform state: Supported

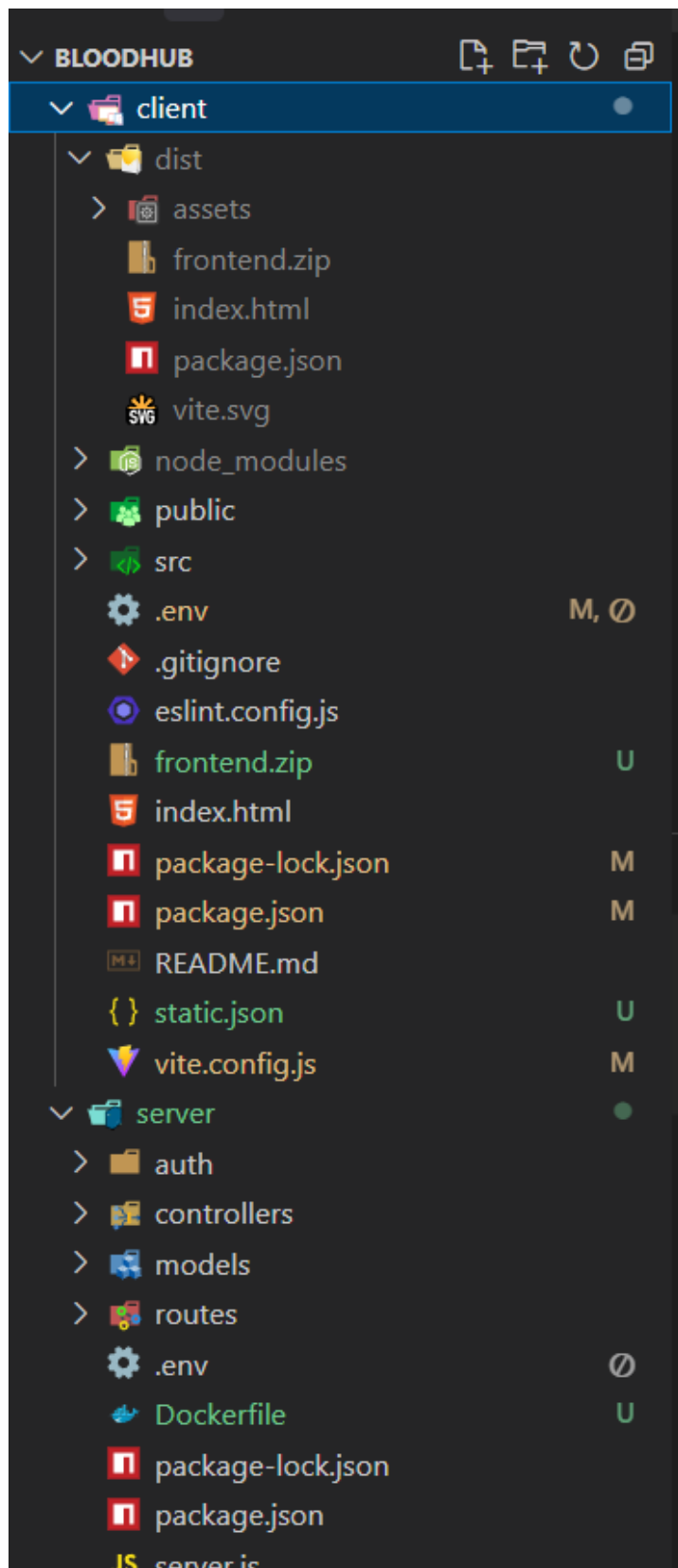
Events (11)

Time	Type	Details
May 11, 2025 22:04:17 (UTC+5)	INFO	Environment health has transitioned from Pending to Ok. Initialization completed 21 seconds ago and took 2 minutes.
May 11, 2025 22:03:31 (UTC+5)	INFO	Successfully launched environment: Bloodhub-front-env

3. Proof that everything is working:

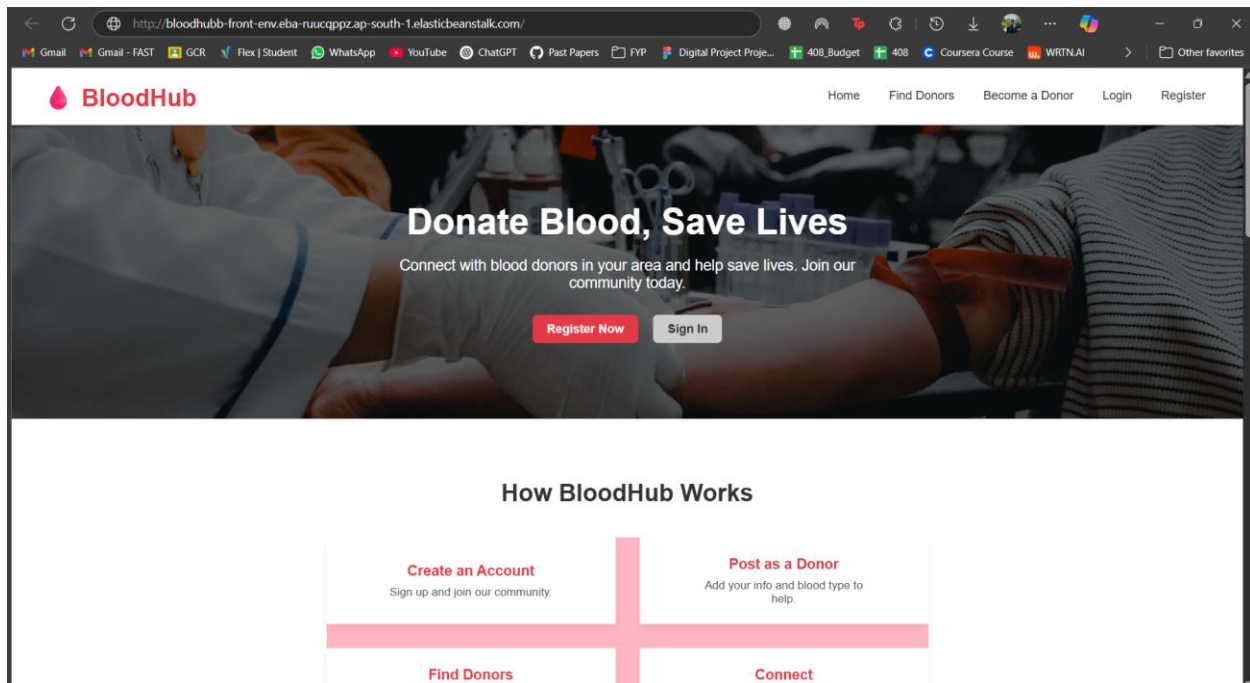
Time	Type	Details
May 11, 2025 22:04:17 (UTC+5)	INFO	Environment health has transitioned from Pending to Ok. Initialization completed 21 seconds ago and took 2 minutes.
May 11, 2025 22:03:31 (UTC+5)	INFO	Successfully launched environment: Bloodhubbb-front-env
May 11, 2025 22:03:30 (UTC+5)	INFO	Application available at Bloodhubbb-front-env.eba-ruucqppz.ap-south-1.elasticbeanstalk.com.
May 11, 2025 22:03:17 (UTC+5)	INFO	Added instance [i-011e48483558191d4] to your environment.
May 11, 2025 22:03:13 (UTC+5)	INFO	Instance deployment completed successfully.
May 11, 2025 22:02:17 (UTC+5)	INFO	Environment health has transitioned to Pending. Initialization in progress (running for 47 seconds). There are no instances.
May 11, 2025 22:02:03 (UTC+5)	INFO	Waiting for EC2 instances to launch. This may take a few minutes.
May 11, 2025 22:01:47 (UTC+5)	INFO	Created EIP: 52.66.107.94
May 11, 2025 22:01:32 (UTC+5)	INFO	Created security group named: awseb-e-nrjrzxgu6p-stack-AWSEBSecurityGroup-Z47p6mrqLFbp
May 11, 2025 22:01:12 (UTC+5)	INFO	Using elasticbeanstalk-ap-south-1-058264539896 as Amazon S3 storage bucket for environment data.
May 11, 2025 22:01:11 (UTC+5)	INFO	createEnvironment is starting.

4. Project Folder Structure:



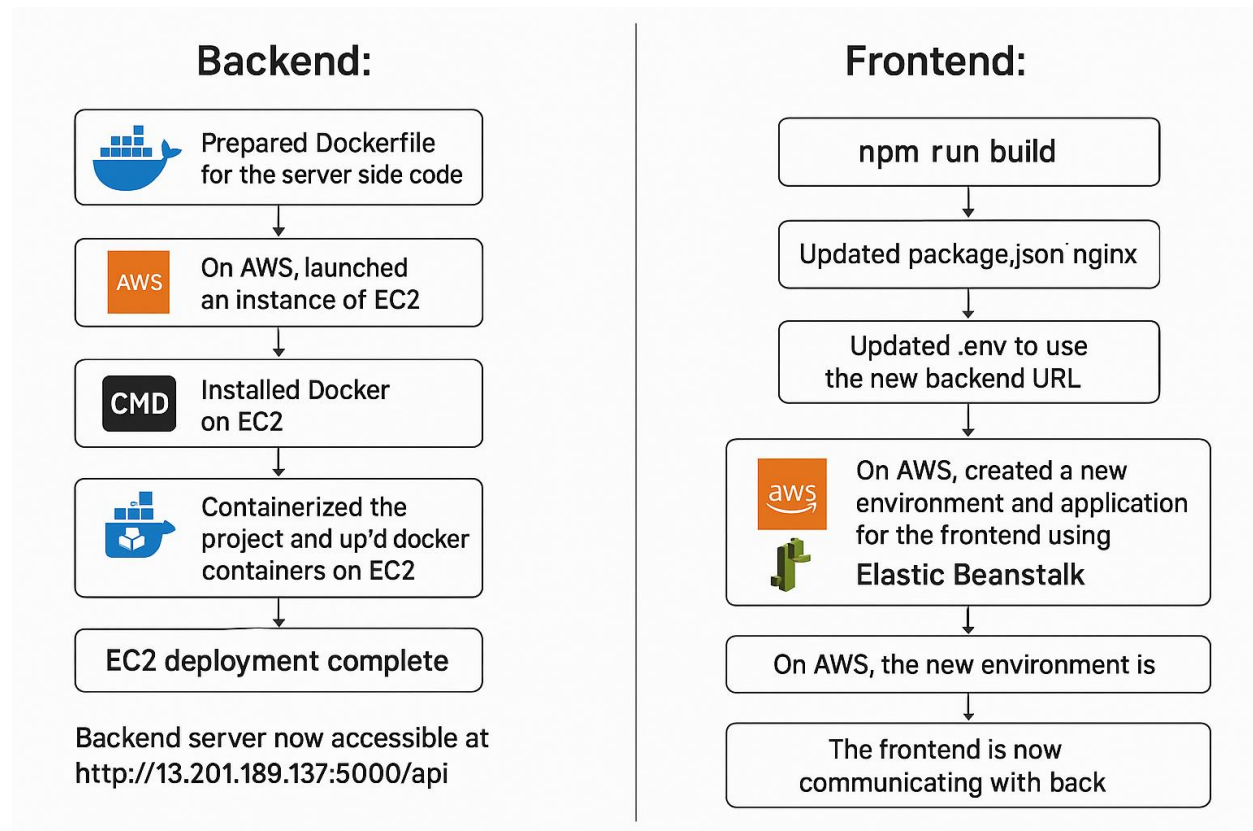
WEBSITE:

1. THE WEBSITE IS FULLY FUNCTIONAL:



2. ALL CRUD OPERATION ARE FUNCTIONAL.

3. DIAGRAM:



4. DIAGRAM:

