

HTML

BASICS OF HTML

PRESENTED BY STEVE LOURENCO

WHAT IS HTML?

- abbreviation for Hyper Text Markup Language
- **standard markup language for documents which are displayed in a web browser**
- officially born in 1993
- describes the structure of a web page

Example: <http://info.cern.ch/hypertext/WWW/TheProject.html> (first web page using HTML)

WHO IS DEFINING HTML?

- W3C (World Wide Web Consortium) was in charge of creating the HTML Standard
- The control informally moved to the group WHATWG (Web Hypertext Application Technology Working Group)
- The control changed because of XHTML

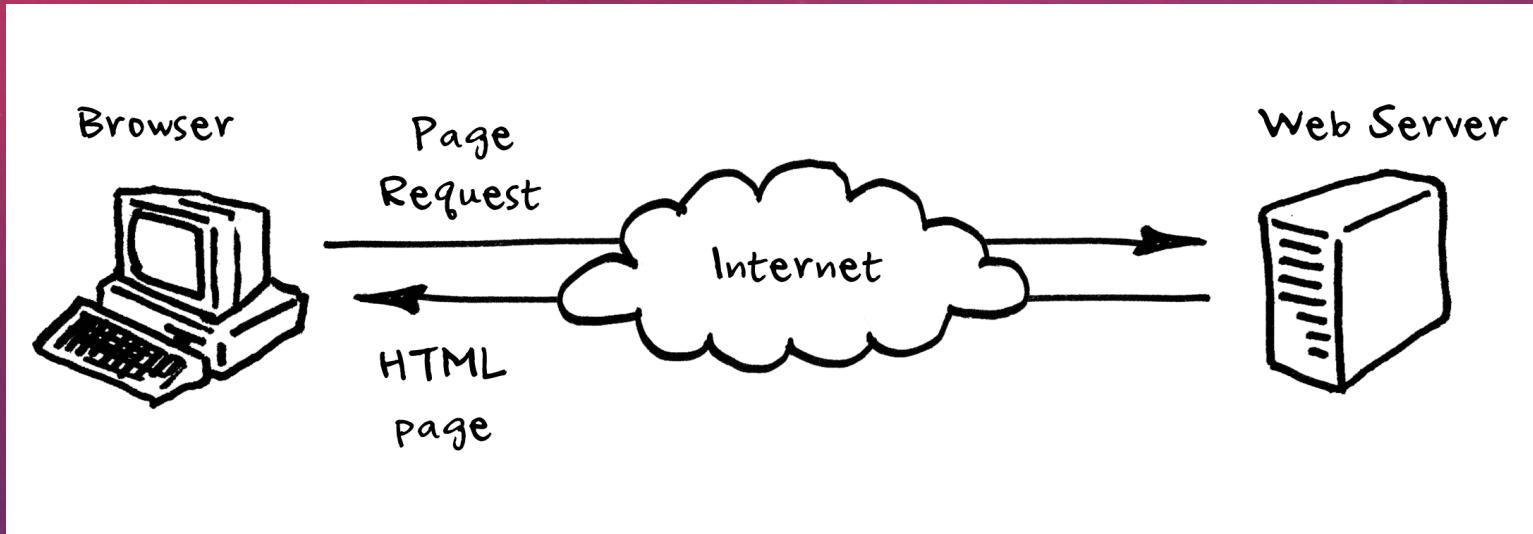
HTML VERSIONS

- HTML version 1 (**1993**)
- HTML version 2 (**1995**)
- HTML version 3 and 4 (**1997**)
- XML (eXtensible Markup Language) version 1 (**1998**)
- XHTML(eXtensible HyperText Markup Language) version 1 (**2000**)
- HTML5 (**2014**)

28 May 2019:
W3C declared that the “true” HTML
version was from **WHATWG**.

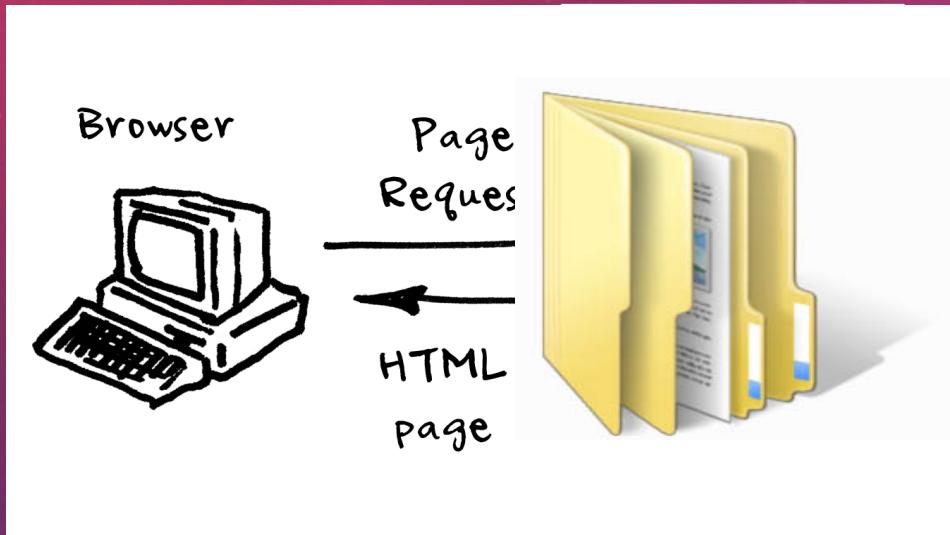


HOW IS HTML SERVED TO THE BROWSERS?



- Generated by a server-side application
- Generated with Javascript (client-side application)
- Save HTML in a file and serve it with help of a Web server

HOW IS HTML SERVED TO THE BROWSERS?



- Today, we are going to store HTML in a file and ask the browser to load it.

HOW TO START CODING?

We need an application:

- to code
 - to help us find the problems with the different syntaxes
 - to simplify our life.
-
- <https://code.visualstudio.com/> (Compatible with Windows, Mac and Linux)

HOW TO SEE THE RESULT ?

- We need to visualize the result of our coding.
- If we want to code and have fun, we only need one browser
- If we want to code, have FUN and make it visible to the world, we need all browsers available online and all versions
- **Problem:** The users visit a web site and they don't use the same browser with the same version.
- https://en.wikipedia.org/wiki/List_of_web_browsers
- Is it worth it to adapt web site to each web browser? **NO**
- You lose too much **time money**, it starts to be unproductive!

HOW TO SEE THE RESULT ?

- We normally try to make it compatible with the Firefox, Chrome and Safari browsers.

Minimal requirements (one of this browsers):

- Mozilla Firefox (verify if it is updated to the most recent version)
- Google Chrome (verify if it is updated to the most recent version)

We have now an editor application and a browser application installed.

HTML STANDARD PAGE STRUCTURE

- Main page of a project, we will call: **index.html**

HTML5

```
<!DOCTYPE html>
<html>
  <head>
    ...
  </head>
  <body>
    ...
  </body>
</html>
```

index.html

<!DOCTYPE html>

Indicates the browser that this file is an HTML file version 5

<html></html>

Is the root tag of an HTML page

<head></head>

contains meta information about the document

<body></body>

contains the visible page content

HTML STANDARD PAGE STRUCTURE

HTML5

```
<!DOCTYPE html>
<html>
  <head>
    ...
  </head>
  <body>
    ...
  </body>
</html>
```

index.html

Head Tag

- Here we will insert essential tags to creating a web page
 - Title
 - Metadata
 - Internal, external Css (Next weekend)
 - Javascript
- Mostly things that do not directly appear on the page, but only help the browser

HTML STANDARD PAGE STRUCTURE

HTML5

```
<!DOCTYPE html>
<html>
  <head>
    ...
  </head>
  <body>
    ...
  </body>
</html>
```



index.html

Body Tag

- Here, we will have the content of the page
- The **visible content**

TAGS, ELEMENTS AND ATTRIBUTES

-
 → Tag
- <p>A paragraph of text</p> → Element has **a starting tag, ending tag and it contains text**
- <p class="a-class">A paragraph of text</p> → Starting tag of an element can have multiple **attributes**



Syntax

key="value" (if the attribute has multiple value options)

OR

key (if the attribute is boolean [true or false])

ID AND CLASS ATTRIBUTE

- **id** and **class** attributes are the two most common used in HTML
- We are going to talk about it in more details, next week (**Forbidden to use this session**)



HTML NORMS

- **HTML is case insensitive**
 - <P>A paragraph of text</P> → Before HTML5, it was recommended to write tags uppercase
 - <p>A paragraph of text</p> → Today, it is recommended to write lowercase
- **Multiple white spaces are ignored**
 - <p>A paragraph of text</p> you get the same result with <p> A paragraph of text </p>

HTML NORMS

- Nested tags should be indented with 2 or 4 characters

```
<body> <p> A paragraph of  
text </p> <ul> <li>A list  
item</li> </ul> </body>
```

```
<body>  
  <p>  
    A paragraph of text  
  </p>  
  <ul>  
    <li>A list item</li>  
  </ul>  
</body>
```

HEAD TAGS

- **title**
- **script** → Javascript
- **noscript**
- **link** → CSS
- **style** → CSS
- **meta**



We will not talk about them today

HEAD TAGS: TITLE

- determines the page title
- It is displayed in the browser
- one of the key factors for Search Engine Optimization (SEO)

HEAD TAGS: META

- **<meta charset="utf-8">** → It allows to indicate the page character encoding
- Most of the cases, we use UTF-8

Example:

<http://www.fileformat.info/info/charset/UTF-8/index.htm> (Unicode Standard)

<http://www.fileformat.info/info/charset/US-ASCII/list.htm> (American Standard Code)

BODY TAGS: BLOCK VS INLINE ELEMENT

We can classify visual elements In two categories:

- block elements (p, div, heading elements, lists and list items, ...)
- inline elements (a, span, img, ...)

What is the difference?

- Block elements, when positioned in the page, do not allow other elements next to them. To the left, or to the right.
- Inline elements instead can sit next to other inline elements.

Example: https://www.w3schools.com/html/html_blocks.asp

BODY TAGS: INTERACTION WITH TEXT

- **p**
- **span**
- **br**
- **h1, h2, h3, h4, h5, h6**
- **strong**
- **em**
- **blockquote**
- **hr**
- **Code**
- **ul, ol, li**

Examples:

https://www.w3schools.com/html/html_paragraphs.asp

https://www.w3schools.com/html/html_formatting.asp

https://www.w3schools.com/html/html_headings.asp

https://www.w3schools.com/html/html_lists.asp

BODY TAGS: LINKS

- `click here` External links
- `click here` Local links

Examples: https://www.w3schools.com/html/html_links.asp

BODY TAGS: CONTAINER TAGS AND PAGE STRUCTURE

Containers

- **div** is the generic container element
- **article** https://www.w3schools.com/tags/tag_article.asp
- **section** https://www.w3schools.com/tags/tag_section.asp

Page structure

- **nav**
- **aside**
- **header**
- **main**
- **footer**

BODY TAGS: FORMS

- https://www.w3schools.com/html/html_forms.asp

BODY TAGS: TABLES

- table
- tr
- td
- th
- thead
- tbody
- tfoot
- caption

https://www.w3schools.com/html/html_tables.asp

BODY TAGS: IMAGES

```

```

```
<figure>
  
  <figcaption>A nice dog</figcaption>
</figure>
```

```
<picture>
  <source type="image/webp" srcset="image.webp">
    
</picture>
```

https://www.w3schools.com/html/html_images.asp

PROJECT

Create your portfolio

OR

Create a tribute page

WITH ONLY HTML

SOURCES

- <https://www.w3schools.com/html/default.asp>
- <https://www.freecodecamp.org/news/the-html-handbook/>

The background features a complex, abstract design. On the left side, there are several concentric circles in white and light gray, with numerical values ranging from 40 to 260 marked along their outer edges. These circles are partially obscured by numerous small, semi-transparent blue and white circular bokeh lights of varying sizes, creating a sense of depth and motion. The overall color palette transitions from a reddish-pink hue on the left to a deep purple and blue on the right.

THANK YOU!

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