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REACTJS

Exercise 1:

In cmd:

npx create-react-app myfirstreact

cd myfirstreact

code .

App.js

```
import React from 'react';

function App() {
  return (
    <div>
      <h1>Welcome to the first session of React</h1>
    </div>
  );
}
```

In Terminal: npm start

Output:

Welcome to the first session of React

Exercise 2:

In components

Home.js

```
import React, { Component } from 'react';
class Home extends Component {
  render() {
    return <h2>Welcome to the Home page of Student Management Portal</h2>;
  }
}
```

About.js

```
import React, { Component } from 'react';
class About extends Component {
  render() {
    return <h2>Welcome to the About page of the Student Management Portal</h2>;
  }
}
export default About;
```

Contact.js

```
import React, { Component } from 'react';
class Contact extends Component {
  render() {
    return <h2>Welcome to the Contact page of the Student Management Portal</h2>;
  }
}
export default Contact;
```

App.js

```
import React from 'react';

import Home from './Components/Home';

import About from './Components/About';

import Contact from './Components/Contact';

function App() {

  return (

    <div className="App">

      <Home />

      <About />

      <Contact />

    </div>

  );

}

export default App;
```
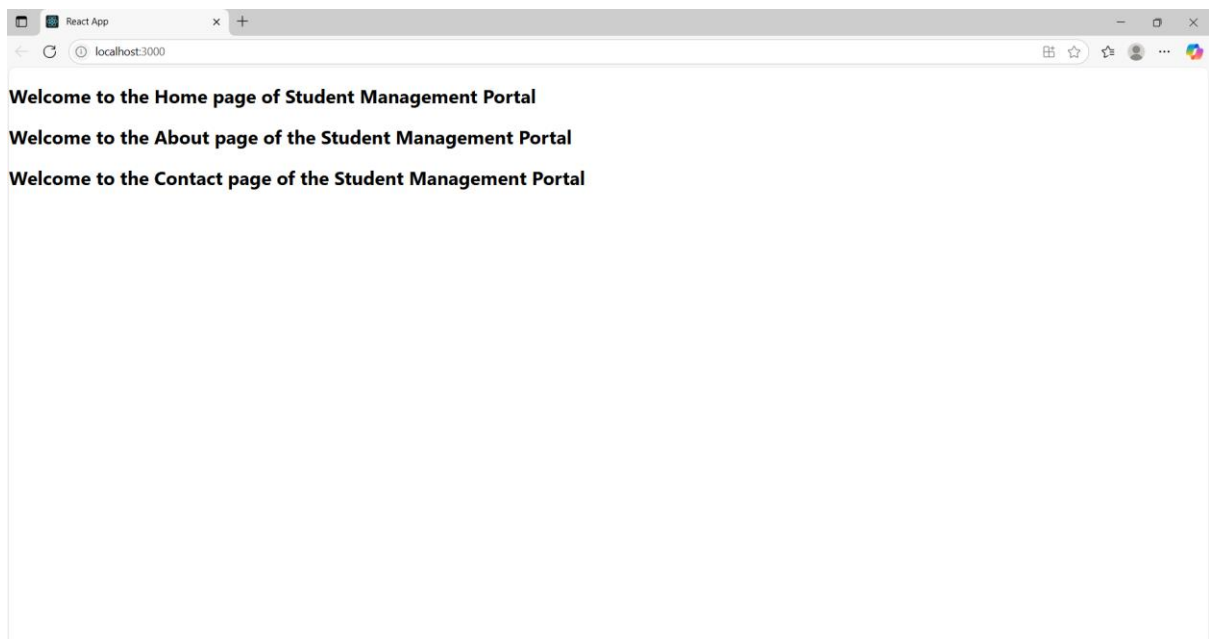
In terminal: npm start

Output:

Exercise 3:

In Terminal:

npx create-react-app scorecalculatorapp

cd scorecalculatorapp

code .

In components

CalculateScore.js

```
import React from 'react';
import '../Stylesheets/mystyle.css';
function CalculateScore(props) {
  const average = props.total / props.goal;
  return (
    <div className="score-box">
      <h2>Student Score Details</h2>
      <p><strong>Name:</strong> {props.name}</p>
      <p><strong>School:</strong> {props.school}</p>
      <p><strong>Total Marks:</strong> {props.total}</p>
      <p><strong>Goal:</strong> {props.goal}</p>
      <p className="result"><strong>Average Score:</strong> {average.toFixed(2)}</p>
    </div>
  );
}
export default CalculateScore;
```

In Stylesheet Folder

Mystyle.css

```
.score-box {
  border: 2px solid #4CAF50;
  border-radius: 10px;
  padding: 20px;
  margin: 40px auto;
  width: 60%;
```

```css
  background-color: #f9f9f9;

  font-family: Arial, sans-serif;

  box-shadow: 0px 4px 10px rgba(0, 0, 0, 0.1);

}

.score-box h2 {

  color: #4CAF50;

  text-align: center;

}

.score-box p {

  font-size: 16px;

  margin: 10px 0;

}

.result {

  color: #d9534f;

  font-weight: bold;

}
```
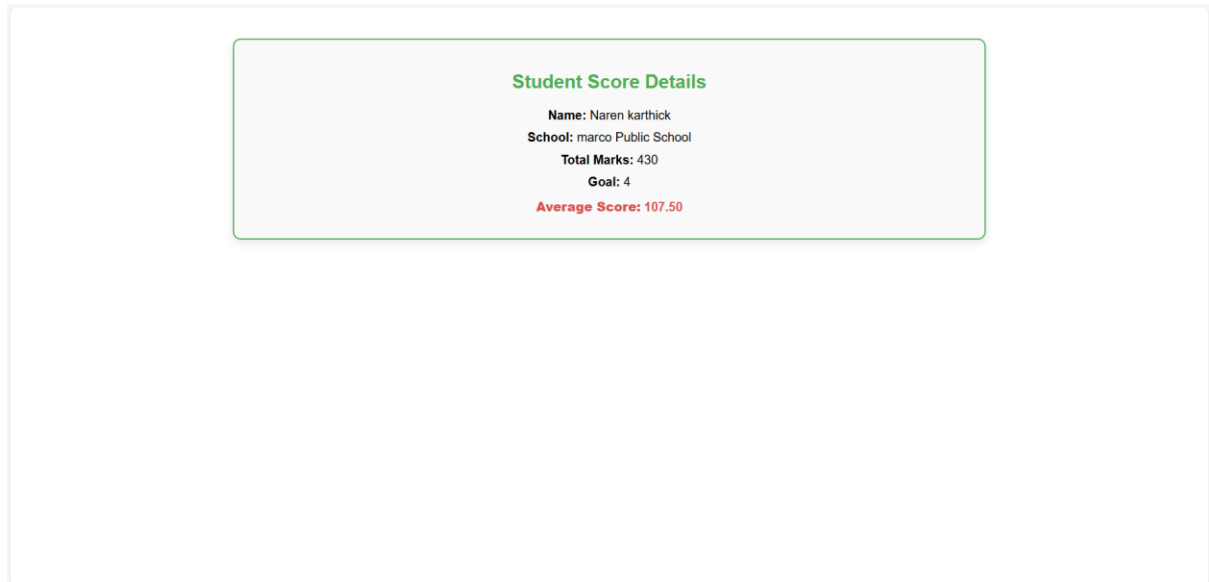
App.js

```jsx
import React from 'react';

import './App.css';

import CalculateScore from './Components/CalculateScore';

function App() {

  return (

    <div className="App">

      <CalculateScore

        name="Naren karthick"

        school="marco Public School"

        total={430}

        goal={4}

      />

    </div>

  );

}
```

export default App;

In terminal: npm start

Output:

Exercise 4:

In Terminal:

npx create-react-app blogapp

cd blogapp

code .

In components

Post.js

```
import React from 'react';
function Post({ title, body }) {
 return (
  <div style={{ border: "1px solid #ccc", padding: "10px", marginBottom: "10px" }}>
   <h3>{title}</h3>
   <p>{body}</p>
  </div>
 );
}
```

```
export default Post;
```

Posts.js

```javascript
import React, { Component } from 'react';
import Post from './Post';
class Posts extends Component {
  constructor(props) {
    super(props);
    this.state = {
      posts: [],
      hasError: false,
    };
  }
  loadPosts = async () => {
    try {
      const response = await fetch('https://jsonplaceholder.typicode.com/posts');
      const data = await response.json();
      this.setState({ posts: data });
    } catch (error) {
      console.error('Fetch error:', error);
      this.setState({ hasError: true });
    }
  };
  componentDidMount() {
    this.loadPosts();
  }
  componentDidCatch(error, info) {
    this.setState({ hasError: true });
    alert("Something went wrong: " + error.message);
  }
  render() {
    if (this.state.hasError) {
```

```jsx
      return <h2>Something went wrong while loading posts.</h2>;
    }
    return (
      <div>
        <h2>Blog Posts</h2>
        {this.state.posts.slice(0, 10).map(post => (
          <Post key={post.id} title={post.title} body={post.body} />
        ))}
      </div>
    );
  }
}
export default Posts;
```

App.js
```jsx
import React from 'react';
import './App.css';
import Posts from './Posts';
function App() {
  return (
    <div className="App">
      <h1>Blog Application</h1>
      <Posts />
    </div>
  );
}
export default App;
```
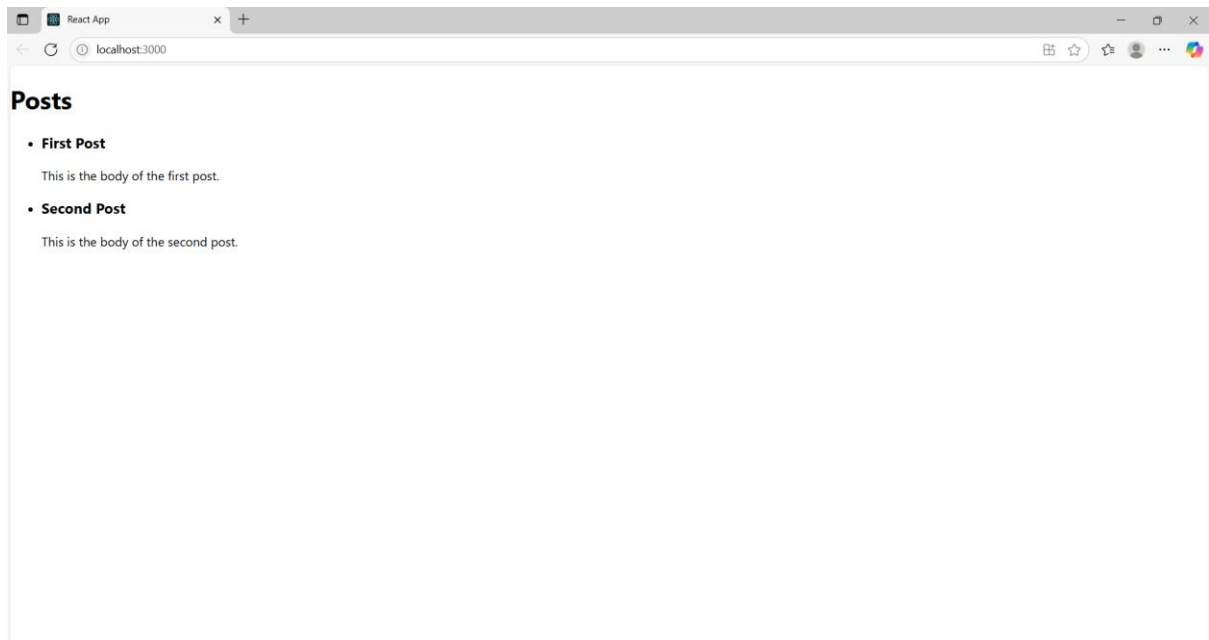In the terminal: npm start

Output:

Exercise 6:

In Terminal:

npx create-react-app TrainersApp

cd TrainersApp

code .

In src:

Trainer.js

```
class Trainer {
  constructor(trainerId, name, email, phone, technology, skills) {
    this.trainerId = trainerId;
    this.name = name;
    this.email = email;
    this.phone = phone;
    this.technology = technology;
    this.skills = skills;
  }
}
```

```
export default Trainer;
```

TrainersMock.js

```
import Trainer from './Trainer';

const trainers = [
  new Trainer(1, "John Doe", "john@example.com", "1234567890", "Java", ["Spring", "Hibernate"]),
  new Trainer(2, "Jane Smith", "jane@example.com", "9876543210", "Python", ["Flask", "Django"]),
  new Trainer(3, "Michael Brown", "michael@example.com", "4567891230", "React", ["Hooks", "Redux"])
];

export default trainers;
```

In terminal : npm install react-router-dom

TrainerList.js

```
import React from 'react';

import { Link } from 'react-router-dom';

const TrainerList = ({ trainers }) => {
  return (
    <div>
      <h2>Trainers List</h2>
      <ul>
        {trainers.map(trainer => (
          <li key={trainer.trainerId}>
            <Link to={`/trainers/${trainer.trainerId}`}>{trainer.name}</Link>
          </li>
        ))}
      </ul>
    </div>
  );
};
```

export default TrainerList;

Home.js

```
import React from 'react';
const Home = () => {
  return (
    <div>
      <h1>Welcome to Cognizant Academy</h1>
      <p>Explore trainers and their expertise!</p>
    </div>
  );
};
export default Home;
```

TrainerDetails.js

```
import React from 'react';
import { useParams } from 'react-router-dom';
import trainers from './TrainersMock';
const TrainerDetails = () => {
  const { id } = useParams();
  const trainer = trainers.find(t => t.trainerId === parseInt(id));
  if (!trainer) return <p>Trainer not found</p>;
  return (
    <div>
      <h2>{trainer.name}</h2>
      <p><strong>Email:</strong> {trainer.email}</p>
      <p><strong>Phone:</strong> {trainer.phone}</p>
      <p><strong>Technology:</strong> {trainer.technology}</p>
      <p><strong>Skills:</strong> {trainer.skills.join(', ')}</p>
    </div>
  );
};
```

export default TrainerDetails;

App.js

```
import React from 'react';
import { BrowserRouter as Router, Routes, Route, Link } from 'react-router-dom';
import Home from './Home';
import TrainerList from './TrainerList';
import TrainerDetails from './TrainerDetails';
import trainers from './TrainersMock';
function App() {
  return (
    <Router>
      <nav>
        <Link to="/">Home</Link> |
        <Link to="/trainers">Trainers</Link>
      </nav>
      <Routes>
        <Route path="/" element={<Home />} />
        <Route path="/trainers" element={<TrainerList trainers={trainers} />} />
        <Route path="/trainers/:id" element={<TrainerDetails />} />
      </Routes>
    </Router>
  );
}
export default App;
```

In terminal: npm start

Output:

Welcome to Cognizant Academy

Explore trainers and their expertise!

Trainers List

- John Doe
- Jane Smith
- Michael Brown

John Doe

Email: john@example.com

Phone: 1234567890

Technology: Java

Skills: Spring, Hibernate