TestArmy

Web application Performance Testing From User Perspective

www.testarmy.com

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About me

My foundation of technical expertise stems from hands on developing, testing along with team leading.

As consultant I was a part of various test teams and was involved in testing on all software life cycle stages. I build extensive experience while testing critical functions of real time system which is GSM, financial platforms and also web and desktop applications.

Currently I supervise performance and automation testing at TestArmy Group.

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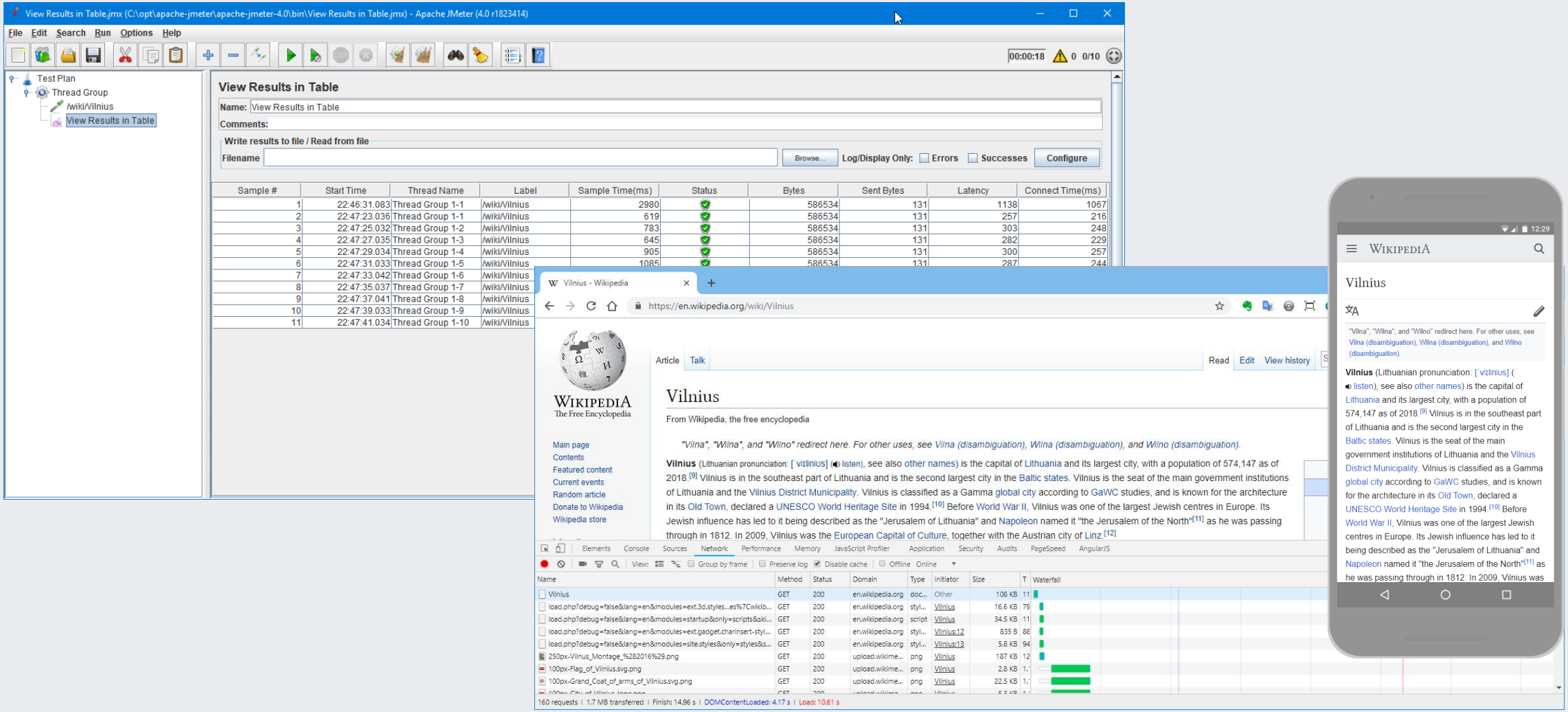

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What is important for user?

Visibility of the requested content
Ability to interact with the content

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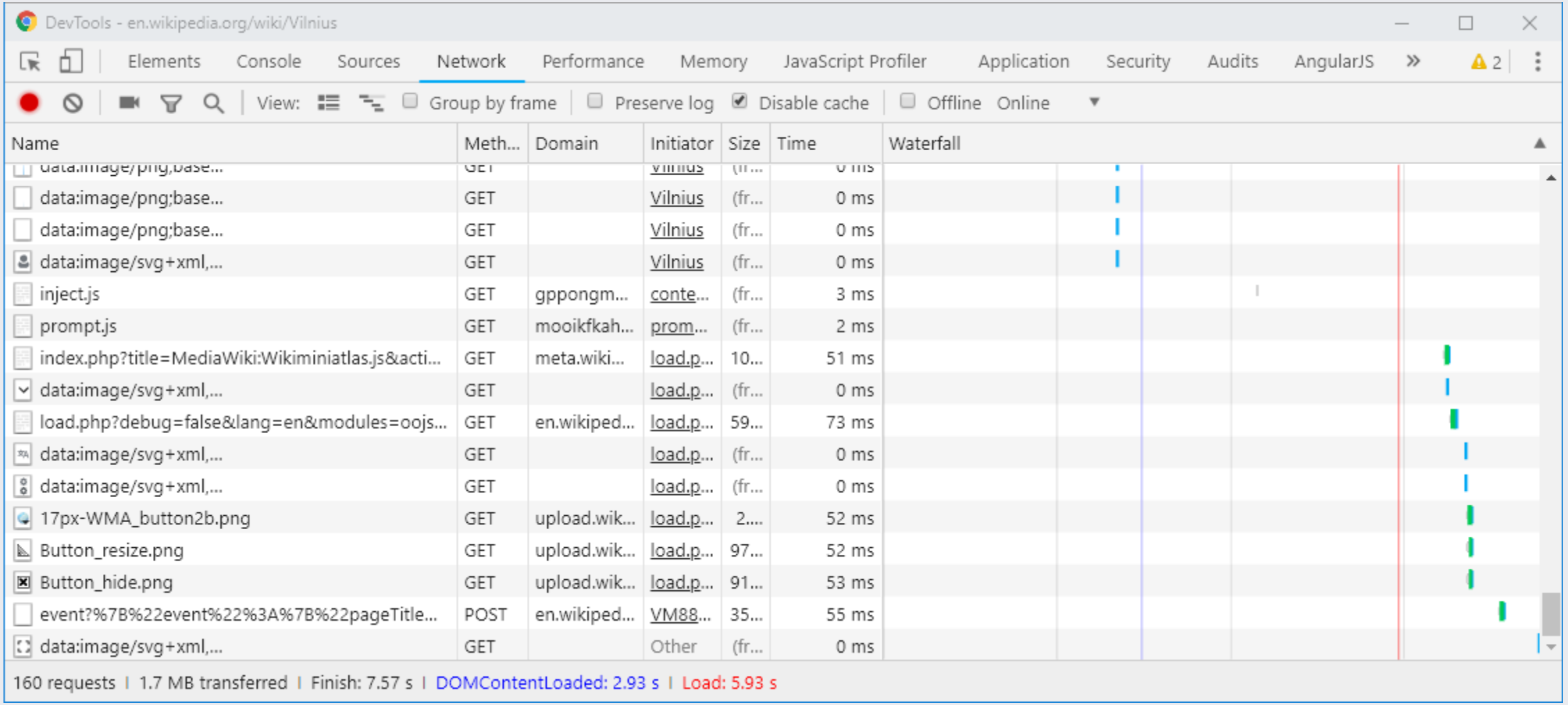
DevTools - en.wikipedia.org/wiki/Vilnius
Elements
Console
Sources
Network
Performance
Memory
JavaScript Profiler
Application
Security
Audits
AngularJS
View:
Group by frame
Preserve log
Disable cache
Offline
Online
Name
Meth...
Domain
Initiator
Size
Time
Waterfall
data:image/png;base... GET Vilnius (fr... 0 ms
data:image/png;base... GET Vilnius (fr... 0 ms
data:image/svg+xml,... GET Vilnius (fr... 0 ms
inject.js GET gppongm... conte... (fr... 3 ms
prompt.js GET mooikfkah... prom... (fr... 2 ms
index.php?title=MediaWiki:Wikiminiatlas.js&acti... GET meta.wiki... load.p... 10... 51 ms
data:image/svg+xml,... GET load.p... (fr... 0 ms
load.php?debug=false&lang=en&modules=oojs... GET en.wikiped... load.p... 59... 73 ms
data:image/svg+xml,... GET load.p... (fr... 0 ms
data:image/svg+xml,... GET load.p... (fr... 0 ms
17px-WMA_button2b.png GET upload.wik... load.p... 2.... 52 ms
Button_resize.png GET upload.wik... load.p... 97... 52 ms
Button_hide.png GET upload.wik... load.p... 91... 53 ms
event?%7B%22event%22%3A%7B%22pageTitle... POST en.wikiped... VM88... 35... 55 ms
data:image/svg+xml,... GET Other (fr... 0 ms
160 requests | 1.7 MB transferred | Finish: 7.57 s | DOMContentLoaded: 2.93 s | Load: 5.93 s

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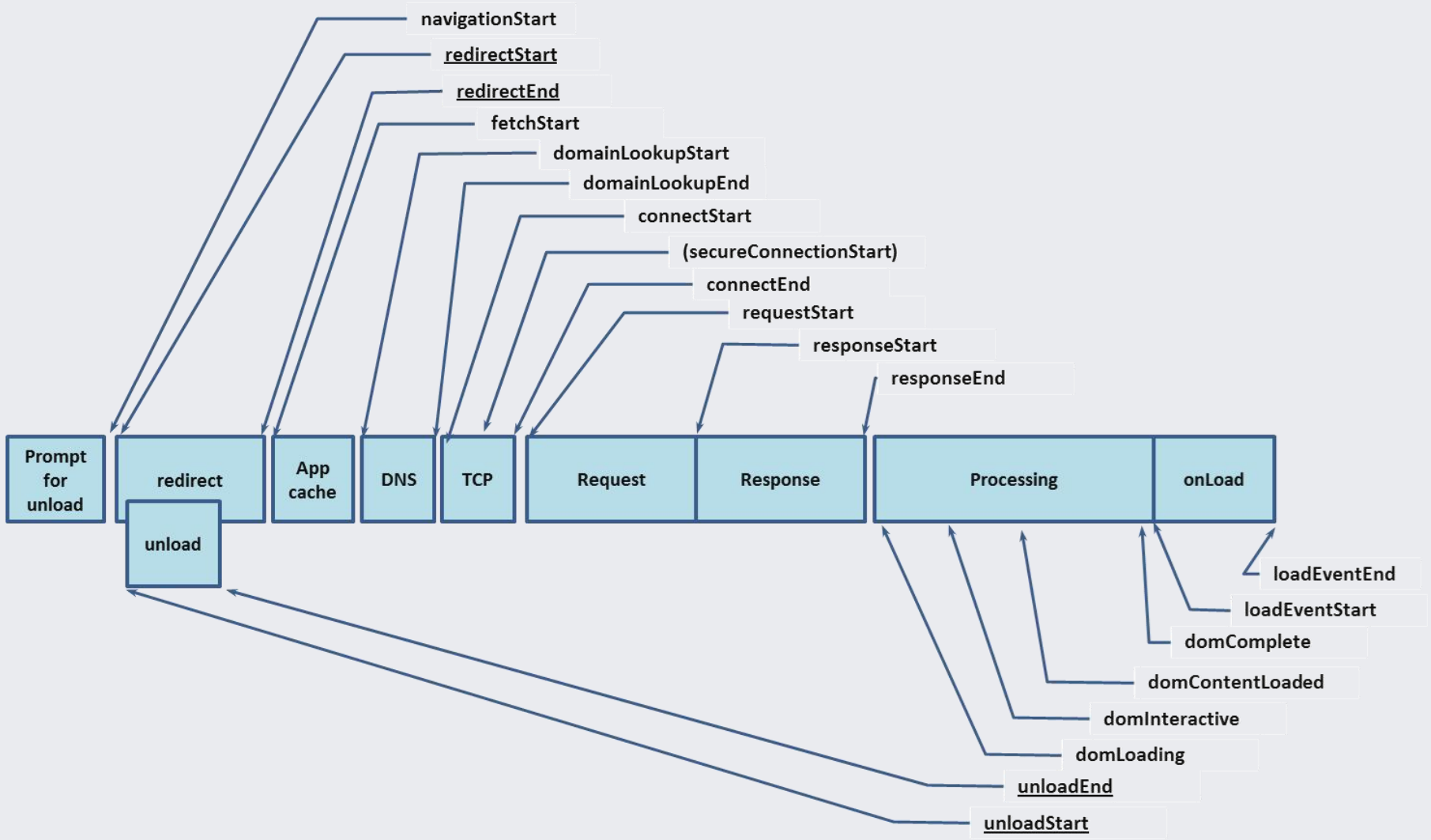
navigationStart
redirectStart
redirectEnd
fetchStart
domainLookupStart
domainLookupEnd
connectStart
(secureConnectionStart)
connectEnd
requestStart
responseStart
responseEnd
Prompt for unload
redirect
unload
App cache
DNS
TCP
Request
Response
Processing
onLoad
loadEventEnd
loadEventStart
domComplete
domContentLoaded
domInteractive
domLoading
unloadEnd
unloadStart

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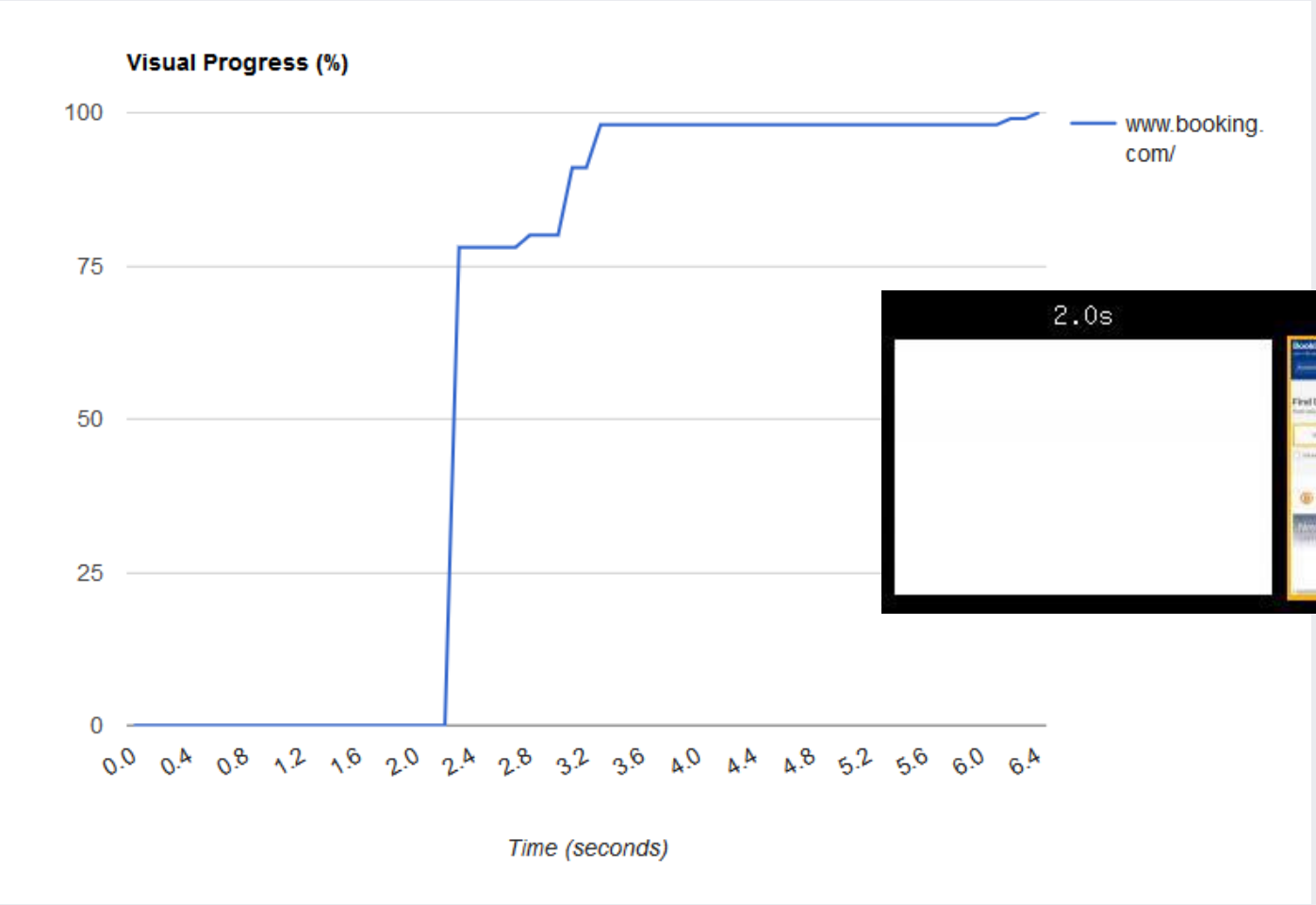

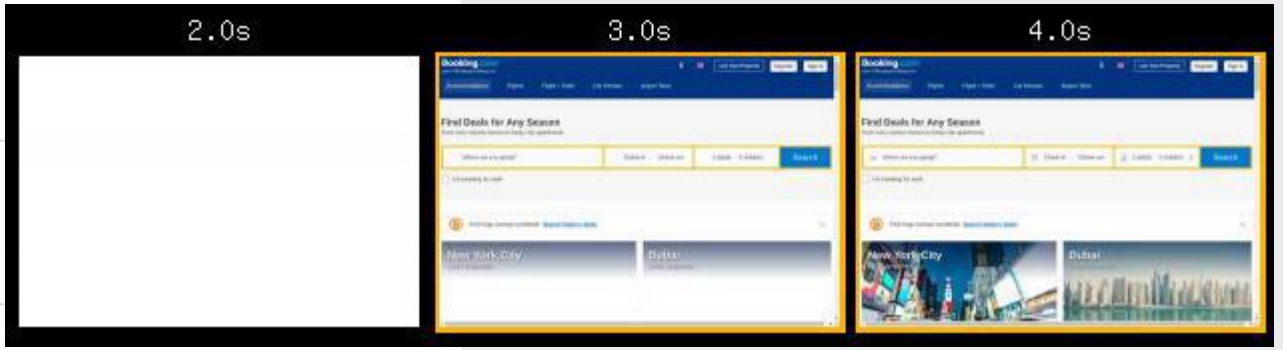

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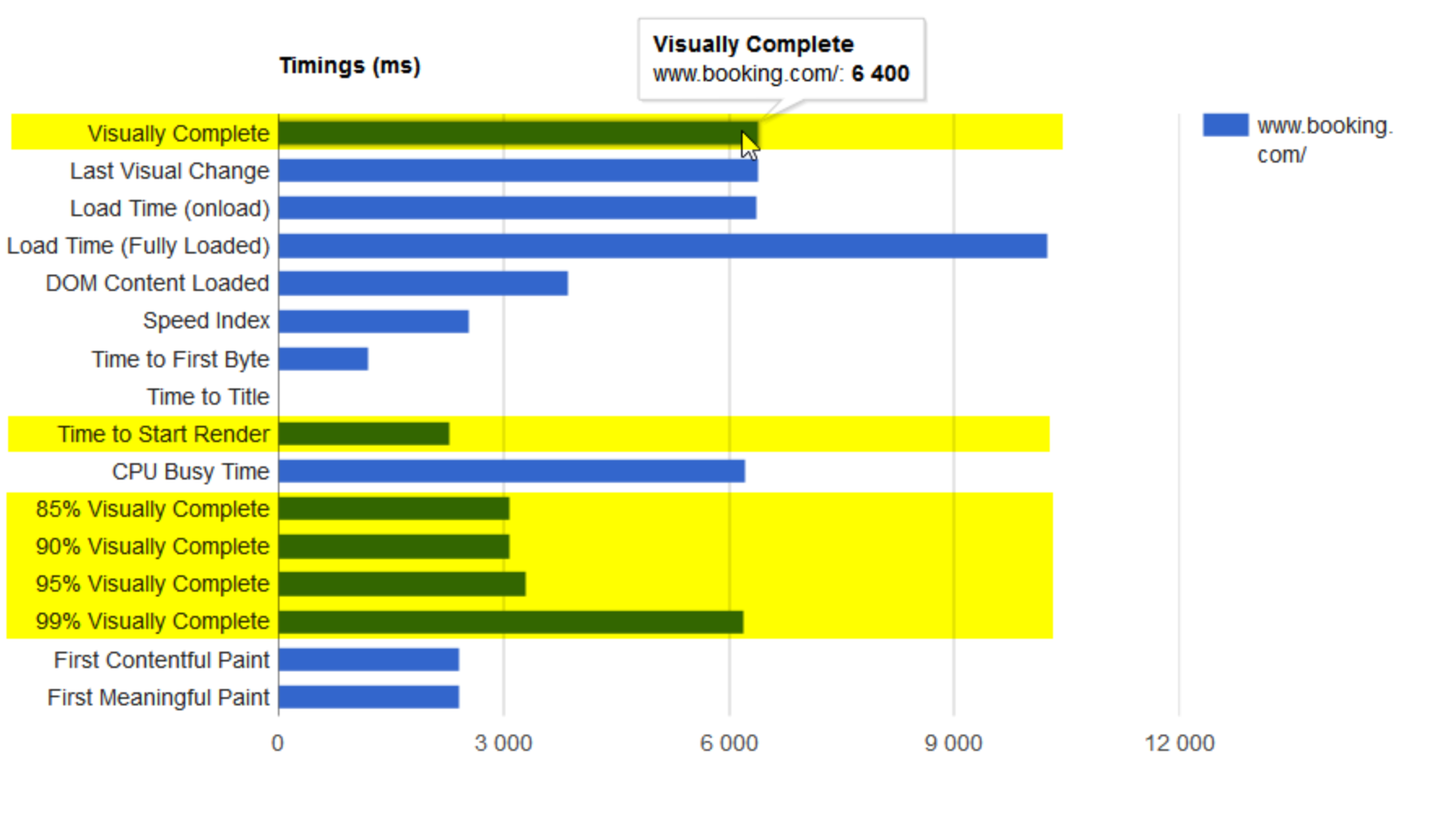
Timings (ms)
Visually Complete
www.booking.com/: 6 400
Visually Complete
Last Visual Change
Load Time (onload)
Load Time (Fully Loaded)
DOM Content Loaded
Speed Index
Time to First Byte
Time to Title
Time to Start Render
CPU Busy Time
85% Visually Complete
90% Visually Complete
95% Visually Complete
99% Visually Complete
First Contentful Paint
First Meaningful Paint
0
3 000
6 000
9 000
12 000
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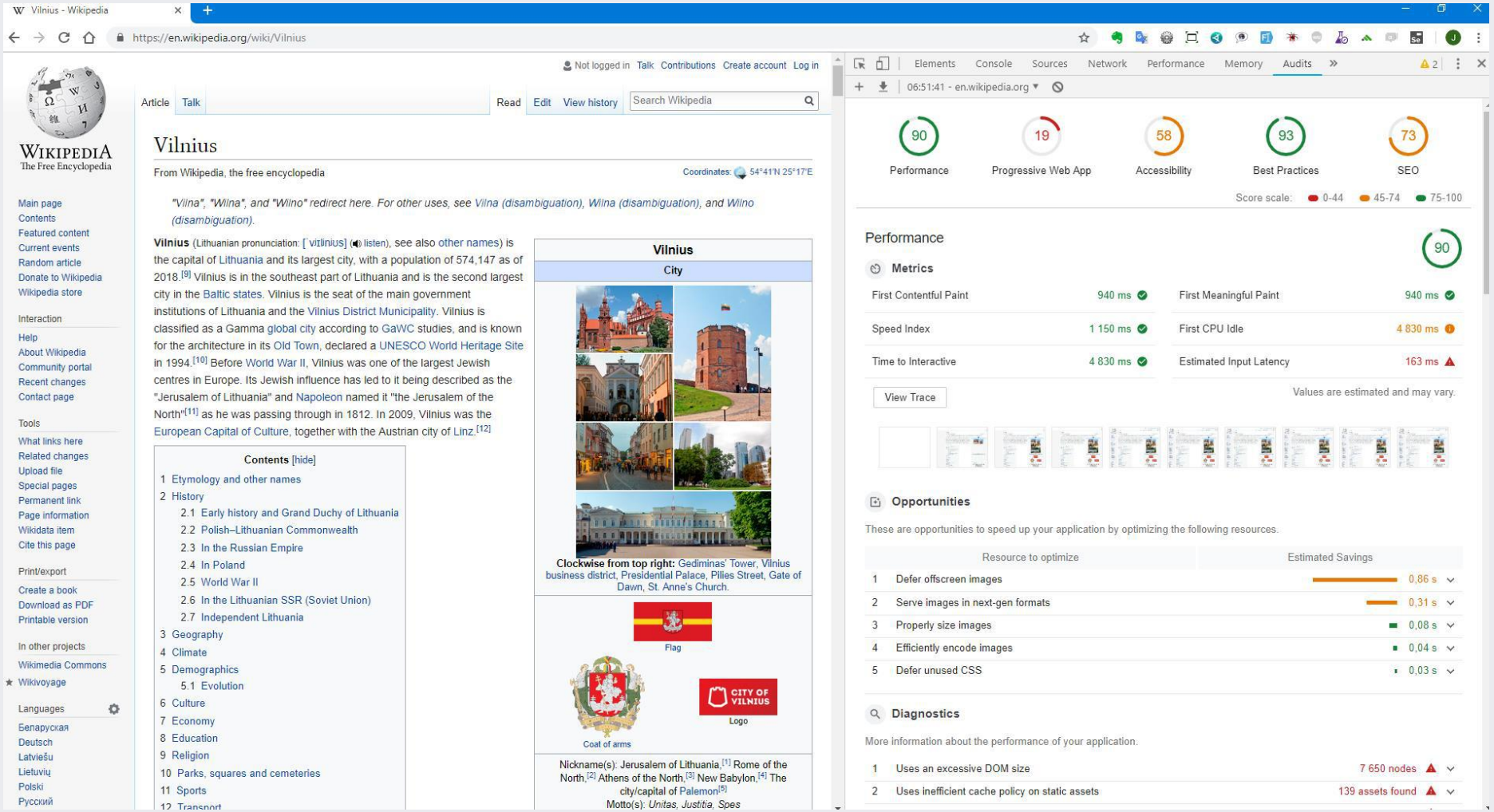

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Performance

90

Metrics

First Contentful Paint	940 ms	First Meaningful Paint	940 ms
Speed Index	1 150 ms	First CPU Idle	4 830 ms
Time to Interactive	4 830 ms	Estimated Input Latency	163 ms

View Trace

Values are estimated and may vary.

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source: https://speedcurve.com/blog/web-performance-monitoring-hero-times/

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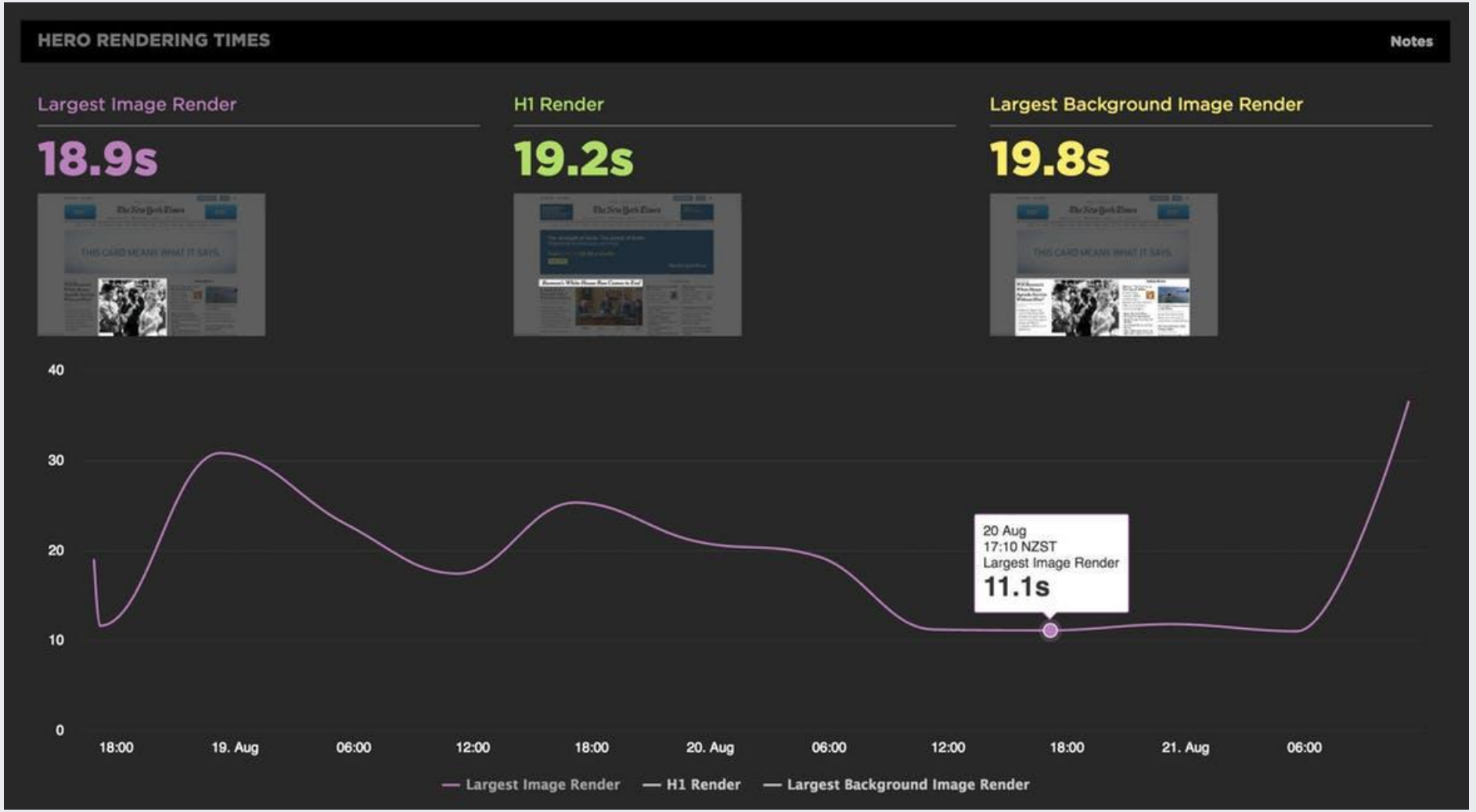

source: https://speedcurve.com/blog/last-painted-hero/

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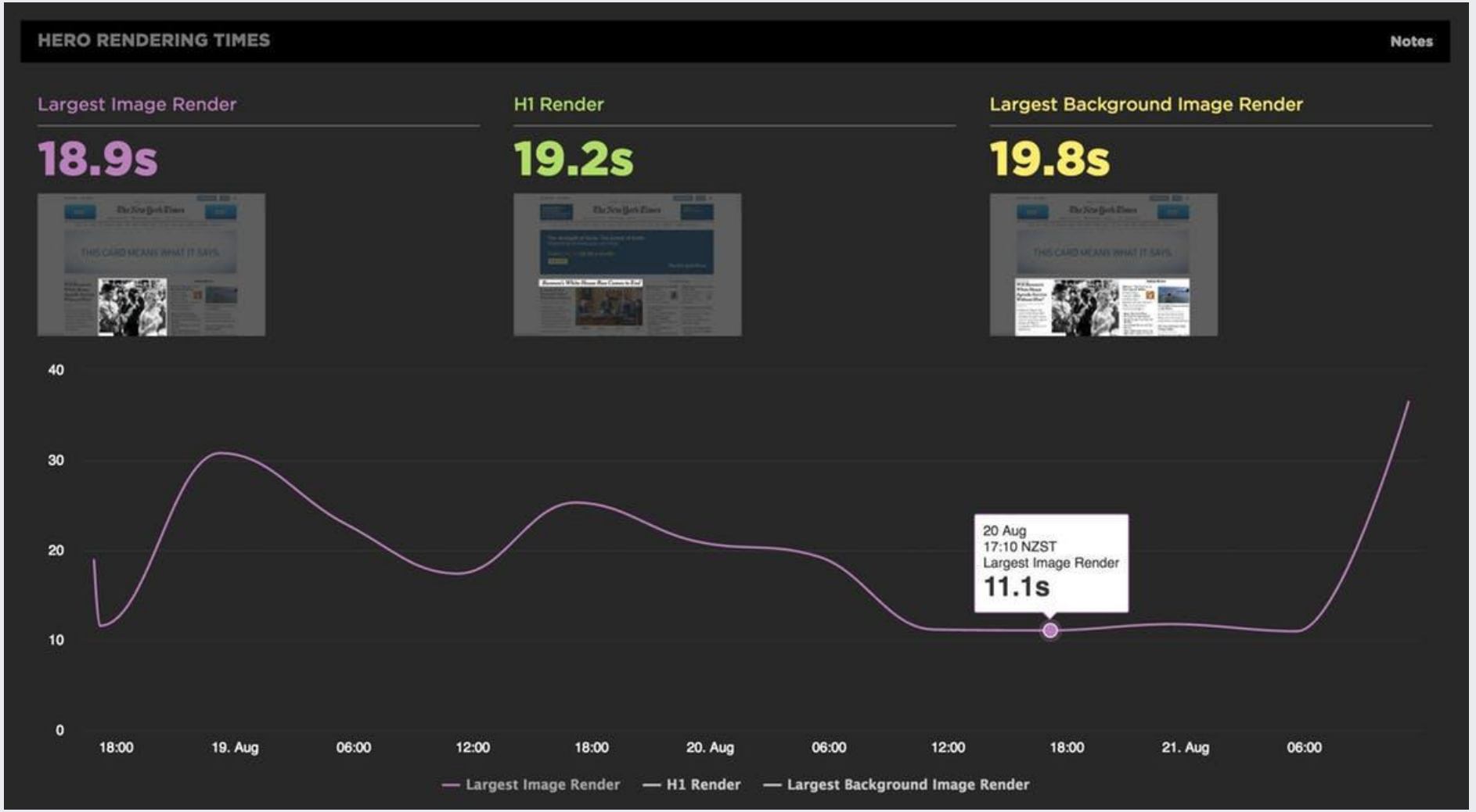

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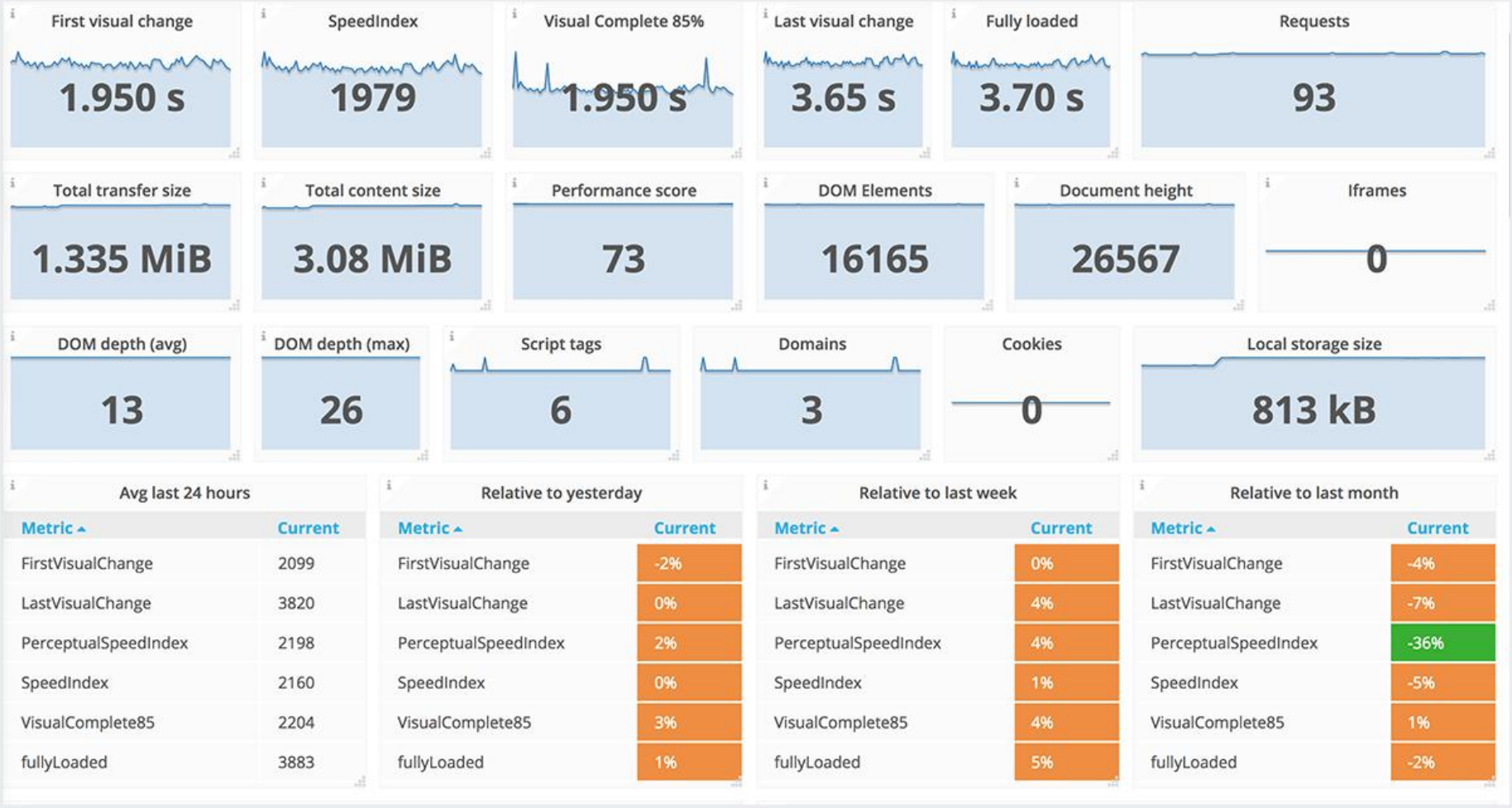

source: https://www.sitespeed.io/examples/

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Mobile | Desktop

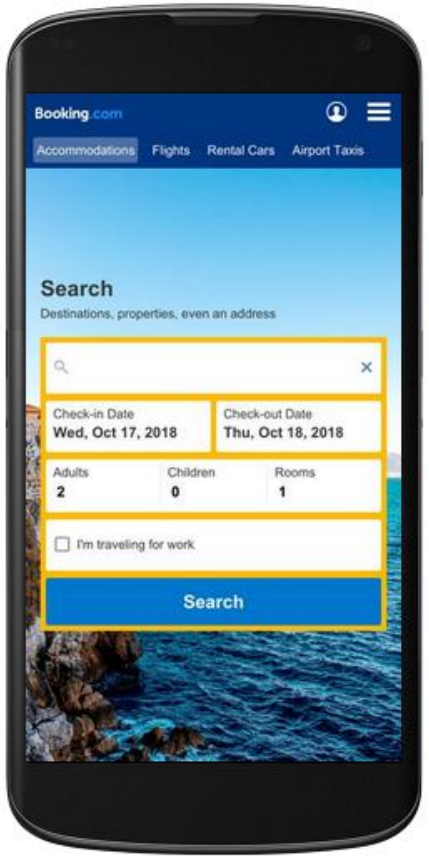
Page Speed	Optimization
Average	Low
1.7s FCP 2.5s DCL	57 / 100

Data from the Chrome User Experience Report indicates this page's median FCP (1.7s) and DCL (2.5s) ranks it in the middle third of all pages. This page has a low level of optimization because most of its resources are render-blocking. Learn more.

Report for: https://www.booking.com/

Page Load Distributions

The distribution of this page's FCP and DCL events, categorized as Fast (fastest third), Average (middle third), and Slow (bottom third).



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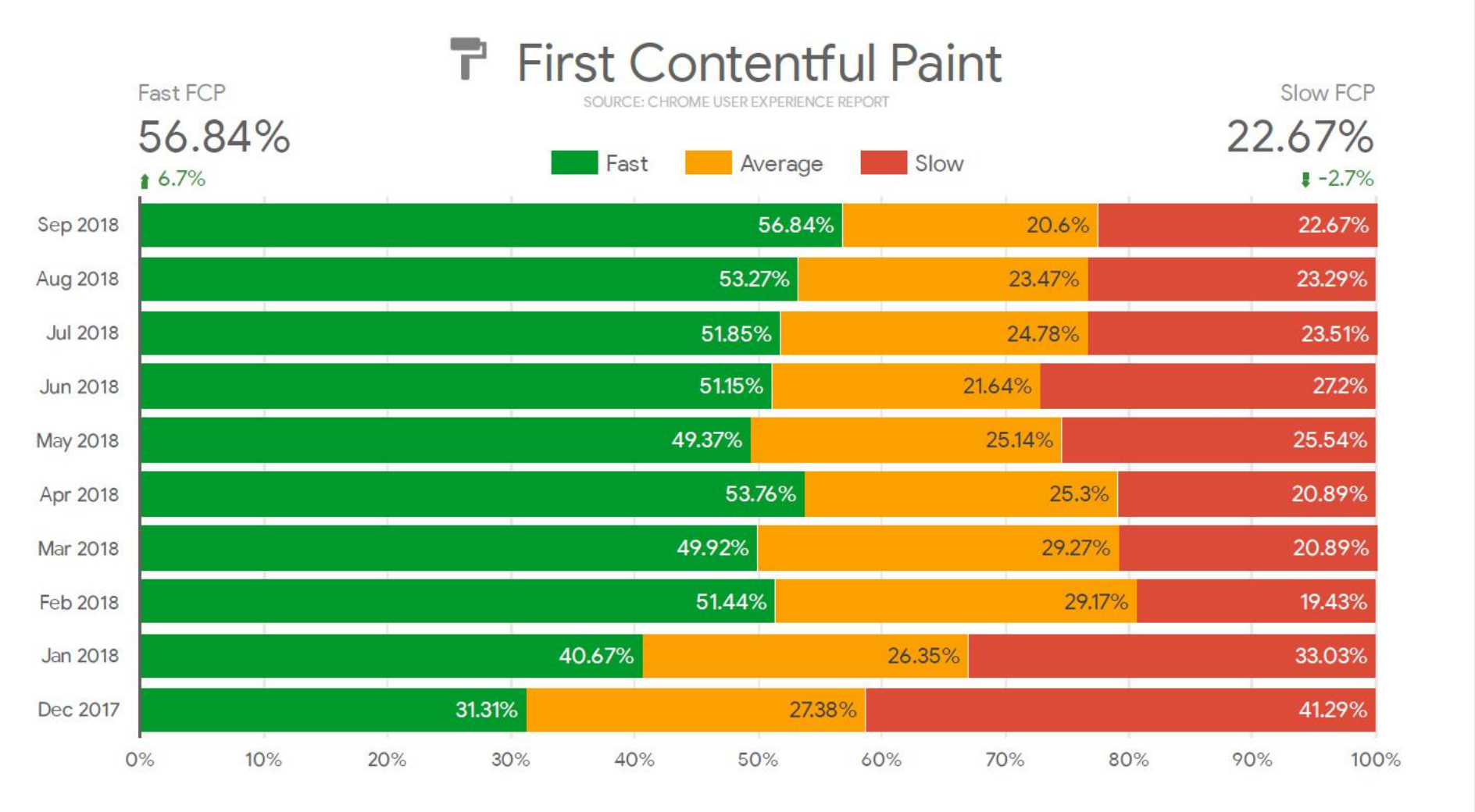

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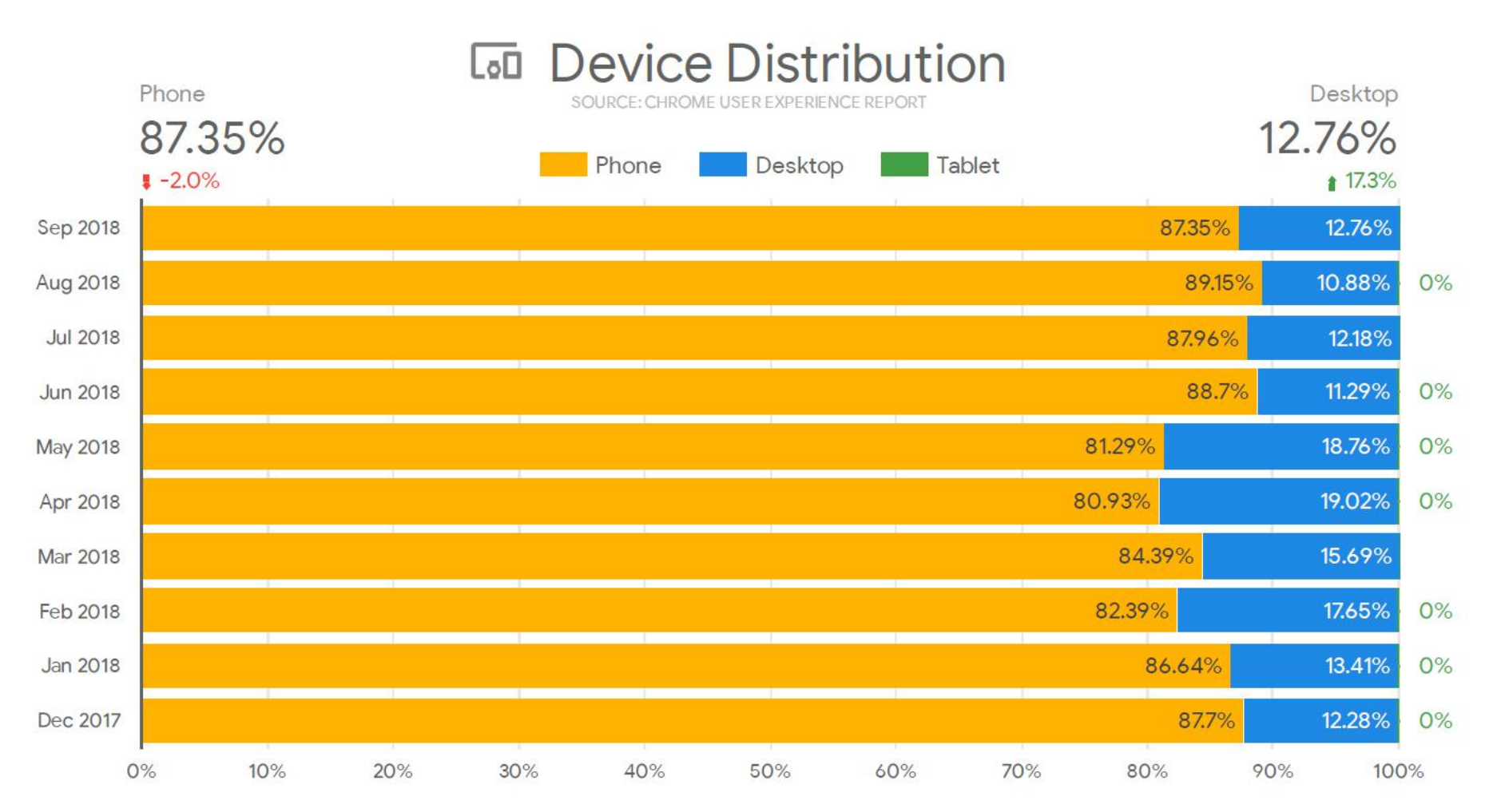

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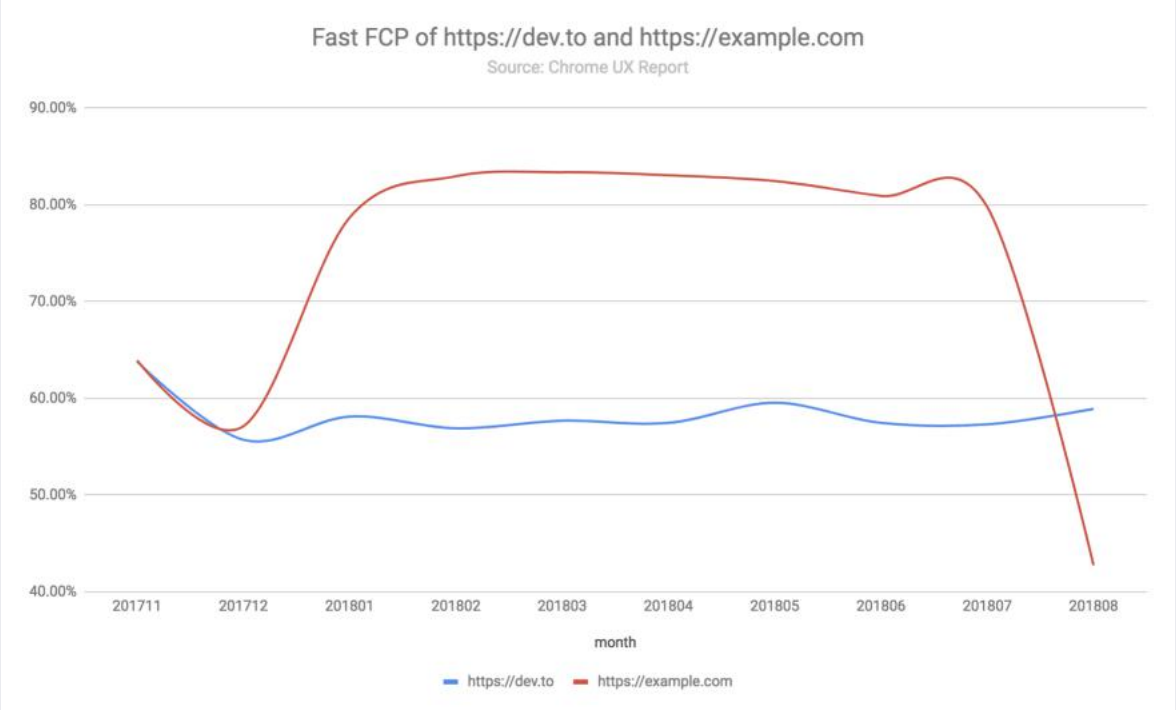
```
SELECT _TABLE_SUFFIX AS month, origin, SUM(fcp.density) AS fast_fcp
FROM `chrome-ux-report.all.*`, UNNEST(first_contentful_paint.histogram.bin) AS fcp
WHERE fcp.start < 1000 AND origin IN ('https://dev.to', 'https://example.com')
GROUP BY month, origin
ORDER BY month, origin
```



source: https://dev.to/rick_viscomi/a-step-by-step-guide-to-monitoring-the-competition-with-the-chrome-ux-report-4k10

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References

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https://codeascraft.com/
https://www.soasta.com/blog/ebook-usertiming-performance-monitoring/
https://code.facebook.com/posts/991252547593574/the-technology-behind-preview-photos/
https://blog.twitter.com/2012/improving-performance-on-twittercom
http://www.stevesouders.com/blog/2015/05/12/hero-image-custom-metrics

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Time for questions