Hypertext Markup Language

HTML is the language of Web pages

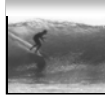
Web Pages in HTML

```
<html>
  <head><title>Writer's Anecdotes</title></head>
  <body bgcolor="white" text="black"><font face="Helveti
    <img src="AWA.gif">
    <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 o
      which charms us but
      rarely needed, 'The
      left foot.' We don't
  </body>
</html>
```
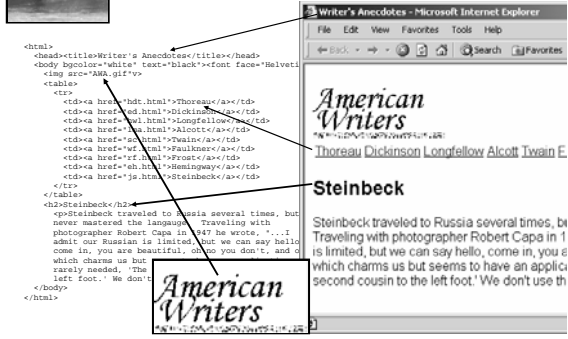
American Writers

Writer's Anecdotes - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back · → · ⊘ ⊘ ⊘ Search Favorites

American Writers

Thoreau Dickinson Longfellow Alcott Twain F

Steinbeck

Steinbeck traveled to Russia several times, bi
Traveling with photographer Robert Capa in 1
is limited, but we can say hello, come in, you a
which charms us but seems to have an applica
second cousin to the left foot.' We don't use th

HTML Structure

All HTML files use the same structure:

```
<html>
  <head>
    <title>Name of Page Goes Here
    </title>
       Heading content goes here
  </head>
  <body>
     Body content goes here
  </body>
</html>
```
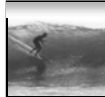
Web page content goes in the body

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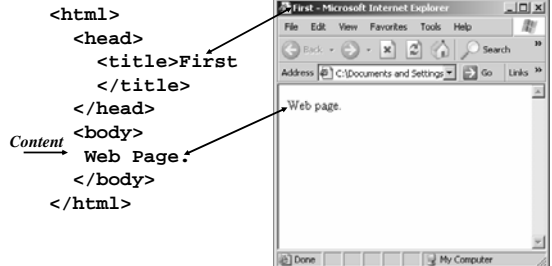
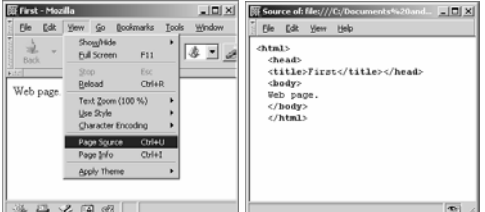# First HTML Web Page

This HTML produces this result

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

Content

First - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back · → · x ⊘ ⊘ Search
Address C:\Documents and Settings Go Links

Web page.

Done   My Computer
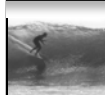
The Source

The HTML code producing a page is the *source...which can always be viewed*

First - Mozilla
File Edit View Go Bookmarks Tools Window
Show/Hide
Full Screen   F11
Back
Stop   Esc
Reload   Ctrl+R
Web page.
Text Zoom (100 %)
Use Style
Character Encoding
Page Source Ctrl+U
Page Info   Ctrl+I
Apply Theme

Source of: file:///C:/Documents%20and...
File Edit View Help
```
<html>
  <head>
    <title>First</title></head>
  <body>
  Web page.
  </body>
</html>
```
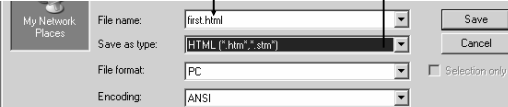
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HTML Must Be Text

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

Avoid Confusion

My Network Places
File name: first.html   Save
Save as type: HTML (*.htm*,*.stm*)   Cancel
File format: PC   Selection only
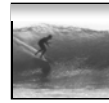Encoding: ANSI

Tags for Various Structures

HTML provides tags for common formatting needs:

* <title> page title
* <p> paragraph
* <h1>-<h8> headings get smaller w/ gtr num
* <hr> horizontal line
* <i> italics
* <b> bold

Some Tags Take Attributes:

* <font
  face = "helvetica"
  color = "white" >
* <p
  align = "right" >
* <body
  bgcolor = "white"
  text = "black"
  link = "red" >

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Illustrate the Process

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Illustrate the Process

```
<html>
 <head><title>Party Time</title>
 </head>
 <body bgcolor="white">
   <h2>I'm thinking ...</h2>
   <h1> I need downhill skiing!!! </h1>
 </body>
</html>
```

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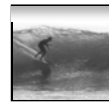
Add An Image

Images are encoded two ways:

GIF -- Graphics Interchange Format -- is for diagrams and simple drawings

JPEG -- Joint Photographic Experts Group -- is for high resolution photos, complex art
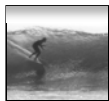
• The encoding is given in the file extension

• Image tags for placing images

```
<img src="writers.gif">
```

tag   attribute name (source)   path name to file

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Illustrate the Process

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Illustrate the Process

```
<html>
 <head><title>Party Time</title>
 </head>
 <body bgcolor="black">
   <font color="white">
 <h2>I'm thinking ...</h2>
 <h1> I need downhill skiing!!! </h1>
 <hr>
 <img src="ski.jpg">
 </body>
</html>
```
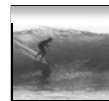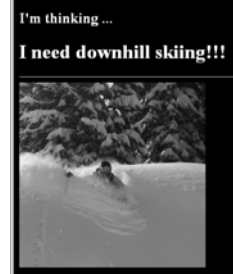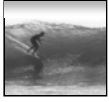
I'm thinking ...

I need downhill skiing!!!

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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!
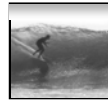
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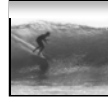
Illustrate

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Illustrate

The file is accessed from the same directory, from a subdirectory and from the containing directory

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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 two formats and explicit paths

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