

Hypertext Markup Language

INFO/CSE 100, Autumn 2004
Fluency in Information Technology

<http://www.cs.washington.edu/100>

Readings and References

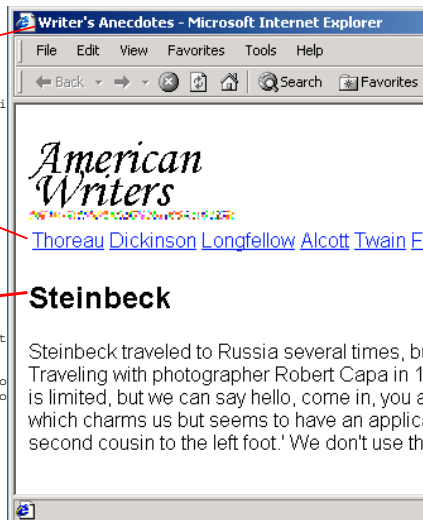
- Reading
 - » *Fluency with Information Technology*
 - Chapter 4, Marking up with HTML
- References
 - » World Wide Web Consortium
 - "The World Wide Web Consortium (W3C) develops interoperable technologies (specifications, guidelines, software, and tools) to lead the Web to its full potential."
 - <http://www.w3.org/>
 - <http://w3c.org/MarkUp/Activity>
 - <http://w3c.org/MarkUp/Guide/>



Web Pages in HTML

```
<html>
<head><title>Writer's Anecdotes</title></head>
<body bgcolor="white" text="black"><font face="Helvetica">

<table>
<tr>
<td><a href="hdt.html">Thoreau</a></td>
<td><a href="ed.html">Dickinson</a></td>
<td><a href="lwl.html">Longfellow</a></td>
<td><a href="lma.html">Alcott</a></td>
<td><a href="sc.html">Twain</a></td>
<td><a href="wf.html">Faulkner</a></td>
<td><a href="rf.html">Frost</a></td>
<td><a href="eh.html">Hemingway</a></td>
<td><a href="js.html">Steinbeck</a></td>
</tr>
</table>
<h2>Steinbeck</h2>
<p>Steinbeck traveled to Russia several times, but never mastered the language. Traveling with photographer Robert Capa in 1947 he wrote, "...I admit our Russian is limited, but we can say hello come in, you are beautiful, oh no you don't, and which charms us but seems to have an application rarely needed, 'The thumb is second cousin to the left foot.' We don't use that one much."</p>
</body>
</html>
```



HTML Structure

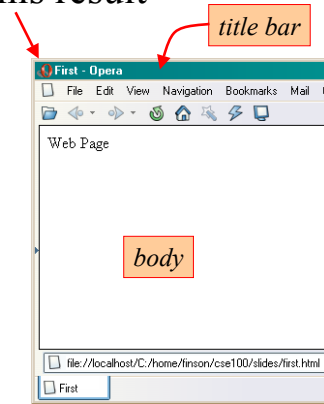
- All HTML files use the same basic structure:

```
<html>
  <head>
    <title>Name of Page Goes Here</title>
    <body>
      <h1>Heading content goes here</h1>
      <p>Body content goes here</p>
    </body>
  </head>
</html>
```

First HTML Web Page

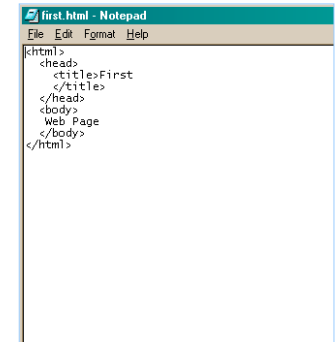
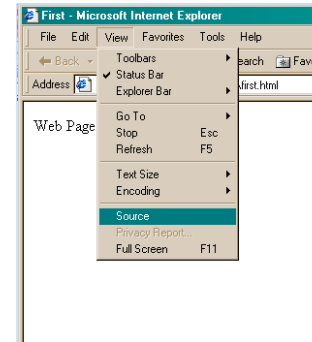
This HTML produces this result

```
<html>
  <head>
    <title>First
  </title>
</head>
<body>
  Web Page
</body>
</html>
```



The Source

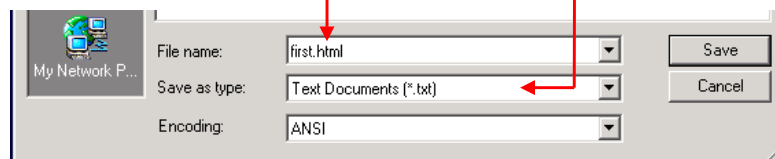
The HTML code producing a page is the *source* which can always be *viewed*, either in the browser or in an editor



HTML Must Be Text

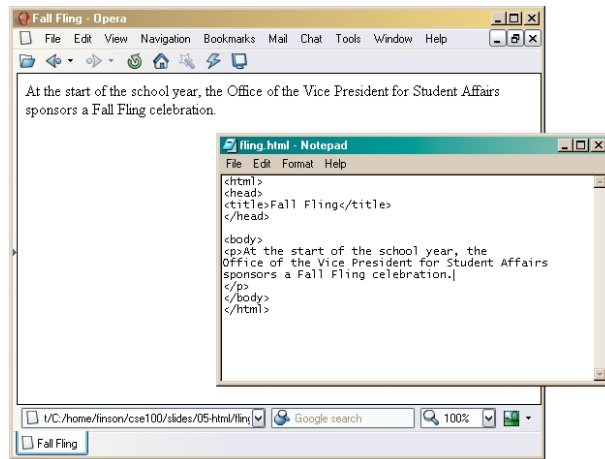
- Word processors (recall Chap. 2) insert formatting tags, confusing browsers
 - Create source in NotePad, etc.
 - Save in **Text** or **txt** format
 - Save with file extension **.html**

  **Avoid Confusion**



Illustrate the Process

Add An Image



- Images are encoded many ways:
 - » GIF -- Graphics Interchange Format -- is for diagrams and simple drawings
 - » PNG -- Portable Network Graphics - GIF without patent problems
 - » JPEG -- Joint Photographic Experts Group -- is for high resolution photos, complex art
- Image tags for placing images

```

```

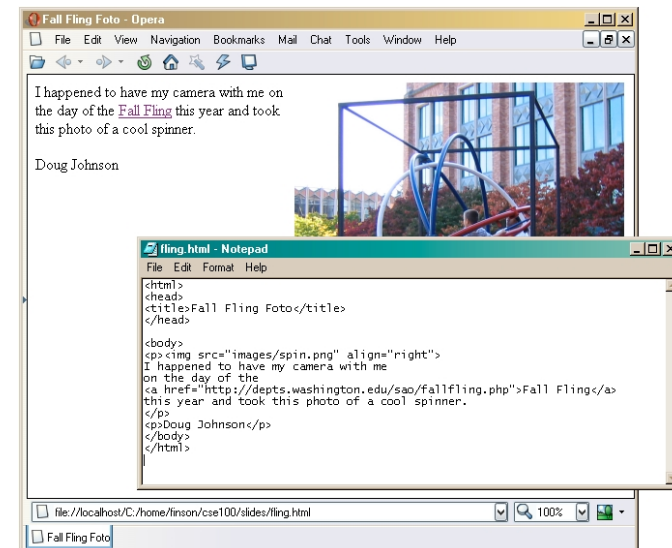
tag attribute name (source) path name to file

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10

Illustrate the Process



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11

File Structure

- The path must say how to reach the file
 - When the file is in the directory as the web page, just give the file name, **ski.jpg**
 - If the file is in a subdirectory, say how to navigate to it, **pix/ski.jpg**
 - If the file is in a superdirectory, move up using dot-dot notation, **../ski.jpg**

The most common reason that an image is not displayed is the path is wrong ... check!

Simple HTML

- What I've shown here is *very simple* HTML
- HTML is changing and there are tools and techniques for better control of the documents
 - » Each document should start with a short header specifying the rules that it follows
 - This is the "DOCTYPE Declaration"
 - <http://www.w3.org/QA/2002/04/valid-dtd-list.html>
 - I'm using 4.01 Transitional
 - » There is a validator service that will check your page
 - <http://validator.w3.org/>

Summary

- Web pages are written in HTML
 - The files must be text
 - The file extension must be .html
- Tags enclose content like parentheses
 - Control look with attributes on tags
- Use a change-and-test process
- Images have various formats and you must specify the explicit path to the picture

