

Dynamic Routes using "useParams()" hook

We can create our routes dynamic with the help of ":" symbol and also you can say that we can create our routes dynamic with the same procedure we follow in URL Parameters.

Example - Nested Routes with <Outlet/> Element

pages/homepage.jsx

```
import React from 'react'
export const HomePage = () => {
  return (
    <div>
      <h1 style={{textAlign:"center"}}>Home Page</h1>
    </div>
  )
}
```

pages/aboutpage.jsx

```
import React from 'react'
export const AboutPage = () => {
  return (
    <div>
      <h1 style={{textAlign:"center"}}>About Page</h1>
    </div>
  )
}
```

pages/contactpage.jsx

```
import React from 'react'
export const ContactPage = () => {
  return (
    <div>
      <h1 style={{textAlign:"center"}}>Contact Page</h1>
    </div>
  )
}
```

pages/errorpage.jsx

```
import React from 'react'
export const ErrorPage = () => {
  return (
    <h2>OOPS !! Something Went Wrong :-( </h2>
  )
}
```

pages/categoriespage.jsx

```
import React from 'react'
import { Link, Outlet } from 'react-router-dom'
export const CategoriesPage = () => {
  return (
    <div>
      <h1 style={{textAlign:"center"}}>Categories</h1>
      <ul style={{marginLeft:"50px"}}>
        <h3>We have following categories</h3>
        <li>
          <Link to="/categories/computer">Computer</Link>
        </li>
        <li>
          <Link to="/categories/tablets">Tablets</Link>
        </li>
        <li>
          <Link to="/categories/mobiles">Mobile</Link>
        </li>
      </ul>
      <div style={{width:"80%",margin:"auto",paddingTop:"50px"}}>
        <Outlet/>
      </div>
    </div>
  )
}
```

pages/categorynamepage.jsx

```
import React from 'react'
import { useParams } from "react-router-dom"
export const CategoryPage = () => {
  const { categoryname } = useParams()
  return (
    <div>
      <h1>You Select {categoryname}</h1>
    </div>
  )
}
```

pages/index.jsx

```
import { AboutPage } from "./aboutpage";
import { ErrorPage } from "./errorpage";
import { HomePage } from "./homepage";
import { ContactPage } from './contactpage';
import { CategoriesPage } from "./categoriespage";
import { CategoryPage } from "./categorynamepage";

export {
  HomePage,
  AboutPage,
  ContactPage,
  CategoriesPage,
  CategoryPage,
  ErrorPage
}
```

common/Navbar.jsx

```
import React from 'react'
import { Link } from 'react-router-dom'
export const Navbar = () => {
  return (
    <div>
      <div>
        style={{width:"100%",padding:"10px",display:"flex",justifyContent:"space-between"}}>
          <div>
            <h2>React Router Dom</h2>
          </div>
          <div>
            <Link to="/" style={{textDecoration:"none",
marginRight:"10px"}}>Home</Link>
            <Link to="about" style={{textDecoration:"none",
marginRight:"10px"}}>About</Link>
            <Link to="contact" style={{textDecoration:"none",
marginRight:"10px"}}>Contact</Link>
            <Link to="categories" style={{textDecoration:"none",
marginRight:"10px"}}>Categories</Link>
          </div>
        </div>
      </div>
    </div>
  )
}
```

routes/routes.jsx

```
import { AboutPage, CategoriesPage, ContactPage, ErrorPage, HomePage,
CategoryPage } from "../pages";
import { Routes, Route } from "react-router-dom";
export const RoutesComponent = () => {
  return(
    <Routes>
      <Route index path="/" element={<HomePage/>}/>
      <Route path="about" element={<AboutPage/>}/>
      <Route path="contact" element={<ContactPage/>}/>
      <Route path="categories" element={<CategoriesPage/>}>
        <Route path=":categoryname" element={<CategoryPage /> } />
      </Route>
      <Route path="*" element={<ErrorPage/>}/>
    </Routes>
  )
}
```

App.jsx

```
import React from 'react'
import { Navbar } from './common/Navbar';
import { RoutesComponent } from './routes/routes';
const App = () => {
  return(
    <>
      <Navbar/>
      <RoutesComponent/>
    </>
  )
}
export default App;
```

index.jsx

```
import React from 'react';
import ReactDOM from 'react-dom/client';
import App from './App';
import { BrowserRouter } from 'react-router-dom'

const root = ReactDOM.createRoot(document.getElementById('root'));
root.render(
  <React.StrictMode>
    <BrowserRouter>
      <App/>
    </BrowserRouter>
  </React.StrictMode>
);
```

Indexed Routes using React Router DOM

- Index routes are possibly the most difficult concept in React Router for people to understand. So if you've struggled before, we hope this can clarify it for you.
- In simple words, we can use "indexed" routes when we want to show a route by default.

Below there is some point that mention why we use "index" routes :-

- Index routes render in the parent routes outlet at the parent route's path.
- Index routes match when a parent route matches but none of the other children match.
- Index routes are the default child route for a parent route.
- Index routes render when the user hasn't clicked one of the items in a navigation list yet.

Example – Indexed Routes - Passing Parameters to URL

pages/homepage.jsx

```
import React from 'react'
export const HomePage = () => {
  return (
    <div>
      <h1 style={{textAlign:"center"}}>Home Page</h1>
    </div>
  )
}
```

pages/aboutpage.jsx

```
import React from 'react'
export const AboutPage = () => {
  return (
    <div>
      <h1 style={{textAlign:"center"}}>About Page</h1>
    </div>
  )
}
```

pages/contactpage.jsx

```
import React from 'react'
export const ContactPage = () => {
  return (
    <div>
      <h1 style={{textAlign:"center"}}>Contact Page</h1>
    </div>
  )
}
```

pages/errorpage.jsx

```
import React from 'react'
export const ErrorPage = () => {
  return (
    <h2>OOPS !! Something Went Wrong :-( </h2>
  )
}
```

pages/categoriespage.jsx

```
import React from 'react'
import { Link, Outlet } from 'react-router-dom'
export const CategoriesPage = () => {
  return (
    <div>
      <h1 style={{textAlign:"center"}}>Categories</h1>
      <ul style={{marginLeft:"50px"}}>
        <h3>We have following categories</h3>
        <li>      <Link to="/categories">Computer</Link>      </li>
        <li>      <Link to="/categories/tablets">Tablets</Link>      </li>
        <li>      <Link to="/categories/mobiles">Mobile</Link>      </li>
      </ul>
      <div style={{width:"80%",margin:"auto",paddingTop:"50px"}}>
        <Outlet/>
      </div>
    </div>
  )
}
```


pages/computercategory.jsx

```
import React from 'react'
export const ComputerCategory = () => {
  return (
    <div>
      <h3 style={{textAlign:"center"}}>Computer</h3>
      <p>A computer is a digital electronic machine that can be programmed to
      carry out sequences of arithmetic or logical operations (computation)
      automatically.</p>
    </div>
  )
}
```

pages/tabletcategory.jsx

```
import React from 'react'
export const TabletCategory = () => {
  return (
    <div>
      <h3 style={{textAlign:"center"}}>Tablets</h3>
      <p>A tablet is a wireless, portable personal computer with a touchscreen
      interface. The tablet form factor is typically smaller than a notebook computer,
      but larger than a smartphone. </p>
    </div>
  )
}
```

pages/mobilecategory.jsx

```
import React from 'react'
export const MobileCategory = () => {
  return (
    <div>
      <h3 style={{textAlign:"center"}}>Mobile</h3>
      <p>A mobile phone, cellular phone, cell phone, cellphone, hand phone, hand
      phone or pocket phone sometimes shortened to simply mobile, cell, or just
      phone, is a portable telephone that can make and receive calls over a radio
      frequency link while the user is moving within a telephone service area.</p>
    </div>
  )
}
```

```
}}
```

```
pages/index.jsx
```

```
import { AboutPage } from "./aboutpage";  
import { ErrorPage } from "./errorpage";  
import { HomePage } from "./homepage";  
import { ContactPage } from './contactpage';  
import { CategoriesPage } from "./categoriespage";  
import { ComputerCategory } from './computercategory';  
import { TabletCategory } from './tabletcategory';  
import { MobileCategory } from './mobilecategory';
```

```
export {  
  HomePage,  
  AboutPage,  
  ContactPage,  
  CategoriesPage,  
  ComputerCategory,  
  TabletCategory,  
  MobileCategory,  
  ErrorPage  
}
```

common/Navbar.jsx

```
import React from 'react'
import { Link } from 'react-router-dom'

export const Navbar = () => {
  return (
    <div>
      <div
style={{width:"100%",padding:"10px",display:"flex",justifyContent:"space-
between"}}>
        <div>
          <h2>React Router Dom</h2>
        </div>
        <div>
          <Link to="/" style={{textDecoration:"none",
marginRight:"10px"}}>Home</Link>
          <Link to="about" style={{textDecoration:"none",
marginRight:"10px"}}>About</Link>
          <Link to="contact" style={{textDecoration:"none",
marginRight:"10px"}}>Contact</Link>
          <Link to="categories" style={{textDecoration:"none",
marginRight:"10px"}}>Categories</Link>
        </div>
      </div>
    </div>
  )
}
```

routes/routes.jsx

```
import { AboutPage, CategoriesPage, ContactPage, ErrorPage, HomePage,
ComputerCategory, TabletCategory, MobileCategory } from "../pages";
import { Routes, Route } from "react-router-dom";
export const RoutesComponent = () => {
  return(
    <Routes>
      <Route index element={<HomePage/>}/>
      <Route path="about" element={<AboutPage/>}/>
      <Route path="contact" element={<ContactPage/>}/>
      <Route path="categories" element={<CategoriesPage/>}>
        <Route index element={<ComputerCategory/>}/>
        <Route path="tablets" element={<TabletCategory/>}/>
        <Route path="mobiles" element={<MobileCategory/>}/>
      </Route>
      <Route path="*" element={<ErrorPage/>}/>
    </Routes>
  )
}
```

App.jsx

```
import React from 'react'
import { Navbar } from '../common/Navbar';
import { RoutesComponent } from '../routes/routes';
const App = () => {
  return(
    <>
      <Navbar/>
      <RoutesComponent/>
    </>
  )
}

export default App;
```

index.jsx

```
import React from 'react';
import ReactDOM from 'react-dom/client';
import App from './App';
import { BrowserRouter } from 'react-router-dom'

const root = ReactDOM.createRoot(document.getElementById('root'));
root.render(
  <React.StrictMode>
    <BrowserRouter>
      <App/>
    </BrowserRouter>
  </React.StrictMode>
);
```