

НАЦІОНАЛЬНИЙ ТЕХНІЧНИЙ УНІВЕРСИТЕТ УКРАЇНИ
«КИЇВСЬКИЙ ПОЛІТЕХНІЧНИЙ ІНСТИТУТ імені Ігоря Сікорського»
ФАКУЛЬТЕТ ПРИКЛАДНОЇ МАТЕМАТИКИ

Кафедра системного програмування та спеціалізованих
комп'ютерних систем

Лабораторна робота №3
з дисципліни: «Web-дизайн»

Тема: «Розробка функціонального Web-додатка
мовою Javascript»

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Шпилька І.В.

Перевірив:

Київ-2024

Мета роботи:

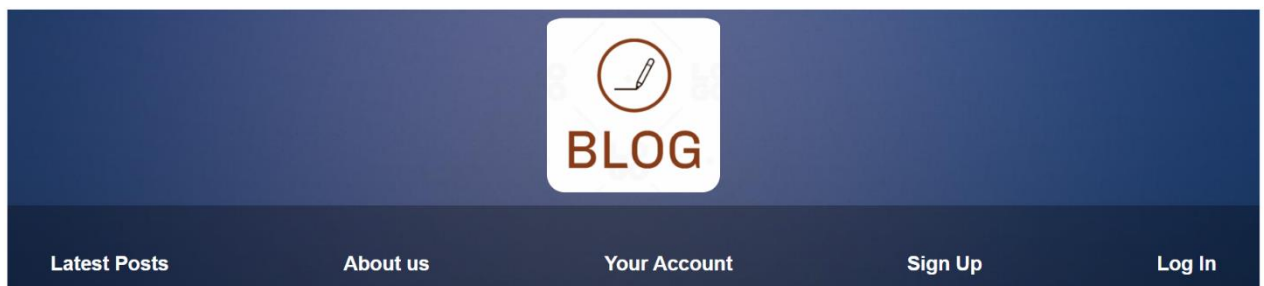
Ознайомитись із засобами мови Javascript та навчитись їх застосовувати побудови Web-інтерфейсу користувача.

Завдання:

Адаптувати програмний код ЛР№2 до вимог фреймворка VueJS та забезпечити завантаження необхідних даних з Web-сервера.

Копії екрана Web-додатка та його роботи:

Реєстрація

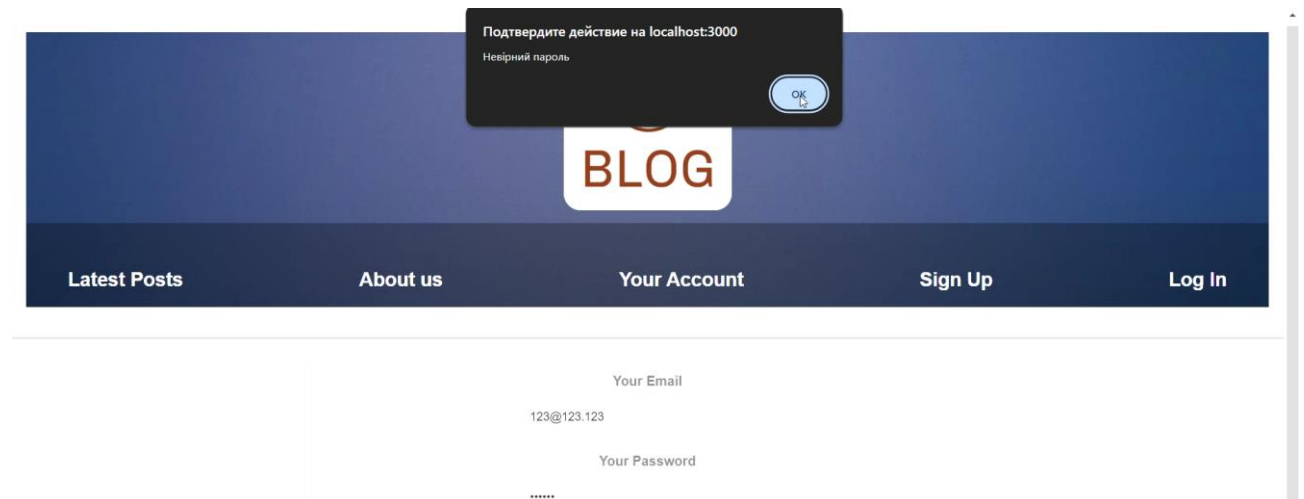
The image shows a registration form centered on a light gray background. The form is a white rectangle with the following elements: a label "Your First Name" above a text input field; a label "Your Last Name" above a text input field; a label "Your Email" above a text input field; a label "Create Password" above a text input field; and a blue "Register" button at the bottom.

Ведення даних та сповіщення про успішну реєстрацію:

The image shows the same registration form as before, but with a dark gray overlay at the top. The overlay contains white text: "Підтвердіть дійсність на localhost:3000" and "Такий email вже зареєстрований". There is a blue "OK" button on the right side of the overlay. The form fields below are partially filled: "Your First Name" is "Name", "Your Last Name" is "Last name", "Your Email" is "123@123.123", and "Create Password" is "****". The "Register" button is still visible at the bottom.

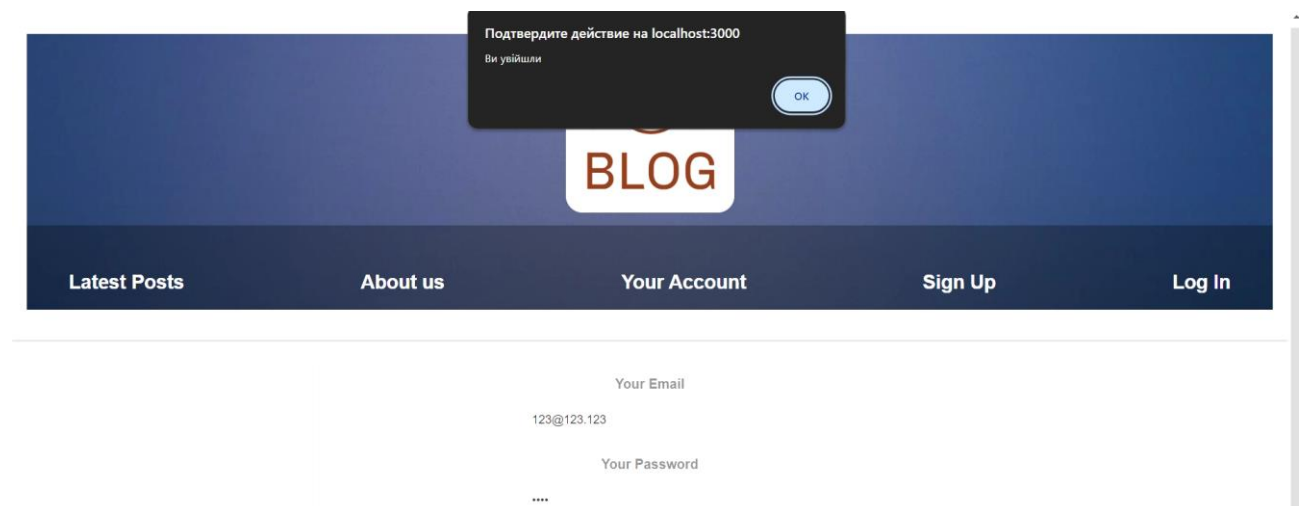
Логізація

Неправильний пароль:



The screenshot shows a web application interface for a blog. At the top, there is a dark blue header with the word "BLOG" in white. Below the header, there is a navigation bar with links: "Latest Posts", "About us", "Your Account", "Sign Up", and "Log In". The main content area is white and contains a login form. The form has two input fields: "Your Email" and "Your Password". The "Your Email" field contains the text "123@123.123". The "Your Password" field contains a series of asterisks "*****". Above the "Your Password" field, there is a red error message box that says "Подтвердите действие на localhost:3000" and "Неверный пароль." (Incorrect password). There is an "OK" button next to the error message.

Правильный:



The screenshot shows the same web application interface as the previous one. The "Your Password" field now contains a series of asterisks "****". Above the "Your Password" field, there is a green success message box that says "Подтвердите действие на localhost:3000" and "Вы вошли" (You have logged in). There is an "OK" button next to the success message.

Акаунт

До реєстрації:



First Name	-
Last Name	-
Email	-

Після:



First Name	Name
Last Name	Last name
Email	123@123.123

How to choose a dog breed



Choosing a breed can be a difficult task...

[Read more](#)

How to quickly learn English for everyday communication



Experienced teachers say that the best way to master a skill is practice. That is why it is worth giving her as much time as possible. The optimal ratio is called 20/80...


[Read more](#)

The importance of fruit



Fruits are not just a delicious addition to our diet but also a crucial component of a healthy lifestyle. They are rich in vitamins, minerals, and antioxidants that contribute to overall health and well-being...

[Read more](#)



Latest Posts

About us

Your Account

Sign Up

Log In

Date: Feb 16, 2024



J1.Size of Your House: If you live in a small apartment or have limited space, consider smaller breeds such as Chihuahuas, Pugs, or French Bulldogs. These breeds are well-suited to indoor living and require less space to roam. For those with larger homes or access to outdoor areas, larger breeds like Labrador Retrievers, Golden Retrievers, or German Shepherds may be more suitable. These breeds thrive with ample space to exercise and explore. 2. Time Commitment: Assess how much time you can realistically dedicate to caring for a dog. If you have a busy schedule and limited time for walks and play, consider low-maintenance breeds such as Basset Hounds, Greyhounds, or Cavalier King Charles Spaniels. These breeds typically require less exercise and grooming. If you have plenty of time to spare and enjoy being active with your pet, consider breeds that thrive on exercise and mental stimulation, such as Border Collies, Australian Shepherds, or Jack Russell Terriers. These breeds excel in activities like agility training and hiking. 3. Preferred Character: Think about the temperament and personality traits you desire in a dog. Are you looking for a loyal and affectionate companion, a playful and energetic partner, or a calm and easygoing pet? Breeds like Labrador Retrievers, Golden Retrievers, and Beagles are known for their friendly and sociable nature, making them great family pets. If you prefer independent and less demanding breeds, consider options like Shiba Inus, Basenjis, or Afghan Hounds, which are known for their aloof yet dignified demeanor.

Comments

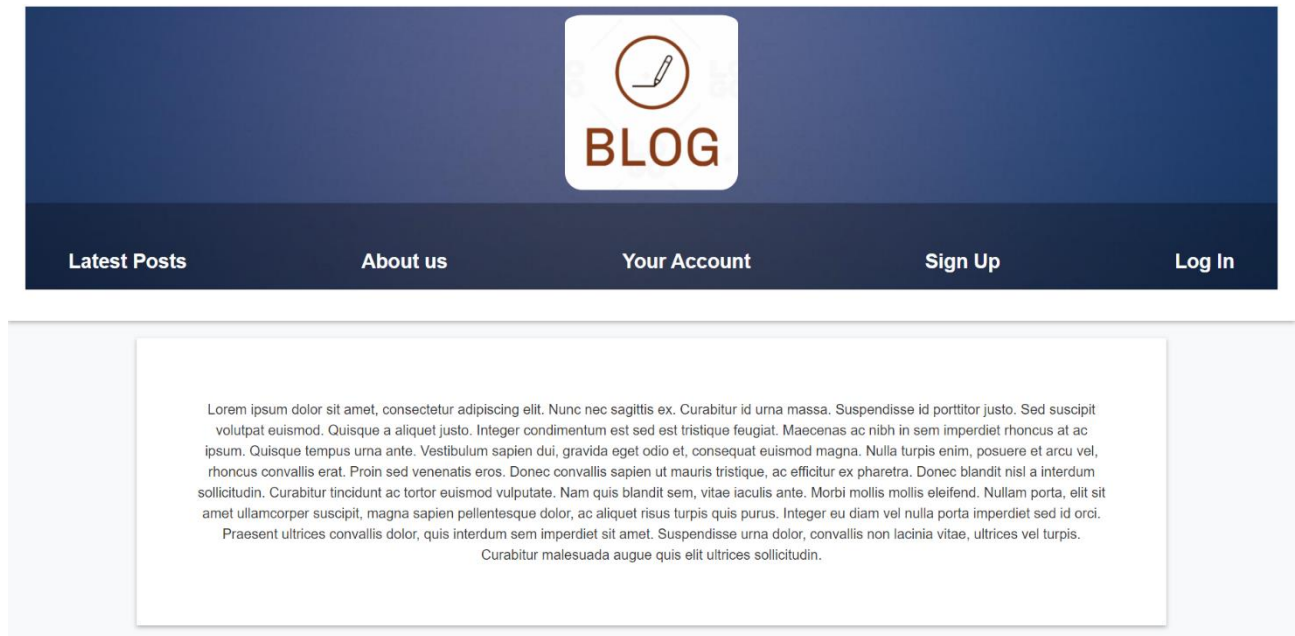
Your name:

Email:

Your comment:

Send

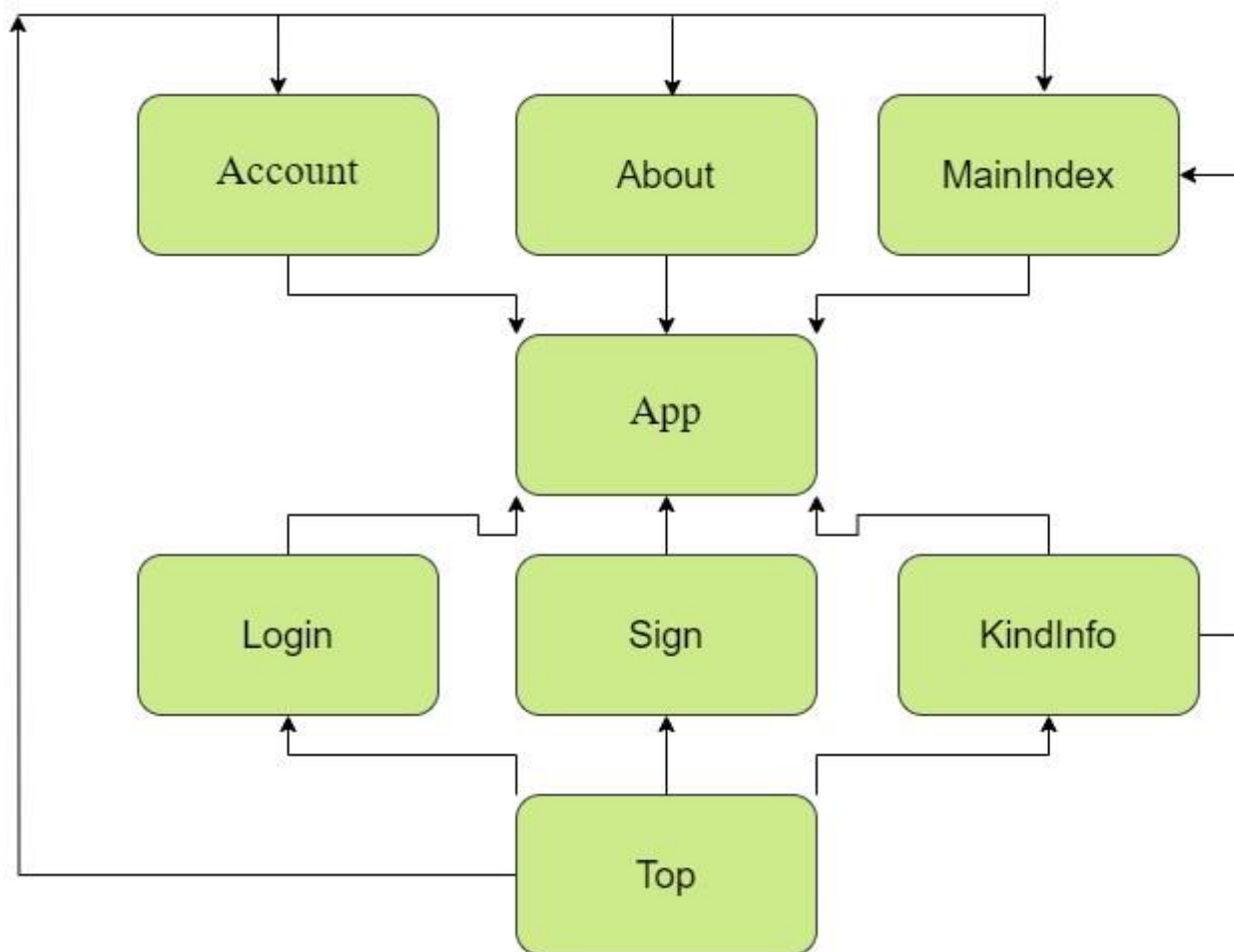
Про сайт



Список компонентів

- Account: відображає інформацію про обліковий запис користувача.
- About: містить загальну інформацію.
- Sign: відповідає сторінці для реєстрації нового користувача.
- Top: компонент, що містить лого та навігаційне меню з посиланнями на різні сторінки.
- KindInfo: інформує детальніше про пост та є можливість коментувати.
- Login: сторінка для входу користувача, де можна ввести ім'я користувача та пароль.
- MainIndex: відображає усі пости.

Схема взаємодії



Вміст js-файлів

About.js

```
import React from 'react';
import './stylies/style.css'
import Top from './Top';
const About = () => {

    return (
        <div>
            <Top/>
            <main style={{ maxWidth:"80%"}}>
                <p style={{color:'#333'}}> Lorem ipsum dolor sit amet, consectetur
adipiscing elit. Nunc nec sagittis ex. Curabitur id urna
                massa. Suspendisse id porttitor justo. Sed suscipit volutpat
euismod. Quisque a aliquet justo.
                Integer condimentum est sed est tristique feugiat. Maecenas ac
nibh in sem imperdiet rhoncus at ac
                ipsum. Quisque tempus urna ante. Vestibulum sapien dui, gravida
eget odio et, consequat euismod
                magna. Nulla turpis enim, posuere et arcu vel, rhoncus
convallis erat. Proin sed venenatis eros.

                Donec convallis sapien ut mauris tristique, ac efficitur ex
pharetra. Donec blandit nisl a interdum
                sollicitudin. Curabitur tincidunt ac tortor euismod vulputate.
Nam quis blandit sem, vitae iaculis
                ante. Morbi mollis mollis eleifend. Nullam porta, elit sit amet
ullamcorper suscipit, magna sapien
                pellentesque dolor, ac aliquet risus turpis quis purus. Integer
eu diam vel nulla porta imperdiet
                sed id orci. Praesent ultrices convallis dolor, quis interdum
sem imperdiet sit amet. Suspendisse
                urna dolor, convallis non lacinia vitae, ultrices vel turpis.
Curabitur malesuada augue quis elit
                ultrices sollicitudin.
            </p>
        </main>
    </div>
    );
};

export default About;
```

Account.js

```
import React, { useEffect } from 'react';
import './stylies/style.css';
import './stylies/style_article.css';
import Top from './Top';

const Account = () => {
    useEffect(() => {
        const firstName = sessionStorage.getItem('first_name');
        const lastName = sessionStorage.getItem('last_name');
        const email = sessionStorage.getItem('email');

        if (firstName) {
            document.getElementById('first_name').textContent = firstName;
        }
    })
};
```

```

    }
    if (lastName) {
        document.getElementById('last_name').textContent = lastName;
    }
    if (email) {
        document.getElementById('email').textContent = email;
    }
}, []);

return (
    <div>
        <Top/>
        <main>
            <table>
                <tbody>
                    <tr>
                        <td>First Name</td>
                        <td id="first_name">-</td>
                    </tr>
                    <tr>
                        <td>Last Name</td>
                        <td id="last_name">-</td>
                    </tr>
                    <tr>
                        <td>Email</td>
                        <td id="email">-</td>
                    </tr>
                </tbody>
            </table>
        </main>
    </div>
);
};

export default Account;

```

KindInfo.js

```

label: React.DetailedHTMLProps<React.LabelHTMLAttributes<HTMLLabelElement>,
HTMLLabelElement>;

```

Top.js

```

import React from 'react';
import './styles/style.css';
import './styles/style_article.css';
import logo from './images/logo.png';
import {Link} from "react-router-dom";

const Top = () => {
    return (
        <header>
            <div className="header">
                <div className="menu" >
                    <div style={{textAlign: 'center'}}>
                        <img src={logo} alt="Logo" style={{maxHeight: '220px',
maxWidth: '200px', paddingTop:'10px'}}/>
                    </div>
                    <ul style={{
                        display: 'flex',

```

```

        justifyContent: 'space-between',
        textAlign: 'center',
        maxHeight: '100px'
      }}>
      <li><Link id="News" to="/">Latest Posts</Link></li>
      <li><Link id="About" to="/about-us">About us</Link></li>
      <li><Link id="Account" to="/account">Your
Account</Link></li>
      <li><Link id="Register" to="/sign">Sign Up</Link></li>
      <li><Link id="LogIn" to="/login">Log In</Link></li>
    </ul>
  </div>
</div>
</header>
);
};

export default Top;

```

MainIndex.js

```

import React from 'react';
import './styles/style.css';
import './styles/style_article.css';
import Top from './Top';
import dog from './images/dog.jpeg';
import eng from './images/eng.jpg';
import fruit from './images/fruit.jpg';
import { Link } from "react-router-dom";

const articlesData = [
  {
    title: "How to choose a dog breed",
    image: dog,
    text: "Choosing a breed can be a difficult task...",
    link: "dog"
  },
  {
    title: "How to quickly learn English for everyday communication",
    image: eng,
    text: "Experienced teachers say that the best way to master a skill is practice. That is why it is worth giving her as much time as possible. The optimal ratio is called 20/80...",
    link: "eng"
  },
  {
    title: "The importance of fruit",
    image: fruit,
    text: "Fruits are not just a delicious addition to our diet but also a crucial component of a healthy lifestyle. They are rich in vitamins, minerals, and antioxidants that contribute to overall health and well-being...",
    link: "fruit"
  }
];

const MainIndex = () => {
  return (
    <div>
      <Top />

```

```

        <div className="articles">
          {articlesData.map((article, index) => (
            <article key={index} style={{ marginLeft: '-110px', textAlign:
'left' }}>
              <h2 className="fw-bold">{article.title}</h2>
              <main>
                <img src={article.image} alt={article.title} style={{
display: 'block', marginLeft: '0' }} />
                <p style={{ marginLeft: '0', textAlign: "justify"
}}>{article.text}</p>
                <button>
                  <Link to={` /posts/${article.link}`}>Read
more</Link>
                </button>
              </main>
            </article>
          ))}
        </div>
      </div>
    );
  };
};

export default MainIndex;

```

Login.js

```

import React from 'react';
import Top from "../Top";

const Login = () => {
  const login = (event) => {
    event.preventDefault();

    let email = document.getElementById("email").value;
    let pass = document.getElementById("pass").value;

    let raw = localStorage.getItem("users");
    let users = JSON.parse(raw);

    function isEmailExist(email){
      return users.some((user) => user.email === email);
    }

    if (isEmailExist(email)) {
      for (let i = 0; i < users.length; i++) {
        if (users[i].email === email) {
          if(users[i].pass === pass){
            alert("Ви увійшли");

            sessionStorage.setItem('logged', '1');
            sessionStorage.setItem('first_name', users[i].first_name);
            sessionStorage.setItem('last_name', users[i].last_name);
            sessionStorage.setItem('email', users[i].email);
          }
        }
        else{
          alert("Невірний пароль");
          break;
        }
      }
    }
  }
};

```

```

    }
  }
  else{
    alert("Такий email не зареєстрований");
  }
};

return (
  <div>
    <Top/>
    <main>
      <form onSubmit={login}>
        <label htmlFor="email">Your Email</label>
        <input type="email" id="email" name="email" required/>

        <label htmlFor="password">Your Password</label>
        <input type="password" id="pass" name="pass" required/>

        <input type="submit" value="Login"/>
      </form>
    </main>
  </div>
);
};

export default Login;

```

Sign.js

```

import React from 'react';
import './stylies/style.css'
import './stylies/style_article.css'
import Top from "././Top";

const Sign = () => {

  const registration = (event) => {
    event.preventDefault();

    let first_name = document.getElementById("first_name").value;
    let last_name = document.getElementById("last_name").value;
    let email = document.getElementById("email").value;
    let pass = document.getElementById("pass").value;

    let raw = localStorage.getItem("users");
    let users = raw ? JSON.parse(raw) : [];

    function isEmailExist(email){
      return users.some((user) => user.email === email);
    }

    if (isEmailExist(email)) {
      alert("Такий email вже зареєстрований");
      return;
    }
    else{
      let newUser = {
        first_name: first_name,
        last_name: last_name,
        email: email,
        pass: pass
      }
    }
  }
}

```

```

    };
    users.push(newUser);
    localStorage.setItem("users", JSON.stringify(users));

    alert("Ви успішно зареєструвалися");
  }
};

return (
  <div>
    <Top/>
    <main>
      <form onSubmit={registration}>
        <label htmlFor="name">Your First Name</label>
        <input type="text" id="first_name" name="first_name" required/>

        <label htmlFor="name">Your Last Name</label>
        <input type="text" id="last_name" name="last_name" required/>

        <label htmlFor="email">Your Email</label>
        <input type="email" id="email" name="email" required/>

        <label htmlFor="password">Create Password</label>
        <input type="password" id="pass" name="pass" required/>

        <input type="submit" value="Register"/>
      </form>
    </main>
  </div>
);
};

export default Sign;

```

App.js

```

import React from 'react';
import 'bootstrap/dist/css/bootstrap.min.css';
import {BrowserRouter, Route, Routes} from "react-router-dom";
import About from "./components/About";
import Sign from "./components/Sign";
import Login from "./components/Login";
import Account from "./components/Account";
import MainIndex from "./components/MainIndex";
import KindInfo from "./components/KindInfo";

function App() {
  return (
    <div className="bg-body-tertiary d-flex flex-column min-vh-100">
      <BrowserRouter>
        <Routes>
          <Route index element={<MainIndex/>}/>
          <Route path="/about-us" element={<About/>}/>
          <Route path="/posts/:post" element={<KindInfo />} />
          <Route path="/germany" element={<About/>}/>
          <Route path="/australia" element={<About/>}/>
          <Route path="/login" element={<Login/>}/>
          <Route path="/sign" element={<Sign/>}/>
          <Route path="/account" element={<Account/>} />
        </Routes>
      </BrowserRouter>
    </div>
  );
}

```

```

        </BrowserRouter>
      </div>
    );
  }

export default App;

```

style.css

```

.header{
  text-align: center;
  background-image: url("../images/bg.jpg");
  background-size: cover;
  color: black;
  font-size: 23px;
  font-weight: bold;
}

body{
  background-color: #f5f5f5;
}

main {
  max-width: 800px;
  margin: 20px auto;
  background-color: white;
  padding: 20px;
  box-shadow: 0 2px 5px rgba(0, 0, 0, 0.3);
}

img{
  width: 300px;
  margin: 15px 0px 0px 0px;
  border-radius: 20px;
  border: 0px solid white;
}

a {
  color: white;
  text-decoration: none;
  font-family: Arial;
}

h1 {
  font-size: 54px;
  color: white;
  font-family: Arial;
}

h2 {
  font-size: 24px;
  font-family: Arial;
}

ul {
  padding: 10px;
  background: rgba(0, 0, 0, 0.3);
}

li {

```

```

        display: inline;
        padding: 40px;
    }

    article {
        width: 150%;
        padding: 10px;
        margin: 0 auto;
    }

    p {
        text-align: justify;
        font-size: 16px;
        font-family: Arial;
    }

    button {
        display: inline-block;
        background-color: #007bff;
        color: #fff;
        border: none;
        padding: 10px 20px;
        border-radius: 5px;
        font-size: 16px;
        font-family: Arial;
        text-align: center;
        text-decoration: none;
        cursor: pointer;
        transition: background-color 0.3s ease;
    }

```

```

@media (max-width: 800px) {
    h1 {
        font-size: 36px;
        padding: 5px;
    }

    li {
        display: block;
        padding: 5px;
    }

    img {
        margin: 10px;
    }
}

```

style_article.css

```

body {
    margin: 0;
    padding: 0;
    font-family: Arial;
    font-size: 16px;
    line-height: 1.5;
    background-color: #f5f5f5;
}

header {

```



```
    background-color: white;
    padding: 20px;
    box-shadow: 0 2px 5px rgba(0, 0, 0, 0.3);
}

h1 {
    margin: 0;
    font-size: 32px;
    font-weight: bold;
    color: black;
}

p {
    margin: 0;
    font-size: 16px;
    color: grey;
}

main {
    max-width: 800px;
    margin: 20px auto;
    background-color: white;
    padding: 20px;
    box-shadow: 0 2px 5px rgba(0, 0, 0, 0.3);
}

img {
    display: block;
    margin: 15px auto;
    max-width: 800px;
    border-radius: 20px;
}

footer {
    background-color: white;
    padding: 20px;
    box-shadow: 0 2px 5px rgba(0, 0, 0, 0.3);
}

form {
    display: flex;
    flex-direction: column;
    max-width: 600px;
    margin: 0 auto;
}

label {
    font-weight: bold;
    margin-bottom: 5px;
}

input,
textarea {
    padding: 10px;
    border-radius: 5px;
    border: none;
    margin-bottom: 20px;
    font-size: 14px;
    line-height: 1.5;
    color: #333;
}
```

```

button[type="submit"] {
    background-color: #007bff;
    color: white;
    padding: 10px 20px;
    border: none;
    border-radius: 5px;
    cursor: pointer;
    transition: background-color 0.3s ease;
}

button[type="submit"]:hover {
    background-color: #0062cc;
}

@media (max-width: 800px) {
    img {
        max-width: 400px;
        margin: 10px auto;
    }
}

.articles{
    max-width: 500px;
    margin: 0 auto;
}

table {
    margin: auto;
    border-collapse: collapse;
    width: 60%;
    text-align: left;
    background-color: white;
    font-family: Arial;
    font-size: 16px;
    box-shadow: 0 2px 5px rgba(0, 0, 0, 0.3);
}
th, td {
    padding: 12px;
    border: 2px solid silver;
}
th {
    background-color: #007bff;
    color: #f2f2f2;
}

.comments-container {
    display: flex;
    flex-direction: column;
    align-items: flex-start;
    color: #000;
}

.comment {
    margin-top: -80px;
    color: #000;
    text-align: left;
}
form {
    display: flex;

```

```

    flex-direction: column;
    align-items: center;
}

label {
    font-family: Arial;
    display: block;
    margin-bottom: 10px;
    /*font-weight: semi-bold;*/
    color: grey;
}

input[type="text"], input[type="email"], input[type="password"] {
    padding: 10px;
    border-radius: 5px;
    border: none;
    box-shadow: 0 0 5px rgba(0, 0, 0, 0.2);
    margin-bottom: 20px;
    width: 300px;
}

input[type="submit"] {
    background-color: #007bff;
    color: white;
    padding: 10px;
    border-radius: 5px;
    border: none;
    cursor: pointer;
    width: 200px;
    font-size: 18px;
    transition: background-color 0.3s ease;
}

input[type="submit"]:hover {
    background-color: #007bff;
}

p {
    text-align: center;
    margin: 50px;
    font-size: 16px;
    font-family: Arial, serif;
}

```

Back:

```

const express = require('express');
const app = express();
const cors = require('cors');
const port = process.env.PORT || 5000;
app.use(cors());
app.use(express.json());
const posts = {
    dog: {
        date: 'Feb 16, 2024',
        description: 'Jl.Size of Your House:\n' +
            '\n' +
            'If you live in a small apartment or have limited space, consider
smaller breeds such as Chihuahuas, Pugs, or French Bulldogs. These breeds are well-
suited to indoor living and require less space to roam.\n' +
            '\n' +

```

```

        'For those with larger homes or access to outdoor areas, larger breeds
        like Labrador Retrievers, Golden Retrievers, or German Shepherds may be more
        suitable. These breeds thrive with ample space to exercise and explore.\n' +
        '\n' +
        '2. Time Commitment:\n' +
        '\n' +
        'Assess how much time you can realistically dedicate to caring for a
        dog. If you have a busy schedule and limited time for walks and play, consider low-
        maintenance breeds such as Basset Hounds, Greyhounds, or Cavalier King Charles
        Spaniels. These breeds typically require less exercise and grooming.\n' +
        '\n' +
        'If you have plenty of time to spare and enjoy being active with your
        pet, consider breeds that thrive on exercise and mental stimulation, such as Border
        Collies, Australian Shepherds, or Jack Russell Terriers. These breeds excel in
        activities like agility training and hiking.\n' +
        '\n' +
        '3. Preferred Character:\n' +
        '\n' +
        'Think about the temperament and personality traits you desire in a
        dog. Are you looking for a loyal and affectionate companion, a playful and
        energetic partner, or a calm and easygoing pet?\n' +
        '\n' +
        'Breeds like Labrador Retrievers, Golden Retrievers, and Beagles are
        known for their friendly and sociable nature, making them great family pets.\n' +
        '\n' +
        'If you prefer independent and less demanding breeds, consider options
        like Shiba Inus, Basenjis, or Afghan Hounds, which are known for their aloof yet
        dignified demeanor.'
    },
    eng: {
        date: 'Feb 13, 2024',
        destination: 'Experienced teachers say that the best way to master a skill
        is practice. That is why it is worth giving her as much time as possible. The
        optimal ratio is called 20/80, reflecting the idea that 20% of the effort leads to
        80% of the results. This principle applies across various domains, from learning a
        musical instrument to mastering a new language.\n' +
        '\n' +
        'To delve deeper into this concept, let\'s consider the implications
        for skill development. The initial phase of learning often involves a steep
        learning curve, where progress seems slow and effort-intensive. However, as one
        gains familiarity and proficiency with the skill, the rate of improvement tends to
        accelerate. This acceleration can be attributed to the consolidation of fundamental
        concepts and the development of muscle memory, cognitive patterns, and problem-
        solving strategies.\n' +
        '\n' +
        'Moreover, consistent practice is crucial for skill retention and
        refinement. Repetition reinforces neural pathways in the brain, facilitating
        smoother execution and quicker decision-making. Through deliberate practice,
        individuals can identify weaknesses, experiment with different approaches, and
        progressively refine their techniques.\n' +
        '\n' +
        'Furthermore, the 20/80 principle underscores the importance of
        prioritizing tasks and focusing on high-impact activities. Rather than spreading
        oneself too thin across numerous tasks, it\'s more effective to allocate time and
        resources to the most critical aspects of skill development. By identifying key
        areas of improvement and dedicating focused practice sessions to them, learners can
        maximize their progress and achieve mastery more efficiently.\n'
    },
    fruit: {
        date: 'Feb 29, 2024',
        destination: 'Fruits are not just a delicious addition to our diet but also

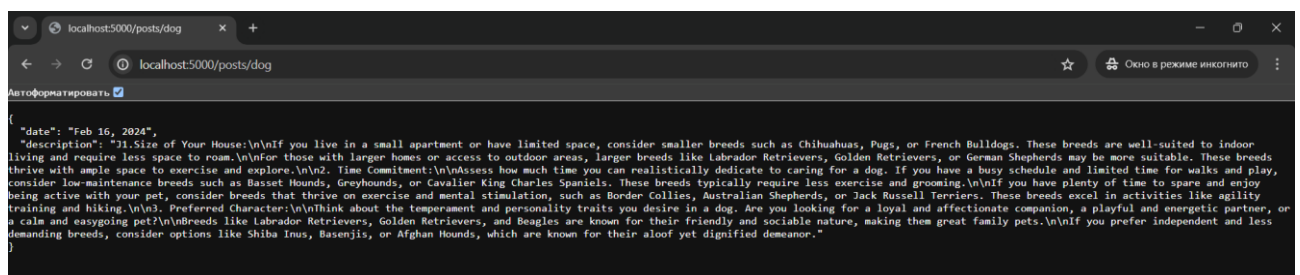
```

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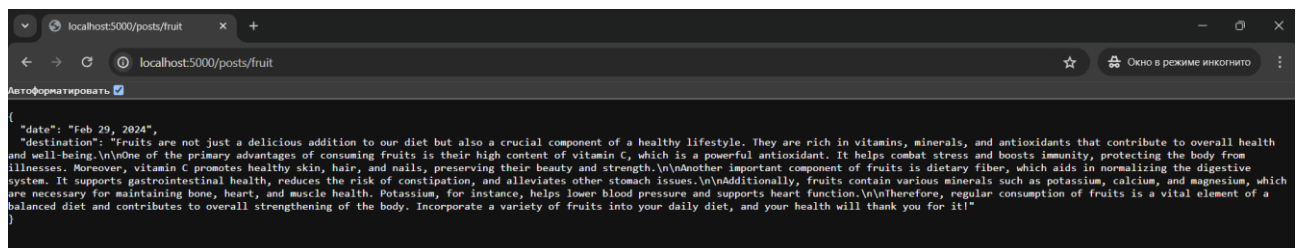
a crucial component of a healthy lifestyle. They are rich in vitamins, minerals,
and antioxidants that contribute to overall health and well-being.\n' +
    '\n' +
    'One of the primary advantages of consuming fruits is their high
content of vitamin C, which is a powerful antioxidant. It helps combat stress and
boosts immunity, protecting the body from illnesses. Moreover, vitamin C promotes
healthy skin, hair, and nails, preserving their beauty and strength.\n' +
    '\n' +
    'Another important component of fruits is dietary fiber, which aids in
normalizing the digestive system. It supports gastrointestinal health, reduces the
risk of constipation, and alleviates other stomach issues.\n' +
    '\n' +
    'Additionally, fruits contain various minerals such as potassium,
calcium, and magnesium, which are necessary for maintaining bone, heart, and muscle
health. Potassium, for instance, helps lower blood pressure and supports heart
function.\n' +
    '\n' +
    'Therefore, regular consumption of fruits is a vital element of a
balanced diet and contributes to overall strengthening of the body. Incorporate a
variety of fruits into your daily diet, and your health will thank you for it!'
}
};
app.get('/posts/:post', (req, res) => {
    const post = req.params.post.toLowerCase();
    if (posts[post]) {
        res.json(posts[post]);
    } else {
        res.status(404).json({ error: 'Not found' });
    }
});
app.listen(port, () => {});

```

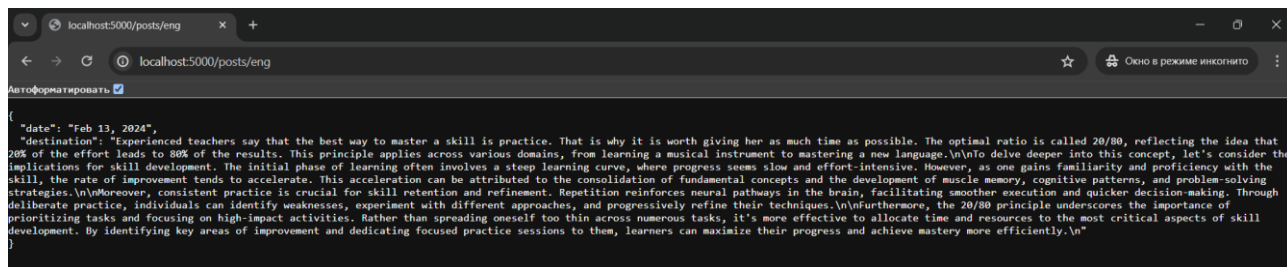
<http://localhost:5000/posts/dog:>



localhost:5000/posts/fruit:



<http://localhost:5000/posts/eng:>



Контакты:

1. Github: https://github.com/IhorShpilka/Web-design_labs
2. Github Pages: https://ihorshpilka.github.io/Web-design_labs/lab3/
3. Telegram: <https://t.me/ihorshpilka>