

DON'T
STAY HYDRATED



A QUICK HISTORY OF WEB RENDERING

Good ol' plain HTML

Good ol' plain HTML & ***iframes***

Good ol' plain HTML & *iframes*



Introduction of Javascript & **jQuery**

Introduction of Javascript & jQuery



Server returns HTML &
browser renders it

Introduction of Javascript & jQuery

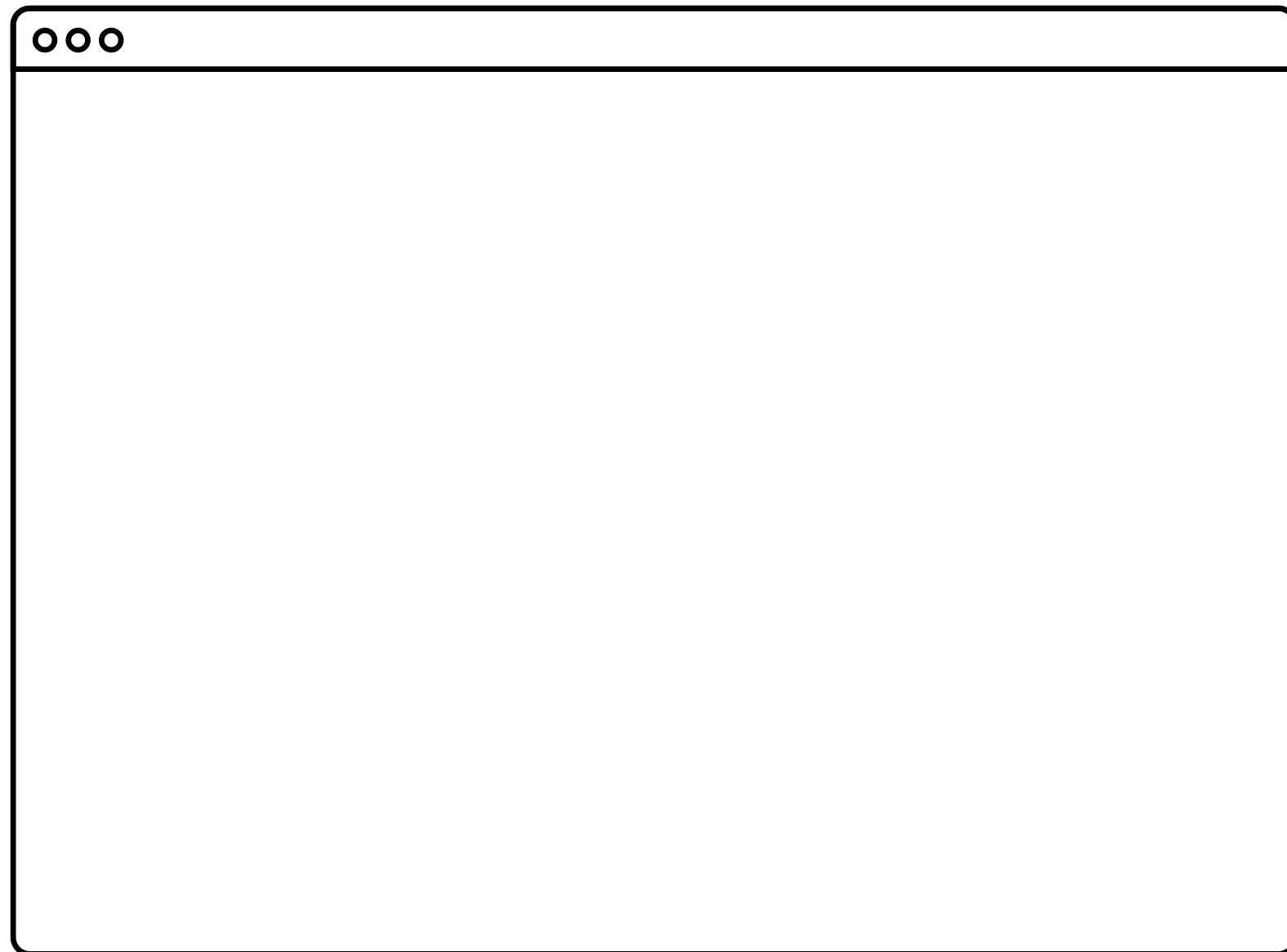


Server returns HTML &
browser renders it

Browser executes JS
targeting specific
elements

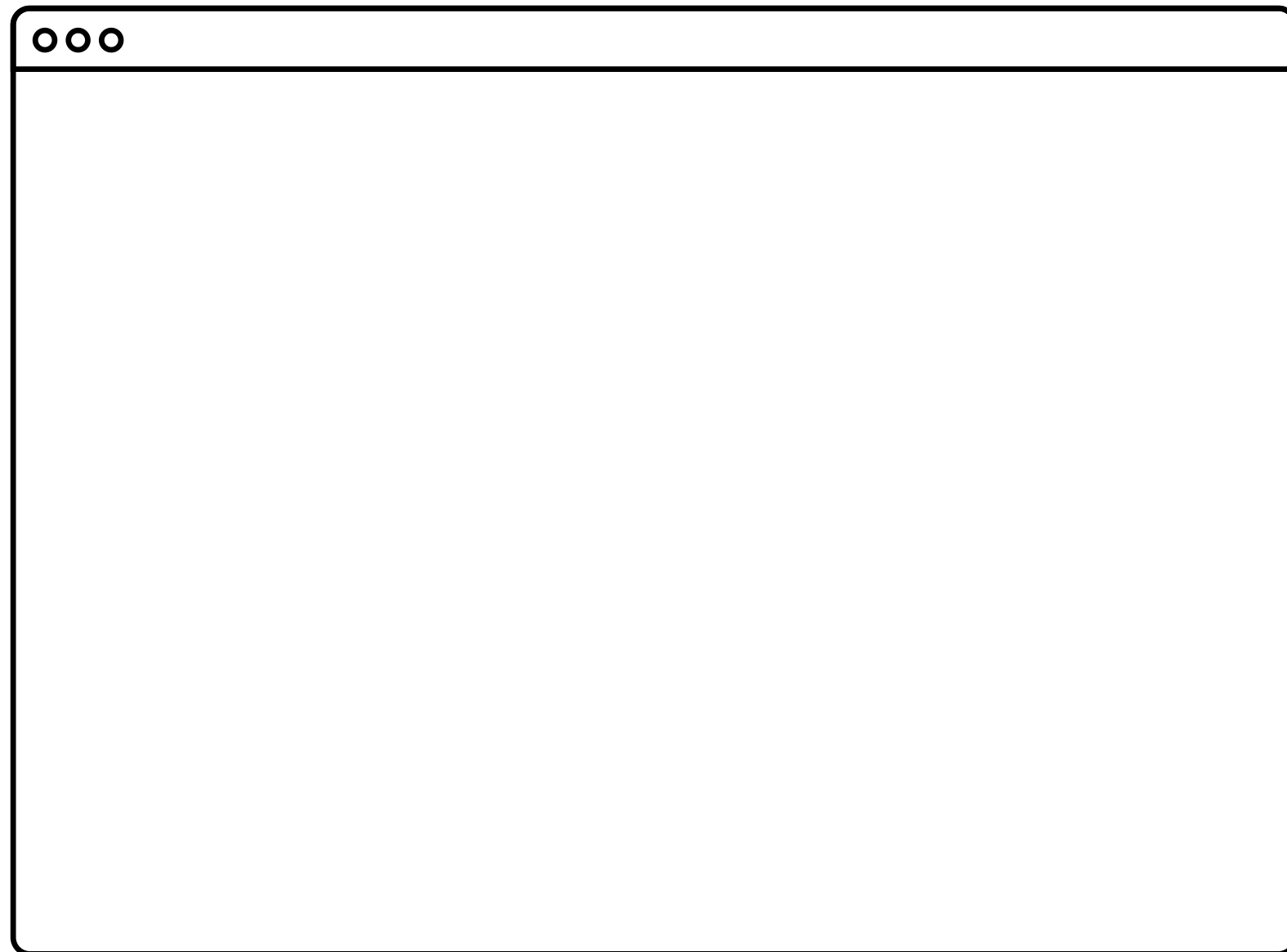
Single page applications

Single page applications



Server returns empty
"container"

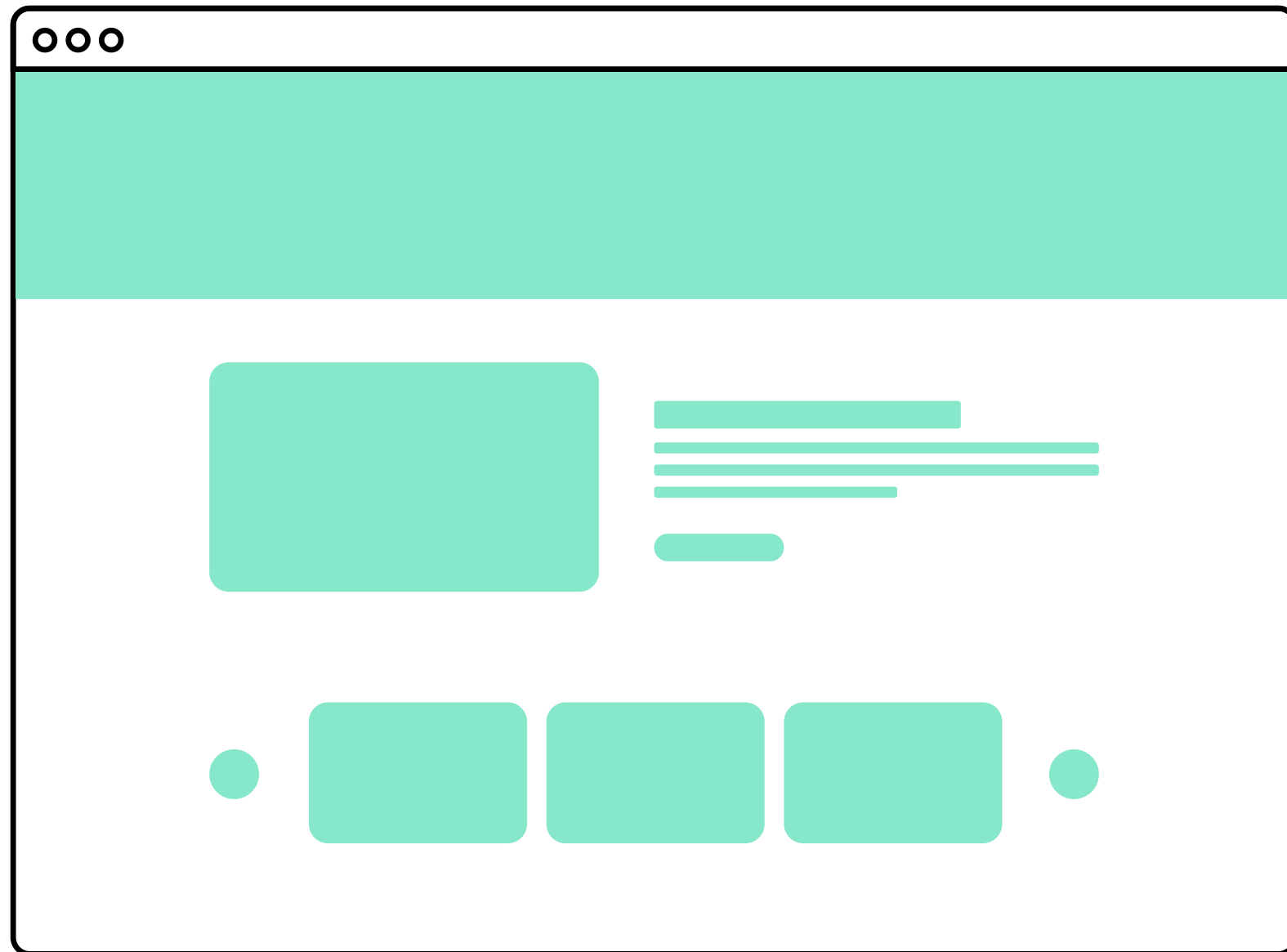
Single page applications



Server returns empty
"container"

Browser loads JS

Single page applications



Server returns empty
"container"

Browser loads JS

Javascript creates and
injects DOM elements

GOING BACK TO
THE SERVER

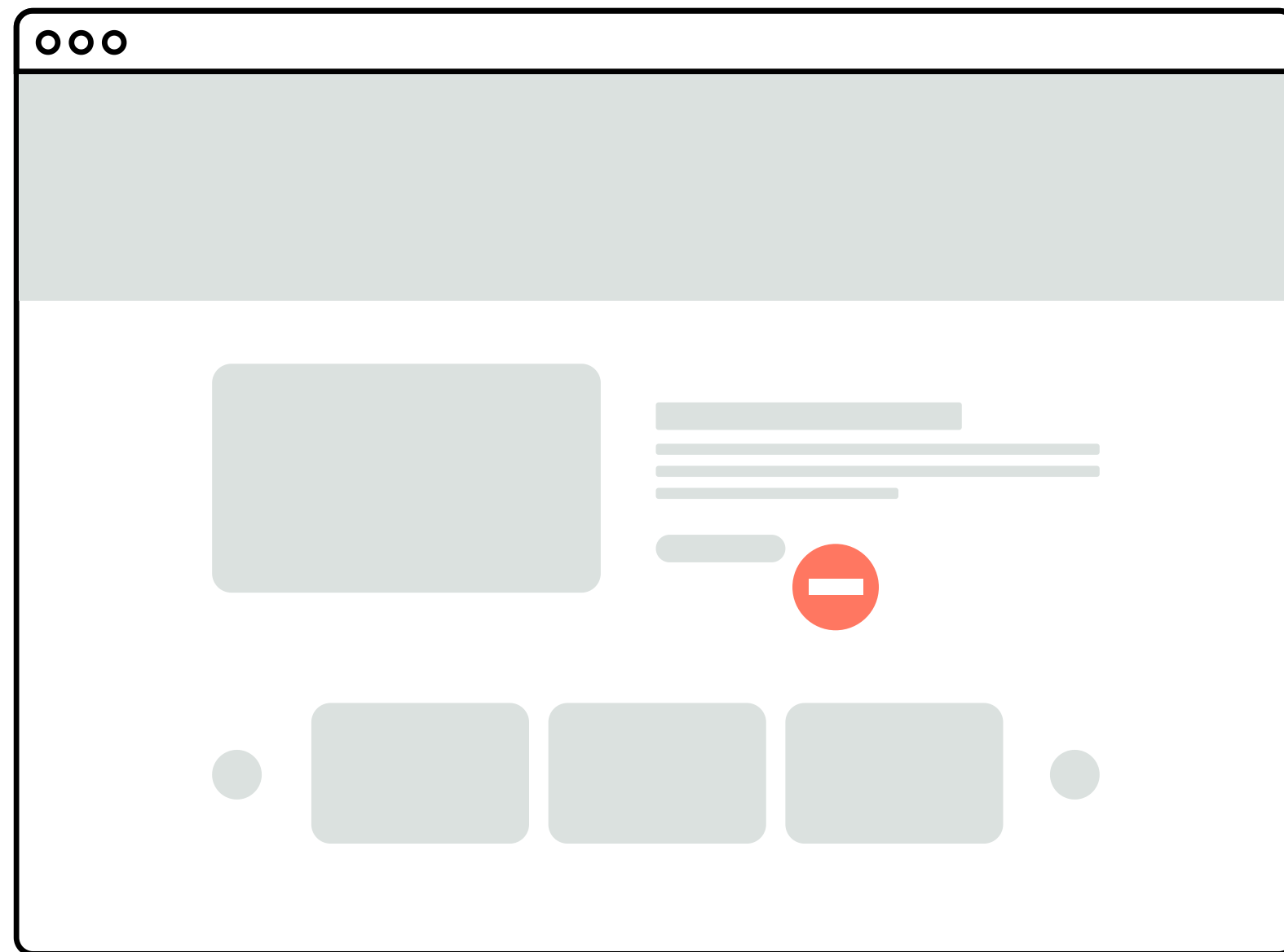
SSG and SSR **e.g. with Gatsby, NextJS, etc**

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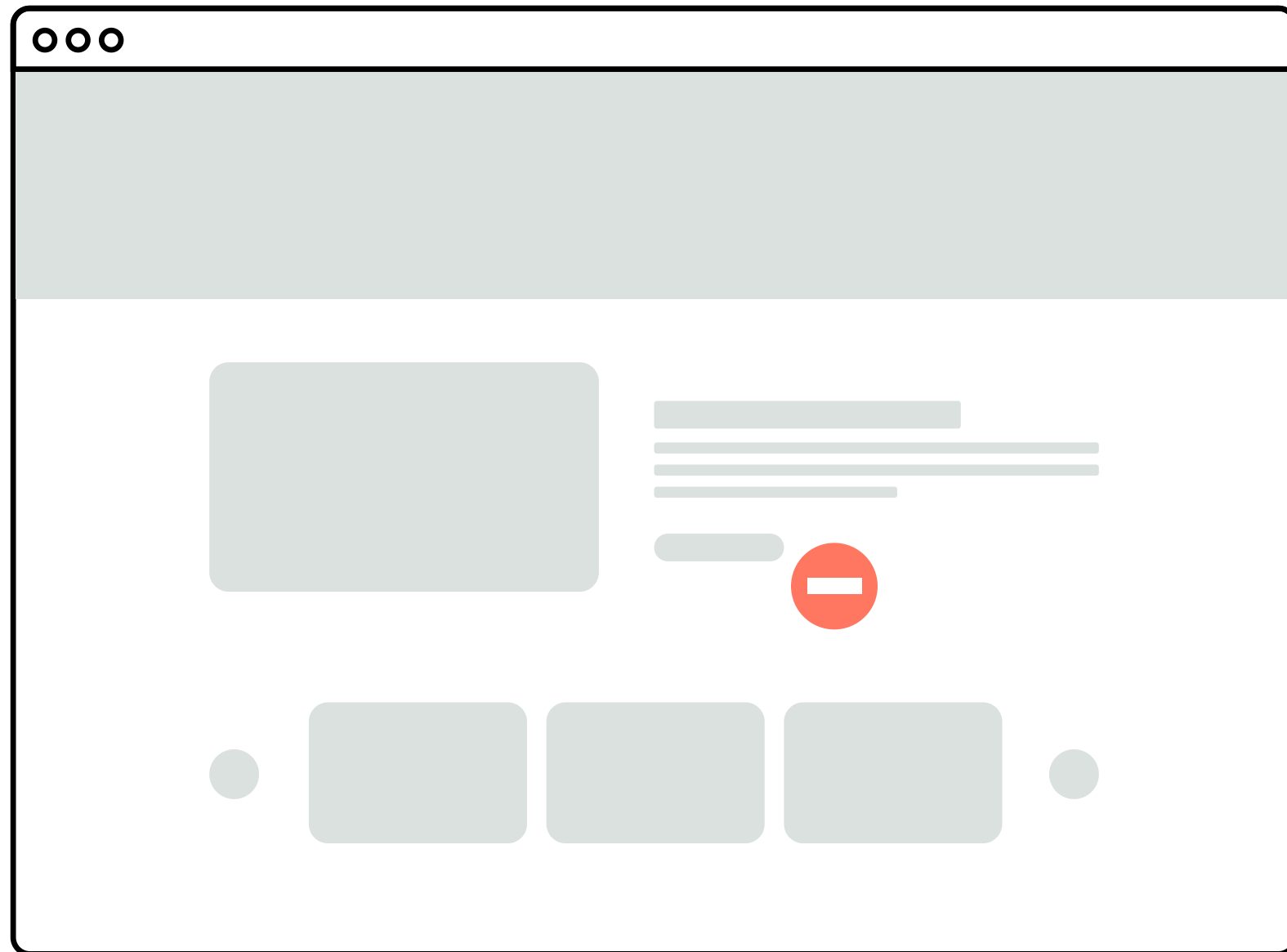
Server returns HTML &
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SSG and SSR **e.g. with Gatsby, NextJS, etc**



Server returns HTML &
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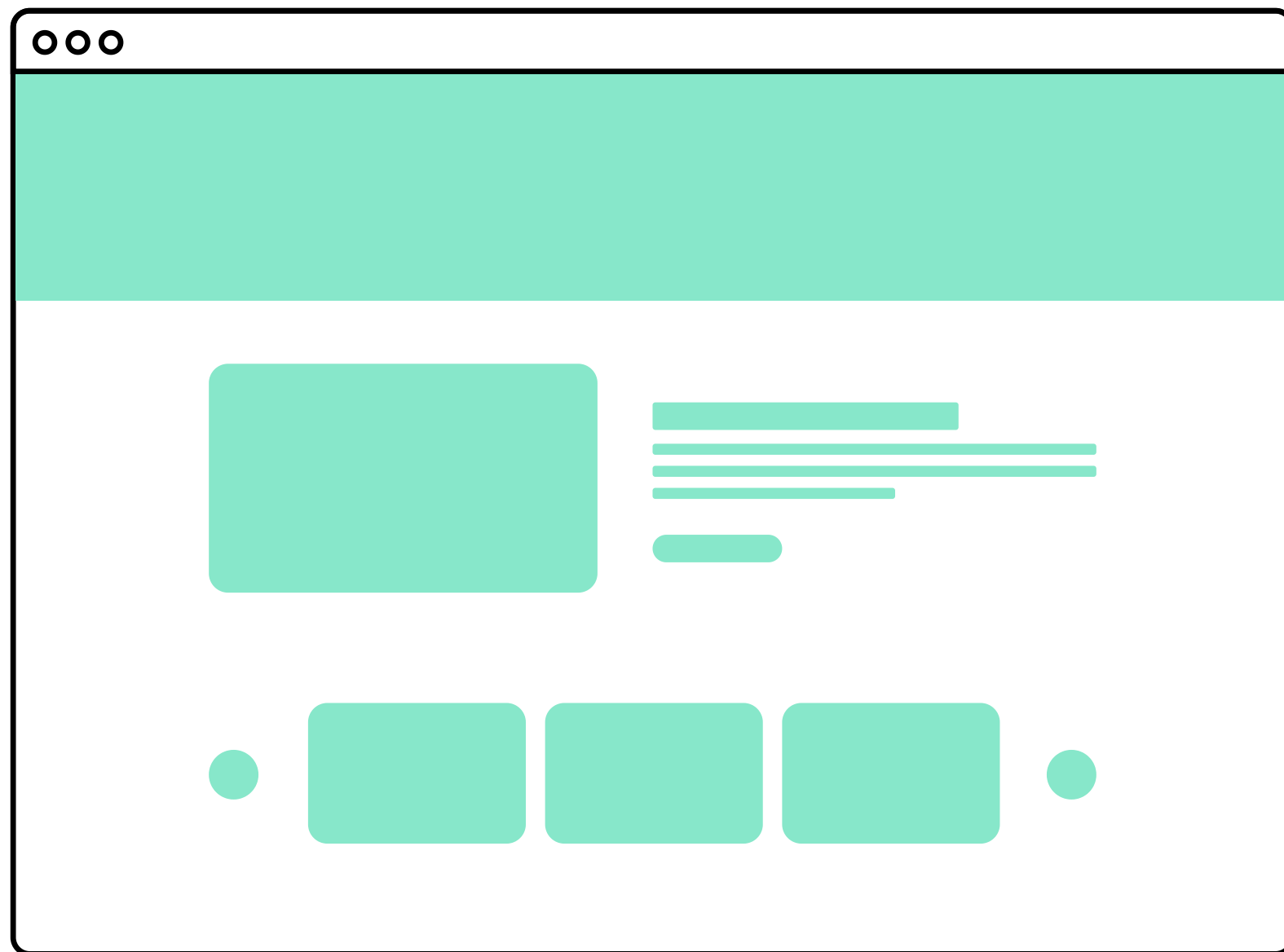
SSG and SSR **e.g. with Gatsby, NextJS, etc**



Server returns HTML &
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Browser loads JS

SSG and SSR e.g. with Gatsby, NextJS, etc



Server returns HTML & browser renders it

Browser loads JS

Javascript gets executed and creates virtual copy of the DOM to swap out content

THE SOLUTIONS -
PARTIAL & NO
HYDRATION

React Server Components

React Server Components



Server returns HTML &
browser renders it

React Server Components



Server returns HTML &
browser renders it

Browser executes JS
targeting specific
elements

React Server Components = **partial hydration**



Server returns HTML &
browser renders it

Browser executes JS
targeting specific
elements

Astro's concept of islands = **partial hydration**



Server returns HTML &
browser renders it

Browser executes JS
targeting specific
elements

Qwik = **"zero" hydration**

Qwik = “zero” hydration



Server returns HTML w/
serialised state &
browser renders it

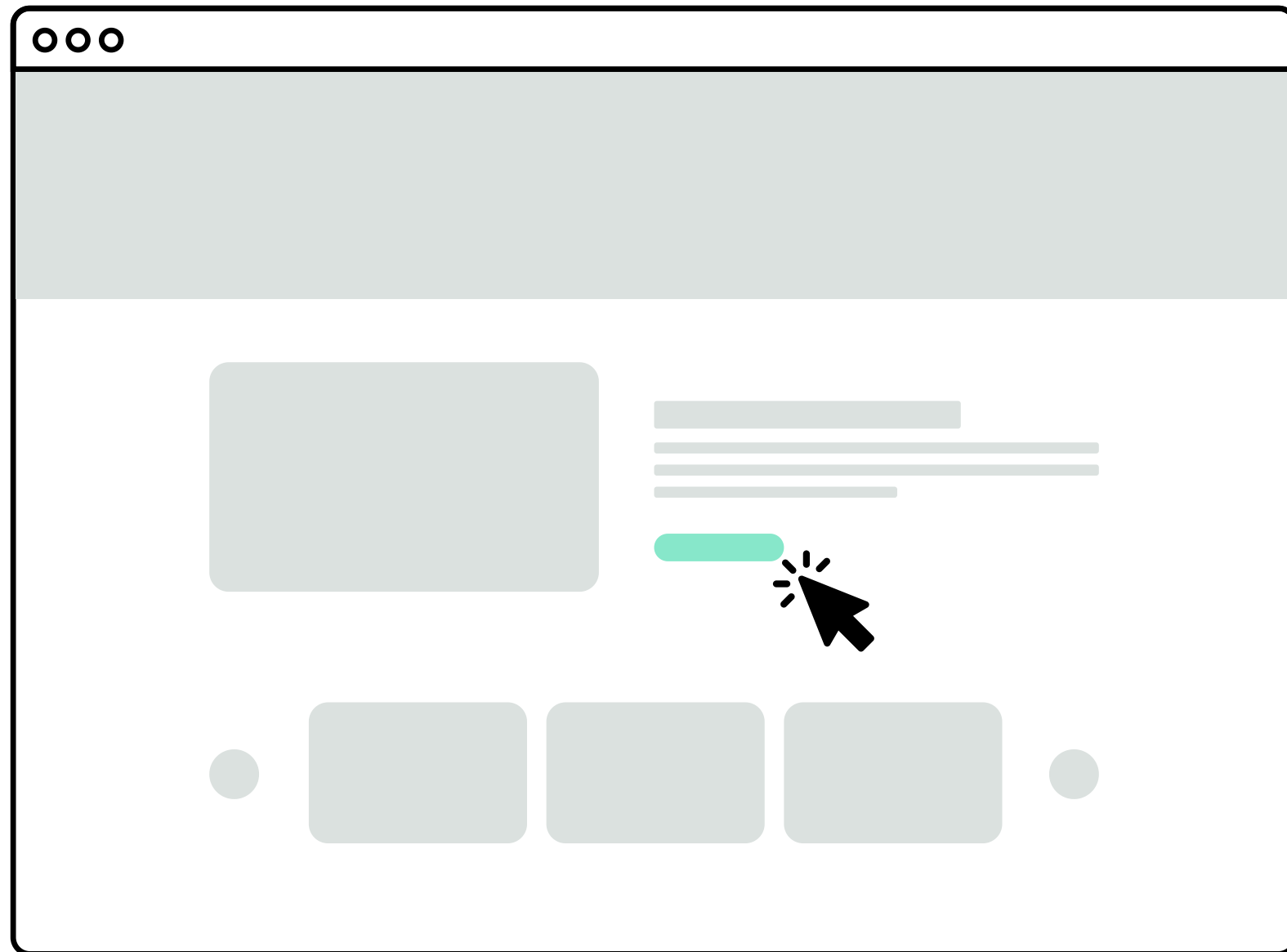
Qwik = “zero” hydration



Server returns HTML w/
serialised state &
browser renders it

Browser loads tiny
framework JS

Qwik = "zero" hydration



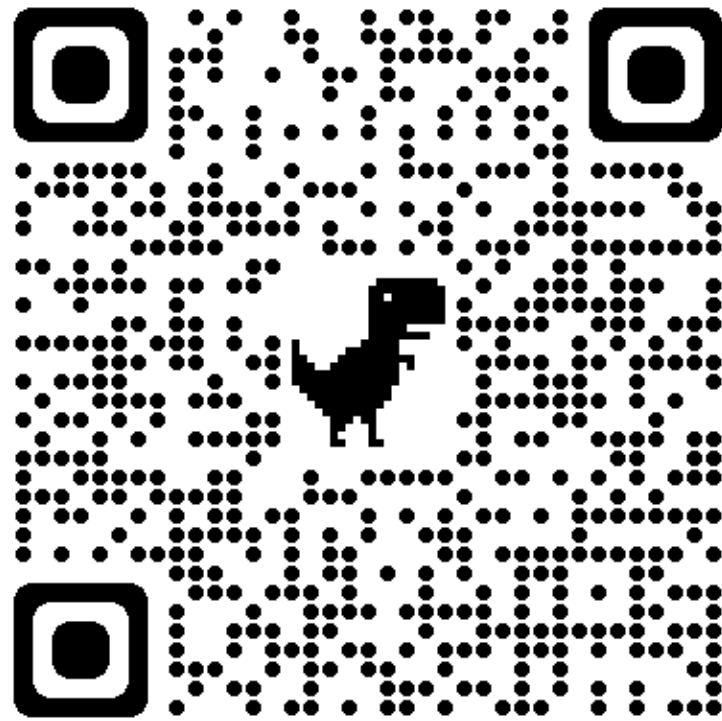
Server returns HTML w/
serialised state &
browser renders it

Browser loads tiny
framework JS

Other JS is only loaded
lazily or on demand

LET'S LOOK AT REAL CODE

[HTTPS://GITHUB.COM/JULIANBURR/TALK-DONT-STAY-HYDRATED](https://github.com/julianburr/talk-dont-stay-hydrated)



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**[HTTPS://WWW.JULIANBURR.DE/
DONT-STAY-HYDRATED-BRISJS-2024-SLIDES.PDF](https://www.julianburr.de/dont-stay-hydrated-brisjs-2024-slides.pdf)**