WEB APPLICATION PERFORMANCE OPTIMIZATION

Non-JavaScript parts checklist

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OPTIMIZE
CHECK ALL THAT ARE IMPLEMENTED

Minification
Remove all unnecessary characters from source code to reduce the amount of data that needs to be transferred. ☐

Concatenation
Join multiple files to reduce the number of HTTP requests. ☐

Image optimization
Reduce image size as much as possible with as little as possible loss in quality. ☐

Compression
Reduce the size of the files (gzip) that are sent from the server to reduce the amount of data that needs to be transferred. ☐

Caching
Set appropriate caching headers so the browser can optimally cache resources. ☐

WOFF2 fonts
Reduces font file size. ☐

Sprites
Combine images and reduce number of HTTP requests. ☐

Avoid redirects
Prevent unnecessary HTTP requests. ☐

Inline critical CSS
Make sure styles to display content above the fold are readily available. ☐

Defer non-critical assets to avoid render blocking
Load the non-critical assets asynchronously so they don't block rendering of the content in the initial viewport. ☐

Remove unused CSS
Remove CSS that is not used, especially if you only use fractions of a certain CSS library. ☐

MEASURE
GATHER EXACT NUMBERS

Speed Index
The average time at which visible parts of the page are displayed. Expressed in milliseconds and dependent on size of the viewport. Lower is better. The speed index should ideally be under 1000.
http://www.webpagetest.org

PageSpeed Insights
Measures performance of a page using different user agents. The score should ideally be above 85 for mobile and above 90 for desktop. https://developers.google.com/speed/pagespeed/insights/

REPEAT
WHEN CHANGES HAVE BEEN MADE

Test visual regression
Overlay screenshots of your application before and after changes to identify the visual impact.

Benchmark performance
Measure! Keep track of your application's benchmarks so you can view the impact of changes.

SCORE CARD
FILL IN SCORES BELOW AND PRINT/SAVE TO COMPARE WITH OTHER ITERATIONS

WEB APPLICATION URL

DATE

SPEED INDEX
IDEALLY BELOW 1000

PAGESPEED INSIGHTS MOBILE
IDEALLY ABOVE 85

PAGESPEED INSIGHTS DESKTOP
IDEALLY ABOVE 90