Introduction to Web Design

Hypertext Markup Language

HTML 5
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Hypertext Markup Language

HTML

A language for describing Web pages

HTML is not a programming language, it is a markup language

A markup language is a set of markup tags

HTML uses markup tags to describe web pages
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Early History

1990: Original HTML specification written by physicist, Tim Berners-Lee for cross-referencing documents

1993: First text-based browser, Lynx, released

1993: Mosaic browser released, adding images, nested lists, forms

1994: First World Wide Web conference held in Geneva

1994: Netscape is formed

1994: The World Wide Web Consortium is formed, w3.org
Welcome to NCSA Mosaic, an Internet information browser and World Wide Web client. NCSA Mosaic was developed at the National Center for Supercomputing Applications at the University of Illinois in Urbana-Champaign. NCSA Mosaic software is copyrighted by The Board of Trustees of the University of Illinois (UI), and ownership remains with the UI.

The Software Development Group at NCSA has worked on NCSA Mosaic for nearly four years and we’ve learned a lot in the process. We are honored that you were able to help bring this technology to the masses and appreciate all the support and feedback we have received in return. However, the time has come for us to concentrate our limited resources in other areas of Internet and development in Internet tools.

All information about the Mosaic project is available from the Homepage.

NCSA Mosaic Platforms:
- NCSA Mosaic for the X Window System
- NCSA Mosaic for the Apple Macintosh
- NCSA Mosaic for Microsoft Windows

World Wide Web Resources These following resources are available to help introduce you to hypertext and keep track of the getting:
- A List of World Wide Web servers and documents
- A Directory of World Wide Web servers
- NCSA Mosaic related documents
- NCSA Mosaic Access Page for persons with disabilities
- Mosaic and WWW related Resources
- Internet Resource Meta-Index at NCSA

NCSA Mosaic software is available free of charge for non-commercial purposes. Please support this technology by purchasing a copy of the NCSA Mosaic software.

1993, NCSA Mosaic web browser
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Keywords surrounded by angle brackets, for example:
<html>

HTML tags normally come in pairs, like <h1> and </h1>

The first tag in a pair is the “start tag,” the second tag is the “end tag”

Start and end tags are also called “opening” and “closing” tags

Some tags, such as <img>, are self-closing
An HTML element is everything from the start tag to the end tag.

For example:

```html
<p>This is a paragraph.</p>
```

Start tag:
```html
<p>
```

Element content:
This is a paragraph.

End tag:
```html
</p>
```
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HTML Documents

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HTML documents describe web pages

All they consist of is HTML tags in plain text

Networked HTML documents are web pages

Recommended plain text editors:
Sublime Text, Brackets, and Visual Studio Code
Web Browsers

Web browsers read HTML documents and display them as web pages.

Web browsers do not display HTML tags, but use them to interpret the content of the page.

Current browsers include:
- Firefox
- Safari
- Chrome
- Edge
- Opera
- Tor
- Brave
HTML Document Essentials

<!DOCTYPE html>
<html>
  <head>
    <meta charset="utf-8">
    <title>Page Title</title>
  </head>
  <body>
  </body>
</html>
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HTML Document Essentials

<!DOCTYPE html> tells browsers that they are interpreting an HTML document

Text between <html> and </html> describes the web page

Text between <title> and </title> is displayed as the page title (usually at the top of the browser window)

Text between <body> and </body> is the visible page content
SFTP: SSH (Secure) File Transfer Protocol

Web pages are usually created “locally” on a personal computer, then uploaded to a web server.

A web page is not publicly accessible until it’s published to a web server.

An FTP client is used to transfer files from a personal computer to a server.

Cyberduck, Fetch, WinSCP, Transmit, and FileZilla are a few FTP clients to choose from.

“Local” files are those on a personal computer, “remote” files are those on a web server—“live”
HTML5

First version published in 2008, HTML5 is the latest HTML standard.

It became an official W3C recommendation as of October 2014.

- New elements
- New attributes
- Full CSS3 support
- Video and audio
- 2D and 3D graphics
- Web applications
- Smartphone apps