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Experiment No: 8

Aim: - WAP to handle click events by building a nav Menu using Router

Theory :-

React Router is a standard library for routing in React. It enables the navigation among views of various components in a React Application, allows changing the browser URL, and keeps the UI in sync with the URL.

Adding React Router Components: The main Components of React Router are:

· **BrowserRouter:** BrowserRouter is a router implementation that uses the HTML5 history API(pushState, replaceState and the popstate event) to keep your UI in sync with the URL. It is the parent component that is used to store all of the other components.

· **Routes:** It's a new component introduced in the v6 and a upgrade of the component. The main advantages of Routes over Switch are:

· Relative s and s

· Routes are chosen based on the best match instead of being traversed in order.

· **Route:** Route is the conditionally shown component that renders some UI when its path matches the current URL.

· **Link:** Link component is used to create links to different routes and implement navigation around the application. It works like HTML anchor tag.

Code:

Output :

App.js

```javascript
import React, { Component } from 'react';
import Home from './MyComponents/Home';
import About from './MyComponents/About'
import Users from './MyComponents/Users'
import { BrowserRouter as Router, Routes, Route } from 'react-router-dom';
import Hookusestate from './MyComponents/Hookusestate';


class App extends Component {
  render() {
    return (
      <>
      <Router>
        <Routes>
          <Route path="/" element={<Home />} />
          <Route path="/about" element={<About />}/>
          <Route path="/users" element={<Users />}/>
          <Route path="/Counter" element={<Hookusestate />}/>
        </Routes>
      </Router>
      </>
    );
  }
}
export default App;
```

Home.js

```javascript
src > MyComponents > JS Home.js > [@] default
1  import React from 'react';
2  import { Link } from 'react-router-dom';
3  function Home (){
4
5      return <div><nav>
6          <ul>
7              <li> <Link to="/">Home</Link></li>
8              <li> <Link to="/about">About</Link>  </li>
9              <li> <Link to="/Users">Users</Link> </li>
10             <li> <Link to="/Counter">Count</Link></li>
11
12         </ul>
13     </nav>
14     </div>
15  }
16
17 export default Home;
```

About.js

```
src > MyComponents > JS About.js > [∅] default
1    import React from "react";
2
3    function About () {
4        return (
5            <div>
6                <p><h1> This is About Page</h1></p>
7            </div>
8        )
9    }
10
11   export default About;
```

Users.js

```
src > MyComponents > JS Users.js > ◈ Users
1    import React from "react";
2
3    function Users () {
4        return (
5            <div>
6                <p><h1> This is Users Page</h1></p>
7            </div>
8        )
9    }
10
11   export default Users;
```
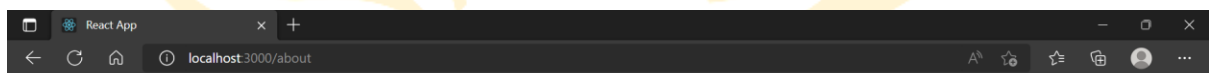
Hookusestate.js

```
src > MyComponents > JS Hookusestate.js > default
 1    import React, {useState} from "react";
 2    const Hookusestate=()=>{
 3        const [counter,setCounter] = useState(0);
 4
 5        const increment=()=> {
 6            setCounter(counter+1)
 7        };
 8
 9        return(
10            <div>
11                {counter}
12                <br></br>
13                <button onClick={increment}>Increment</button>
14            </div>
15        );
16    }
17    export default Hookusestate;
```

Output :

- Home
- About
- Users
- Count

localhost:3000
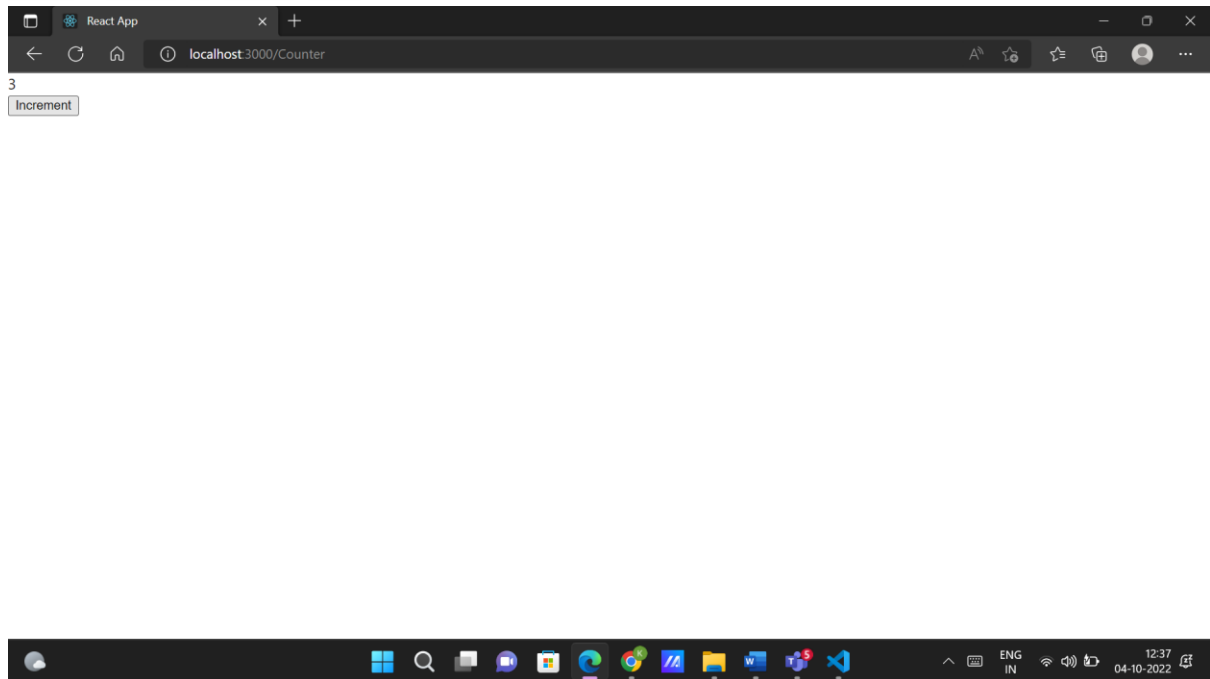
This is About Page

localhost:3000/about

This is Users Page

0
Increment

Conclusion :

Thus, we have successfully able to install react.js and also able to create class and function component in react js.