WEEK6 - ReactJS Hands-On Labs

# Question 1 - MyFirstReact App

Objective: Create a React app named 'myfirstreact' and display the heading:

## App.js

import React from 'react';  
  
function App() {  
 return (  
 <div>  
 <h1>Welcome to the first session of React</h1>  
 </div>  
 );  
}  
  
export default App;

Output: Displays 'Welcome to the first session of React' as a heading on http://localhost:3000

# Question 2 - StudentApp with Home, About, Contact Components

## Home.js

import React from 'react';  
  
function Home() {  
 return <h2>Welcome to the Home page of Student Management Portal</h2>;  
}  
  
export default Home;

## About.js

import React from 'react';  
  
function About() {  
 return <h2>Welcome to the About page of the Student Management Portal</h2>;  
}  
  
export default About;

## Contact.js

import React from 'react';  
  
function Contact() {  
 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 './Home';  
import About from './About';  
import Contact from './Contact';  
  
function App() {  
 return (  
 <div>  
 <Home />  
 <About />  
 <Contact />  
 </div>  
 );  
}  
  
export default App;

Output: Displays three components with relevant messages on localhost.

# Question 3 - Score Calculator Functional Component

## CalculateScore.js

import React from 'react';  
import '../Stylesheets/mystyle.css';  
  
function CalculateScore(props) {  
 const avg = props.total / props.goal;  
 return (  
 <div className="score-box">  
 <h3>Name: {props.name}</h3>  
 <h4>School: {props.school}</h4>  
 <p>Average Score: {avg}</p>  
 </div>  
 );  
}  
  
export default CalculateScore;

## mystyle.css

.score-box {  
 background-color: lightgrey;  
 padding: 20px;  
 margin: 10px;  
 border-radius: 10px;  
}

## App.js

import React from 'react';  
import CalculateScore from './Components/CalculateScore';  
  
function App() {  
 return (  
 <div>  
 <CalculateScore name="John" school="XYZ High School" total={450} goal={5} />  
 </div>  
 );  
}  
  
export default App;

Output: Displays student's average score in a styled box.

# Question 4 - BlogApp with Lifecycle Methods

## Post.js

import React from 'react';  
  
function Post(props) {  
 return (  
 <div>  
 <h3>{props.title}</h3>  
 <p>{props.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 = () => {  
 fetch('https://jsonplaceholder.typicode.com/posts')  
 .then(response => response.json())  
 .then(data => this.setState({ posts: data }))  
 .catch(error => this.setState({ hasError: true }));  
 }  
  
 componentDidMount() {  
 this.loadPosts();  
 }  
  
 componentDidCatch(error, info) {  
 alert('Error occurred: ' + error);  
 }  
  
 render() {  
 return (  
 <div>  
 {this.state.posts.map(post => (  
 <Post key={post.id} title={post.title} body={post.body} />  
 ))}  
 </div>  
 );  
 }  
}  
  
export default Posts;

## App.js

import React from 'react';  
import Posts from './Posts';  
  
function App() {  
 return (  
 <div>  
 <Posts />  
 </div>  
 );  
}  
  
export default App;

Output: Displays list of posts fetched from API. Errors shown using alert.

# Question 5 - Styling Components with CSS Modules

## CohortDetails.module.css

.box {  
 width: 300px;  
 display: inline-block;  
 margin: 10px;  
 padding: 10px 20px;  
 border: 1px solid black;  
 border-radius: 10px;  
}  
  
dt {  
 font-weight: 500;  
}

## CohortDetails.js

import React from 'react';  
import styles from './CohortDetails.module.css';  
  
function CohortDetails({ title, status }) {  
 const titleStyle = {  
 color: status === "ongoing" ? "green" : "blue"  
 };  
  
 return (  
 <div className={styles.box}>  
 <h3 style={titleStyle}>{title}</h3>  
 <dl>  
 <dt>Status</dt>  
 <dd>{status}</dd>  
 </dl>  
 </div>  
 );  
}  
  
export default CohortDetails;

Output: Displays styled component with color-coded title based on cohort status.