

WEEK 6

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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';

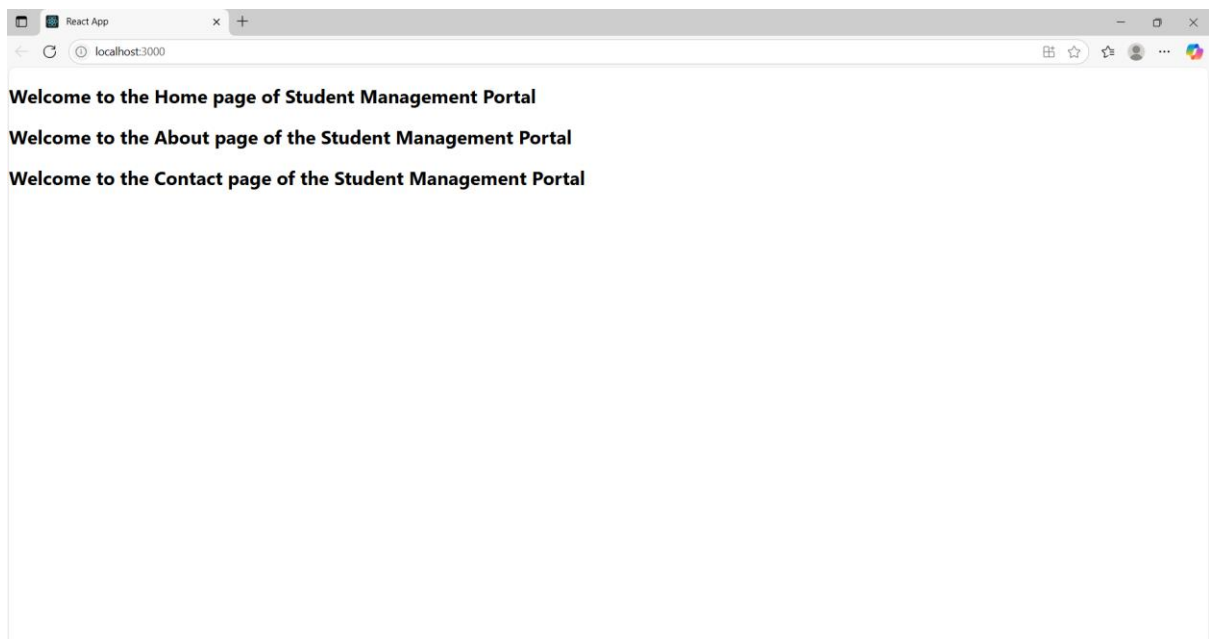
import Home from './Components/Home';
import About from './Components/About';
import Contact from './Components/Contact';

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%;
```

```
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;
}
```

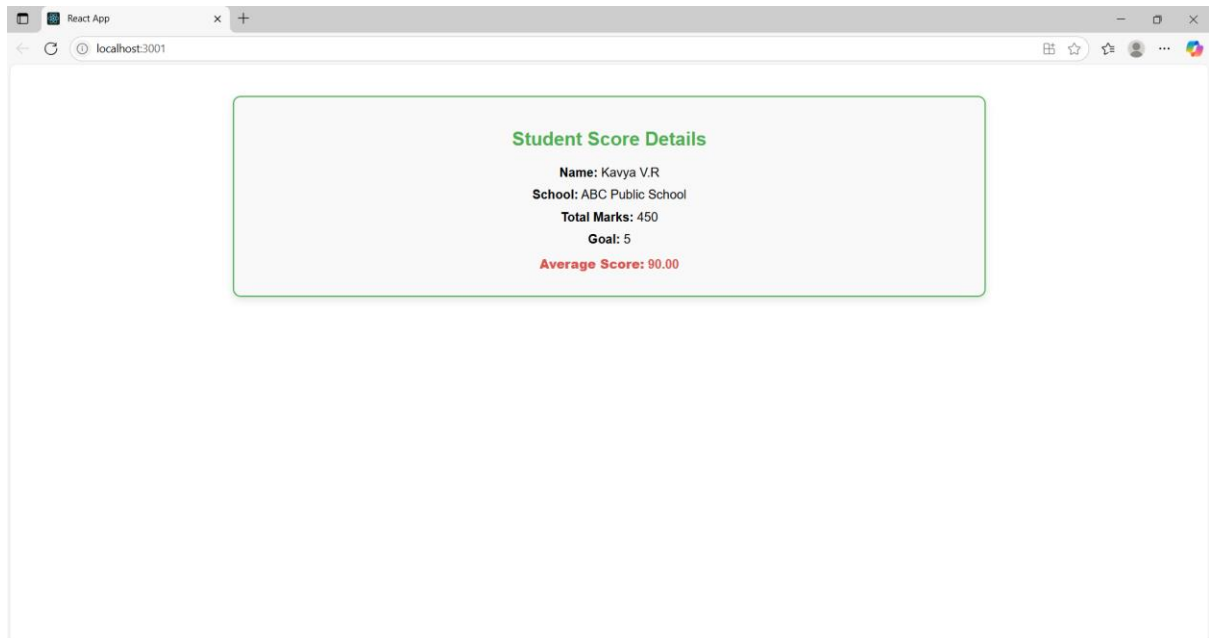
App.js

```
import React from 'react';
import './App.css';
import CalculateScore from './Components/CalculateScore';
function App() {
  return (
    <div className="App">
      <CalculateScore
        name="Kavya V.R"
        school="ABC Public School"
        total={450}
        goal={5}
      />
    </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

```
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) {
      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

```

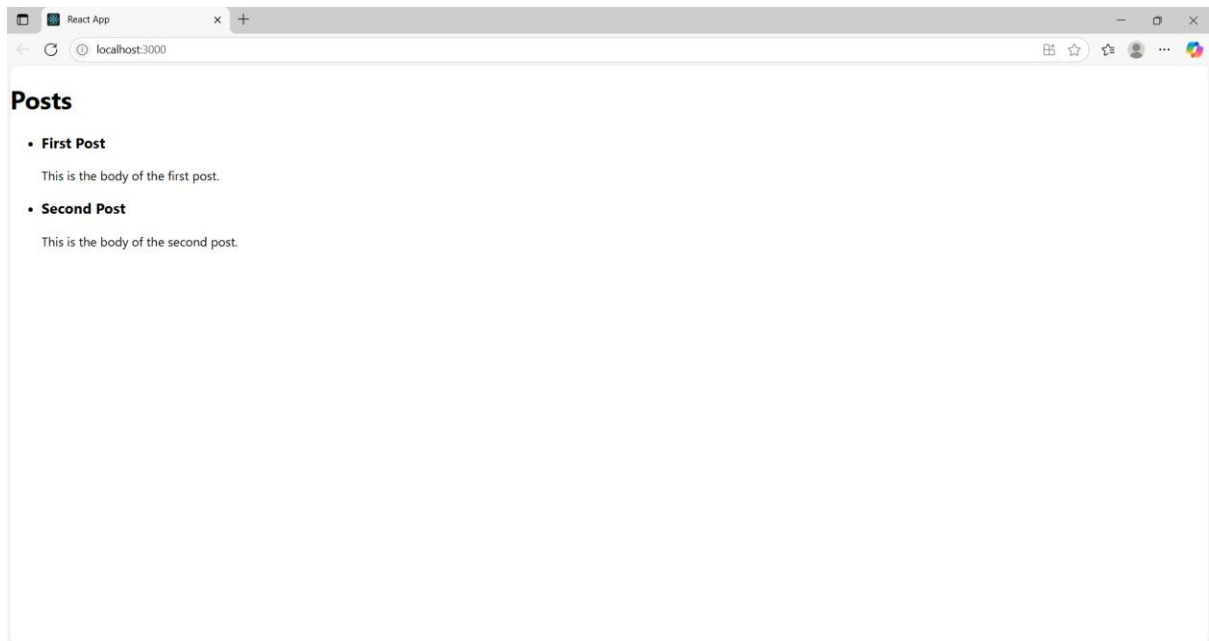
import React from 'react';
import './App.css';
import Posts from './Posts';
function App() {
  return (
    <div className="App">
      <h1>Blog Application</h1>
      <Posts />
    </div>
  );
}

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:

