**Module – 3 ReactJs**

1. **What is React Js?**

* React is a **JavaScript** library created by **Facebook**
* React is a **User Interface** (UI) library
* React is a tool for building **UI components.**

1. **What is NPM in React Js?**

* NPM is short for **node package manager**, an online directory that contains the various already registered open-source packages. NPM modules consume the various functions as a third-party package when installed into an app using the NPM command npm install.

1. **What 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

1. **What is CLI command In React Js?**

* CLI makes it easy to create an app, page, module and component that follows the best practices and structure defined by you and your team.

1. **What 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.

1. **What is Header and Content Components in React Js?**

* Headers are compositions that extend standard navbar functionalities. They contain additional components like a jumbotron, sub-navbar, or image covers which serve as a containers for extra navigation elements - usually links, forms, or call-to-action buttons.

1. **How to install React Js on Windows, linux Operating System?**

* 1After downloading, let's install it.
* 2Install Node. js in Windows.
* 3Install React js in Windows.
* 4Install Node. js in Ubuntu.
* 5Create a new App in React.
* 6Install Create React App.
* 7Create React App in Ubuntu.
* 8Basic Folder Structure.
* 9Conclusion.

1. **How to install NPM and How to check version of NPM?**

* The command to check your npm version is **npm -v** or **npm --** version. Type it in your terminal and you should see the following output:
* $ npm -v
* 8.1.0
* # or
* $ npm --version
* 8.1.0

1. **How to check version of React Js?**

* To check which React version is your project using you need to open the package.json. Take a look under the dependencies section. It should list all of the dependencies of your project and one of those should be React.
* "dependencies": {
* "@testing-library/jest-dom": "^5.16.2",
* "@testing-library/react": "^12.1.4",
* "@testing-library/user-event": "^13.5.0",
* **"react": "^17.0.2",- (react version)**
* "react-dom": "^17.0.2",
* "react-scripts": "5.0.0",
* "web-vitals": "^2.1.4"
* }

1. **How to change in components of React Js?**

* Component is the base class for the React components defined as JavaScript classes. Class components are still supported by React, but we don’t recommend using them in new code.
* class Greeting extends Component {
* render() {
* return <h1>Hello, {this.props.name}!</h1>;
* }
* }

1. **How to Create a List View in React Js?**
2. **Used arrey.map**
3. **Not for a loop**
4. **Give each item a unique key**
5. **Avoid usimg arrey index us the key**

* **1.** const numbers = [1, 2, 3, 4, 5];

const doubled = numbers.map((number) => number \* 2);

console.log(doubled);)

* **2.** const numbers = [1, 2, 3, 4, 5];

const listItems = numbers.map((number) =>

<li>{number}</li>

);

* **3.** render() {

var store = this.props.store;

return (

<ListView

dataSource={this.state.dataSource}

renderHeader={this.renderHeader.bind(this)}

renderRow={this.renderDetailItem.bind(this)}

renderSeparator={this.renderSeparator.bind(this)}

style={styles.listView}

/>

);

}

* **4.** const list = children.map((child, index) =>

<li key={index}> {child} </li>);

1. **Create Increment decrement state change by button click?**

* import {useState} from "react";

function IncDecCounter(){

let [num, setNum]= useState(0);

let incNum =()=>{

if(num<10)

{

setNum(Number(num)+1);

}

};

let decNum = () => {

if(num>0)

{

setNum(num - 1);

}

}

let handleChange = (e)=>{

setNum(e.target.value);

}

return(

<>

<div className="col-xl-1">

<div class="input-group">

<div class="input-group-prepend">

<button class="btn btn-outline-primary" type="button"onClick={decNum}>-</button>

</div>

<input type="text" class="form-control" value={num} onChange={handleChange}/>

<div class="input-group-prepend">

<button class="btn btn-outline-primary" type="button" onClick={incNum}>+</button>

</div>

</div>

</div>

</>

);

}