# 3.ReactJS-HOL

# **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

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.

#### Code:

## CalculateScore.js

```
import '../Stylesheets/mystyle.css';
const percentToDecimal = (decimal) => {
    return (decimal * 100).toFixed(2) + '%';
const calcScore = (total, goal) => {
    return percentToDecimal(total / goal);
export const CalculateScore = ({ Name, School, total, goal }) => (
    <div className="formatstyle">
        <h1><font color="Brown">Student Details:</font></h1>
        <div>
            <b><span>Name:</span></b>
            <span> {Name}</span>
        </div>
        <div className="School">
            <b><span>School:</span></b>
            <span> {School}</span>
        </div>
        <div className="Total">
            <b><span>Total:</span></b>
            <span> {total} Marks</span>
        </div>
        <div className="Score">
            <b>Score:</b>
            <span> A {calcScore(total, goal)}</span>
        </div>
    </div>
);
```

# mystyle.css

```
.Name {
    font-weight: 300;
    color: blue;
}
.School {
    color: crimson;
}
.Total {
    color: darkmagenta;
}
.formatstyle {
    text-align: center;
    font-size: large;
}
.Score {
    color: forestgreen;
}
```

## App.js

### **Terminal Output:**

```
PS E:\Cognizant-Java FSE\Week 6\Code\3.ReactJS+HOL> ppx create-react-app scorecalculatorapp

Creating a new React app in E:\Cognizant-Java FSE\Week 6\Code\3.ReactJS-HOL\scorecalculatorapp.

Installing packages. This might take a couple of minutes.

Installing react, react-dom, and react-scripts with cra-template...

added 1323 packages in 58s

269 packages are looking for funding
run rum fund for details

Installing template dependencies using npm...

added 18 packages, and changed 1 package in 6s

269 packages are looking for funding
run rum fund for details

Removing template package using npm...

removed 1 package, and audited 1341 packages in 4s

269 packages are looking for funding
run rum fund for details

9 vulnerabilities (3 moderate, 6 high)

PS E:\Cognizant-Java FSE\Week 6\Code\3.ReactJS-HOL\scorecalculatorapp

O PS E:\Cognizant-Java FSE\Week 6\Code\3.ReactJS-HOL\scorecalculatorapp> npm start

> scorecalculatorapp@0.1.0 start

> react-scripts start

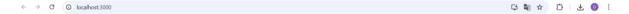
(node:10520) [DEF_WERPACK_DEV_SERVER_ON_AFTER_SETUP_NIDDLEWARE] DeprecationNarming: 'onAfterSetupMiddleware' option is deprecated. EupHiddlewares' option...' to show where the warming was created)

(node:10520) [DEF_WERPACK_DEV_SERVER_ON_BEFORE_SETUP_NIDDLEWARE] DeprecationNarming: 'onBeforeSetupMiddleware' option is deprecated. EupHiddlewares' option.

(Use 'node --trace-deprecation ...' to show where the warming was created)

(node:10520) [DEF_WERPACK_DEV_SERVER_ON_BEFORE_SETUP_NIDDLEWARE] DeprecationNarming: 'onBeforeSetupMiddleware' option is deprecated. EupHiddlewares' option.
```

### **Browser Output:**



#### **Student Details:**

Name: Disha
School: KIET Group of Institutions
Total: 284 Marks
Score: A 9466.67%