

CS 1124 MEDIA COMPUTATION

Lab 9.3 October 24, 2008

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TODAY

- using strings to write HTML



HTML

- From text to HTML to XML and beyond ...



HTML is not a programming language

- Using HTML is called “coding” and it is about getting your codes right.
- But it’s not about coding programs.
- HTML has no
 - **Loops**
 - **If’s**
 - **Variables**
 - **Data types**
 - **Ability to read and write files**
- Bottom line: HTML does not communicate process!



Other things in there

- We're simplifying these tags a bit.
- More can go in the <head>
 - **Javascript**
 - **References to documents like cascading style sheets**
- The <body> tag can also set colors.
 - **<body bgcolor="#FFFFFF" text="#000000" link="#3300CC" alink="#CC0033" vlink="#550088">**
 - **These are actually setting RGB values!**



A tiny tutorial on hexadecimal

- You know decimal numbers (base 10)
 - **0,1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16**
- You've heard a little about binary (base 2)
 - **0000,0001,0010,0011,0100,0101...**
- Hexadecimal is base 16
 - **0,1,2,3,4,5,6,7,8,9,A,B,C,D,E,F,10 (16 base 10)**



Why hexadecimal?

- Its kinda compact for representing 0-255:
 - **16 x 16 = 256**
 - **therefore two characters can show entire range**
 - **(OK - two is only one less than three characters, but that is still a difference of 50%!)**
- So for RGB you need three color or:
 - **RRRGGBBB (base 10)**
 - 002255234
 - **RRGGBB (base 16)**
 - 02FFEF

Hexadecimal colors in HTML

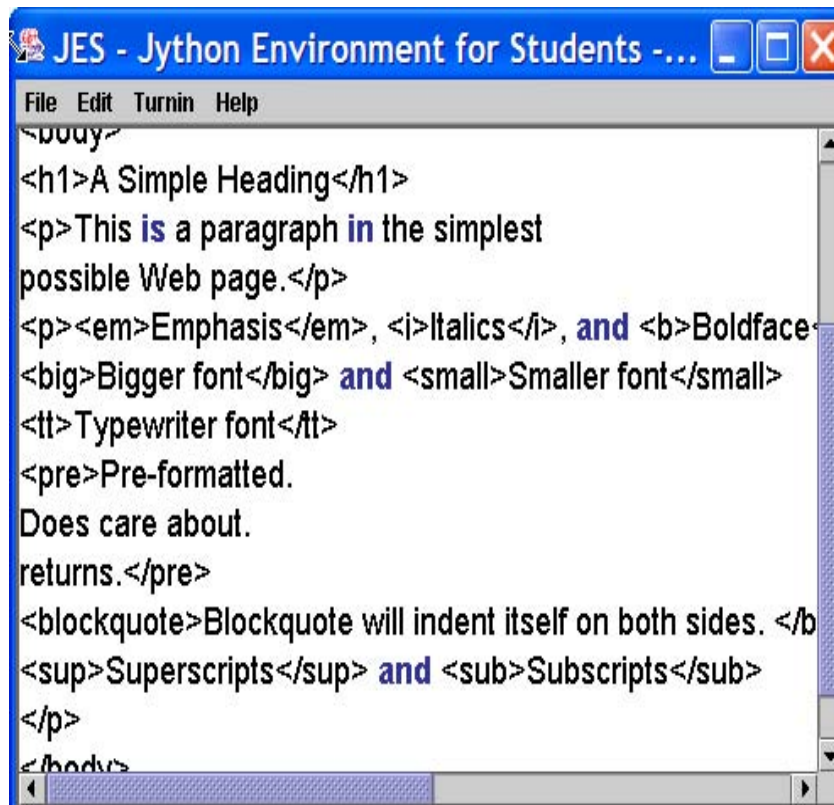
-  #000000 is black
 - 0 for red, 0 for green, 0 for blue
 - or all bits set to 0
-  #FFFFFF is white
 - 255 for red, 255 for green, 255 for blue
 - or all bits set to 1
-  #FF0000 is Red
 - 255 for red (FF), 0 for green, 0 for blue
 - or 111111110000000000000000
-  #0000FF is Blue
 - 0 for red, 0 for green, 255 for blue
 - or 000000001111111100000000



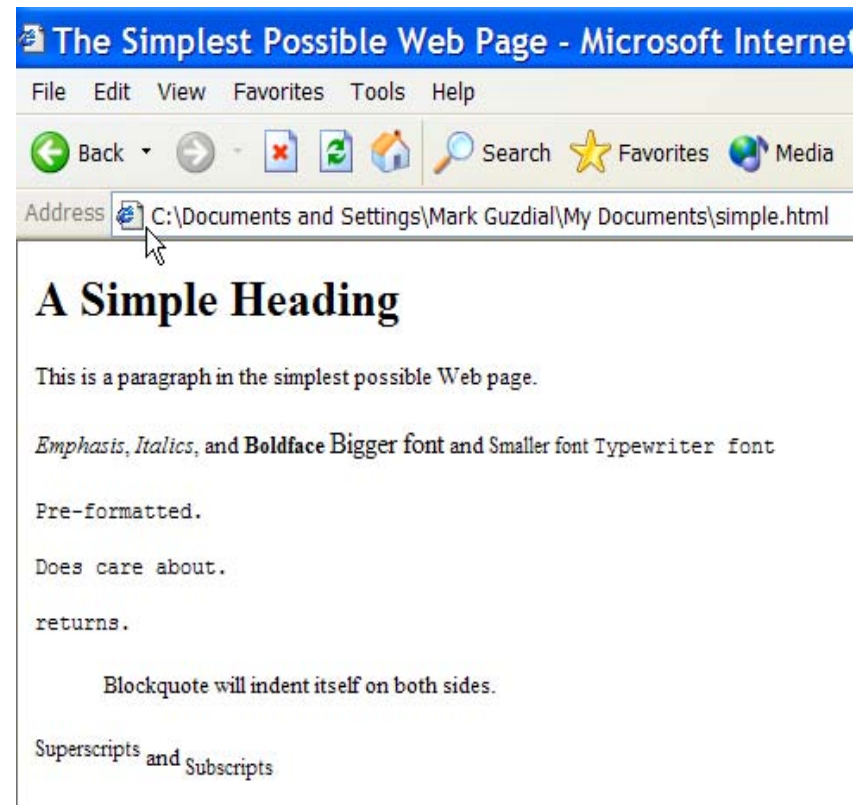
Emphasizing your text

- There are six levels of headings defined in HTML.
 - **<h1>...<h6>**
 - **Lower numbers are larger, more prominent.**
- Styles
 - **Emphasis, <i>Italics</i>, and Boldface**
 - **<big>Bigger font</big> and <small>Smaller font</small>**
 - **<tt>Typewriter font</tt>**
 - **<pre>Pre-formatted</pre>**
 - **<blockquote>Blockquote</blockquote>**
 - **^{Superscripts} and _{Subscripts}**

Examples of styles



```
JES - Jython Environment for Students - ...
File Edit Turnin Help
<body>
<h1>A Simple Heading</h1>
<p>This is a paragraph in the simplest
possible Web page.</p>
<p><em>Emphasis</em>, <i>Italics</i>, and <b>Boldface</b>
<big>Bigger font</big> and <small>Smaller font</small>
<tt>Typewriter font</tt>
<pre>Pre-formatted.
Does care about.
returns.</pre>
<blockquote>Blockquote will indent itself on both sides. </b>
<sup>Superscripts</sup> and <sub>Subscripts</sub>
</p>
</body>
```



Finer control:

- Can control type face, color, or size

<body>

<h1>*A Simple Heading*</h1>

<p>

This is in helvetica

</p>

<p>

Happy Saint Patrick's Day!

</p>

<p>

This is a bit bigger

</p>

</body>

A Simple Heading

This is in helvetica

Happy Saint Patrick's Day!

This is a bit bigger

Can also use
hexadecimal RGB
specification here.



Breaking a line

- Line breaks are part of formatting, not content, so they were added grudgingly to HTML.
- Line breaks don't have a closing tag, so include the ending “/” inside.
 - **
**
 - **
 also works ...**



Adding a break

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01  
  Transition//EN" "http://www.w3.org/TR/html4/  
  loose.dtd">
```

```
<html>
```

```
<head>
```

```
  <title>The Simplest Possible Web Page</title>
```

```
</head>
```

```
<body>
```

```
  <h1>A Simple Heading</h1>
```

```
  <p>This is a paragraph in the simplest<br />  
  possible Web page.</p>
```

```
</body>
```

```
</html>
```

A Simple Heading

This is a paragraph in the simplest
possible Web page.



Adding an image

- Like break, it's a standalone tag.
 - ****
- What goes inside the quotes is the path to the image.
 - **If it's in the same directory, don't need to specify the path.**
 - **If it's in a subdirectory, you need to specify the subdirectory and the base name.**
 - **You can walk a directory by going up to a parent directory with ".."**
 - **You can also provide a complete URL to an image anywhere on the Web.**

An example image tag use

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01  
  Transition//EN" "http://www.w3.org/TR/html4/  
  loose.dtd">
```

```
<html>
```

```
<head>
```

```
  <title>The Simplest Possible Web Page</title>
```

```
</head>
```

```
<body>
```

```
  <h1>A Simple Heading</h1>
```

```
  <p>This is a paragraph in the simplest<br />  
  possible Web page.</p>
```

```
  
```

```
</body>
```

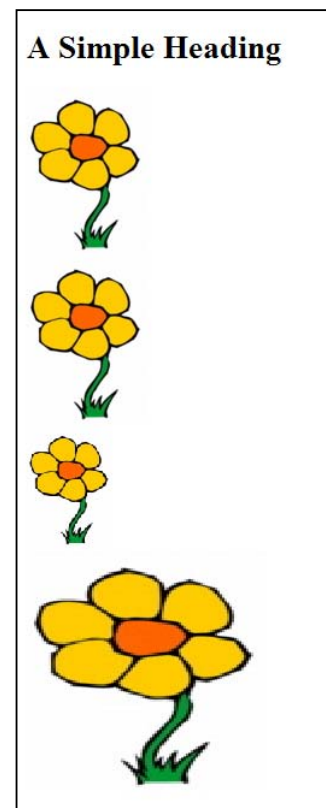
```
</html>
```



Parameters to image tags

- You can specify width and height in image tags.

```
<h1>A Simple Heading</h1>  
  
  <br />  
 <br />  
 <br />  
 <br />  
</body>  
</html>
```



Alt in images

- Some browsers (like audio or Braille) can't show images.
- You can include alternative text to be displayed instead of the image in those cases.
 - **``**



Creating links

- Links have two main parts to them:

- **A destination URL.**

- **Something to be clicked on to go to the destination.**

- The link tag is “a” for “anchor”

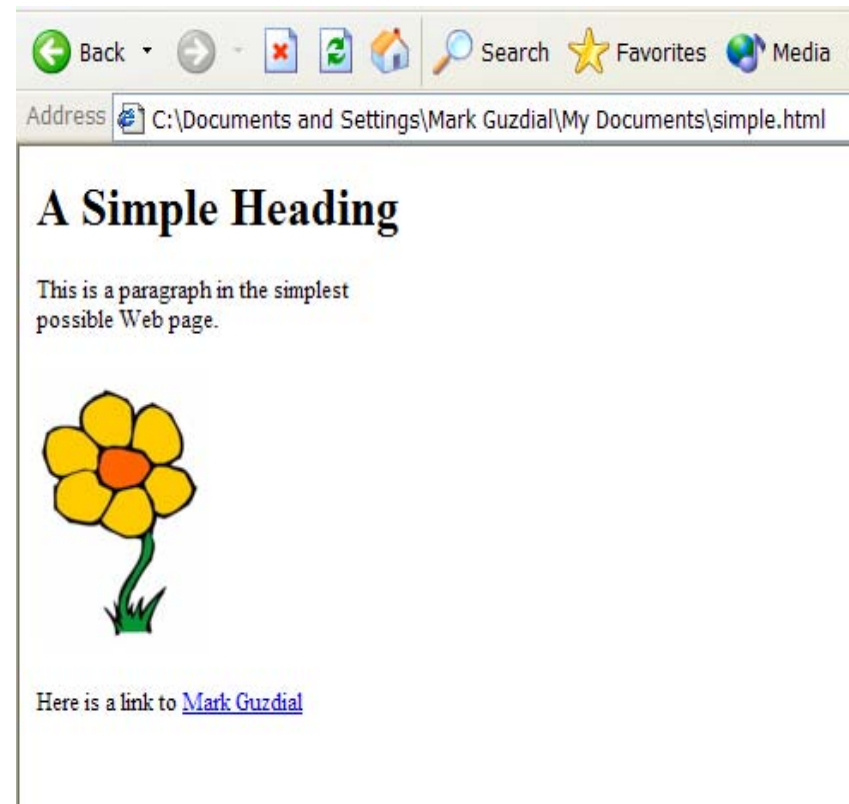
`Mark Guzdial`

What it looks like

```
<body>
<h1>A Simple Heading</h1>
<p>This is a paragraph in the simplest
<br />
possible Web page.</p>

<p>Here is a link to
<a href = "http://www.cc.gatech.edu/
~mark.guzdial/">Mark Guzdial</a>
</p>

</body>
```



Images can be links!

```
<h1>A Simple Heading</h1>
```

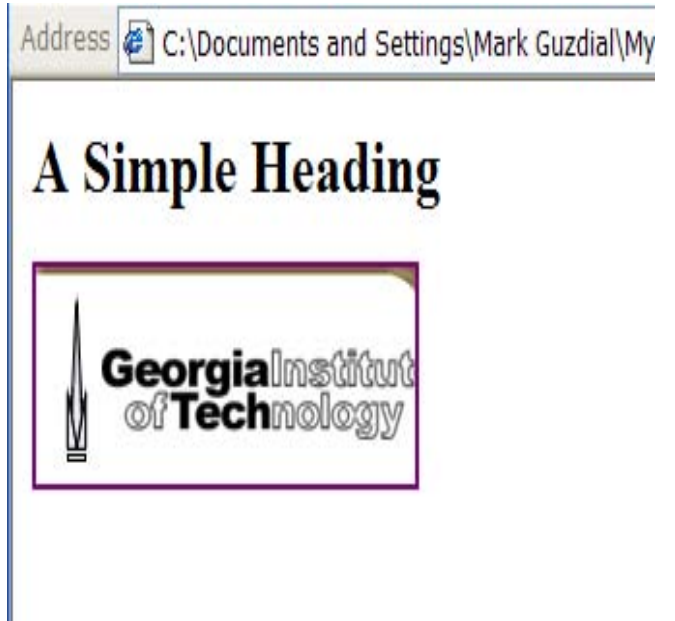
```
<p>
```

```
  <a href="http://www.cc.gatech.edu/">
```

```
    
```

```
  </a>
```

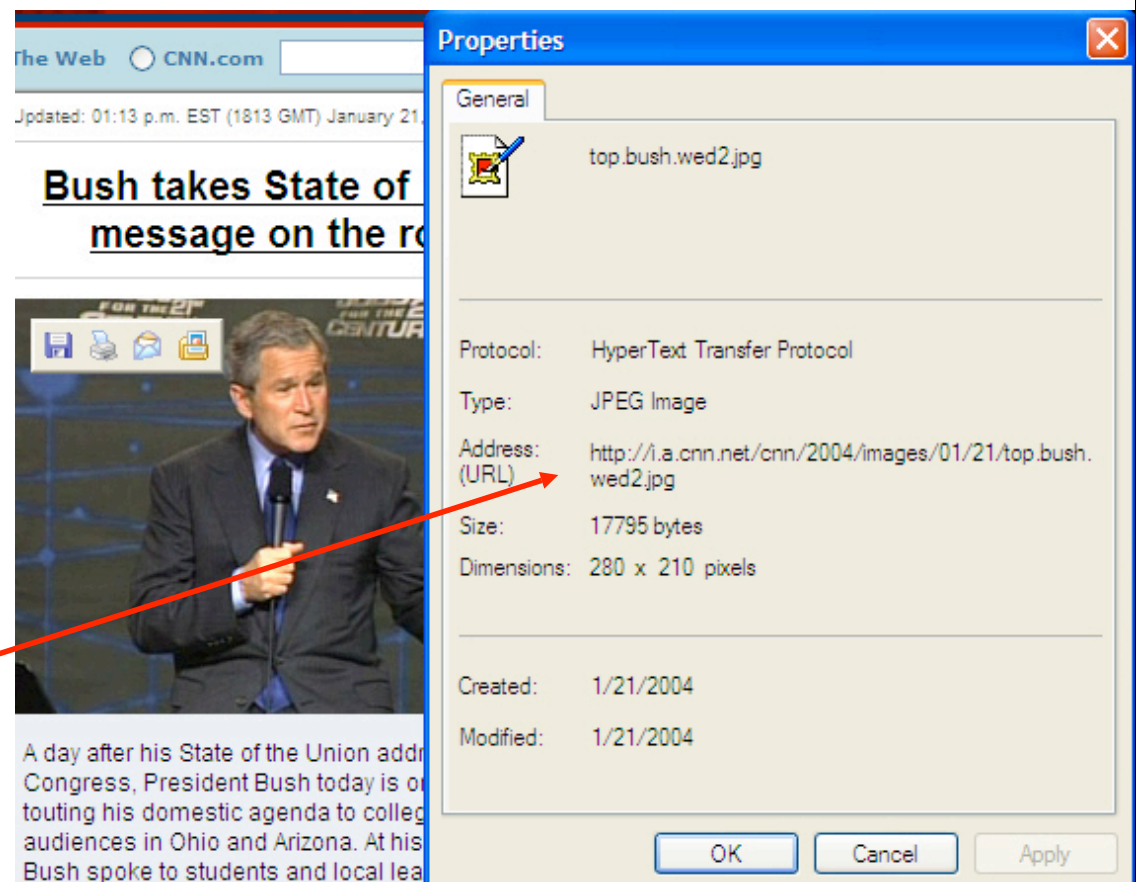
```
</p>
```



Getting the path to an image

- Depends on platform and browser
- For Windows and IE, right-click on image and choose properties.

□ **There's the URL**





Lists

■ Ordered lists (numbered)

``

`First item`

`Next item`

``

■ Unordered lists (bulleted)

``

`First item`

`Second item`

``

Tables

```
<table border="5">  
<tr>  
  <td>Column 1</td>  
  <td>Column 2</td>  
</tr>  
<tr>  
  <td>Element in column 1</td>  
  <td>Element in column 2</td>  
</tr>  
</table>
```

A Simple Heading

Column 1	Column 2
Element in column 1	Element in column 2



There is lots more to HTML

■ Frames

- **Can have subwindows within a window with different HTML content.**
- **Anchors can have target frames.**

■ Divisions <div>

■ Horizontal rules <hr />

- **With different sizes, colors, shading, etc.**

■ Applets, Javascript, CSS, etc.



Best way to learn HTML:

Look at pages!

- View source *all* the time, especially when there's something new and cool that you've never seen before.
- Use a good page design program that shows both page and HTML -- like Dreamweaver.
- There are lots of good on-line tutorials.
- There's even a few good books.

COMING ATTRACTIONS

- Road Map
 - Jumping around to get to JavaScript and Java ASAP
 - week 10 10/27-10/31 Mid Term II (chapters 1-11.2)
 - week 11 11/03-11/07 Objects, OO, & Javascript
 - week 12 11/10-11/14 Intro to Java
 - week 13 11/17-11/21 Java classes
 - week 14 11/24-11/28 Thanksgiving Break
 - week 15 12/01-12/05 Java
 - week 16 11/08-12/10 Last group project; review for final

PROJECT 8 - MIND READING

- Most creative
 - “Without telling me or anyone else in the room, enter a number”
 - wait a little
 - “Your number is ...”
- use HTML and Javascript (coming soon)
- Due Friday November 7, 2:00 PM

COMING ATTRACTIONS

- Monday
 - Read Chapters 10 & 11.1-11.2
 - Quiz 9 due 10:00 AM
 - Practice Quiz for MidTerm II (not graded)
- Wednesday
 - Project 7 - debugging due 10:00 AM
- Friday Lab
 - MidTerm II
 - open book & open computer
- Following Monday
 - read Chapters 13, 14, & 16 (skip 12 and 15)