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Summary HTML

I. Tool

Need to install:

▼ Text editor: Sublime text or Visual studio

▼ Browser: install Chrome

II. HTML

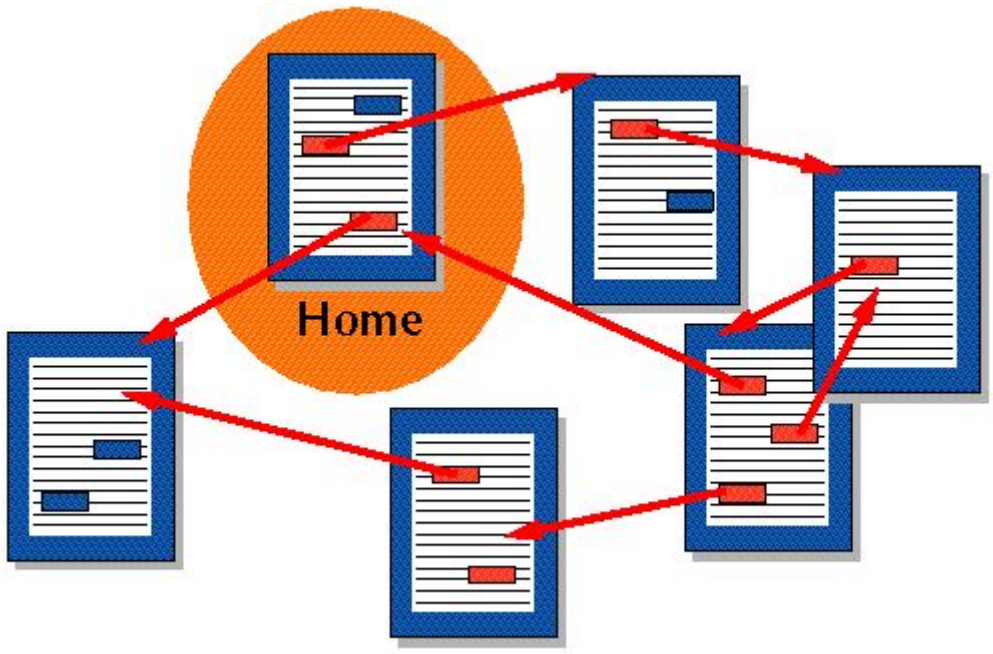
What is HTML ?

- A language:
    - Annotates hypertext content
    - Defines document structure

HTML stand for: HyperText Markup Language

▼ HyperText: Hypertext is text displayed on a computer display or other electronic devices (is a part of HyperMedia which is plays a huge role in the web today. You can watch videos, listen to music and really hypermedia is just an extension of hypertext.)

- Hypertext documents are interconnected by hyperlinks, which are typically activated by a mouse click, keypress set, or screen touch.



▼ Markup:

- A markup language is a system for annotating a document in a way that is visually distinguishable from the content.
- It is used only to format the text, so that when the document is processed for display, the markup language does not appear.
- Defines document structure.

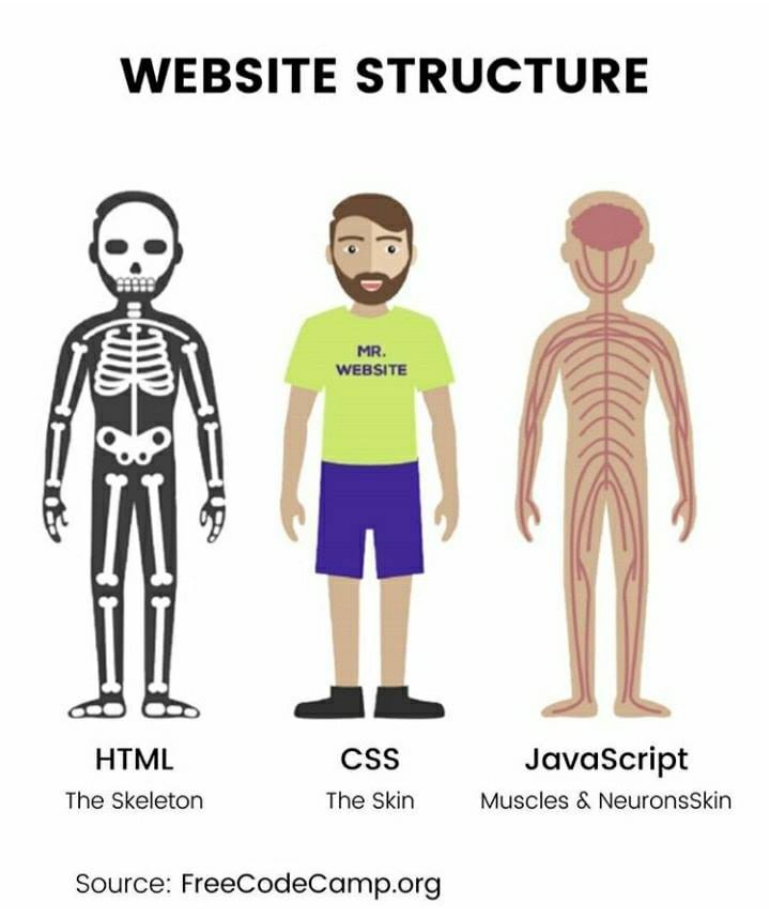
> To Simplify: Markup means to mark something up, to annotate.

▼ Language: Right and wrong syntax

> Hypertext markup language is language and language basically implies that it has its own syntax meaning there's a right and a wrong way to code it.

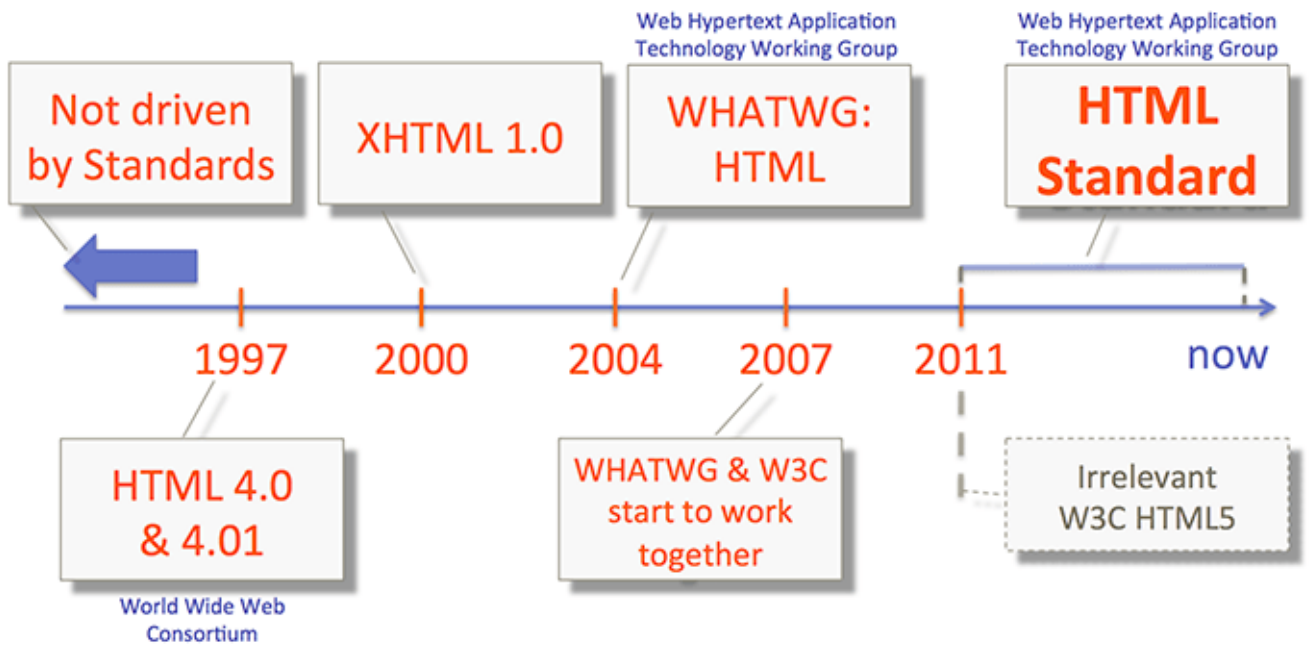
The three Core Web Technologies

The three Core Web Technologies, HTML, CSS, and Javascript work very well together because each one of them has its own distinct and precise role



III. HTML document structure

History of HTML



▼ Before 1997, there were no community standards, so browsers basically did whatever they wanted. They invented new tags. They implemented the same tags differently.

▼ Around 1997 the World Wide Web Consortium, the W3C, came up with the first standard browsers actually started to pay somewhat attention to, which is HTML4 and they very quickly updated it to HTML4.01.

▼ Around 2000, the W3C came up with another specification called XHTML 1.0 and that specification was based on XML

▼ In 2004, the browser vendors banded together and created their own group to produce specifications. They called this group Web Hypertext Application Technology Working Group, or WHATWG for short.

▼ Around 2007, 2009 time frame. So WHATWG and W3C started sort of kind of working together

▼ However, W3C’s goal was to publish a frozen specification for HTML version 5 (or HTML5) and WHATWG wanted to continuously evolve the HTML standard. Two fairly different directions. So, in 2011, WHATWG broke away from W3C.

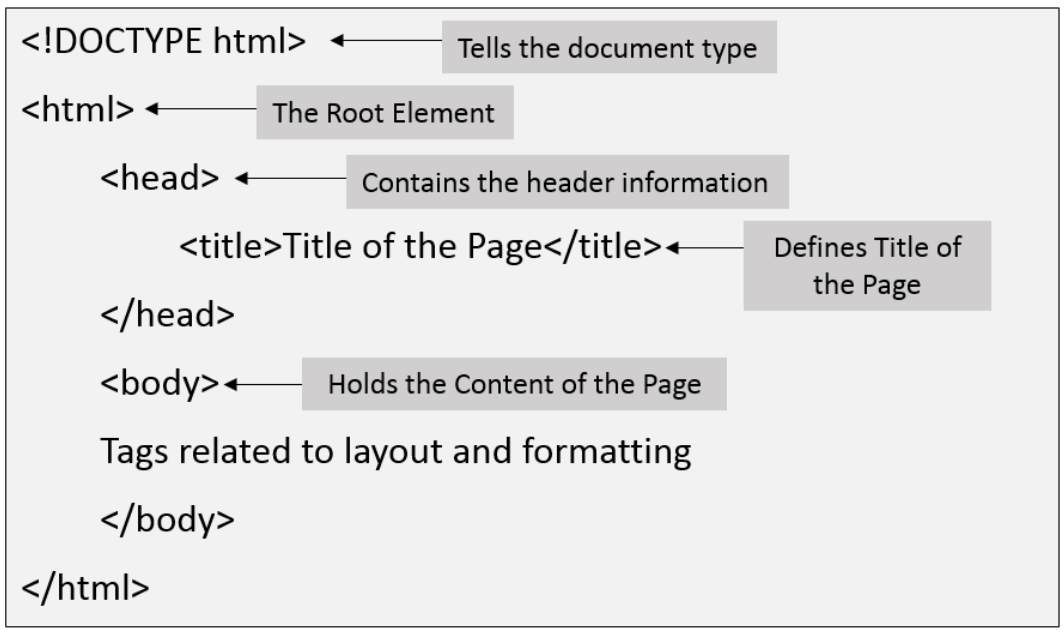
▼ Today, WHATWG is the organization exclusively in charge of HTML and its related technologies.

Living standard

▼ Users don’t want software that doesn’t constantly evolve. Nowadays, updates to software can come monthly, if not weekly. So, why should HTML be any different?

▼ This is why WHATWG develops its HTML standard as a Living Standard. It does not even give a version to HTML. It’s not HTML5. It’s simply HTML.

- Basic HTML structure (read first)



- Check your HTML file is validable
  - Validator checks the markup validity of Web documents in HTML, XHTML, SMIL, MathML, etc. (check the link above)
- Comment in HTML

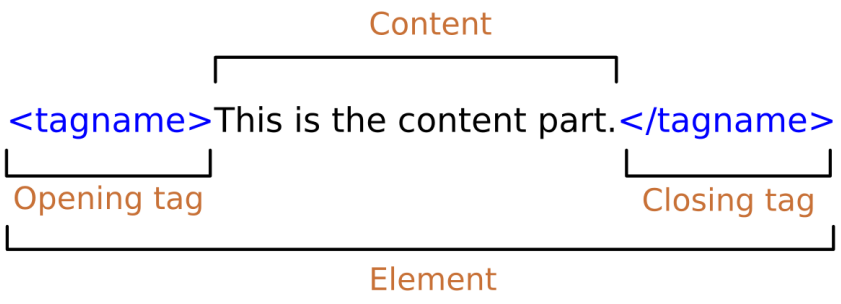
IV. HTML tags and HTML elements

HTML Tags:

Tags are the starting and ending parts of an HTML element. They begin with < symbol and end with > symbol. Whatever written inside < and > are called tags.

HTML elements:

HTML element: An HTML element is defined by a **start tag**, some content, and an end tag. Elements enclose the contents in between the tags



for example: Hello

- ▼ p: element name
- ▼ Hello: content
- ▼ : open tag, : closing tag
- ▼ id: attribute name
- ▼ myId: attribute value

- In this case, the tag p, which stands for paragraph, is communicating to us that the content in the gray area should be treated as a paragraph

But Some of tags not having a closing tag

for example: <br>, <hr>

- br stands for line break, and hr stands for horizontal rule, only have an opening tag.

HTML Content Models

▼ Block-Level elements ≈ Flow content

- for example: div element

▼ Inline elements ≈ Phrasing content

- for example: span element

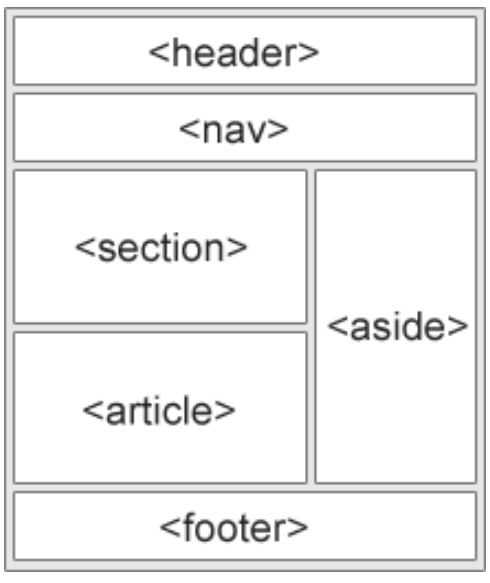
> Flow content includes phrasing content

▼ The easiest way to remember, is that if it can be inside a sentence, it's phrasing content.

- Text can be inside a sentence, so it's phrasing.
- An **emphasised bit** can be inside a sentence, so it's phrasing.
- An image can be inside a sentence, so it's phrasing.
- A sub-heading or an article cannot be inside a sentence, so they are not phrasing.

Semantic html elements

Define: Element that implies some meaning to the content



Why using semantic html elements?

- Human and/or machine can understand meaning of content surrounded by a semantic element better
- May help search engine ranking, i.e., SEO
- Can be replaced by div.
- Allow for a more meaningful expression of the structure of our HTML page

for example: header, nav, section, aside and footer

> Remember, semantic elements do allow you for more meaningful expression of the structure of your HTML code, HTML page, but they don't really give you any more functionality than a regular div or regular span would without it.

List tag

- Lists are an incredibly useful HTML structure that allows you to group related content.
- Using ul (unordered list) or ol (ordered list) wrapped around li (list element)

Link tag

Read these following example below to understand types of link

- Internal link
  - HTML internal link is linked within the same web page. This link can be an absolute path or relative path.
  - for example:
- External link
  - HTML Link - External HTML Links is linked to external web page. This link is may be absolute path or relative link path.
  - External link is great future to drive a webpage one to another and useful for surf many webpage in website.
  - for example:
- Linking to Sections of a Document
  - Link to section of the same page
  - for example:Lession.1 link can be referred as Introduction of Lession.1 automatically.

Image tag

Basic attributes with image element

- for example: <img src="img_boy.jpg" alt="Boy in the garden" width="500" height="600">
  - src: Specifies the path to the image (URL)
  - alt: Specifies an alternate text for an image (text)
  - width/height: Specifies the width/height of an image (pixels)

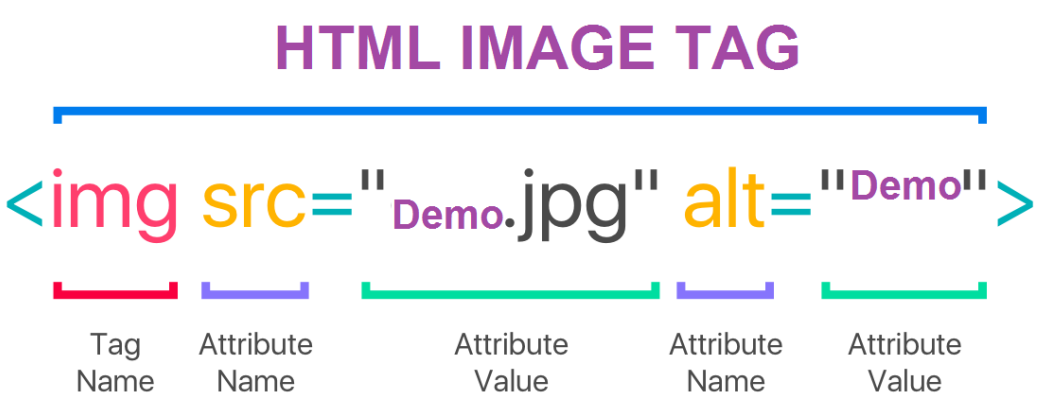


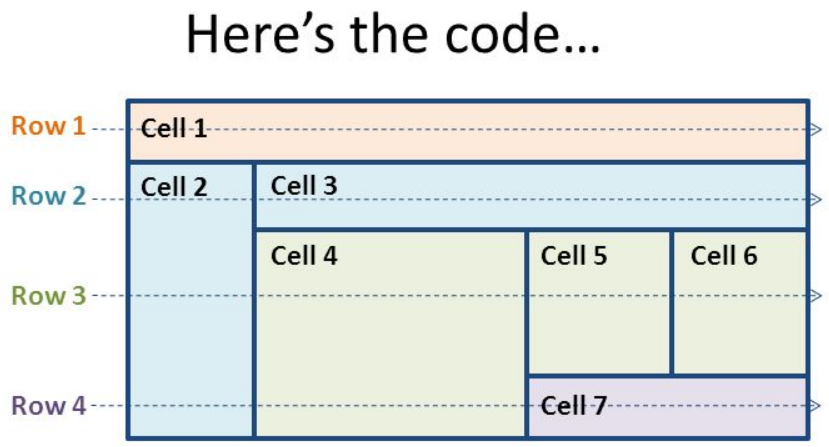
Table tag

Table (table element): each table include row (tr element) and collunm(td or th(header) element)

Use the rowspan/colspan attribute in HTML specifies the number of rows/cols a cell should span

```
<table width="15%" align="center" border="1">
  <tr align="center">
    <td>Country</td>
    <td>Inhabitants</td>
  </tr>
  <tr>
    <td>Cina</td>
    <td>1.420M</td>
  </tr>
  <tr>
    <td>India</td>
    <td>1.368M</td>
  </tr>
  <tr>
    <td>USA</td>
    <td>329M</td>
  </tr>
</table>
```

Country	Inhabitants
Cina	1.420M
India	1.368M
USA	329M




```
<table>
   <tr>     <!- - Row 1 - ->
      <td colspan=4> Cell 1 </td>
   </tr>

   <tr>     <!- - Row 2 - ->
      <td rowspan=3 width=20% > Cell 2 </td>
      <td colspan=3> Cell 3 </td>
   </tr>

   <tr>     <!- - Row 3 - ->
      <td rowspan=2 width=40%> Cell 4 </td>
      <td> Cell 5 </td>
      <td> Cell 6 </td>
   <tr>

   <tr>     <!- - Row 4 - ->
      <td colspan=2> Cell 7 </td>
   </tr>
</table>
```

Form tag

Form: combine with input element and button element to create a form

Sign the Guestbook:

First Name:

Nickname:

Submit Reset

```
<h2>Sign the Guestbook:</h2>

<form action="/cgi-bin/guestbook.pl" method="get">
<p>
First Name: <input type="text" name="first" /><br />
Nickname:   <input type="text" name="nickname" /><br />
<input type="submit" /> <input type="reset" />
</p>
</form>
```

HTML Character Entity References (HTML Special Characters)

Define: HTML character entity reference is a special set of characters (a code), which the browser displays as a special character or a symbol, corresponding to the entity reference code. The general format of an HTML character entity reference is & , followed by some code, followed by ; , without any spaces in between.

&	'	(	)	*
& &	&apos;	&lpar;	&rpar;	* *
.	/	:	;	<
&period;	&sol;	&colon;	&semi;	< <