Introduction to Web Design and Development

Session 1: Introductions

Introductions

Find out how technically minded they are, what their experience is

Introductions

- Diogenes Brito

Find out how technically minded they are, what their experience is

Introductions

- Diogenes Brito

- Zach Feldman

Find out how technically minded they are, what their experience is

Introductions

- Diogenes Brito

- Zach Feldman

- You

Find out how technically minded they are, what their experience is

Curriculum

Curriculum

- What does it take? (Scope)

Curriculum

- What does it take? (Scope)

- Best Practices

Curriculum

- What does it take? (Scope)

- Best Practices

- A design process, and how to apply it to the web

Curriculum

- What does it take? (Scope)

- Best Practices

- A design process, and how to apply it to the web

- User-centered Design for usability and accessibility

Themes

Themes

- Design process and iteration

Themes

- Design process and iteration

- What to do vs. How to do it

Themes

- Design process and iteration

- What to do vs. How to do it

- Maintainability

Expectations

Expectations

- Curiosity and Craftsmanship

Expectations

- Curiosity and Craftsmanship

- Attendance

Expectations

- Curiosity and Craftsmanship

- Attendance

- Homework

Goals

You won't be a web developer after this
...and you might decide its all not worth the trouble...
but you will get to know the scope of whats involved

Goals

- Introduce you to HTML syntax

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- Introduce you to CSS syntax

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- Introduce you to CSS syntax

- Get you the vocabulary you need to Google your way to glory...

You won't be a web developer after this
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Goals

- Introduce you to HTML syntax

- Introduce you to CSS syntax

- Get you the vocabulary you need to Google your way to glory...

- ...and understand what you find.

You won't be a web developer after this
...and you might decide its all not worth the trouble...
but you will get to know the scope of whats involved

What's a Website, Really?

You know how to interact with a website, Google, Facebook, etc.

~~Whats a Website, Really?~~

What happens when you request a website?

- Its fairly complicated, but the short of it is, your computer asks another computer over the internet for whatever is at that address.
- The computer at the other end of the address checks if it has something at that address, and then sends it back if it does.
- It could be any kind of file, but most often its a text file in a pre-defined format.

How is a website made?

Zach time

HyperText Markup Language

(HTML)

- HTML is the standard format of the web

HyperText Markup Language

(HTML)

Its just a plain text file in some fancy format.

• HTML is the standard format of the web

HyperText Markup Language

(HTML)

Its just a plain text file in some fancy format.

Instead of .txt, its extension is .html.

• HTML is the standard format of the web

You See This
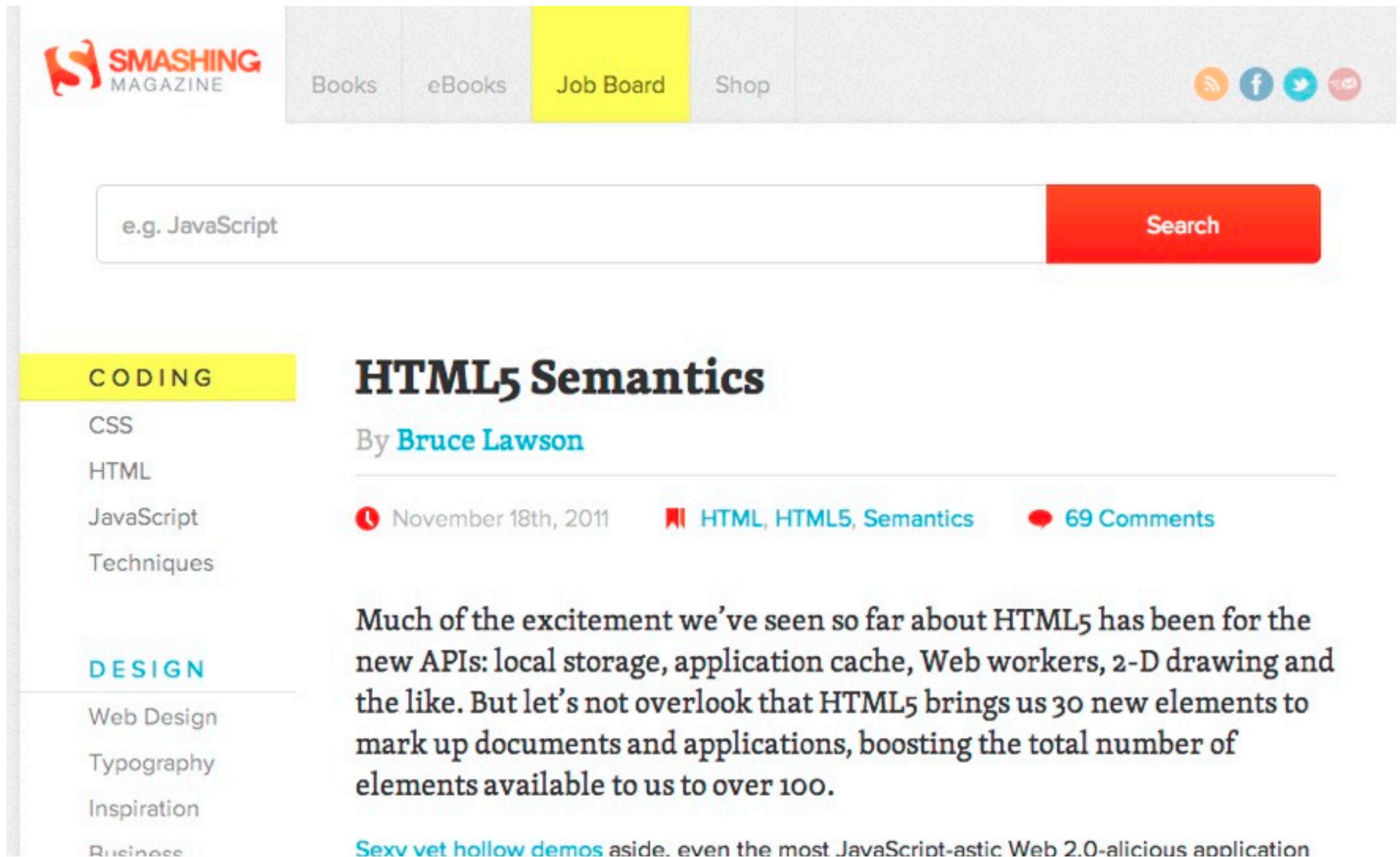
• What you see in a browser is "rendered." Its an interpretation of the HTML

Chrome Actually Got This

```
<!DOCTYPE html>
<html class="no-js" dir="ltr" lang="en-US">
    <meta name="viewport" content="width=device-width, initial-scale=1.0" />
    <meta charset="UTF-8">
    <title>HTML5 Semantics | Smashing Coding</title>
    <link rel="alternate" type="application/atom+xml" title="News-Feed" href="http://rss1.smashingmagazin
    <link type="application/atom+xml" rel="alternate" title="Smashing Magazine &raquo; Coding Feed"
href="http://rss1.smashingmagazine.com/feed/?f=coding-std" />    <link rel="pingback" href="http://coding
    <link rel="shortcut icon" href="http://media.smashingmagazine.com/themes/smashingv4/images/favicon.ic
    <link rel="apple-touch-icon" href="http://media.smashingmagazine.com/themes/smashingv4/images/appleto

<!-- This site is optimized with the Yoast WordPress SEO plugin v1.2.2 - http://yoast.com/wordpress/seo/
<meta name="description" content="Much of the excitement we've seen so far about HTML5 has been for the n
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<link rel='stylesheet' id='smash-commentratings-css'  href='http://media.smashingmagazine.com/plugins/sma
css.css?ver=1.50' type='text/css' media='all' />
<link rel='stylesheet' id='fontdeck-css'  href='http://f.fontdeck.com/s/css/gjAxanDb3GzL8rviVV7PWUySExw/*
type='text/css' media='screen, print' />
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type='text/css' media='screen' />
<script type='text/javascript' src='http://media.smashingmagazine.com/themes/smashingv4/javascripts/jquer
<script type='text/javascript' src='http://coding.smashingmagazine.com/site-config.js'></script>
<script type='text/javascript' src='http://media.smashingmagazine.com/themes/smashingv4/javascripts/third
<script type='text/javascript' src='http://platform.twitter.com/widgets.js'></script>
<script type='text/javascript' src='http://media.smashingmagazine.com/themes/smashingv4/javascripts/onloa
<script type='text/javascript' src='http://coding.smashingmagazine.com/wp-includes/js/comment-reply.js?ve
<script type='text/javascript' src='http://media.smashingmagazine.com/themes/smashingv4/javascripts/conta
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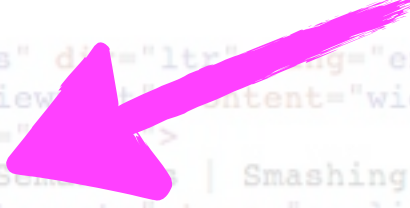
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<script type='text/javascript' src='http://coding.smashingmagazine.com/site-config.js'></script>
<script type='text/javascript' src='http://media.smashingmagazine.com/themes/smashingv4/javascripts/third
<script type='text/javascript' src='http://platform.twitter.com/widgets.js'></script>
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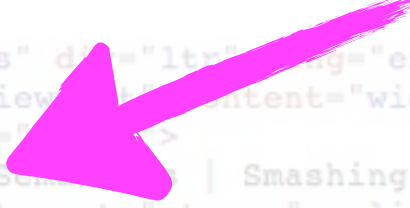
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But it's not so bad.

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Static vs. Dynamic Websites

• Some websites don't change on their own, these are static sites
  A business website is static: the content doesn't change unless someone does it manually
• A dynamic website is automatically generated by computer, so it can change on its own based on conditions (who is logged in, time of day, etc.)
  Facebook and google are dynamic websites
• The building blocks of static and dynamic websites are the same, but you need to understand a static one before you can make a dynamic one

Anatomy of a Webpage

Just like humans, except with a doctype.
There's important information in your head people can't see
There's your body that people can see

Anatomy of a Webpage

- A doctype - What version of HTML are you using?

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    - A head - What information should be loaded first, that the user does not see?

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Anatomy of a Webpage

- A doctype - What version of HTML are you using?

- HTML

  - A head - What information should be loaded first, that the user does not see?

  - A body - What will the user see in their browser?

Just like humans, except with a doctype.
There's important information in your head people can't see
There's your body that people can see

```
<!doctype html>
<html>
    <head>
      <title>Only shows up in the title bar</title>
    </head>

    <body>
      You can see this text.
    </body>
</html>
```

DocType

```
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    <body>
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</html>
```

All the HTML

```
<!doctype html>
<html>
    <head>
      <title>This text shows up in the menu bar</title>
    </head>

    <body>
      You can see this text.
    </body>
</html>
```

```
<!doctype html>                          head
<html>
    <head>
      <title>This text shows up in the menu bar</title>
    </head>


    <body>
      You can see this text.
    </body>
</html>
```

```
<!doctype html>
<html>
    <head>
        <title>This text shows up in the menu bar</title>
    </head>

    <body>
        You can see this text.
    </body>
</html>
```

head

body

Syntax

...is important.

- Syntax in english give us additional information about how to interpret the words and sentences
  We have commas, periods, capitalize the first letter.
- The syntax is not the content, but its important to the interpretation
- A computer can figure out what you mean based on context, so the syntax is very defined and specific
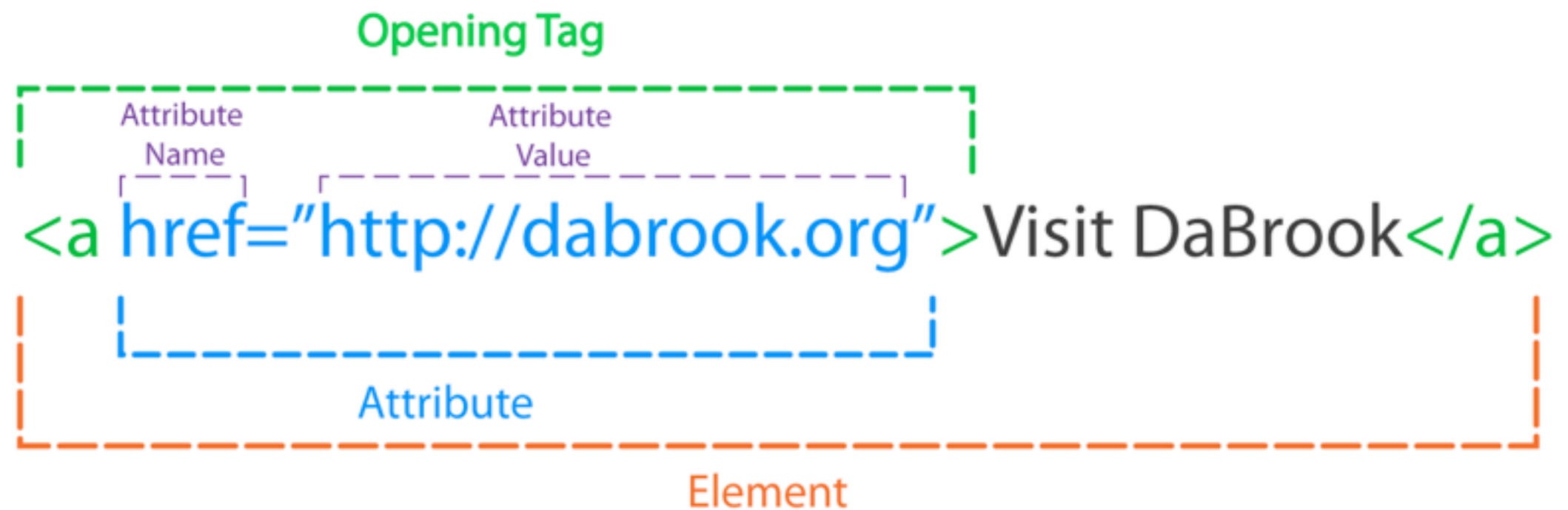
<tagsAreInAngleBrackets>

• Tags create elements
• I'm saying 'elements' and not 'things,' 'stuff,' 'items,' because that's the official term
• Elements are what you will see people call them

<tagsAreInAngleBrackets>

They create elements: individual components of a webpage

• Tags create elements
• I'm saying 'elements' and not 'things,' 'stuff,' 'items,' because that's the official term
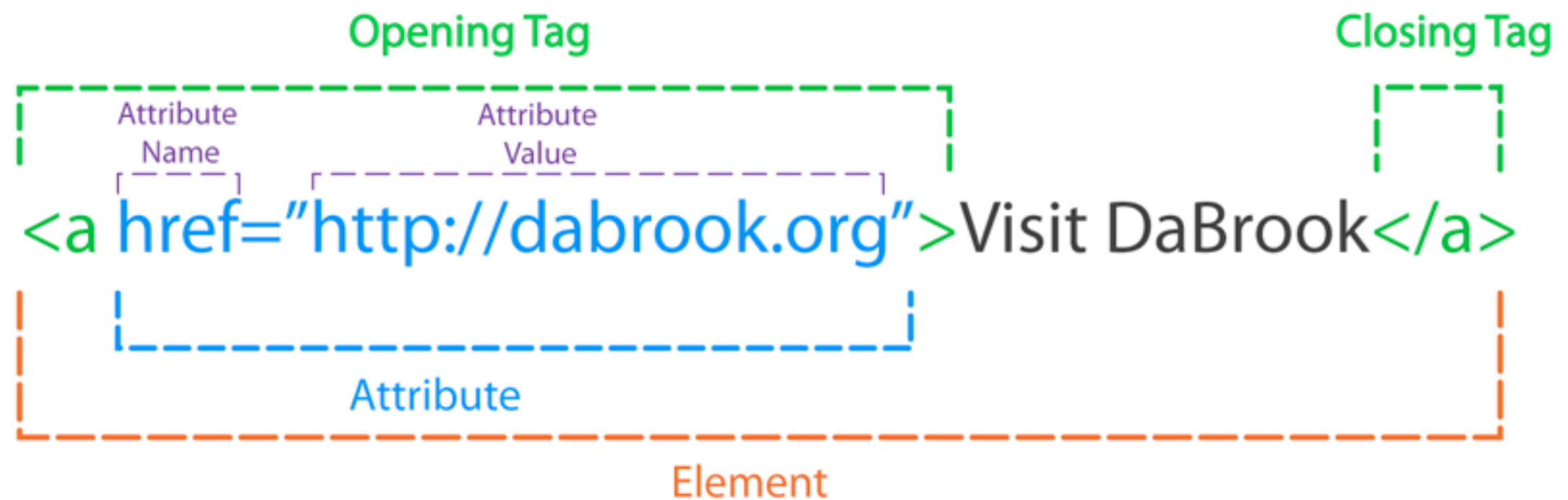• Elements are what you will see people call them

<ImAnOpeningTag>

</ImAClosingTag>

Two examples of what are called tags.

These are both tags: angle bracket, stuff, angle bracket.

Anatomy of An Element

Anatomy of An Element

Diogenes

Let mark me up.

I'm Diogenes

You know I'm a person, the computer doesn't, so lets mark me up.

`<person>Diogenes</person>`

Let mark me up.

I'm Diogenes

You know I'm a person, the computer doesn't, so lets mark me up.

```
<person sex="male" shade="dark" looks="handsome">Diogenes</person>
```

Let mark me up.

I'm Diogenes

You know I'm a person, the computer doesn't, so lets mark me up.
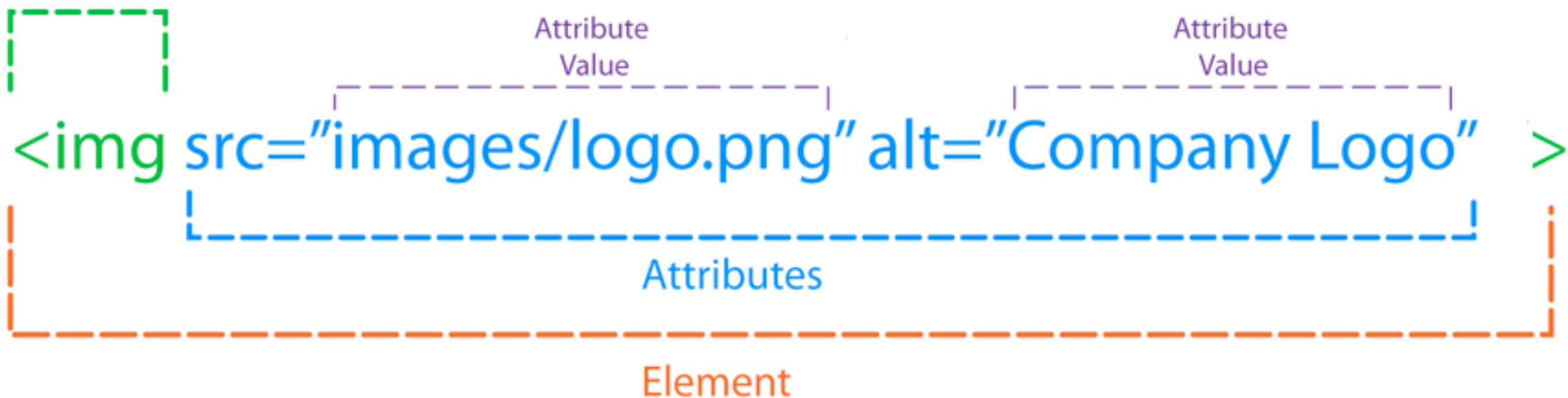
Tags Can Contain Other Tags

<box><present></box>

Which means elements can contain other elements.

Beware Improper 'Nesting'

<peel><banana> </peel></banana>

• You can't have an element 'partially inside' another

"Self Closing" Tags

Opening Part of Tag

Attribute Value

Attribute Value

`<img src="images/logo.png" alt="Company Logo" >`

Attributes

Element
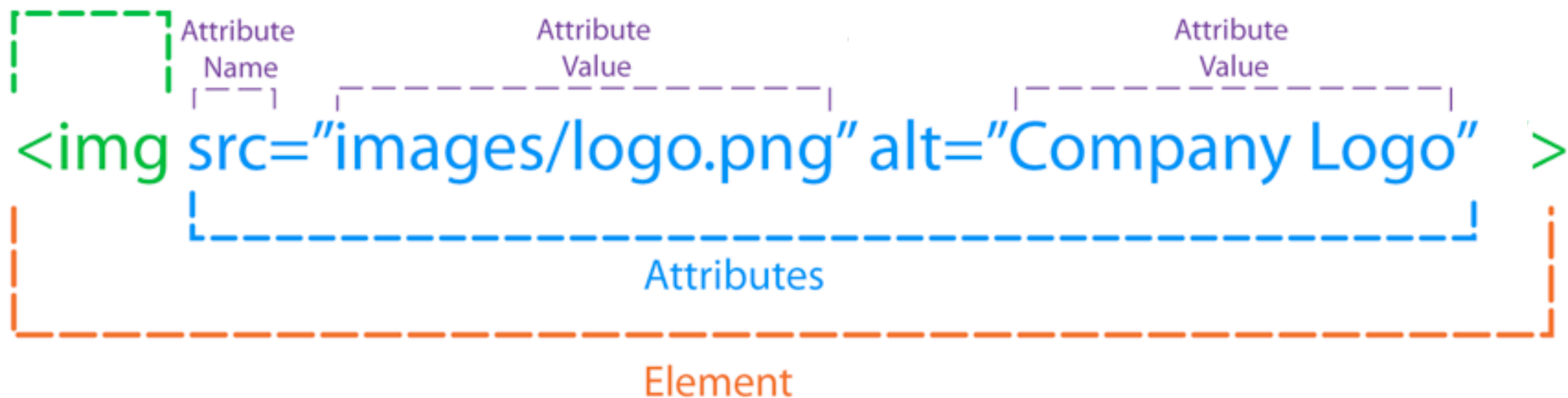
- These are just tags that can't have anything else inside of them
- they don't require a closing tag, they create an element on their own

"Self Closing" Tags

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"Self Closing" Tags

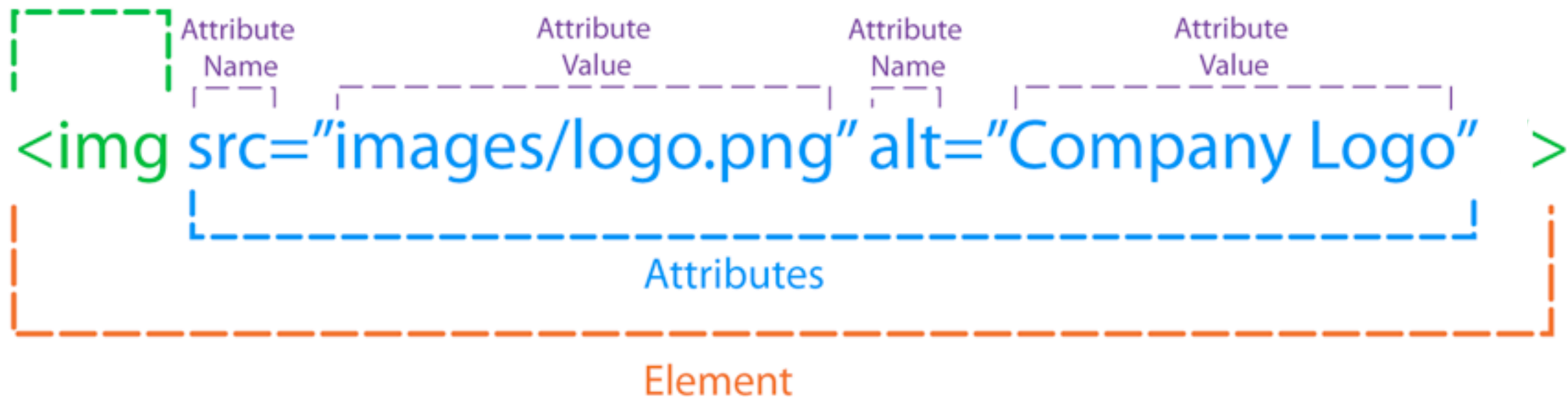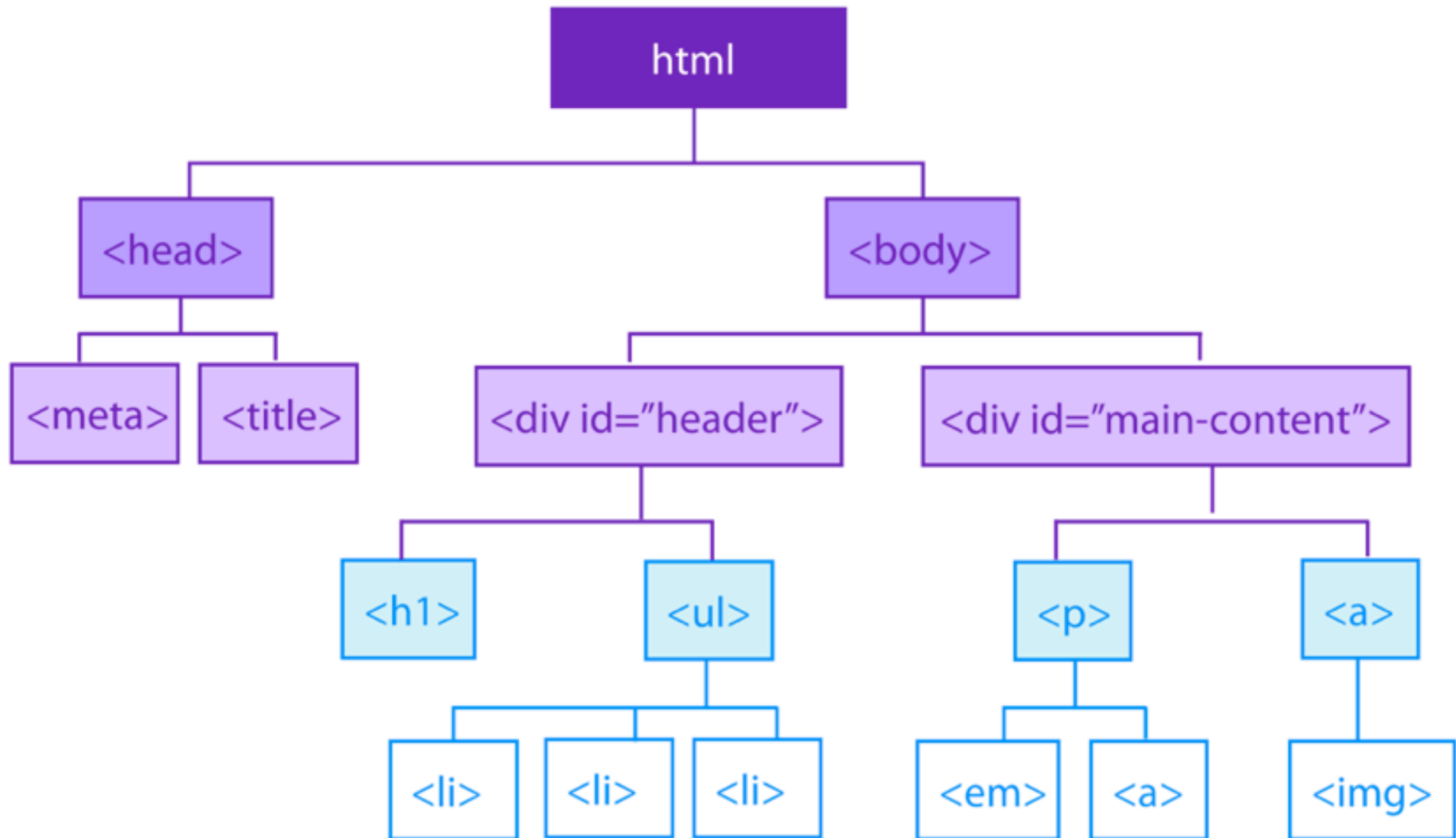• These are just tags that can't have anything else inside of them
• they don't require a closing tag, they create an element on their own

<chair legs="4">

The forward slash at the end of self closing elements is optional

```
<chair legs="4">

<chair legs="4" />
```

The forward slash at the end of self closing elements is optional

Its a (Family) Tree Structure!

• Some elements can contain others and some can't.
• Elements that can contain others must have a matching end tag
• You should be familiar with this view, because thats how you have to think about HTML
• They are like russian dolls

```html
<!doctype html>
<html>
  <head>
    <meta charset="utf-8">
    <title>This is the title of the page</title>
  </head>

  <body>
    <div id="header">
      <h1>Some Title</h1>
      <ul>
        <li>1</li>
        <li>2</li>
        <li>3</li>
      </ul>
    </div>

    <div id="main-content">
      <a href="http://google.com">Click here to go to google<//>
      <p>
          Some paragraph text. This is <em>emphasized</em>, and here comes a linked image:
          <a href="http://google.com" title=""><img src="/img.jpg"></a>
      </p>
    </div>
  </body>
</html>
```

You Can't Just Make Up Tags

There is a list. You can look it up.

http://html5doctor.com/element-index/   http://joshduck.com/periodic-table.html

Common Elements in the <body>

- Header tags (h1-h6) - `<h1>Title here</h1>`

- Paragraph tags - `<p>Body text here</p>`

- Lists (ul/ol) - `<ul><li>List item</li></ul>`

- Strong - `<strong>Bold me!</strong>`

- Emphasis - `<em>Slant me!</em>`

- Anchors (links) - `<a>link text</a>`

- Images - `<img>`

- Generic elements (span and div)

- Forms and tables, etc.

Live examples here.
These all describe types of content

Let's Mark Up This Document

Report: Unemployment High Because People Keep Blowing Their Job Interviews

WASHINGTON—With unemployment at its highest level in decades, the U.S. Department of Labor issued a report Tuesday suggesting the crisis is primarily the result of millions of Americans just completely blowing their job interviews.

According to the findings:

- Seven out of 10 Americans could have landed their dream job last month if they had known where they see themselves in five years.

- The number of unemployed could be reduced from **14.6 million to 5 million** if:

  1. everyone simply greeted potential employers with *firmer* handshakes

  2. maintained eye contact

  3. stopped fiddling with their hair and face so much.

This article was brought to you by the Onion

Common Elements in the <head>

- meta - <meta charset="utf-8">

- link (stylesheets)

- script (javascript)

The main one you have to worry about is the link element, which will connect your stylesheet

HTML is About Content

It describes your content.
Its some text or other elements wrapped in a tag

HTML is About Content

The browser shows this content in certain ways by default.

It describes your content.

Its some text or other elements wrapped in a tag

CSS is About Style

It describes how everything should look

Cascading Style Sheets

(CSS)

Cascading Style Sheets
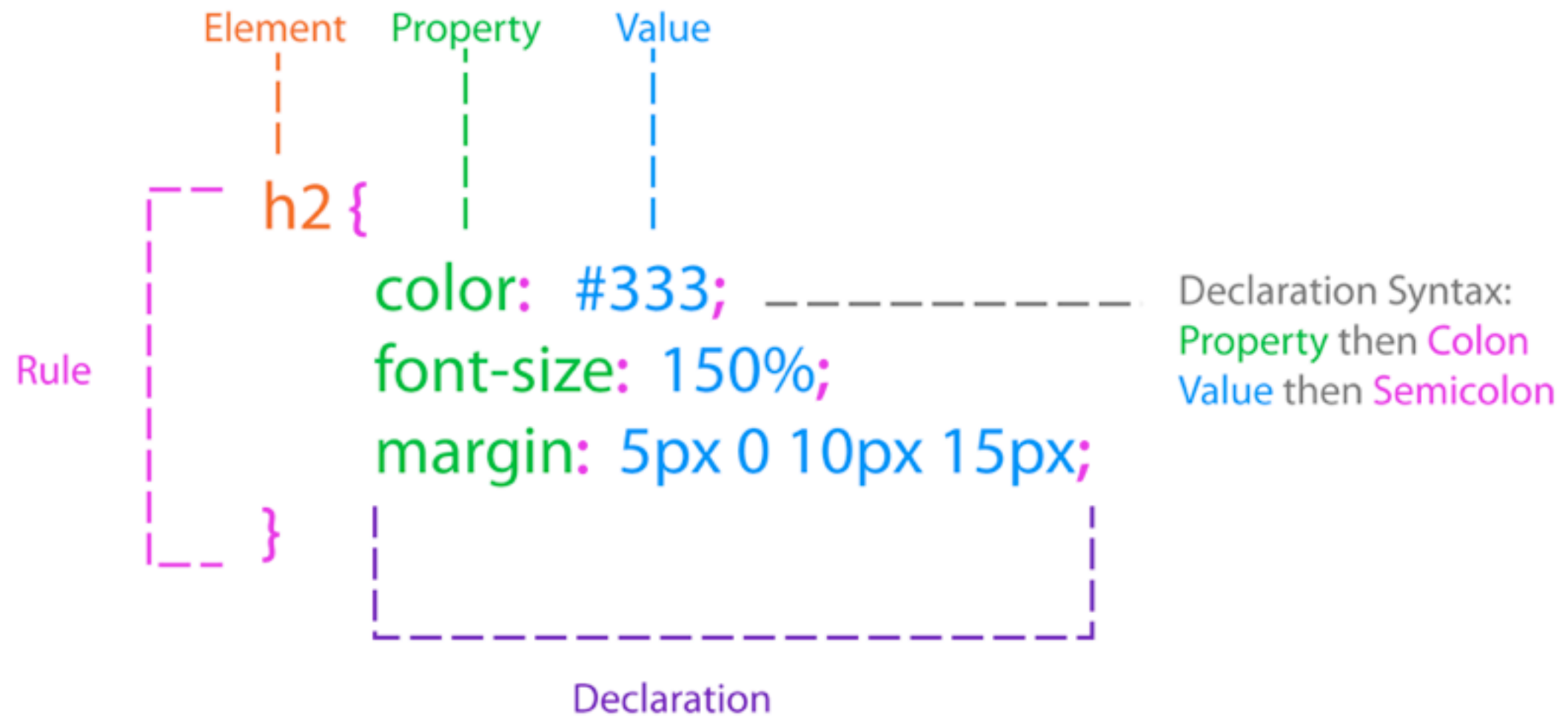## (CSS)

Another plain text file in some fancy format.

Cascading Style Sheets
(CSS)

Another plain text file in some fancy format.

The extension is generally .css

Anatomy of a CSS Rule

CSS is a file with one or more css rules

#Ids and .Classes

Declaring a CSS Rule for a **Class** Attribute

the XHTML
Brochure

the CSS
.pdf {background: url(images/pdf.gif) no-repeat left 50%;}

use a period when writing a rule for a class

Declaring a CSS Rule for an **Id** Attribute

the XHTML
<div id="wrapper">Main Content</div>

the CSS
#wrapper {width: 750px; margin: 0 auto;}

use a pound sign when writing a rule for a id

Classes and id's are how you can refer to specific elements or sets of elements

Validation and Debugging

View > Developer > Developer Tools in Chrome
or right click and inspect element

Validation and Debugging

(The developer tools are your friend)

View > Developer > Developer Tools in Chrome
or right click and inspect element

Common "Gotchas"

- Absolute vs. relative urls
  http://www.webdevelopersnotes.com/design/relative_and_absolute_urls.php3

- Is your element inline or block? (look that up)

- Improper nesting (what is inside what? validate!)

- Spelling (validate!)

Using an editor built for html will catch many of these problems

Publishing Your Website

You need a 'host' (a computer where to put your website, connected to the internet)
You need a domain name (an address that points to that computer)

More Resources

- ## Learn about tags

  http://joshduck.com/periodic-table.html http://html5doctor.com/element-index/   https://developer.mozilla.org/ http://www.w3schools.com/

- ## Great starter/reference ("The Visual Quickstart Guide")
  http://www.amazon.com/gp/product/0321719611/ref=as_li_ss_tl?
  ie=UTF8&camp=1789&creative=390957&creativeASIN=0321719611&linkCode=as2&tag=httpuxdiogeco-20

- ## Try some layouts
  http://www.code-sucks.com/css%20layouts/fixed-width-css-layouts/

- ## Grab some boilerplate
  http://html5boilerplate.com/

- ## Get answers fast
  http://stackoverflow.com/