

3 Keys 2 performance

- Improve frontend
- Improve network latency
- Improve backend

Network Performance

→ Shrink the files

Minimize text and images!

↳ webpack solves it (pre-build 4 production)

→ Subtler...

↳ PNGs are usually smaller than JPGs

↳ SVG are versatile and generally compact

<https://99designs.com/blog/tips/image-file-types/>

<https://pageweight.imgix.com/>

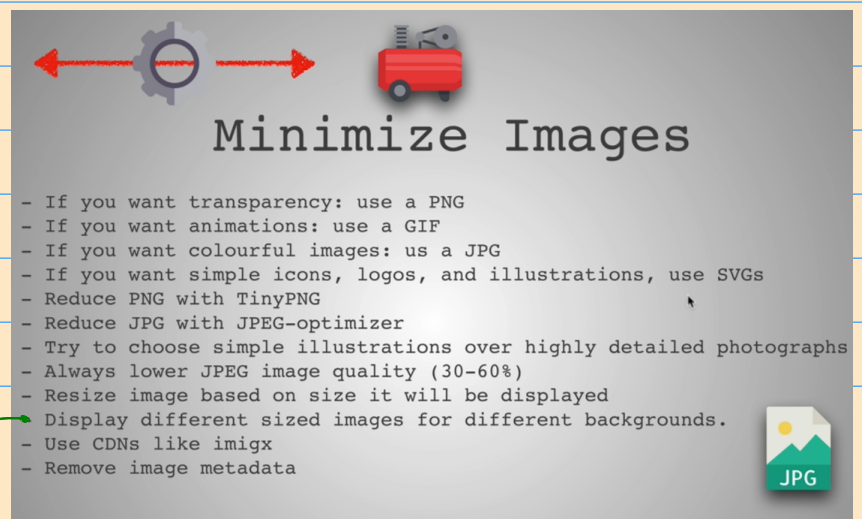
<https://www.sitepoint.com/gif-png-jpg-which-one-to-use/>

also
check

those links;

AND
remember
this image =>

use .svg
media
queries!



Minimize Images

- If you want transparency: use a PNG
- If you want animations: use a GIF
- If you want colourful images: use a JPG
- If you want simple icons, logos, and illustrations, use SVGs
- Reduce PNG with TinyPNG
- Reduce JPG with JPEG-optimizer
- Try to choose simple illustrations over highly detailed photographs
- Always lower JPEG image quality (30-60%)
- Resize image based on size it will be displayed
- Display different sized images for different backgrounds.
- Use CDNs like imgix
- Remove image metadata

- Minimize delivered content!
- Limit the # of stuff you send at each request!

<https://stackoverflow.com/questions/985431/max-parallel-http-connections-in-a-browser>

Critical Render Path

DOM → CSSOM → ^{Render}Tree → Layout → Paint

1) JS scripts ⇒ loaded later!

Let CSS have higher priority.

general rule: script tags at the bottom
{ style tags ASAP, i.e., at the top

2) Make CSS as light as you can

- Only load whatever is needed (maybe not using external CSS...)
- Above the fold loading
- Use Media Attns
- Use less specificity.

3) JS is the worst!

Read
more
about
it

- Load Scripts Asynchronously
- Defer script loading
- Minimize DOM manipulation
- Avoid long running JS.

<https://stackoverflow.com/questions/10808109/script-tag-async-defer>

Also, check out
"Prefetching" ↗

<https://css-tricks.com/prefetching-preloading-prebrowsing/>

"Resource: Performance Tools" has some neat stuff, as well!

About HTTP/2 ...

<https://developers.google.com/web/fundamentals/performance/http2/>

... and HTTP/3

<https://blog.cloudflare.com/http3-the-past-present-and-future/>