**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

In this hands-on lab, you will learn how to:

* Create a function component
* Apply style to components
* Render a component

**Prerequisites**

The following is required to complete this hands-on lab:

* Node.js
* NPM
* Visual Studio Code

**Notes**

Estimated time to complete this lab: **30 minutes.**

Create a react app for Student Management Portal named scorecalculatorapp and create a function component named “CalculateScore” which will accept Name, School, Total and goal in order to calculate the average score of a student and display the same.

1. Create a React project named “scorecalculatorapp” type the following command in terminal of Visual studio:



1. Create a new folder under Src folder with the name “Components”. Add a new file named “CalculateScore.js”
2. Type the following code in CalculateScore.js

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1. Create a Folder named Stylesheets and add a file named “mystyle.css” in order to add some styles to the components:

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1. Edit the App.js to invoke the CalculateScore functional component as follows:

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1. In command Prompt, navigate into scorecalculatorapp and execute the code by typing the following command:



1. Open browser and type “localhost:3000” in the address bar:

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**SOLUTION**

1. Components folder created in src.

2. CalculteScore.js file created in Components folder

import React from 'react';

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

function CalculateScore() {

  const name = "John Doe";

  const school = "ABC High School";

  const total = 450;

  const goal = 500;

  const average = (total / goal) \* 100;

  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:</strong> {goal}</p>

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

    </div>

  );

}

export default CalculateScore;

3. Stylesheets folder created in src.

4. mystyle.css file created in Stylesheets folder.

.score-container {

  border: 2px solid #4caf50;

  border-radius: 10px;

  padding: 20px;

  width: 400px;

  margin: 30px auto;

  background-color: #f9f9f9;

  font-family: Arial, sans-serif;

  box-shadow: 0px 0px 10px #ddd;

}

.score-container h2 {

  color: #4caf50;

  text-align: center;

}

.score-container p {

  font-size: 16px;

  margin: 8px 0;

}

5.code for App.js

import React from 'react';

import './App.css';

import CalculateScore from './Components/CalculateScore';

function App() {

  return (

    <div className="App">

      <CalculateScore />

    </div>

  );

}

export default App;

**Output**

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**A screenshot of a computer

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**Hands on in VS**

**A computer screen shot of a program

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