Web Design & Programming

Hypertext Markup Language (HTML) – Part 2

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HTML Versions

- The original HTML language created by T. Berners-Lee didn't have a formal specification.
- HTML 2.0 was initially published in November 1995.
- HTML 3.2 was published by the W3C in 1997.
- HTML 4.0 was published later in the same year.
- XHTML was published in 2000.
- HTML 5 was published in 2014.

Doctype

- Specifies the HTML standard that applies to the document.
- The doctype declaration was very verbose in the past (HTML 4, XHTML) and it has been simplified with HTML 5.
- `<!DOCTYPE html>`

Meta Element

- This element is used to provide information about the document itself; multiple attributes can be used.
- `<meta charset="utf-8">`
- `<meta name="author" content="J. Doe">`
- `<meta name="keywords" content="keyword one, keyword two, keyword three">`

Comments

- You can add comments in your HTML code, all comments will be ignored during the rendering process.
- Comments can spread across multiple lines.
- The content remains visible for a end-user looking at the document source.
- `<!-- this is a comment -->`

Specialized Elements

- To add some structure (and styles) to a web page, specialized HTML tags are available (non exhaustive list):
- `cite`, `q`, `code`, `kbd`, `header`, `footer`, `article`, `nav`, ...
- If a specialized element doesn't exist, you can use a generic one like `div` or `span`.
- Web browsers may have different rendering for those elements.

Quotes, Citations and Figures

- `blockquote`: long citation (a paragraph or more)
- `q`: quote, short citation (a phrase)
- `cite`: reference to another document
- `fig`: related figure (image or example)
- `figcaption`: figure description

Computer/IT Related Elements

- `kbd`: text to be entered on a keyboard
- `code`: computer code
- `samp`: computer program output

Address and Time

- `address`: contact information (postal or electronic)
- `time`: standardized time representation, with different levels of precision.
- `<time datetime="17:10">5:10 PM</time>`
- `<time datetime="2021-09-08">Sept. 8, 2021</time>`

Document Structure

- `main`
- `header` and `footer`
- `article`
- `section`
- `aside`
- `nav` (navigation)

Generic Elements

- `div`: block-level element
- `span`: inline element
- `div` and `span` can use the `id` and `class` attributes:
  - `id` will identify a specific, unique element
  - `class` will group multiple elements

Special Characters

- If you are not using the UTF-8 charset, you will need to use named entities or numerical entities in order to represent special characters in a HTML document .
- A special character entity will start with the ampersand (&) sign and will end with a semi-colon (;).

Special Characters Examples

<	<	<	>	>	>	&	&	&
©	©	©	€	€	€	¥	¥	¥
àà	à	à	éé	&ecute;	é	ÊÊ	Ê	Ê

Creating a Web Page Manually

- Edit the HTML code in your favorite text editor.
- Save the file with the .html (or .htm) extension.
- Open the document in a web browser.
- Check the rendering, check the code.
- Repeat from step one, until the page is complete.

Commons Errors and Mistakes

- Make sure that your tags are properly opened and closed; as soon as you open one, make sure to close it right away.
- Check that elements don’t overlap.
- Some web browsers may be lenient with some small errors; testing with different web browsers may reveal different rendering bugs.

Code Validation

- You can use the W3C Markup Validation Service to check that your markup is conform with the standards.
- `https://validator.w3.org/unicorn/`
- Some text editors or web editor tools may provide some syntax validation as well.

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