### Front End Fundamentals II

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## Accessibility

#### Accessibility (A11y)

When we talk about accessibility, in the broadest terms, we are making sure that our sites are available to everyone.

This includes people that are not able to see, use a mouse, use a touch screen. Anyone who is outside of the range of "typical users"

#### Accessibility (A11y)

Why?

It's the right thing to do.

In 2019 the Supreme Court upheld that the Americans with Disabilities Act requires businesses with physical locations to make their websites accessible.

#### Accessibility (A11y)

We are going to focus on Web Content Accessibility Guidelines 2.0 (WCAG),

https://www.w3.org/TR/WCAG20/

#### Accessibility Principles (POUR)

Perceivable

Operable

Understandable

Robust

Perceivable:

Can all users perceive the content?

- Provide text to those who cannot hear
- Provide audio to those who cannot see
- Content should be consumable by screen readers

Operable:

Can all users operate the website?

- All functions on site be accomplished with a keyboard
- Animations and media should be controllable
- Content should be navigable by keyboard

Understandable:

Can all users understand the content?

- Use clear concise language
- Functionality should be easy to comprehend
- Consistent navigation across all pages
- Connections between actions and results should be obvious

#### Robust:

Can a site be consumed by a wide variety of browsers? Does is work with assistive technology?

- Your website should work across platforms, browsers, and devices
- You should not dictate what technology the user can use
- Follow standards and conventions

#### **Accessibility Audits**

How can we determine the accessibility of a website

- Lighthouse
- Deque Axe <a href="https://www.deque.com/axe/">https://www.deque.com/axe/</a>

Let's spend some time running accessibility audits on some sites.

#### Let's Develop It

Let's use Lighthouse in the Google developer console to run some accessibility audits

- Visit any web page
- Right click on the page and choose "inspect"
- Click the "Lighthouse" tab
- Under "Categories", Check "Accessibility"
- Click the "Generate report" button
- View the results
- Take note of some themes you may see

What does this mean to you and me?

Use headings to correctly organize the structure of your layout

- <h1> is for the primary title of the page
- Headings indicate and organize your content structure
- Do no skip headings as screen readers will think something is missing

Use semantic HTML5 to correctly organize the structure of your layout

- Use tags like
  - <header>
  - < <footer>
  - o <nav>
  - o <article>
  - < section>
  - o <main>
  - o <aside>

What does this mean to you and me?

Add text alternatives for images

<img src="image.jpg" alt="puppy wearing a bow tie" />

What does this mean to you and me?

Give your links a descriptive name

- <a href="https://www.google.com">Click here</a> to go to google.
- Go to <a href="https://www.google.com">Google</a>

What does this mean to you and me?

Use color with care

- Use color and whitespace to distinguish content
- Make sure you have good color contrast

#### Let's Develop It

Let's improve the accessibility of our web page

When you are done, use these tools to evaluate your progress.

https://validator.w3.org/nu/

https://www.tpgi.com/color-contrast-c hecker/

- Use <h1> for the primary title of the page
- Don't skip any headings
- Use HTML5 elements for you markup:
  - o <header>
  - < <footer>
  - o <nav>
  - o <article>
  - < section>
  - < main>
  - o <aside>
- Add alt text to your images
  - <img src="image.jpg" alt="puppy wearing a bow tie" />
- Give your links descriptive name
- Use color and whitespace to distinguish content
- Make sure you have good color contrast

# Sharing Time!

Accessibility makes your website better for all users.

# Questions?