

CMST385 (3 credits)

Practical Guide To The Internet:

- Basic Principles and Protocols
- World Wide Web
- Browsing
- Virtual Communities
- ☺ Web Site Design

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Requirements

- IFSM201
- Solid background in personal computers and a bit of artistic talent.
- The student will need Internet Access
 - Home
 - UMUC MLC
 - MCAS Library
- The student will need a 3.5" diskette

Grading

Items	Scores	Percent
3 Exams	150	37.5
Final Exam	100	25%
Projects	150	37.5%
Total	400	100%

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History of the WWW - 1

- 1980's
 - WAN Technology, Distributed DP
 - ARPA Net, DoD Redundancy
 - BitNET Email
- 1990, 1991
 - Euro Lab of Particle Physics (CERN)
 - Driven by Sharing Research Information
 - First Web Server - Stanford Univ. (SLAC)

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History of the WWW - 2

- 1992
 - CERN -Text based browser (free)
 - Primary use was Research Information
 - 50 Web Servers by end of year
- 1993
 - NCSA Mosaic - First graphical browser
 - First Graphical Web Sites
 - 250 Web Servers by end of year

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History of the WWW - 3

- 1994
 - Marc Andreessen and Jim Clark left NCSA
 - Founded Mosaic Communications Corp.
 - Later called Netscape Corp.
 - Netscape Navigator Beta released October
 - 2,500 Web Servers by end of year
 - Online Services include Web Access

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History of the WWW - 4

- 1995
 - Microsoft Corp. released IE ver 1.0
 - Sun Corp. released HotJava (Interactive)
 - Streaming Audio developed by RealAudio
 - Virtual Reality Modeling Language (VRML)
 - Netscape Navigator 2.0 (Frames and Java)
 - InterNIC started charging for domain names
 - Network Information Center (SRI)

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History of the WWW - 5

- 1996
 - Netscape Navigator 3.0 (better Integration)
 - Microsoft Corp. released IE ver 3.0
 - First real competitor to Navigator
 - The Browser Wars Begin
 - NCSA no longer supports Mosaic
 - Online Services include Navigator or IE
 - Data Pushing Introduced
 - Internet Content Regulation Proposed
 - W3C establishes standards: HTML 4, CSS 8

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History of the WWW - 6

- 1997
 - Netscape Navigator 4.0
 - Microsoft IE 4.0
 - The Java War
 - The Internet is everywhere
- 1999
 - Microsoft IE 5 = Dynamic HTML
- 2000
 - Netscape 6 = Dynamic HTML

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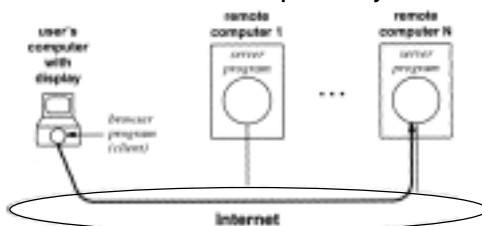
Web Browser Ap - 1

- Used to access web sites and display information as specified in HTML files
- Each web site has a URL address
 - Universal Resource Locator
 - www.geocities.com
- DNS matches URL with IP address
 - Domain Name Server
 - www.umuc.edu >> 255.255.255.255
- Browser is fault tolerant HTML and scripting language interpreter

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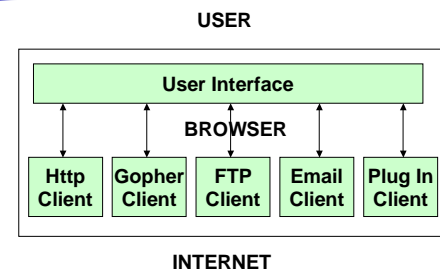
Web Browser Ap - 2

Browser contacts servers as specified by URL



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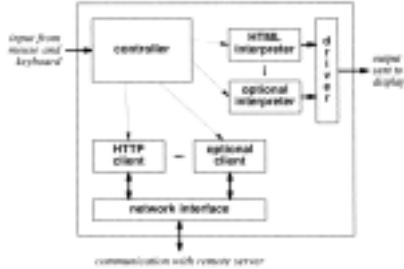
Web Browser Ap - 3



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Web Browser Ap - 4

Web Browser HTTP Client and HTML Interpreter Components



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Web Browser Ap - 4

- **Netscape Navigator 6.0**
 - W3C DHTML Support
 - CSS
 - JavaScript
 - DOM
- **Microsoft Internet Explorer 5.5**
 - W3C DHTML Support
- **Opera 5**
 - W3C DHTML Support
 - Very Fast

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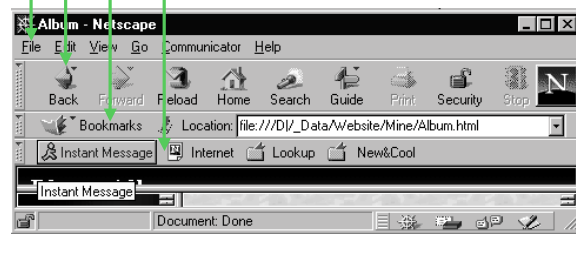
Netscape Navigator 4

Menu

Navigation Toolbar

Location Toolbar

Personal Toolbar



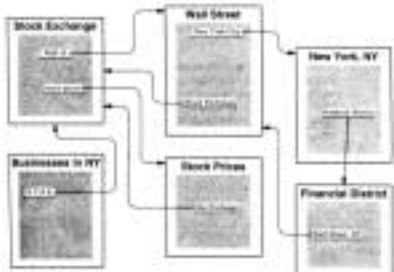
HTML

- **HyperText Markup Language**
- **Web publishing file format**
- **ASCII text based**
- **Processor Independence**
- **Browser Independence**
- **Provides layout information for:**
 - Text, Images, Animation, Sound
 - Interaction with server forms and programs
- **HTML is not a programming Language**

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Hyper Link Redirection

- **HTML Document Hyperlinks**



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HTML Text Editor Tools

- **Windows Notepad**
- **TextPad Editor with HTML Clip Library**
 - Create Blank Page and examine tags.
 - Very powerful global replace commands.
 - <http://www.textpad.com/>

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HTML = Hyper Text Markup Language

- HTML document describes the layout of a document as viewed in web browser
- HTML is not a programming language
- Tags are denoted by enclosing in < >
- Not case sensitive
- Upper case tags improve readability

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HTML: Document Tags

- <HTML> Beginning of code
- <HEAD> Beginning of heading area
- <TITLE>My Page</TITLE> Document title
- <META> Optional description information
- </HEAD> End of heading area
- <BODY> Document contents
- </BODY></HTML> Closing Tags

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HTML: Document Example

```
<HTML>
<HEAD>
<TITLE> My first Page </TITLE>
</HEAD>
<BODY>
Testing...
</BODY>
</HTML>
```



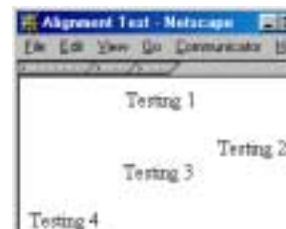
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HTML: Section Tags

-
 Break to new line
 - <CENTER> </CENTER> Center
 - <P> </P> Paragraph (new line with extra vertical space)
- Attributes:
- <P ALIGN=RIGHT> </P>
 - <P ALIGN=LEFT> </P>
 - <P ALIGN=CENTER> </P>

HTML: Section Example

```
<HTML>
<HEAD>
<TITLE>Alignment Test</TITLE>
</HEAD>
<BODY>
<P ALIGN="CENTER">
Testing 1</P>
<P ALIGN="RIGHT">
Testing 2
</P>
<P ALIGN="LEFT">
Testing 3
</P>
Testing 4</P>
</BODY>
</HTML>
```



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HTML: Heading Tags

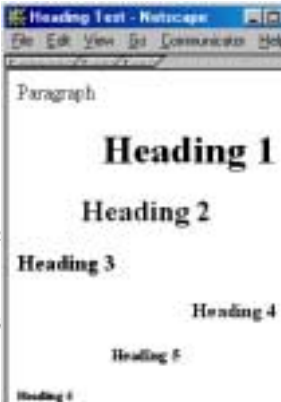
- Creates Bold Text with vertical space
- <H1> </H1> Largest Heading
 - Attributes ALIGN=LEFT CENTER RIGHT
- <H2> </H2> Larger Heading
- <H3> </H3> Large Heading
- <H4> </H4> Small Heading
- <H5> </H5> Smaller Heading
- <H6> </H6> Smallest Heading

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```

<HTML>
<HEAD>
<TITLE>Heading Test</TITLE>
</HEAD>
<BODY>
<P ALIGN=LEFT>Paragraph</P>
<H1 ALIGN=RIGHT>Heading 1</H1>
<H2 ALIGN=CENTER>Heading 2</H2>
<H3 ALIGN=LEFT>Heading 3</H3>
<H4 ALIGN=RIGHT>Heading 4</H4>
<H5 ALIGN=CENTER>Heading 5</H5>
<H6 ALIGN=LEFT>Heading 6</H6>
</BODY>
</HTML>

```



HTML: Text Format Tags

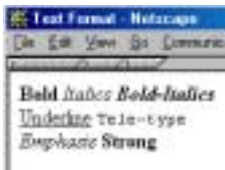
- ** ** Bold text
- **<I> </I>** Italics text
- **<U> </U>** Underline text
- **** Subscript text
- **** Superscript text
- **<STRIKE> </STRIKE>** Strike through text
- **<TT> </TT>** teletype text - Monospaced
- ** ** Strong, usually bold
- ** ** Emphasize, usually italics text

HTML: Text Format Example


```

<HTML>
<HEAD>
<TITLE>Text Format</TITLE>
</HEAD>
<BODY>
<B>Bold</B>
<I>Italics</I>
<B><I>Bold-Italics</I></B><BR>
<U>Underline</U>
<TT>Tele-type</TT><BR>
<EM>Emphasis</EM>
<STRONG>Strong</STRONG>
</BODY>
</HTML>

```



Coding HTML: TextPad



HTML: Assignment #1

- Using any text editor, write HTML code to display the following.
- Save your file to diskette.
- Test your HTML file by opening it in two different browsers. Note any differences in appearance.

