

Introduction to HTML

Dave Edsall

IAGenWeb
County Coordinator's Conference
June 30, 2007

Hyper **Text Markup** Language

- What is **markup**?
 - Editors used to physically *mark-up* a document with changes and typesetting instructions
- Computers came along and used programs (languages)
- Standard devised to specify agreed-upon common mark-up commands

SGML – **S**tandardized **G**eneralized **M**arkup **L**anguage

Hypertext

- Physicists at CERN looked for an easy way to exchange information
 - IT guys at CERN were very involved in SGML and LaTeX (another markup language)
 - Internet was heavily used at CERN
 - SGML + Internet = HTML
- Hypertext** – linking information over a network

Mark-up?

- In HTML, mark-up is content:
 - I want a list inside a paragraph
 - I want a title before the paragraph
 - I want a horizontal bar beneath the title
- Notice I didn't specify what any of this should look like. I just organized my content
- HTML is NOT style (that's CSS)

Language

- Languages are instructions used to tell a computer what to do
- Writing an instruction – follow rules (syntax)
- HTML rules are **tags** and **attributes**

Tags

- Tags are written between a < and a >
- For example, a paragraph begins with

<p>

and ends with

</p>

- The end tag is often ignored

Attributes

- Attributes are extra qualities associated with a tag.
- Attributes can be required or optional. It depends on the tag.
- Attributes are written inside the tag, using an equals sign (=), some text and possibly some quotation marks (“”)

Attributes - Example

- Suppose you want to style your paragraph with a background color of blue

```
<p style="background-color: blue;">
```

This is my paragraph and not yours!

```
</p>
```

- While we are here, note that HTML ignores extra spaces.

Which HTML?

- The first line of your document should be the Document Type Definition (DTD)

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"  
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
```

- The DTD informs the browser what *version* of HTML it should obey

Containing Your Content

- Most everything in the document is *contained* between tags.
- The `<html>` and `</html>` tags inform the browser that everything between them should be treated as HTML
- Everything in a document should be contained between `<html>` and `</html>`

What's in Your `<head>`?

- The first container inside your `<html></html>` container is usually the `<head></head>` container.
- This is the *header* portion of your document
- Here you put things your browser may use later, like styles, Javascript, META tags and document titles

What's in Your **<head>**?

```
<head>
```

```
<meta name="description" content="I hope Yahoo finds this"></meta>
```

```
<title>IAGenWeb Pocahontas County</title>
```

```
<style type="text/css">@import url(style.css);</style>
```

```
<script type="text/javascript" src="js/tricks.js"></script>
```

```
</head>
```

<head>ers and Search Engines

- <meta> tags really aren't used anymore by web crawlers so they won't increase your ranking
- They are useful when YOU search your files for keywords
- <title> tags ARE useful for search engines. Titles give search sites text to use when displaying links to your pages

Exercise 1 – Make Your First Page

- Start Notepad
 - Click **start** -> All Programs -> Accessories -> Notepad
- Open the file exercise1.html in the folder html
 - Click File -> Open
- Inside the `<head>` container, add the following:

```
<title>Hello, World!</title>
```

- Inside the body container, add some text
- Save the file
- Open the file with your browser. Is the title in the title bar of the browser? Does your text show up in the window?

OK. Content Already!

- The content displayed by the browser is contained between `<body>` and `</body>`

```
<body>
```

```
<p> This is paragraph 1 </p>
```

```
<p>
```

```
This is another paragraph. I AM capable of typing  
more than one sentence.
```

```
</p>
```

```
</body>
```

Heading Tags

- Add some section titles with heading tags
- Heading tags go from large (<h1>) to very small (<h6>).
- Very useful for delimiting sections and subsections in your document
- Headings **must** use both a start tag and an end tag

Example - Headings

<h1>This is my first page</h1>

Here can be some generic introductory text

<h2>Chapter 1 – How I Found My Way to IAGenweb</h2>

The IAGenWeb is a very welcoming group...

<h3>1.1 – Getting involved</h3>

It's pretty simple to get started. You can be a volunteer or adopt a county

Exercise 2 – Headings

- Start Notepad
- Open the file exercise2.html in the folder html
- Inside the body container, add some headers and some normal text like the following:

```
<h1>This is a big heading</h1>
```

Ok. Wanna see something smaller?

```
<h2>Here is a smaller header</h2>
```

- Save the file
- Open the file with your browser. Do you see different sized headings?

Organizing Content - Lists

- Ordered lists are numbered, each item preceded by a number counting up
- Ordered lists are contained between `` and ``
- Each list item begins with `` and ends with ``

Organizing Content - Lists

- Unordered lists create *bullet points*, just like this slide
- Ordered lists are contained between `` and ``
- As with ordered lists, each list item begins with `` and ends with ``

Exercise 3 – Lists

- Start Notepad
- Open the file exercise3.html in the folder html
- Inside the body container, add an ordered list and an unordered list
- Save the file
- Open the file with your browser. Are the ordered lists numbered? Are the unordered lists bulleted?

Organizing Content -Lists

- Lists can be *nested* where you have one list inside another

```
<ol>
```

```
<li>This is item 1
```

```
<ul>
```

```
<li>This is the first item of a list inside a list
```

```
</ul>
```

```
</ol>
```

- Make sure the inner list is closed before the outer list is closed. Here, that means `` comes before ``

Organizing Content - Tables

- Sometimes data needs to be listed in rows and columns. That's where tables come in
- Tables are contained between `<table>` and `</table>` tags
- Table rows are defined next, using `<tr>` and `</tr>` tags
- Each column in a row is defined with `<td>` and `</td>` tags (table data)

Organizing Content - Tables

- A table with two rows and two columns

```
<table>  
  <tr>  
    <td> Row 1 Column 1 </td>  
    <td> Row 1 Column 2 </td>  
  </tr>  
  <tr>  
    <td> Row 2 Column 1 </td>  
    <td> Row 2 Column 2 </td>  
  </tr>  
</table>
```


Exercise 4 – Tables

- Start Notepad
- Open the file exercise4.html in the folder html
- Inside the body container, add a table with two rows and two columns with any content you choose
- Save the file
- Open the file with your browser. Do you have a table?

Picture This -Images

- Add images to your pages using the **img** tag

```

```

Picture This -Images

- The **alt** attribute is useful for browsers that cannot display images (such as screen readers for the blind)

```

```

Links – The Power of the Web

- The innovation of the World Wide Web was *linking* pages to each other
- Links to other pages are added using the anchor tag – **<a>**

`IAGenWeb Site`

Links – The Power of the Web

```
<a href="http://www.iagenweb.org">IAGenWeb Site</a>
```

- The visitor to your site clicks on the text between the `<a>` and `` tags, in this case [IAGenWeb Site](http://www.iagenweb.org). Remember to use the `` tag or everything becomes your link.
- The value of the attribute `href` is the **Uniform Resource Locator** (URL). The URL instructs the browser which page to load when your visitor clicks the link

URLs

- URLs can be on the same computer as your web site or on a remote computer
- Usually, if the URL begins with **http** and an address, the page to be loaded is on another server
- If the URL does not contain an address, the browser looks on the same web server as the current page

URLs on Your Server

- Suppose the current web page is located at <http://www.iagenweb.org/cherokee/index.html> and this page contains the tag

```
<a href="records/cemeteries.html">Cemetery Records</a>
```

- In this case, clicking on **Cemetery Records** is the same as if you had used

<http://www.iagenweb.org/cherokee/records/cemeteries/html>

- By doing this, you can organize all of your information in folders and then simply refer to those folders

Exercise 5 – URLs

- Start Notepad
- Open the file exercise5.html in the folder html
- Inside the body container, add the following links:

```
<a href="http://www.iagenweb.org">IAGenWeb web site</a><br>  
Here's my <a href="exercise4.html">tables exercise</a>
```

- Save the file
- Open the file with your browser. Do you have a table?

Page Layout

- Useful sites provide navigation links on every page
- It would be nice if those links were in the same place on every page
- Create separate sections for every page on your site:
 - Navigation section
 - Content section

Page Layout

- Create these sections using **<div>** or tables in conjunction with style sheets
- **<div>** creates *divisions* in your documents.
- A large table containing the entire page can do the same thing
- Use styles to instruct the browser where to put the divs or table cells

Tables for Page Layout

```
<table style="width: 100%;">
<tr>
  <td style="width:20%;">
    <ul>
      <li><a href="records">Records</a>
      <li><a href="records">Cemeteries</a>
    </ul>
  </td>
  <td style="width: 80%;">
    Welcome to the Pocahontas County, Iowa GenWeb site!
    <p>
    Are you looking for your ancestors? We might know where they are!
    </td>
</tr>
</table>
```

Questions?