React Hands-on Lab – ScoreCalculatorApp (Function Component)

# Objective:

Create a React application named "scorecalculatorapp" with a function component "CalculateScore" that accepts Name, School, Total, and Goal, calculates the average score of a student, and displays the result.

# Learning Objectives:

* • Explain React components
* • Identify the differences between components and JavaScript functions
* • Identify the types of components
* • Explain class component
* • Explain function component
* • Define component constructor
* • Define render() function
* • Create a function component
* • Apply style to components
* • Render a component

# Prerequisites:

- Node.js  
- npm  
- Visual Studio Code

# Steps to Complete the Hands-on Lab:

## Step 1: Create a React App

In Visual Studio terminal, run:  
  
npx create-react-app scorecalculatorapp

## Step 2: Create Components Folder

Inside "src" folder, create a new folder named "Components".

## Step 3: Create CalculateScore.js

Inside "Components" folder, add a new file named "CalculateScore.js" with the following content:  
  
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 Summary</h2>  
 <p><strong>Name:</strong> {props.name}</p>  
 <p><strong>School:</strong> {props.school}</p>  
 <p><strong>Total:</strong> {props.total}</p>  
 <p><strong>Goal:</strong> {props.goal}</p>  
 <p><strong>Average Score:</strong> {average}</p>  
 </div>  
 );  
}  
  
export default CalculateScore;

## Step 4: Create Stylesheets Folder and Add mystyle.css

Create "Stylesheets" folder in "src" and add "mystyle.css" with the following styles:  
  
.score-box {  
 border: 2px solid #4CAF50;  
 padding: 20px;  
 margin: 20px;  
 border-radius: 8px;  
 background-color: #f9f9f9;  
 color: #333;  
}

## Step 5: Modify App.js

Open "App.js" and replace its content with the following:  
  
import React from 'react';  
import CalculateScore from './Components/CalculateScore';  
  
function App() {  
 return (  
 <div>  
 <CalculateScore name="Jayasri" school="ABC Public School" total={450} goal={5} />  
 </div>  
 );  
}  
  
export default App;

## Step 6: Run the Application

Navigate to the project folder and run:  
  
npm start

## Step 7: View Output in Browser

Open your browser and go to:  
  
http://localhost:3000

# Output:

On visiting http://localhost:3000, the following student score summary will be displayed:  
  
Name: Jayasri  
School: ABC Public School  
Total: 450  
Goal: 5  
Average Score: 90  
  
The component will be styled using the mystyle.css with a bordered and styled box.