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
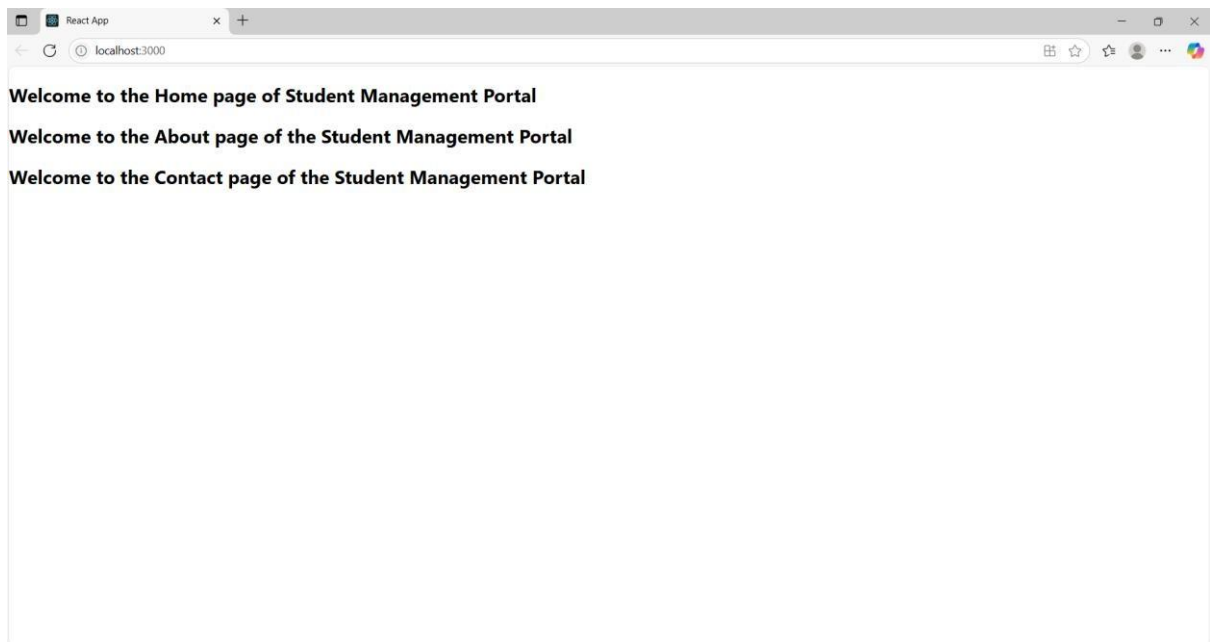
'./Components/Contact

'; function App() {

return (

   <div className="App">

    <Home />

    <About />

    <Contact />

```
    </div>
  );
} export default
App;
```

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 (

```jsx
    <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

```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;
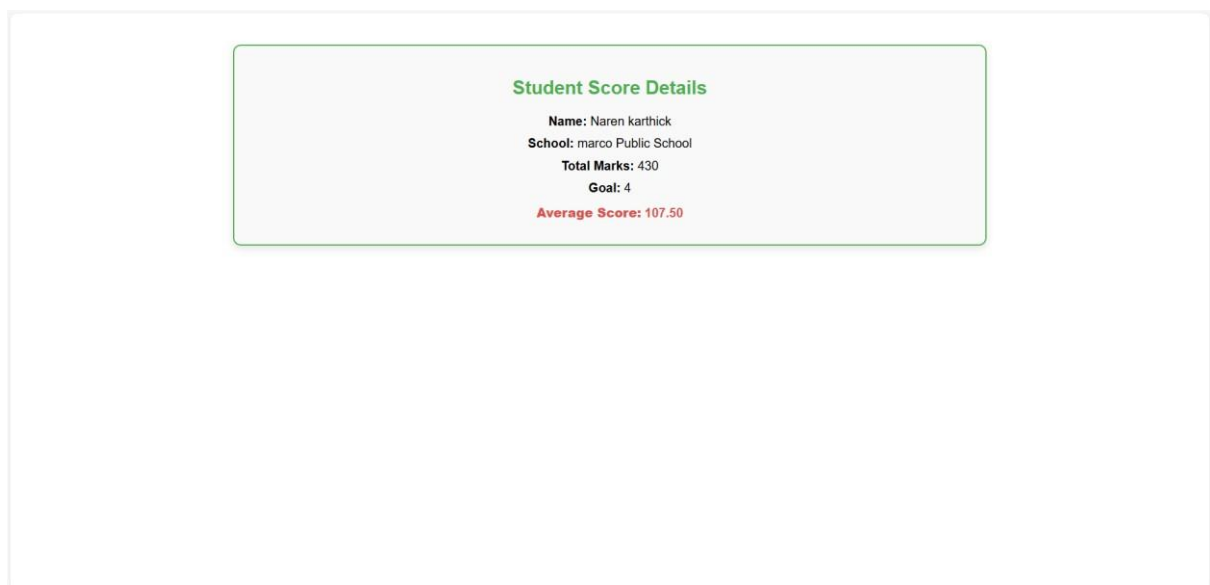```

}

## App.js

```javascript
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:

Student Score Details

Name: Naren karthick
School: marco Public School
Total Marks: 430
Goal: 4
Average Score: 107.50

Exercise 4: In Terminal:

npx create-react-app

blogapp cd blogapp code .

In components Post.js

```jsx
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
```jsx
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();
 }
```

```javascript
  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;
```
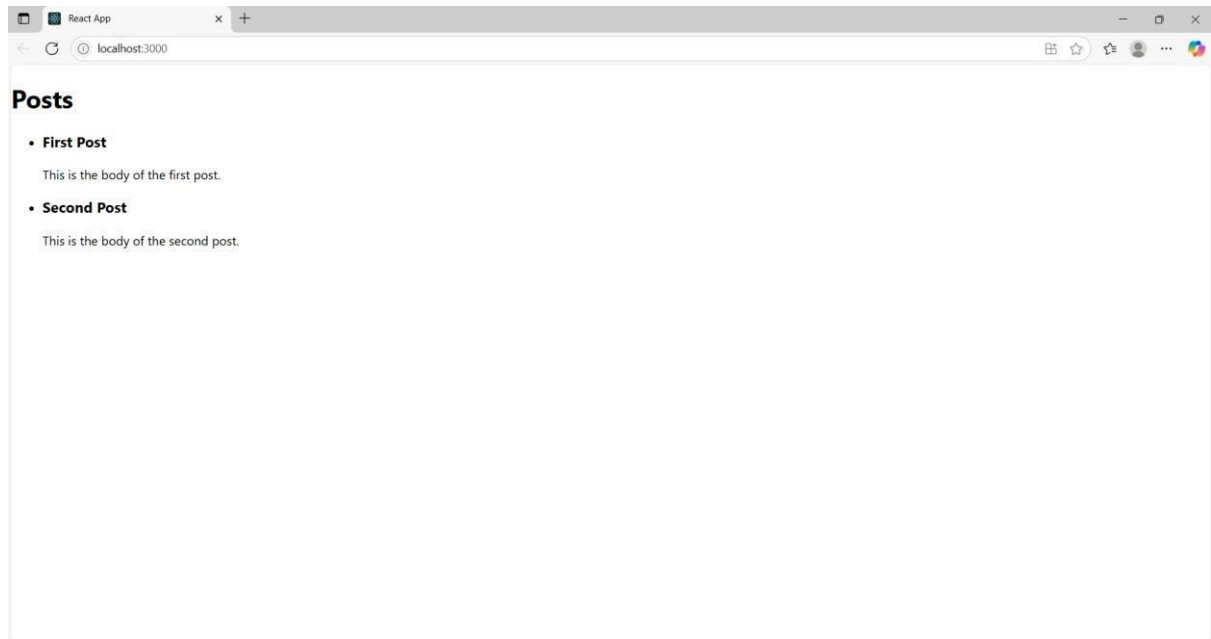
App.js import React from
'react'; import './App.css';
import Posts from './Posts';
function App() {   return (

```jsx
  <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:

John Doe

Email: john@example.com

Phone: 1234567890

Technology: Java

Skills: Spring, Hibernate