ForoCity

A Web Forum

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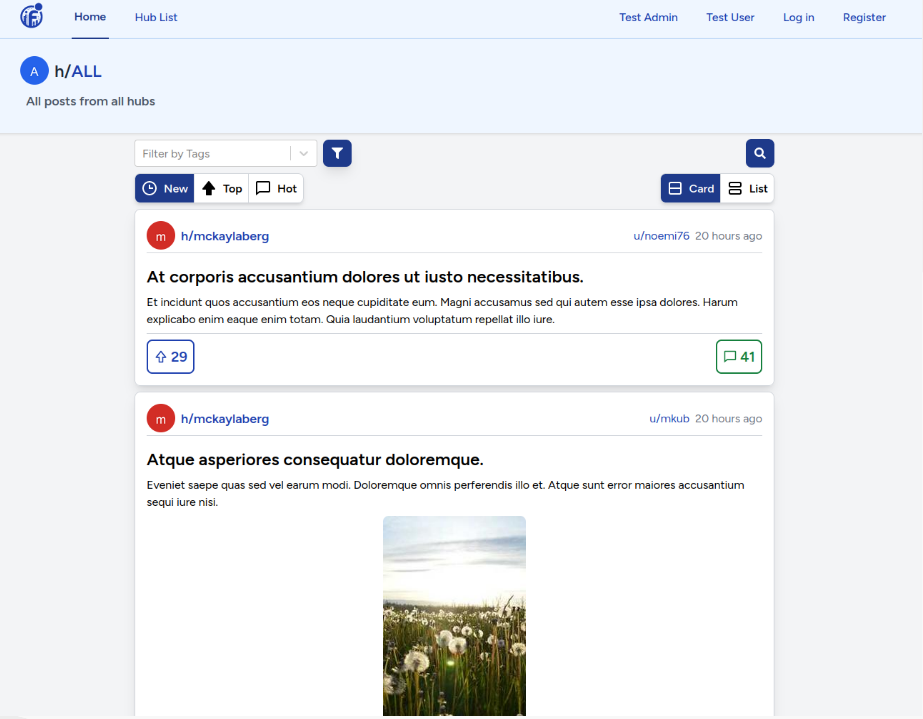
ForoCity

ForoCity is a web forum that allows users to create and participate in discussion topics of their city.
Filter, sort and search posts by tags, votes, title or content.
It has also direct messages between users.



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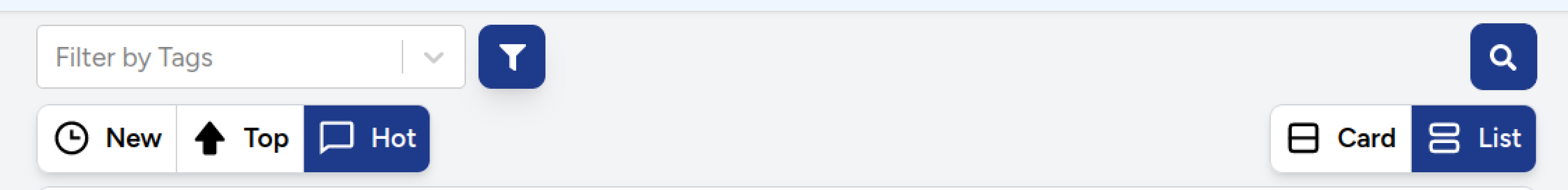
Key Features

It has many features like:

- Filter by Tags
- Search by title or content
- Sort by New, Most Voted, Most Commented.
- Two View types: Card and List

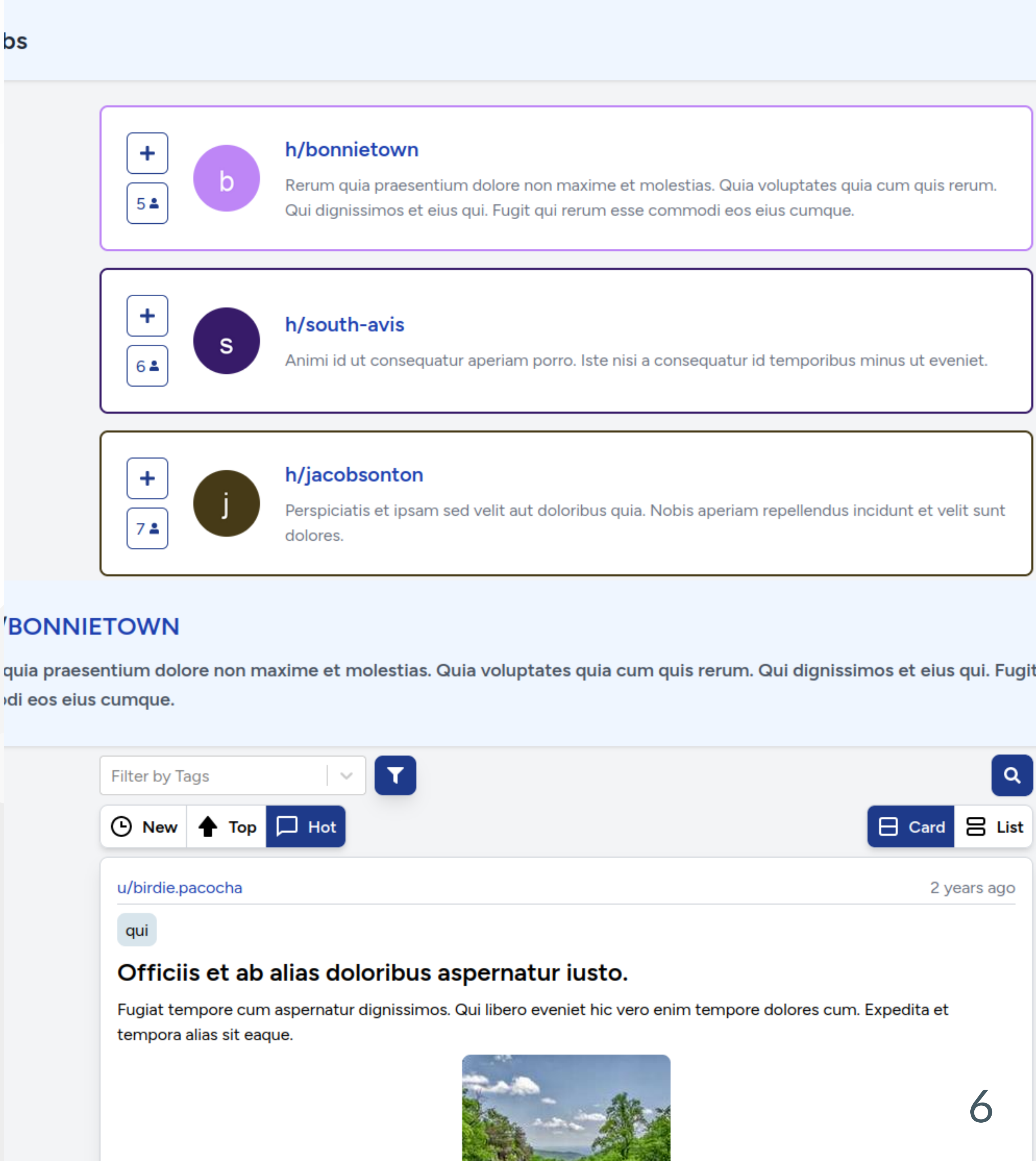


Key Features

- Chat with other users
- Create New Hubs, Join Hubs
- Create Posts, Vote on them
- Create Responses, Vote on them
- Direct Messages with other users
- Edit and Delete Posts, Responses, Messages
- Admin can only delete things not edit them

Hubs

Hubs are groups for a city. User can create a hub for their city and join other hubs. and post in them. Any user can join any hub. But only the creator of the hub and admin can delete the hub.



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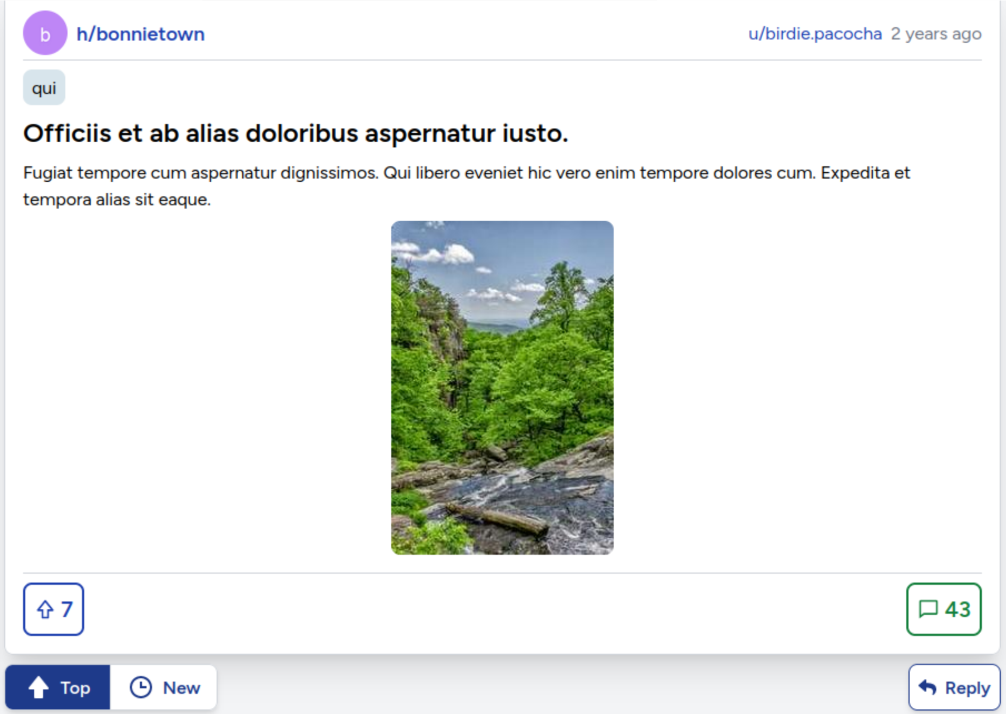
Posts

User can create posts in any hub. They can also edit and delete their posts. They can also vote on posts. Posts can be sorted by New, Most Voted, Most Commented. They can also be filtered by tags.



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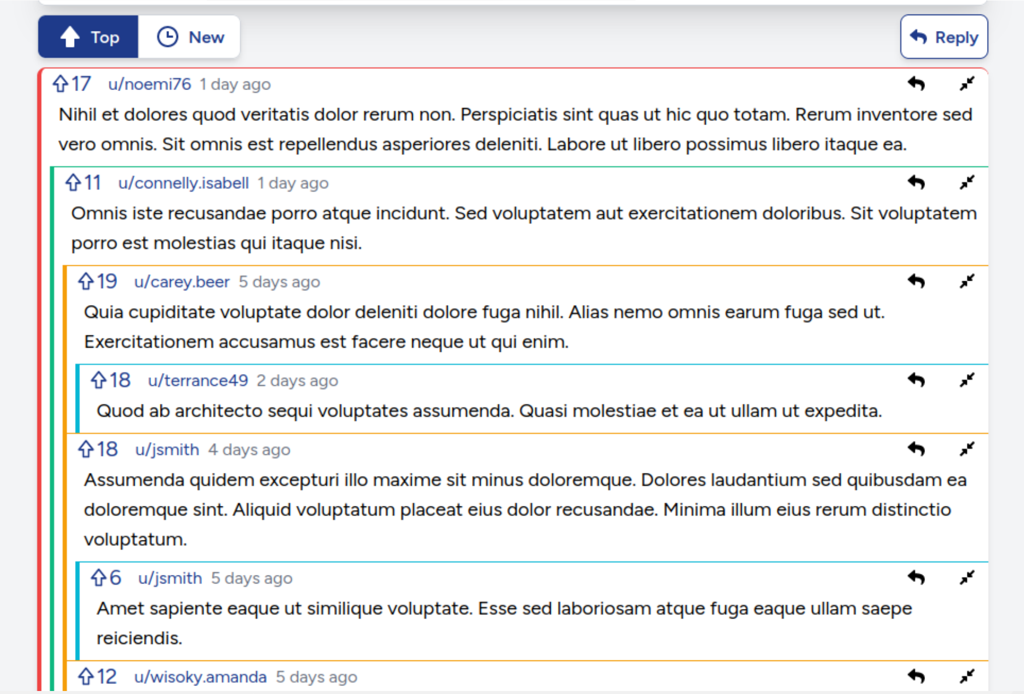
Responses



17 u/noemi76 1 day ago

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11 u/connelly.isabell 1 day ago

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19 u/carey.beer 5 days ago

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18 u/terrance49 2 days ago

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18 u/jsmith 4 days ago

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6 u/jsmith 5 days ago

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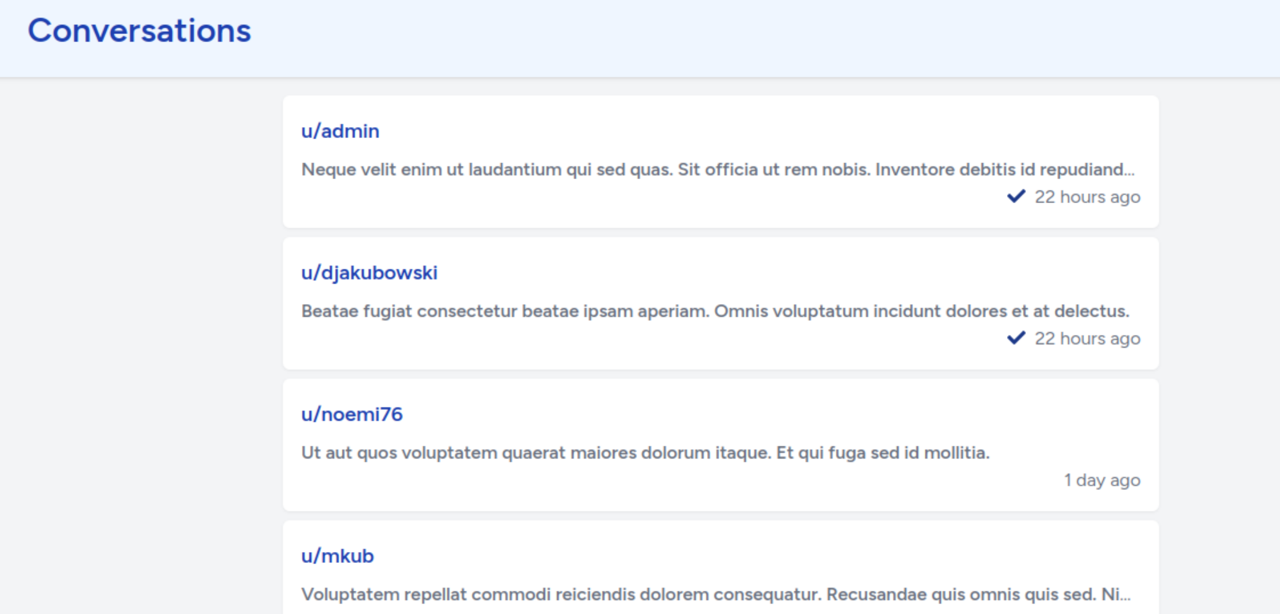
12 u/wisoky.amanda 5 days ago

User can create responses to posts. They can also edit and delete their responses. They can also vote on responses. Responses can be sorted by New, Most Voted. They are displyed in a tree like structure. They can be sort by New, or Most voted.

Conversations

User can send direct messages to other users. They are shown in style of a chat. They can also click on the user to see their profile.



Conversations

u/admin

Neque velit enim ut laudantium qui sed quas. Sit officia ut rem nobis. Inventore debitis id repudiand...

✓ 22 hours ago

u/djakubowski

Beatae fugiat consectetur beatae ipsam aperiam. Omnis voluptatum incidunt dolores et at delectus.

✓ 22 hours ago

u/noemi76

Ut aut quos voluptatem quaerat maiores dolorum itaque. Et qui fuga sed id mollitia.

1 day ago

u/mkub

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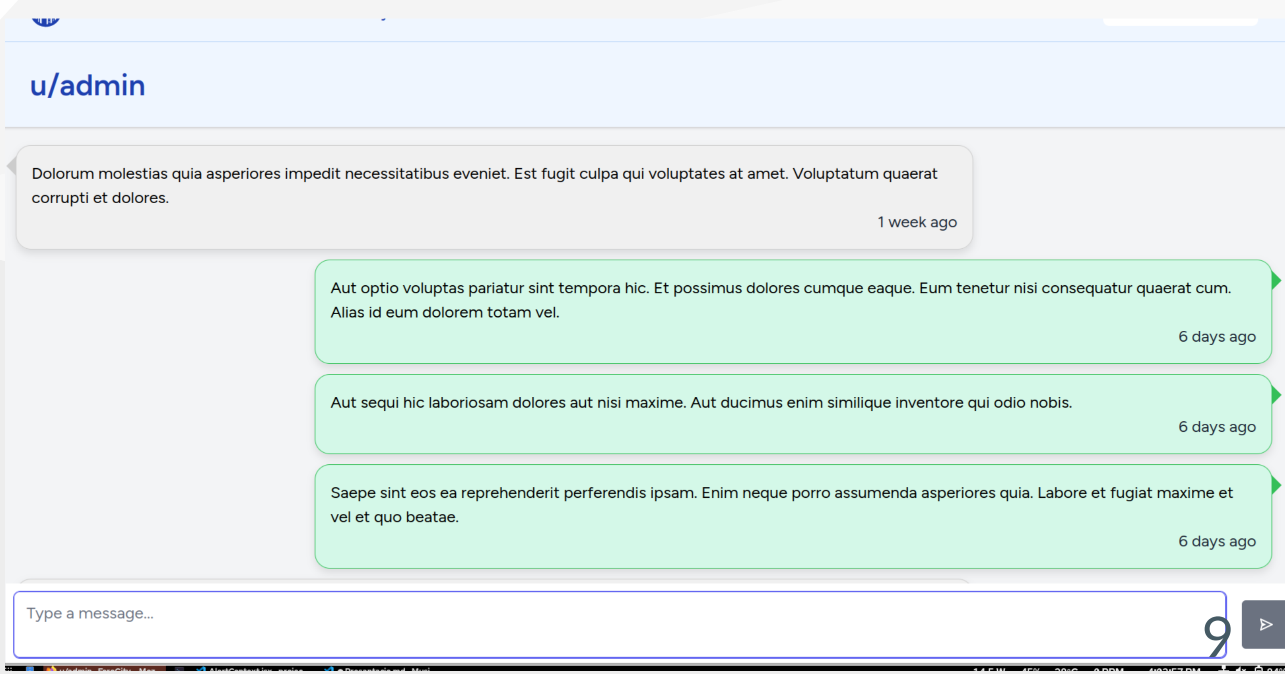

u/admin

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6 days ago

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6 days ago

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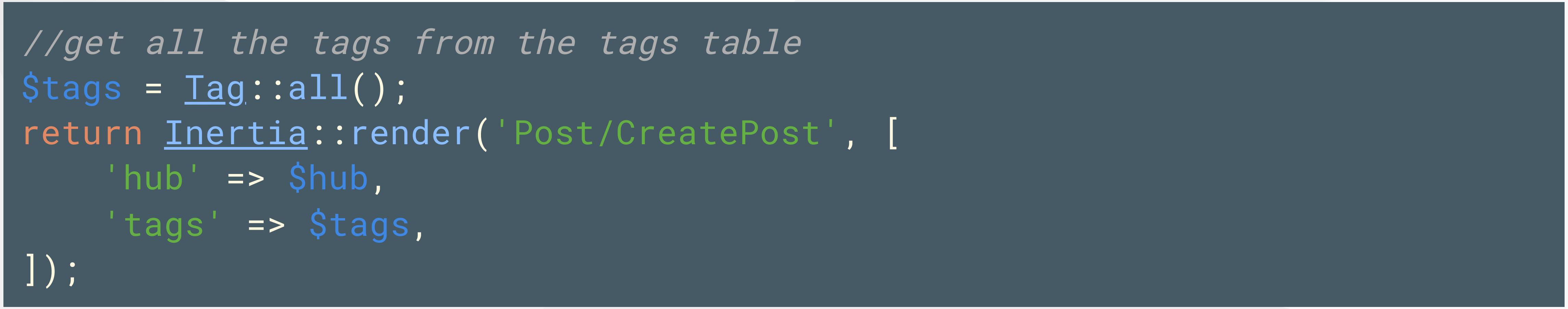
6 days ago

How it is implemented - Passing Data

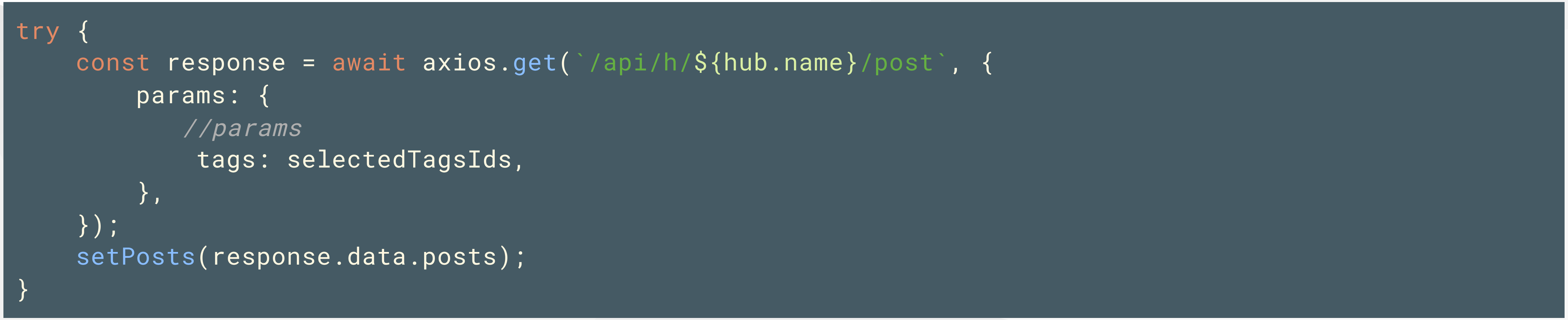
I have used Laravel and React with Inertia.js . The vew where i dont care if the pages are reloaded or not, data is directly passed from controller to view via props.



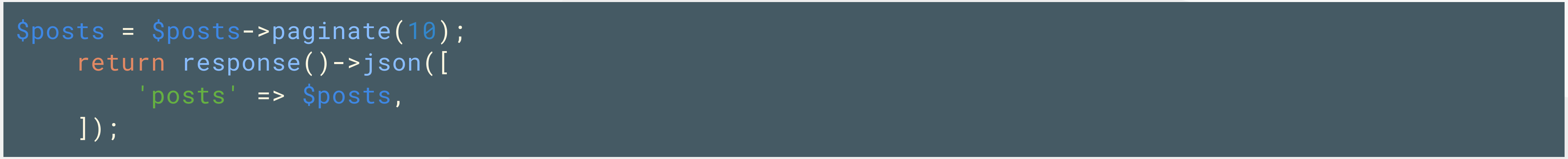
```
//get all the tags from the tags table
$tags = Tag::all();
return Inertia::render('Post/CreatePost', [
    'hub' => $hub,
    'tags' => $tags,
]);
```

How it is implemented- API

The pages where I dont want pages to be reloaded, I have used axios t get or pass the data.



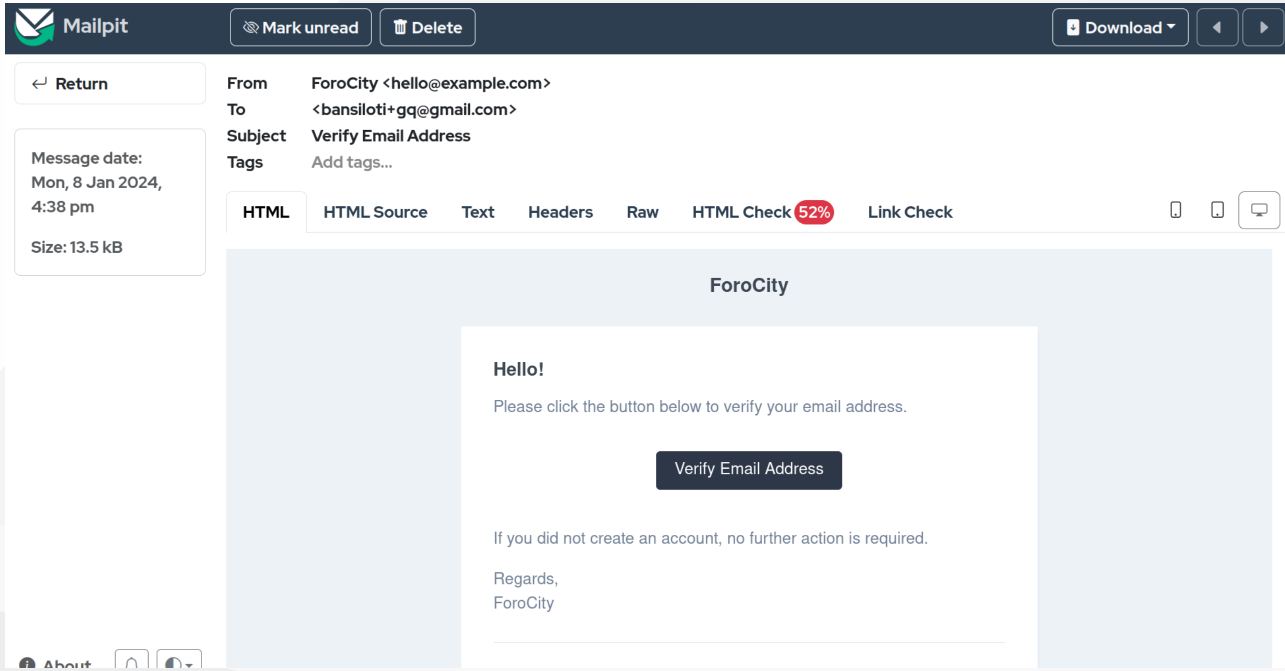
```
try {
    const response = await axios.get(`/api/h/${hub.name}/post`, {
        params: {
            //params
            tags: selectedTagsIds,
        },
    });
    setPosts(response.data.posts);
}
```



```
$posts = $posts->paginate(10);
    return response()->json([
        'posts' => $posts,
    ]);
```

User Authentication

I have used Breeze for authentication. It provides a simple way to authenticate users with email verification. To simulate the email verification, I have used a mailpit. It allows me to simulate emails to any email address.



Message date: Mon, 8 Jan 2024, 4:38 pm

Size: 13.5 kB

From ForoCity <hello@example.com>
To <bansiloti+gq@gmail.com>
Subject Verify Email Address
Tags Add tags...

ForoCity

Hello!

Please click the button below to verify your email address.

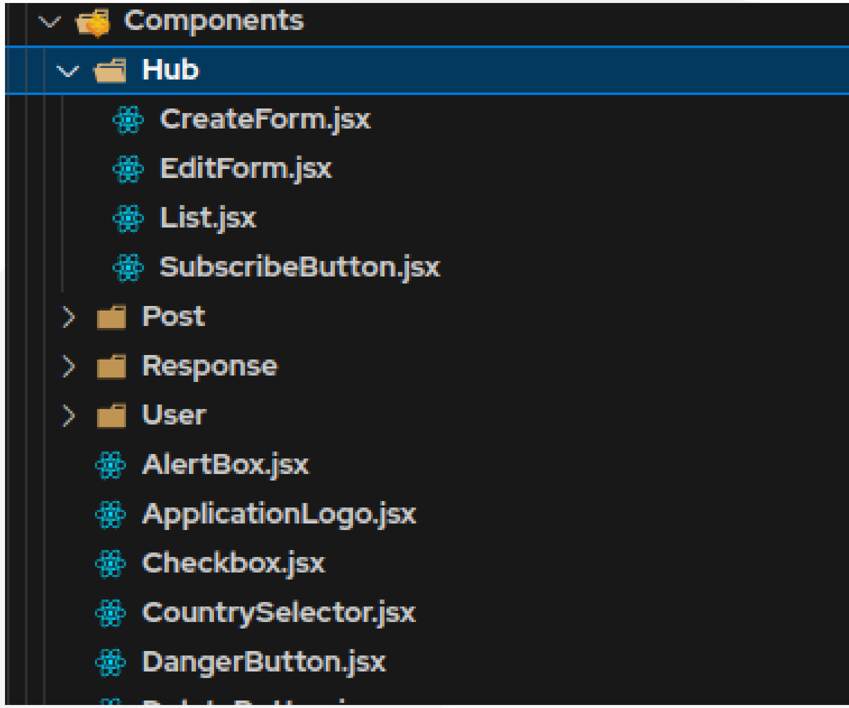
Verify Email Address

If you did not create an account, no further action is required.

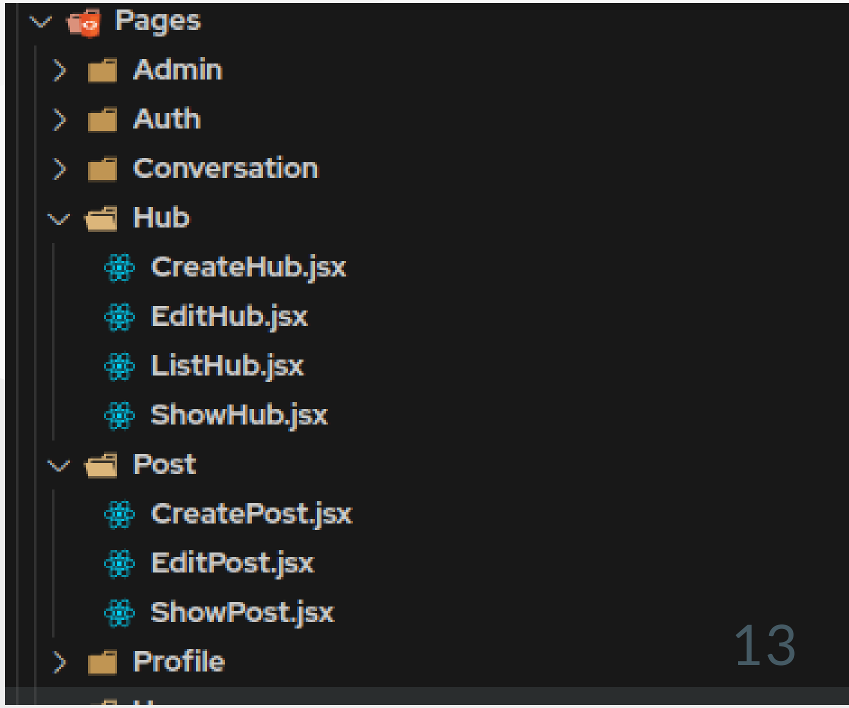
Regards,
ForoCity

Dividing the project

In pges I have tried to write least amount of code of possible and instead seperate the code into components. Components are intended to be reusable. I have also created a context called AlertContext. It is used to show alerts to the user.



- Components
  - Hub
    - CreateForm.jsx
    - EditForm.jsx
    - List.jsx
    - SubscribeButton.jsx
  - Post
  - Response
  - User
  - AlertBox.jsx
  - ApplicationLogo.jsx
  - Checkbox.jsx
  - CountrySelector.jsx
  - DangerButton.jsx



- Pages
  - Admin
  - Auth
  - Conversation
  - Hub
    - CreateHub.jsx
    - EditHub.jsx
    - ListHub.jsx
    - ShowHub.jsx
  - Post
    - CreatePost.jsx
    - EditPost.jsx
    - ShowPost.jsx
  - Profile

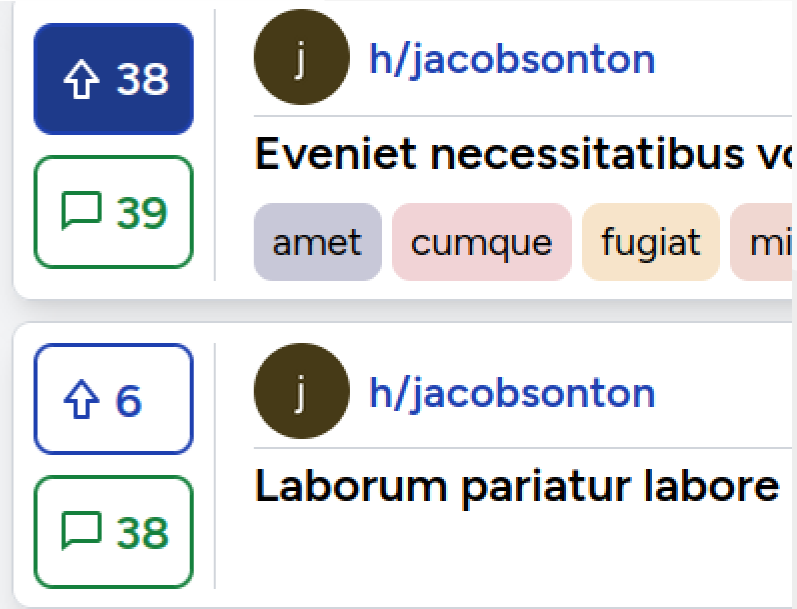
Challenges - Pagination with Api

As pagination of posts is done with api, I had to create a custom pagination component. It was a bit challenging to get the pagination links from the api response and then pass it to the component.

```
const fetchPosts = async (pageNumber = 1, query = "") => {
        try {
            const response = await axios.get(`/api/h/${hub.name}/post`, {
                params: {
                    page: pageNumber,
                },
            });
        }
```

Challenges - Reactiveness of the UI

When voting on a post or response, I had to update the UI without waiting for the response, So that it was instant and not wait 1-2 seconds. This is called optimistic UI. If the request fails, then just revert the UI back to the previous state.



Challenges - Sorting and Filtering

I have pagination while loading posts. So when I sort or filter the posts, I had to do them in backend. Becuse before I was doing it in frontend, so when I was changing the page, the posts were aonly sorted and filteres for only 10 posts.

Improvements that can be made

- **Converstaion**: It would be better if the conversation page was not reload when a new message is sent or received. Or receiving end automatically gets the new message, without reloading the page.
- **Get the total vount code of the users**: I had implemented this but it was ver slow, as first It has to load all the posts or responses of the user and then count the votes. So I had to remove it. Could have used a column in the user table to store the total votes.

External Libraries used - Laravel

- **spatie/laravel-medialibrary** - To upload images
- **inertiajs/inertia-laravel** - To use inertia.js with laravel
- **Mailpit** - To simulate email verification
- **Brezee** - To use authentication, and some starter views
- **fakerphp/faker** - To generate fake data for testing
- **barryvdh/laravel-debugbar** - To have a debug bar in the browser that shows the queries and other information

External Libraries used - React

- **react-icons** - To use icons, like voting, delete, edit, etc
- **react-select** - To use select box for tags and country, customisable.
- **react-select-country-list** - To get the list of countries for the select box.