LIFE AS AN ADULT:
WHAT'S NEW IN REACT 19

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#confoo

React Versions

• 19.0.0 (Dec 24)

• 18.3.0 (Apr 24) -> preparations for v19

• 18.0.0 (Mar 22) -> new rendering engine

• 17.0.0 (Oct 20)

• 16.0.0 (Sep 17) -> hooks, Suspense, server components

New Compiler

• Say goodbye to *useMemo()* and others (to avoid re-rendering)

• The compiler (almost always) takes care of things now!

• https://react.dev/learn/react-compiler -> „has many rough edges"

• *npx react-compiler-healthcheck*

New use() Function

• *use()* as a replacement for *useEffect()* (and others)

• A function, not a hook! (Thus can be used in *if* statements etc.)

• Allows us to read the value of a promise or context

• Typical use case: fetching data

CSR vs. SSR

• *"use client"*

• *"use server"*

• Declares code (=an action) as client-side or server-side

• RSC (React Server Components) are rendered on the server just like SSR

• RSC's JavaScript code is server-side only!

• Time will tell how well accepted that is (see Blazor)

Handling Form Data

• Action function receives and handles form data
  • Action = "function that uses async transitions"

• May run on the server and on the client

• New hooks

  • *useFormStatus()* (form submission pending yes/no)

  • ~~*useFormState()*~~*useActionState()* (data in forms)

Putting Elements in <head>

- Document metadata in components
  - *<link>* -> *precedence* attribute
  - *<meta>*
  - *<script>*
  - *<title>*

- Preloading
  - *preconnect()*
  - *prefetchDNS()*
  - *preinit()*
  - *preinitModule()*
  - *preload()*
  - *preloadModule()*

Minor Things

- Say goodbye to *forwardRef* (just pass *ref* as a property)

- Cleanup callback functions for refs

- Async support in *useTransition()*

- Instant user feedback with *useOptimistic()*

- Improved error reporting

Upgrading to React 19

- React 18.3 is an interim version

  - The same as 18.2, but with depreciation warnings

- Upgrade guide: https://react.dev/blog/2024/04/25/react-19-upgrade-guide

- *npx codemod@latest react/19/migration-recipe*

Thank You!

- Questions?

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