HTML and CSS

Our Goals

- History of the web and how it works
- Introduction to HTML
    - Understanding Structure
    - Learning about markup
    - Tags and elements
- Introduction to CSS
    - What CSS does
    - How CSS works
    - Rules, properties and values

History of the web

- J.C.R. Licklider - "The Galactic Network"
- ARPANet for the US Government
- Vint Cerf and Bob Kahn developed TCP/IP in 1974
- Then there was Tim Berners-Lee, who made the WWW in 1990
  - Here is the first website

History of the web

- Evolution
- Infographic

How the web works

1. You connect to the web through an Internet Service Provider (**ISP**)
2. You type in a domain name (or web address)
3. Your computer contacts a network of servers called the Domain Name System (**DNS**), they give back an IP address
4. This **IP address** allows us to contact the right web server
5. The right web server then sends the requested file back to your web browser

Those files are what we care about today

Our body of work

- **HTML** - The Bones - Content
- **CSS** - The Skin - Style
- **JS** - The Brain - Functionality

HTML

Some links

- HTML5 Specification
- HTML5.1 Working Draft
- Github Documentation
- HTML on MDN
- Dive into HTML5

But, wait, why do we need it?

HTML

- Stands for Hyper Text Markup Language
- It is a system for defining or "tagging" pieces of text
- Currently at version 5 (October, 2014)

```
<tagname> This isn't real </tagname>

<h1> But this is a main heading </h1>

<p> This is a paragraph </p>
```

What is HTML5?

- It's ***not*** just elements
- It doesn't break anything
- It just works
- It's not going anywhere
- A lot of it is semantics

What is an element?

An element is made up of an:

- Opening and closing tag
- Content
- (Attributes - like "class", "src", etc.)

```
<a href="http://google.com">
    A link to Google.
</a>
```

Common Tags

Actual Content

h1 ... h6, p, a, img, button, form

Divides Content

div, article, section, nav, header, footer

That's not it though...

```html
<!DOCTYPE html>
<html>
<head>
    <title>My horrible website</title>
</head>

<body>

    <!-- Visible content goes here -->

</body>
</html>
```

Placeholder Text

- Meet the Ipsums
- Samuel L. Ipsum
- Monocle Ipsum
- Wikipsum
- Social Good Ipsum
- 56 other ones
- Clients from Hell

CSS

Some links

- CSS on MDN
- Current work on CSS
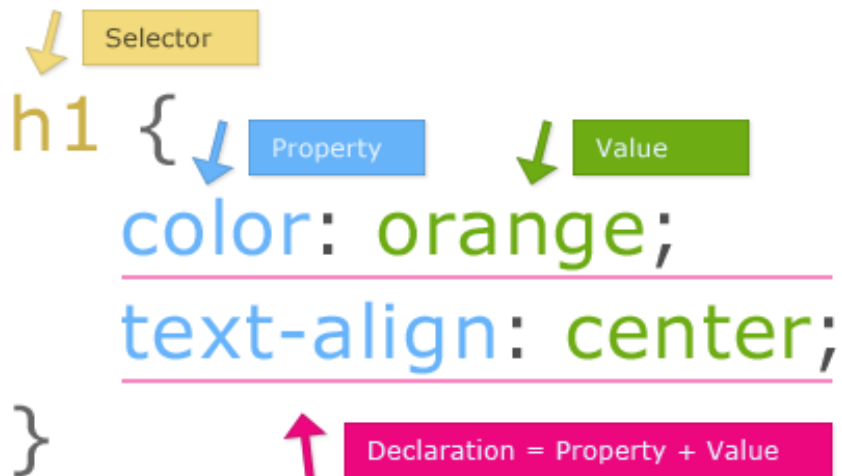- CSS4(ish) modules
- CSS4(ish), or CSS2016 Details

CSS

- Stands for Cascading Style Sheets
- Styles HTML for us
- Currently at Version 3
- Broken into CSS rules

```css
selector {
    property: value;
    /* This isn't real */
}

h1 {
    color: gainsboro;
}
```

What is a CSS rule?

Anatomy of a CSS Rule

```
         Selector
h1 {         Property              Value
    color: orange;
    text-align: center;
}
                    Declaration = Property + Value
```

CSS and HTML

```html
<h1>
    Hello World
</h1>

<a href="http://www.ga.co">
    A link to GA's website
</a>

<p>
    Random gibberish
</p>

<p>
    More junk
</p>
```

```css
h1 {
  font-size: 28px;
}

a {
  color: hotpink;
}

p {
  font-family: "Comic Sans";
}
```

Conventions

- Main HTML file - ***index.html***
- Main CSS file - ***style.css***
- We separate things into different files
- We indent to make it easier to read

CSS Selectors

```css
p {}

p.octocat {}

.octocat {}

p#octocat {}

#octocat {}

* {}

div p {}

p, a {}

p:hover {}
```
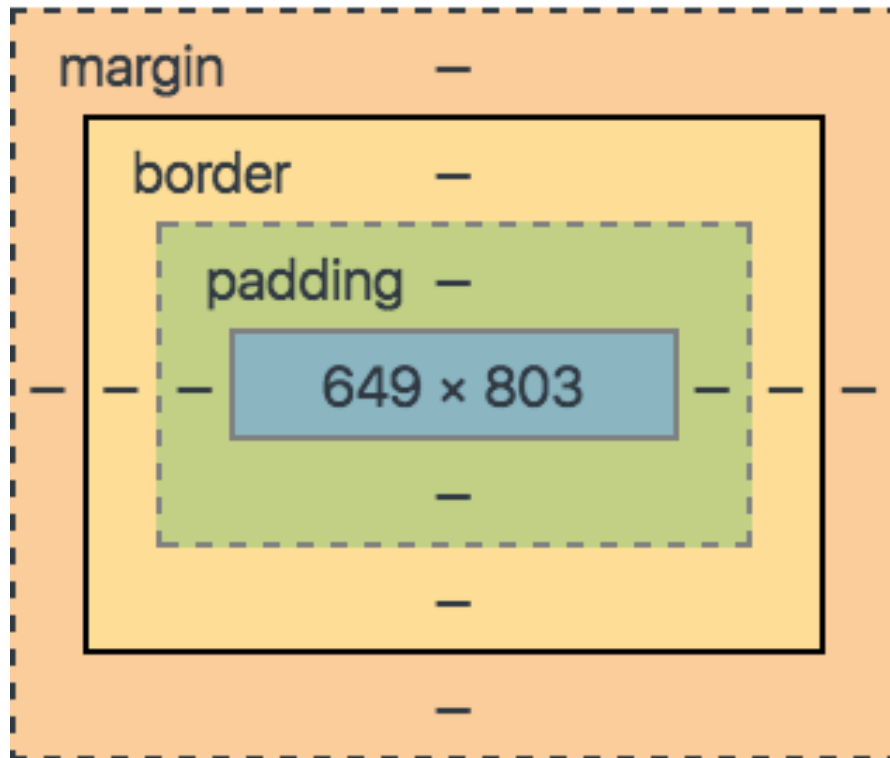
CSS Specificity

- 1 point for an elements name
- 10 points for a selection based on a class
- 50 points for a selection based on an ID

For more:

- Pop Culture
- Smashing Magazine
- CSS Tricks

The Box Model

Floats and Clears

- CSS Tricks
- Smashing Magazine

Web Inspiration

- Awwwards
- Site Inspire
- CSS DSGN
- FWA
- TypeWolf
- Web Creme
- Wow Web

- One Page Love
- Nice Portfolio
- Landbook
- Mind Sparkle
- Hoverstates
- Fourzerofour
- Codepen

Homework

- Understand: Separation of Concerns
- Play: CSS Diner
- Explore: Learn Layout
- Watch: DevTools
- Read: Tutsplus
- Complete: Brooklyn
- Complete: Busy Hands
- Complete: Ecardly