

## Module – 3 ReactJs

- What is React Js?

React (also known as React.js or ReactJS) is a free and open-source front-end JavaScript library for building user interfaces based on components. It is maintained by Meta (formerly Facebook) and a community of individual developers and companies.

- 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 Node.js. Node.js can be downloaded and installed from the official Node.js website.

- 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, whereas ReactJS is a JavaScript front-end library. It is mainly used for building the user interface or the frontend of our application.

- What 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.

- What is Components in React Js?

Components are independent and reusable bits of code. They serve the same purpose as JavaScript functions. Components

come in two types, Class components and Function components.

## • What is Header and Content Components in React Js?

Header component represent the top section of webpage , it gives the information about webpage , it includes site logo,navigation bar.

```
import React from 'react'
import PropTypes from 'prop-types'
export default function Navbar(props) {
  return (

    <nav className="navbar navbar-expand-lg navbar-light bg-light">
    <div className="container-fluid">
      <a className="navbar-brand" href="/">{props.logo}</a>
      <button className="navbar-toggler" type="button" data-bs-toggle="collapse"
data-bs-target="#navbarSupportedContent" aria-
controls="navbarSupportedContent" aria-expanded="false" aria-label="Toggle
navigation">
        <span className="navbar-toggler-icon"></span>
      </button>
      <div className="collapse navbar-collapse" id="navbarSupportedContent">
        <ul className="navbar-nav me-auto mb-2 mb-lg-0">
          <li className="nav-item">
            <a className="nav-link active" aria-current="page"
href="/">{props.title}</a>
          </li>
          <li className="nav-item">
            <a className="nav-link" href="/">Link</a>
          </li>
          <li className="nav-item dropdown">
            <a className="nav-link dropdown-toggle" href="/" id="navbarDropdown"
role="button" data-bs-toggle="dropdown" aria-expanded="false">
              Dropdown
            </a>
            <ul className="dropdown-menu" aria-labelledby="navbarDropdown">
              <li><a className="dropdown-item" href="/">Action</a></li>
              <li><a className="dropdown-item" href="/">Another action</a></li>
              <li><hr className="dropdown-divider" /></li>
              <li><a className="dropdown-item" href="/">Something else
here</a></li>
            </ul>
          </li>
        </ul>
      </div>
    </div>
  )
}
```

```

    <li className="nav-item">
      <a className="nav-link disabled" href="/" tabindex="-1" aria-
disabled="true">Disabled</a>
    </li>
  </ul>
  <form className="d-flex">
    <input className="form-control me-2" type="search"
placeholder="Search" aria-label="Search"/>
    <button className="btn btn-outline-success"
type="submit">Search</button>
  </form>
</div>
</div>
</nav>
)
}

```



The Content component represents the main section of a webpage or application.

```

import React from 'react'

export default function task() {
  return (
    <>
      <div>
        <div className='header'>
          <a className="header1" href="bio">BIO</a>
          <a className="header1" href="portfolio">PORTFOLIO</a>
          <a className="header1" href="podcast">PODCAST</a>
          <a className="header1" href="blog">BLOG</a>
        </div>
        <div className='body'>
          <div className="body1">
            <h2>Bethany Jones </h2>
            <p>im a dedicated culture critic and blogger <br/>located in san
fransisco,caifornia </p>
            <h6>@reallygreatsite</h6>
            <i className="fa-brands fa-instagram"></i>
            <i className="fa-brands fa-facebook"></i>
            <i className="fa-brands fa-twitter"></i>

```

```
        <i className="fa-brands fa-linkedin"></i>
      </div>
      <div className="body2">
        
      </div>
    </div>
  </div>
</>
```

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

1. Step 1: Install Node. js and npm.
2. Step 2: Install Create React App.
3. Step 3: Create a New React Project.
4. Step 4: Go To the Project Directory and Start the Development Server.

- How to check version of React Js?

1. Check your appName .js file.
2. Search for "react" or "react-dom" You will find something below. That will be the version your react-app is using.

- How to change in components of React Js?

1. By using state and props
2. Using usestate,useeffect
3. Using setstate

## • How to Create a List View in React Js?

```
import React from 'react'
import ReactDOM from 'react-dom/client';

function Car(props){
  return <li> I am a {props.brand}</li>
}
export default function Listrender() {
  const cars = ['ford','bmw','kia']
  return (
    <>
      <ul>
        {cars.map((car) => < Car brand={car}/>)}
      </ul>
    </>
  )
}
const root = ReactDOM.createRoot(document.getElementById('root'))
root.render(<Listrender/>)
```

- I am a ford
- I am a bmw
- I am a kia

## • Create Increment decrement state change by button click?

```
import ReactDOM from 'react-dom/client'
import { useState , useEffect } from 'react'

export default function Increment() {
  const [count , setCount] = useState(0)
  return (
    <>
```

```
<p> count {count}</p>
<button onClick={() => setCount((c) => c + 1 )}> Increment</button>
<button onClick={() => setCount((c) => c - 1 )}> Decrement</button>
<button onClick={() => setCount((c) => c = 0 )} > Reset</button>
</>
)
}
const root = ReactDOM.createRoot(document.getElementById('root'));
root.render(<Increment />);
```

← → ↻ ⓘ localhost:3000

count 2

Increment	Decrement	Reset
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