Drawing on the Web

Hypertext Markup Language
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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

“Hypertext” is the ability to link one page to another
Hypertext Markup Language

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
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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 we 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 on NCSA Mosaic.

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 The following resources are available to help introduce you to hypertext and keep track of its growth:
- A Diction of World Wide Web terms and acronyms
- The FAQ to NCSA related documents
- NCSA Mosaic Access Page for persons with disabilities
- Mosaic and WWW-related Resources
- Internet Resource Netscape at NCSA

1993, NCSA Mosaic web browser
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HTML Tag

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Keywords surrounded by angle brackets, for example:

```html
<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:

```html
This is a paragraph.
```

End tag:

```html
</p>
```
HTML Documents

- All they consist of is HTML tags in plain text.
- Networked HTML documents are web pages.
- Recommended plain text editors:

Hypertext Markup Language

- HTML documents describe web pages.
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Web Browsers

**Hypertext Markup Language**

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.

This is where most of our drawing will happen.

Current browsers include:

- Firefox
- Safari
- Chrome
- Edge
- Opera
- Tor
- Brave
i6 Web Server

This is where we will publish our projects during the semester.

A server is just a computer that is always on, ready to serve files when they are requested.

i6 is a secure, Unix-based Web server.

You will receive an email with your account information (if you don’t already have one).

Your URL will be: i6.cims.nyu.edu/~netid.
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, 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”
File Permissions

Standard file permission:
644
Owner can read and write file;
group can read file;
others can read file

Standard directory permission:
755
Owner can read, write and execute file;
group can read and execute file;
others can read and execute file
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
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Misconfigured ASCII Drawing

Hypertext Markup Language

1995, Jodi

wwwwwwwww.jodi.org