React

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History

Noms: React.js, ReactJS, React

Web site: https://react.dev/

Author: Meta and community, licence MIT

Front or fullstack

Use Cases: standalone, react + redux, react + next|remix|gatsby, native

Learn React with Playground

https://react.dev/learn/ (codesandbox.io)

https://react.dev/learn/typescript (codesandbox.io)

https://playcode.io/react

https://reactplayground.vercel.app/

React Components

- Builtins components: https://react.dev/reference/react-dom/components
  - <Fragment> ou <>
  - <StrictMode>
  - <Suspense>
  - <Profiler>
- Custom Component with a function (name starting with capital case) returning a HTML fragment written in JSX (JavaScript) or TSX (TypeScript)
- Inside <StrictMode>, components are rendered twice in dev mode

Hooks

https://react.dev/reference/react

All hooks start with use:

- useState: data with getter, setter
- useRef: idem useState without refresh, property current
- useReducer

Magic Square project

Subject:

https://fr.wikipedia.org/wiki/Carr%C3%A9_magique_(math%C3%A9matiques)

Code:

https://codesandbox.io/s/magic-square1-zmdd3q?file=/App.tsx:3575-4097

https://codesandbox.io/s/magic-sqaure-with-reducer-ccgcys?file=/src/App.tsx

React + redux

https://react-redux.js.org/introduction/getting-started

Central store:

- slice: an object stored
- reducer: all actions on the slice (sync, async)
- dispatch: action on an slice: if slice changed, new render
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Templates to create project with redux: https://github.com/reduxjs/redux-templates

- vite-template-redux: Vite, with TypeScript
- cra-template-redux-typescript: Create-React-App, with TypeScript
- cra-template-redux: Create-React-App, with JavaScript

Rendering and Snapshot

- https://react.dev/learn/render-and-commit
- https://react.dev/learn/state-as-a-snapshot
- https://react.dev/learn/queueing-a-series-of-state-updates
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Modifying Objects and Arrays

- https://react.dev/learn/updating-objects-in-state
- https://react.dev/learn/updating-arrays-in-state
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Sharing data in depth with context

https://react.dev/learn/passing-data-deeply-with-context

https://react.dev/learn/passing-props-to-a-component#passing-jsx-as-children

Custom Hook

https://react.dev/learn/reusing-logic-with-custom-hooks

Routing

React Router (DOM or Reactive)

https://reactrouter.com/en/main

Article:

https://www.syncfusion.com/blogs/post/react-router-vs-react-router-dom.aspx

Exemples:

https://github.com/remix-run/react-router/tree/dev/examples