

(X)HTML & CSS

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Client Side (a.k.a Frontend)

HTML	Content
CSS	Presentation
Javascript	Processing

Why bothering with HTML and CSS when there are great tools out there doing excellent job?

HTML - defining the content

HTML : Hyper-Text Markup Language



HTML 1	invented by Tom Berners-Lee (1991)
HTML 2	first standard from W3C (1995)
HTML 4	separation between content and presentation CSS (1997)
HTML 5	multimedia (2008)

Terminology

Markup: tags starting and ending with angle brackets

`<p>`

Content: Everything else (arguably)

`this is something else`

Terminology

Element: a start and end tag and the content in between

```
<p>Content</p>
```

Attribute: name/value pairs specified in a start tag

```

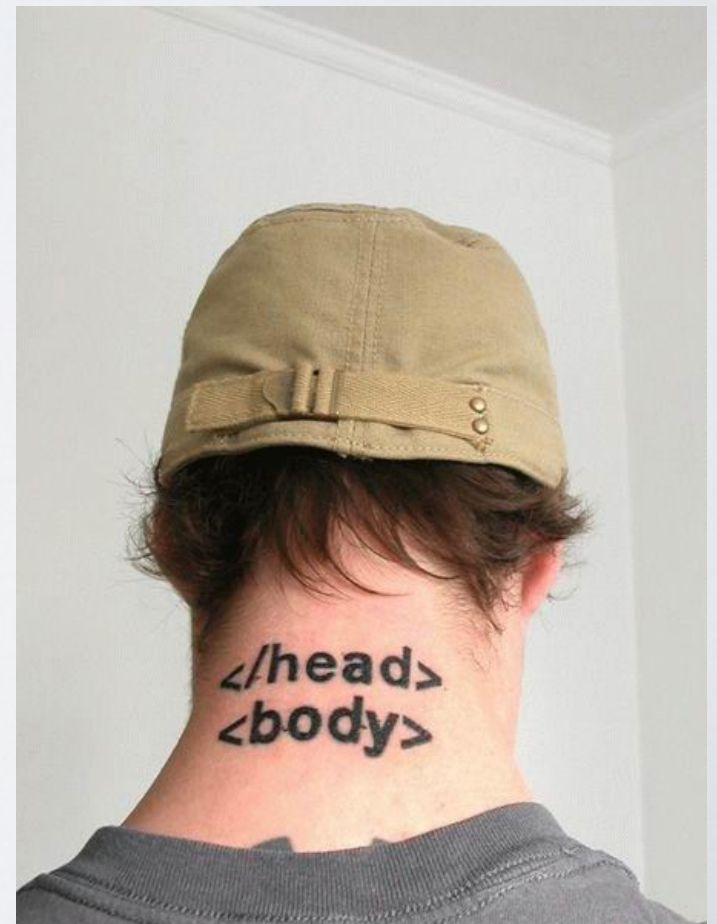
```

Comments: tags that will be ignored at rendering

```
<!-- This is a comment -->
```

Skeleton of an HTML document

```
<!DOCTYPE html>  
<html>  
  <head>  
    <meta charset="utf-8"/>  
    <title>My first page</title>  
  </head>  
  <body>  
    Here is my first webpage!  
  </body>  
</html>
```



Selection of tags

<code><h1></code> <code><h2></code> <code><h3></code>	headers (<code><h1></code> is the biggest by convention)
<code><p></code>	delimitates a paragraph
<code></code>	image
<code><a></code>	specifies an anchor (typically an hyperlink)
<code></code>	unordered list
<code></code>	list item
<code><div></code>	delimitates a block
<code></code>	group in-line document (use mainly for style)

Differences between XHTML and HTML

At first, browsers were quite forgiving about missing/mismatched tags in HTML

- Different rendering across browsers

HTML became XHTML (aka HTML 4 and 5)

- ✓ Homogeneity across browsers (for the most part)

- ✓ Easier to parse in Javascript

Validate your (X)HTML

Check out W3C Markup Validation Service:

<http://validator.w3.org/>

Or HTML Tidy (command line tool):

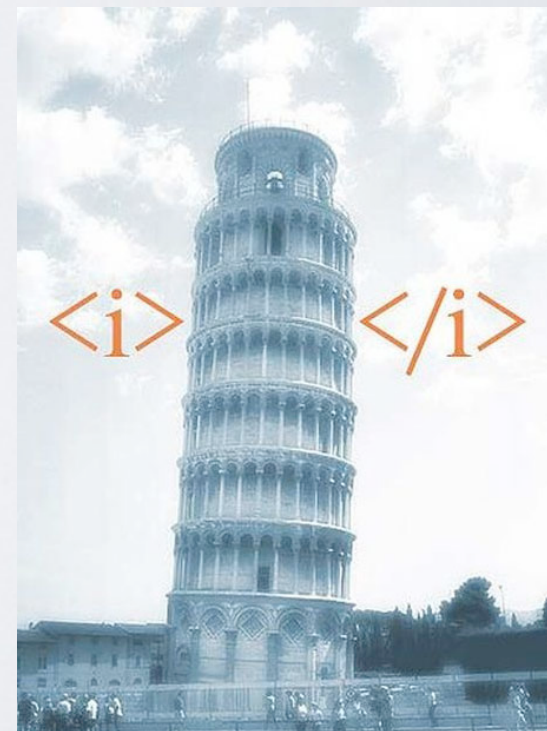
<http://www.html-tidy.org/>

Differences between XHTML and HTML

The styling disappeared in HTML 4 to become CSS

➔ Elements related to styling became deprecated

`<center>` `` `<i>` `
` `` `<frameset>` `<frame>` ...



Controversies among web developers

To use or not to use tables

<http://programmers.stackexchange.com/questions/277778/why-are-people-making-tables-with-divs>

CSS - defining the style

Is it really used and useful?

Let's look at your favourite websites without CSS

Why CSS?

Multiple pages - one style

Multiple platforms - different layouts

Multiple user abilities - custom layout

CSS format

```
selector {  
    property: value;  
    property: value;  
    property: value;  
}
```

CSS: Inline, embedded or separate file?

Inline: `style` attribute

```
<p style="background: blue; color: white;"> ...
```

Embedded: specified in the header (`<head>`)

```
<style TYPE="text/css">
    p{background: blue; color: white;}
</style>
```

Separate file: file locator in the header (`<head>`)

```
<link rel="stylesheet" type="text/css" href="style.css"/>
```


Classes

Classes are attributes of HTML elements for which we want to define **common properties**

```
<div class="special">...</div>
```

Define the same style for all elements of the same class

```
.special {  
    margin-top: 10px;  
    font-family: "Helvetica", "Arial";  
}
```

IDs

IDs are attributes of HTML elements for which we want to **identify uniquely**

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

Define the style for the element with specific ID

```
#sale {  
  padding: 20px;  
  color: #000000;  
}
```

The CSS Box Model

Let's look at

<https://css-tricks.com/the-css-box-model/>

Positioning and Floating (aka “The Big Headache”)

Let's look at

<https://css-tricks.com/almanac/properties/p/position/>

My favorite - *flexbox*

<https://css-tricks.com/snippets/css/a-guide-to-flexbox/>

The newcomer - *CSS Grid*

<https://css-tricks.com/snippets/css/complete-guide-grid/>