

Subject: 2104CS512 – JavaScript Framework

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Assignment 1: Implementing Routing in ReactJS.
Assignment 2: Develop basic website using 5 different component (pages) and implement Routing in it. (i.e. About, Contact etc...).

File name: index.js

```
import React from "react";
import ReactDOM from "react-dom/client";
import "./index.css";
import App from "./App";
import { BrowserRouter, Routes, Route } from "react-router-dom";
import Layout from "./Layout";
import About from "./About";
import Contact from "./Contact";
import Help from "./Help";
import Shop from "./Shop";
import Home from "./Home";
import Counter from "./Counter";
import UseEffectDemo from "./useEffectDemo";
import UseStateDemo from "./useStateDemo";
import PintInFiveSecond from "./77B";

const root = ReactDOM.createRoot(document.getElementById("root"));
root.render(
  <>
    <BrowserRouter>
      <Routes>
        <Route element={<Layout />} >
          <Route path="/" element={<UseStateDemo/>}/>
          <Route path="/about" element={<About/>}/>
          <Route path="/shop" element={<Shop/>}/>
          <Route path="/app" element={<App/>}/>
          <Route path="/contact" element={<Contact/>}/>
          <Route path="/home" element={<Home/>}/>
          <Route path="/counter" element={<Counter/>}/>
          <Route path="/useEffect" element={<UseEffectDemo/>}/>
          <Route path="/77b" element={<PintInFiveSecond/>}/>
        </Route>
      </Routes>
    </BrowserRouter>
  </>
);
```

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File name: Layout.js

```
//Layout.js
import React from 'react';
import { Outlet } from 'react-router-dom';
import { useNavigate } from 'react-router-dom';
function Layout() {
  const navigate = useNavigate()
  return (
    <div>
      <ul>
        <button onClick={()=>navigate('/shop')}>shop</button>
        <button onClick={()=>navigate('/about')}>about</button>
        <button onClick={()=>navigate('/app')}>app</button>
        <button onClick={()=>navigate('/home')}>home</button>
        <button onClick={()=>navigate('/contact')}>contact</button>
        <button onClick={()=>navigate('/counter')}>counter</button>
        <button onClick={()=>navigate('/useEffect')}>useEffect</button>
        <button onClick={()=>navigate('/77b')}>Print in five seconds</button>
      </ul>
      <Outlet />
    </div>
  );
}
export default Layout;
```

```
//About.js
import React from 'react';

const About = () => {
  return(<h1>About</h1>)
};

export default About;
```

```
//Contact.js
import React from 'react'

const Contact = () => {
  return (
    <div>Contact</div>
  )
}
```

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```
}  
  
export default Contact  
  
//file: Shop.js  
import React from 'react'  
  
const Shop = () => {  
  return (  
    <div>Shop</div>  
  )  
}  
  
export default Shop
```

```
//Home.js  
import React from 'react'  
  
const Home = () => {  
  return (  
    <div>Home</div>  
  )  
}  
  
export default Home
```

```
//Help.js  
import React from 'react'  
  
const Help = () => {  
  return (  
    <div>Help</div>  
  )  
}  
  
export default Help
```

```
//Counter.js  
import React, { useState } from 'react';  
  
const Counter = () => {  
  const [count, setCount] = useState(0);  
  
  function increment() {  
    setCount(prev => prev + 1);  
  }  
}
```

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```
}  
  
function decrement() {  
    setCount(prev => prev - 1);  
}  
  
return (  
    <>  
    <h1>{count}</h1>  
    <button onClick={increment}>add</button>  
    <button onClick={decrement}>remove</button>  
    </>  
);  
};  
  
export default Counter;
```

Assignment 3: Demonstrate useState hook in ReactJS.

File name: useStateDemo.js

```
//useStateDemo.js
import React, { useState } from 'react'

function UseStateDemo() {
  let stateless = 0;
  const [count, setCount] = useState(0);

  return (
    <>
    <h1> stateless variable = {stateless}</h1>
    <h1> count variable = {count}</h1>

    <button onClick={() => {
      stateless = stateless + 1;
      setCount(count + 1);
      console.log("stateless",stateless)
      console.log("count",count)
    }} >add </button>
    </>
  )
}

export default UseStateDemo
```

Assignment 4: Demonstrate useEffect hook in ReactJS.

File name: useEffectDemo.js

```
//useEffectDemo.js
import React, { useEffect, useState } from 'react'

const UseEffectDemo = () => {
  const [data,setData]=useState(0)
  useEffect(()=>{
    console.log("use effect worked only first time load")
  },[])

  useEffect(()=>{
    console.log("use effect when state of data is changed")
  },[data])
  console.log("every time")
  return (
    <>
    <button onClick={()=>setData(data+1)}>click</button>
    </>
  )
}

export default UseEffectDemo
```

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Assignment 5: Print "Hello world" after every 5 seconds also have a state named count which updates when we click on the button.

File name: 77B.js

```
//77B.js
import React, { useEffect, useState } from 'react'

function PintInFiveSecond() {
  const [count, setCount] = useState(0);

  useEffect(() => {
    const interval = setInterval(() => {
      console.log("Hello world");
    }, 5000);

    // Cleanup interval on component unmount
    return () => clearInterval(interval);
  }, []); // Empty dependency array to run only once after the initial render

  function increment() {
    setCount(prev => prev + 1);
  }

  return (
    <>
      <h1>{count}</h1>
      <button onClick={increment}>Add</button>
    </>
  );
}

export default PintInFiveSecond
```