# ReactJS Assignments – Student Submission

## Assignment 1: Introduction to React & SPA

**Q1. Create a new React Application named “myfirstreact”, and print “Welcome to the first session of React” as heading.**

npx create-react-app myfirstreact

Replace App.js with the following:

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

Run the application using:

npm start

## Assignment 2: Creating and Rendering Multiple Components

**Q2. Create a React project named “StudentApp” and three components: Home, About, and Contact. Display respective messages in each.**

npx create-react-app StudentApp

Structure: Create a folder `Components` under `src` and add the following files:

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;

Edit 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;

## Assignment 3: Functional Component for Score Calculation

**Q3. Create a React project named scorecalculatorapp and a component CalculateScore to compute average score.**

npx create-react-app scorecalculatorapp

Inside Components/CalculateScore.js:

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

In mystyle.css:

.score-box {  
 border: 1px solid #000;  
 padding: 20px;  
 width: 300px;  
 margin: 10px auto;  
 background-color: #f4f4f4;  
}

Edit App.js to use it:

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

## Assignment 4: Component Lifecycle - Fetch API

**Q4. Create a project blogapp to demonstrate componentDidMount and componentDidCatch lifecycle methods.**

npx create-react-app blogapp

Inside Posts.js:

import React, { Component } from 'react';  
  
class Posts extends Component {  
 constructor(props) {  
 super(props);  
 this.state = { posts: [], error: null };  
 }  
  
 componentDidMount() {  
 this.loadPosts();  
 }  
  
 loadPosts() {  
 fetch('https://jsonplaceholder.typicode.com/posts')  
 .then(response => response.json())  
 .then(data => this.setState({ posts: data }))  
 .catch(error => this.setState({ error }));  
 }  
  
 componentDidCatch(error, info) {  
 alert('An error occurred: ' + error);  
 }  
  
 render() {  
 return (  
 <div>  
 <h1>Blog Posts</h1>  
 {this.state.posts.map(post => (  
 <div key={post.id}>  
 <h3>{post.title}</h3>  
 <p>{post.body}</p>  
 </div>  
 ))}  
 </div>  
 );  
 }  
}  
  
export default Posts;

Add Posts component in App.js

## Assignment 5: Styling with CSS Modules

**Q5. Use CohortDetails.module.css to style a component based on status.**

/\* 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;  
}

Component (CohortDetails.js):

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