Module – 3 ReactJs

**Q-1**• What is React Js?

**ReactJS**is an open-source JavaScript library used to create user interfaces in a declarative and efficient way. It is a component-based front-end library responsible only for the view layer of a **Model View Controller(MVC)** architecture. React is used to create modular user interfaces and promotes the development of reusable UI components that display dynamic data.

Q-2 What is NPM in React Js?

NPM, the Node package manager is used for managing and sharing the packages for either React or Angular. NPM will be installed along with Nodejs. Node. js can be downloaded and installed from the official NodeJs website.

>npm start

Q-3What is Role of Node Js in react Js?

NodeJS is a framework of JavaScript which is mainly used for working with the backend of our application or building the backend using JavaScript, whereas ReactJS is a JavaScript front-end library. It is mainly used for building the user interface or the frontend of our application.

Q-4What is CLI command In React Js?

React has its own command-line interface (CLI) commands. However, these CLI commands are currently only used to create a passable version of a react application using the command line.

Q-5What is Components in React Js?

Components are independent and reusable bits of code. They serve the same purpose as JavaScript functions, but work in isolation and return HTML. Components come in two types, Class components and Function components.

1.Functional components:

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1.Functional components:

// Functional Component

function Greeting(props) {

return <div>Hello, {props.name}!</div>;

}

2.Class components:

// Class Component

class Counter extends React.Component {

constructor(props) {

super(props);

this.state = { count: 0 };

}

increment = () => {

this.setState({ count: this.state.count + 1 });

};

render() {

return (

<div>

<p>Count: {this.state.count}</p>

<button onClick={this.increment}>Increment</button>

</div>

);

}

}2.Class components:

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Q-6 What is Header and Content Components in React Js?

a section at the top of a page that displays site name and navigation.

Headercomponents.Js

import React from 'react';

import './Header.css';

import logo from '../../assets/logo.svg';

const Header = () => (

  <div className="header">

    <img src={logo} alt="Tesla" />

  </div>

)

export default Header;

App.Js

import React from 'react';

import './App.css';

import Header from './components/Header/Header';

const App=()=>{

    return (

      <div className="container ">

        <Header />

      </div>

    );

}

export default App;

Q-7How to install React Js on Windows, linux Operating System? How to install NPM and How to check version of NPM?

1.node -v

2.npm -v

3.npm -g install create-react-app

4.create-react-app appname

Q-8How to check version of React Js?

In NPM,

npm show react version

Q-9How to change in components of React Js?

Q-10How to Create a List View in React Js?

import React from 'react'

function Car(props) {

    return <li>I am a { props.brand }</li>;

  }

  function Garage() {

    const cars = ['Ford', 'BMW', 'Audi'];

    return (

      <>

        <h1>my first choice </h1>

        <ul>

          {cars.map((car) => <Car brand={car} />)}

        </ul>

      </>

    );

  }

  const root = ReactDOM.createRoot(document.getElementById('root'));

  root.render(<Car />);

Q-11Create Increment decrement state change by button click?

import React, { useState } from 'react'

const Counterr = () => {

  const [count, setCount] = useState(0)

  // const [calculation, setcalculation] = useState(0)

  return (

    // <> JSX </>

    <div className="count\_mainBox">

      <h1>Number : {count}</h1>

      <div className='count\_button'>

        <button onClick={() => setCount((count) => count + 1)}>+</button>

        <button onClick={() => setCount((count) => count - 1)}>-</button>

<button onClick={() => setCount((count) => count = 0)}>-</button>

      </div>

    </div>

  )

}

export default Counterr