

React Router v7 vs TanStack Router

Comparativa técnica con ejemplos equivalentes y enfoque arquitectónico.

1. Definición de rutas

React Router v7

```
const router = createBrowserRouter([
  {
    path: '/',
    element: <Layout />,
    children: [
      { index: true, element: <Home /> },
      { path: 'about', element: <About /> },
    ],
  },
])
```

TanStack Router

```
const rootRoute = createRootRoute({ component: Layout })

const indexRoute = createRoute({
  getParentRoute: () => rootRoute,
  path: '/',
  component: Home,
})

const aboutRoute = createRoute({
  getParentRoute: () => rootRoute,
  path: '/about',
  component: About,
})

const routeTree = rootRoute.addChildren([indexRoute, aboutRoute])
```

2. Navegación programática

React Router v7

```
const navigate = useNavigate()
navigate('/users/42')
```

TanStack Router

```
router.navigate({
  to: '/users/$userId',
  params: { userId: '42' },
})
```

3. Params de ruta

React Router v7

```
const { userId } = useParams()
// userId?: string
```

TanStack Router

```
const { userId } = Route.useParams()  
// userId: string
```

4. Search params

React Router v7

```
const [searchParams] = useSearchParams()  
const page = Number(searchParams.get('page') ?? 1)
```

TanStack Router

```
validateSearch: (search) => ({  
  page: Number(search.page ?? 1),  
})  
  
const { page } = Route.useSearch()
```

5. Data loading por ruta

React Router v7

```
export async function loader({ params }) {  
  return fetchUser(params.userId)  
}  
  
const user = useLoaderData()
```

TanStack Router

```
loader: async ({ params }) => {  
  return fetchUser(params.userId)  
}  
  
const user = Route.useLoaderData()
```

6. Estado de navegación

React Router v7

```
const navigation = useNavigation()  
if (navigation.state === 'loading') {  
  return <Spinner />  
}
```

TanStack Router

```
const isLoading = useRouterState({  
  select: s => s.isLoading,  
})
```

7. Lazy loading

React Router v7

```
lazy: () => import('./About')
```

TanStack Router

```
component: lazy(() => import('./About'))
```

