

The Web

- ❖ Lots of computers connected together in a collection of networks
- ❖ HyperText Markup Language (HTML) is a common formatting language for the web
 - ❑ Hypertext is text with a link or *reference*
 - ❑ Tags are *non-printing* formatting markers
 - Identified by angle brackets (i.e. <TAG>)
 - Example: <TITLE>The Human Tornado</TITLE>
 - Come in delimiting pair
- ❖ **General Goals**
 - ❑ Platform independent Text Specification
(also called a Markup Language)
 - ❑ Links to other network resources

Delimiting with tags

- ❖ First tag says, “Begin mode”
 - ❖ Second tag (containing “/”) says, “End mode”
 - ❖ So `<TITLE>The Human Tornado</TITLE>` means
 1. Begin title mode
 2. The text “The Human Tornado” is in title mode
 3. End title
 - ❖ Using this construct, we can *nest* several different modes and have interesting behavior
 - ❖ Good tutorials on HTML
- <http://www.w3.org/MarkUp/Guide/>
- <http://archive.ncsa.uiuc.edu/General/Internet/WWW/HTMLPrimer.html>
- ❖ In lab, you will create a webpage

HTML

❖ Some General HTML rules

- ❑ For tags, case doesn't matter, e.g., `<html>` = `<HTML>`
- ❑ In the text, spaces don't matter: *it* will decide!
(we call that “free format”)
- ❑ `<br>` starts a new line

❖ Headings

- ❑ Use `<hn>` to specify heading where smaller *n* designates more important heading
- ❑ For example `<h1>` - - - `</h1>` is largest, boldest heading
- ❑ `<h4>` - - - `</h4>` designates a fairly minor heading

HTML

❖ Basic Web Page Structure

```
<html>
<head>
<title> Ted's Home Page </title>
</head>
<body bgcolor="White">
<center> <h1> Ted's Page </h1> </center>
Welcome to Duke University! <br>
<i> more to come ... </i>
</body>
</html>
```

HTML

- ❖ **Want to link things together!**
- ❖ **Hypertext (from the Webopedia)**
 - ❑ **A special type of database system, invented by Ted Nelson in the 1960s, in which objects (text, pictures, music, programs, and so on) can be creatively linked to each other.**
- ❖ **An anchored link:**
 - `<a HREF="http://www.duke.edu">The Duke Web Page</a>`
 - ❑ **Produces link to URL specified in HREF and display info between <a> tags: The Duke Web Page**

HTML

❖ Other useful info

- ❑ For italics or emphasis use
`<i>` or `<em>`
- ❑ For darker or bold use
`<strong>` or `<b>`
- ❑ For text space exactly as typed (not free format) use
`<pre>`

HTML

❖ Specifying Colors

- ❑ Can be specified in different ways
 - e.g., for standard colors can specify “white” or “red”
- ❑ Can specify arbitrary colors by specifying the amount of red, blue, and green involved. (RGB)

- ❑ Uses base 16 arithmetic: 0, 1, ..., 9, a, b, c, d, e, f

Red: “ff0000”

Blue: “00ff00”

Green: “0000ff”

Black: “000000”

White: “ffffff”

Yellow: “ffff00”

Orange: “ff7f00”

Purple: “9370db”

- ❑ Can experiment!

HTML

❖ More useful HTML

- ❑ **Bulleted list ... using for items**

- - - -
- - - -
- - - -

- ❑ **Ordered lists ... using for items**

1. - - -
2. - - -
3. - - -

- ❑ **Can *nest* arbitrarily deep - - lists within lists**

HTML

❖ Tables

```
<table border=1>
<tr> <td> Cell 1 </td> <td> Cell 2 </td>
    </tr>
<tr> <td> Cell 3 </td> <td> Cell 4 </td>
    </tr>
</table>
```

produces simple table

❖ Images

```

```

displays image

HTML/Web/UNIX practice

- ❖ **In UNIX, your web page folder is found in a *standard location*:**
 - ❑ `~userID/public_html/`
and for OIT Duke files is accessed with a web browser at
 - ❑ `//www.duke.edu/~userID`
- ❖ **Many people don't code in raw HTML**
 - ❑ Save as Web Page in Microsoft Word
 - ❑ Netscape Composer, Macromedia Dreamweaver, Bluefish
- ❖ **These all generate HTML for you**
- ❖ **View other people's web page source (HTML) from most browsers -- learn from others**