Fast by Default

Near instant load times at scale with GatsbyJS

OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
- THE PROMISES OF GATSBYJS
- PERFORMANCE IS A LONG GAME

Why performance matters

OUTLINE

- WHY PERFORMANCE MATTERS
  - THE BUSINESS STANDPOINT
  - THE ETHICS OF WEB PERFORMANCE
- AN ORAL HISTORY OF WEB DEVELOPMENT
- THE PROMISES OF GATSBYJS
- PERFORMANCE IS A LONG GAME

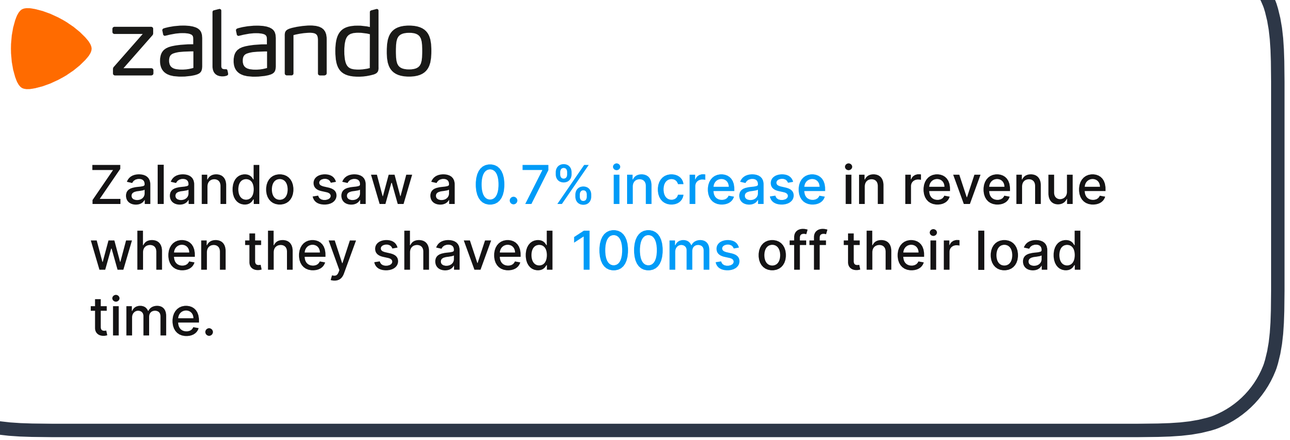
Performance matters for your business

Source: https://wpostats.com/

OUTLINE

- WHY PERFORMANCE MATTERS
  - THE BUSINESS STANDPOINT
  - THE ETHICS OF WEB PERFORMANCE
- AN ORAL HISTORY OF WEB DEVELOPMENT
- THE PROMISES OF GATSBYJS
- PERFORMANCE IS A LONG GAME

Performance matters for your business



Source: https://wpostats.com/

OUTLINE

- WHY PERFORMANCE MATTERS
  - THE BUSINESS STANDPOINT
  - THE ETHICS OF WEB PERFORMANCE
- AN ORAL HISTORY OF WEB DEVELOPMENT
- THE PROMISES OF GATSBYJS
- PERFORMANCE IS A LONG GAME

Performance matters for your business

zalando

trainline

Trainline reduced latency by 0.3 seconds across their funnel and customers spent an extra £8 million (~€9.1 million) a year.

Source: https://wpostats.com/

OUTLINE

- WHY PERFORMANCE MATTERS
  - THE BUSINESS STANDPOINT
  - THE ETHICS OF WEB PERFORMANCE
- AN ORAL HISTORY OF WEB DEVELOPMENT
- THE PROMISES OF GATSBYJS
- PERFORMANCE IS A LONG GAME

Performance matters for your business

zalando

trainline

FINANCIAL TIMES

> Tests of the new, faster FT.com showed users were up to 30% more engaged—meaning more visits and more content being consumed.

Source: https://wpostats.com/

OUTLINE

- WHY PERFORMANCE MATTERS
  - THE BUSINESS STANDPOINT
  - THE ETHICS OF WEB PERFORMANCE
- AN ORAL HISTORY OF WEB DEVELOPMENT
- THE PROMISES OF GATSBYJS
- PERFORMANCE IS A LONG GAME

Performance matters for your business

zalando

trainline

FINANCIAL TIMES

BBC

BBC has seen that they lose an additional 10% of users for every additional second it takes for their site to load

Source: https://wpostats.com/

OUTLINE

- WHY PERFORMANCE MATTERS
  - THE BUSINESS STANDPOINT
  - THE ETHICS OF WEB PERFORMANCE
- AN ORAL HISTORY OF WEB DEVELOPMENT
- THE PROMISES OF GATSBYJS
- PERFORMANCE IS A LONG GAME

Performance matters for your business

zalando

trainline

FINANCIAL TIMES

BBC

Pinterest

Rebuilding Pinterest pages for performance resulted in a 15% increase in SEO traffic and a 15% increase in conversion rate to signup.

Source: https://wpostats.com/

OUTLINE

- WHY PERFORMANCE MATTERS
  - THE BUSINESS STANDPOINT
  - THE ETHICS OF WEB PERFORMANCE
- AN ORAL HISTORY OF WEB DEVELOPMENT
- THE PROMISES OF GATSBYJS
- PERFORMANCE IS A LONG GAME

The ethics of web performance

“Poor performance can, and does, **lead to exclusion**.”

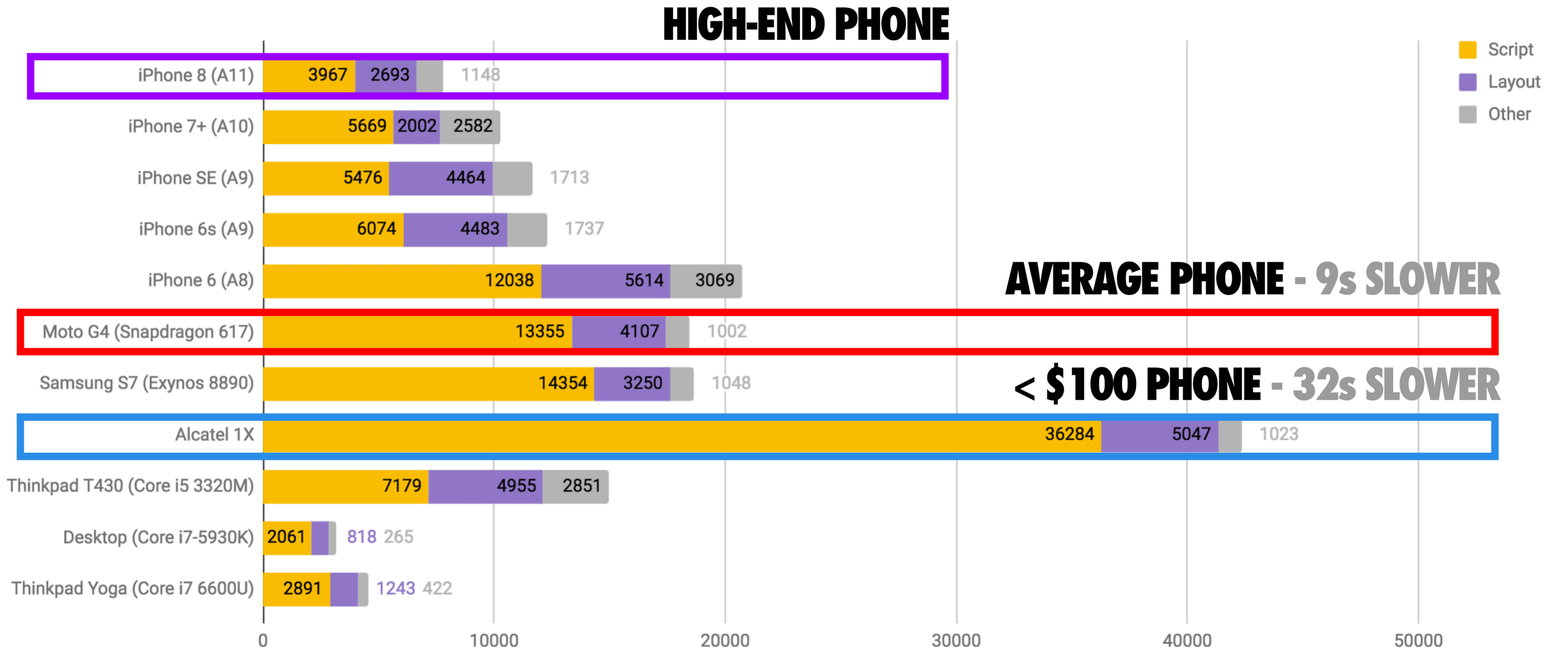
— *Tim Kadlek*

OUTLINE

- WHY PERFORMANCE MATTERS
  - THE BUSINESS STANDPOINT
  - THE ETHICS OF WEB PERFORMANCE
- AN ORAL HISTORY OF WEB DEVELOPMENT
- THE PROMISES OF GATSBYJS
- PERFORMANCE IS A LONG GAME

The ethics of web performance

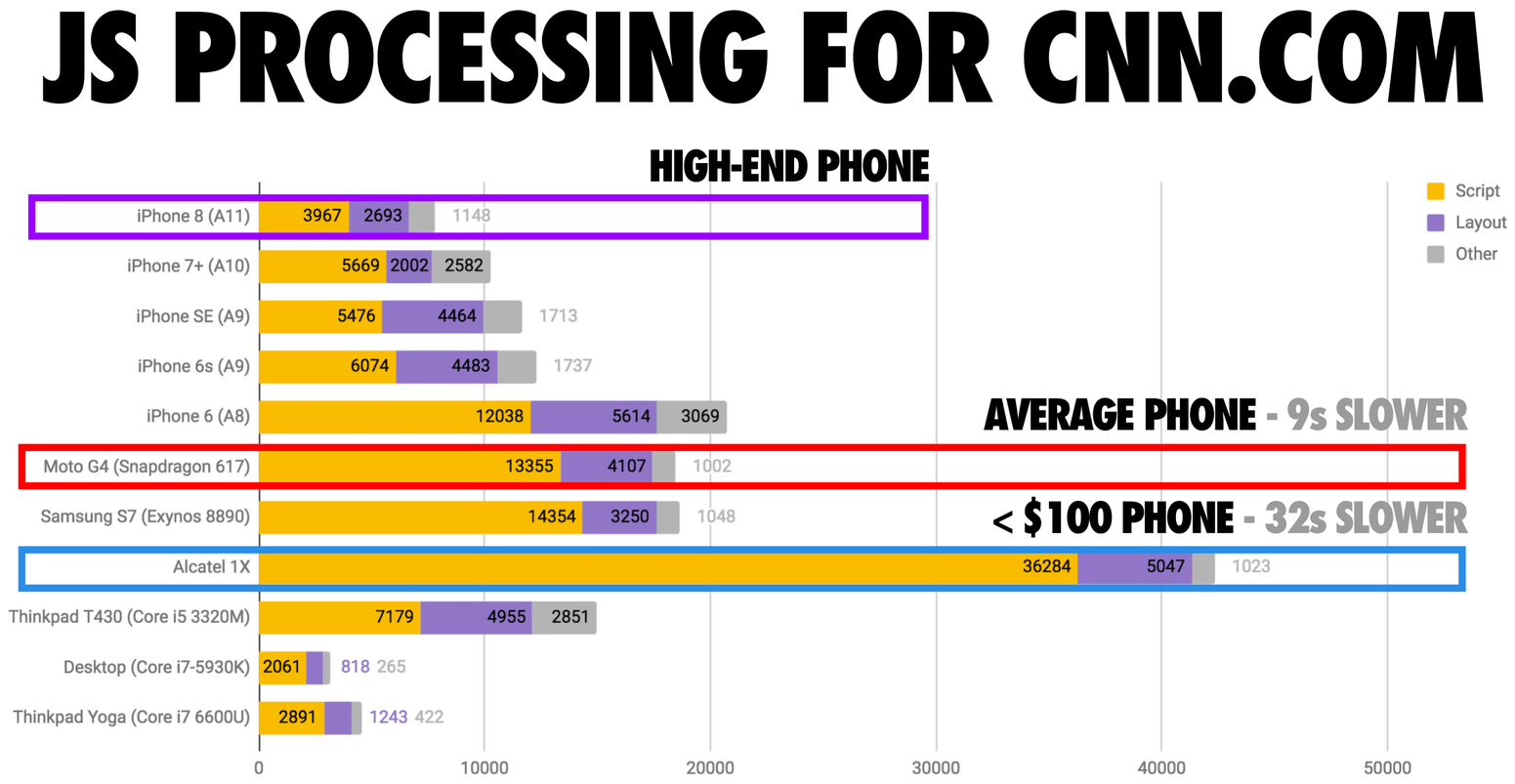
JS PROCESSING FOR CNN.COM



OUTLINE

- WHY PERFORMANCE MATTERS
  - THE BUSINESS STANDPOINT
  - THE ETHICS OF WEB PERFORMANCE
- AN ORAL HISTORY OF WEB DEVELOPMENT
- THE PROMISES OF GATSBYJS
- PERFORMANCE IS A LONG GAME

The ethics of web performance



Source: https://v8.dev/blog/cost-of-javascript-2019

OUTLINE

- WHY PERFORMANCE MATTERS
  - THE BUSINESS STANDPOINT
  - THE ETHICS OF WEB PERFORMANCE
- AN ORAL HISTORY OF WEB DEVELOPMENT
- THE PROMISES OF GATSBYJS
- PERFORMANCE IS A LONG GAME

The ethics of web performance

Source: https://blog.chriszacharias.com/page-weight-matters

OUTLINE

- WHY PERFORMANCE MATTERS
  - THE BUSINESS STANDPOINT
  - THE ETHICS OF WEB PERFORMANCE
- AN ORAL HISTORY OF WEB DEVELOPMENT
- THE PROMISES OF GATSBYJS
- PERFORMANCE IS A LONG GAME

The ethics of web performance

*"[Performance good practices] have well-known benefits to usability, but are also **acts of environmental protection**."*

— Cennydd Bowles, Future Ethics

OUTLINE

- WHY PERFORMANCE MATTERS
  - THE BUSINESS STANDPOINT
  - THE ETHICS OF WEB PERFORMANCE
- AN ORAL HISTORY OF WEB DEVELOPMENT
- THE PROMISES OF GATSBYJS
- PERFORMANCE IS A LONG GAME

The ethics of web performance

Source: https://timkadlec.com/remembers/2019-01-09-the-ethics-of-performance/

OUTLINE

- WHY PERFORMANCE MATTERS
  - THE BUSINESS STANDPOINT
  - THE ETHICS OF WEB PERFORMANCE
- AN ORAL HISTORY OF WEB DEVELOPMENT
- THE PROMISES OF GATSBYJS
- PERFORMANCE IS A LONG GAME

The ethics of web performance

“I need to buy a new phone”

Source: https://timkadlec.com/remembers/2019-01-09-the-ethics-of-performance/

OUTLINE

- WHY PERFORMANCE MATTERS
  - THE BUSINESS STANDPOINT
  - THE ETHICS OF WEB PERFORMANCE
- AN ORAL HISTORY OF WEB DEVELOPMENT
- THE PROMISES OF GATSBYJS
- PERFORMANCE IS A LONG GAME

The ethics of web performance

Source: https://timkadlec.com/remembers/2019-01-09-the-ethics-of-performance/

OUTLINE

- WHY PERFORMANCE MATTERS
  - THE BUSINESS STANDPOINT
  - THE ETHICS OF WEB PERFORMANCE
- AN ORAL HISTORY OF WEB DEVELOPMENT
- THE PROMISES OF GATSBYJS
- PERFORMANCE IS A LONG GAME

The ethics of web performance

“My battery does not last a full day anymore”

Source: https://timkadlec.com/remembers/2019-01-09-the-ethics-of-performance/

OUTLINE

- WHY PERFORMANCE MATTERS
  - THE BUSINESS STANDPOINT
  - THE ETHICS OF WEB PERFORMANCE
- AN ORAL HISTORY OF WEB DEVELOPMENT
- THE PROMISES OF GATSBYJS
- PERFORMANCE IS A LONG GAME

The ethics of web performance

Source: https://timkadlec.com/remembers/2019-01-09-the-ethics-of-performance/

OUTLINE

- WHY PERFORMANCE MATTERS
  - THE BUSINESS STANDPOINT
  - THE ETHICS OF WEB PERFORMANCE
- AN ORAL HISTORY OF WEB DEVELOPMENT
- THE PROMISES OF GATSBYJS
- PERFORMANCE IS A LONG GAME

The ethics of web performance

Web Performance is not a zero-sum game

Source: https://timkadlec.com/remembers/2019-01-09-the-ethics-of-performance/

Nicolas Goutay

Web Performance Evangelist
— Theodo

Twitter: @phacks

OUTLINE

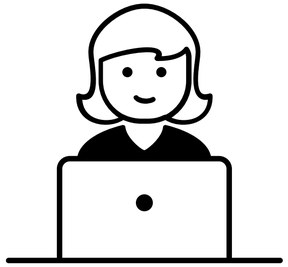
- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
- THE PROMISES OF GATSBYJS
- PERFORMANCE IS A LONG GAME

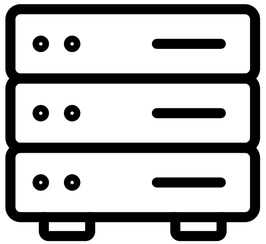
An oral history of web development

OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
  - A HISTORY
  - RENDERING ON THE WEB
- THE PROMISES OF GATSBYJS
- PERFORMANCE IS A LONG GAME

At the beginning, there was static (1991–)

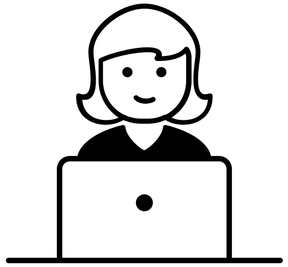




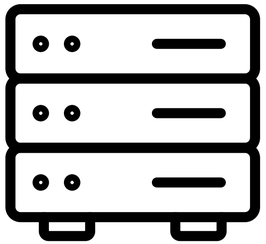
OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
  - A HISTORY
  - RENDERING ON THE WEB
- THE PROMISES OF GATSBYJS
- PERFORMANCE IS A LONG GAME

At the beginning, there was static (1991–)



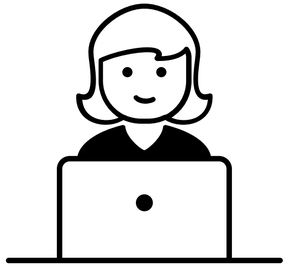
hey could you pass me that index.html file you got there?



OUTLINE

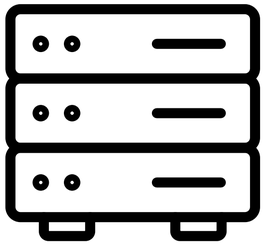
- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
  - A HISTORY
  - RENDERING ON THE WEB
- THE PROMISES OF GATSBYJS
- PERFORMANCE IS A LONG GAME

At the beginning, there was static (1991–)



hey could you pass me that index.html file you got there?

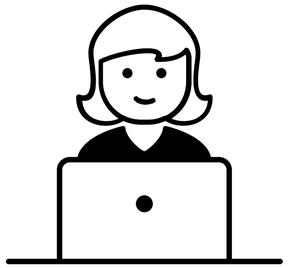
sure thing there you go



OUTLINE

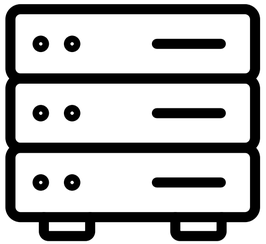
- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
  - A HISTORY
  - RENDERING ON THE WEB
- THE PROMISES OF GATSBYJS
- PERFORMANCE IS A LONG GAME

At the beginning, there was static (1991–)



hey could you pass me that index.html file you got there?

sure thing there you go

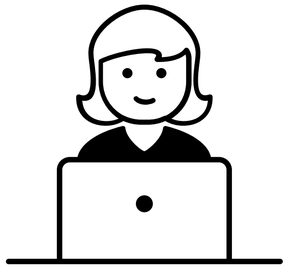


thanks

OUTLINE

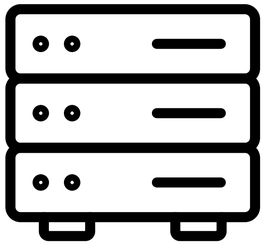
- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
  - A HISTORY
  - RENDERING ON THE WEB
- THE PROMISES OF GATSBYJS
- PERFORMANCE IS A LONG GAME

At the beginning, there was static (1991–)



hey could you pass me that index.html file you got there?

sure thing there you go



thanks

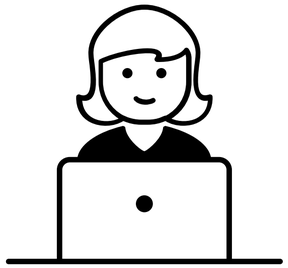
Pros

👍 Dead simple
👍 Super fast

OUTLINE

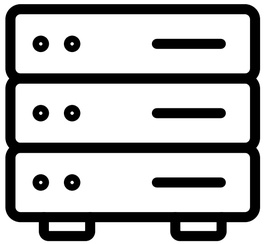
- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
  - A HISTORY
  - RENDERING ON THE WEB
- THE PROMISES OF GATSBYJS
- PERFORMANCE IS A LONG GAME

At the beginning, there was static (1991–)



hey could you pass me that index.html file you got there?

sure thing there you go



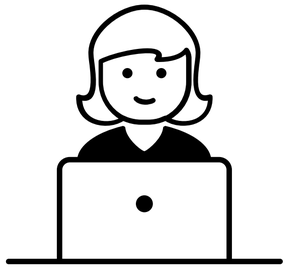
thanks

Pros	Cons
👍 Dead simple	👎 Not dynamic
👍 Super fast	

OUTLINE

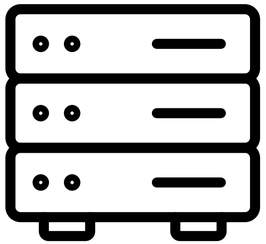
- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
  - A HISTORY
  - RENDERING ON THE WEB
- THE PROMISES OF GATSBYJS
- PERFORMANCE IS A LONG GAME

At the beginning, there was static (1991–)



hey could you pass me that index.html file you got there?

sure thing there you go



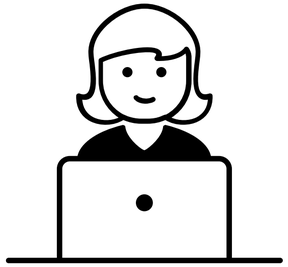
thanks

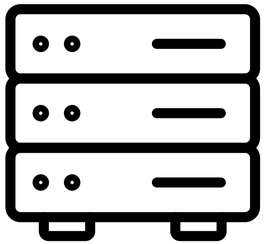
Pros	Cons	Used by
👍 Dead simple	👎 Not dynamic	🦕 The very first web page
👍 Super fast		⚙️ Hugo, Jekyll...

OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
  - A HISTORY
  - RENDERING ON THE WEB
- THE PROMISES OF GATSBYJS
- PERFORMANCE IS A LONG GAME

Server Rendering (late 1990s–)

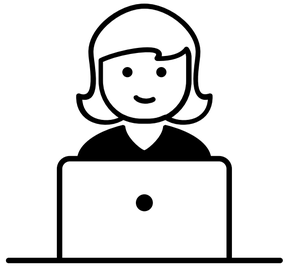




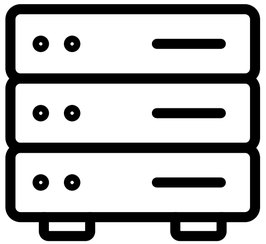
OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
  - A HISTORY
  - RENDERING ON THE WEB
- THE PROMISES OF GATSBYJS
- PERFORMANCE IS A LONG GAME

Server Rendering (late 1990s–)



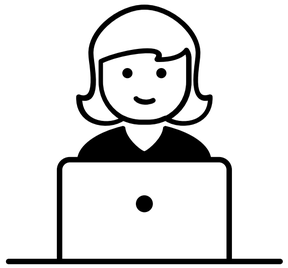
hey i would like to read the latest comments on that article



OUTLINE

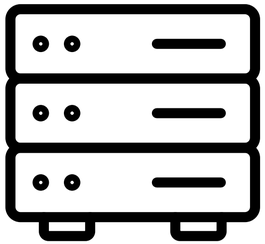
- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
  - A HISTORY
  - RENDERING ON THE WEB
- THE PROMISES OF GATSBYJS
- PERFORMANCE IS A LONG GAME

Server Rendering (late 1990s–)



hey i would like to read the latest comments on that article

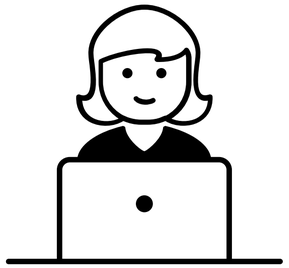
yeah give me a few seconds to look them up



OUTLINE

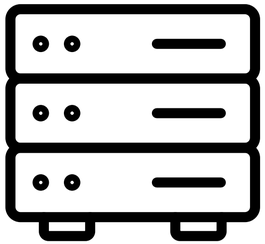
- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
  - A HISTORY
  - RENDERING ON THE WEB
- THE PROMISES OF GATSBYJS
- PERFORMANCE IS A LONG GAME

Server Rendering (late 1990s–)



hey i would like to read the latest comments on that article

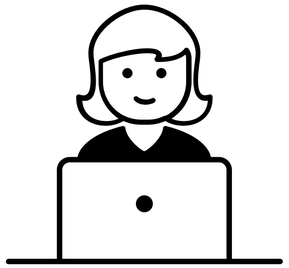
yeah give me a few seconds to look them up



OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
  - A HISTORY
  - RENDERING ON THE WEB
- THE PROMISES OF GATSBYJS
- PERFORMANCE IS A LONG GAME

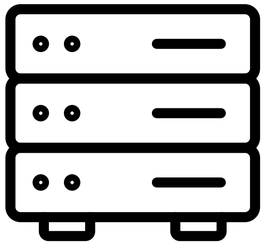
Server Rendering (late 1990s–)



hey i would like to read the latest comments on that article

yeah give me a few seconds to look them up

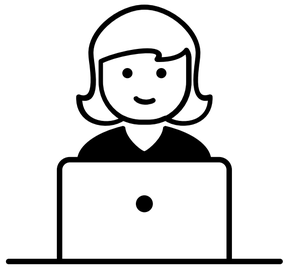
here they are



OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
  - A HISTORY
  - RENDERING ON THE WEB
- THE PROMISES OF GATSBYJS
- PERFORMANCE IS A LONG GAME

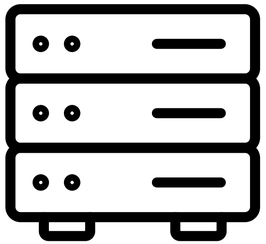
Server Rendering (late 1990s–)



hey i would like to read the latest comments on that article

yeah give me a few seconds to look them up

here they are

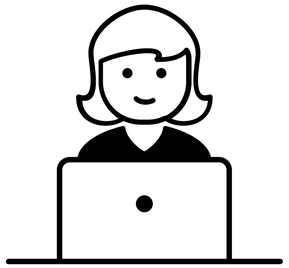


thanks

OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
  - A HISTORY
  - RENDERING ON THE WEB
- THE PROMISES OF GATSBYJS
- PERFORMANCE IS A LONG GAME

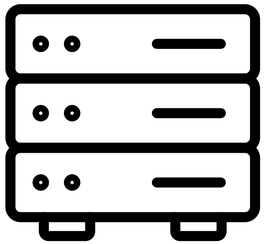
Server Rendering (late 1990s–)



hey i would like to read the latest comments on that article

yeah give me a few seconds to look them up

here they are



thanks

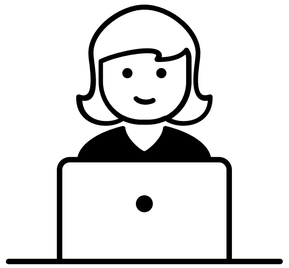
Pros

👍 First Paint is interactive
👍 Does not depend on user's device

OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
  - A HISTORY
  - RENDERING ON THE WEB
- THE PROMISES OF GATSBYJS
- PERFORMANCE IS A LONG GAME

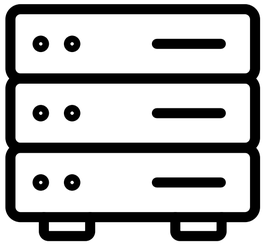
Server Rendering (late 1990s–)



hey i would like to read the latest comments on that article

yeah give me a few seconds to look them up

here they are



thanks

Pros

👍 First Paint is interactive
👍 Does not depend on user's device

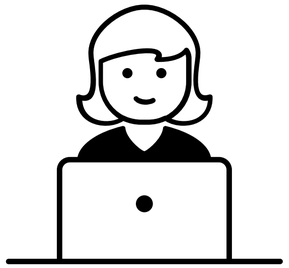
Cons

👎 Slow First Paint
👎 App does not feel "snappy"

OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
  - A HISTORY
  - RENDERING ON THE WEB
- THE PROMISES OF GATSBYJS
- PERFORMANCE IS A LONG GAME

Server Rendering (late 1990s–)

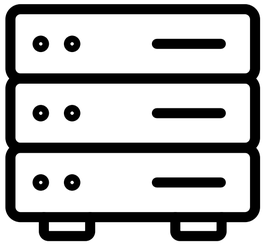


hey i would like to read the latest comments on that article

yeah give me a few seconds to look them up

here they are

thanks

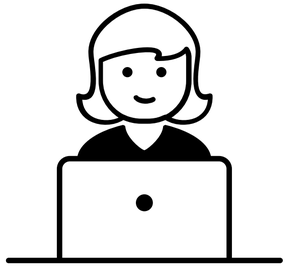


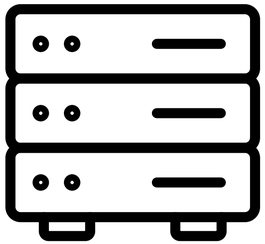
Pros	Cons	Used by
👍 First Paint is interactive 👍 Does not depend on user's device	👎 Slow First Paint 👎 App does not feel "snappy"	⚙️ Django, Rails, Symfony...

OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
  - A HISTORY
  - RENDERING ON THE WEB
- THE PROMISES OF GATSBYJS
- PERFORMANCE IS A LONG GAME

Client-Side Rendering (2014–)

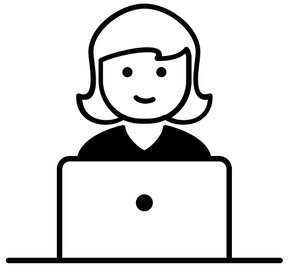




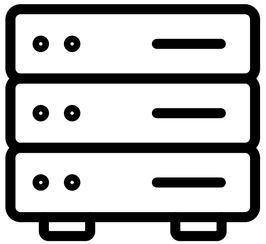
OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
  - A HISTORY
  - RENDERING ON THE WEB
- THE PROMISES OF GATSBYJS
- PERFORMANCE IS A LONG GAME

Client-Side Rendering (2014–)



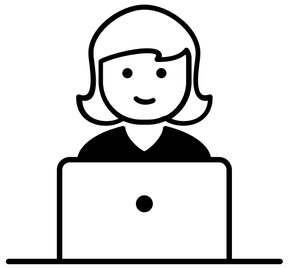
oooh this trip-planning app looks cool can i use it?



OUTLINE

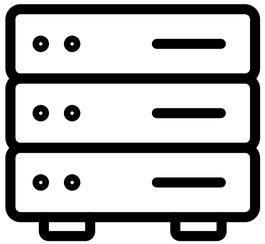
- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
  - A HISTORY
  - RENDERING ON THE WEB
- THE PROMISES OF GATSBYJS
- PERFORMANCE IS A LONG GAME

Client-Side Rendering (2014–)



oooh this trip-planning app looks cool can i use it?

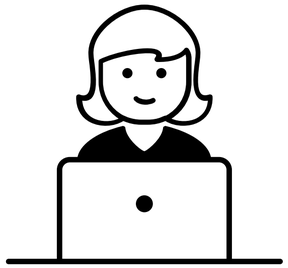
you know what why don't you take all the raw materials and figure it out yourself



OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
  - A HISTORY
  - RENDERING ON THE WEB
- THE PROMISES OF GATSBYJS
- PERFORMANCE IS A LONG GAME

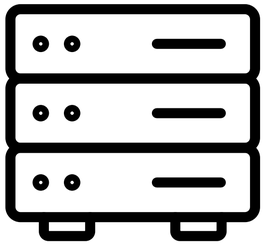
Client-Side Rendering (2014–)



oooh this trip-planning app looks cool can i use it?

you know what why don't you take all the raw materials and figure it out yourself

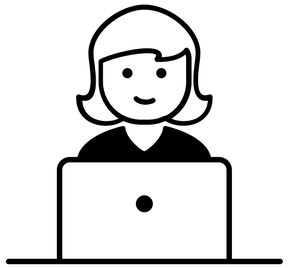
wow rude but ok



OUTLINE

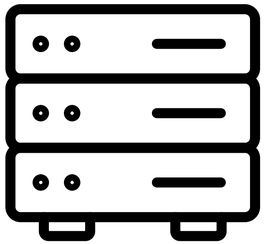
- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
  - A HISTORY
  - RENDERING ON THE WEB
- THE PROMISES OF GATSBYJS
- PERFORMANCE IS A LONG GAME

Client-Side Rendering (2014–)



oooh this trip-planning app looks cool can i use it?

you know what why don't you take all the raw materials and figure it out yourself

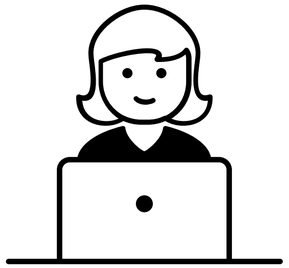


wow rude but ok

OUTLINE

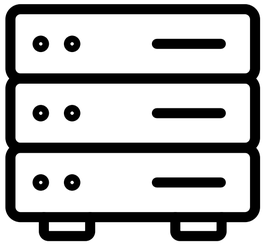
- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
  - A HISTORY
  - RENDERING ON THE WEB
- THE PROMISES OF GATSBYJS
- PERFORMANCE IS A LONG GAME

Client-Side Rendering (2014–)



oooh this trip-planning app looks cool can i use it?

you know what why don't you take all the raw materials and figure it out yourself



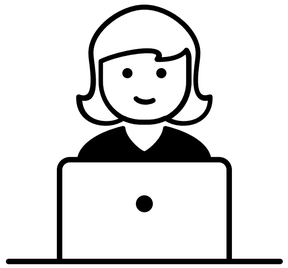
wow rude but ok

it works!

OUTLINE

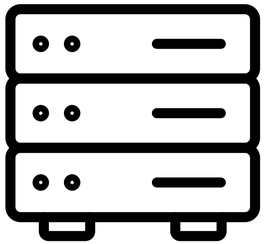
- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
  - A HISTORY
  - RENDERING ON THE WEB
- THE PROMISES OF GATSBYJS
- PERFORMANCE IS A LONG GAME

Client-Side Rendering (2014–)



oooh this trip-planning app looks cool can i use it?

you know what why don't you take all the raw materials and figure it out yourself



wow rude but ok

it works!

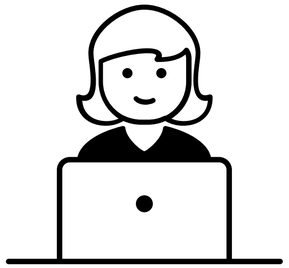
Pros

👍 App-like User experience
👍 API-first Dev experience

OUTLINE

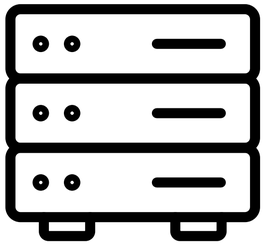
- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
  - A HISTORY
  - RENDERING ON THE WEB
- THE PROMISES OF GATSBYJS
- PERFORMANCE IS A LONG GAME

Client-Side Rendering (2014–)



oooh this trip-planning app looks cool can i use it?

you know what why don't you take all the raw materials and figure it out yourself



wow rude but ok

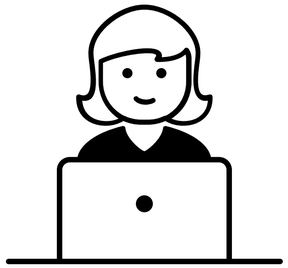
it works!

Pros	Cons
👍 App-like User experience	👎 Slow First Paint
👍 API-first Dev experience	👍 Slow Time to Interactive

OUTLINE

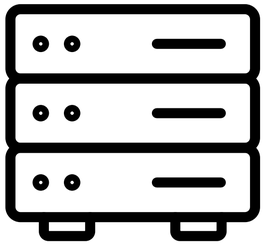
- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
  - A HISTORY
  - RENDERING ON THE WEB
- THE PROMISES OF GATSBYJS
- PERFORMANCE IS A LONG GAME

Client-Side Rendering (2014–)



oooh this trip-planning app looks cool can i use it?

you know what why don't you take all the raw materials and figure it out yourself



wow rude but ok

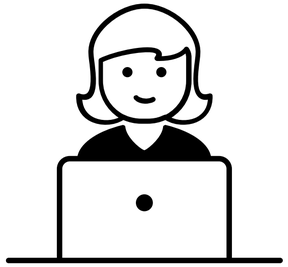
it works!

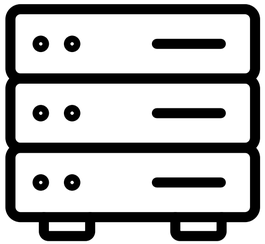
Pros	Cons	Used by
👍 App-like User experience 👍 API-first Dev experience	👎 Slow First Paint 👍 Slow Time to Interactive	⚙️ Angular, React, Vue...

OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
  - A HISTORY
  - RENDERING ON THE WEB
- THE PROMISES OF GATSBYJS
- PERFORMANCE IS A LONG GAME

CSR with Rehydration (2016–)

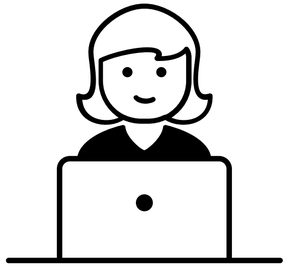




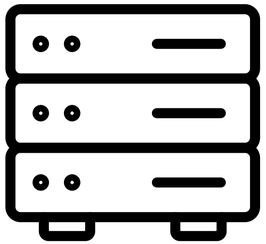
OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
  - A HISTORY
  - RENDERING ON THE WEB
- THE PROMISES OF GATSBYJS
- PERFORMANCE IS A LONG GAME

CSR with Rehydration (2016–)



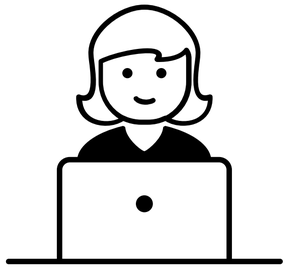
i heard they worked on performance on this trip-planning app



OUTLINE

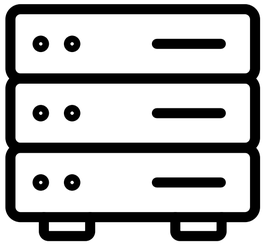
- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
  - A HISTORY
  - RENDERING ON THE WEB
- THE PROMISES OF GATSBYJS
- PERFORMANCE IS A LONG GAME

CSR with Rehydration (2016–)



i heard they worked on performance on this trip-planning app

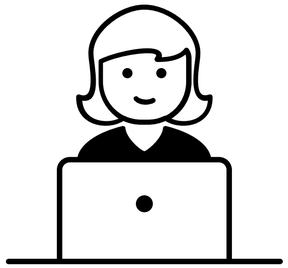
they did! here it is: i'm building the page very quicky...



OUTLINE

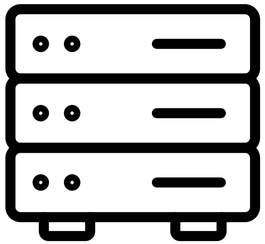
- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
  - A HISTORY
  - RENDERING ON THE WEB
- THE PROMISES OF GATSBYJS
- PERFORMANCE IS A LONG GAME

CSR with Rehydration (2016–)



i heard they worked on performance on this trip-planning app

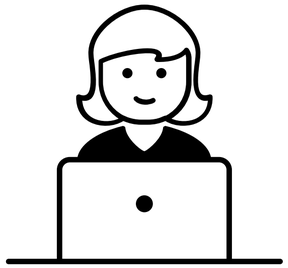
they did! here it is: i'm building the page very quicky...



OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
  - A HISTORY
  - RENDERING ON THE WEB
- THE PROMISES OF GATSBYJS
- PERFORMANCE IS A LONG GAME

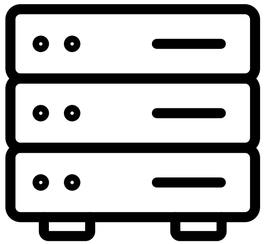
CSR with Rehydration (2016–)



i heard they worked on performance on this trip-planning app

they did! here it is: i'm building the page very quicky...

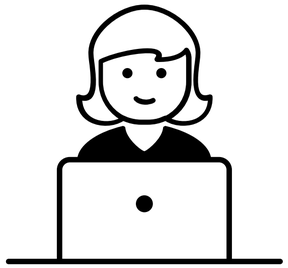
and now send you the raw materials to build it yourself BUT now you have a nice picture of the finished page to look at meanwhile!



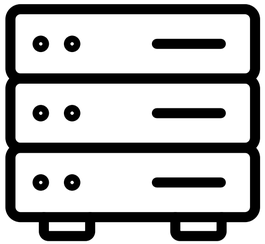
OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
  - A HISTORY
  - RENDERING ON THE WEB
- THE PROMISES OF GATSBYJS
- PERFORMANCE IS A LONG GAME

CSR with Rehydration (2016–)



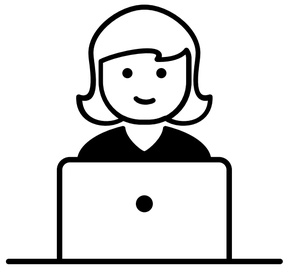
and now send you the raw materials to build it yourself BUT now you have a nice picture of the finished page to look at meanwhile!



OUTLINE

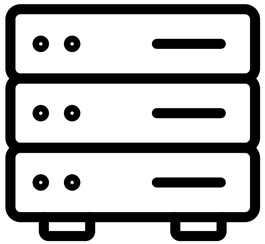
- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
  - A HISTORY
  - RENDERING ON THE WEB
- THE PROMISES OF GATSBYJS
- PERFORMANCE IS A LONG GAME

CSR with Rehydration (2016–)



and now send you the raw materials to build it yourself BUT now you have a nice picture of the finished page to look at meanwhile!

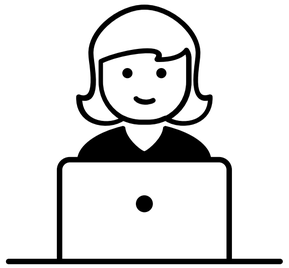
sweet! i can see the content first...



OUTLINE

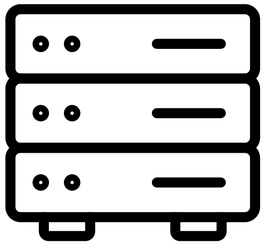
- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
  - A HISTORY
  - RENDERING ON THE WEB
- THE PROMISES OF GATSBYJS
- PERFORMANCE IS A LONG GAME

CSR with Rehydration (2016–)



and now send you the raw materials to build it yourself BUT now you have a nice picture of the finished page to look at meanwhile!

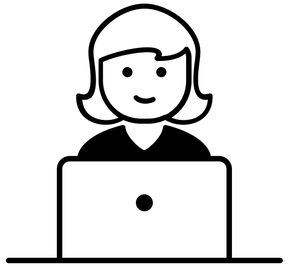
sweet! i can see the content first...



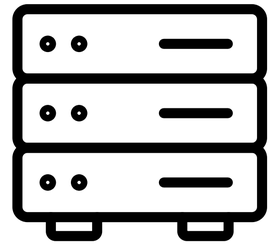
OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
  - A HISTORY
  - RENDERING ON THE WEB
- THE PROMISES OF GATSBYJS
- PERFORMANCE IS A LONG GAME

CSR with Rehydration (2016–)



and now send you the raw materials to build it yourself BUT now you have a nice picture of the finished page to look at meanwhile!



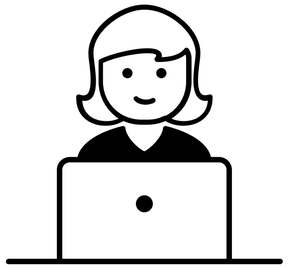
sweet! i can see the content first...

and now click around!

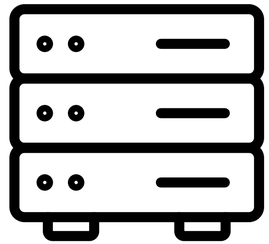
OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
  - A HISTORY
  - RENDERING ON THE WEB
- THE PROMISES OF GATSBYJS
- PERFORMANCE IS A LONG GAME

CSR with Rehydration (2016–)



and now send you the raw materials to build it yourself BUT now you have a nice picture of the finished page to look at meanwhile!



sweet! i can see the content first...

and now click around!

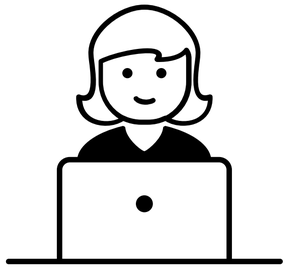
Pros

👍 App-like User experience
👍 Fast First Paint

OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
  - A HISTORY
  - RENDERING ON THE WEB
- THE PROMISES OF GATSBYJS
- PERFORMANCE IS A LONG GAME

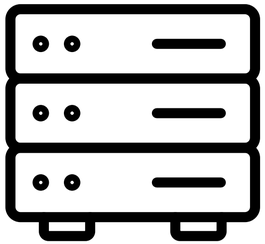
CSR with Rehydration (2016–)



and now send you the raw materials to build it yourself BUT now you have a nice picture of the finished page to look at meanwhile!

sweet! i can see the content first...

and now click around!



Pros

👍 App-like User experience
👍 Fast First Paint

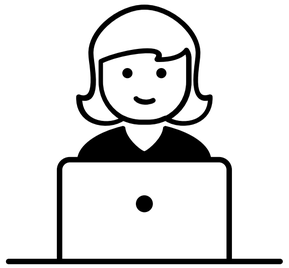
Cons

👎 Slow Time to Interactive
👎 Possible “rage clicks”

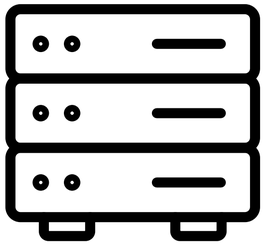
OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
  - A HISTORY
  - RENDERING ON THE WEB
- THE PROMISES OF GATSBYJS
- PERFORMANCE IS A LONG GAME

CSR with Rehydration (2016–)



and now send you the raw materials to build it yourself BUT now you have a nice picture of the finished page to look at meanwhile!



sweet! i can see the content first...

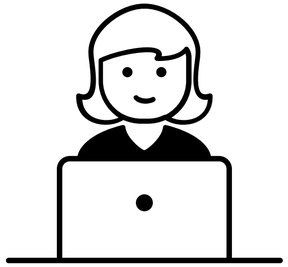
and now click around!

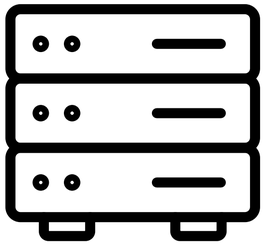
Pros	Cons	Used by
👍 App-like User experience 👍 Fast First Paint	👎 Slow Time to Interactive 👎 Possible “rage clicks”	⚙️ NextJS, NuxtJS

OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
  - A HISTORY
  - RENDERING ON THE WEB
- THE PROMISES OF GATSBYJS
- PERFORMANCE IS A LONG GAME

CSR with Prerendering (2018–)

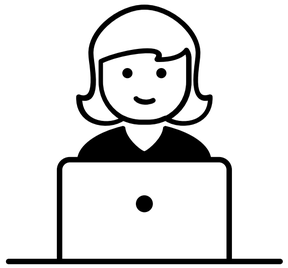




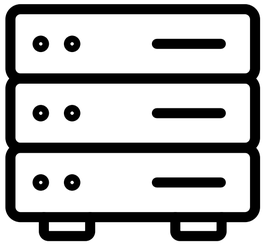
OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
  - A HISTORY
  - RENDERING ON THE WEB
- THE PROMISES OF GATSBYJS
- PERFORMANCE IS A LONG GAME

CSR with Prerendering (2018–)



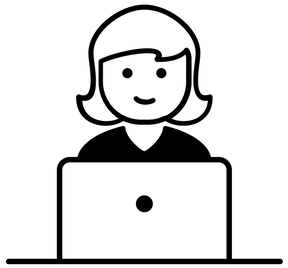
hmm they worked on performance yet again?



OUTLINE

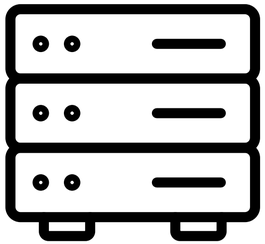
- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
  - A HISTORY
  - RENDERING ON THE WEB
- THE PROMISES OF GATSBYJS
- PERFORMANCE IS A LONG GAME

CSR with Prerendering (2018–)



hmm they worked on performance yet again?

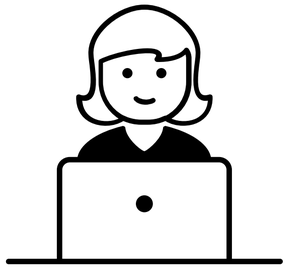
yeah they figured out that content didn't change much so now we build only once, when content changes. No more rebuilding on each request!



OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
  - A HISTORY
  - RENDERING ON THE WEB
- THE PROMISES OF GATSBYJS
- PERFORMANCE IS A LONG GAME

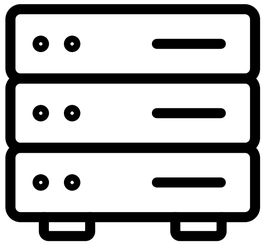
CSR with Prerendering (2018–)



hmm they worked on performance yet again?

yeah they figured out that content didn't change much so now we build only once, when content changes. No more rebuilding on each request!

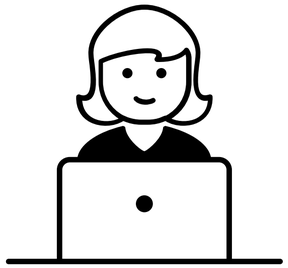
no change for you though, you still get your picture and the raw materials



OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
  - A HISTORY
  - RENDERING ON THE WEB
- THE PROMISES OF GATSBYJS
- PERFORMANCE IS A LONG GAME

CSR with Prerendering (2018–)

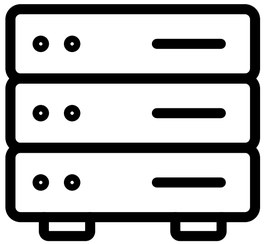


hmm they worked on performance yet again?

yeah they figured out that content didn't change much so now we build only once, when content changes. No more rebuilding on each request!

no change for you though, you still get your picture and the raw materials

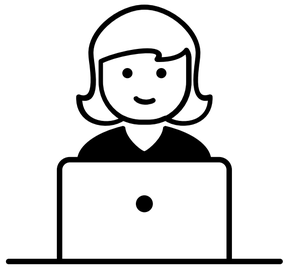
sweet! i can see the content first...



OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
  - A HISTORY
  - RENDERING ON THE WEB
- THE PROMISES OF GATSBYJS
- PERFORMANCE IS A LONG GAME

CSR with Prerendering (2018–)

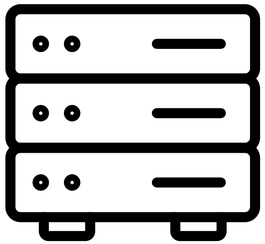


hmm they worked on performance yet again?

yeah they figured out that content didn't change much so now we build only once, when content changes. No more rebuilding on each request!

no change for you though, you still get your picture and the raw materials

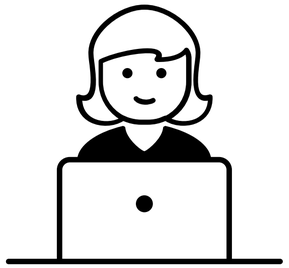
sweet! i can see the content first...



OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
  - A HISTORY
  - RENDERING ON THE WEB
- THE PROMISES OF GATSBYJS
- PERFORMANCE IS A LONG GAME

CSR with Prerendering (2018–)



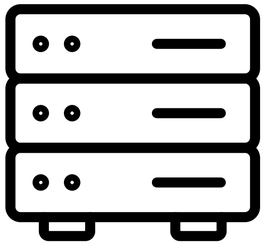
hmm they worked on performance yet again?

yeah they figured out that content didn't change much so now we build only once, when content changes. No more rebuilding on each request!

no change for you though, you still get your picture and the raw materials

sweet! i can see the content first...

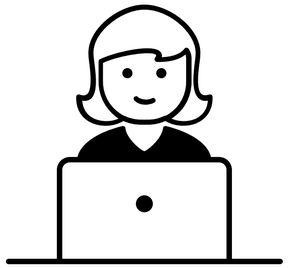
and now click around!



OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
  - A HISTORY
  - RENDERING ON THE WEB
- THE PROMISES OF GATSBYJS
- PERFORMANCE IS A LONG GAME

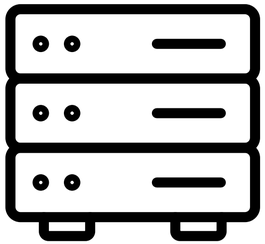
CSR with Prerendering (2018–)



hmm they worked on performance yet again?

yeah they figured out that content didn't change much so now we build only once, when content changes. No more rebuilding on each request!

no change for you though, you still get your picture and the raw materials



sweet! i can see the content first...

and now click around!

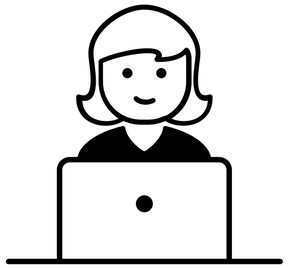
Pros

👍 App-like User experience
👍 Fast First Paint
👍 No need for a backend

OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
  - A HISTORY
  - RENDERING ON THE WEB
- THE PROMISES OF GATSBYJS
- PERFORMANCE IS A LONG GAME

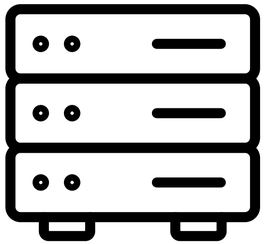
CSR with Prerendering (2018–)



hmm they worked on performance yet again?

yeah they figured out that content didn't change much so now we build only once, when content changes. No more rebuilding on each request!

no change for you though, you still get your picture and the raw materials



sweet! i can see the content first...

and now click around!

Pros

👍 App-like User experience
👍 Fast First Paint
👍 No need for a backend

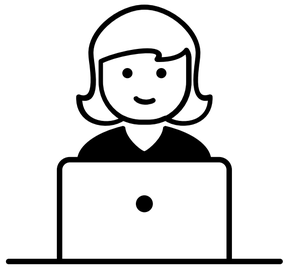
Cons

👎 Dynamic content not available in the preview

OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
  - A HISTORY
  - RENDERING ON THE WEB
- THE PROMISES OF GATSBYJS
- PERFORMANCE IS A LONG GAME

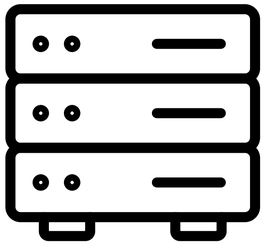
CSR with Prerendering (2018–)



hmm they worked on performance yet again?

yeah they figured out that content didn't change much so now we build only once, when content changes. No more rebuilding on each request!

no change for you though, you still get your picture and the raw materials



sweet! i can see the content first...

and now click around!

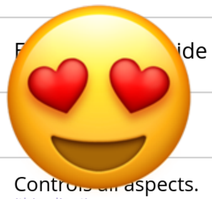
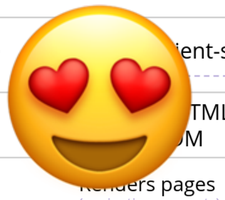
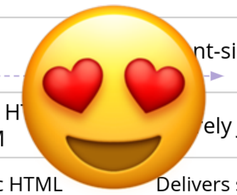
Pros	Cons	Used by
👍 App-like User experience 👍 Fast First Paint 👍 No need for a backend	👎 Dynamic content not available in the preview	⚙️ GatsbyJS, Vuepress

OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
  - A HISTORY
  - RENDERING ON THE WEB
- THE PROMISES OF GATSBYJS
- PERFORMANCE IS A LONG GAME

Rendering on the Web is a spectrum

Server ⟷ Browser

	Server Rendering	"Static SSR"	SSR with (Re)hydration	CSR with Prerendering	Full CSR
Overview:	An application where input is navigation requests and the output is HTML in response to them.	Built as a Single Page App, but all pages prerendered to static HTML as a build step, and the JS is **removed**.	Built as a Single Page App. The server prerenders pages, but the full app is also booted on the client.	A Single Page App, where the initial shell/skeleton is prerendered to static HTML at build time.	A Single Page App. All logic, rendering and booting is done on the client. HTML is essentially just script & style tags.
Authoring:	 ide	Built as if client-side (components, DOM*, fetch)	 ient-side	Client-side	 nt-side
Rendering:		Static HTML	TML OM	Partial static H then JS/DOM	ely JS/DOM
Server role:	Contro aspects. (thin client)	Delivers static HTML	Renders pages (navigation requests)	Delivers static HTML	Delivers static HTML
Pros:	👍 TTI = FCP 👍 Fully streaming	👍 Fast TTFB 👍 TTI = FCP 👍 Fully streaming	👍 Flexible	👍 Flexible 👍 Fast TTFB	👍 Flexible 👍 Fast TTFB
Cons:	👎 Slow TTFB 👎 Inflexible	👎 Inflexible 👎 Leads to hydration	👎 Slow TTFB 👎 TTI >>> FCP 👎 Usually buffered	👎 TTI > FCP 👎 Limited streaming	👎 TTI >>> FCP 👎 No streaming
Scales via:	Infra size / cost	build/deploy size	Infra size & JS size	JS size	JS size
Examples:	Gmail HTML, Hacker News	Docusaurus, Netflix*	Next.js, Razzle, etc	Gatsby, Vuepress, etc	Most apps

Source: https://developers.google.com/web/updates/2019/02/rendering-on-the-web

OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
- THE PROMISES OF GATSBYJS
- PERFORMANCE IS A LONG GAME

The promises of GatsbyJS

OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
- THE PROMISES OF GATSBYJS
  - WHAT IS GATSBYJS?
  - GATSBY PLUGINS
  - PERFORMANCE OPTIMIZATIONS
- PERFORMANCE IS A LONG GAME

What is GatsbyJS?

Static Site Generators (SSGs)

Jekyll, Hugo, Middleman

😎 Build performant websites

📟 Little to no backend

🎨 Off-the-shelf themes

Progressive Web Apps (PWAs)

React, Vue, Angular

📱 App-like, snappy experience

🏗️ Easily reuse code & components

✨ Build interactive websites

OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
- THE PROMISES OF GATSBYJS
  - WHAT IS GATSBYJS?
  - GATSBY PLUGINS
  - PERFORMANCE OPTIMIZATIONS
- PERFORMANCE IS A LONG GAME

What is GatsbyJS?

***Static* Progressive Web Apps**

GatsbyJS

😎 Build performant websites

📟 Little to no backend

🎨 Off-the-shelf themes

📱 App-like, snappy experience

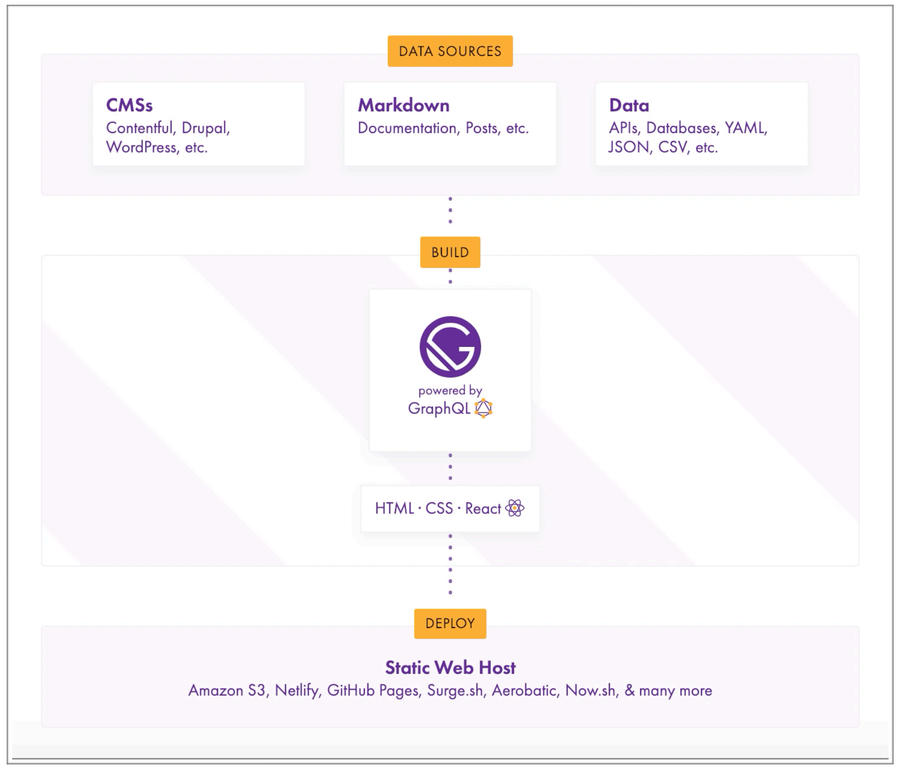
🏗 Easily reuse code & components

✨ Build interactive websites

OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
- THE PROMISES OF GATSBYJS
  - WHAT IS GATSBYJS?
  - GATSBY PLUGINS
  - PERFORMANCE OPTIMIZATIONS
- PERFORMANCE IS A LONG GAME

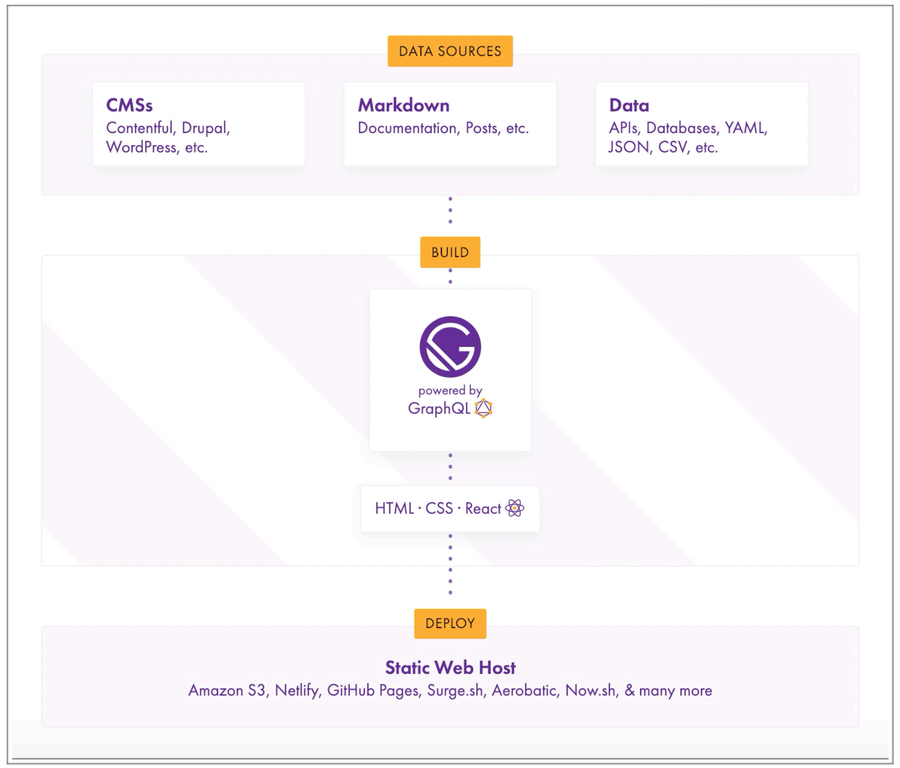
What is GatsbyJS?



OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
- THE PROMISES OF GATSBYJS
  - WHAT IS GATSBYJS?
  - GATSBY PLUGINS
  - PERFORMANCE OPTIMIZATIONS
- PERFORMANCE IS A LONG GAME

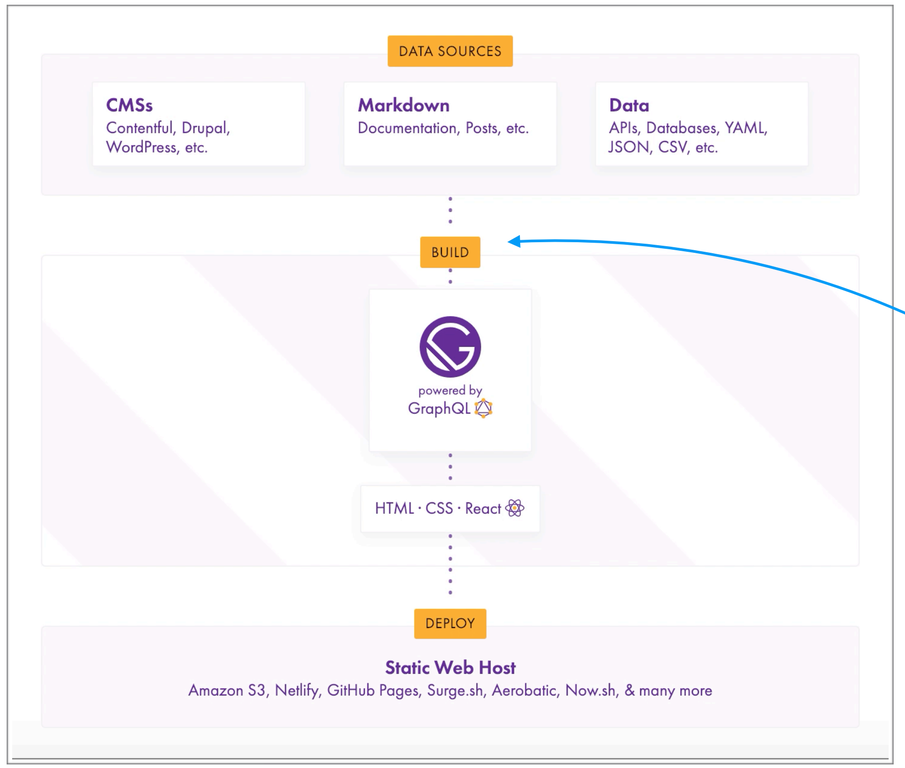
What is GatsbyJS?



OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
- THE PROMISES OF GATSBYJS
  - WHAT IS GATSBYJS?
  - GATSBY PLUGINS
  - PERFORMANCE OPTIMIZATIONS
- PERFORMANCE IS A LONG GAME

What is GatsbyJS?

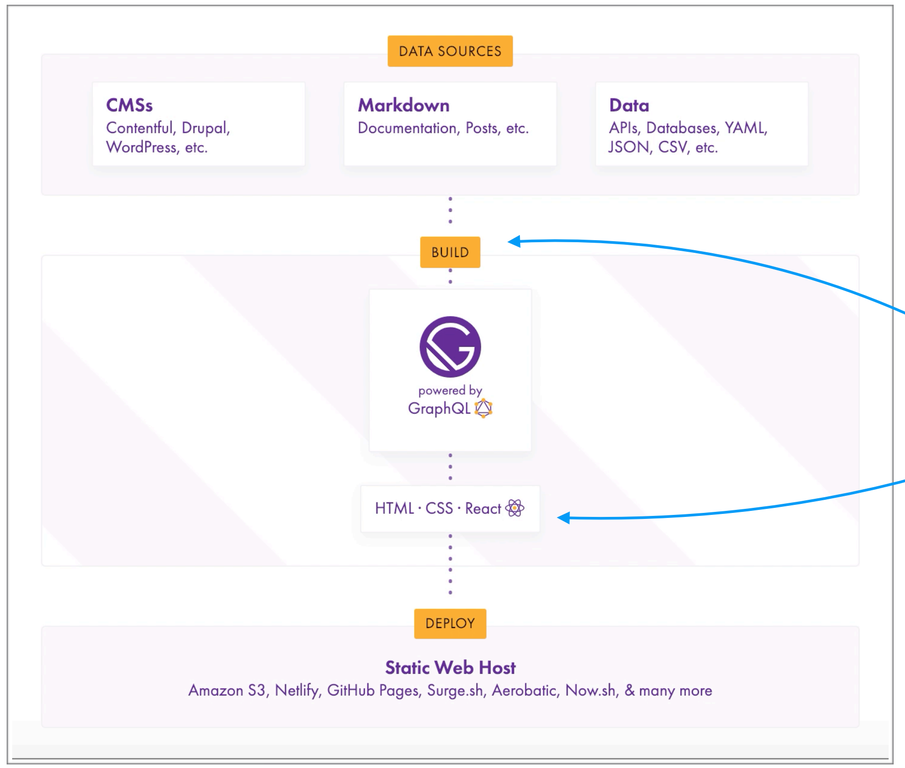


The SSG part relies on NodeJS and GraphQL

OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
- **THE PROMISES OF GATSBYJS**
  - WHAT IS GATSBYJS?
  - GATSBY PLUGINS
  - PERFORMANCE OPTIMIZATIONS
- PERFORMANCE IS A LONG GAME

What is GatsbyJS?



The SSG part relies on NodeJS and GraphQL

The SPA part is a fully-featured React application

OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
- THE PROMISES OF GATSBYJS
  - WHAT IS GATSBYJS?
  - GATSBY PLUGINS
  - PERFORMANCE OPTIMIZATIONS
- PERFORMANCE IS A LONG GAME

What is GatsbyJS?

🛠️ Static or weakly dynamic data at build time

OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
- THE PROMISES OF GATSBYJS
  - WHAT IS GATSBYJS?
  - GATSBY PLUGINS
  - PERFORMANCE OPTIMIZATIONS
- PERFORMANCE IS A LONG GAME

What is GatsbyJS?

🛠️ Static or weakly dynamic data at build time

🏃 Highly dynamic data at runtime

OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
- THE PROMISES OF GATSBYJS
  - WHAT IS GATSBYJS?
  - GATSBY PLUGINS
  - PERFORMANCE OPTIMIZATIONS
- PERFORMANCE IS A LONG GAME

Gatsby as a Static Site Generator: Gatsby Plugins

Any datasource

OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
- THE PROMISES OF GATSBYJS
  - WHAT IS GATSBYJS?
  - GATSBY PLUGINS
  - PERFORMANCE OPTIMIZATIONS
- PERFORMANCE IS A LONG GAME

Gatsby as a Static Site Generator: Gatsby Plugins

Any datasource

GraphQL interface

OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
- THE PROMISES OF GATSBYJS
  - WHAT IS GATSBYJS?
  - GATSBY PLUGINS
  - PERFORMANCE OPTIMIZATIONS
- PERFORMANCE IS A LONG GAME

Gatsby as a Static Site Generator: Gatsby Plugins

Any datasource

GraphQL interface

React components

OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
- THE PROMISES OF GATSBYJS
  - WHAT IS GATSBYJS?
  - GATSBY PLUGINS
  - PERFORMANCE OPTIMIZATIONS
- PERFORMANCE IS A LONG GAME

Gatsby as a Static Site Generator: Gatsby Plugins

OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
- THE PROMISES OF GATSBYJS
  - WHAT IS GATSBYJS?
  - GATSBY PLUGINS
  - PERFORMANCE OPTIMIZATIONS
- PERFORMANCE IS A LONG GAME

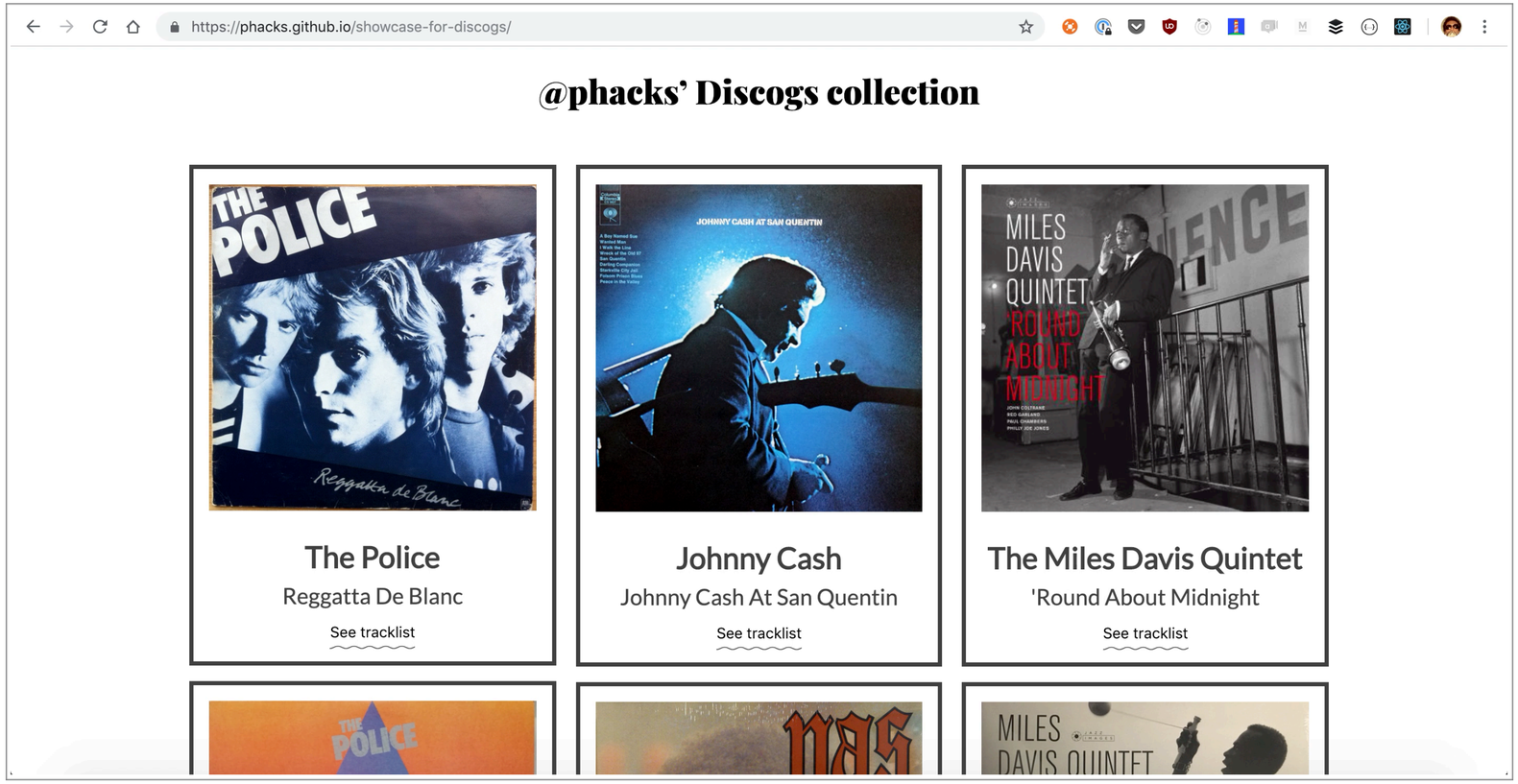
Gatsby as a Static Site Generator: Gatsby Plugins

OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
- THE PROMISES OF GATSBYJS
  - WHAT IS GATSBYJS?
  - GATSBY PLUGINS
  - PERFORMANCE OPTIMIZATIONS
- PERFORMANCE IS A LONG GAME

&/phacks

Gatsby as a Static Site Generator: Gatsby Plugins



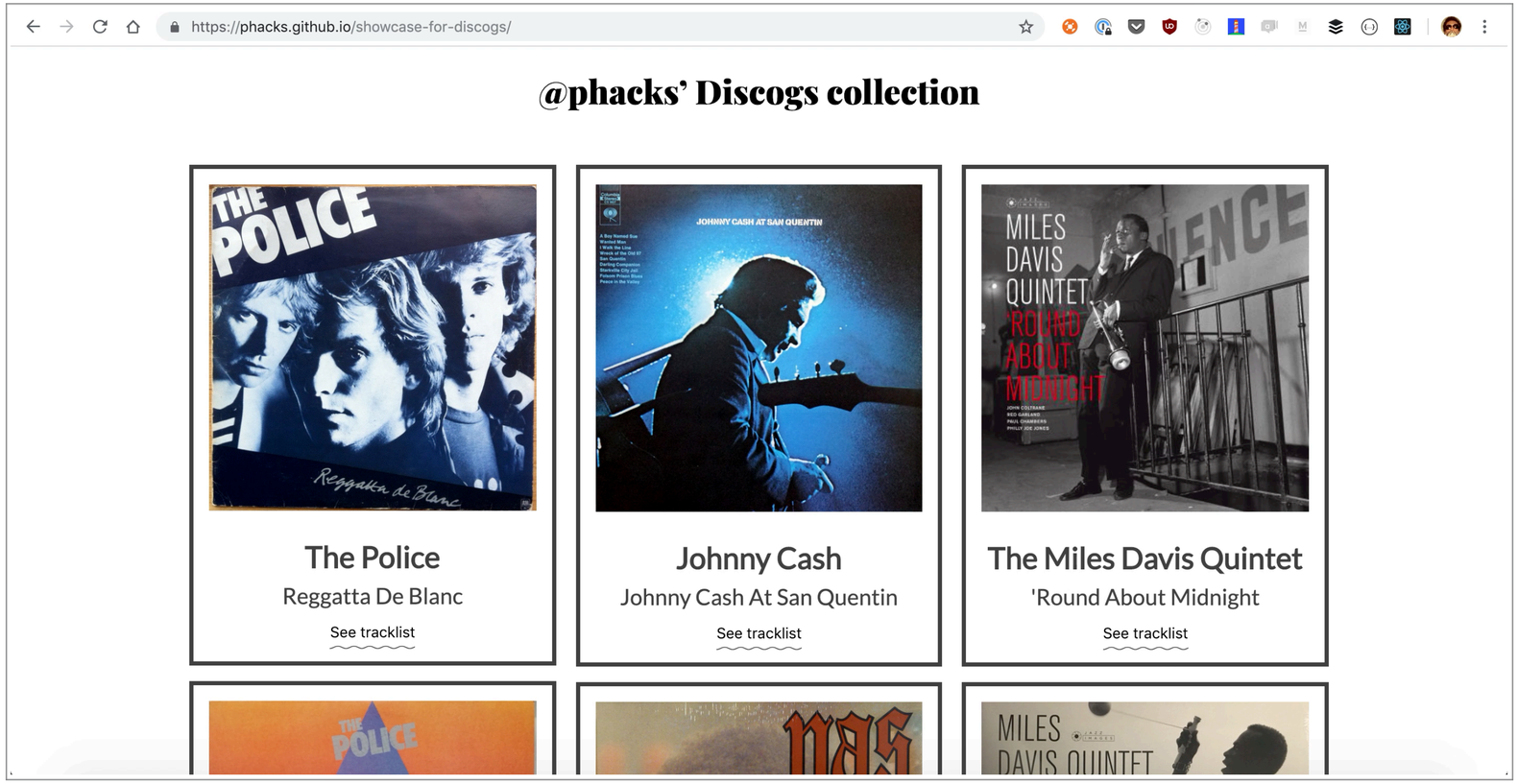
https://phacks.github.io/showcase-for-discogs/
https://github.com/phacks/showcase-for-discogs

OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
- THE PROMISES OF GATSBYJS
  - WHAT IS GATSBYJS?
  - GATSBY PLUGINS
  - PERFORMANCE OPTIMIZATIONS
- PERFORMANCE IS A LONG GAME

&/phacks

Gatsby as a Static Site Generator: Gatsby Plugins



https://phacks.github.io/showcase-for-discogs/
https://github.com/phacks/showcase-for-discogs

OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
- THE PROMISES OF GATSBYJS
  - WHAT IS GATSBYJS?
  - GATSBY PLUGINS
  - PERFORMANCE OPTIMIZATIONS
- PERFORMANCE IS A LONG GAME

Gatsby as a Static Site Generator: Gatsby Plugins

```
export const query = graphql`
  query {
    allDiscogsRelease{
      edges {
        node {
          title
          artists {
            name
          }
          tracklist {
            title
            duration
            position
          }
          year
          images {
            uri
            type
          }
        }
      }
    }
  }
`
```

OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
- THE PROMISES OF GATSBYJS
  - WHAT IS GATSBYJS?
  - GATSBY PLUGINS
  - PERFORMANCE OPTIMIZATIONS
- PERFORMANCE IS A LONG GAME

Gatsby as a Static Site Generator: Gatsby Plugins

```
const IndexPage = ({data}) => (
  <Layout>
    <Discography>
      {data.allDiscogsRelease.edges.map(release =>
        <Release release={{
          artist: release.node.artists[0].name,
          imageUrl: release.node.images.find(image => image.type === 'primary')
            ? release.node.images.find(image => image.type === 'primary').uri
            : release.node.images.find(image => image.type === 'secondary').uri,
          title: release.node.title,
          tracklist: release.node.tracklist.map(track => ({
            duration: track.duration,
            title: track.title,
            position: track.position
          })),
          year: release.node.year
        }} />)}
    </Discography>
  </Layout>
)
```

OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
- THE PROMISES OF GATSBYJS
  - WHAT IS GATSBYJS?
  - GATSBY PLUGINS
  - PERFORMANCE OPTIMIZATIONS
- PERFORMANCE IS A LONG GAME

Gatsby as a Static Site Generator: Gatsby Plugins

OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
- THE PROMISES OF GATSBYJS
  - WHAT IS GATSBYJS?
  - GATSBY PLUGINS
  - PERFORMANCE OPTIMIZATIONS
- PERFORMANCE IS A LONG GAME

Gatsby as a Static Site Generator: Gatsby Plugins

OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
- THE PROMISES OF GATSBYJS
  - WHAT IS GATSBYJS?
  - GATSBY PLUGINS
  - PERFORMANCE OPTIMIZATIONS
- PERFORMANCE IS A LONG GAME

Gatsby as a Static Site Generator: Gatsby Plugins

Custom plugins

OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
- THE PROMISES OF GATSBYJS
  - WHAT IS GATSBYJS?
  - GATSBY PLUGINS
  - PERFORMANCE OPTIMIZATIONS
- PERFORMANCE IS A LONG GAME

Gatsby as a Static Site Generator: Gatsby Plugins

Custom plugins

Public and **private** APIs.

OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
- THE PROMISES OF GATSBYJS
  - WHAT IS GATSBYJS?
  - GATSBY PLUGINS
  - PERFORMANCE OPTIMIZATIONS
- PERFORMANCE IS A LONG GAME

Gatsby as a Static Site Generator: Gatsby Plugins

Custom plugins

Public and **private** APIs.

A few hours (but your mileage may vary)

OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
- THE PROMISES OF GATSBYJS
  - WHAT IS GATSBYJS?
  - GATSBY PLUGINS
  - PERFORMANCE OPTIMIZATIONS
- PERFORMANCE IS A LONG GAME

Gatsby as a Static Site Generator: Gatsby Plugins

Custom plugins

Public and **private** APIs.

A few hours (but your mileage may vary)

https://github.com/phacks/gatsby-source-meetup/
https://www.gatsbyjs.org/docs/creating-a-source-plugin/

OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
- THE PROMISES OF GATSBYJS
  - WHAT IS GATSBYJS?
  - GATSBY PLUGINS
  - PERFORMANCE OPTIMIZATIONS
- PERFORMANCE IS A LONG GAME

Gatsby as a React Compiler: Performance optimizations

"I designed Gatsby with the goal that when using it, it'd be really hard to build a slow site"

— Kyle Matthews, GatsbyJS creator

OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
- THE PROMISES OF GATSBYJS
  - WHAT IS GATSBYJS?
  - GATSBY PLUGINS
  - PERFORMANCE OPTIMIZATIONS
- PERFORMANCE IS A LONG GAME

Gatsby as a React Compiler: Performance optimizations

GatsbyJS implements state-of-the-art performance optimizations so that you don’t have to

OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
- THE PROMISES OF GATSBYJS
  - WHAT IS GATSBYJS?
  - GATSBY PLUGINS
  - PERFORMANCE OPTIMIZATIONS
- PERFORMANCE IS A LONG GAME

Gatsby as a React Compiler: Performance optimizations

GatsbyJS implements state-of-the-art performance optimizations so that you don’t have to

📸 **Automatic image optimizations**

OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
- THE PROMISES OF GATSBYJS
  - WHAT IS GATSBYJS?
  - GATSBY PLUGINS
  - PERFORMANCE OPTIMIZATIONS
- PERFORMANCE IS A LONG GAME

Gatsby as a React Compiler: Performance optimizations

GatsbyJS implements state-of-the-art performance optimizations so that you don't have to

📸 **Automatic image optimizations**

✂️ **Built-in code and data splitting**

OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
- THE PROMISES OF GATSBYJS
  - WHAT IS GATSBYJS?
  - GATSBY PLUGINS
  - PERFORMANCE OPTIMIZATIONS
- PERFORMANCE IS A LONG GAME

Gatsby as a React Compiler: Performance optimizations

GatsbyJS implements state-of-the-art performance optimizations so that you don't have to

📸 **Automatic image optimizations**

✂️ **Built-in code and data splitting**

🔗 **Link prefetching**

OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
- THE PROMISES OF GATSBYJS
  - WHAT IS GATSBYJS?
  - GATSBY PLUGINS
  - PERFORMANCE OPTIMIZATIONS
- PERFORMANCE IS A LONG GAME

Gatsby as a React Compiler: Performance optimizations

GatsbyJS implements state-of-the-art performance optimizations so that you don't have to

📸 **Automatic image optimizations**

✂️ **Built-in code and data splitting**

🔗 **Link prefetching**

🏎 **Native lazy-loading**

OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
- THE PROMISES OF GATSBYJS
  - WHAT IS GATSBYJS?
  - GATSBY PLUGINS
  - PERFORMANCE OPTIMIZATIONS
- PERFORMANCE IS A LONG GAME

Gatsby as a React Compiler: Performance optimizations

GatsbyJS implements state-of-the-art performance optimizations so that you don't have to

- 📸 **Automatic image optimizations**
- ✂️ **Built-in code and data splitting**
- 🔗 **Link prefetching**
- 🏎 **Native lazy-loading**
- 🏗 **Inlined critical CSS**

OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
- THE PROMISES OF GATSBYJS
  - WHAT IS GATSBYJS?
  - GATSBY PLUGINS
  - PERFORMANCE OPTIMIZATIONS
- PERFORMANCE IS A LONG GAME

Gatsby as a React Compiler: Performance optimizations

GatsbyJS implements state-of-the-art performance optimizations so that you don't have to

- 📸 **Automatic image optimizations**
- ✂️ **Built-in code and data splitting**
- 🔗 **Link prefetching**
- 🏎 **Native lazy-loading**
- 🏗 **Inlined critical CSS**
- 👷 **Offline support with Service Workers**

OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
- THE PROMISES OF GATSBYJS
- PERFORMANCE IS A LONG GAME

Performance is a long game

OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
- THE PROMISES OF GATSBYJS
- **PERFORMANCE IS A LONG GAME**
  - THE IMPORTANCE OF MONITORING
  - OPEN SOURCE PERFORMANCE AUDIT TOOLS
  - ENTERS FALCO

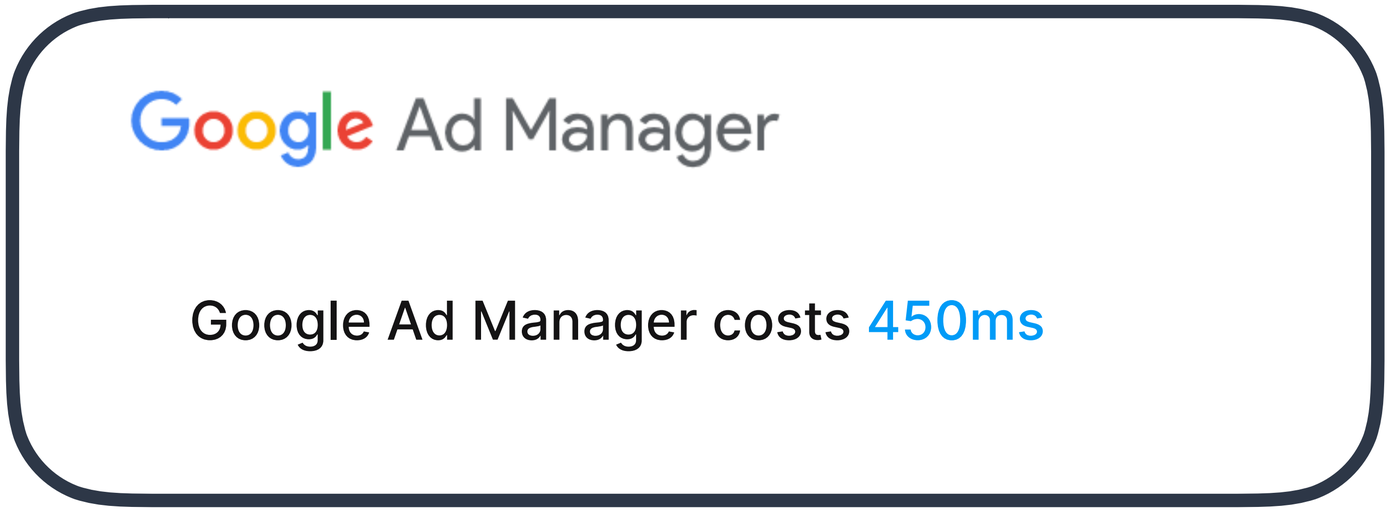
Third party scripts have an impact

Average mobile impact. Source & methodology: https://www.thirdpartyweb.today/

OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
- THE PROMISES OF GATSBYJS
- **PERFORMANCE IS A LONG GAME**
  - THE IMPORTANCE OF MONITORING
  - OPEN SOURCE PERFORMANCE AUDIT TOOLS
  - ENTERS FALCO

Third party scripts have an impact

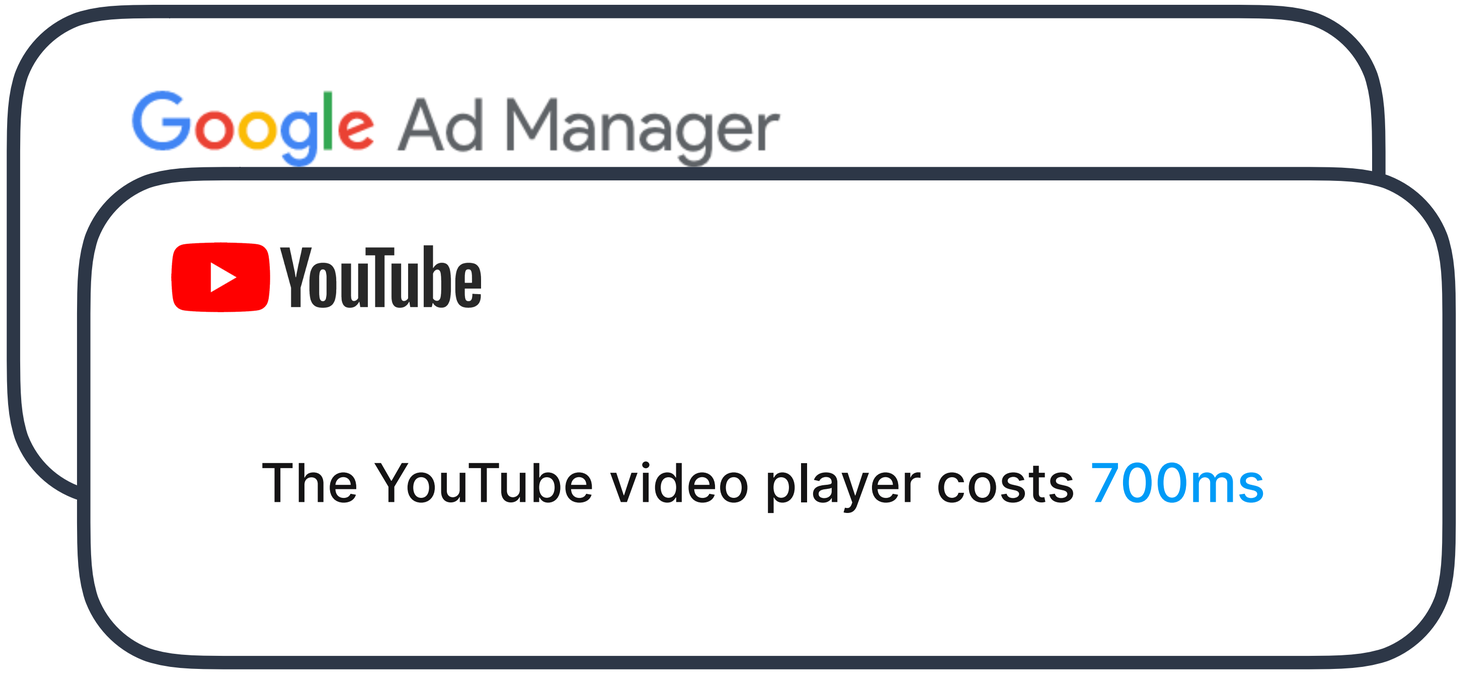


Average mobile impact. Source & methodology: https://www.thirdpartyweb.today/

OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
- THE PROMISES OF GATSBYJS
- **PERFORMANCE IS A LONG GAME**
  - THE IMPORTANCE OF MONITORING
  - OPEN SOURCE PERFORMANCE AUDIT TOOLS
  - ENTERS FALCO

Third party scripts have an impact

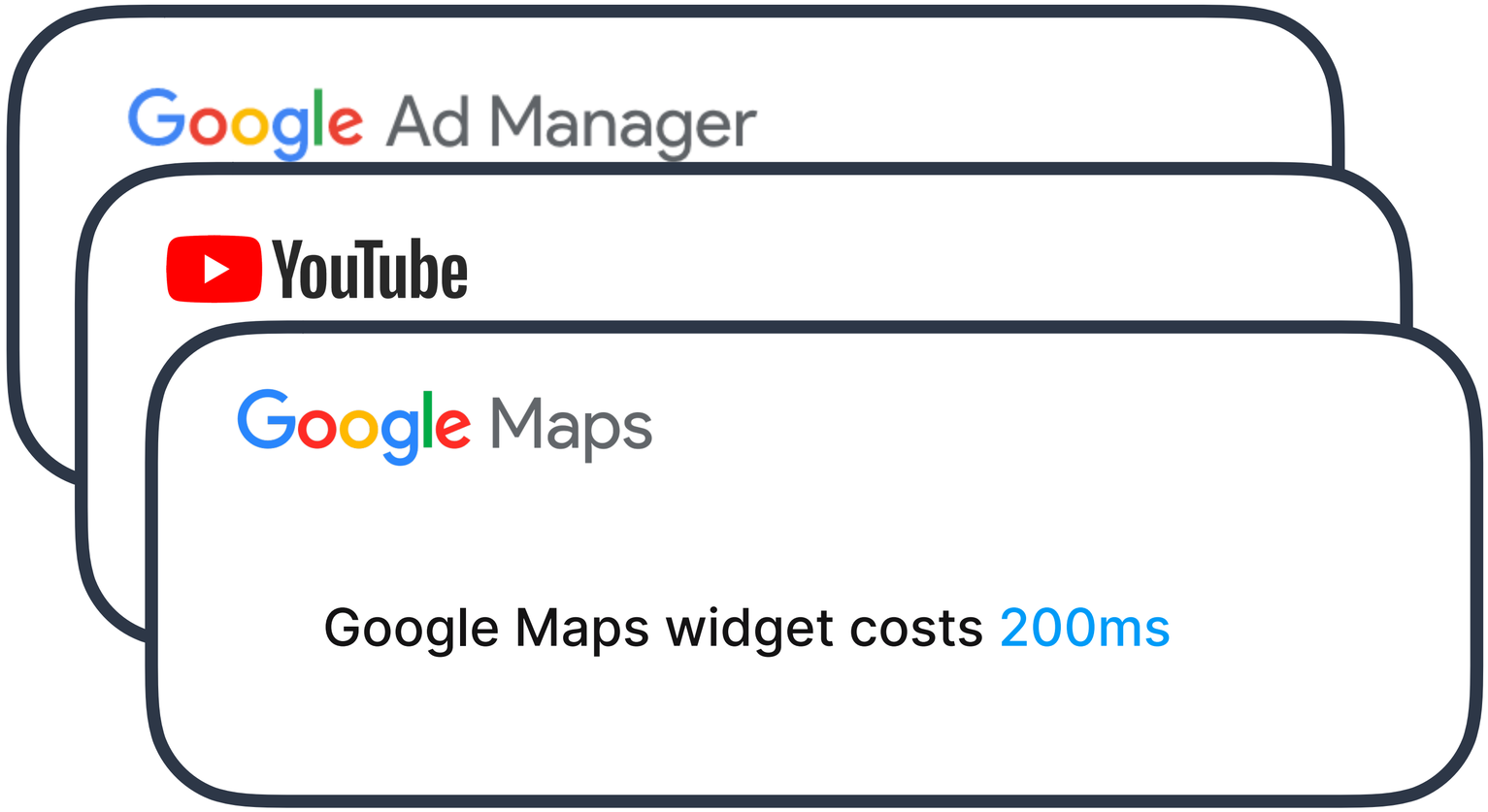


Average mobile impact. Source & methodology: https://www.thirdpartyweb.today/

OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
- THE PROMISES OF GATSBYJS
- **PERFORMANCE IS A LONG GAME**
  - THE IMPORTANCE OF MONITORING
  - OPEN SOURCE PERFORMANCE AUDIT TOOLS
  - ENTERS FALCO

Third party scripts have an impact

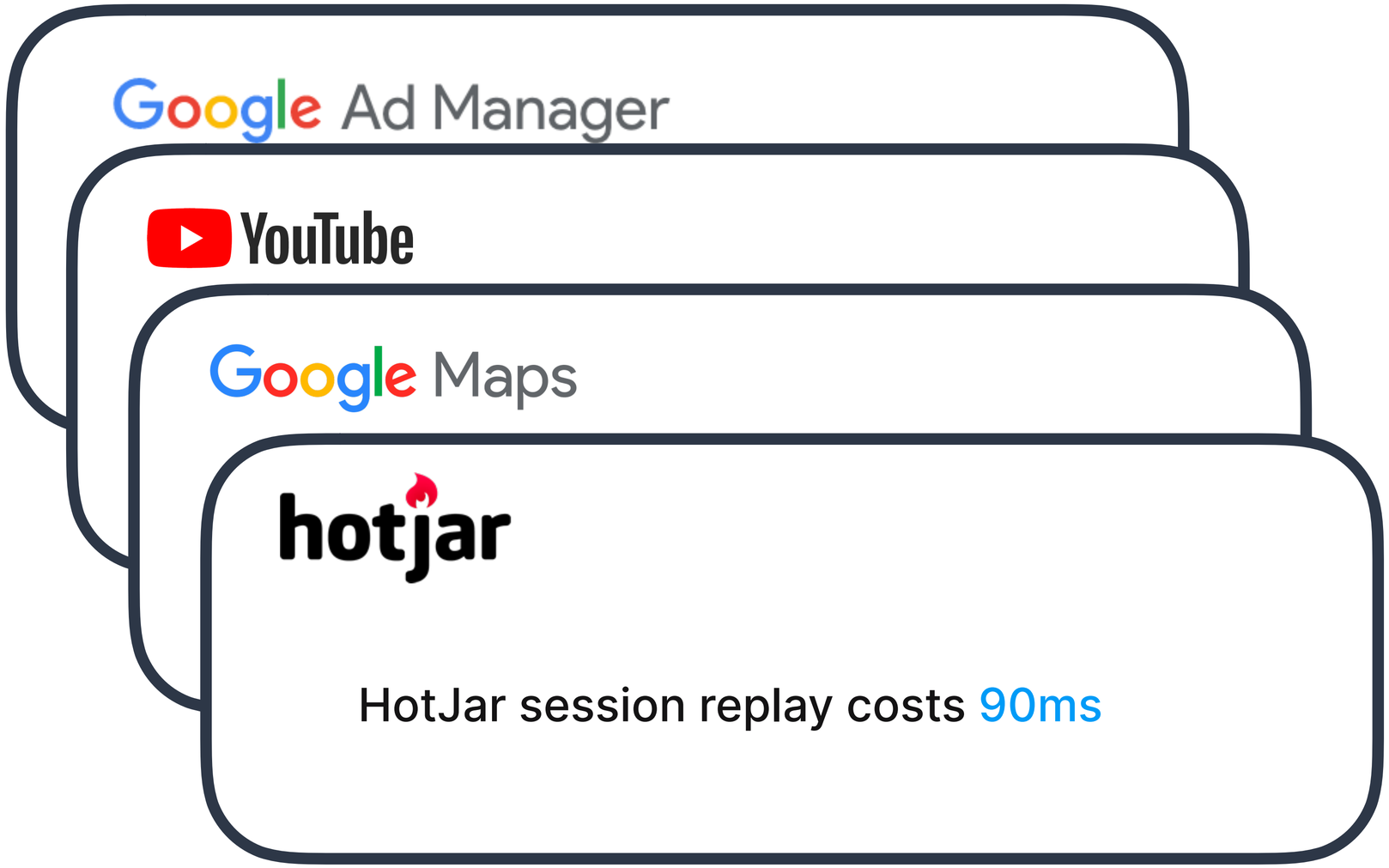


Average mobile impact. Source & methodology: https://www.thirdpartyweb.today/

OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
- THE PROMISES OF GATSBYJS
- **PERFORMANCE IS A LONG GAME**
  - THE IMPORTANCE OF MONITORING
  - OPEN SOURCE PERFORMANCE AUDIT TOOLS
  - ENTERS FALCO

Third party scripts have an impact

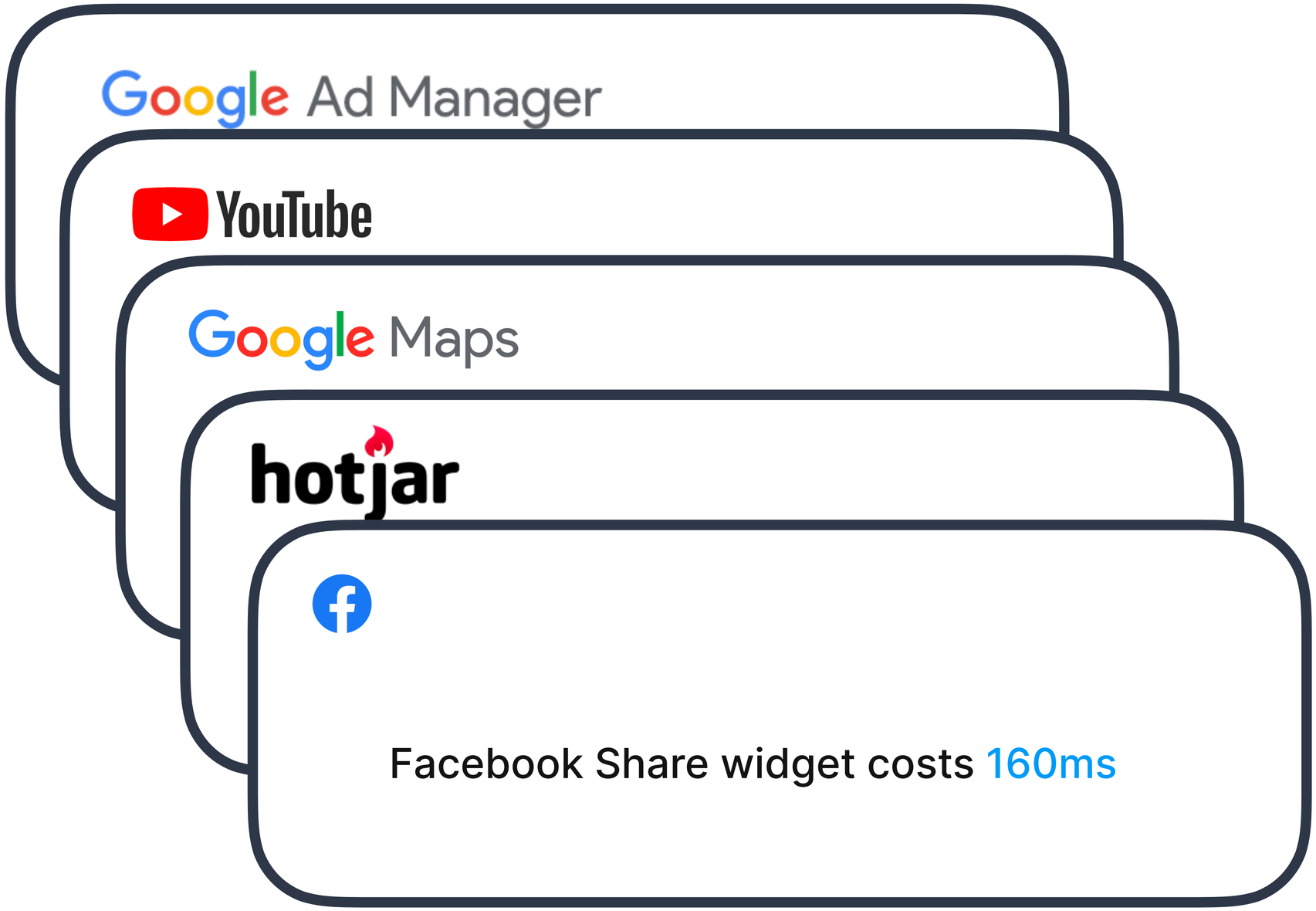


Average mobile impact. Source & methodology: https://www.thirdpartyweb.today/

OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
- THE PROMISES OF GATSBYJS
- **PERFORMANCE IS A LONG GAME**
  - THE IMPORTANCE OF MONITORING
  - OPEN SOURCE PERFORMANCE AUDIT TOOLS
  - ENTERS FALCO

Third party scripts have an impact



Average mobile impact. Source & methodology: https://www.thirdpartyweb.today/

OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
- THE PROMISES OF GATSBYJS
- PERFORMANCE IS A LONG GAME
  - THE IMPORTANCE OF MONITORING
  - OPEN SOURCE PERFORMANCE AUDIT TOOLS
  - ENTERS FALCO

JavaScript bloat has an impact

*"Every **100KB** of compressed JS results in a **3-4 second increase in Time to Interactive** on a 3G connection"*

— Paul Calvano

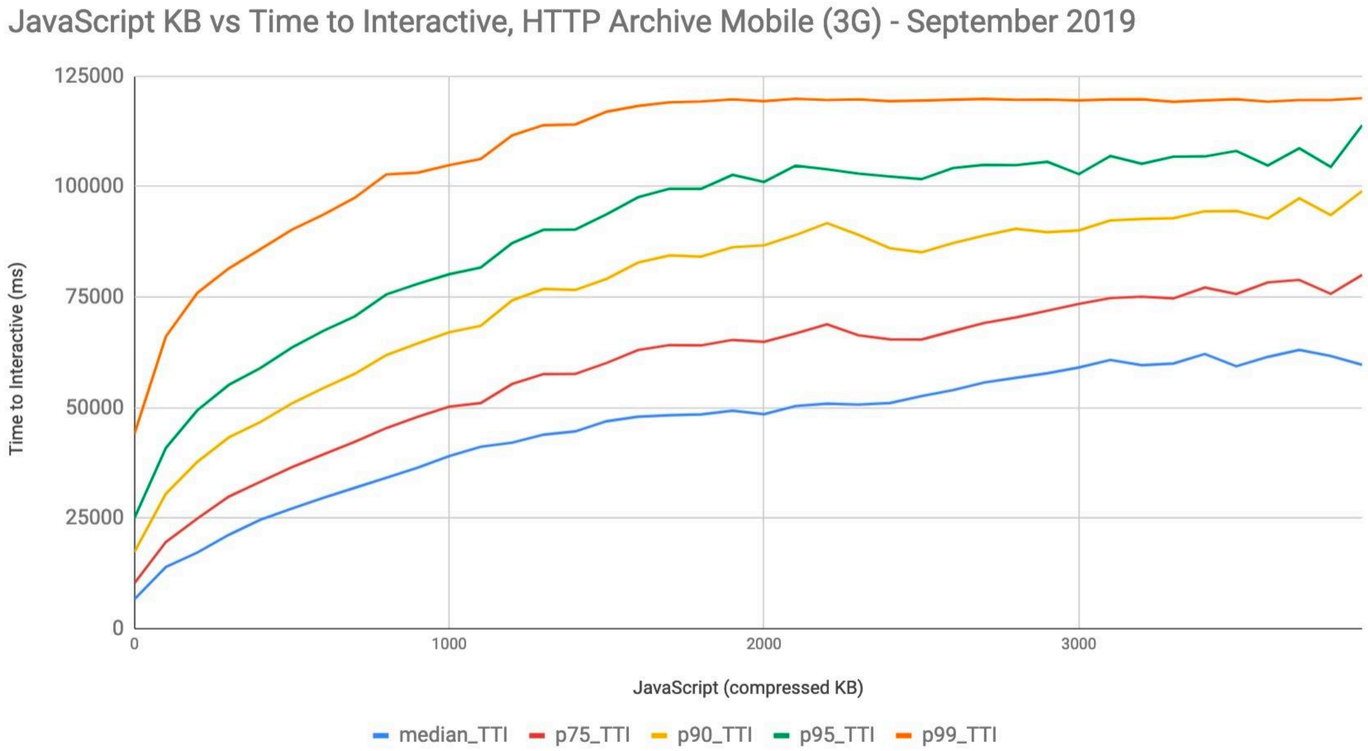
OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
- THE PROMISES OF GATSBYJS
- **PERFORMANCE IS A LONG GAME**
  - THE IMPORTANCE OF MONITORING
  - OPEN SOURCE PERFORMANCE AUDIT TOOLS
  - ENTERS FALCO

JavaScript bloat has an impact

*"Every **100KB** of compressed JS results in a **3-4 second increase in Time to Interactive** on a 3G connection"*

— Paul Calvano



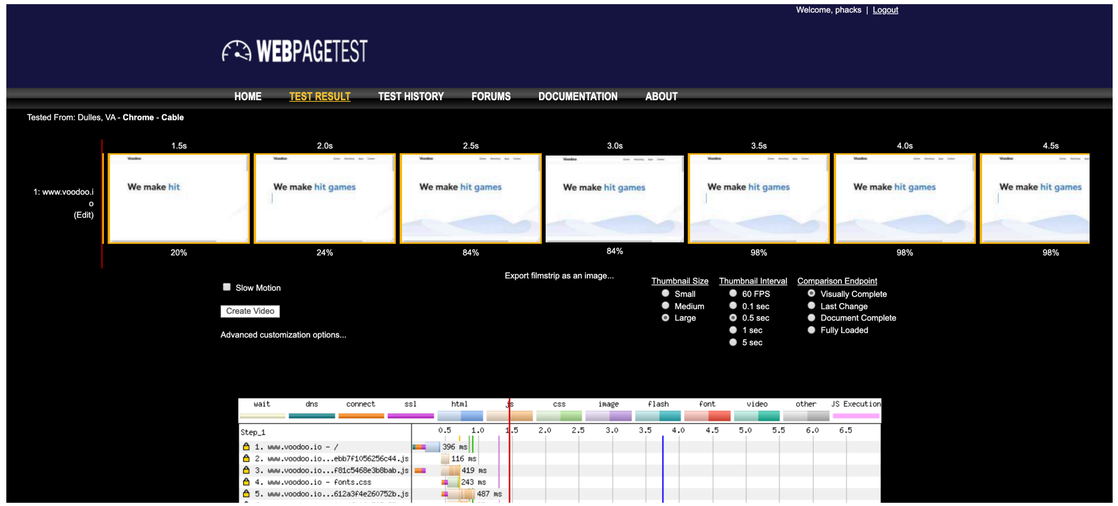
Source: https://twitter.com/paulcalvano/status/1179192810727186433

OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
- THE PROMISES OF GATSBYJS
- **PERFORMANCE IS A LONG GAME**
  - THE IMPORTANCE OF MONITORING
  - OPEN SOURCE PERFORMANCE AUDIT TOOLS
  - ENTERS FALCO

Open Source performance auditing tools

WebPageTest

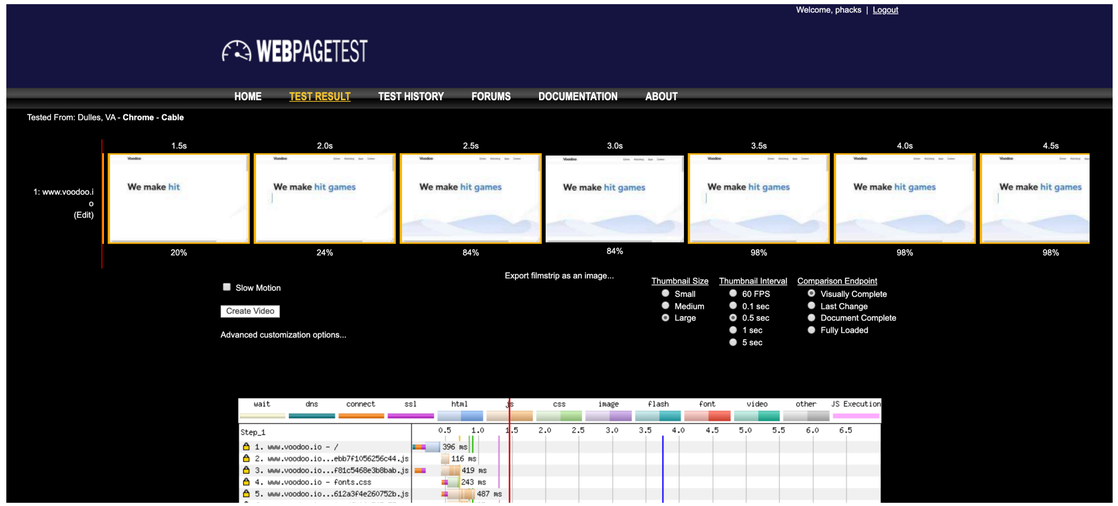


OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
- THE PROMISES OF GATSBYJS
- **PERFORMANCE IS A LONG GAME**
  - THE IMPORTANCE OF MONITORING
  - OPEN SOURCE PERFORMANCE AUDIT TOOLS
  - ENTERS FALCO

Open Source performance auditing tools

WebPageTest



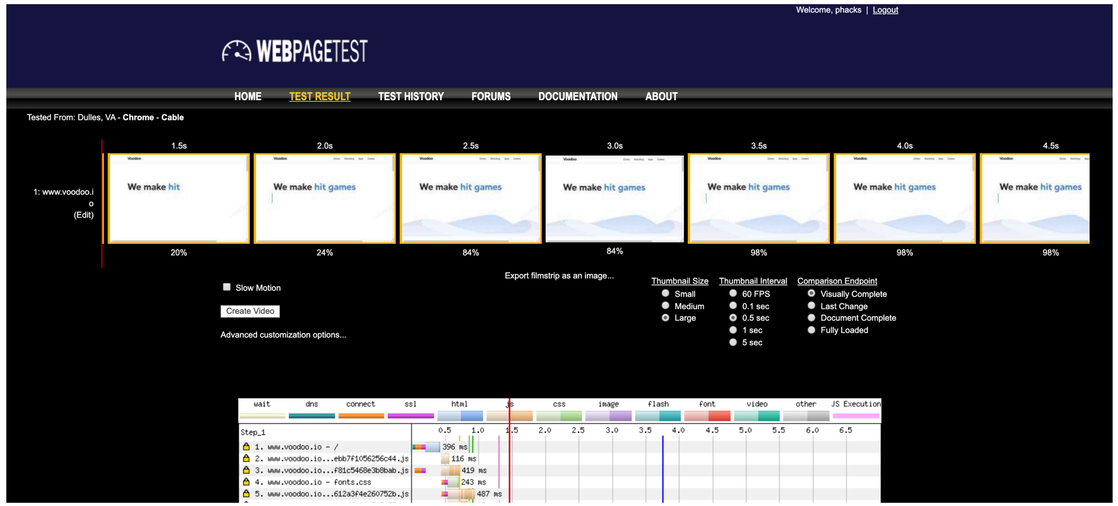
Tests on real devices (desktop, mobile) in several locations

OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
- THE PROMISES OF GATSBYJS
- **PERFORMANCE IS A LONG GAME**
  - THE IMPORTANCE OF MONITORING
  - OPEN SOURCE PERFORMANCE AUDIT TOOLS
  - ENTERS FALCO

Open Source performance auditing tools

WebPageTest



Tests on real devices (desktop, mobile) in several locations

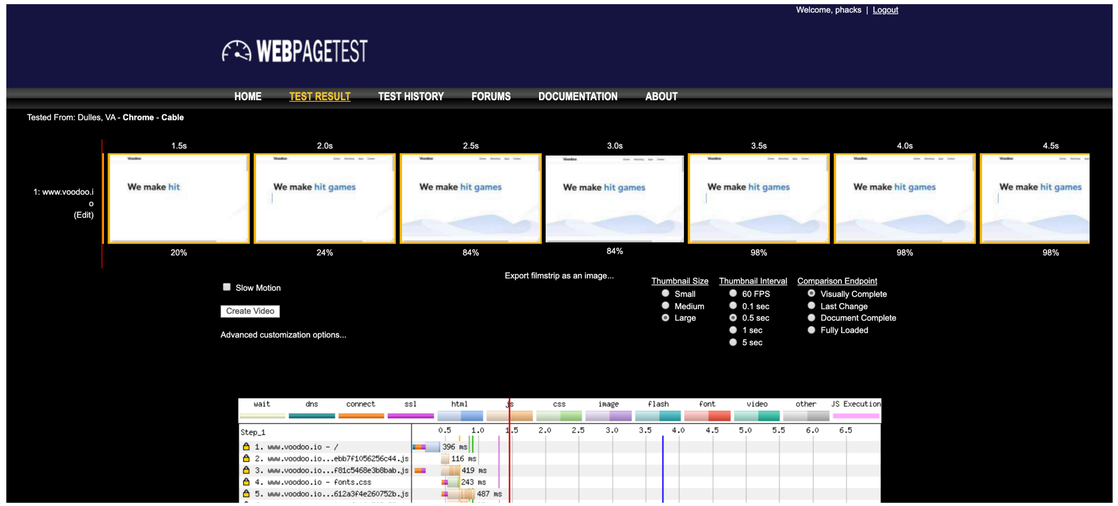
Access to filmstrips and videos of the website's loading

OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
- THE PROMISES OF GATSBYJS
- **PERFORMANCE IS A LONG GAME**
  - THE IMPORTANCE OF MONITORING
  - OPEN SOURCE PERFORMANCE AUDIT TOOLS
  - ENTERS FALCO

Open Source performance auditing tools

WebPageTest



Tests on real devices (desktop, mobile) in several locations

Access to filmstrips and videos of the website's loading

Full Waterfall graph and HTTP requests infos to dive deeper

OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
- THE PROMISES OF GATSBYJS
- PERFORMANCE IS A LONG GAME
  - THE IMPORTANCE OF MONITORING
  - OPEN SOURCE PERFORMANCE AUDIT TOOLS
  - ENTERS FALCO

Performance audit automation

Recurrent and automated

OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
- THE PROMISES OF GATSBYJS
- PERFORMANCE IS A LONG GAME
  - THE IMPORTANCE OF MONITORING
  - OPEN SOURCE PERFORMANCE AUDIT TOOLS
  - ENTERS FALCO

Performance audit automation

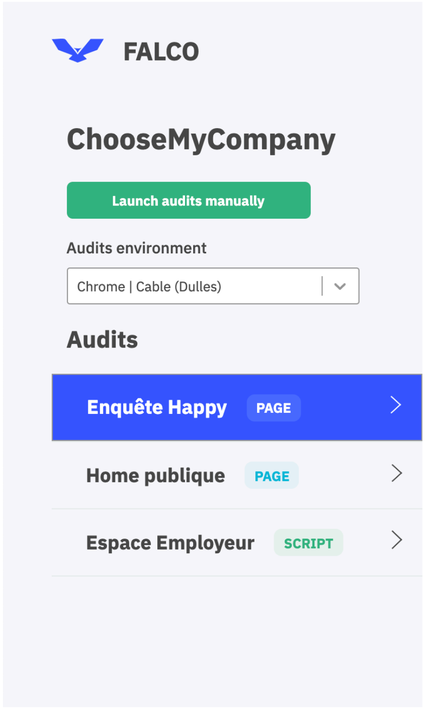
Recurrent and automated

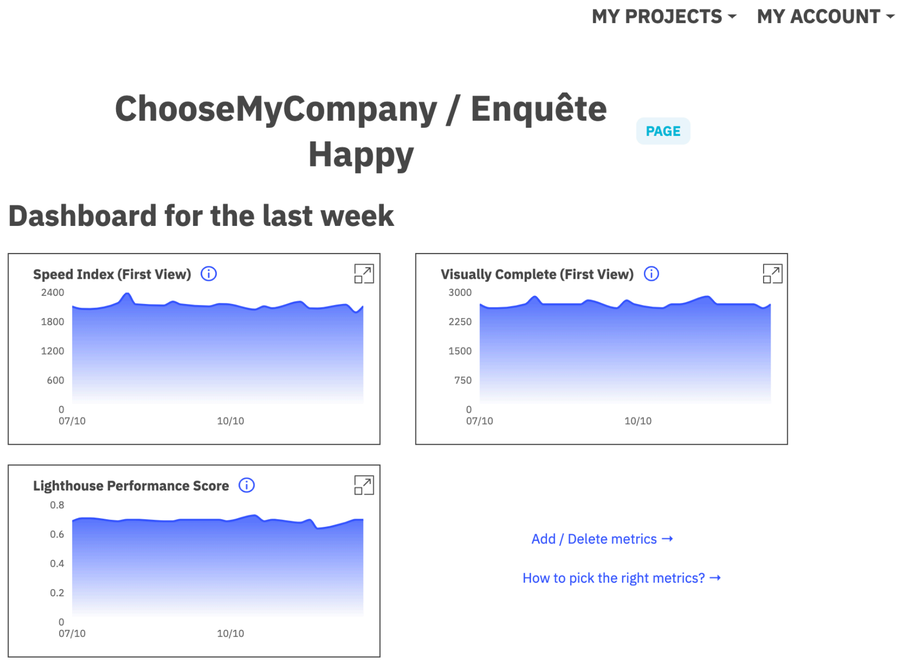
Represent the diversity of our users

OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
- THE PROMISES OF GATSBYJS
- **PERFORMANCE IS A LONG GAME**
  - THE IMPORTANCE OF MONITORING
  - OPEN SOURCE PERFORMANCE AUDIT TOOLS
  - ENTERS FALCO

Enters Falco





OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
- THE PROMISES OF GATSBYJS
- **PERFORMANCE IS A LONG GAME**
  - THE IMPORTANCE OF MONITORING
  - OPEN SOURCE PERFORMANCE AUDIT TOOLS
  - ENTERS FALCO

Falco, our WebPageTest runner

Multiple times a day in many conditions

OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
- THE PROMISES OF GATSBYJS
- **PERFORMANCE IS A LONG GAME**
  - THE IMPORTANCE OF MONITORING
  - OPEN SOURCE PERFORMANCE AUDIT TOOLS
  - ENTERS FALCO

Falco, our WebPageTest runner

Multiple times a day in many conditions

Evolution of performance metrics

OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
- THE PROMISES OF GATSBYJS
- **PERFORMANCE IS A LONG GAME**
  - THE IMPORTANCE OF MONITORING
  - OPEN SOURCE PERFORMANCE AUDIT TOOLS
  - ENTERS FALCO

Falco, our WebPageTest runner

Multiple times a day in many conditions

Evolution of performance metrics

Invite the whole team

OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
- THE PROMISES OF GATSBYJS
- **PERFORMANCE IS A LONG GAME**
  - THE IMPORTANCE OF MONITORING
  - OPEN SOURCE PERFORMANCE AUDIT TOOLS
  - ENTERS FALCO

Falco, our WebPageTest runner

Multiple times a day in many conditions

Evolution of performance metrics

Invite the whole team

Individual URLs or entire user journeys

OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
- THE PROMISES OF GATSBYJS
- **PERFORMANCE IS A LONG GAME**
  - THE IMPORTANCE OF MONITORING
  - OPEN SOURCE PERFORMANCE AUDIT TOOLS
  - ENTERS FALCO

Falco, our WebPageTest runner

Multiple times a day in many conditions

Evolution of performance metrics

Invite the whole team

Individual URLs or entire user journeys

Compare WebPageTest results between audits

OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
- THE PROMISES OF GATSBYJS
- **PERFORMANCE IS A LONG GAME**
  - THE IMPORTANCE OF MONITORING
  - OPEN SOURCE PERFORMANCE AUDIT TOOLS
  - ENTERS FALCO

Falco, our WebPageTest runner

Falco will be Open Source

OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
- THE PROMISES OF GATSBYJS
- **PERFORMANCE IS A LONG GAME**
  - THE IMPORTANCE OF MONITORING
  - OPEN SOURCE PERFORMANCE AUDIT TOOLS
  - ENTERS FALCO

Falco, our WebPageTest runner

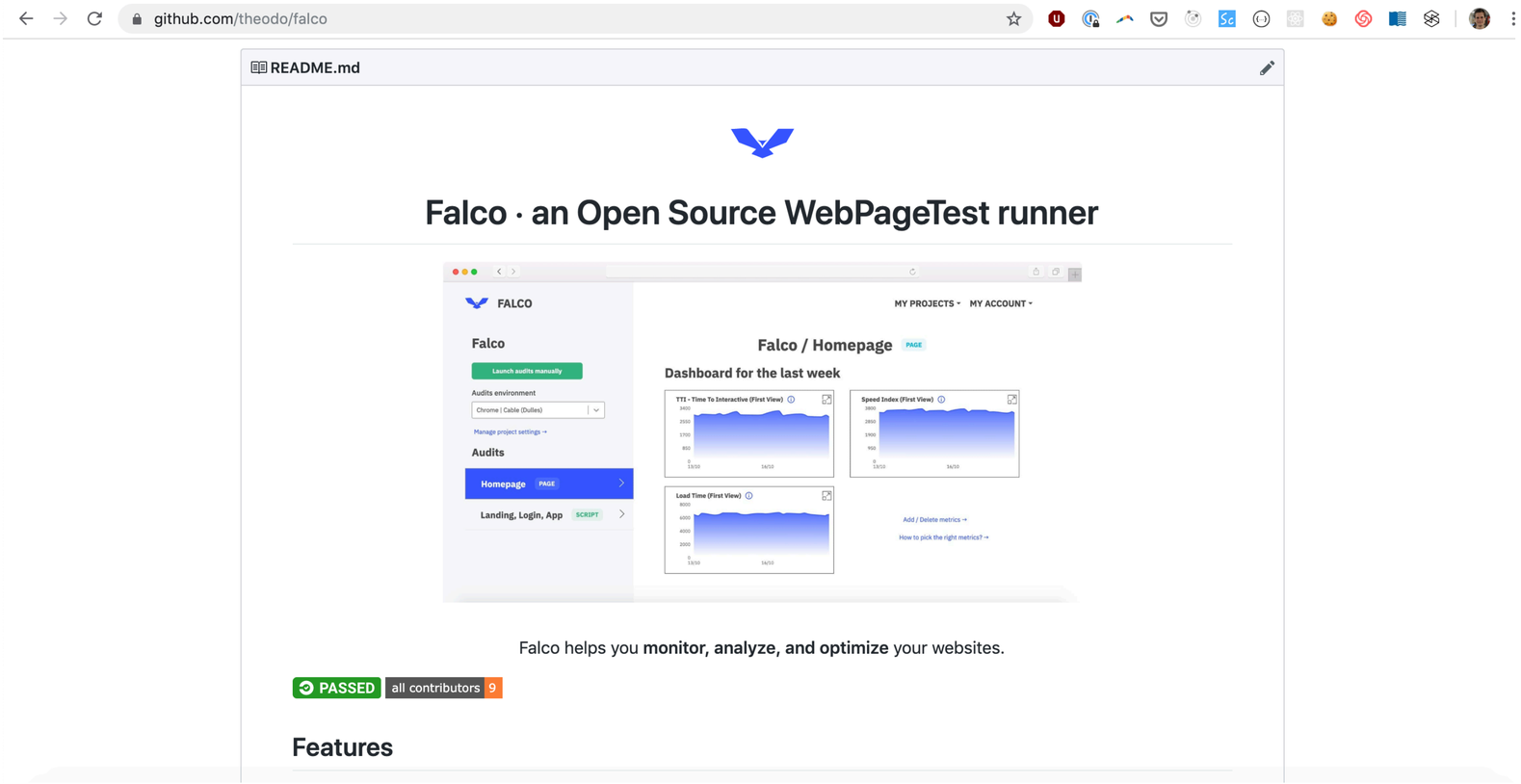
Falco will be Open Source

Starting now

OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
- THE PROMISES OF GATSBYJS
- **PERFORMANCE IS A LONG GAME**
  - THE IMPORTANCE OF MONITORING
  - OPEN SOURCE PERFORMANCE AUDIT TOOLS
  - ENTERS FALCO

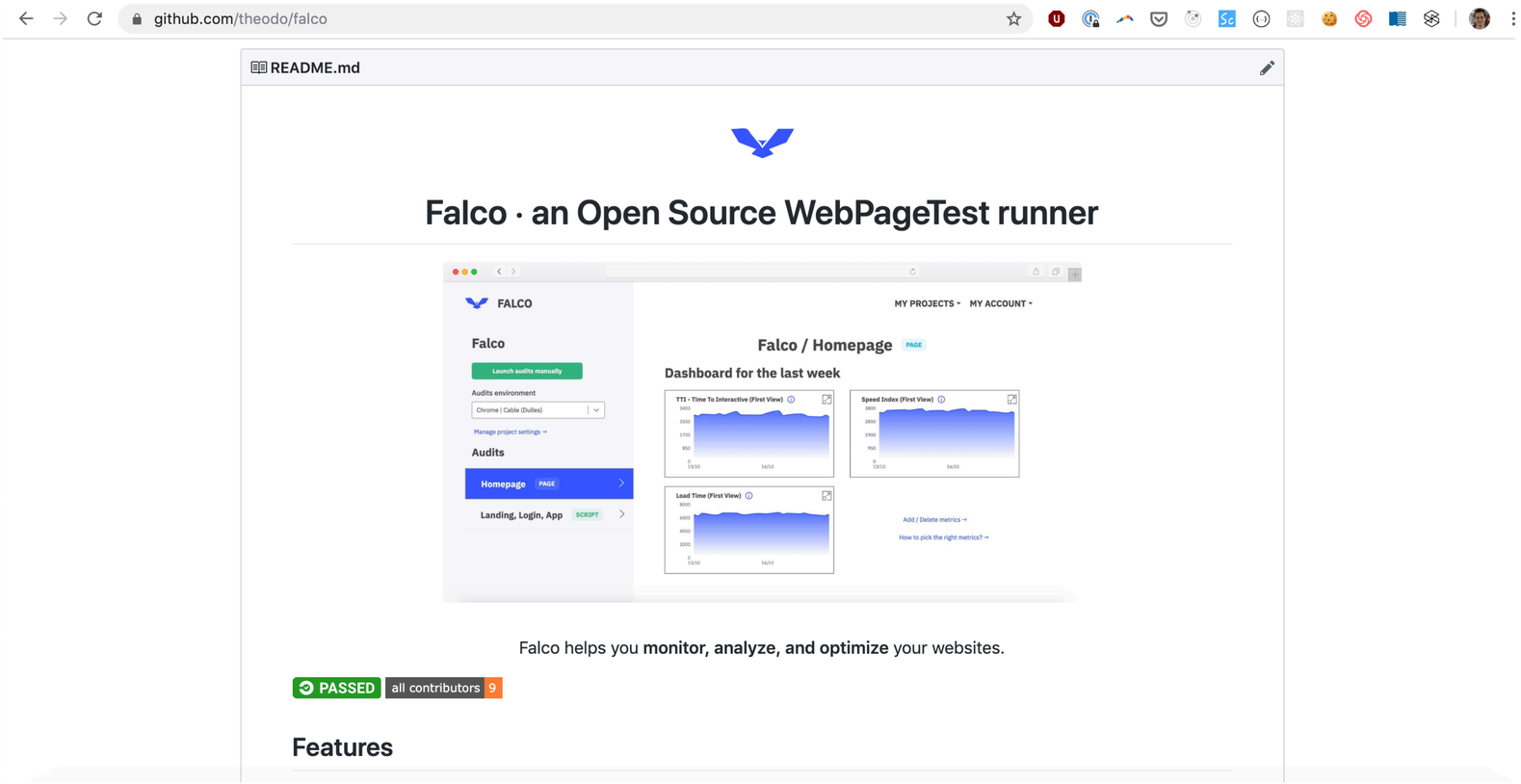
Falco, our WebPageTest runner



OUTLINE

- WHY PERFORMANCE MATTERS
- AN ORAL HISTORY OF WEB DEVELOPMENT
- THE PROMISES OF GATSBYJS
- **PERFORMANCE IS A LONG GAME**
  - THE IMPORTANCE OF MONITORING
  - OPEN SOURCE PERFORMANCE AUDIT TOOLS
  - ENTERS FALCO

Falco, our WebPageTest runner



https://github.com/theodo/falco

https://getfal.co

Thank you!

Slides will be available later today on my Twitter: @phacks

Fonts used for this presentation:

- **Faune** (headers) by Alice Savoie/CNAP
- **Overpass** (outline) by Delve Fonts
- **Inter** (body copy) by Rasmus Andersson
- **IBM Plex Mono** (monospace) by IBM