

口

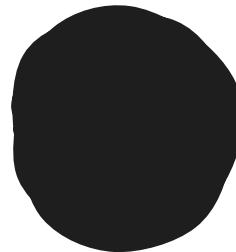
合

口

木



Qwik + 开源

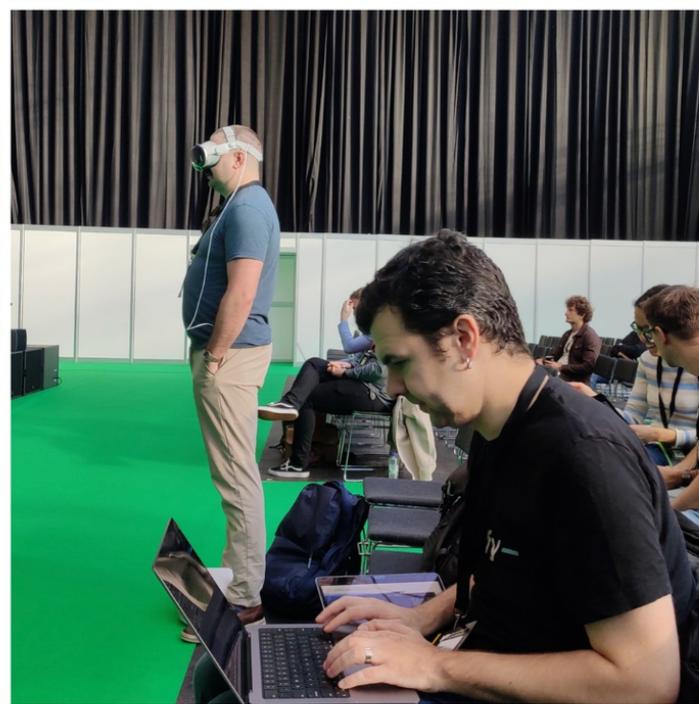


2023











Leading the path to a resumable future?

听得懂请举手

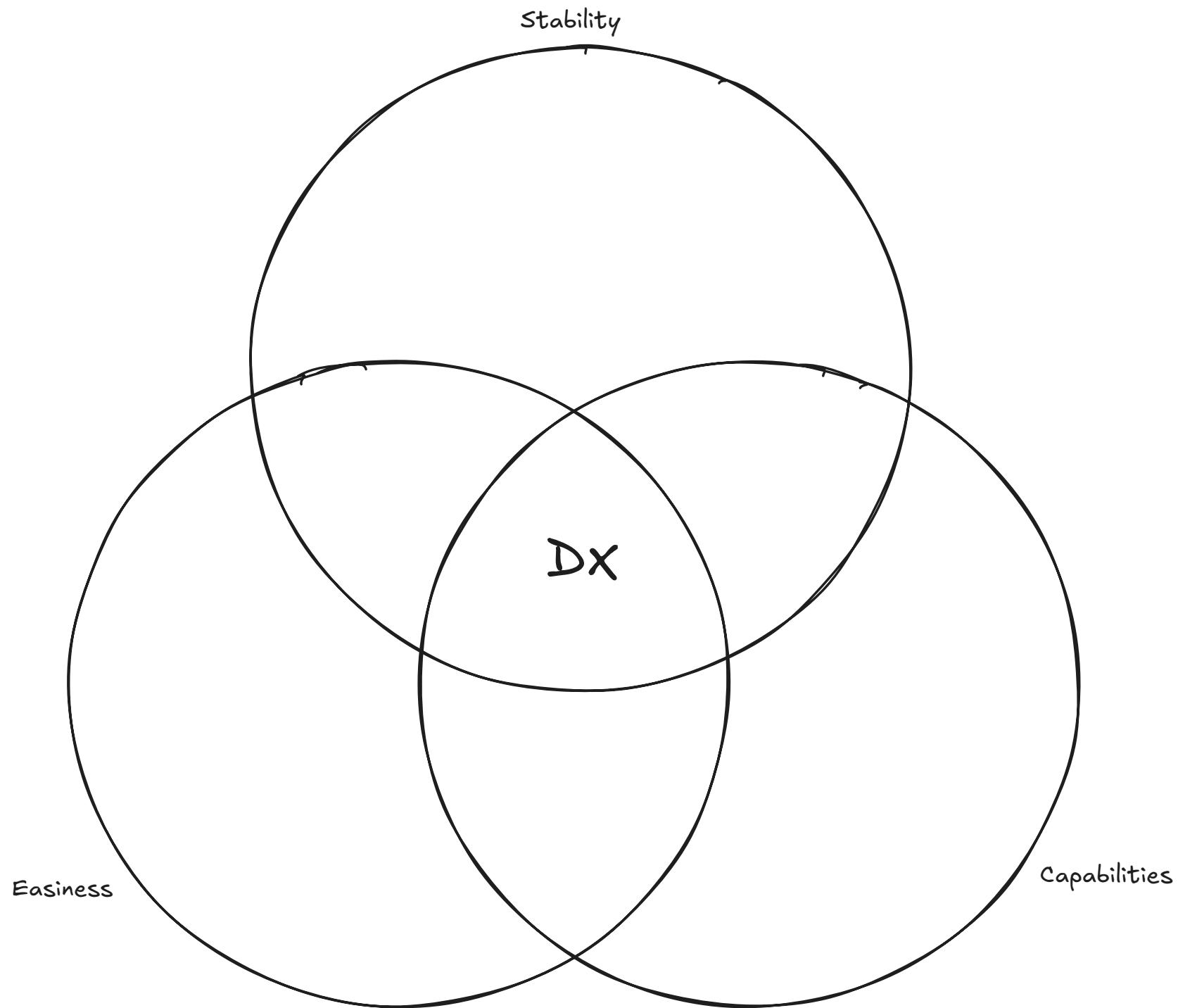
听说过Qwik请举手

听说过“可恢复性”(resumability) 请举手

使用过Qwik的请举手

TUDR

Remix on steroids



Stability



Your PC ran into a problem and needs to restart. We're just collecting some error info, and then we'll restart for you.

20% complete



For more information about this issue and possible fixes, visit <https://www.windows.com/stopcode>

If you call a support person, give them this info:

Stop code: CRITICAL\_PROCESS\_DIED





New  
patch  
comes out



Regression



New  
major  
comes out



Breaking  
changes

Easiness

```
import React, { useState } from 'react';

export const Counter = () => {
  const [count, setCount] = useState(0);

  return (
    <div>
      <p>Count: {count}</p>
      <button onClick={() => setCount(count + 1)}>Increment</button>
    </div>
  );
};


```

React

```
import { component$, useSignal } from '@builder.io/qwik';

export const Counter = component$(() => {
  const count = useSignal(0);

  return (
    <div>
      <p>Count: {count.value}</p>
      <button onClick$={() => count.value++}>Increment</button>
    </div>
  );
});


```

Qwik

JSX



## Introduction

[Overview](#)

## Getting Started

[Project structure](#)[FAQ](#)

## Components

[Qwik City](#)[Cookbook](#)[Integrations](#)[Deployments](#)[Guides](#)

## Concepts

[Advanced](#)[Reference](#)[Qwik Labs](#) [Community](#)

The screenshot shows a search interface with a search bar containing 'loader'. Below it, a sidebar has 'Docs' selected. The main content area lists several items under the heading 'routeLoader\$()' and 'Documentation':

- # Multiple routeLoader\$()  
routeLoader\$()
- # RequestEvent  
routeLoader\$()
- # Re-exporting loaders
- # Solution  
Re-exporting loaders

Below these, under 'Documentation', are:

- # Loader  
API → [@builder.io/qwik-city](#)
- # LoaderSignal  
API → [@builder.io/qwik-city](#)
- # getQwikLoaderScript  
API → [@builder.io/qwik/server](#)
- # QwikLoaderOptions  
API → [@builder.io/qwik/server](#)
- # RequestEventLoader  
API → [@builder.io/qwik-city/middleware/request-handler](#)

First, use the Qwik CLI to generate a blank starter application, to quickly familiarize yourself with it. The same command can be used to create projects for either Qwik or Qwik city.

Run the Qwik CLI in your shell. Qwik supports pnpm, npm, yarn and bun.

## ON THIS PAGE

[Getting Started Qwikly](#)[Prerequisites](#)[Create an app using the CLI](#)[Qwik Joke App](#)[1. Create A Route](#)[2. Loading Data](#)[3. Posting Data to the Server](#)[4. Modifying State](#)[5. Tasks and Invoking Server C...](#)[6. Styling](#)[7. Preview](#)[Review](#)

## MORE

 [Edit this Page](#) [Create an issue](#) [Join our community](#) [GitHub](#) [@QwikDev](#)

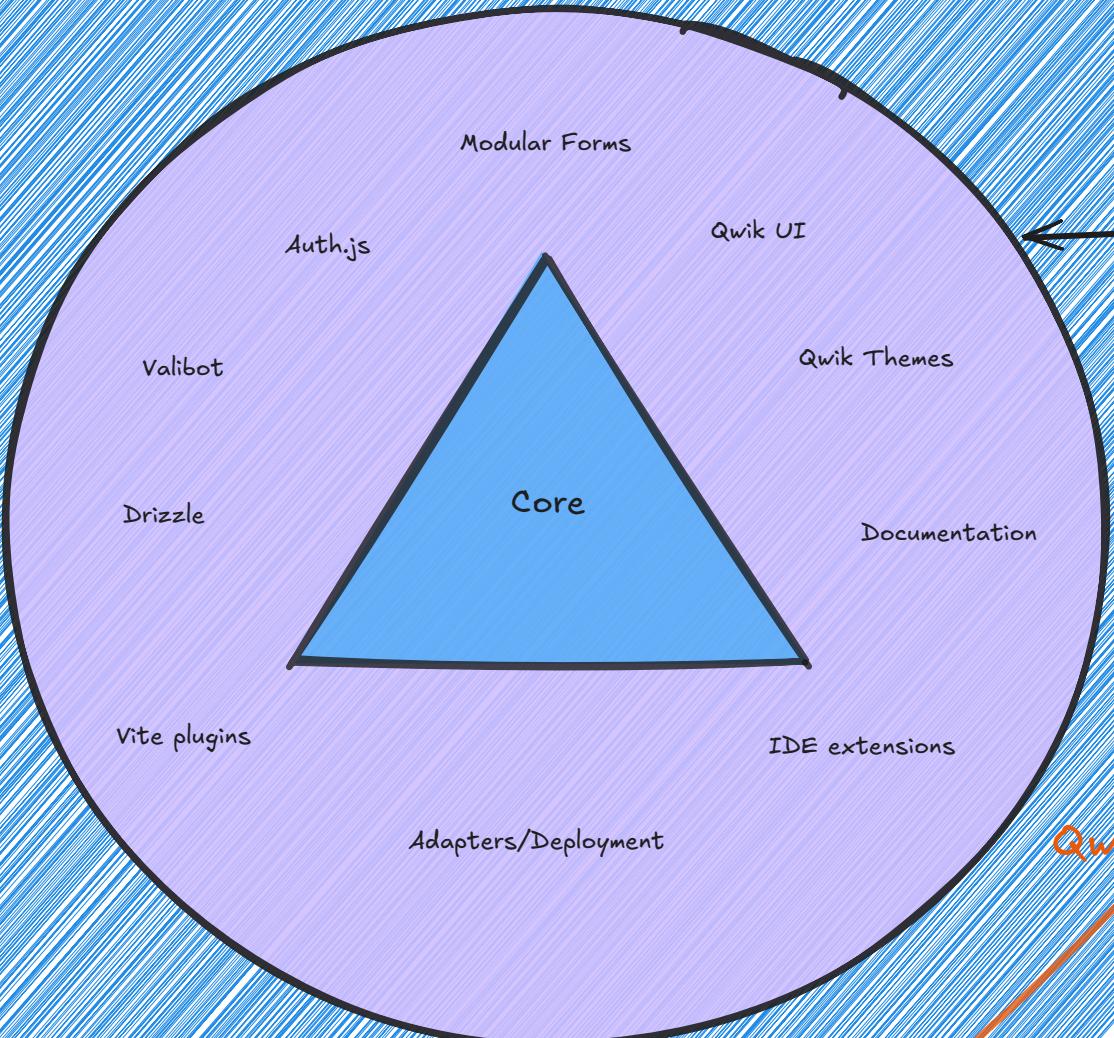
# Capabilities

Tailwind  
UnoCSS  
PandaCSS

Tina CMS  
Builder

Google Analytics  
Posthog

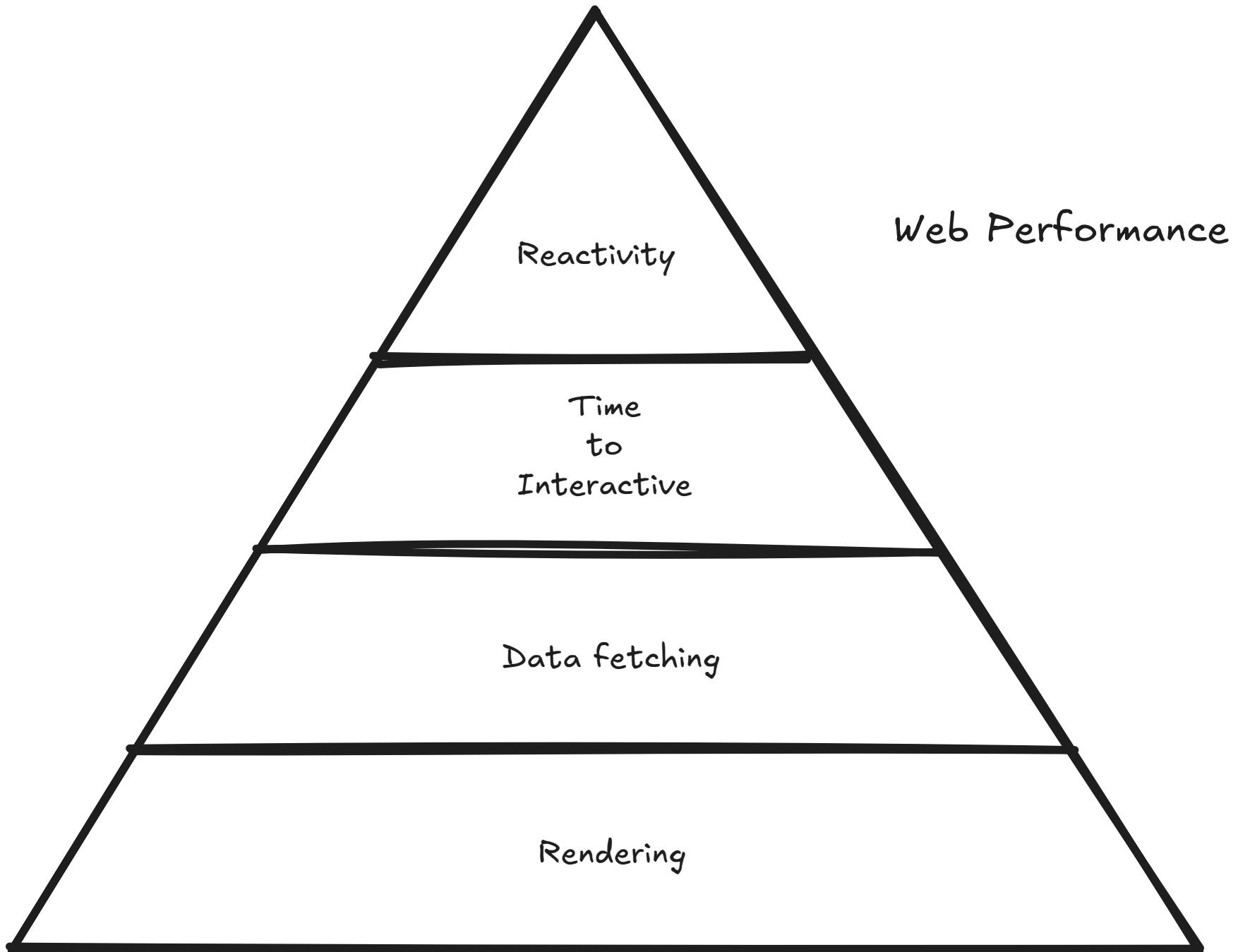
Outer ecosystem

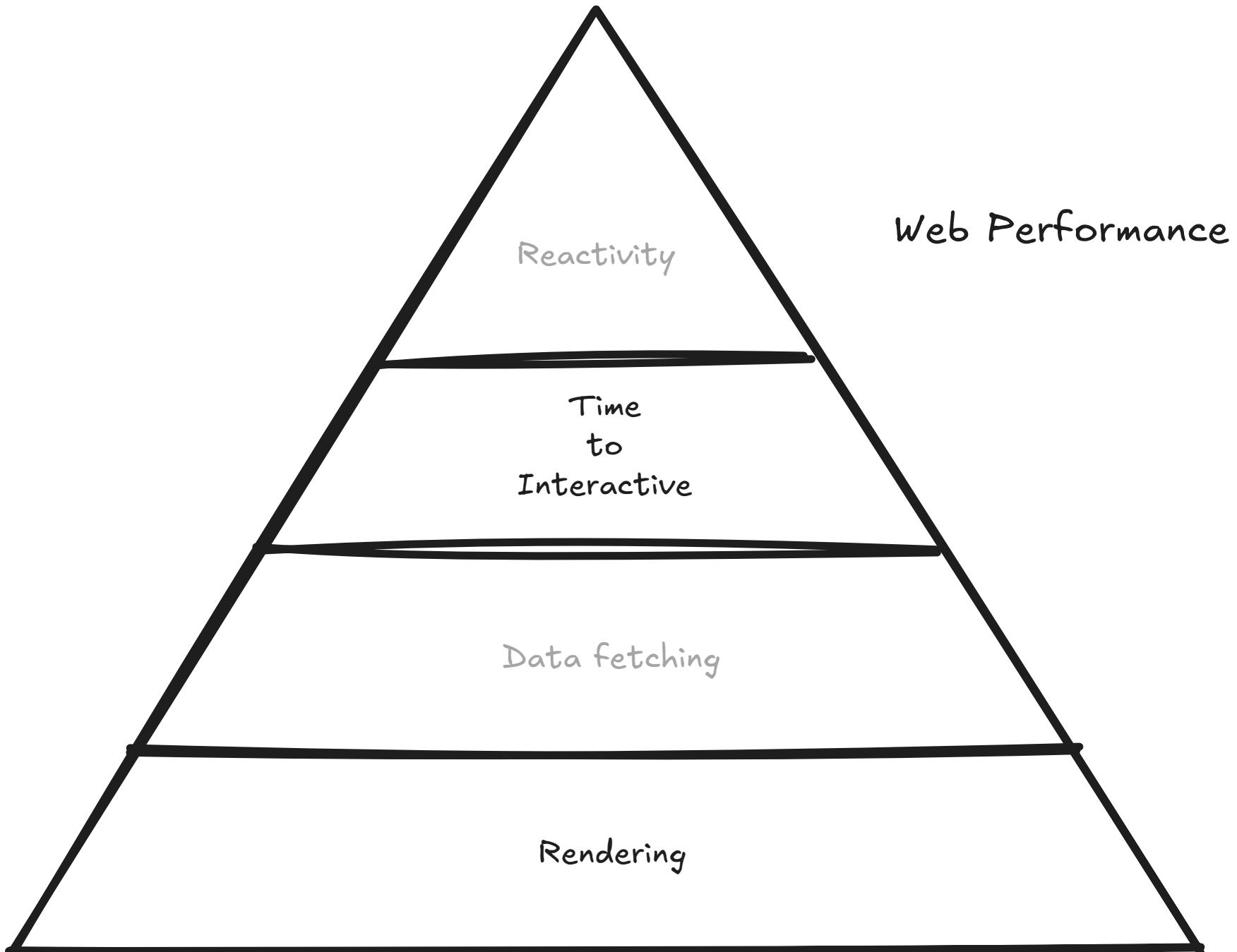


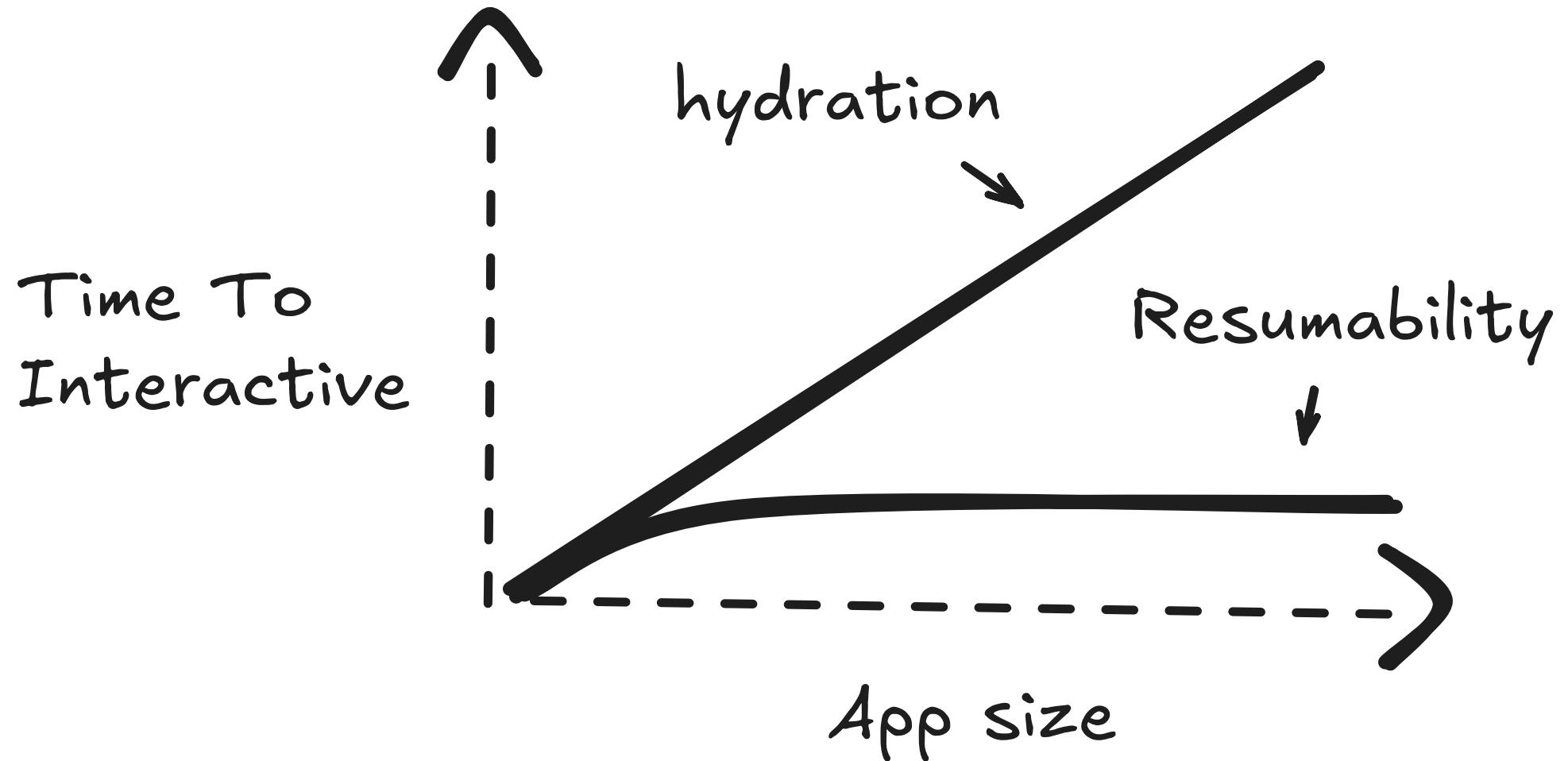
Turso  
Planetscale  
Railway  
D1

Vitest  
Playwright  
Cypress

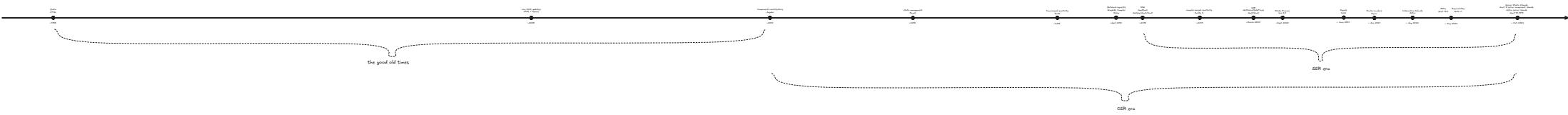
- component-level data-fetching
- q-containers & micro-frontends
- server\$, worker\$





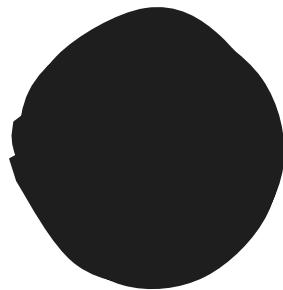


## Web Performance breakthroughs timeline



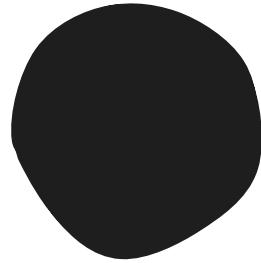
# Components architecture

## Angular



~2010

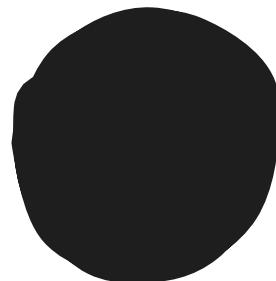
SSR  
GetServerSideProps  
Next/Nuxt



~March 2020

# Interactive Islands

## Astro



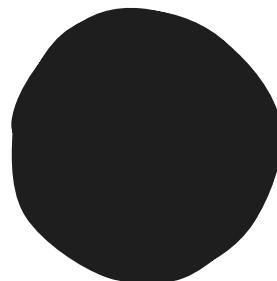
~ Aug 2022

RSCs

Next 13.4

Resumability

Qwik v1

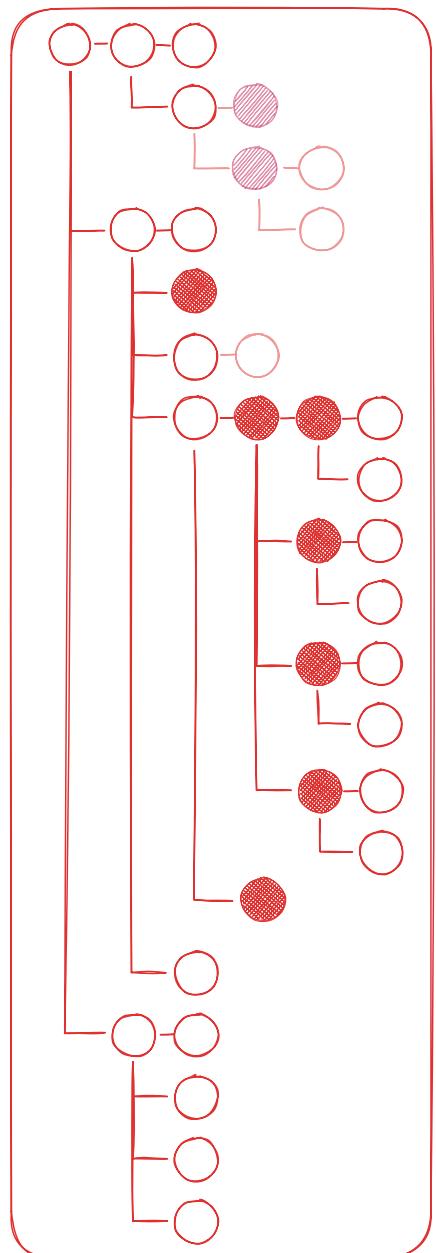


~ May 2023

Rendering  
(FCP/LCP)

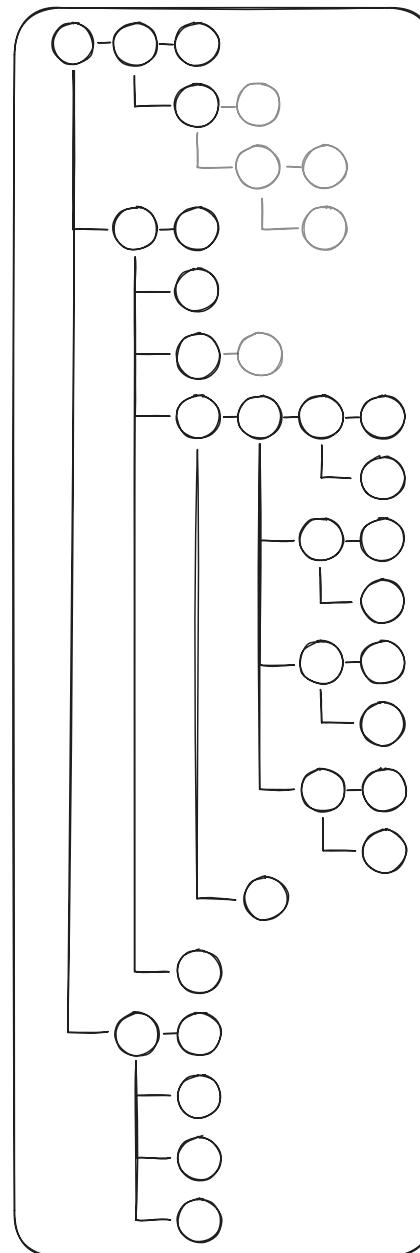
Time to Interactive  
(INP / FID / TTFB)

CSR (Angular)



vDOM

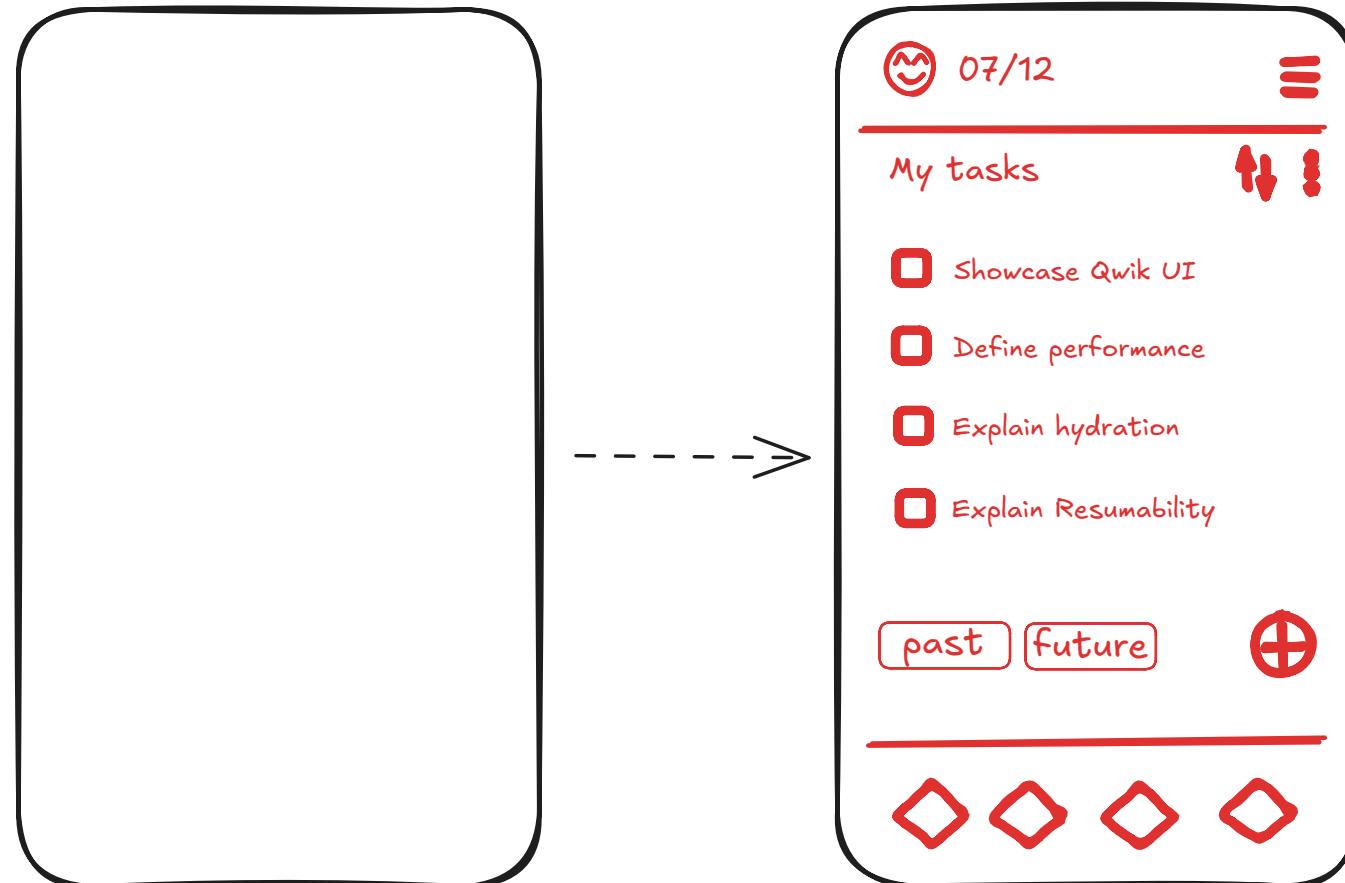
-----> DOM



CLIENT SIDE

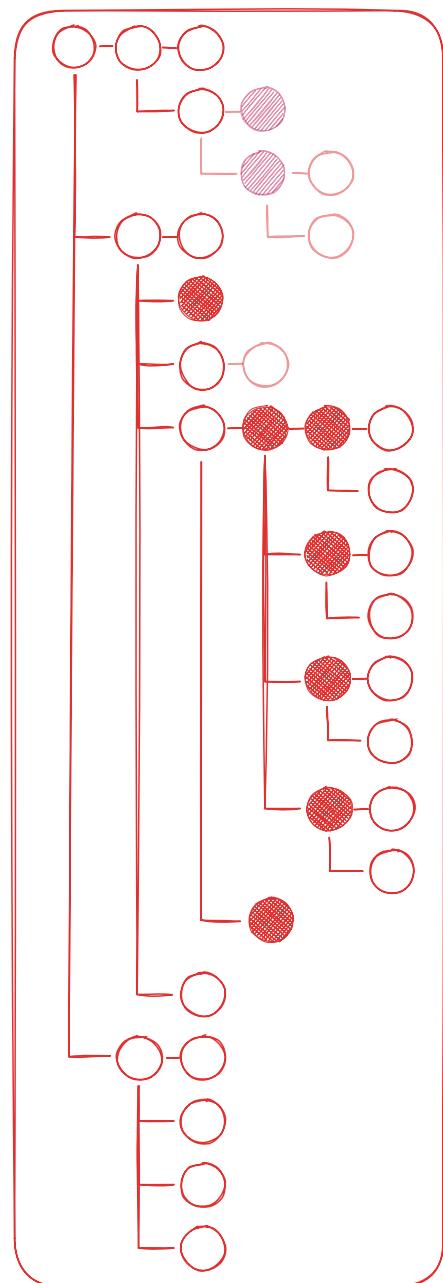


CSR

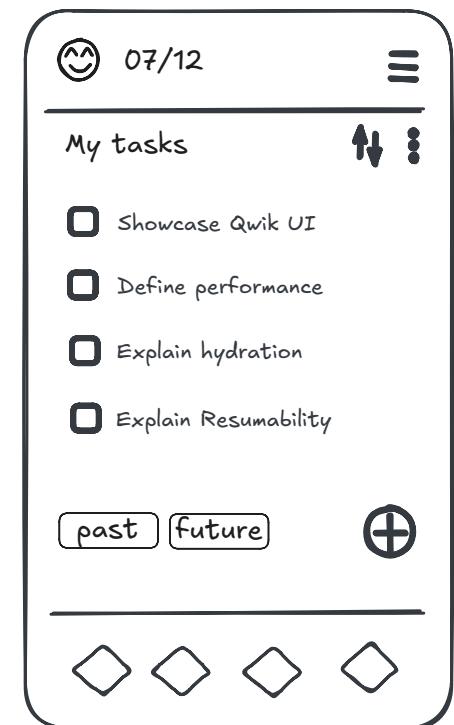
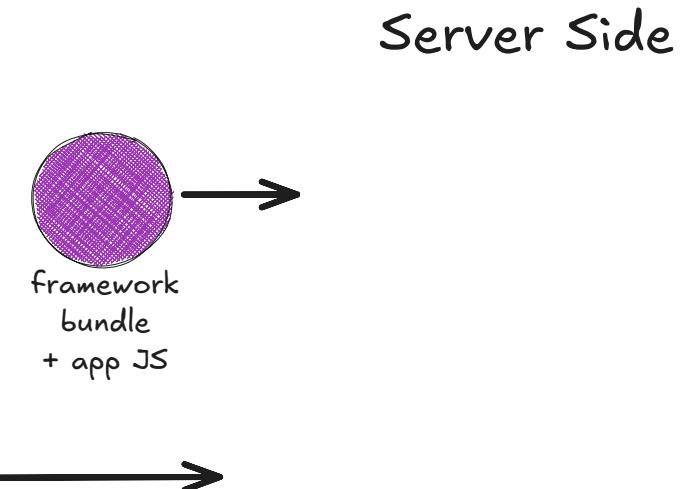
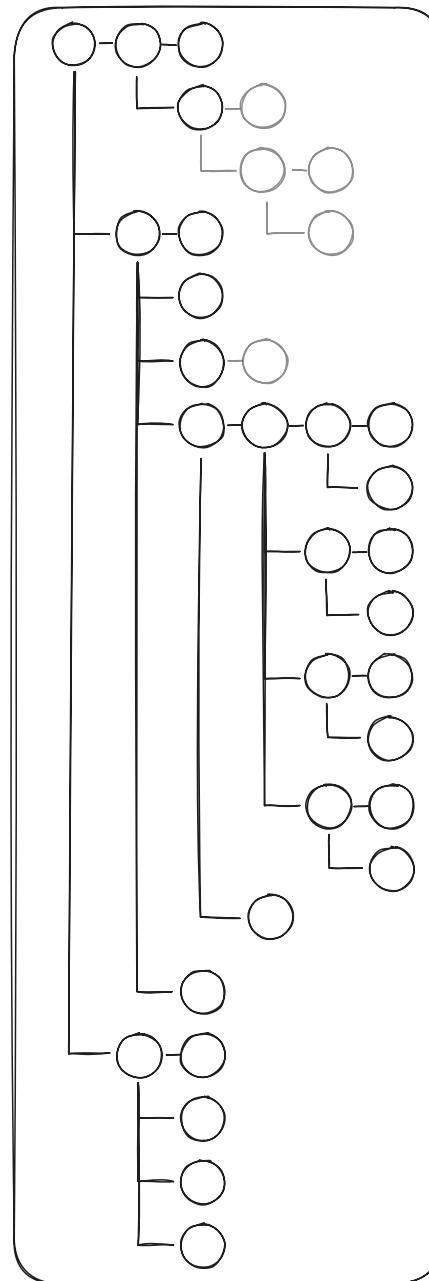


Javascript  
loading + executing  
the entire tree

**SSR (Next.js)**

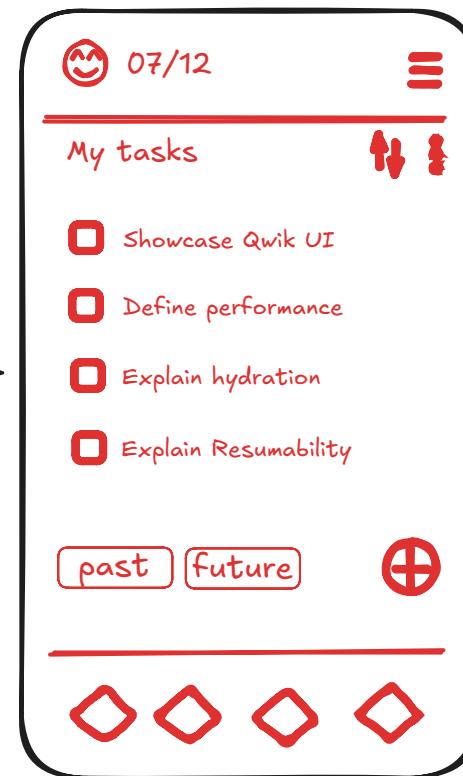


snapshot  
⇒ HTML



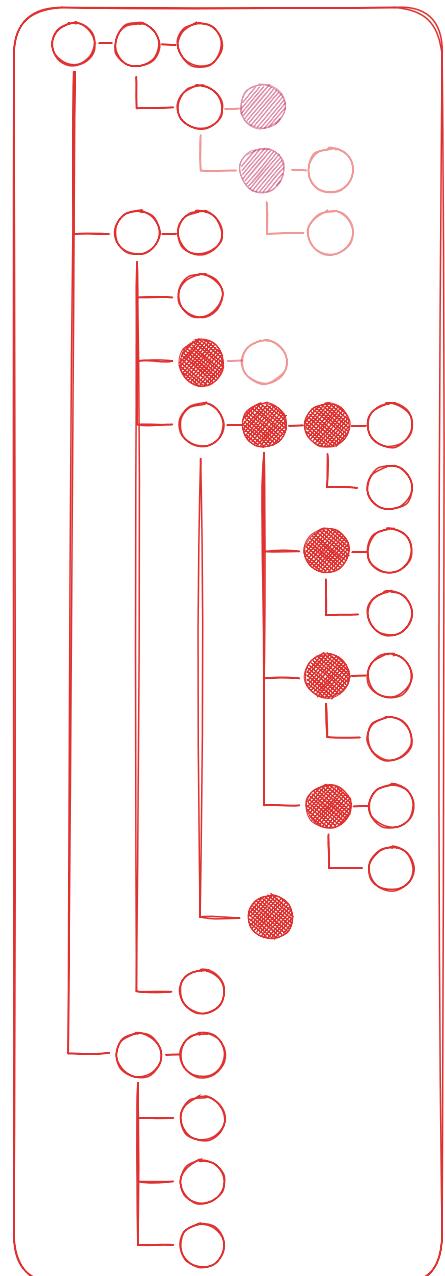
# Hydration

rendered markup  
(non interactive)

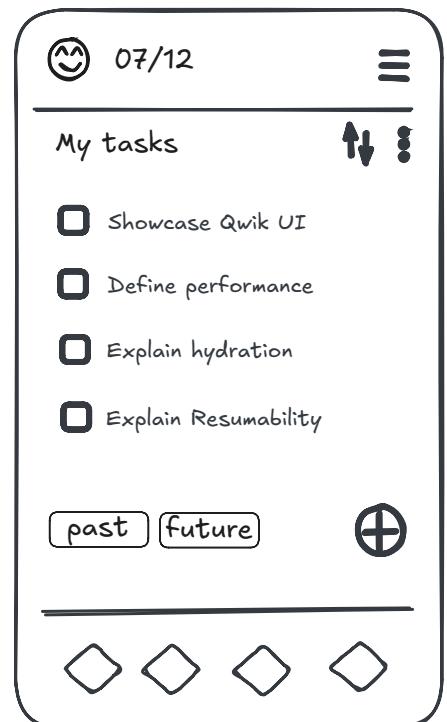
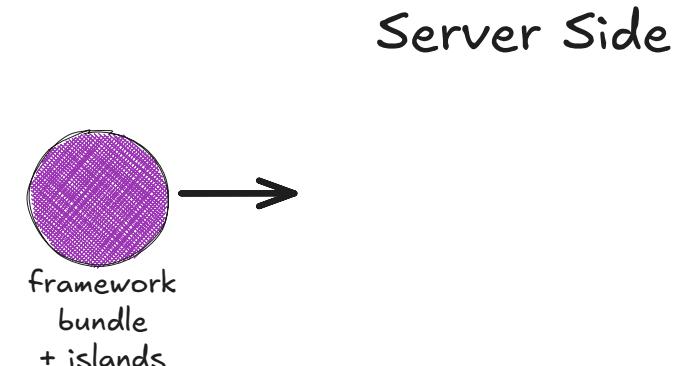
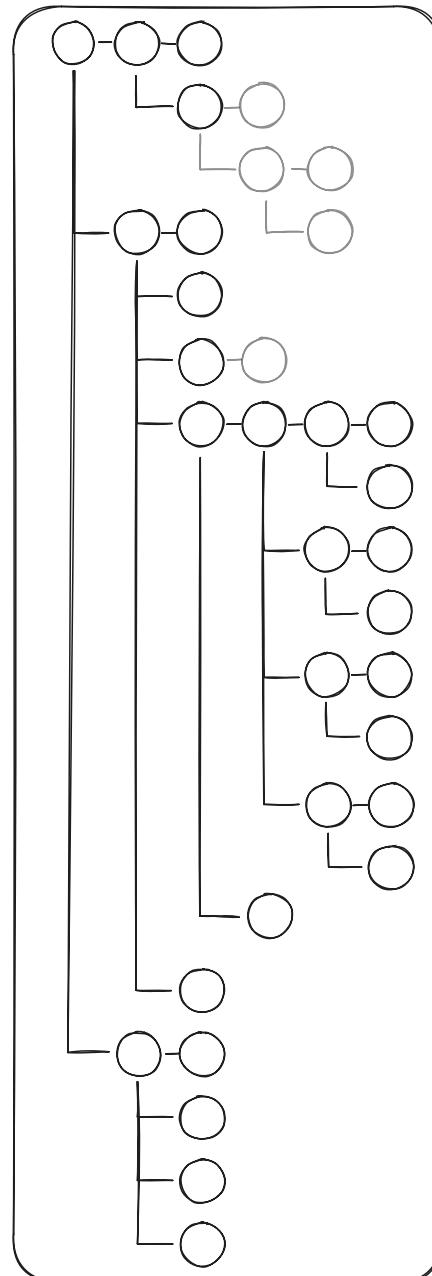


Javascript  
loading + executing  
the entire tree

Interactive Islands (Astro)

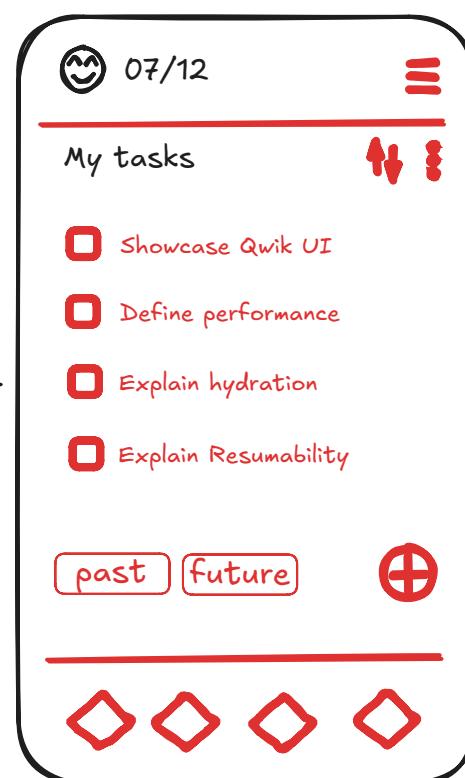


snapshot  
-----> HTML



# Partial Hydration

rendered markup  
(non interactive)



Javascript  
loading + executing  
the entire tree

MPA

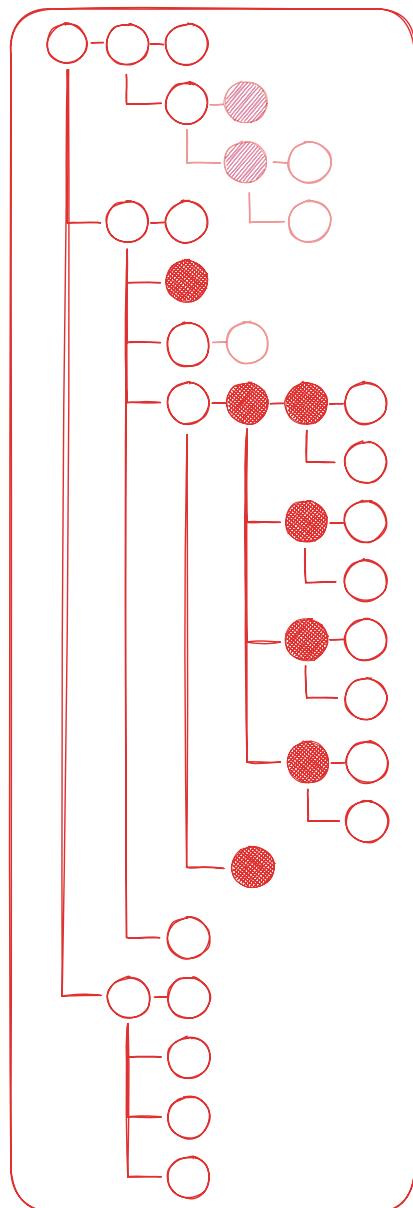
src/pages/index.astro

```
<!-- This component is now interactive on the page!
The rest of your website remains static. -->
<MyReactComponent client:load />
```

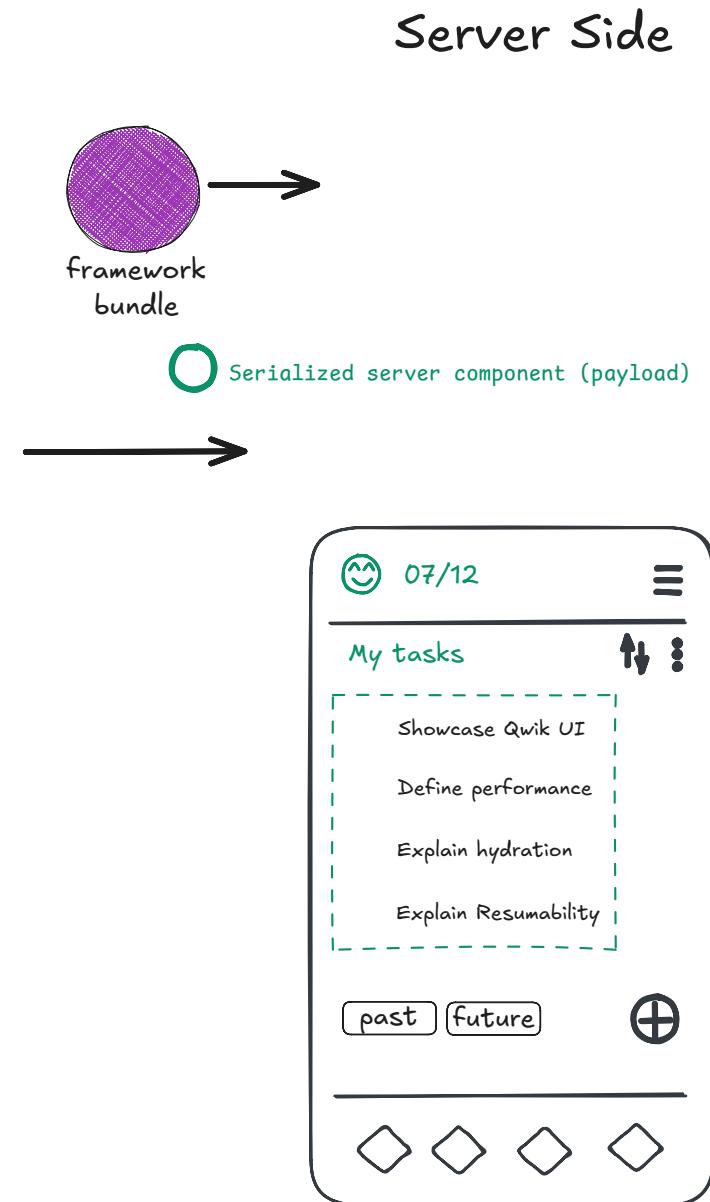
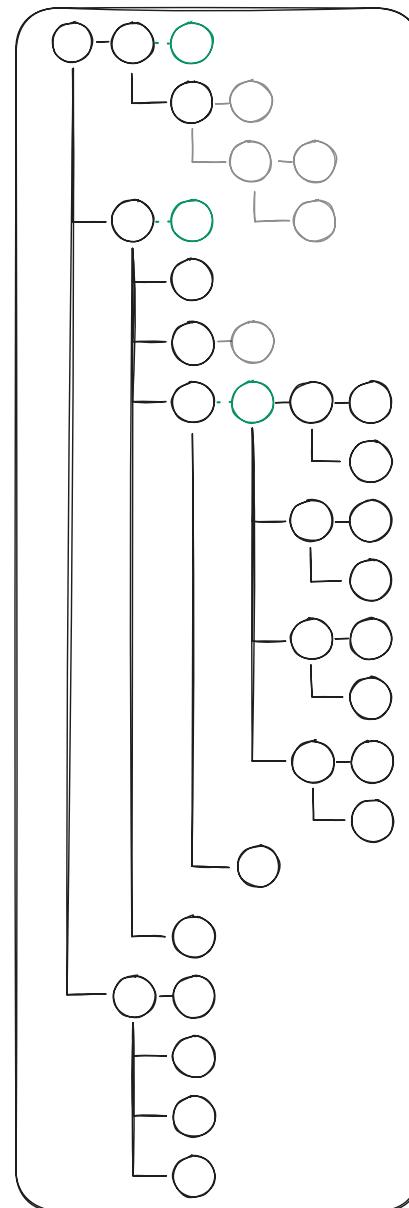


Manual optimization

React Server Components (Next 13.4)

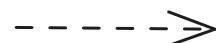
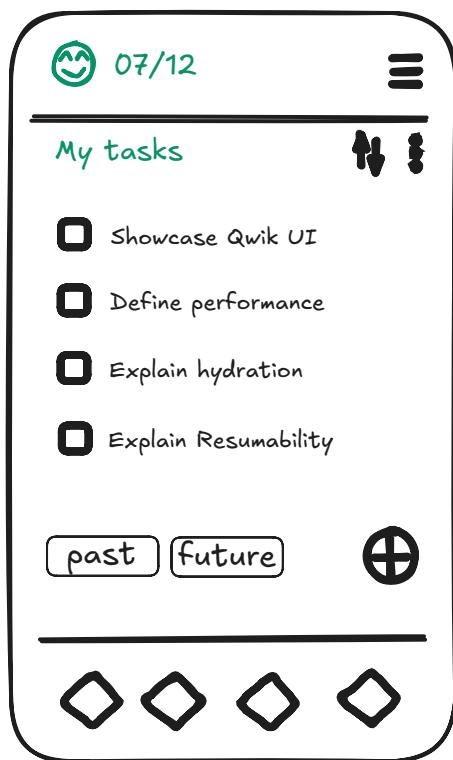


**vDOM** -----> **HTML**



## Server components hydration

rendered markup  
(non interactive)



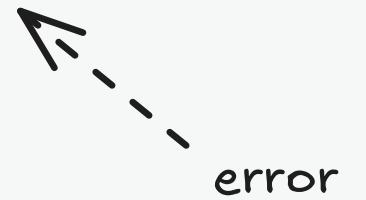
Javascript  
- preloading  
- executing  
all client components

```
'use client'

// You cannot import a Server Component into a Client Component.
import ServerComponent from './Server-Component'

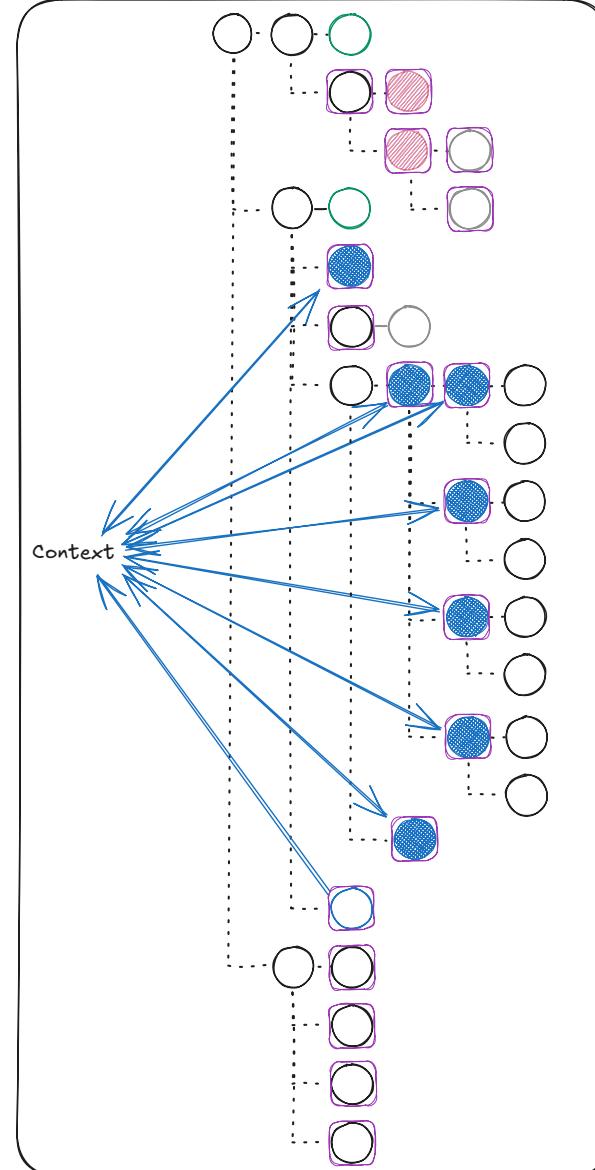
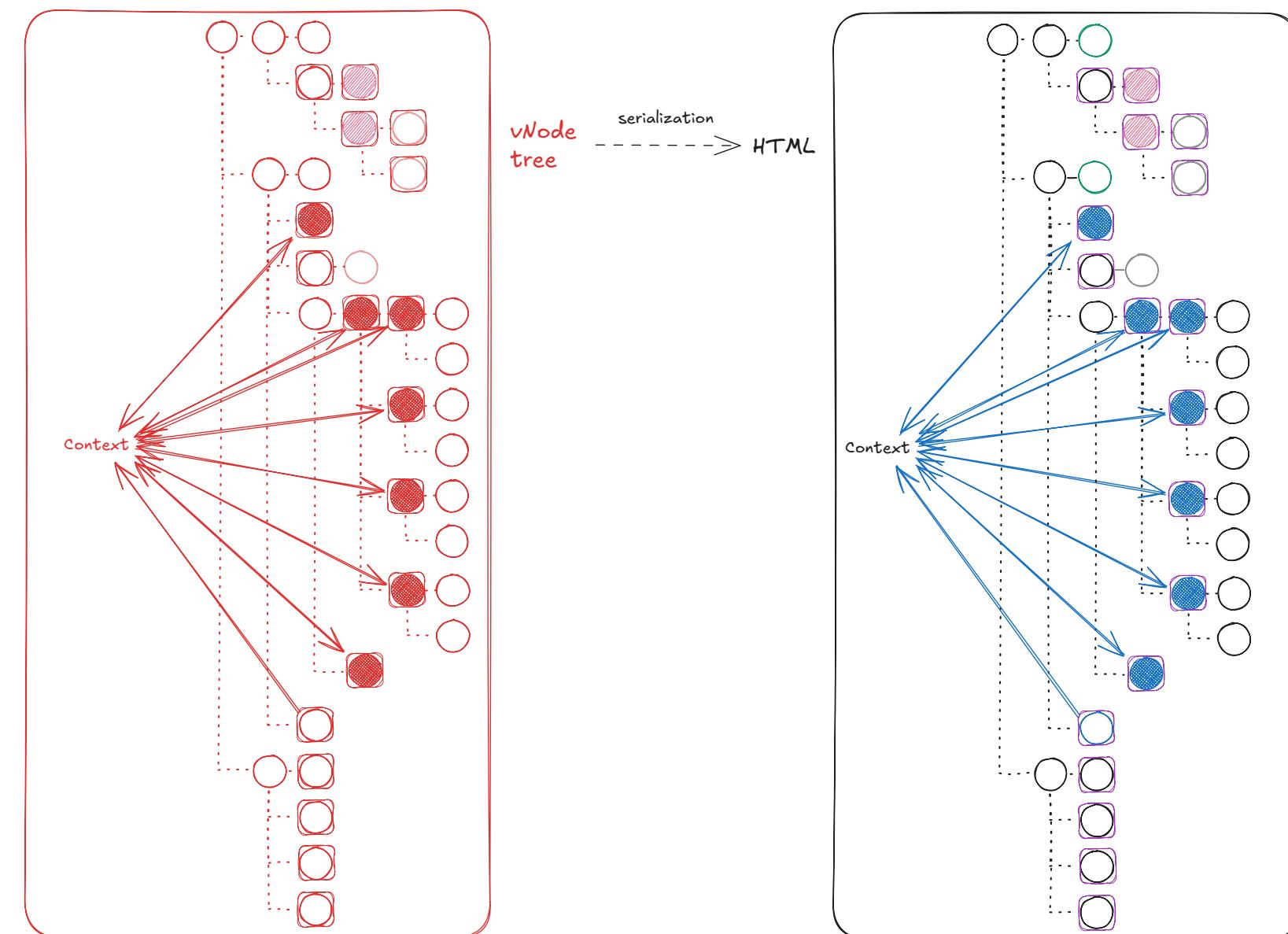
export default function ClientComponent({
  children,
}: {
  children: React.ReactNode
}) {
  const [count, setCount] = useState(0)

  return (
    <>
      <button onClick={() => setCount(count + 1)}>{count}</button>
      <ServerComponent />
    </>
  )
}
```



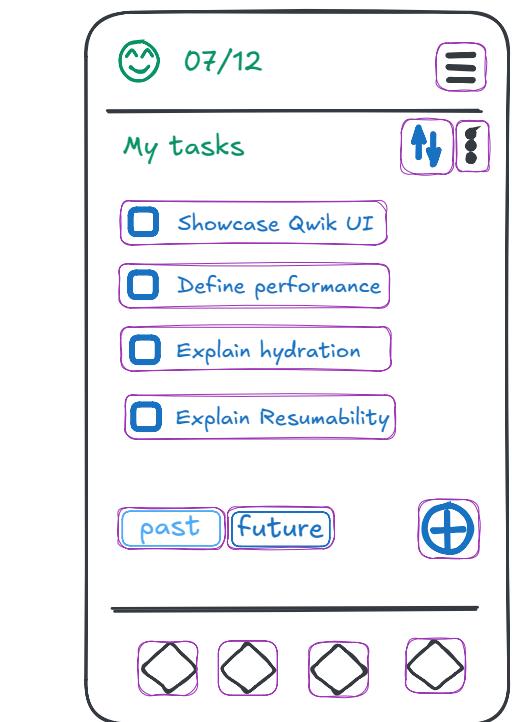
error

Resumability (Qwik)

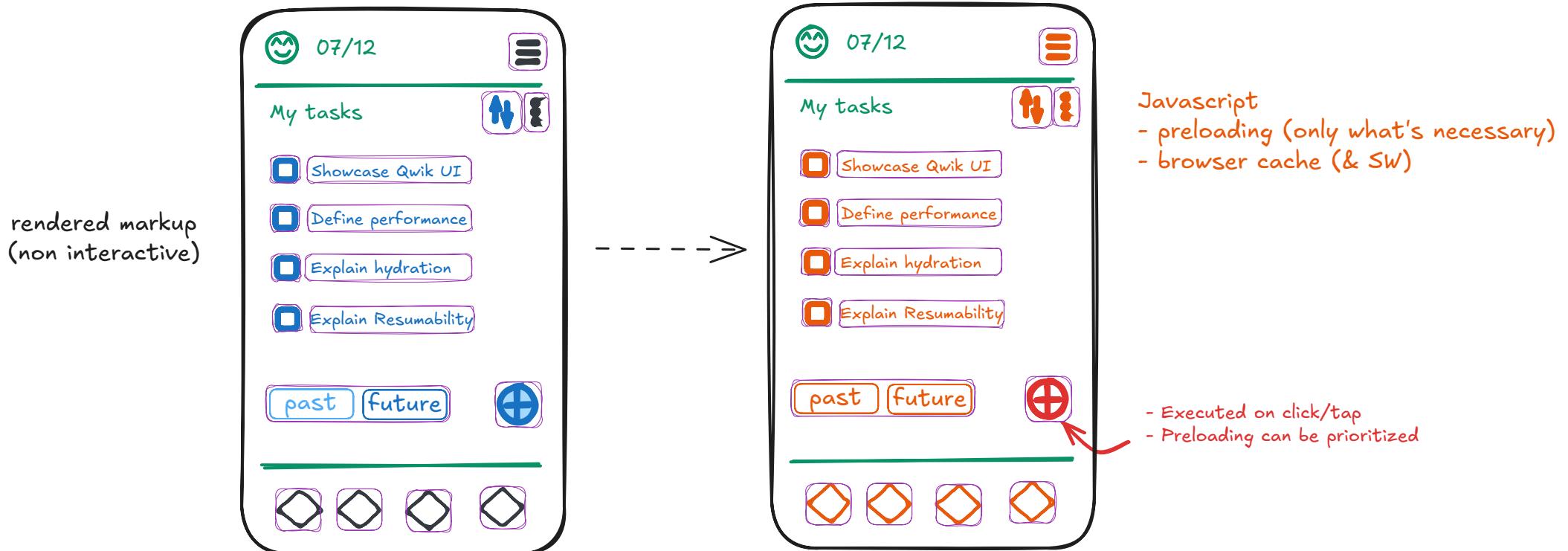


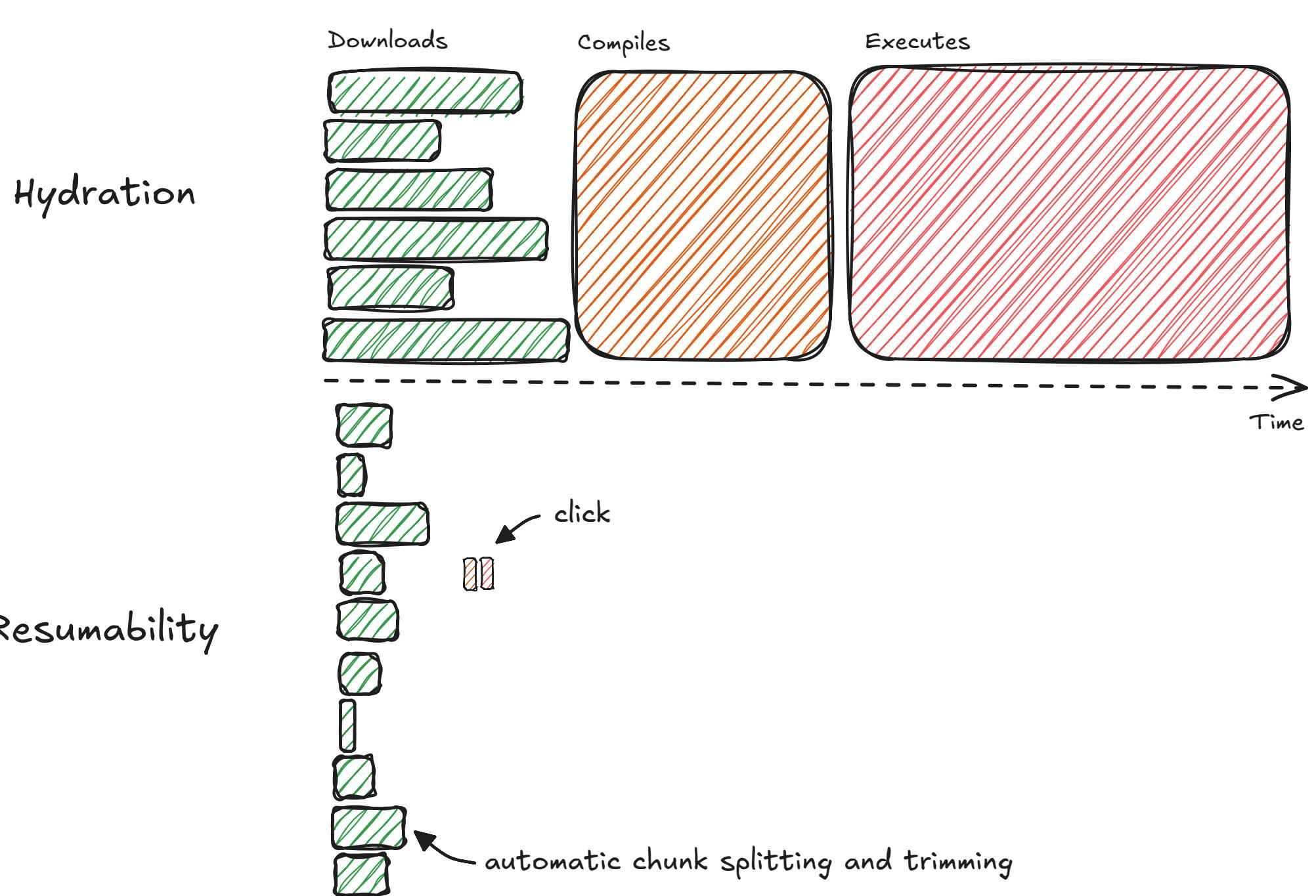
Server Side

- isServer
- QRL (\$)
- shared state
- ↔ push/pull



# Resumability





<https://i.giphy.com/media/v1.Y2lkPTc5MGI3NjExYnQwY3Fnbms2ZHRpZWl0eHZwOWxvdDN4czliNzM4b2wxYmZzenVtcyZlcD12MV9pbnRlcm5hbF9naWZfYnlfaWQmY3Q9Zw/f6z5TkrTIBZlLYOd1t/giphy.gif>

	Popularized by	streaming	Out of order streaming	js pruning	cacheable	stateful
CSR	 			✗	✗	✗
SSG	  			✗	✓	✗
SSR	 	✓	✓	✗	✓	✗
RSCs		✓	✓	✓	✓	✗
Resumability		✓	✓	✓	✓	✓

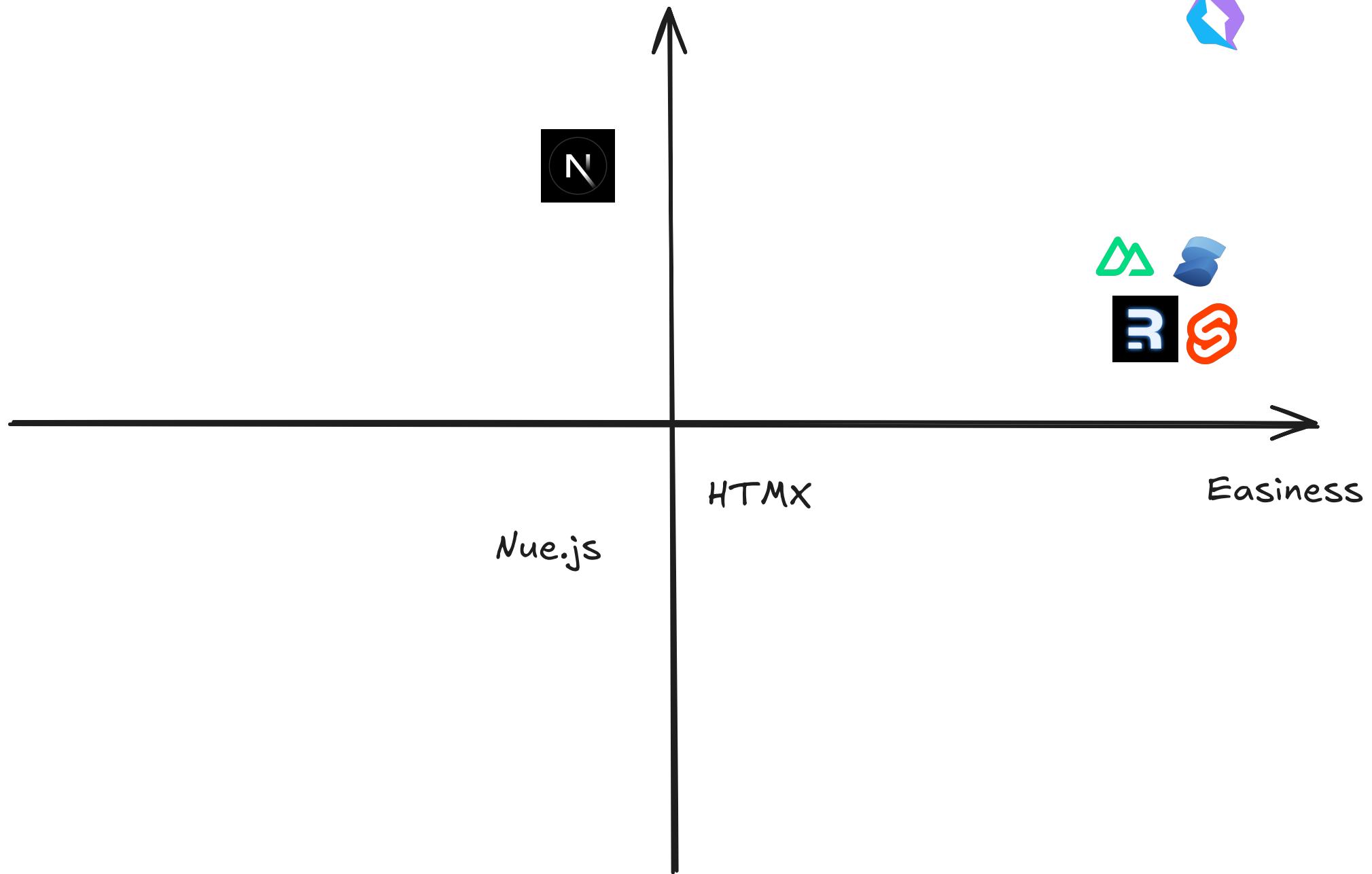
	Popularized by	Lazy loading	Lazy Execution	zero js	statistical bundling + preloading	progressive enhancement
CSR		✓	✗	✗	✗	✗
SSG	  	✓	✗	✗	✗	✓
SSR	 	✓	✗	✗	✗	✓
Interactive Islands	  	✓	✗	✗	✗	✓
RSCs		✓	✗	✗	✗	✓
Resumability		✓	✓	✓	✓	✓

# A resumable future?

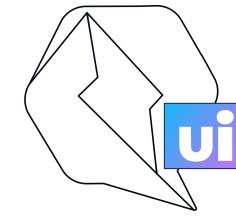


html + js

Capabilities



AID?



毛雨乐

@maiieul

