**React JS**

* **Babel**
* Babel is a JavaScript compiler that converts modern JavaScript code into a version compatible with all browsers. Babel enables React developers to use the latest JavaScript syntax in their components. Babel transpiles modern JavaScript for use in React components and all browsers.
* **What is Component**
* Components are independent and reusable bits of code. They serve the same purpose as JavaScript functions, but work in isolation and return HTML.
* Components let you split the UI into independent, reusable pieces, and think about each piece in isolation. This page provides an introduction to the idea of components. Conceptually, components are like JavaScript functions. They accept arbitrary inputs (called “props”) and return React elements describing what should appear on the screen.
* Components are used to divide our pages UI into small piece and when we want to isolate our code and it does not effect on other component this is called component.
* **Function Component Router in React JS**
* **MainRouter.jsx**

import React, { Suspense } from "react";

import { createBrowserRouter } from "react-router-dom";

// import { Link } from "react-router-dom";

import Main from "../Pages/Main";

import Contact from "../Pages/Contact";

import About from "../Pages/About";

import HeaderFile from "../Component/HeaderFile";

import Example from "../Pages/Example";

const Functionalconporoute = React.lazy(() => { return import('./Functionalconporoute.jsx') })

const Classcomporoute = React.lazy(() => { return import('./Classcomporoute.jsx') })

const MainRouter = createBrowserRouter([

  {

    path: "/",

    element: (

      <>

        <HeaderFile />

        <Main />

        {/\* <Link to="/"></Link> \*/}

      </>

    ),

  },

  {

    path: "/about",

    element: (

      <>

        <HeaderFile />

        <About />

        {/\* <Link to="/"></Link> \*/}

      </>

    ),

  },

  {

    path: "/contact",

    element: (

      <>

        <HeaderFile />

        <Contact />

        {/\* <Link to="/"></Link> \*/}

      </>

    ),

  },

  {

    path: "/example",

    element: (

      <>

        <HeaderFile />

        <Example />

        {/\* <Link to="/"></Link> \*/}

      </>

    ),

    children: [

      {

        path: "/example/functionalcomponent/\*",

        element: <Suspense fallback={<>Loading....</>} ><Functionalconporoute /></Suspense>

      },

    ]

  },

  {

    path: "/example",

    element: (

      <>

        <HeaderFile />

        <Example />

        {/\* <Link to="/"></Link> \*/}

      </>

    ),

    children: [

      {

        path: "/example/classcomponent/\*",

        element: <Suspense fallback={<>Loading....</>} ><Classcomporoute /></Suspense>

      },

    ]

  }

]);

export default MainRouter;

* **Functionalconporoute.jsx**

import React from "react";

import { useRoutes } from "react-router-dom";

import Functioncompomenu from "./../Component/FunctionComponent/01Functioncompomenu.jsx";

import Functioncompointro from "./../Component/FunctionComponent/02Functioncompointro.jsx";

const Functionalconporoute = () => {

    const routes = useRoutes([

        {

            path:"/",

            element:<Functioncompomenu/>,

            children:[

                {

                    path:"functioncompointro",

                    element:<Functioncompointro/>

                }

            ]

        }

    ])

    return routes;

}

export default Functionalconporoute;

* **Functioncompomenu.jsx**

import React from "react";

import { Link, Outlet } from "react-router-dom";

const Functioncompomenu = () => {

    return (<>

        <div className="row">

            <div className="col offset-6">

                <ol>

                    <li><Link to="functioncompointro">Functional Components Intro</Link> </li>

                </ol>

            </div>

        </div>

        <div className="row">

            <div className="col">

                <Outlet></Outlet>

            </div>

        </div>

    </>);

}

export default Functioncompomenu;

* When we want to print child component then we use Outlet.
* **Functioncompointro.jsx**

import React from "react";

const Functioncompointro = () => {

    return ( <>

        <div className="row">

            <div className="col offset-6">

                <h2>Functioncompointro</h2>

            </div>

        </div>

    </> );

}

export default Functioncompointro;

* **What is class component**
* Class component defined with class keyword. It extends the Component. In class component we provide render(),
* We can’t create object here so if we want to access some functionality we use render.
* Render() basically return functionality it always written JSX.
* Here render means when we use class component if we want to return anything we write render function. This is class component so class component doesn’t return function expect function component but when we write render it allows returning in class component. Without render it gives error.
* **Class component Router**
* Main router file is same as function component route.
* After lazy loading of classcomporoute file it is same as function component route.
* **Classcompomenu.jsx**

import React from "react";

import { Link, Outlet } from "react-router-dom";

import { Component } from "react";

class Classcompomenu extends Component {

    // state = {}

    render() {

        return (<>

            <div className="row">

                <div className="col">

                    <ol>

                        <li><Link to="classcompointro">Class Components Intro</Link> </li>

                    </ol>

                </div>

            </div>

            <div className="row">

                <div className="col">

                    <Outlet></Outlet>

                </div>

            </div>

        </>);

    }

}

export default Classcompomenu;

* **Classcompointro.jsx**

import React from "react";

import { Component } from "react";

class Classcompointro extends Component {

    // state = {}

    render() {

        return (<>

            <div className="row">

                <div className="col">

                    <h2>Classcompointro</h2>

                </div>

            </div>

        </>);

    }

}

export default Classcompointro;