**Module – 3 ReactJs**

• What is React Js?

Ans:- React is declarative, efficient and flexible JAVASCRIPT library for building user interface.

• What is NPM in React Js?

Ans:- 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.

• What is the Role of Node Js in react Js?

Ans:- You can definitely use [Node JS with React](https://programmers.io/reactjs-with-nodejs-development/) framework. In fact, Node JS is known to be the most suitable platform for hosting and running web servers for applications built on React. The two primary reasons for this are.

• What is CLI command In React Js?

Ans:- a command-line interface is a way that you can interact with a computer through text. It works by you typing in special commands in a command prompt.

• What are Components in React Js?

Ans:- 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, in this tutorial we will concentrate on Function components.

• What are Header and Content Components in React Js?

Ans:-

• How to install React Js on Windows, Linux Operating systems? How to install NPM and How to check the version of NPM?

Ans:-

**Step 1:**

Install NodeJS and NPM.

**Step 2:**

Install React.

**Command:**npm install -g create-react-app

**Step 3:**

Create a new React project.

**Command:** create-react-app project\_name

**Step 4:**

Combine the two steps in a single command.

**Command:**npx create-react-app project\_name

**Step 5:**

To get started, open the src folder and make changes in your desired file.

**Step 6:**

Start the server after the completion of the installation process.

**Command:**

* cd project\_name
* npm start

**Step 7:**

The port number will be displayed. Open the port in the browser.

• How to check the version of React Js?

Ans:- By typing ”npm -v” in cmd.

• How to change in components of React Js?

Ans:-

• How to Create a ListView in React Js?

Ans:-

• Create Increment decrement state change by button click?

CODE:

import React, { useState } from 'react';

function Setcount(props) {

    const [count,setcount] = useState(0)

    const [name,setname] = useState("yash")

    const handlestate =()=>{

        setname("raj")

    }

    return (

        <div>

            <h1>Count : {count}</h1>

            <h1>Name : {name}</h1>

            <button onClick={(e)=>setcount(count+1)}>Increment</button>

            <button onClick={(e)=>setcount(count-1)}>Decrement</button>

            <button onClick={(e)=>handlestate()}>Update</button>

        </div>

    );

}

export default Setcount;

Module – 4 Lists and Hooks

Q.1 Explain the Life cycle in Class Component and functional component with Hooks.

Ans:-

LifeCycle of ClassComponent:

import React, { Component } from 'react';

class Lifecycle extends Component {

    constructor(){

        super()

        this.state ={

            count:0

        }

        console.log('comp init')

    }

    handel=()=>{

        this.setState({

            count:10

        })

    }

    componentDidMount(){

        console.log("comp didmount")

    }

    render() {

        console.log('comp render')

        return (

            <div>

                {this.count}

                <button onClick={this.handel}>Click</button>

            </div>

        );

    }

    componentDidUpdate(){

        console.log('comp updated')

    }

}

export default Lifecycle;

->Function Component of Hooks

1. useState:

import React, { useState } from 'react';

function Setcount(props) {

    const [count,setcount] = useState(0)

    const [name,setname] = useState("yash")

    const handlestate =()=>{

        setname("raj")

    }

    return (

        <div>

            <h1>Count : {count}</h1>

            <h1>Name : {name}</h1>

            <button onClick={(e)=>setcount(count+1)}>Increment</button>

            <button onClick={(e)=>setcount(count-1)}>Decrement</button>

            <button onClick={(e)=>handlestate()}>Update</button>

        </div>

    );

}

export default Setcount;

2.useRef

import React, { useRef } from 'react';

function Useref(props) {

    const inputDOM = useRef()

    const handle =()=>{

        inputDOM.current.style.backgroundColor="red";

        inputDOM.current.id="fname"

        inputDOM.current.className="yash"

    }

    return (

        <div>

            <input type="text" ref={inputDOM} />

            <button onClick={handle}>Click</button>

        </div>

    );

}

export default Useref;

3.useMemo

import React, { useMemo, useState } from 'react';

function Usememo(props) {

    const [one,setone]=useState(0)

    const [two,settwo]=useState(0)

    const iseven = useMemo(()=>{

        for(var i=0;i<1000000000;i++){}

        if(one%2===0){

            return"even";

        }

    },[one])

    return (

        <div>

            <button onClick={()=>setone(one+1)}>{one}</button>

            {iseven?'even':'odd'}

            <button onClick={()=>settwo(two+1)}c>{two}</button>

        </div>

    );

}

export default Usememo;

4.useContext

import React, { createContext } from 'react';

import B from './B';

const name ={"name":"raj"}

const Firstname = createContext("")

function A(props) {

    return (

        <div>

            <h1>A</h1>

            <Firstname.Provider value={name}>

                <B />

            </Firstname.Provider>

        </div>

    );

}

export default A;

export {Firstname}

import React, { useContext } from 'react';

import { Firstname } from './A';

function D(props) {

    const firstname = useContext(Firstname)

    return (

        <div>

            <h1>D</h1>

            <h1>{firstname.name}</h1>

        </div>

    );

}

export default D;

5.customHook

import React from 'react';

function Fetch(x,y) {

    const sum = x+y

    return sum

}

export default Fetch;

import React, { useState } from 'react';

import Fetch from './Fetch';

function Callhook(props) {

    const data = Fetch(10, 20)

    const [num, setnum] = useState(0)

    const handleadd = () => {

        setnum(data)

    }

    return (

        <div>

            <h1>Add: {num}</h1>

            <button onClick={handleadd}>Add</button>

        </div>

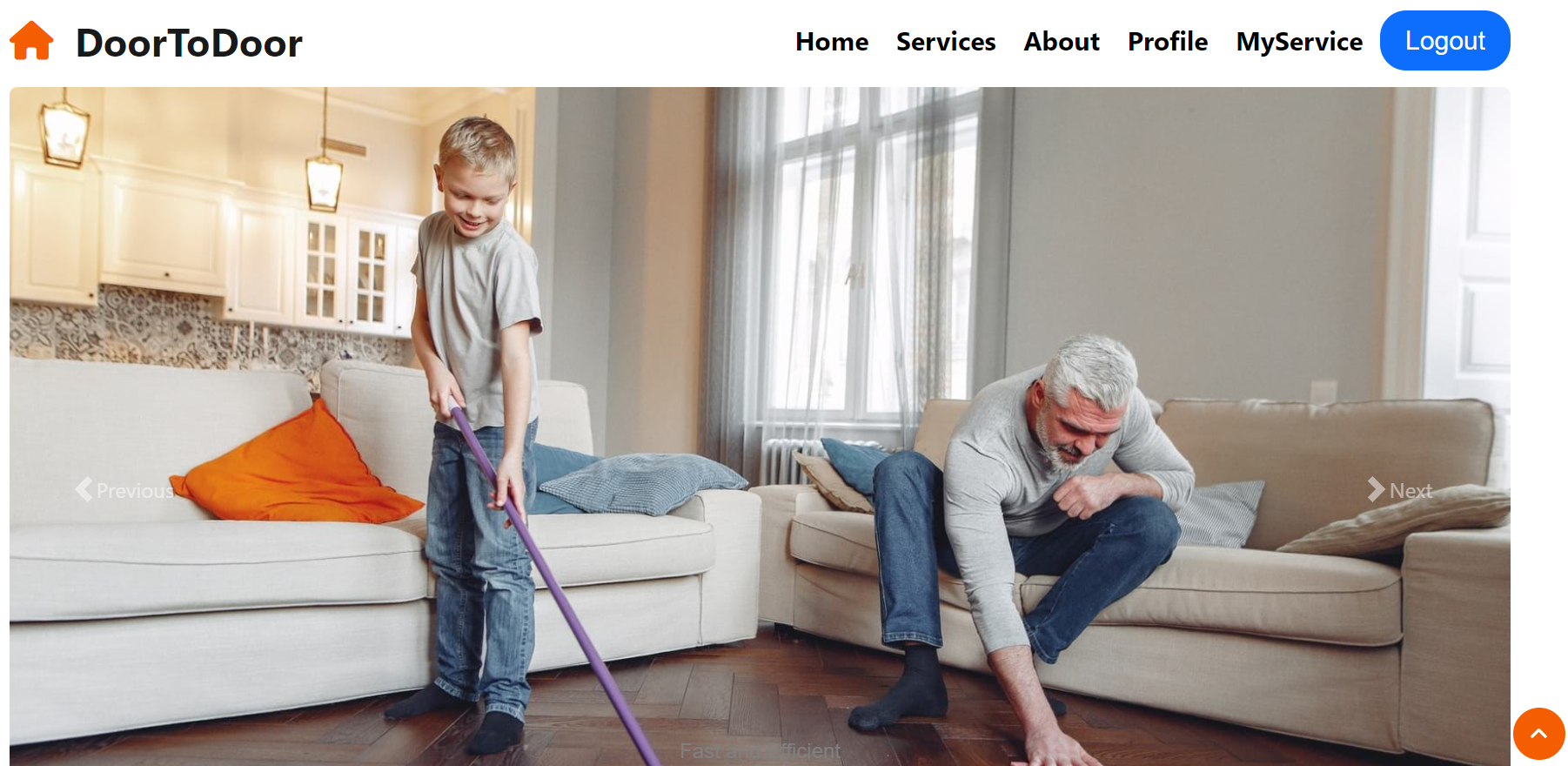
    );

}

export default Callhook;

Module-5) React - Styling & Advance React

Q. Create a Shopping site home page with Styled- components



Module 6) React Router

• Create React app with modules and lazy loading (Admin-user module with child router and outlet)

