Week 6 - REACT

1. **My First React App:**

import React from 'react';

function App() {

return (

<div>

<h1>Welcome to the first session of React</h1>

</div>

);

}

export default App;

1. **Student Management Portal – StudentApp:**

**Home.js**

import React from 'react';

function Home() {

return (

<div>

<h2>Welcome to the Home page of Student Management Portal</h2>

</div>

);

}

export default Home;

**About.js**

import React from 'react';

function About() {

return (

<div>

<h2>Welcome to the About page of the Student Management Portal</h2>

</div>

);

}

export default About;

**Contact.js**

import React from 'react';

function Contact() {

return (

<div>

<h2>Welcome to the Contact page of the Student Management Portal</h2>

</div>

);

}

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>

<Home />

<About />

<Contact />

</div>

);

}

export default App;

1. **Student Management Portal – Score Calculator App:**

**CalculateScore.js**

import React from 'react';

import '../Stylesheets/mystyle.css';

function CalculateScore(props) {

const { name, school, total, goal } = props;

const average = total / goal;

return (

<div className="score-container">

<h2>Student Score Details</h2>

<p><strong>Name:</strong> {name}</p>

<p><strong>School:</strong> {school}</p>

<p><strong>Total Marks:</strong> {total}</p>

<p><strong>Goal Subjects:</strong> {goal}</p>

<p><strong>Average Score:</strong> {average.toFixed(2)}</p>

</div>

);

}

export default CalculateScore;

**mystyle.css**

.score-container {

border: 2px solid #4CAF50;

border-radius: 10px;

padding: 20px;

margin: 30px auto;

width: 50%;

background-color: #f9f9f9;

font-family: Arial, sans-serif;

}

.score-container h2 {

color: #4CAF50;

text-align: center;

}

.score-container p {

font-size: 18px;

margin: 10px 0;

}

**App.js**

import React from 'react';

import CalculateScore from './Components/CalculateScore';

function App() {

return (

<div>

<CalculateScore

name="John Doe"

school="Greenwood High School"

total={450}

goal={5}

/>

</div>

);

}

export default App;

1. **Blog Application using Class Components:**

**Post.js**

class Post {

constructor(userId, id, title, body) {

this.userId = userId;

this.id = id;

this.title = title;

this.body = body;

}

}

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

};

}

// 6. Method to fetch posts

loadPosts() {

fetch('https://jsonplaceholder.typicode.com/posts')

.then((response) => response.json())

.then((data) => {

const postList = data.map(post => new Post(post.userId, post.id, post.title, post.body));

this.setState({ posts: postList });

})

.catch((error) => {

console.error('Error fetching posts:', error);

this.setState({ hasError: true });

});

}

// 7. Fetch posts after component mounts

componentDidMount() {

this.loadPosts();

}

// 9. Catch rendering errors

componentDidCatch(error, info) {

alert("An error occurred while displaying posts.");

console.error("Error caught in component:", error, info);

this.setState({ hasError: true });

}

// 8. Render post titles and bodies

render() {

if (this.state.hasError) {

return <p>Something went wrong.</p>;

}

return (

<div>

<h1>Blog Posts</h1>

{this.state.posts.map(post => (

<div key={post.id} style={{ borderBottom: '1px solid #ccc', marginBottom: '20px' }}>

<h2>{post.title}</h2>

<p>{post.body}</p>

</div>

))}

</div>

);

}

}

export default Posts;

**App.js**

import React from 'react';

import Posts from './Posts';

function App() {

return (

<div className="App">

<Posts />

</div>

);

}

export default App;