Blood Donation Application

assignment12_category_0001

1. Objective

The purpose of the Blood Donation Application is to create a user-friendly platform that facilitates blood donation activities. The application will connect donors with those in need of blood, promoting a seamless and efficient donation process.

The application will include features for use(donor) registration, blood donation requests, donor management, content management, and role-based access control. It will be built using the MERN stack (MongoDB, Express.js, React, Node.js).

Key Rules:

- Include a minimum of 20 notable GitHub commits on the client side
- Include a minimum of 12 notable GitHub commits on the server side
- Add a meaningful readme.md file with the name of your website, Admin username, password and live site URL. Include a minimum of 10 bullet points to feature your website.
- Make it responsive for all devices. You need to make it responsive for mobile, tablet and desktop views. Make the dashboard responsive as well.
- After reloading the page of a private route, the user should not be redirected to the login page.
- Use the Environment variable to hide the Firebase config keys and Mongodb credentials.
- Don't use any Lorem ipsum text in your website.
- Show sweet alert/toast/notification for all the crud operations, successful authentication login, and sign-up. Don't use the default browser alert.

- Implement tanstack query in all the data fetching functionality (For GET method only)

2. User Roles and Permissions

2.1 Role Management

- **Admin 🌐:** Has access to all features, including user management, donation requests, and content management.
- **Donor 🩸 :** Can register, view donation requests, and respond to them, maintain his own profile.
- **Volunteer 🤝:** Can create and manage donation request.

💡 Make a user admin by editing from database

3. User Authentication(public)

3.1 Registration

- Application will have a registration page from where users can register an account for himself. When a new user will register an account by default the role of the user will be **"donor". [** Do not enforce the email verification method and forget & reset password method, as it will inconvenience the examiner. If you want, you can add it after receiving the assignment result. **]** Registration form will have the following input fields

    - email
    - name
    - avatar(use imageBB to upload the user avatar)
    - blood group(a selector with option A+, A-, B+, B-, AB+, AB-, O+, O-)
    - district(select option)
    - upazila(select option)
    - password
    - confirm_password

    💡 **status:** Every user will have a default status **"active"**. Admin can block a user. Then the status for the user will be **"blocked"**. We will talked more about this feature in admin section

💡 **You will find data for district and upazila in the resources section & social login is not required. You do not need to implement any social login.**

3.2 Login

- Application will have a login page from where registered users can log in using their email and password. Users can navigate to the registration page from the login page and vise versa

4. Dashboard(private 🔒)

- All of the dashboard layout will have sidebar not navbar on the top.The dashboard layout has to be fully responsive.
- **Profile Page**
    - **Route:** /dashboard/profile
    - Every user(admin, donner, or volunteer) will have a profile page. From where the user is able to see his name, email, avatar, address(district, upazila), blood group and able to update profile information. [use a form to show all the information and keep an edit button on top of the form. Initially the form will not be editable. While the edit button will be clicked then the form will be editable and will appear a save button to save updated data to the database. After saving the updated data the form will go back to its initial state. It means again an edit button will appear on top of the form and form will be not editable. Keep in mind, the email will not be editable even after clicking on the edit button.]

4.1 Donor Dashboard

- **Dashboard Home page** 🏠

    - **Route:** /dashboard
    - This page will display a welcome message with the user's name(who has logged in as donor)
    - Below the welcome section donor will see his maximum 3 recent donation requests, those requested by himself. For example, if you are a donor then if you come to this page you will see your 3 recent donation requests (show as tabular format). If the user has not made any donation request yet this section will be hidden.

- Every donation request will have the data mentioned below
  - recipient name
  - recipient location(where donor will need to go to donate the blood for the blood recipient. This row only shows the district and upazila which was provided while the request was created. look at the create donation request form. you will find to input: **recipient district, recipient upazila**)
  - donation date
  - donation time
  - donation status(pending, inprogress, done, canceled) - **donor will find done and cancel button only while the donation status is inprogress.** Then the status can be changed from inprogress to done, or inprogress to cancled. while the status will be done, or canceled both(done and canceled) buttons will be hidden again.
  - donor information - while the donation status will be **inprogress** the donation will have donor information(name, email)
  - edit button to edit the donation request(when click the button donor will be redirect to a page from where the donation request can be edit and update by clicking on update donation request button)
  - delete button to delete the donation request(will show a confirmation modal before deleting and by confirming the donation request will be deleted)
  - view button to go into the donation request details page(you will find details about this page below)
- Below the 3 recent donation requests the donor will see a "view my all request" button. When the user clicks on the button, the user(donor) will be redirected to the **"My Donation Requests"** page. (Note: **you will find details about this page below**)
- **My Donation Requests Page** 🩸

  - **Route:** /dashboard/my-donation-requests
  - In this page user(donor) will see all of his donation requests those was requested by himself in a tabular format (same like "recent donation request" section table in the "Dashboard Home Page")
  - The table will have the same content as "recent donation request" section in the "Dashboard Home Page"
  - In addition the table will have a pagination feature. (Pagination is part of the challenge requirement. If you don't implement the pagination feature then show all data in a single table)

- In addition the table will have a filtering option(**"pending", "inprogress", "done", "canceled"**) based on the donation request(you will find more details about how this donation status works in the whole requirement. So read it very carefully)
- **Create Donation Request Page**🆕

    - **Route:** /dashboard/create-donation-request
    - This page will have a form with the following input fields
        - requester name(read only - name of the logged in user)
        - requester email(read only - email of the logged in user)
        - recipient name
        - recipient district(select option)
        - recipient upazila(select option)
        - hospital name(where the donor will go to donate blood - like: Dhaka Medical College Hospital)
        - full address line(like: **Zahir Raihan Rd, Dhaka**)
        - donation date
        - donation time
        - request message(requester will write, why he need blood in this input field in details)
        - donation status(this will not be in the donation request form. you will add the status as pending as default value. Don't add any input field for status)
    - request button (form will have a request button and clicking on the button a donation request will be created.)

    💡 **Blocked user is not able to create any donation request.** Only the active user is able to create a donation request.

4.2 Admin Dashboard

- **Dashboard Home Page** 🏠

    - **Route:** /dashboard
    - Will have the same welcome section like the **"Donor Dashboard Home Page"** welcome section
    - Below the welcome section will have 3 featured cards of the statistics. Every card will have a relevant icon, count number, and title. Have a look at

this image link to get an idea: https://prnt.sc/h4qw_H22dX8x Don't copy
the design. Design it from your own.
- total user(Donors)
- total funding(users are able to donate a little money to help these
organizations. We will talk about how to donate money in the bonus
section). Look at the challenges requirement section. Showing
total funds is part of the challenge requirement.
- total blood donation request
- **All Users Page** 👤

- **Route:** /dashboard/all-users
- All users data will be shown in tabular format in this page. The table will
have a pagination feature (Pagination is part of the challenge
requirement. If you don't implement the pagination feature then show all
data in a single table)
- Table will have a filtering option(**"active", "blocked"**) based on the user
status.
- In every table row will have
- user avatar
- user email
- user name
- user role
- user status
- a block button to block the user while the user status is
"active"(clicking on the button admin is able to block the user. Then
the user status will be **"blocked")**
- a unblock button to unblock the user while the user status is
"blocked"(clicking on the button admin is able to unblock the user.
Then the user status will be "**active**" again)
- a make volunteer button to make a user from donor to volunteer. By
clicking the button admin is able to give volunteer role to a
user/donor
- a make admin button to make a user from donor, or volunteer to
admin. By clicking the button admin is able to give admin role to a
user.

💡 You can use a three dot menu button with dropdown to manage all of the
action button. It will be nicer to look at.

- **All Blood Donation Request Page** 🩸

    - **Route:** /dashboard/all-blood-donation-request
    - This page will have the same features and content like "**My Donation Requests Page**" from the donor dashboard. That means the admin will have the same privilege as a donor and be able to do anything that a donor can from his dashboard → "**My Donation Requests Page**".

  💡 **The only difference is a donor from his dashboard is able to manage only his own donation requests. But the admin is able to manage all users' donation requests.**

- **Content Management Page** 📝

    - **Route:** /dashboard/content-management

    - This page will have an "Add Blog" button at the top right corner. while the button will be clicked, it will redirect to **Add Blog Page.**

        - **Add Blog Page**

            - **Route:** /dashboard/content-management/add-blog
            - This page will have a form with the following input fields
                - title(title of the blog)
                - thumbnail image(use imageBB to upload the thumbnail email)
                - content(blog content) - this will be a rich text editor. you can use **jodit-react** npm package for the rich text editor
            - form will have a create button to create a blog after filling the form.

          💡 Every newly created blog status will be **draft** by default. Only an admin is able to change the status of a blog as **published**

    - Then below will have all of the blogs. Design this section with your likings. You are open to design this section either card or tabular format. Pagination is optional on this page. But it will be great if you are able to

implement it.

- Will have filtering option(dropdown with option **draft** and **published**)

- Every blog will have a publish button if the blog status is on **draft** and again keep in mind, only an admin is able to publish a blog.

- When the blog is in published status then it will have an unpublish button. An admin can unpublish the blog by clicking on the button. While the blog will be unpublished then the status will be **draft** again

- Will have a delete button to delete the blog. Only an admin is able to delete a blog.

- Implementing blog editing is optional but highly recommended to do this as well.

4.3 Volunteer Dashboard

- **Dashboard Home Page** 🏠

  - **Route:** /dashboard
  - Will be the same page like **Admin Dashboard → Home Page**
- **All Blood Donation Request Page** 🩸

  - **Route:** /dashboard/all-blood-donation-request

  - Will be the same page like **Admin Dashboard → All Blood Donation Request Page.** But volunteers will not have all of the permission or privilege like an admin. Let's see what permission has to a volunteer below

    - Is able to see all blood donation requests with pagination and filtering functionality same as an admin (Pagination is part of the challenge requirement. If you don't implement the pagination feature then show all data in a single table)
    - Is able to update the donation status only
  - **Only these two functions are allowed for volunteers. Volunteers are restricted to do all other action in All Blood Donation Request**

management.

- **Content Management Page** 📝

  - **Route:** /dashboard/content-management
  - Will be the same page link **Admin Dashboard → Content Management Page. The only difference is admin is able to delete, publish blogs. But volunteers are not able to do that.** Only these two actions are restricted for volunteers. Volunteers will have all other permission in content management like an admin.

5. Home Page(public)

- **Route:** /
- **Navbar →** will have a logo, donation requests, blog, login, link before logged in. and will have a logo, donation requests, blog, fundings links and user avatar with dropdown(dashboard, logout button) after logged in.
- **Banner →** will have a heading with a "Join as a donor" and "Search Donors" button
  - Clicking on the "Join as a donor" button will redirect the user to registration page
  - Clicking on the "Search Donors" button will redirect the user to search page
- **Featured section →** make it from your own thinking. It should be relevant with the website.
- **Contact Us section →** will have a contact form and contact number
- **Footer →** make the footer relevant with the website theme and add useful links in the footer as well

6. Search page(public)

- will have a search form with following input fields
  - blood group(a selector with option A+, A-, B+, B-, AB+, AB-, O+, O-)
  - district(select option)
  - upazila(select option)
  - search button
- By default the search page will not have any donor data. After clicking on the search button by filling the search form donors list will be shown below based on the search. The view of this section depends on your website theme.

7. Blood Donation requests(public)

- This page will only show all of the **pending** donation requests(card or tabular view)
- Every donation request will have the following things
  - recipient name
  - location
  - date
  - time
  - view button
- By clicking the view button the user is able to go to the details page of the donation request. This page is private. If the user is not logged in then redirect the user to the login page

8. Blood Donation Request Details Page(private 🔒)

- This page will have all of the information that was provided during creation of a donation request. (you will find on the → **Create Donation Request Page**)
- Below that information will have a **donate button**. And by clicking on the button will open a modal with a form and confirm button
- The form will have following input fields
  - donor name(read only - logged in user name)
  - donor email(read only - logged in user email)
- By confirming donation the status for the donation will be changed **pending** to **inprogress**

8. Blog Page(public)

- Will show all of the published blogs. You are free to design this page with your likings.
- Make a detailed page for each blog to read the full blog.
- You can implement search functionality into this page but it's optional for you

---

Challenges Requirements

9. Funding Page(private 🔒)

- This page will show all of the funds made by the users. Show in tabular form.
- Each funding will have the name of the user who has given the fund, fund amount, funding date

- Keep a give fund button to give funding on this page at the top. By clicking the button users will be able to give fund for the organization(integrate stripe payment method for this)
- Showing total funds on admin and volunteers dashboard is part of a challenging task.
- Show pagination where it is necessary.

10. JWT

- Implement JWT on login and store the token and protect private APIs with JWT using browser localStorage

---

Resources

- Use this github repository to find all of the districts and upazilas data: https://github.com/nuhil/bangladesh-geocode

---

Optional Tasks

You can implement any tasks from the following:

1) Added animation on your website using (framer motion, or aos)
2) Download search results as pdf from Search page. Explore how to generate pdf from html and download
3) Implement daily, weekly, monthly donation request in chart in the admin dashboard home page
4) Share blog post to the social media feature in the blog page

Remember to maintain a consistent design and user experience throughout your website. Tailor these additional features and recommendations to suit the unique characteristics and goals of your Polling and Survey application. 🚀✨

Guidelines 📌

- Spend 15-20 minutes deciding on the core features of the survey application.

- Start with a basic idea and progressively add more features.

- Prioritize user experience, data security, and seamless payment integration.

- Use ChatGPT for generating sample data initially and adapt as needed.

- Regularly commit and update the readme as you progress through the development stages.

What to Submit

1. Assignment Category:
2. Admin email:
3. Admin password:
4. Front-end Live Site Link:
5. Client Side GitHub Repository Link:
6. Server Side GitHub Repository Link: