

# Announcements

- CMSC 102
- Class Web site:  
<http://www.cs.umd.edu/class/spring2006/cmssc102/index.shtml>
- Accessing slides
- Office hours via “Contact” link

# Web

- What is the Web ?
  - Collection of sites
  - Conceptual organization of many distinct resources
- Internet and World Wide Web do not refer to the same entity
- Tim Berners-Lee – Defined the structure associated with the world wide web (he is the father of the web).
- The following article defined was written by Berners-Lee in 1991 defining the web model  
<http://groups.google.com/group/alt.hypertext/msg/395f282a67a1916c>

# Web Page Organization

- What is the Web Page?
  - Hypertext Document – User interface model where you can branch on request.
  - A web page is one example of a hypertext document
  - HTML → HyperText Markup Language
  - HTML is a layout language where you can format text, pictures and create links.
- Earlier systems (e.g. Gopher) were limited to text menus.
- HyperTIES project here at UMCP explored the principles behind hypertext

<http://www.cs.umd.edu/hcil/hyperties/>

# Web Page Elements

- Formatted text
- Pictures (GIFs, JPEGs, ...)
- Movies (MPEG, AVI, QuickTime, RealVideo, ...)
- Interactive applications (Flash, Java, ...)
- Sound (WAV, AU, MP3, RealAudio, ...)
- Forms (fill-ins, check boxes, pull down menus, buttons, ...)

# Client and Server

- Client and server are two terms frequently used
- Client/Server Model
- Client/Server model when talking about software
- Client/Server model when talking about hardware

# Web Browsers

- What is a web browser?
  - A client application that process information sent by a web server.
  - The client receives html code and interprets html so we can see the page.
  - Popular clients
    - Internet Explorer
    - Firefox
    - Opera
    - Safari (Mac)
    - Lynx – Only one in the list that is text based.
    - Mosaic (the first web client)
- Internet – Communication medium that allows client and servers to communicate

# URLs

- URL – Uniform Resource Locator or Universal Resource Locator
- An HTTP URL provides all the information necessary to retrieve a resource on the web
- Typical URL

<http://www.cs.umd.edu:80/~nelson/index.html>

- http → protocol
  - [www.cs.umd.edu](http://www.cs.umd.edu) → host
  - 80 → port number
  - ~nelson/index.html → resource path
- 80 is the default port and usually it is not specified

# Accessing non-Web Resource Types

- Several resources aside from web pages.
- Resources are usually identified via the protocol used in the URL.
- Keep in mind that an URL can not only represent a web page, but it can represent a file, a newsgroup or any other resource of the internet

# Typical Protocols Associated with non-Web resources

- telnet – connect using telnet
- ftp – request a file via ftp file transfer standard
- file – request a file from your local machine
- https – Connect to a secure http server
- mailto – Launch an e-mail client to write an e-mail message
- aim – Open a window to the specified buddy in an instant message communication

# File Types

## File Name Suffix

.txt

.html

.shtml

.gif

.jpg

.pdf

.ps

.au

.wave

.mp3

.mpg

.zip

## File Type

text file

hypertext document

html with server side processing

GIF Image

JPEG image

PDF document

Postscript file

AU format sound file

WAVE format sound file

MP3 compressed sound file

MPEG movie

ZIP compressed file

# Free Antivirus/Adware Tools

- <http://www.helpdesk.umd.edu/topics/applications/anti-virus/mcafee/>
- <http://www.lavasoftusa.com/software/adaware/>
- <http://www.safer-networking.org/en/index.html>
- <http://www.spybot.com/en/index.html>