ReactJS. Front to backend. BT 2022 Project 2 - Github-finder

https://github.com/PacktPublishing/React-Front-to-Back-2022

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0 Hints

1 GitHub Finder project. Start

1.1 Intro

1.2 Setup Tailwind and Daisy UI

1.2.1 Tailwind

First of all you need to create a new project

CLI=> npx create-react-app github-finder --use-npm

Go to the new folder (github-finder)

CLI=> npm install -D tailwindcss postcss autoprefixer

CLI=> npx tailwindcss init -p

Open file tailwind.config.js and paste

```
/** @type {import('tailwindcss').Config} */
module.exports = {
  content: [
    "./src/**/*.{js,jsx,ts,tsx}",
    ],
    theme: {
    extend: {},
    },
    plugins: [],
}
```

Open index.css

@tailwind base;
@tailwind components;
@tailwind utilities;

1.2.2 Daisy UI

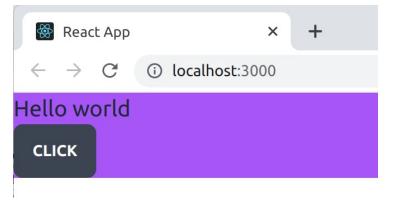
CLI=> npm i daisyui

Open file tailwind.config.js

plugins: [require('daisyui')],

Now you can start your react app using npm start.

Change main component App.js => App.jsx (to be able to work with tag plugin)



1.3 Navbar component

You need to install react-router-dom and react-icons

CLI=> npm i react-router-dom react-icons

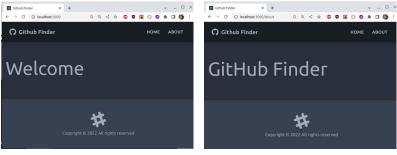
Create a new **Navbar.jsx** component in github-finder/src/**components/layout**

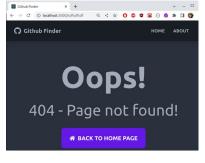
1.4 Footer component

1.5 Main Pages and routes

Create a new folder github-finder/src/pages to store components for all the main pages

Create Home.jsx, About.jsx and NotFound.jsx components





2 Working with GitHub AP

2.1 Github API & getting token

2.1.1 How can you use GitHub API?

You can get information about any github user by ID, search users, get list of repositories an so on.

2.1.2 How to get GitHub API token?

Visit gitHub.com. Go to your profile => settings => developer settings => tokens (classic) => generate new token (classic)

Select user and repo and click on generate token => copy and save **YOUR** token

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

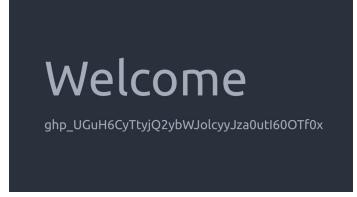
2.1.3 How to use environment variables?

Create a new file .env (in root folder of your react project/folder/app – github-finder)

Add 2 variables:

REACT_APP_GITHUB_TOKEN="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" REACT_APP_GITHUB_URL="https://api.github.com"

How you can check if it works:



2.2 UserList component

Create a new folder to store all the components that related to User entity

github-finder/src/components/users. There create a new component UserResults.jsx

```
| Substriction | Subs
```

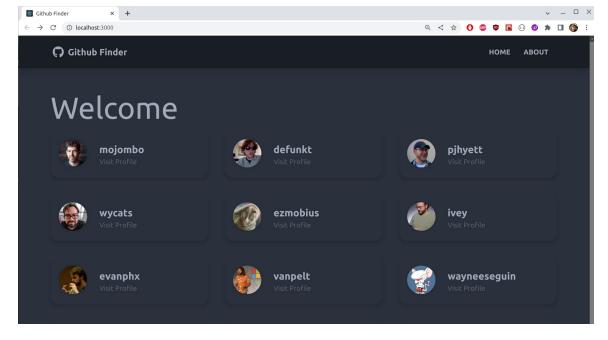
2.3 Spinner Component

Create a new folder to store additional files like a spinner. github-finder/src/components/layout/assets and add there a spinner.

Create a new component Spinner.jsx in layout folder

2.4 Display Users

You need to create UserItem.jsx component



2.5 Setup GitHub Context.

Before this lesson some components had component level states (useState hooks) and it was possible to send some parameters from one component to another using props drilling - what is very difficult in case of big app. Now you need to replace it with Context – it's app level state (you have to import it in main App.js component and wrap everything in that component). If you need to use any functionality from an app level state (context) inside another component – you just need to import context, destructure all the functionality that you are going to use and jkust reuse them.

Create a new folder github-finder/src/context/github

Create a new context file GithubContext.js

```
{ BrowserRouter as Router, Route, Routes } from 'react-router-dom';
        import { createContext, useState } from 'react';
                                                                                                                                    './components/layout/Navbar';
'./components/layout/Footer';
                                                                                                                       Footer from
        const GithubContext = createContext();
                                                                                                                                   './pages/Home':
                                                                                                                       Home f
                                                                                                                       About from './pages/About';
NotFound from './pages/NotF
        const GITHUB_URL = process.env.REACT_APP_GITHUB_URL;
                                                                                                                                        './pages/NotFound';
        const GITHUB_TOKEN = process.env.REACT_APP_GITHUB_TOKEN;
                                                                                                                      { GithubProvider } from './context/github/GithubContex';
            const [users, setUsers] = useState([]);
            const [loading, setLoading] = useState(true);
                                                                                                                         <Router>
                                                                                                                             <div className='flex flex-col justify-between h-screen'>
            const fetchUsers = async () => {
  const response = await fetch(`${GITHUB_URL}/users`, {
                                                                                                                                <main Ctas
<Routes>
                                                                                                                                       className='container mx-auto px-3 pb-12'>
                   headers: {
                       Authorization: `token ${GITHUB_TOKEN}`,
                                                                                                                                       <Route path='/about' element={<About />} />
                const data = await response.json();
                                                                                                                                   </Routes>
                setUsers(data);
                                                                                                                                </main>
                                                                                                                      </GithubProvider>
                <GithubContext.Provider value={{ users, loading, fetchUsers }}>
                </GithubContext.Provider>
        export default GithubContext;
                                                                                                                    { useContext, useEffect } from 'react';
Spinner from './layout/Spinner';
UserItem from './UserItem';
GithubContext from '../../context/github/GithubContex';
                               🖟 🗓 | Elements Console Sources Network Performance Memory Application Security Lighthouse Record
                                                                                                                nst UserResults = props => {
  const { users, loading, fetchUsers } = useContext(GithubContext);
                                                                                                             const UserResults
 Github Finder
                               Search (text or /regex/)
                                                          t GithubProvider
                                                              Welcome
                                                                                                                if (!loading) {
                                                                                                                         iv className='grid grid-cols-1 gap-8 xl:grid-cols-4 lg:grid-cols-3 md:grid-col-2':
{users.map(user => (
          mojombo
                                                                                                                            <UserItem key={user.id} user={user} />
          defunkt
```

2.6 Setup GitHub Reducer.

Create a new file github-finder/src/context/github/**GithubReducer.js**

```
import { createContext, useReducer } from 'react';
import githubReducer from './GithubReducer';
1 const githubReducer = (state, action) => {
         switch (action.type) {
              case 'GET_USERS':
    return {
                                                                                  const GithubContext = createContext();
                                                                                  const GITHUB_URL = process.env.REACT_APP_GITHUB_URL;
const GITHUB_TOKEN = process.env.REACT_APP_GITHUB_TOKEN;
                       users: action.payload,
                        loading: false,
                                                                                         users: [],
loading: true,
                                                                                      const fetchUsers = async () => {
  const response = await fetch(`${GITHUB_URL}/users`, {
                                                                                             headers: {
                                                                                                Authorization: `token ${GITHUB_TOKEN}`,
     export default githubReducer;
                                                                                         const data = await response.json();
dispatch({ type: 'GET_USERS', payload: data });
                                                                                         <GithubContext.Provider value={{ users: state.users, loading: state.loading, fetchUsers }}>
                                                                                    export default GithubContext;
```

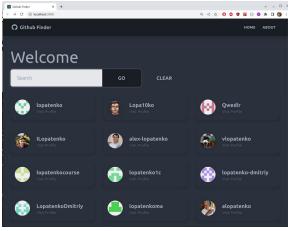
2.7 Refactoring code (clean up Fetch Users)

2.8 UserSearch component

Create a new component UserSearch.js

```
import { useState, useContext } from 'react';
import GithubContext from '../../context/github/GithubContex';
const UserSearch = () => {
  const [text, setText] = useState('');
  const { users } = useContext(GithubContext);
  const handleChange = e => {
      setText(e.target.value);
   const handleSubmit = e => {
      e.preventDefault();
if (text === '') {
   alert('Please enter something');
      } else {
   /* TODO: search users */
   setText('');
       <div className='grid grid-cols-1 xl:grid-cols-2 lg:grid-cols-2 md:grid-cols-2 mb-8 gap-8'>
             mput
type='text'
className='w-full pr-40 bg-gray-200 input input-lg text-black'
                             value={text}
onChange={handleChange}
                            className='absolute top-0 right-0 rounded-l-none w-36 btn btn-lg'
              <br/>clear
```

2.9 Search Users



2.10 Clear functionality