

IP-ASSIGNMENT-10

Aim: WAP to implement ReactJS Router and Animation

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 URL and keeps the UI in sync with URL.

React Router can be installed via "npm" in your react application. To install the react router use command "npm install react-router-dom". After installing react-router-dom add its component to your react application. The main components of React Router DOM are.

- 1) Browser router: It is the parent component that is used to store all of the other components.
 - 2) Route: Route is the conditionally shown component that renders some UI when path matches current URL.
 - 3) Link: Link component is used to create links to different routes and implement navigation around the application.
 - 4) Switch: Switch is used to render only the first route that matches the location rather than rendering all matching route.
 - 5) Animations in React - A collection of animation that can be used with any inline style library that can support using object to define keyframe animation.
- React-CSS-Transition group. This react add on used for creating object basic CSS transition and animation. Command is `npm install react-addons-css-transition-group`. React transition group components divide the lifecycle of any other child components into specific stages.

for a time span known as timeout.

- Stages of transition: entering, entered, exiting, exited.
- Stages of CSS Transition: appear, enter, exit.
- Stages of transition group: mounting and unmounting.

Conclusion: The concept of react router and animation was understood and desired output was obtained.

IP-ASSIGNMENT-10

Code:

Index.js

```
import React from 'react';
import ReactDOM from 'react-dom';
import { BrowserRouter as Router, Route, Link, NavLink } from 'react-router-dom'
import App from './App';
import About from './about'
import Animation from './animation'
import Counter from './counter'

const routing = (
  <Router>
    <div>

      <h1 >React Routes</h1>
      <ul>
        <li>
          <NavLink to="/" className='Link' exact activeStyle={ {color:'red'} }>Home</NavLink>
        </li>
        <li>
          <NavLink to="/about" className='Link' exact activeStyle={ {color:'green'} }>About</NavLink>
        </li>
        <li>
          <NavLink to="/counter" className='Link' exact activeStyle={{color:'magenta'}}>Counter</NavLink>
        </li>
        <li>
          <NavLink to="/animation" className='Link' exact activeStyle={ {color:'magenta'} }>Animation</NavLink>
        </li>
      </ul>

      <Route exact path="/" component={App} />
      <Route path="/about" component={About} />
      <Route path="/animation" component={Animation} />
      <Route path="/counter" component={Counter} />
    </div>
  </Router>
)
```

```
)  
ReactDOM.render(routing, document.getElementById('root'));
```

App.js

```
import React from 'react'  
import './App.css';  
import img from './img.jpg'  
  
class App extends React.Component {  
  render() {  
    return (  
      <div>  
        <h1> This is the Home Page</h1>  
        <img src={img}></img>  
      </div>  
    )  
  }  
}  
  
export default App
```

About.js

```
import React from 'react'  
import img from './abt.jpg'  
  
class About extends React.Component {  
  render() {  
    return (  
      <div>  
        <h1> This is the about Us Page</h1>  
        <img src={img}></img>  
      </div>  
    )  
  }  
}  
  
export default About
```

Animation.js

```
import React, { Component } from "react";  
import ReactDOM from "react-dom";  
import cx from "classnames";  
import { CSSTransition } from "react-transition-group";
```

```

import "./styles.css";

class Animation extends Component {
  state = {
    showList: true,
    highlightedHobby: false
  };

  switch = () => {
    this.setState(prevState => ({
      showList: !prevState.showList
    }));
  };

  listSwitch = () => {
    this.setState(state => ({
      highlightedHobby: !state.highlightedHobby
    }));
  };

  render() {
    return (
      <div className="container">
        <button className="display" onClick={this.switch}>
          Tasks To Do!
        </button>
        <CSSTransition
          in={this.state.showList}
          timeout={400}
          classNames="list-transition"
          unmountOnExit
          appear
          onEntered={this.listSwitch}
          onExit={this.listSwitch}
        >
          <div className="list-body">
            <ul className="list">
              <li
                className={cx("list-item", {
                  "list-item--active": this.state.highlightedHobby
                })}
              >
                IP ASSIGNMENT 10!
              </li>
              <li className="list-item"> Mini Project</li>
            </ul>
          </div>
        </CSSTransition>
      </div>
    );
  }
}

```

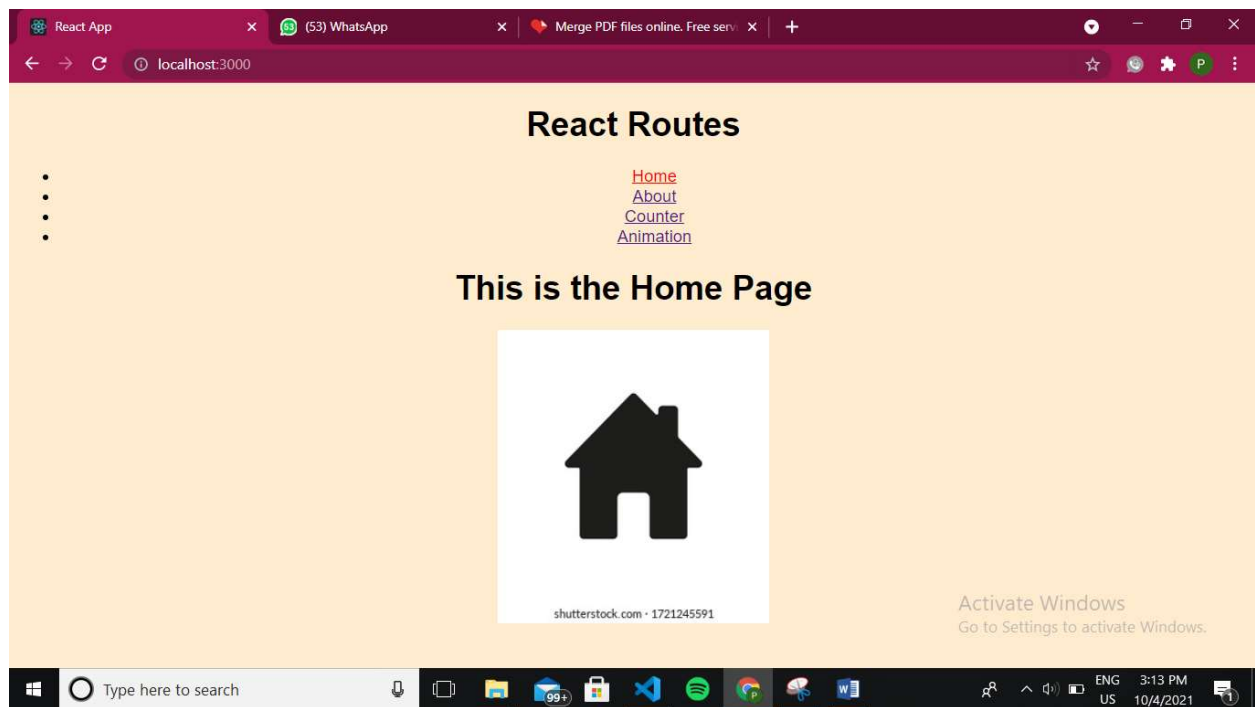
```

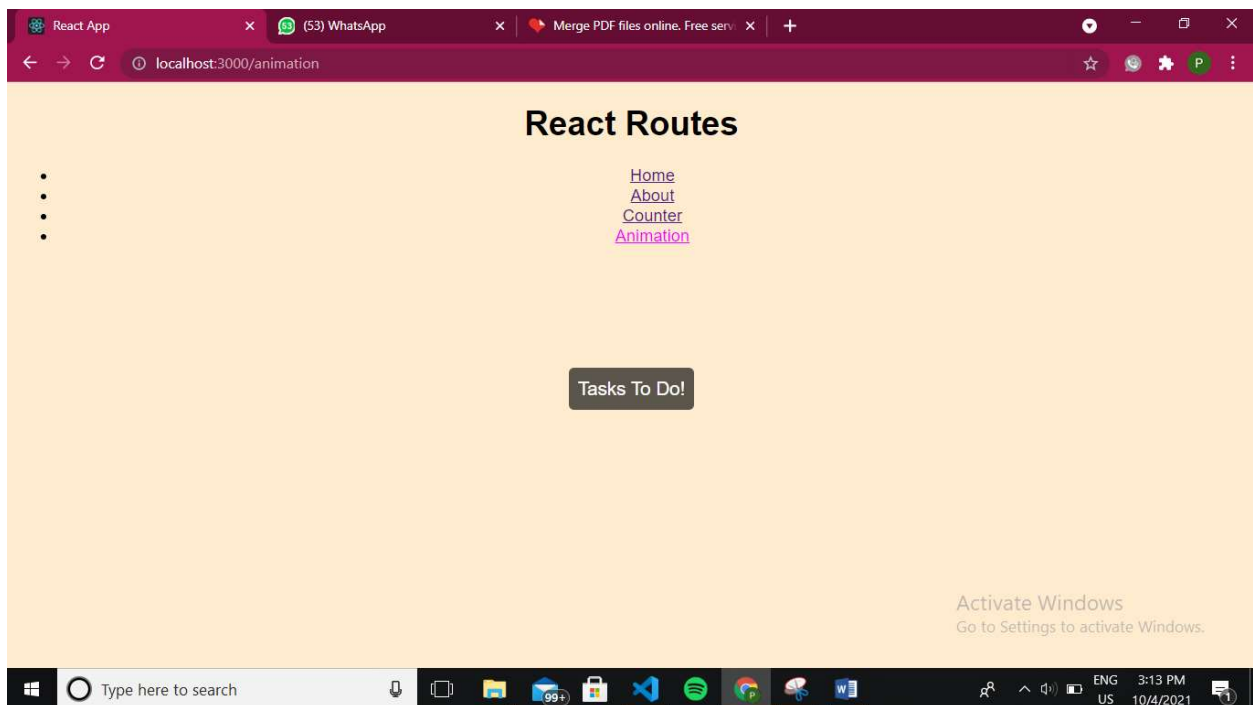
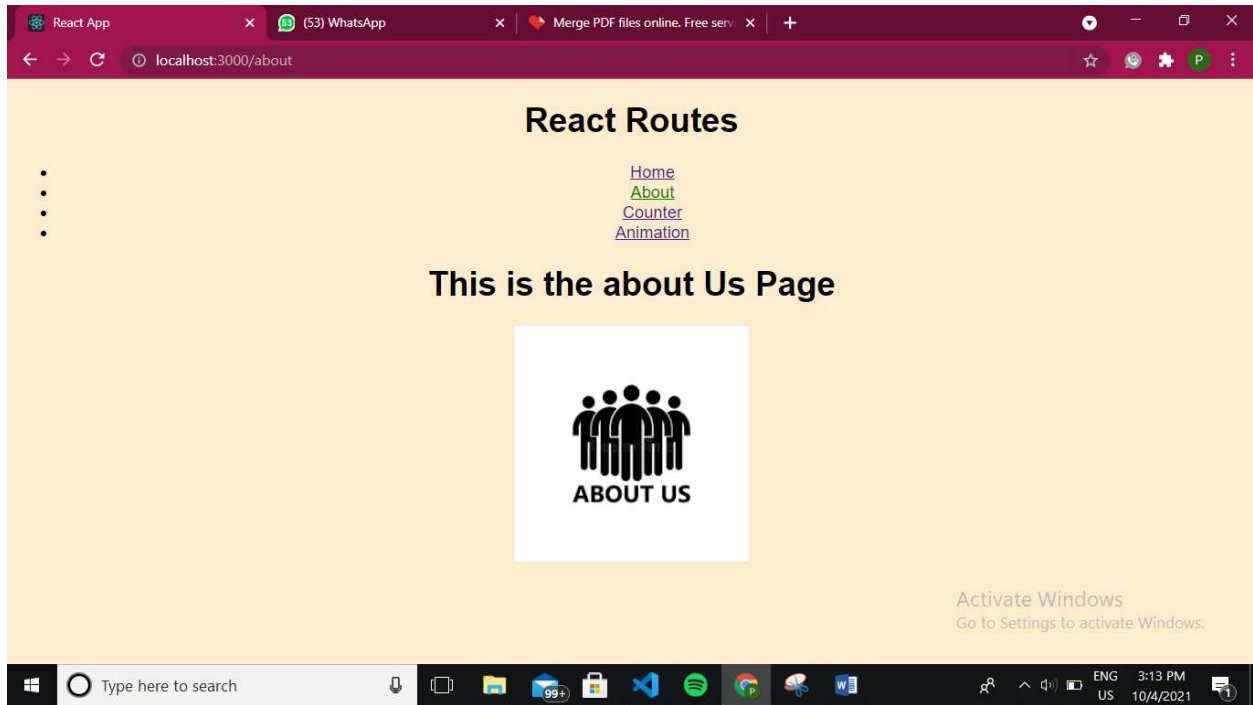
        <li className="list-item"> Running</li>
        <li className="list-item"> Gym</li>
      </ul>
    </div>
  </CSSTransition>
</div>
);
}
}

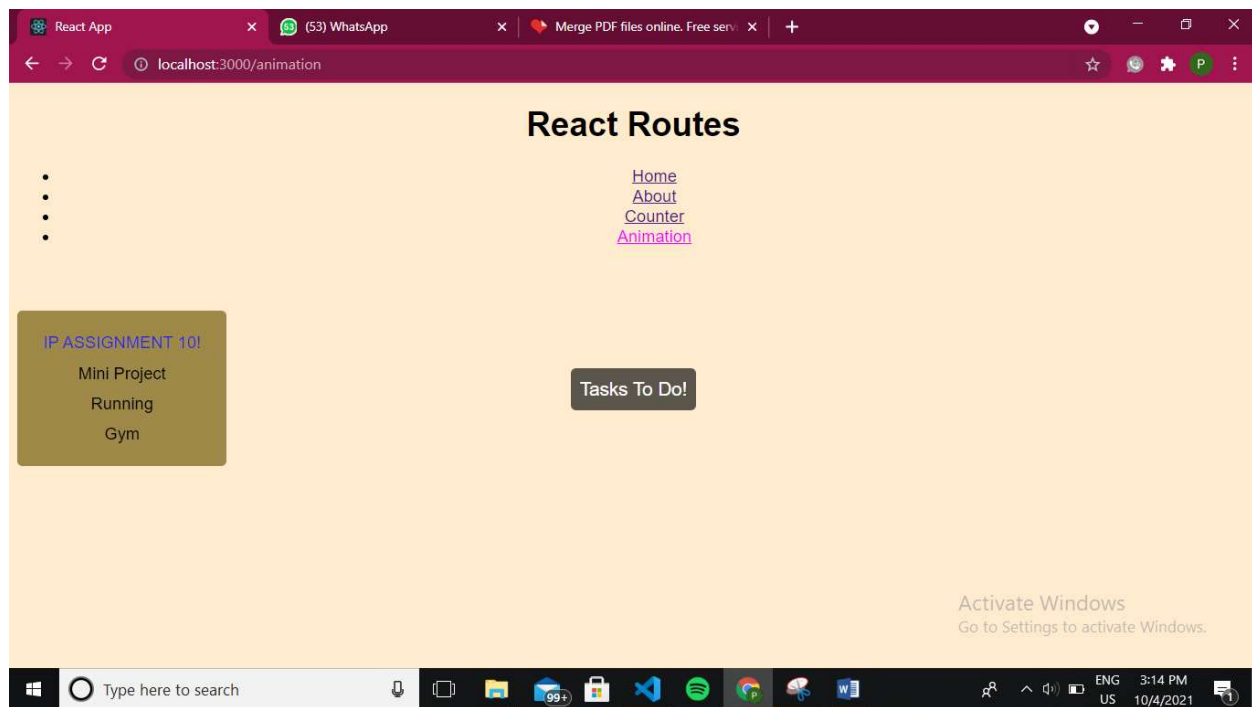
export default Animation;

```

Output:







Conclusion: Hence, React Routes was successfully implemented.