

Survey of HTML

Relevant Links

- Semantic Code¹
- devdocs²
- Learn HTML&CSS³
- MDN's introduction to HTML⁴
- "Can I use" site⁵
- Free online books⁶

Notes

An HTML document consists of nested "tags", each tag representing a certain "structure" for its contents.

For instance we will see tags for lists, tables, headings and so on.

This is important:

HTML describes structure, semantics, not appearance. It is used to describe "what something is", not "how it should look". CSS is responsible for appearance.

There is entirely too much legacy information on HTML and various standards. We will be focusing on the current standard, usually termed HTML5. A number of all tags have been deprecated.

HTML5 is actually a collection of standards, some with very varying levels of adoption. The can-i-use site⁷ can tell you more information about the state of adoption of the particular technology you want to use.

What we will cover in this class is standard and widely adopted.

Let us define some key terms:

doctype The first line of any HTML document needs to be its doctype. For HTML5, this is `<!DOCTYPE html>`.

¹<https://boagworld.com/dev/semantic-code-what-why-how/>

²<http://devdocs.io/>

³<http://learn.shayhowe.com/html-css/>

⁴<https://developer.mozilla.org/en-US/docs/Web/Guide/HTML/Introduction>

⁵<http://caniuse.com/>

⁶<https://github.com/vhf/free-programming-books/blob/master/free-programming-books.md#html--css>

⁷<http://caniuse.com/>

html tag The next thing in any HTML document is an <html> tag. Everything else will be nested inside this tag.

head tag The head tag is the first thing inside the HTML document. It contains meta-data information about the document (keywords, author, description, title etc), as well as links to CSS spreadsheets and fonts.

body tag The body tag follows the head tag, and contains all the actual elements in the page.

attributes properties attached to tags. They are contained within the open tag like so <tag attr1="..." attr2="...">.

block tags Some tags are meant to represent “block” elements. These tend to occupy space, as opposed to “inline” tags. Examples: div, section, nav, table.

inline tags These tags are meant to identify a structure within an inline text. For example, the em tag is used to indicate its content should be “emphasized”.

We will now describe in some detail some attributes and elements. We start with **attributes**:

id A string uniquely identifying an element. No two elements can have the same id.

class A string containing space-separated “classes” for the element. These classes can be easily targetted by Javascript and CSS. For example class="hidden cartItem" identifies this element as being a “cartItem” and also being “hidden”. (This does not actually mean it is hidden, it means that it appears however CSS has specified “hidden” elements should appear).

alt alternative text for images and inputs.

title used for tooltips.

data-* Used to add custom data to the element, that Javascript can use. Usually set programmatically.

disabled For inputs, whether they are “editable”.

hidden Prevents rendering of the item.

name Used in form elements.

value Used in form elements.

There are many more attributes, most more specialized to certain elements. You will encounter them as you find them.

Here are some of the most important **tags/elements** from standard HTML:

h1,h2,h3 6 tags for 6 different heading levels

ol,ul,li ordered and unordered lists, and list items

dl,dt,dd definition lists, terms and definitions

p paragraph

form,fieldset,input controls for creating forms

pre,code preformatted text and code

blockquote,quote quotes, block/inline

a anchor links (to other documents, or within page)

em, strong “emphasized” and strongly emphasized text
hr thematic break between paragraph-level elements. Typically displayed as a horizontal ruler
img embedded image
div, span generic block-level/inline elements
b, i to denote text that would normally be shown as bold/italicized
select, option for creating pull-down lists of items
script used for embedding scripts
table, tr, td, th, thead, tbody used to make tables

Here are some elements added in **HTML5**:

audio, video used to embed sound/video content
canvas one of the two ways of introducing graphics, the other being SVG⁸.
datalist used with option tags to form list of options for other input elements.
figure meant for self-contained content typically with a figcaption. Its position is meant to not be part of the normal flow.
header, footer meant to identify the content at the header/footer of the page
main, article, section meant to identify key sections of the document
nav identifies the section of the document meant for navigation within the page or to other pages

An example of an HTML document can be seen in the WebAppsTODO application page⁹.

⁸<https://developer.mozilla.org/en-US/docs/Web/SVG>

⁹<https://github.com/skiadas/WebAppsTodo/blob/master/index.html>