Grow with Google: Lesson 2

HTML Syntax

1. Lesson Introduction

- Trees are going to be a recurring theme.

2. HTML Structure Part 1

- Tags generally frame the content with an HTML element.
- Images break from this paradigm and do not include a closing tag.
- The content is the child of its parent, an element.

3. Quiz: Make Your First Element

- Create three elements: 1 paragraph and 2 spans.
- Placing elements on different lines is easier to read.
- Every type of element will display differently.

4. Environments

- I love the metaphor of the woods and nature to describe development.
- Text editors are used to write code.
    - Word shows rich text.
    - Plain text editors are ASCII characters.
- Integrated Development Environments
    - They compile and run code.
    - Apple's XCode
    - Microsoft's Visual Studio
    - Typically not used for web development due to browsers.
    - Browsers run and compile HTML, CSS, and JavaScript.

5. Text Editors

- Visual Studio: Code by Microsoft
- Atom by GitHub
- Emacs
- Vi/Vim

6. Browsers

- Google Chrome
- Mozilla Firefox
- Browsers may display things differently.

7. Workflow

1. Edit the Code in a Text Editor
2. Save the Code (CMD + S)
3. Open the File in a Browser
4. Refresh the File (CMD + R)

8. Trees

- Family Tree
  - Parents
  - Child, Child (Siblings)
- Trees describe hierarchical data.
- HTML is essentially a tree.

9. HTML and Trees

- Elements can go inside of other elements.
- Content isn't just text, it's also other elements.
- Trees can grow laterally and vertically.

10. Quiz: Spot the Bug

- Remember closing tags.
- Remember the closing carat of tags.
- Close tags in the proper order.

11. Quiz: HTML Research

- Mozilla Developer Network
  - HTML Elements Reference
    - `<strong>`: The HTML Strong Importance Element () indicates that its contents have strong importance, seriousness, or urgency. Browsers typically render the contents in bold type.
    - `<em>`: The HTML element marks text that has stress emphasis. The element can be nested, with each level of nesting indicating a greater degree of emphasis.
- Doesn't explain why to use `strong` over `b`, but does explain he difference between `em` and `i` briefly.

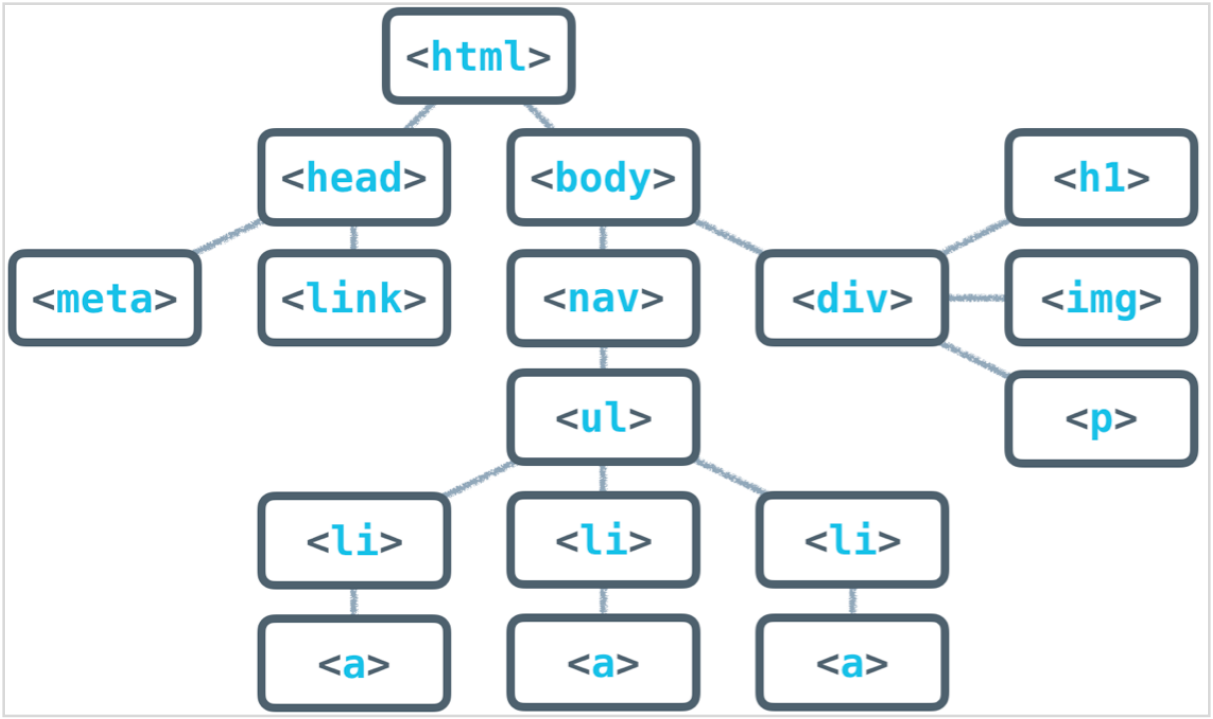
12. HTML Structure: Part 2

- DOCTYPE: Describes the type of HTML. While there are technically different types, for 99.999% of the HTML you'll write, you'll likely be fine with <!DOCTYPE html>.

    - I wish he described the history of older DOCTYPES.
    - Alludes to quirks mode in browsers, but doesn't mention it by name.
    - ~~Introducing the validator would have been great.~~
- `<head>`: Describes meta information about the site, such as the title, and provides links to scripts and stylesheets the site needs to render and behave correctly.
- `<body>`: Describes the actual content of the site that users will see.

13. HTML Documents in Depth

- MDN article on Quirks Mode and Standards Mode.
- Basic HTML Tree Structure
    - `<head>` contains general information and metadata.
        - Never visible but includes important information.
        - `<title>` displayed in browser tabs.
        - `<link rel="stylesheet"…>` CSS files for style.
        - `<script src="animations.js"></script>` JavaScript files for rendering and behavior.
        - `<meta charset="utf-8">` Character encoding in UTF-8 for the display of Unicode characters.
        - `<meta name="description">` Keywords, authors, descriptions, for SEO.
    - `<body>` contains the content that will be displayed.
- HTML Validator



14. Lesson Wrap Up

- Problem sets will be checked with an extension.
- The extension is available for both Chrome and Firefox, but they explicitly promote the former.
- The extension does not technically work in Firefox.