Mastering frontend performance metrics

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Hi, I'm Carles



What is performance about?

Perception



Interaction



Retention



Revenue



5 seconds of load time has the double bounce rate than loading on 1 second.

https://www.dareboost.com/en/webperf-impacts

Only 1 more second in loading time can cost up to 7% of the conversion rate

https://neilpatel.com/blog/loading-time/



Doesn't matter how much time you invest in performance improvements if you cannot measure the impact

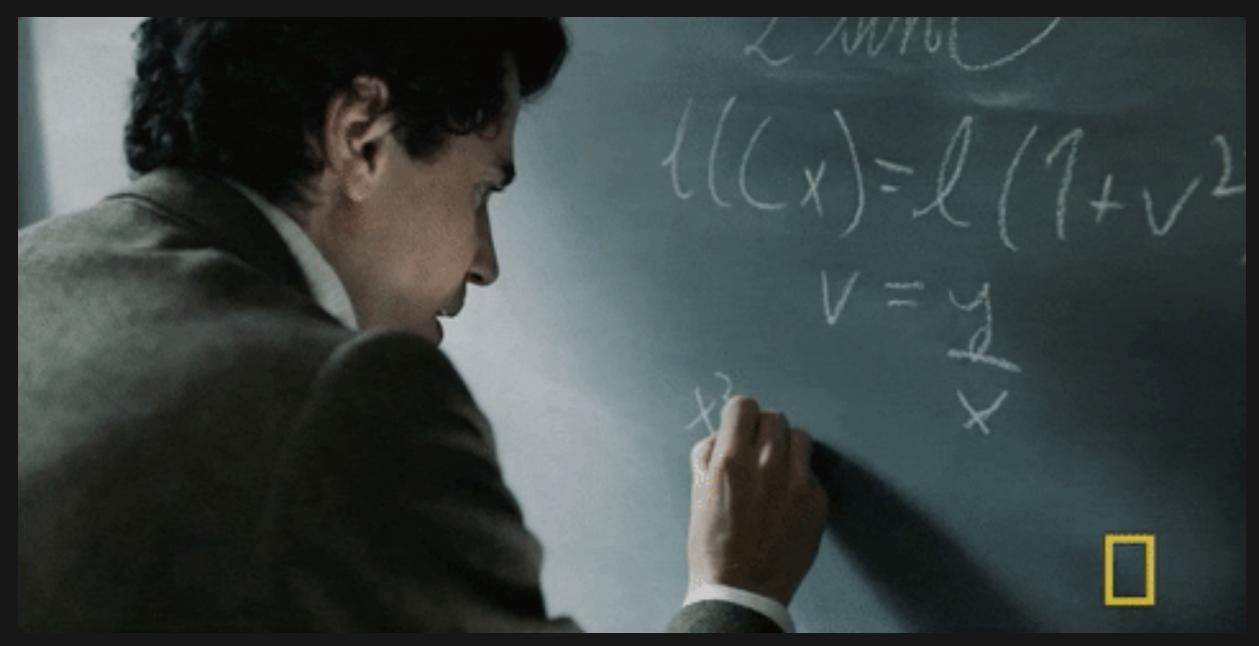
How can we measure it?

Controlled monitoring & Real user monitoring





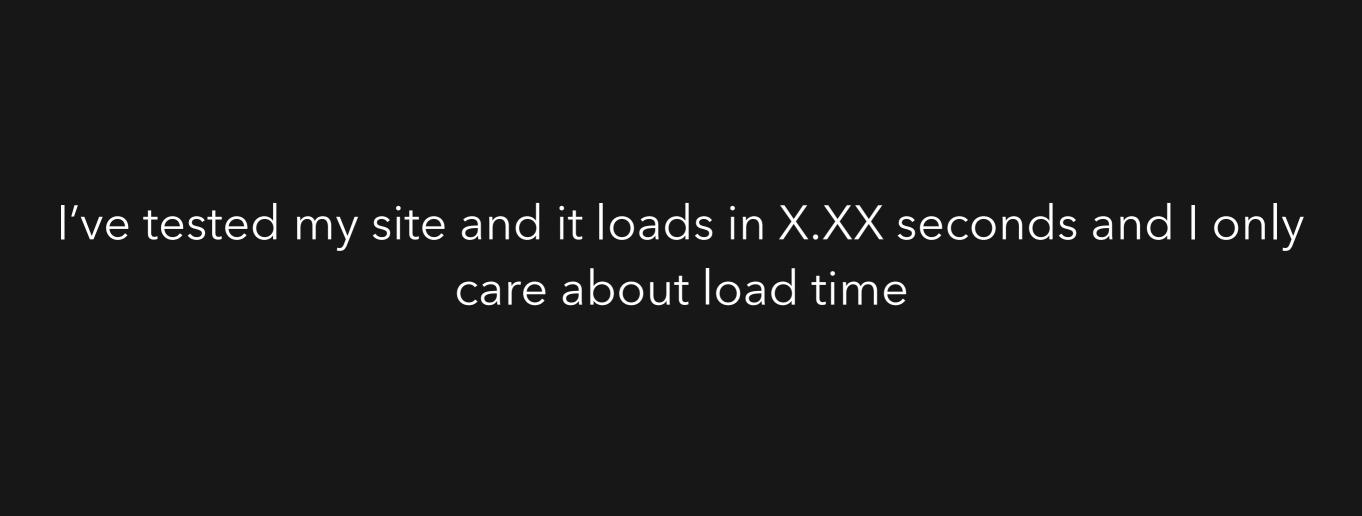




The feeling using this kind of tools



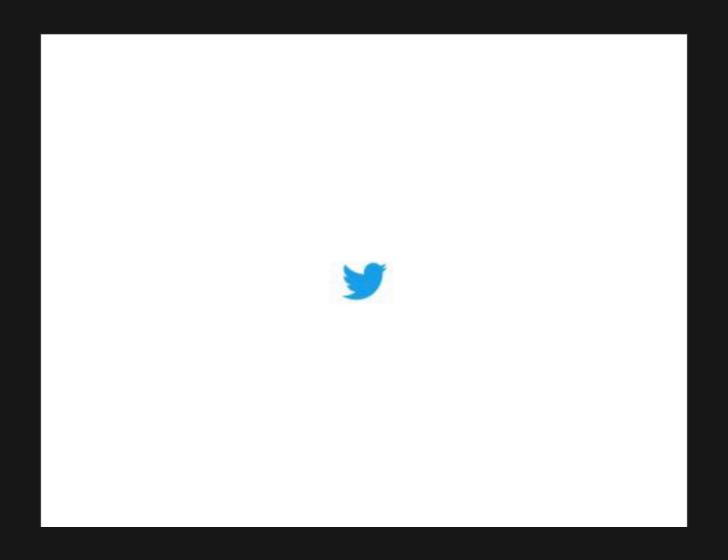
The feeling when we understand some metrics



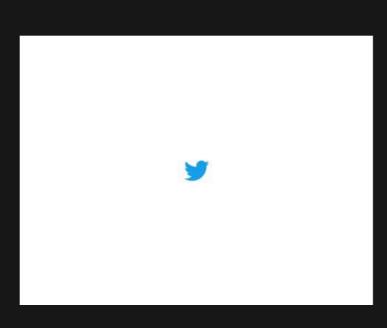
Performance metrics

First Paint

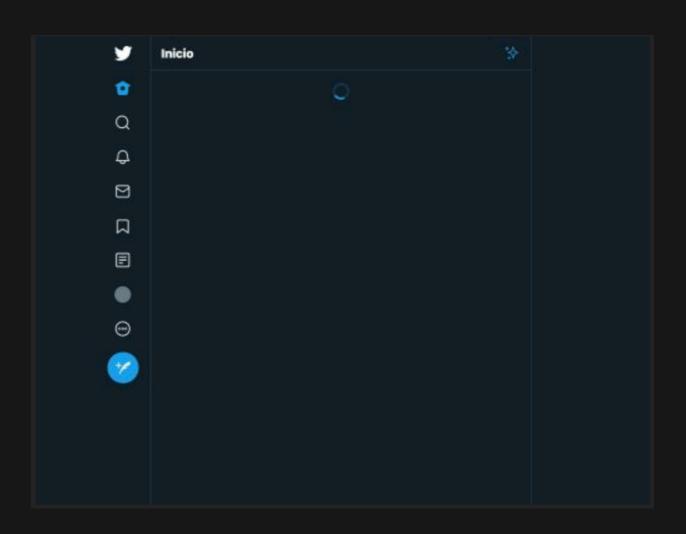
First Paint



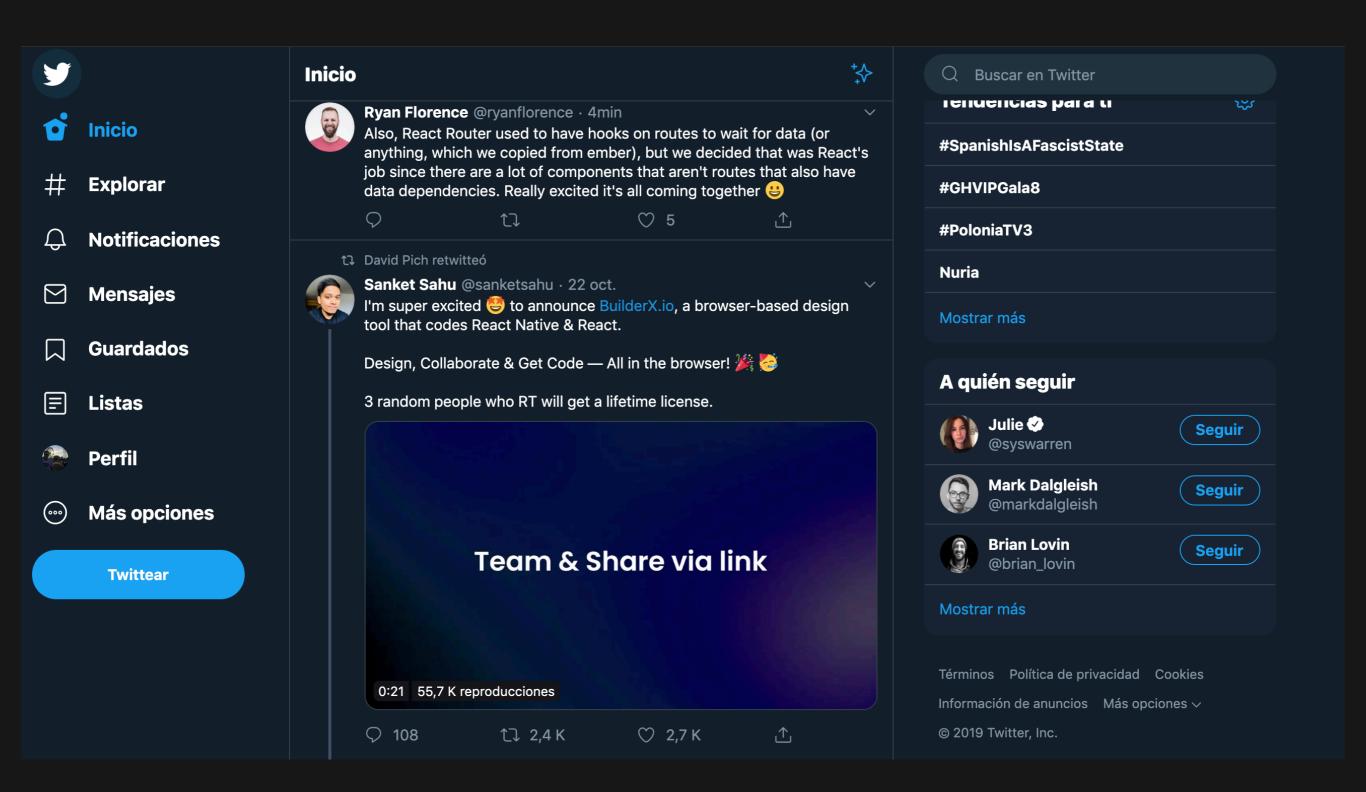
First contenful paint



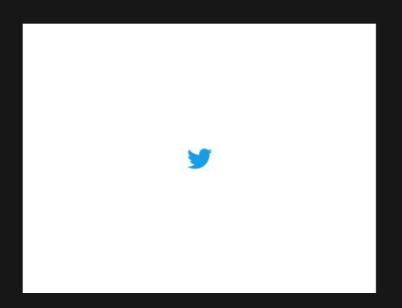
First paint FP

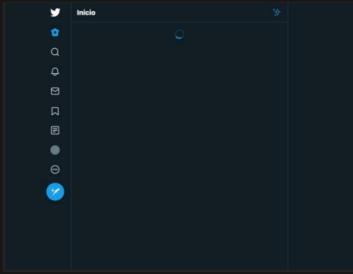


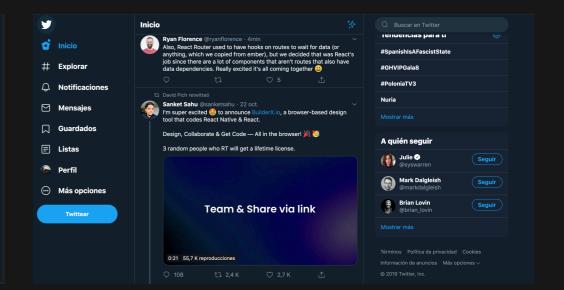
First meaningful paint



First meaningful paint





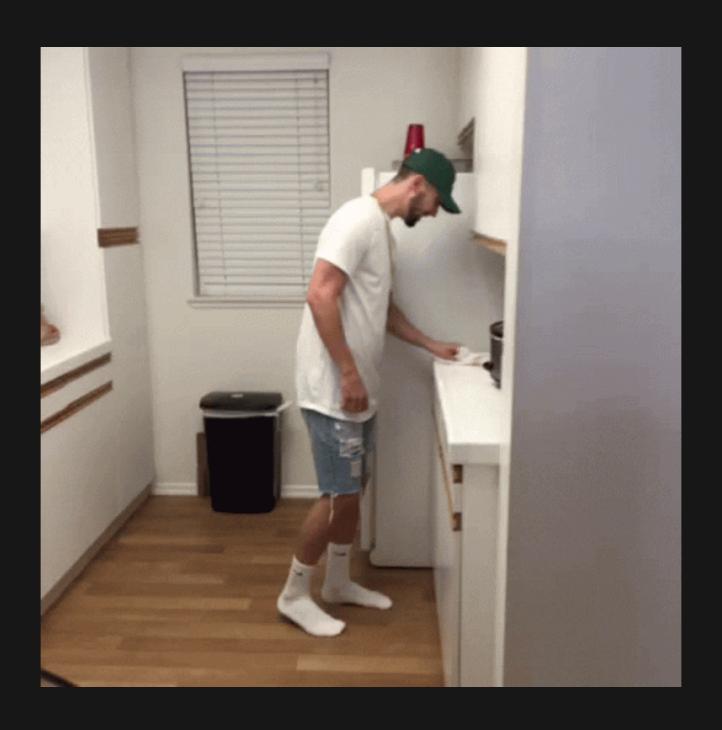


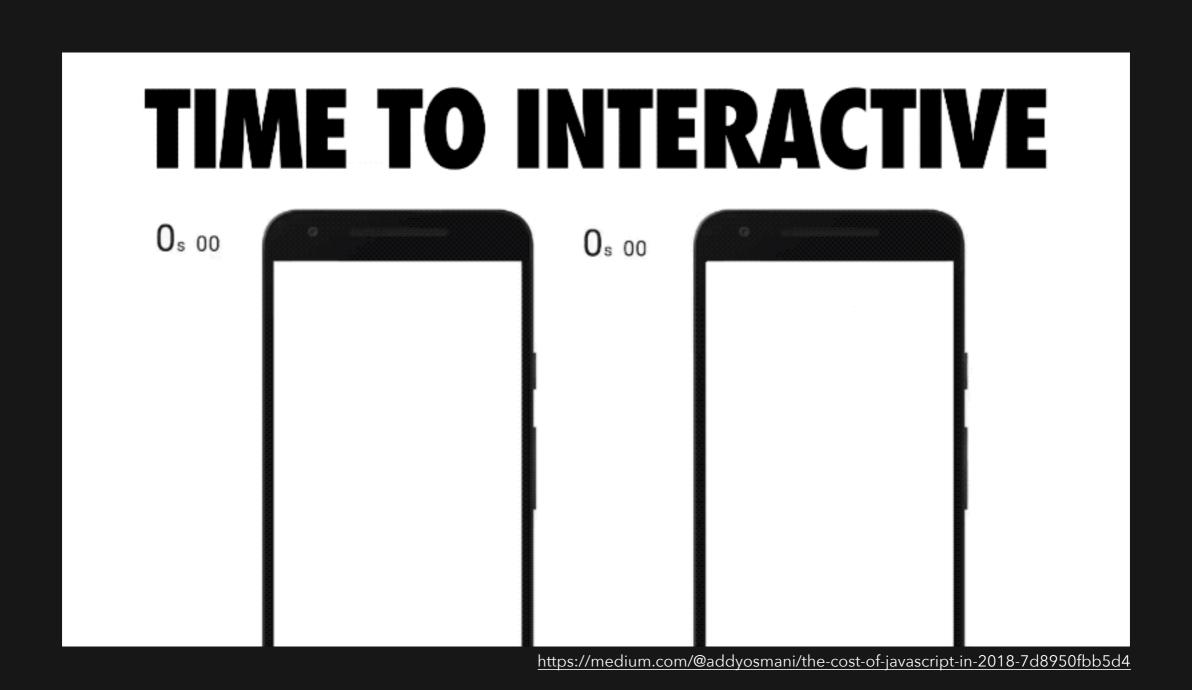
First paint

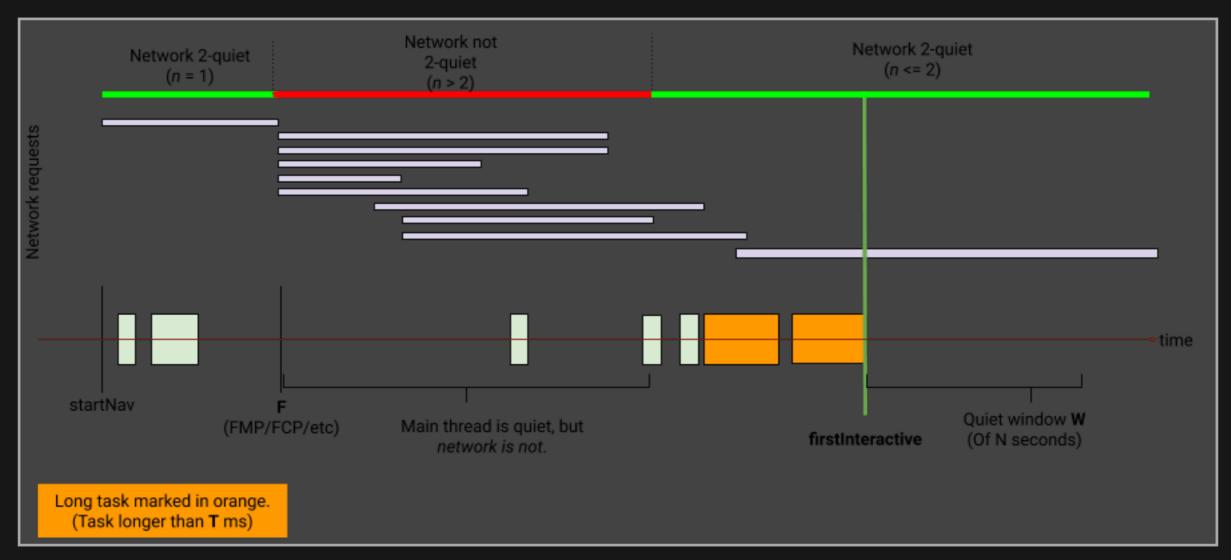
First contentful paint

First meaningful paint

Time to interactive







https://docs.google.com/document/d/1jbvwxj_GJtiTTqFM8dsVzCly5XeKL5qtlAvuimcXb1o/edit

First CPU Idle

First CPU Idle



Our CPU after fully rendering some webpages

Speed Index

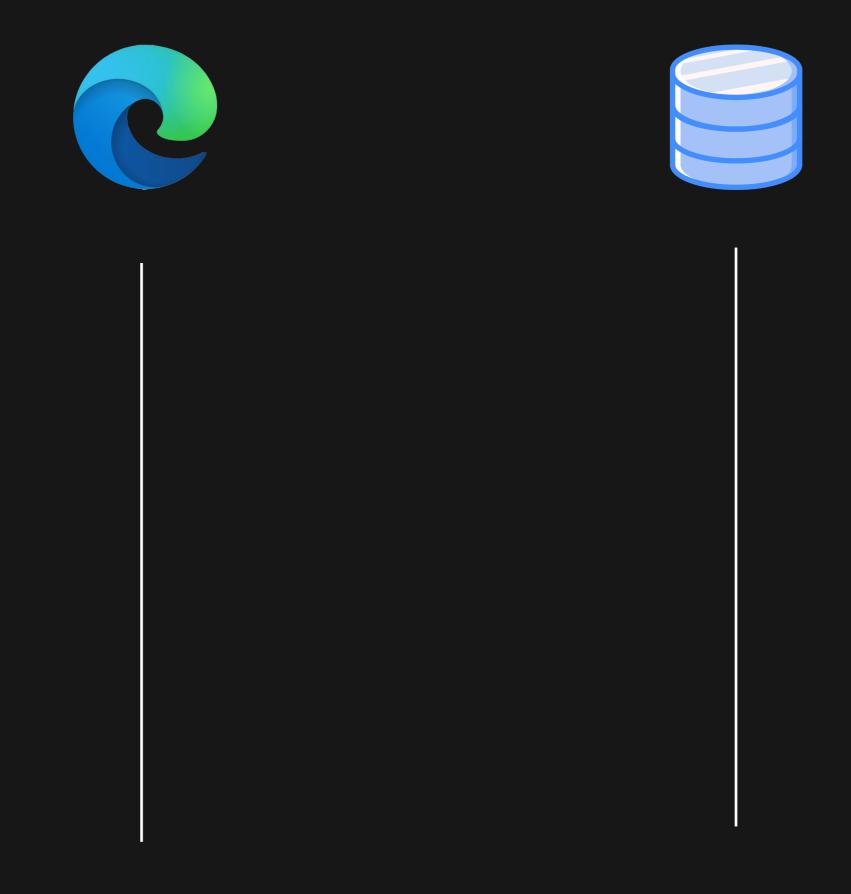
Speed Index

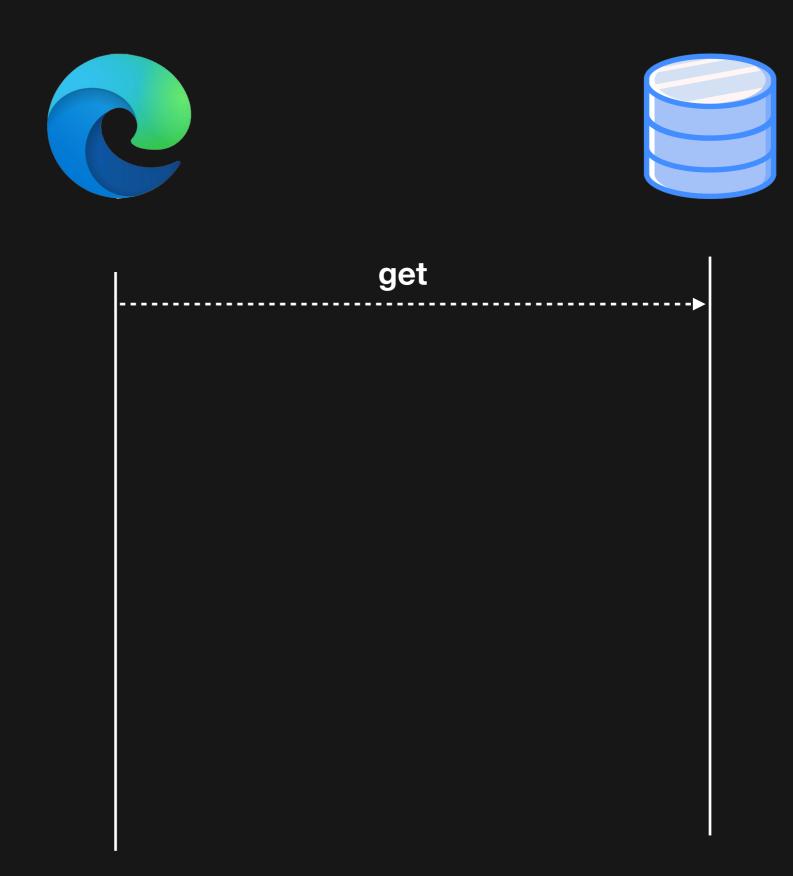


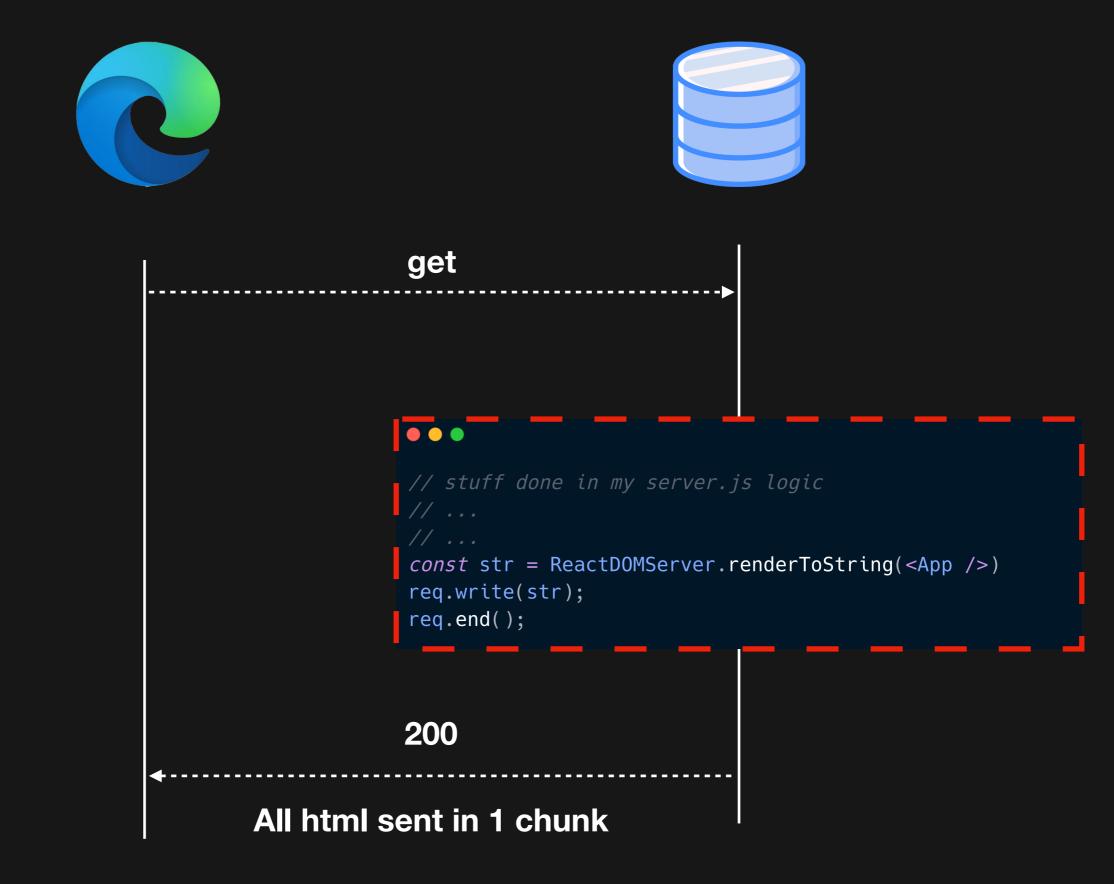
Estimated input latency

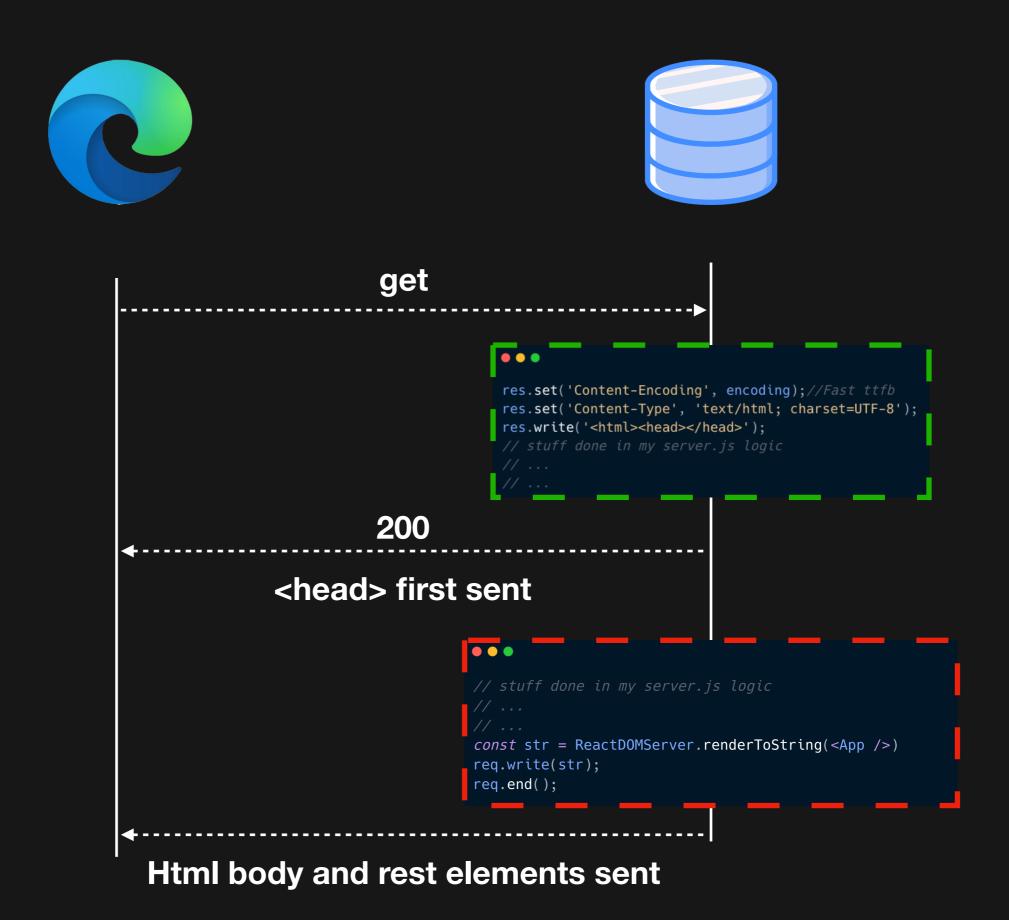
Less than 50 milliseconds

Time to first byte









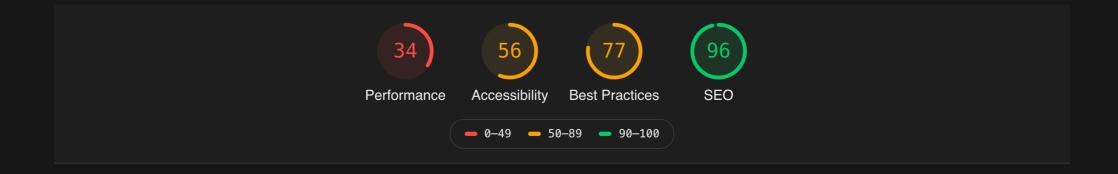
Now, what?

Analyse the state of the site

Know your enemy

Analyse the state of the site

Know your enemy



Set a budget

Limit your code



packtracker/javascript Completed in 3m — 4.15 MB — ▲ 0.01%

Details

Detect the improvement points

Pixels

Google ads

Split everything

Conclusions

- The slower your page is the less reliable it seems.
- Less load time more revenue.
- Monitor performance always
- No magic pills

Thank you



Resources and links



https://github.com/carlesnunez/mastering-web-performance-metrics-talk