

# HTML & CSS

Thierry Sans

# Client Side (a.k.a Frontend)

<b>HTML</b>	Content
<b>CSS</b>	Presentation
<b>Javascript</b>	Processing

HTML - defining the content

# HTML : Hyper-Text Markup Language



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

# Skeleton of an HTML document

```
<!DOCTYPE html>
<html>
  <head>
    <meta charset="utf-8"/>
    <title>My first page</title>
  </head>
  <body>
    <!-- It's a joke -->
    <h1 class="header">CSCC09</h1>
    <p>Check the
      <a href="https://thierrysans.me/CSCC09/">Website</a>
    </p>
  </body>
</html>
```





# Metadata is stored in **the header**

```
<!DOCTYPE html>
<html>
  <head>
    <meta charset="utf-8"/>
    <title>My first page</title>
  </head>
  <body>
    <!-- It's a joke -->
    <h1 class="header">CSCC09</h1>
    <p>Check the
      <a href="https://thierrysans.me/CSCC09/">Website</a>
    </p>
  </body>
</html>
```

# Content is stored in **the body**

```
<!DOCTYPE html>
<html>
  <head>
    <meta charset="utf-8"/>
    <title>My first page</title>
  </head>
  <body>
    <!-- It's a joke -->
    <h1 class="header">CSCC09</h1>
    <p>Check the
      <a href="https://thierrysans.me/CSCC09/">Website</a>
    </p>
  </body>
</html>
```

# Content is stored in **the body**

```
<!DOCTYPE html>
<html>
  <head>
    <meta charset="utf-8"/>
    <title>My first page</title>
  </head>
  <body>
    <!-- It's a joke -->
    <h1 class="header">CSCC09</h1>
    <p>Check the
      <a href="https://thierrysans.me/CSCC09/">Website</a>
    </p>
  </body>
</html>
```



# HTML Element

```
<!DOCTYPE html>
<html>
  <head>
    <meta charset="utf-8"/>
    <title>My first page</title>
  </head>
  <body>
    <!-- It's a joke -->
    <b1 class="header">CSCC09</b1>
    <p>Check the
      <a href="https://thierrysans.me/CSCC09/">Website</a>
    </p>
  </body>
</html>
```

# Attributes (key/values pairs) in the opening tag

```
<!DOCTYPE html>
<html>
  <head>
    <meta charset="utf-8"/>
    <title>My first page</title>
  </head>
  <body>
    <!-- It's a joke -->
    <h1 class="header">CSCC09</h1>
    <p>Check the
      <a href="https://thierrysans.me/CSCC09/">Website</a>
    </p>
  </body>
</html>
```

# Selection of tags

<code>&lt;h1&gt;</code> <code>&lt;h2&gt;</code> <code>&lt;h3&gt;</code>	headers ( <code>&lt;h1&gt;</code> is the biggest by convention)
<code>&lt;p&gt;</code>	delimitates a paragraph
<code>&lt;img&gt;</code>	image
<code>&lt;a&gt;</code>	specifies an anchor (typically an hyperlink)
<code>&lt;ul&gt;</code>	unordered list
<code>&lt;li&gt;</code>	list item
<code>&lt;div&gt;</code>	delimitates a block
<code>&lt;span&gt;</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):

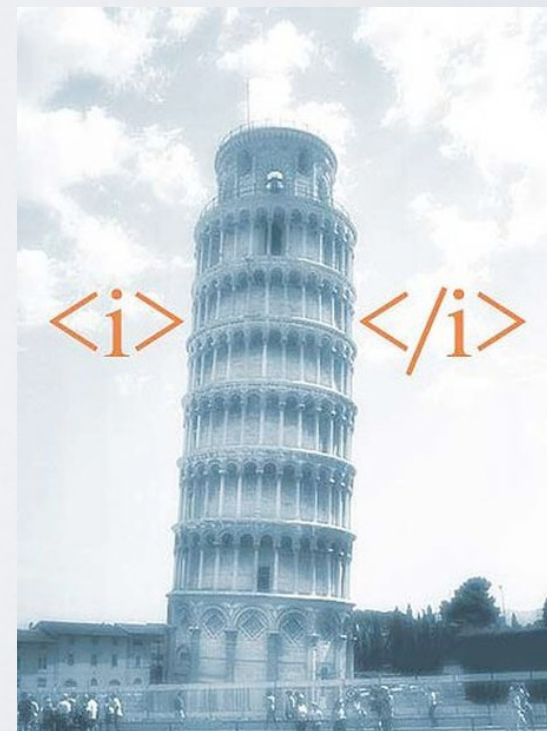
<http://www.html-tidy.org/>

# Differences between XHTML and HTML

The styling disappeared in HTML 4 to become CSS

➔ Elements related to styling became deprecated

`<center>` `<b>` `<i>` `<br>` `<font>` `<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/>

*Flexbox* (my favorite)

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

*CSS Grid* (the latest addition)

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