**React js**

React is a front-end library developed by Facebook. It is used for handling the view layer for web and mobile apps. ReactJS allows us to create reusable UI components.

1. Reactjs is component based.
2. ReactJS is JavaScript library used for building reusable UI components

To create react app

1. Create empty folder

**>mkdir reactapp**

**>cd reactapp**

2. then type following commands to create app

>**npm install -g create-react-app**

**> create-react-app my-app**

**> cd my-app**

**> npm start**

3. To install routing in react install the following command

> **npm install react-router-dom**

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| **Real DOM** | **Virtual  DOM** |
| 1. It updates slow. | 1. It updates faster. |
| 2. Can directly update HTML. | 2. Can’t directly update HTML. |
| 3. Creates a new DOM if element updates. | 3. Updates the JSX if element updates. |
| 4. DOM manipulation is very expensive. | 4. DOM manipulation is very easy. |
| 5. Too much of memory wastage. | 5. No memory wastage. |

**Major features of React are listed below:**

1. It uses the **virtual DOM** instead of the real DOM.
2. It uses **server-side rendering**.
3. It follows **uni-directional data flow** or data binding.

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| **TOPIC** | **REACT** | **ANGULAR** |
| *1. ARCHITECTURE* | Only the View of MVC | Complete MVC |
| *2. RENDERING* | Server-side rendering | Client-side rendering |
| *3. DOM* | Uses virtual DOM | Uses real DOM |
| *4. DATA BINDING* | One-way data binding | Two-way data binding |
| *5. DEBUGGING* | Compile time debugging | Runtime debugging |
| *6. AUTHOR* | Facebook | Google |

**purpose of render() in React**

Each React component must have a **render()**mandatorily. It returns a single React element which is the representation of the native DOM component. If more than one HTML element needs to be rendered, then they must be grouped together inside one enclosing tag such as **<form>, <group>,<div>** etc.