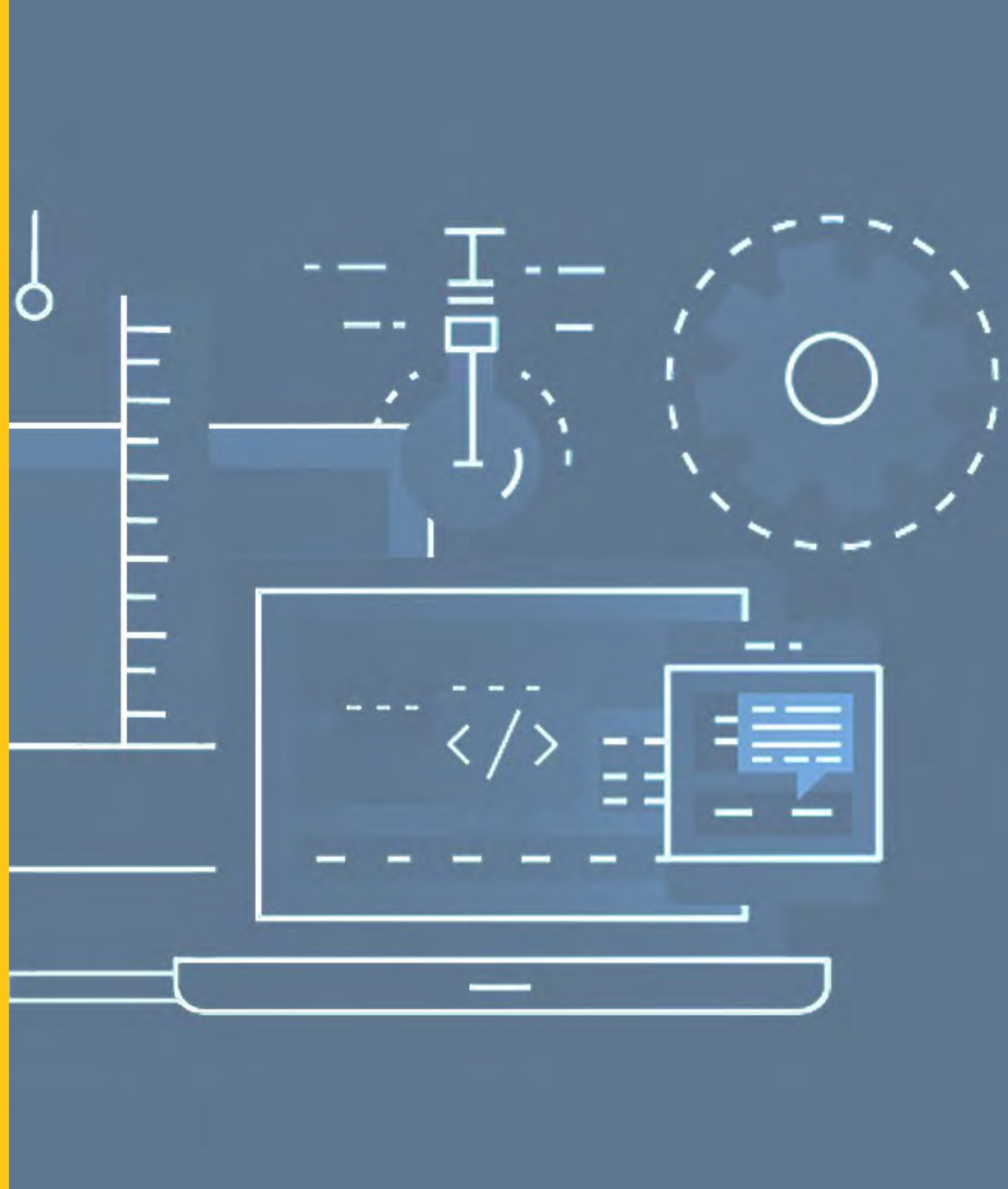
SHELLY GRAHAM, 07/11/2022

WEB DEV 4 SUMMER 2022

Week 1: SEO & Page Load Optimization



THAT'S STILL ME!

- From Germany
- Living in Jersey City
- Works at Trend Micro
- Pasta Lover
- Soccer Enthusiast

TELL ME ABOUT YOU

WHATS NEW?

NAME
AGE
HOBBIES
WHY CODING?
FUN FACT ABOUT YOU

SYLLABUS

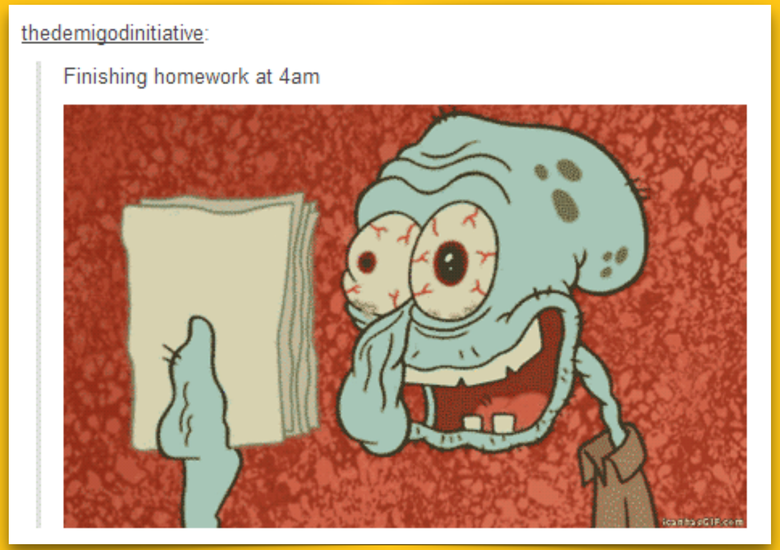
- Week 1: SEO & Page Load Optimization
- Week 2: Accessibility
- Week 3: Domains
- Week 4: Hosting & HTTPS / Starting Project 2
- Week 5: Web Servers / Review Project 2
- Week 6: Turn in Project 2 / Start Project 3
- Week 7: In-class work session
- Week 8: Review Project 2
- Week 9: Polish Projects
- Week 10: Polish Projects

HOW TO STAY IN TOUCH

- **Slack: #webdev4-summer-2022 & @Shelly Graham**
- **Google Meet: https://meet.google.com/yih-fmjn-bmy**
- **Git Repo: https://github.com/michellejames/WebDev4_Summer2022**
- **Google Classroom Class Code: hpwxzjg**
- **E-Mail: michellegraham90@yahoo.com**

IMPORTANT THINGS - HOMEWORK

- Homework is due one minute before class
- Upload homework to GitHub, post link in Google Classroom Assignment
- You should have code to look at every class
- If I can't see results, I at least want to see progress



IMPORTANT THINGS - GRADES

Your Class Grade

A: **Exceeded Expectations.** This is the rare student who consistently surprises you and pulls the class up.

B: **Met Expectations.** Did all of the assignments. Most were good.

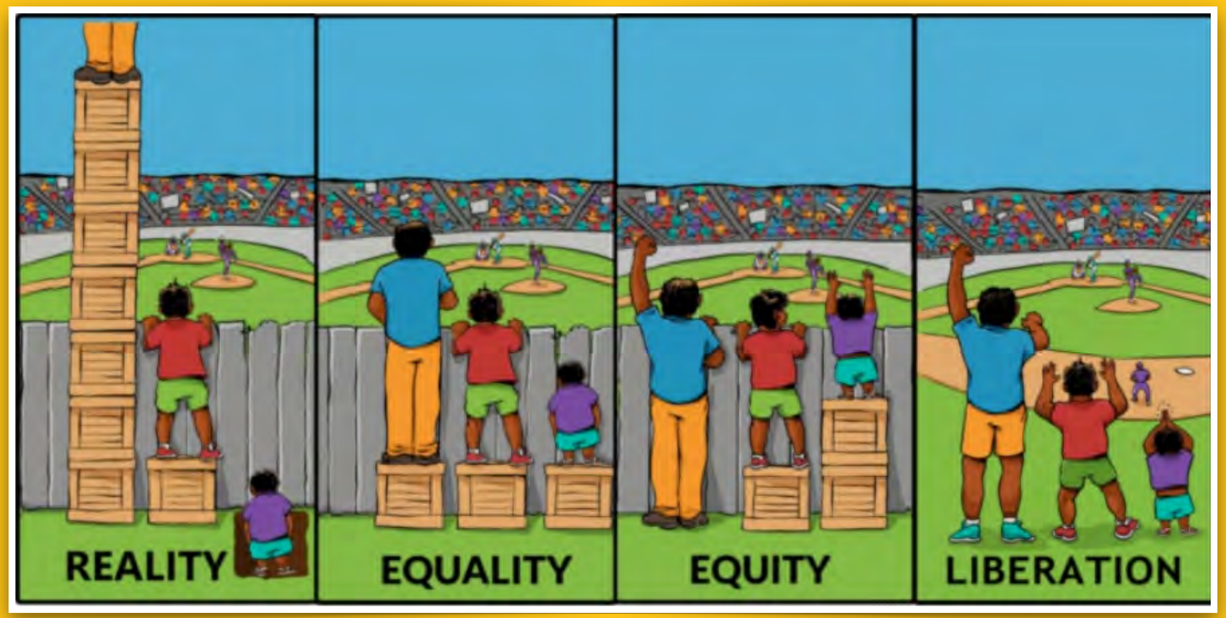
C: **Approached Expectations**. Maybe this student completed every project, but none were surprising or smart. Or they really only committed to doing a third of the assignments well. NOT good enough for a B.

D: **Needs attention; not competitive**. Either trying and failing, or failing to try.

F: **Failed** to show talent, drive or interest. Needs to reconsider coming back next quarter.

IMPORTANT THINGS - INTERACTION

- **Inclusivity: Think outside of your own personal realm**
- **Equality: Help one another figure it out**
- **Equity: You might need more or less help to thrive - both is OK!**



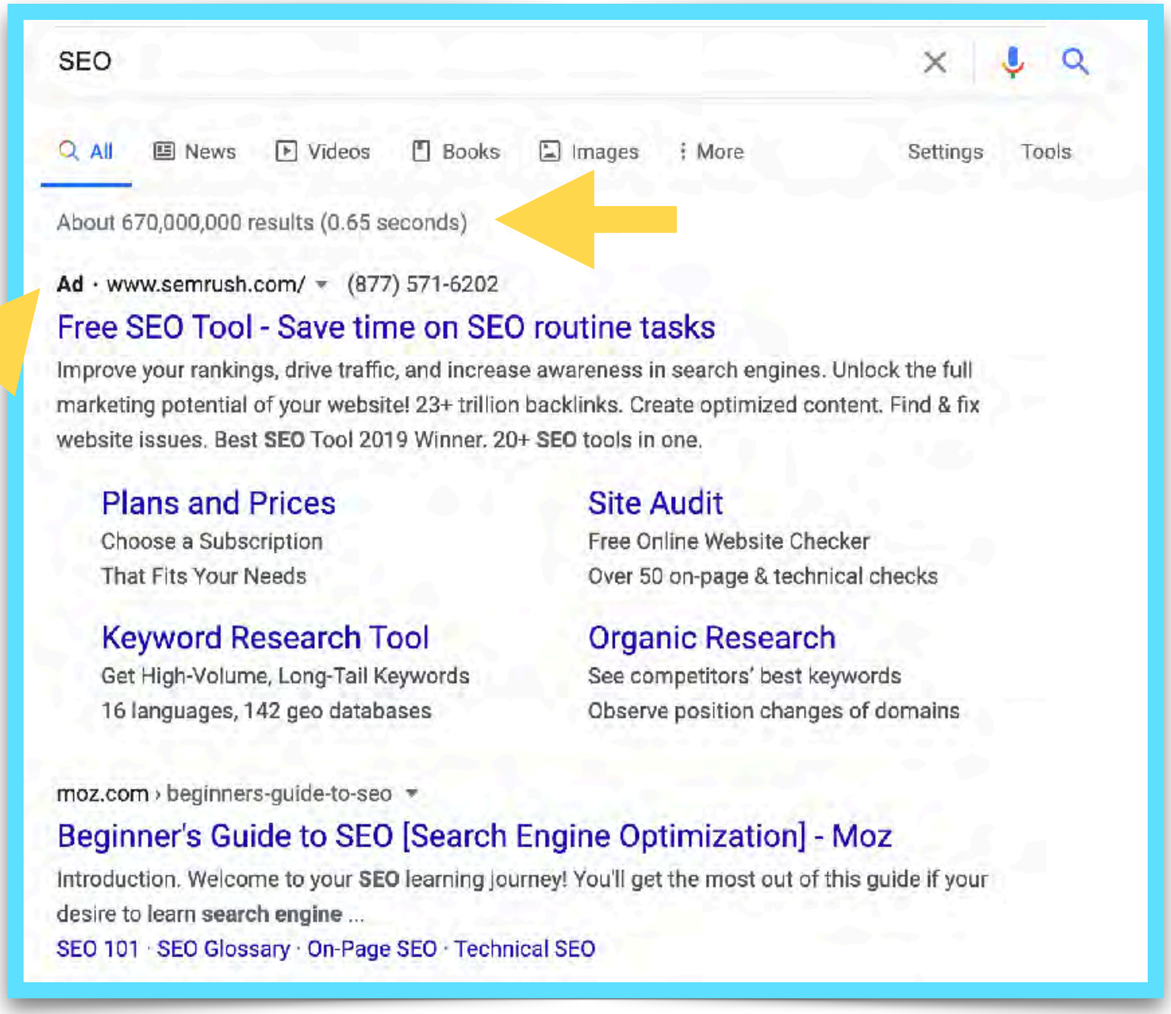
IMPORTANT THINGS - TIME MANAGEMENT

- If you can’t finish a project, it will reflect in your project grade
- This is school but treat it as your job!
- If I can do it, so can you!

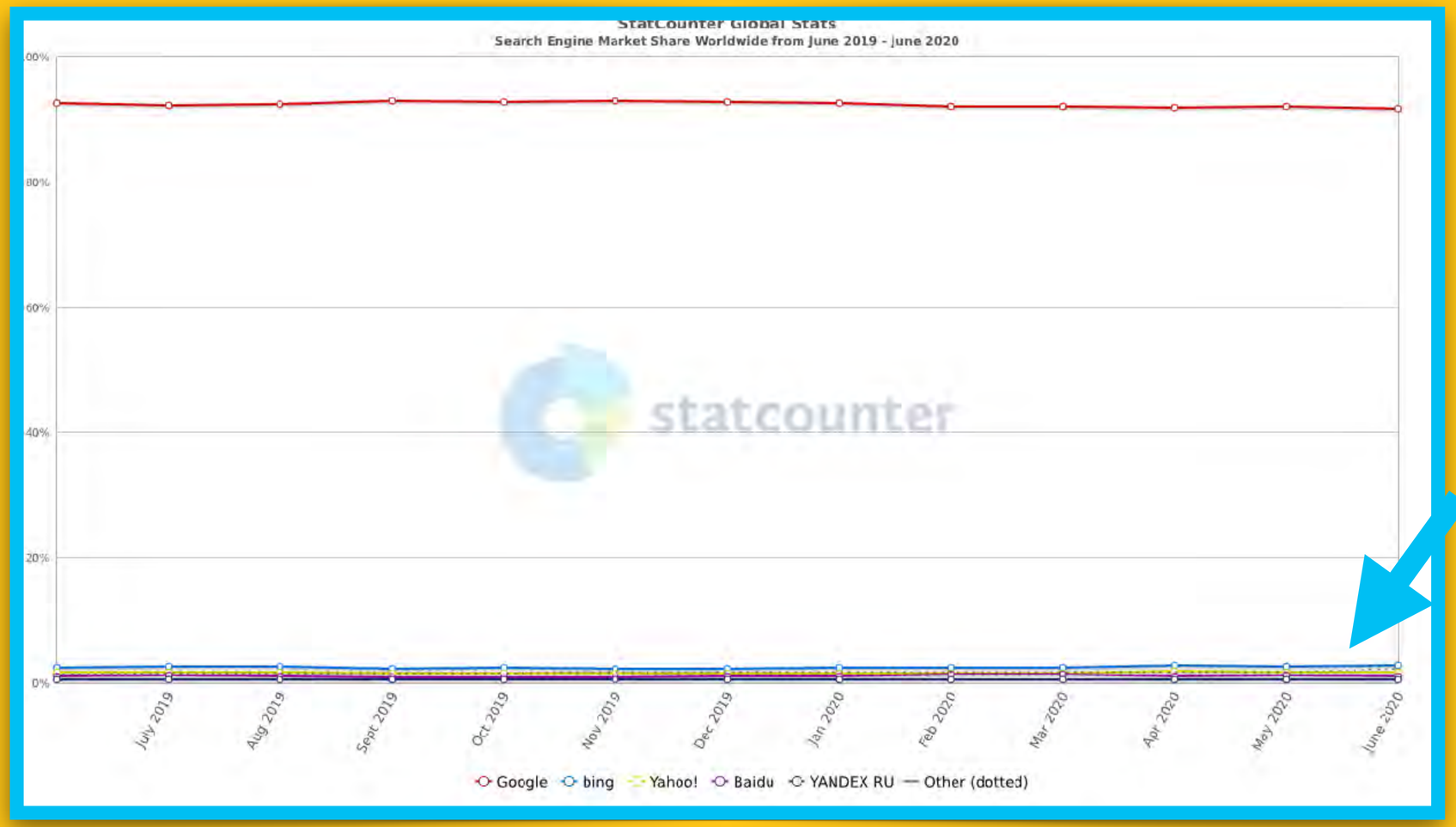
WEEK 1: SEO & PAGE LOAD OPTIMIZATION

SEO - WHY DOES IT MATTER?

- SEO = Search Engine Optimization
- 93% of online experiences begin with a search engine
- Every search query returns millions of results - how do you make it to page 1?
- Organic vs. paid results
- You can't control Google but you can control your website!



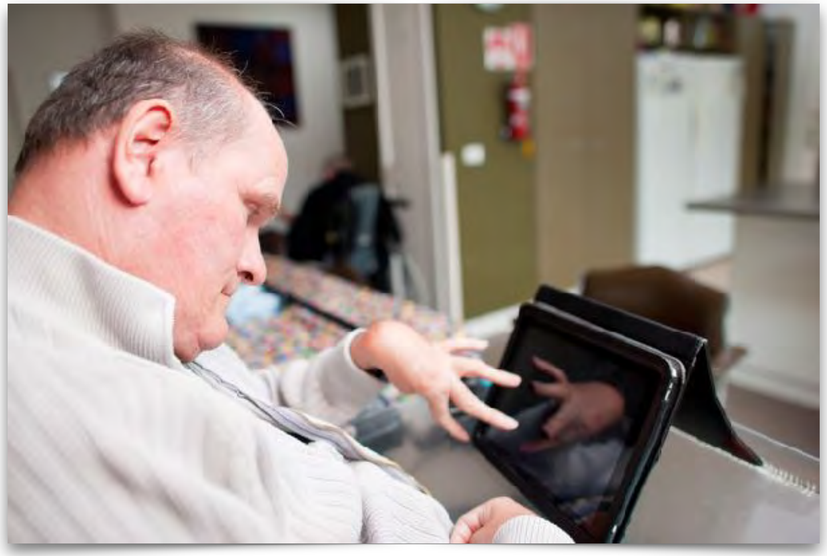
GOOGLE IS MARKET LEADER WITH 97%



Source

CODE FOR EVERYBODY

- Not everybody uses the internet the same way
- Websites should be aesthetically pleasing BUT more importantly as FUNCTIONAL as possible
- Function can look very different depending on who is interacting with your website

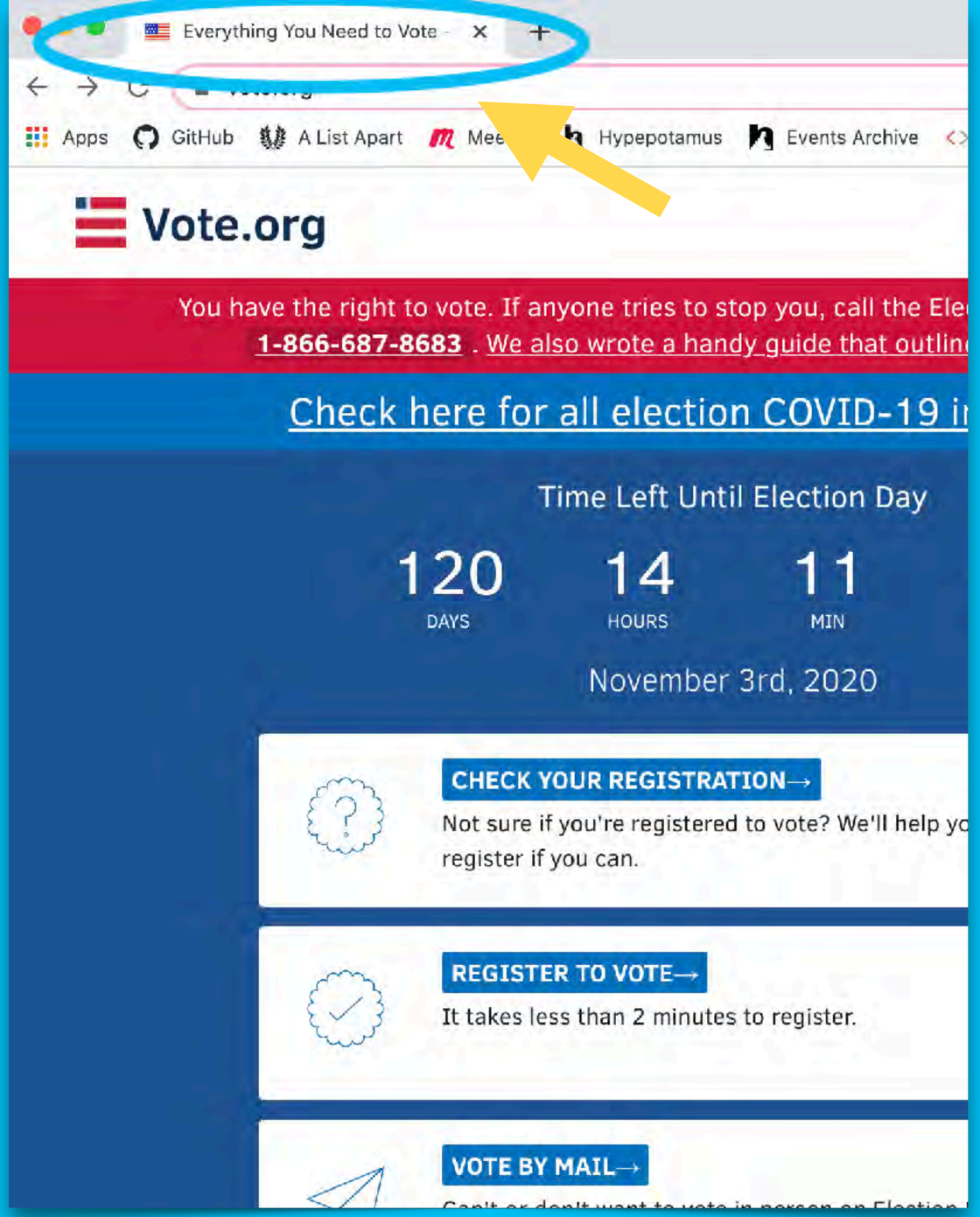


SEO

1. Title Tag
2. Meta Description
3. Headings
4. Links & Anchor Text
5. The “nofollow” Attribute
6. Image Alt Text
7. Canonical Tags

1. TITLE

- Most important element on website
- This is what Google will display in results
- Don’t overload with keywords, keep it natural
- Use words that pertain to the topic of the website and people will want to click on

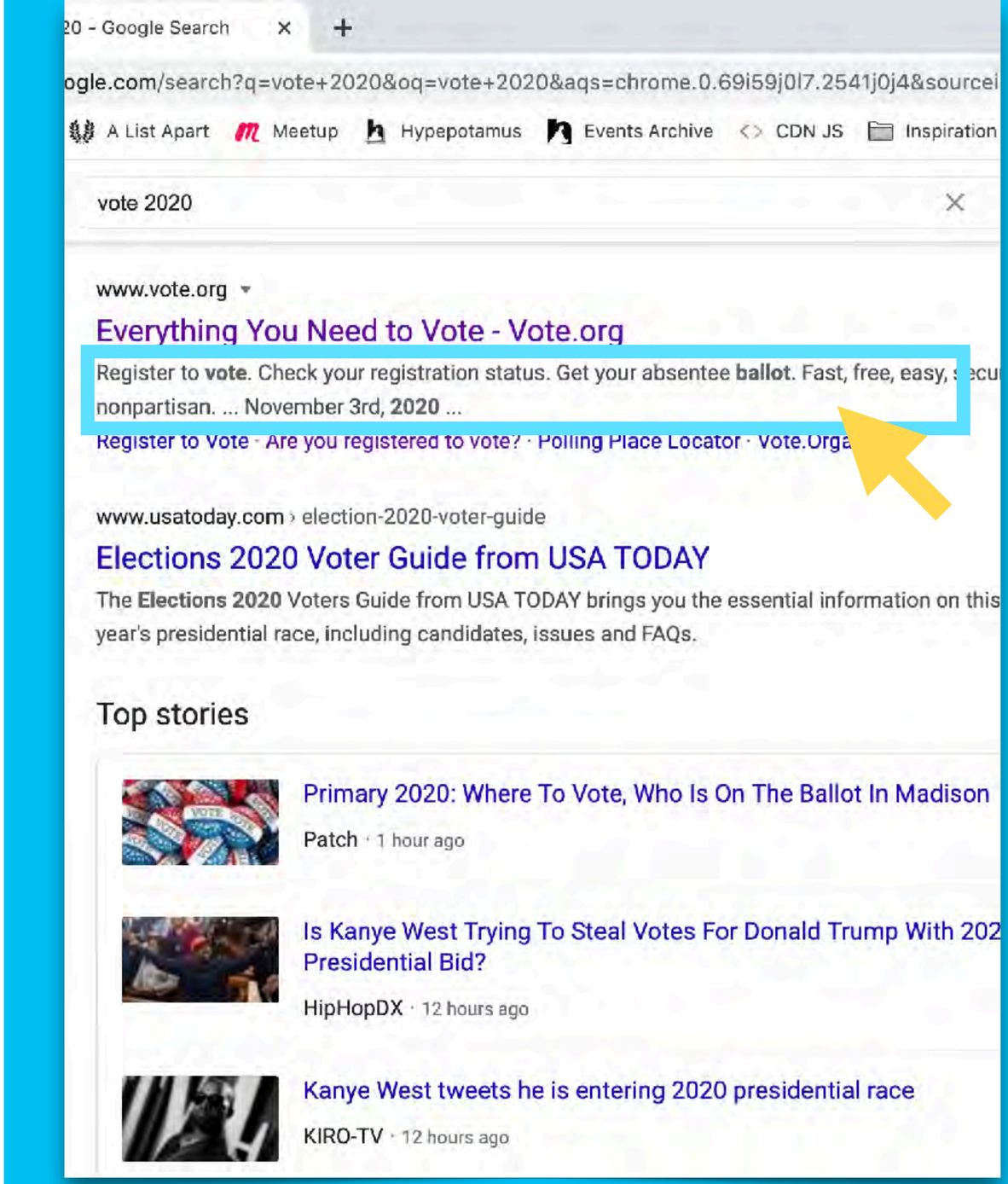


index.html

```
1  <!doctype html>
2  <html>
3
4  <head>
5    <meta charset="utf-8">
6    <meta http-equiv="x-ua-compatible" content="ie=edge">
7    <title>This is where your title goes</title>
8    <meta name="description" content="This is where you write a description
9        about your website. Use the same words you've used in your title.">
10   <meta name="viewport" content="width=device-width, initial-scale=1">
11   <link rel="stylesheet" href="dist/css/main.css">
12   <link rel="canonical" href="https://www.vote.org" />
13 </head>
14
15 <body>
```

2. META DESCRIPTION

- Summary of your website
- Keep between 50-160 characters
- No paraphrasing
- Basically free advertising



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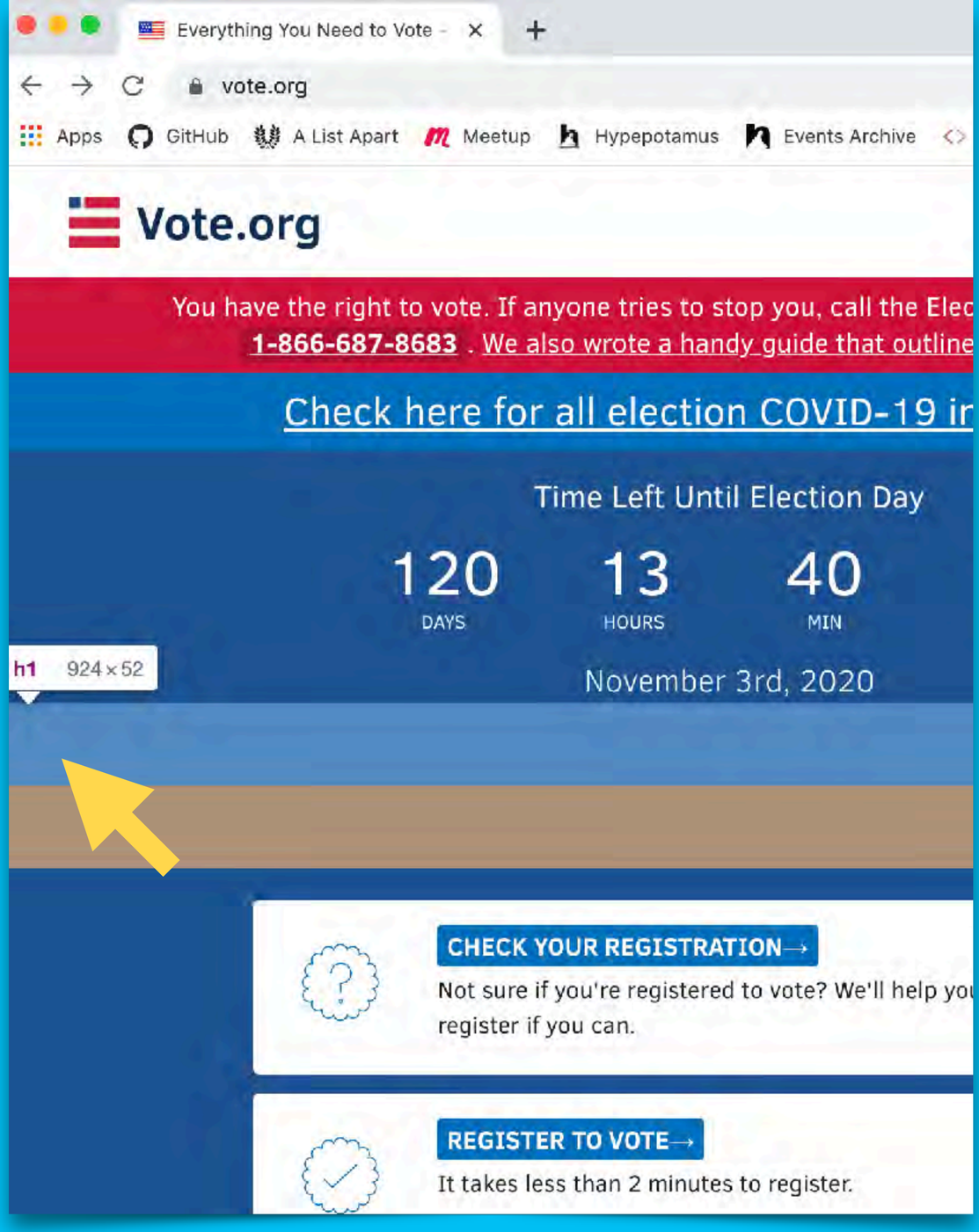
3. HEADINGS

- Only ONE H1 per page!
- Often the same as title
- Use H2-H6 headings for important sections, they might show up in Google search results
- Headings are also important for Accessibility



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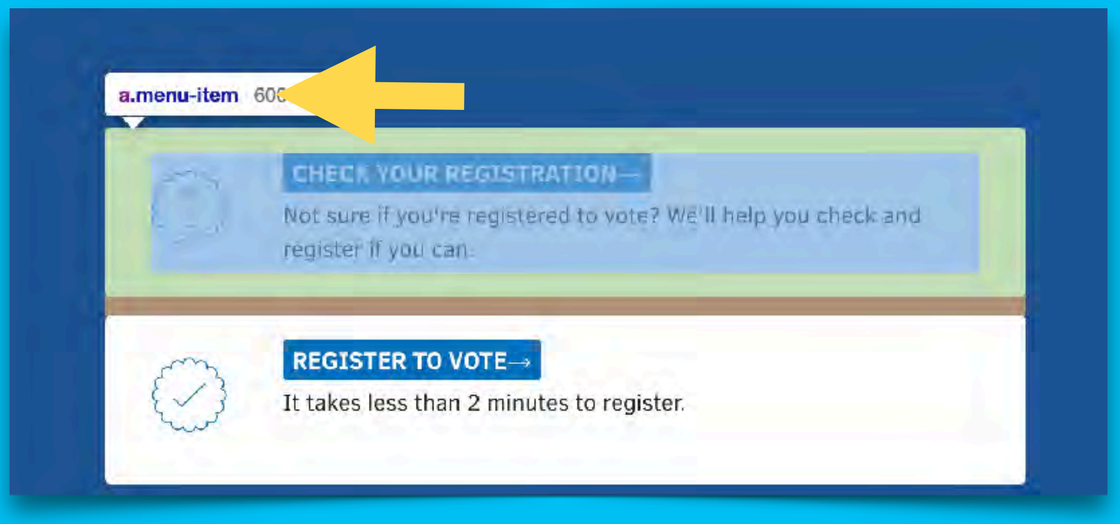
</head>

<body>

  <h1>This can be the same as title</h1>
```

4. LINKS & ANCHOR TEXT

- Part of Google algorithm
- Don’t use generic words, use page keywords
- Generic Anchor Examples:
  - Click here
  - This blog
  - Read more
  - More info
  - About the author



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15  <body>
16
17    <h1>This can be the same as title</h1>
18
19    <a href="#linkToWhateverSite">Use this anchor text to describe the link</a>
20
```
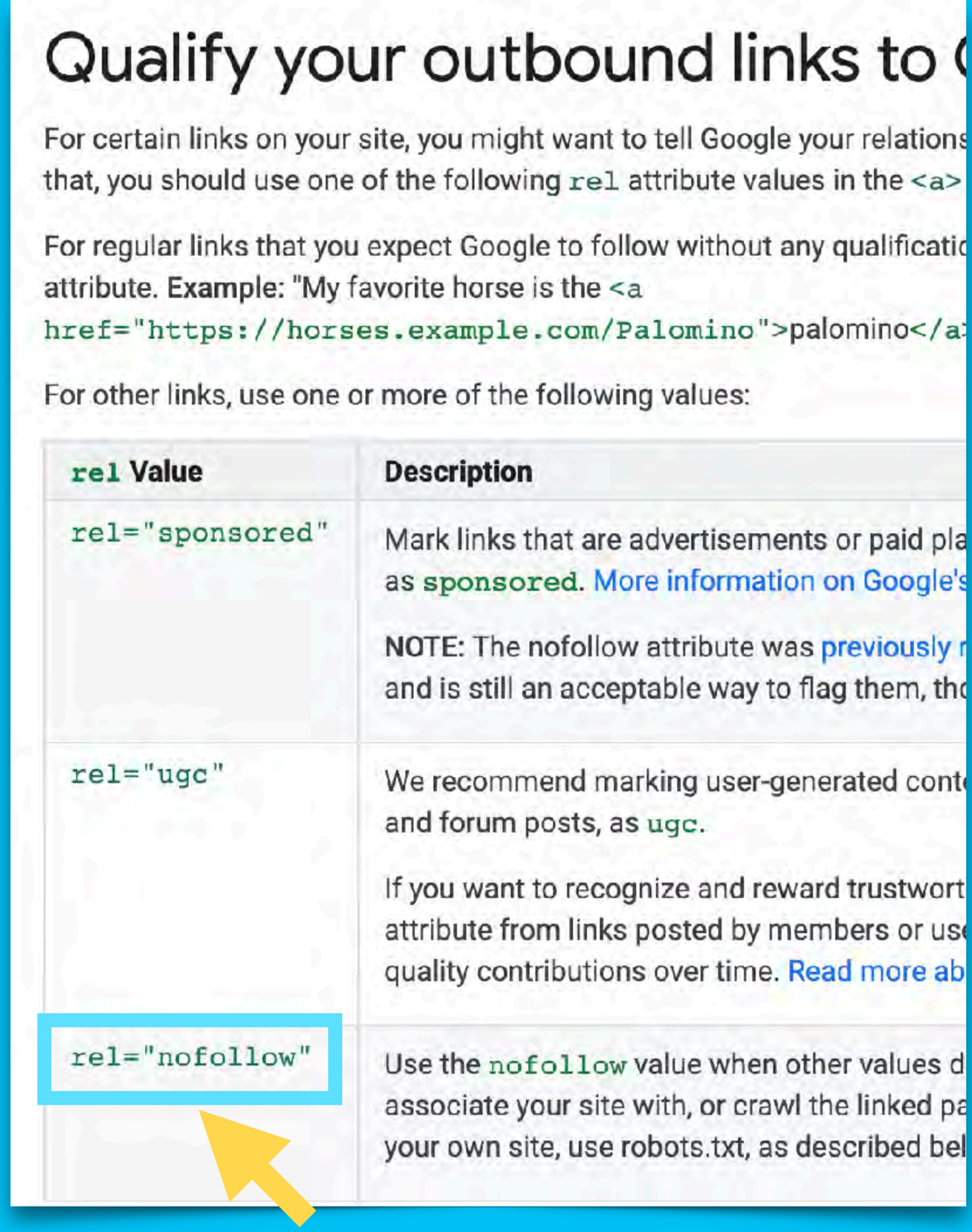

5. NOFOLLOW ATTRIBUTE

- rel=“nofollow”
- Helps to establish relationships to websites to which you link
- Generally used in comment sections like blogs and for sponsored affiliate links
- Google Documentation



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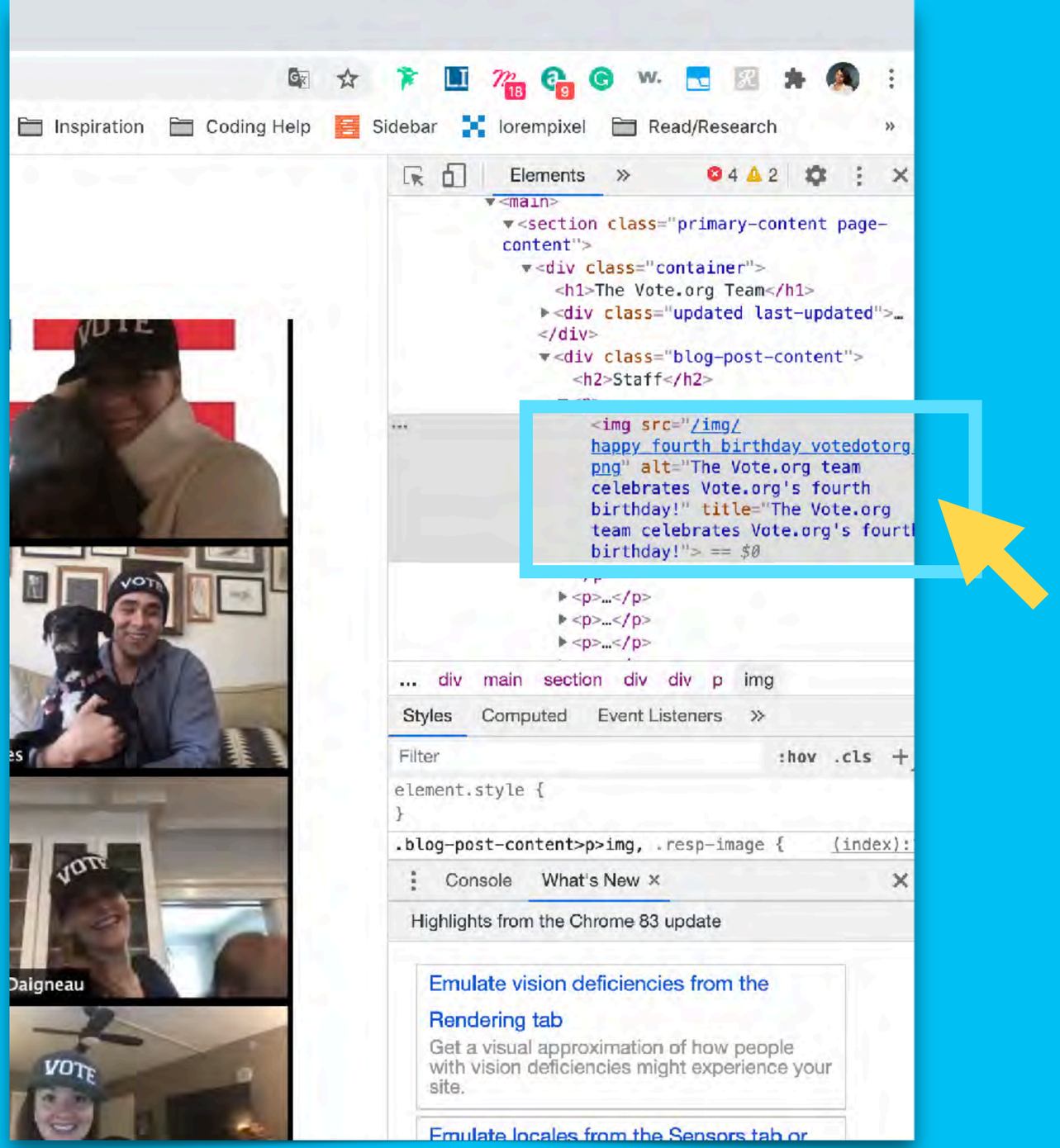
19   <a href="#linkToWhateverSite">Use this anchor text to describe the link</a>
20
21   <a href="#linkToWhateverSite" rel="nofollow">Establishes relationship to the link</a>
22
```

6. IMAGE ALT TEXT

- Description of image
- Important for Accessibility
- Very important for eCommerce websites
- Shop items, diagrams, info graphics, logos, screenshots, photos of team members, etc.
- Don’t use on decorative images



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21     <a href="#linkToWhateverSite" rel="nofollow">Establishes relationship to the link</a>
22
23     <img src="src/img/logo.png" alt="The Creative Circus Logo. Red ball with white star.">
24
```

7. CANONICAL TAGS

- Sets preferred URL for content aka “the primary page”
- Helps to prevent duplicate URLs
- Used in head section of html file
- Good reference for syndication, points back to original source of content
- Google Documentation

These links are duplicates:

1. http://www.vote.org
2. https://www.vote.org
3. http://vote.org
4. http://vote.org/index.php
5. http://www.vote.org/index.php

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GENERALLY

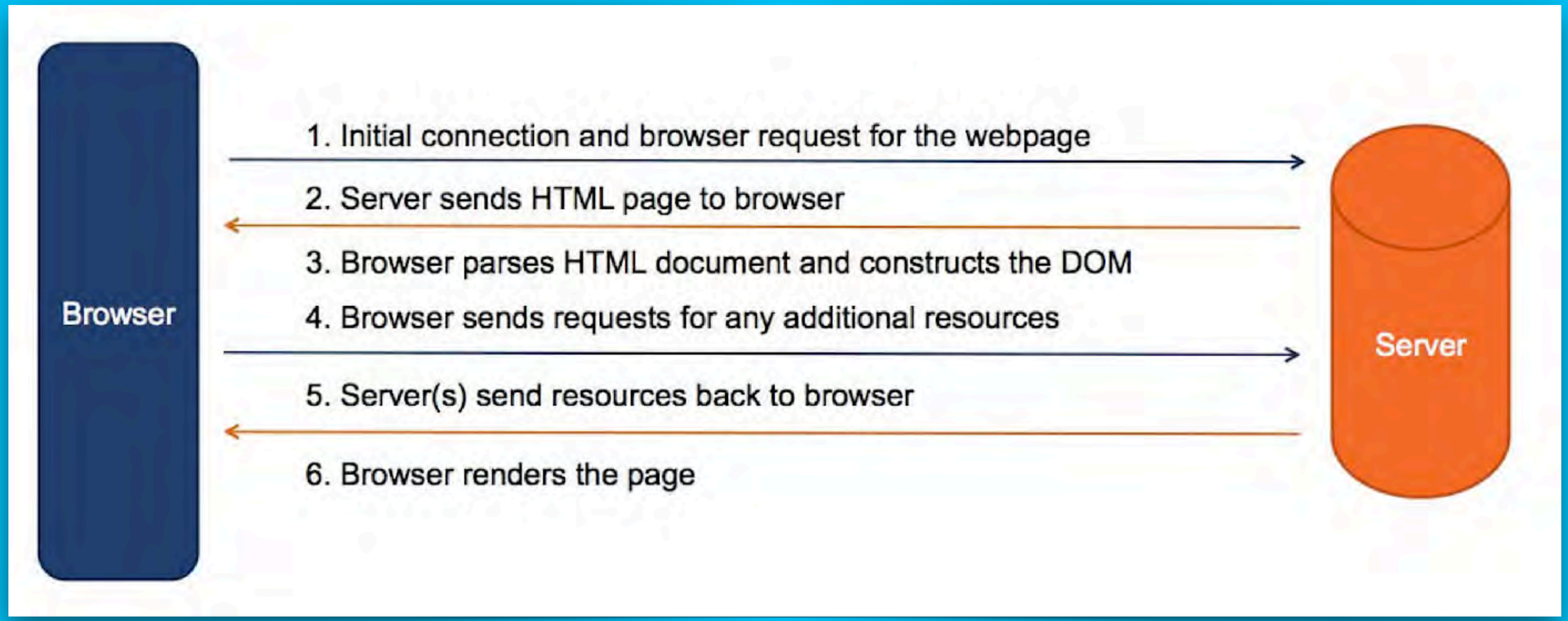
- AVOID KEYWORD STUFFING
- USE SEMANTIC HTML

QUESTIONS?

PAGE LOAD OPTIMIZATION

1. Image Size & Format
2. Avoid render blocking
3. Minification of CSS & JS
4. Using a CDN

BROWSER REQUESTS WEBSITE...



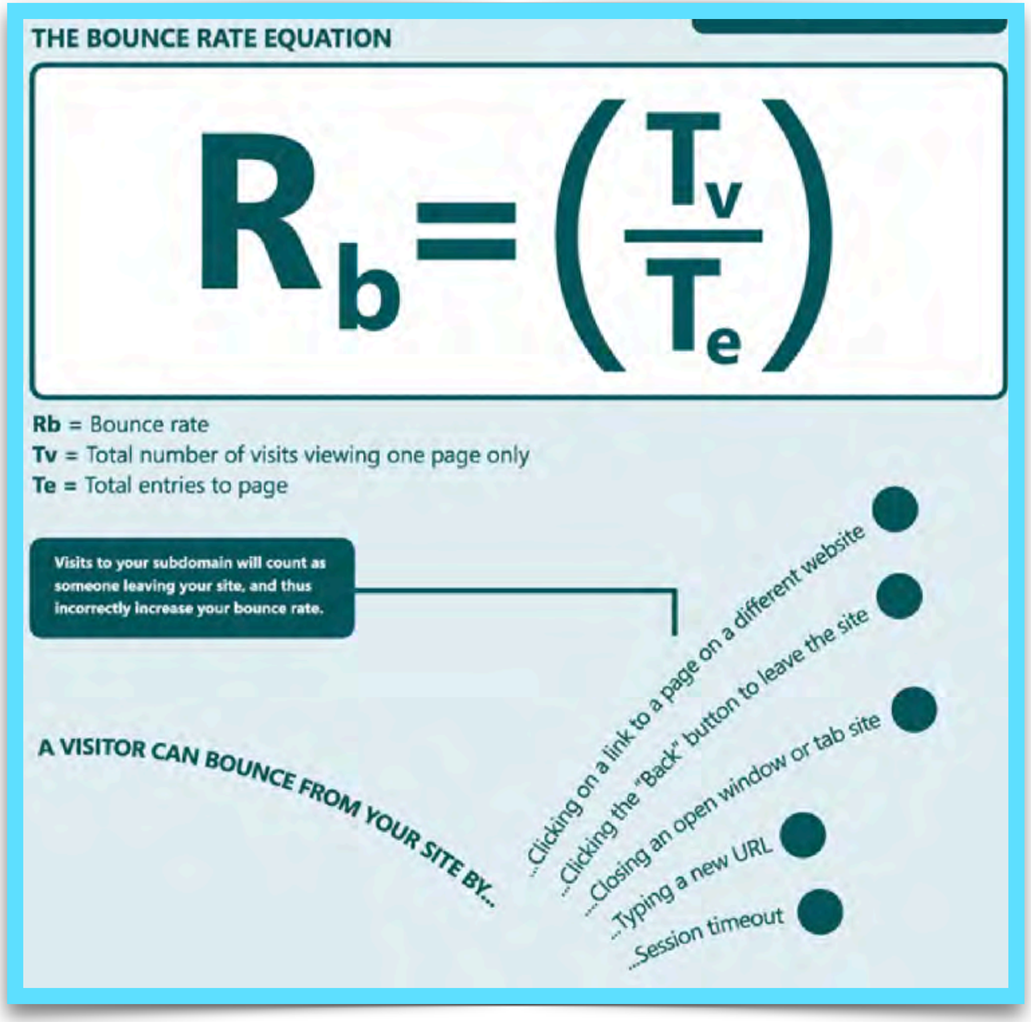
What happens in the couple of seconds you wait for a page to fully load?

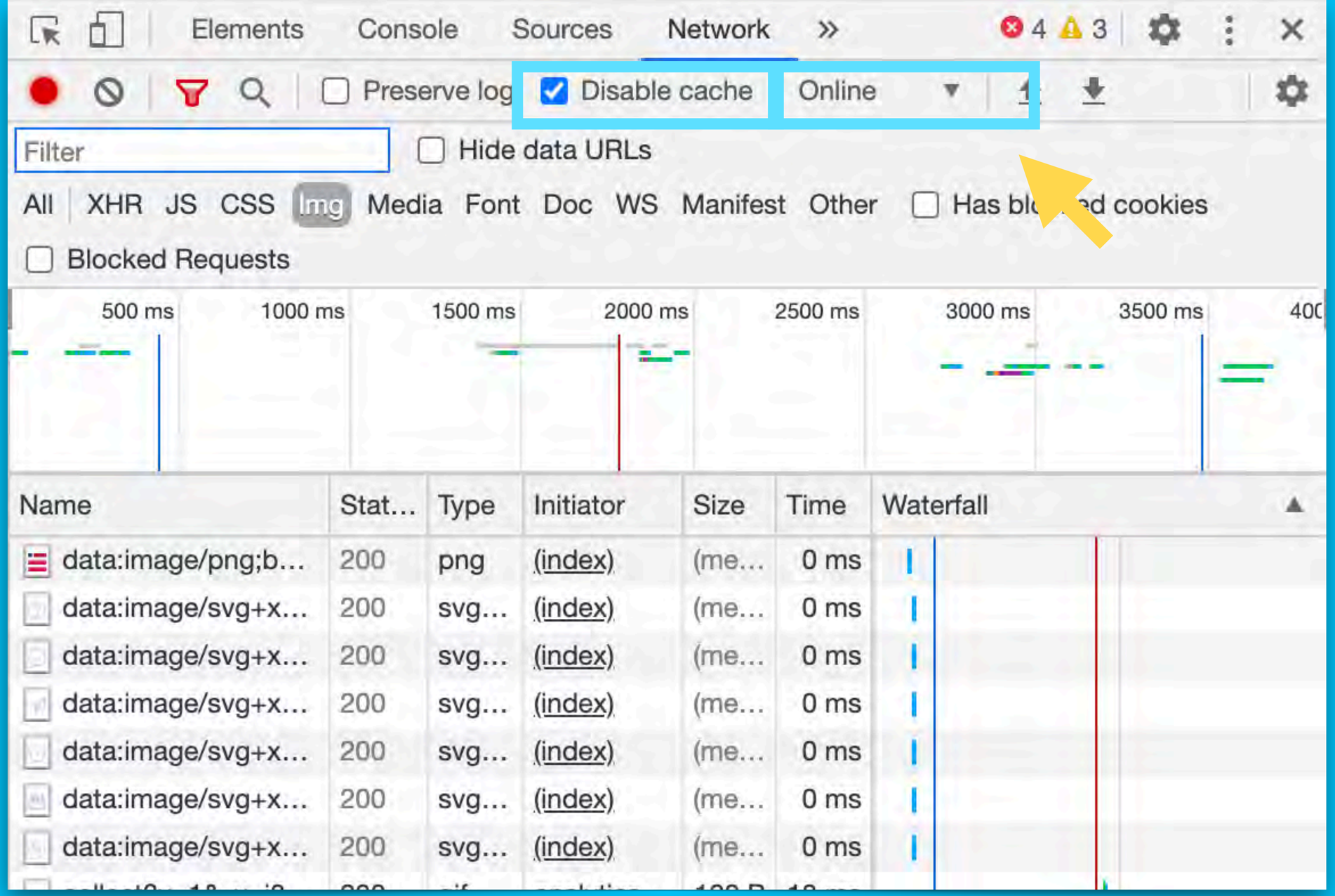
2 WAYS TO MEASURE WEBSITE SPEED:

1. Page Load Time
   - Amount of time that passes between browser sending the request to the server and page to fully load/render
2. Time To First Byte / TTFB
   - Amount of time that passes between browser sending the request and receiving first byte of date from server
   - Ideal range: 200-500ms
   - This is how Google determines Page Load!

WHY DOES IT MATTER?

- Users are impatient
- The faster a website loads, the more content can Google crawl - which helps with the ranking of the website
- Enriches user experience
- Lowers bounce rate to other competitors
  - Excellent bounce rate: 26 - 40%
  - Average bounce rate: 41 - 55%
  - High bounce rate: 56- 70%
  - Bounce rate over 70% is disappointing





Network Tab

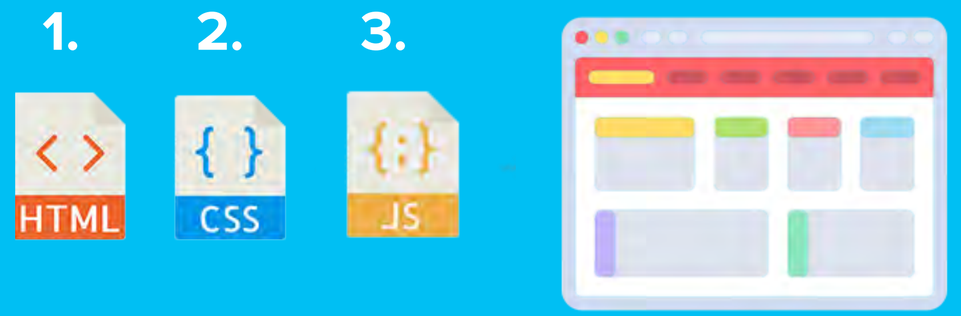
- Disable Cache
- Use Throttling

1. IMAGE SIZE & FORMAT

- Changing image size in CSS **DOES NOT** affect the size of the file and the time it takes to load the image
- Use image optimization tools:
  - https://imagecompressor.com/
  - https://tinypng.com/
  - Manually resize images with Photoshop by reducing dpi (dots per inch)

2. AVOID RENDER BLOCKING

- Structure, Style, Functionality - HTML, CSS, JS!
- Use separate CSS & JS files to keep HTML file clean and light
- Place link for JS at the end of your body to avoid loading only parts of content
- Alternatively use async attribute to avoid render issues



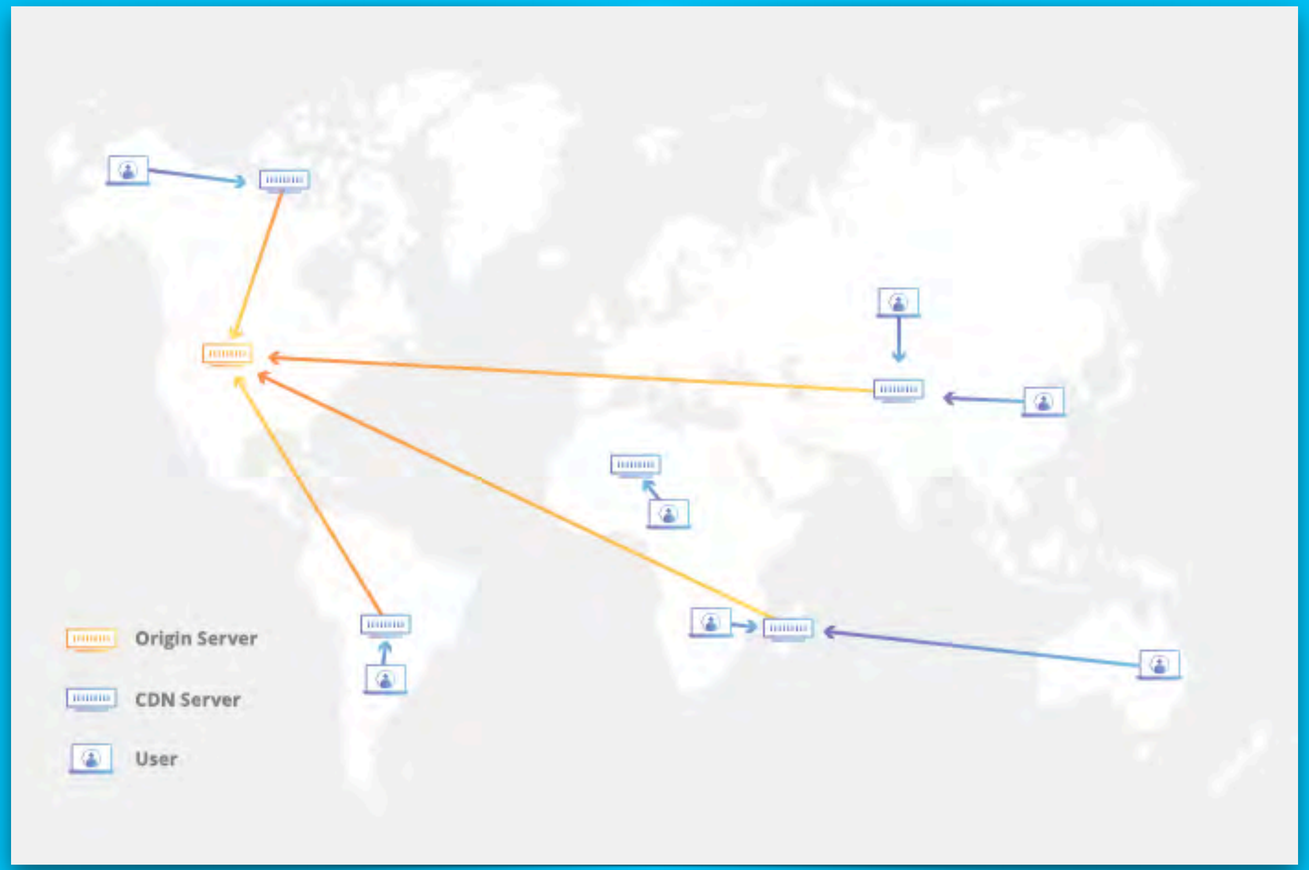
1. Load HTML first
2. Usually load CSS second
3. Load JS and other frameworks last

3. MINIFICATION OF CODE

- You can minify HTML, CSS & JS to reduce the overall project size
- HTML: HTML Minifier
- CSS: CSS Nano
- JS: UglifyJS
- Your gulpfile has built in minification - yay!

4. USE A CDN

- CDN = Content distribution network
- Refers to a geographically distributed group of servers which work together to provide fast delivery of Internet content
- Use https://cdnjs.com/



ABOVE THE FOLD VS. BELOW THE FOLD

- Defer code, that happens below-the-fold like click events further down the page, or animations —> Remember lazy loading?

QUESTIONS?

HOMEWORK

- Make a simple landing page for a product company. The company can either be real or fictional. Here are some examples of what I'm looking for:
  - https://www.skullcandy.com/
  - https://www.allbirds.com/
  - https://www.blissworld.com/
  - http://collect.scentos.com/
- The site itself should be responsive and have all basic website components, such as: nav, header, main section and footer.
- Your site should use SEO and page speed optimized references. At a minimum, the site should include:
- Appropriate Title Tag
- Appropriate Meta Description
- All images should be sized appropriately (manually or with online tool) as well as have alt-text
- You will be graded on the correct usage of SEO and page optimization. Keep in mind that the main goal of this assignment is to get you comfortable incorporating techniques like SEO and Page Load Optimization to your code. We will build on this website in coming classes.
- Bonus Points if you are able to implement a page loading image that is displayed when first entering the page.
- Submit a link to your repo via Google Classroom.

FIN