



PROGRAMMING FOR BEGINNERS

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ABOUT US

- Front-End Engineer, Amazon & Freelance Web Developer
- Both of us are self-taught
- Loves JavaScript

ABOUT YOU

- Introduce yourself (i.e. name, what you do, random fact)
- Why do you want to learn Programming?

EXERCISE FILES



- **<https://github.com/js-workshops/intro>**
- Download files using git clone or the 'Download Zip' button
- After unzipping the files, copy them to a directory you want to work from (i.e. ~/Document, ~/Desktop)

HTML

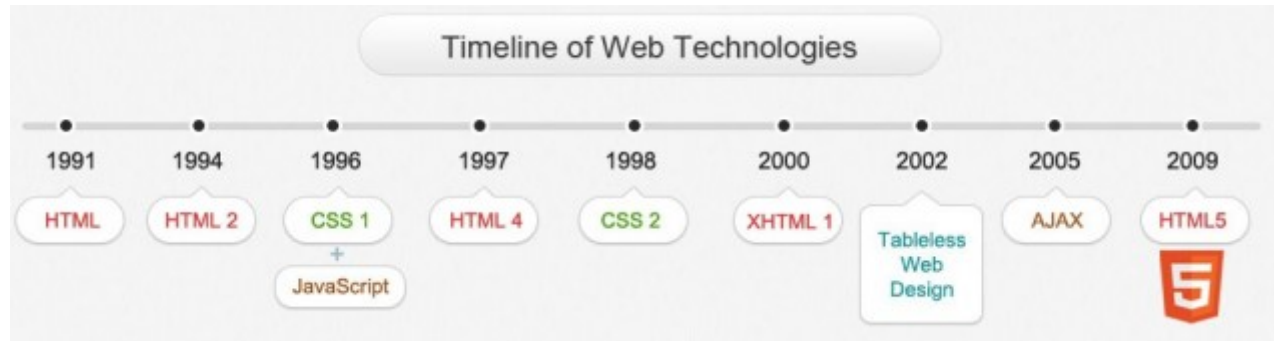


HTML VS HTML5

HTML5 is HTML with a few additions. The Doctype tells you if the page is HTML5 ready.

```
<!DOCTYPE html>
```

HTML HISTORY



TAGS



TAG ATTRIBUTES



CONTENT TAGS

Heading Elements

```
<h1>Largest Heading</h1>  
<h2> . . . </h2>  
<h3> . . . </h3>  
<h4> . . . </h4>  
<h5> . . . </h5>  
<h6>Smallest Heading</h6>
```

CONTENT TAGS

Text Elements

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

CONTENT TAGS

Unordered List

```
<ul> . . . </ul>
```

CONTENT TAGS

Unordered List Items

```
<li>First item</li>  
<li>Second item</li>
```

```
<ul>  
  <li>First item</li>  
  <li>Second item</li>  
</ul>
```

CONTENT TAGS

Anchor Tags (Links)

```
<a href="link">Link text</a>
```

IMAGES



IMAGE TAG

```

```


PATHS

- Full URL (**http://placeholder.it/img.jpg**)
- Absolute - Searches from webroot directory and starts with a forward slash (/)
- Relative - Searches from current directory (Does not start with forward slash)



CODE ALONG

DIV TAGS

```
<div></div>
```

- It can be used to group elements for styling purposes.
- Divs serve as a generic container for content, which does not inherently represent anything.

SEMANTIC TAGS

- There are additional tags added in HTML 5
- These tags help structure and provide meaning to the layout of the page

Ex.

```
<header></header>  
<nav></nav>  
<article></article>  
<section></section>
```

TWITPIC LAB - HTML



CSS



CSS SYNTAX

selector
{
 property : **value**;
}

p { color : black; }

declaration

CSS SYNTAX

```
p {  
  color: red;  
  font-weight: bold;  
  font-size: 14px;  
}  
  
img {  
  width: 100px;  
  height: 100px;  
  border-radius: 50px;  
}
```


WHERE DOES CSS LIVE?

EMBEDDED

```
<!DOCTYPE html>
<html>
<head>
  <title>Title</title>
  <style>
    p {
      color: blue;
    }
  </style>
</head>
<body>
  <p>This is styled with embedded CSS!</p>
</body>
</html>
```

WHERE DOES CSS LIVE?

INLINE

```
<p style="color: purple;">This is styled inline!</p>
```

CODE ALONG



WHERE DOES CSS LIVE?

EXTERNAL

```
<!DOCTYPE html>
<html>
<head>
  <title>Title</title>
  <link rel="stylesheet" type="text/css" href="path/to/css/file" />
</head>
<body>
  <p>This is styled with external CSS!</p>
</body>
</html>
```

COLORS



```
p {  
  color: red; /* Keyword */  
}  
  
p {  
  color: #ff0000; /* Hex Code */  
}  
  
p {  
  color: rgb(255,0,0); /* RGB */  
}
```

TAG SELECTOR

```
p {  
  color: #F00; /* red */  
}  
  
div {  
  background-color: rgba(0,255,0.5); /* green */  
}  
  
img {  
  border-width: 1px;  
  border-style: solid;  
  border-color: rgba(0,0,255,0.8); /* blue */  
}
```

ID SELECTOR

```
<ul>
  <li id="main">1 cup brown sugar</li>
  <li>2 Tbl milk</li>
  <li>2 eggs</li>
</ul>
```

```
#main {
  color: red;
  font-weight: bold;
}
```

CLASS SELECTOR

```
<ul>
  <li id="main">1 cup brown sugar</li>
  <li class="optional">2 Tbl milk</li>
  <li class="optional">2 eggs</li>
</ul>
```

```
#main {
  color: red;
  font-weight: bold;
}

.optional {
  color: #CCC;
}
```


LAB



CSS: INHERITANCE, THE CASCADE, SPECIFICITY

INHERITANCE

- What color will the strong tag be?
- What font-weight will the strong tag be?

```
<ul>
  <li><strong>1</strong> cup brown sugar</li>
  <li><strong>2</strong> Tbl milk</li>
</ul>
```

```
li {
  color: gray;
}
```

CASCADING

C is for Cascading

```
<div class="first">
  <p>This is my first amazing paragraph!</p>
</div>
<div>
  <p>This is my second amazing paragraph!</p>
</div>
```

```
.first p {
  font-weight: 700;
}
```

SPECIFICITY

Not all selectors are created equal



a

1 x element selector

Sith: 0, 0, 1



p a

2 x element selectors

Sith: 0, 0, 2



.whatever

1 x class selector

Sith: 0, 1, 0



p a.whatever

2 x element selectors
1 x class selector

Sith: 0, 1, 2



.whatever .whatever

2 x class selectors

Sith: 0, 2, 0

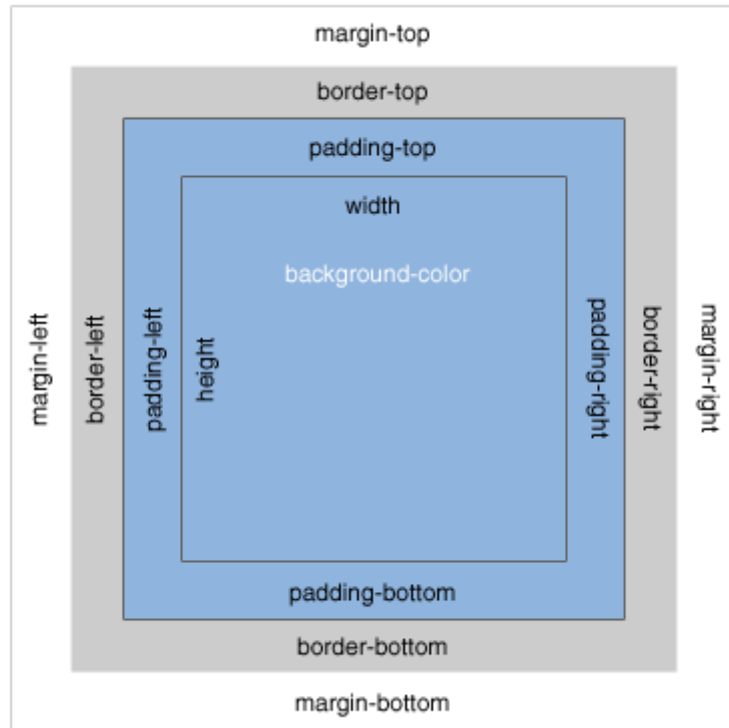


p.whatever a.whatever

2 x element selectors
2 x class selectors

Sith: 0, 2, 2

THE BOX MODEL



CONTENT

```
<div id="main">  
  ...  
</div>
```

```
#main {  
  width: 100px;  
  height: 100px;  
}
```


PADDING

'top right bottom left' vs. 'top/bottom right/left'.

```
#main {  
  padding: 50px 25px 50px 25px;  
}
```

```
#main {  
  padding: 50px 25px;  
}
```

PADDING

```
<div id="main">  
  ...  
</div>
```

```
#main {  
  width: 100px;  
  height: 100px;  
  padding: 50px 25px;  
}
```

BORDER

```
#main {  
  border-width: 1px;  
  border-style: solid;  
  border-color: #000;  
}
```

```
#main {  
  border: 1px solid #000;  
}
```

BORDER

```
<div id="main">  
  ...  
</div>
```

```
#main {  
  width: 100px;  
  height: 100px;  
  padding: 50px 25px;  
  border: 1px solid #000;  
}
```

MARGIN

'top right bottom left' vs. 'top/bottom right/left'.

```
#main {  
  margin: 50px 25px 50px 25px;  
}
```

```
#main {  
  margin: 50px 25px;  
}
```

MARGIN

```
<div id="main">  
  ...  
</div>
```

```
#main {  
  width: 100px;  
  height: 100px;  
  padding: 50px 25px;  
  border: 1px solid #000;  
  margin: 50px 25px;  
}
```

LAB

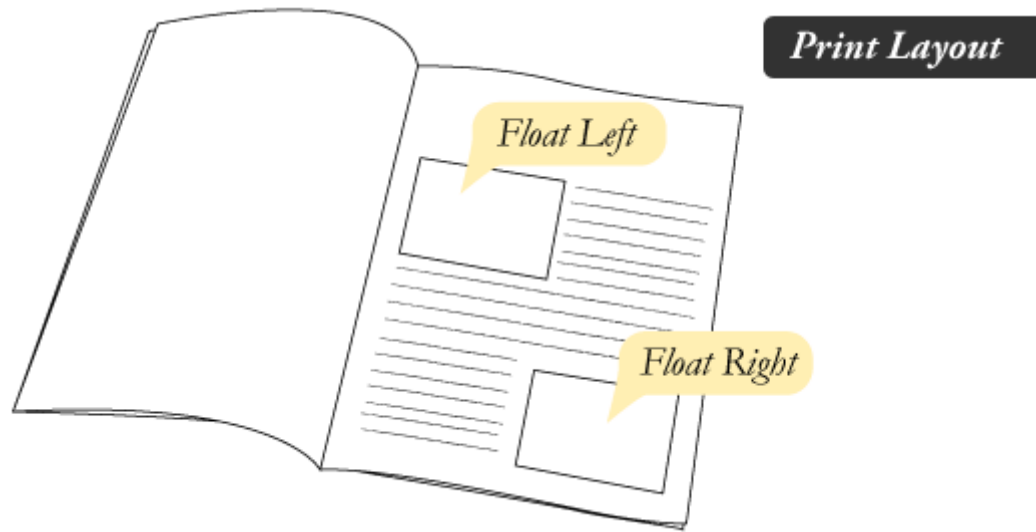


FLOATS

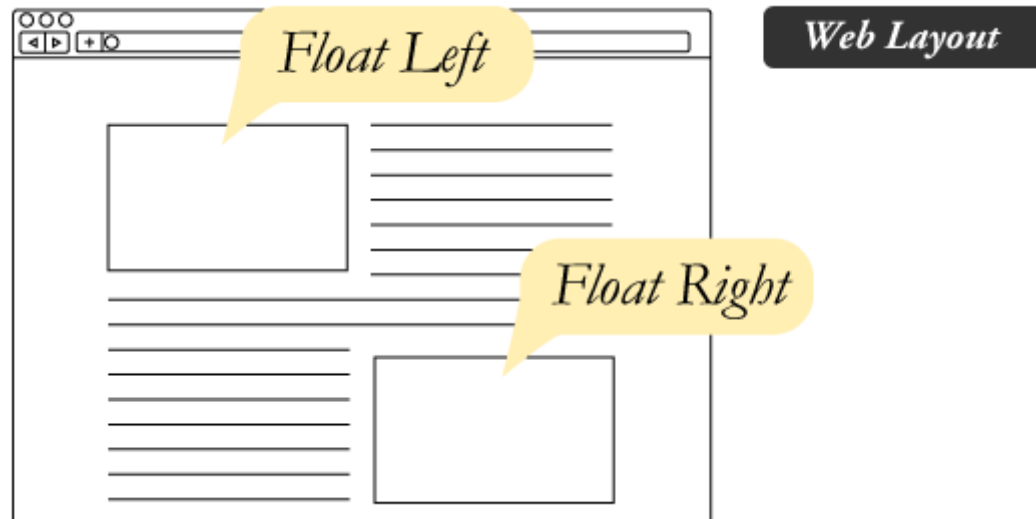
... a CSS positioning property.

Credit to *CSS-Tricks: All About Floats*

PRINT LAYOUTS



WEB LAYOUTS



WEB LAYOUTS

```

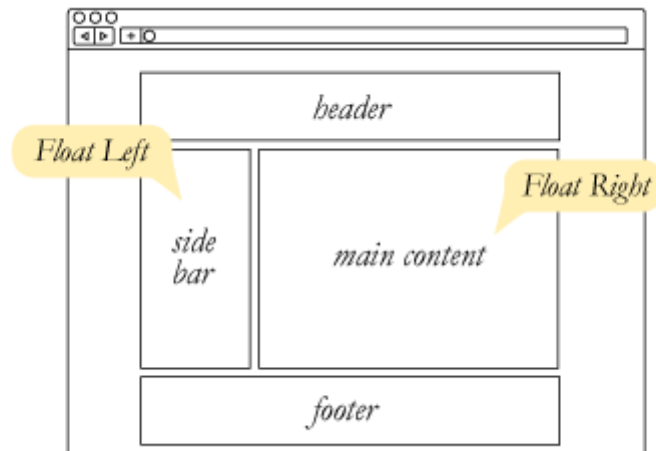
<p>Lorem ipsum dolor sit amet, consectetur...</p>

<p>Lorem ipsum dolor sit amet, consectetur...</p>
```

```
.left {
  float: left;
}

.right {
  float: right;
}
```

WEB LAYOUTS



FRONT END FRAMEWORKS

WHAT IS A FRAMEWORK?

[A framework] is a standardized set of practices and concepts used to address common problems and can be used as a reference to help us solve new issues that are similar

FRAMEWORKS IN FRONT END WEB DEVELOPMENT

Most websites share a similar structure. Web Frameworks give us a standardized package of files that includes CSS, Javascript and even HTML Files.

DON'T REINVENT THE WHEEL

Frameworks provide a common structure so that web developers don't have to start from scratch and can just reuse code

FRONT END FRAMEWORKS

Examples:

- Foundation
- Semantic
UI
- Bootstrap

What might be some useful elements to have built into your project from the start?

BOOTSTRAP



BOOTSTRAP

Definitely the most popular JavaScript, CSS and HTML framework out there, Twitter Bootstrap is used in websites all over the internet.

BOOTSTRAP

Bootstrap provides many of the basic modules you will need to develop your website:

- Typography
- Grid
- Components
- Responsiveness



SETTING UP BOOTSTRAP

USING BOOTSTRAP

To use the Bootstrap capabilities we will have to add classes to our html elements.

Documentation: **<http://v4-alpha.getbootstrap.com/>**

CONTAINER

```
<div class="container"></div>
```

The element with the container class serves as the outer container for all of our html elements.

BOOTSTRAP COMPONENTS

Bootstrap provides reusable modules that help you build out components of your website. You can use these to build buttons, navbars and even carousels.

CODE ALONG

