

Basic HTML

Lecture 16

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1 HTML

2 HTML File Structure

3 HTML Elements

- Headings
- Text
- Lists
- Hyperreferences
- Images
- Tables

4 Assignment

Outline

1 HTML

2 HTML File Structure

3 HTML Elements

- Headings
- Text
- Lists
- Hyperreferences
- Images
- Tables

4 Assignment

- HTML = Hypertext Markup Language.
- “Markup” refers to **tags** embedded within the text that tell how the text is to be rendered.
- For example, the `` tag will render text in boldface.
- “Hypertext” refers to links to other documents or links within the same document.
- The anchor tag `<a>` contains a hyperreference.

HTML

```
<!DOCTYPE html">
```

- An HTML 5 file may begin with the above tag.
- In earlier versions of HTML, the header was more complicated.
- They gave the browser information about the version of HTML that was being used, along with other information.
 - W3C = Worldwide Web Consortium
 - DTD = Document Type Definition
 - 4.01 = HTML Version 4.01
 - EN = English
 - loose = Loose enforcement
 - etc.

HTML Tags

- Most tags have a corresponding closing tag.
- For example, the closing tag for `` is ``.
- HTML5 does not require a closing tag (if one is available), but it is good practice always to include the closing tag.
- A few tags are self-closing.
- For example, the line break tag `
` is self-closing.

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4 Assignment

HTML Structure

HTML Structure

```
<html>
  <head>
    headers
  </head>
  <body>
    body of document
  </body>
</html>
```

- An HTML document is enclosed in `<html>` tags.
- Within these tags are the `<head>` and `<body>` sections.

The header

Titles

```
<head>  
  <title>My First Webpage</title>  
</head>
```

- The header may contain the title of the page.
- The title will appear in the title bar of the browser window.
- Later, we will place PHP and Javascript functions in the header section.

The body

Paragraphs

```
<body>
  <p>This is the first paragraph

  This is still the first paragraph</p>
  <p>This is the second paragraph</p>
</body>
```

- The body contains the content to be displayed.
- Text that is not within tags is rendered as plain text.
- Every span of white space is equivalent to a single blank space.
- The paragraph tag `<p>` can be used to break the content into paragraphs.

Basic Example

Basic Example

```
<html>
<head>
<title>My First Web Page</title>
</head>
<body>
<p>Q: Why did the chicken cross the road?</p>
<p>A: To prove to the opossum that it could be done.</p>
</body>
</html>
```

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4 Assignment

Headings

Headings

```
<h1>Hampden-Sydney College</h1>  
<h2>Databases and Dynamic Webpages</h2>  
<h3>Coms 480</h3>  
<h4>Spring 2018</h4>  
<h5>Bagby 120</h5>  
<h6>MWF 12:30</h6>
```

- There are six levels of headings, with tags `<h1>` through `<h6>`.
- Level 1 is the largest; level 6 is the smallest.

Headings

Centering

```
<h1 align="center">Hampden-Sydney College</h1>
<h2 align="center">Databases and Dynamic Webpages</h2>
<h3 align="center">Coms 480</h3>
<center>
<h4>Spring 2018</h4>
<h5>Bagby 120</h5>
<h6>MWF 12:30</h6>
</center>
```

- The headings may be centered.
 - Use the `<center>` tag, or
 - Use the `align` **attribute**.

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4 Assignment

Text Face

- There are several choices for the text face.
 - `Bold text`
 - `<i>Italic text</i>`
 - `<tt>Teletype text</tt>`
- Combinations are possible.
 - `<i>Bold Italic text</i>`
 - `<i><tt>Italic Teletype Bold text</tt></i>`

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- **Lists**
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4 Assignment

Lists

- HTML can create ordered lists `` or unordered lists ``.
- An unordered list is a bulleted list.
- An ordered list is a numbered list.
- Each item in a list is tagged with a list-item tag ``.

Lists

Unordered List

```
<ul>  
  <li>Randolph-Macon College</li>  
  <li>Roanoke College</li>  
  <li>Hampden-Sydney College</li>  
</ul>
```

- An unordered list of colleges.

Ordered List

```
<ol>  
  <li>Hampden-Sydney College</li>  
  <li>Roanoke College</li>  
  <li>Randolph-Macon College</li>  
</ol>
```

- An ordered list of colleges.

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- **Hyperreferences**
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4 Assignment

Hyperreferences

Hyperreference

```
<a href='hyperreference'>link_text</a>
```

- An anchor tag `<a>` is used to create a hyperreference.
- It uses the attribute `href`.
- When the user clicks on the `link_text`, the link is activated.

Hyperreferences

Hyperreference

Let's look at the latest `news`

- The link text will appear underlined and in a different color.

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4 Assignment

Images

Images

```

```

- An image may be included in a document by using the image tag ``.
- The `src` attribute specifies the name of the file containing the image.
- An `alt` attribute may be included, in case the image does not load in which case the `alt` text appears.
- The height and width of the displayed image may be included, using the `height` and `width` attributes, in which case the image is scaled to fit those dimensions.

Images

Images

```

```

- The height and width do not need to match the dimensions of the image, but they should use the same aspect ratio.

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- **Tables**

4 Assignment

Tables

- The table tag `<table>` may be used to format information in tabular form.
- Within the table element we may list any number of table rows, using the `<tr>` tag.
- The tag `th` is used (normally) in the first row to present the column headings.
- Each entry in a row is indicated by a table data tag `<td>` within the table row elements.

Tables

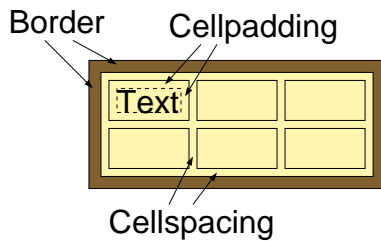
```
<table>
  <tr>
    <th>column_heading</th>
    ⋮
    <th>column_heading</th>
  </tr>
  <tr>
    <td>table_entry</td>
    ⋮
    <td>table_entry</td>
  </tr>
  ⋮
</table>
```

Tables

- By default, the column headings are centered.
- By default, the table data are left justified.

- The `<table>` tag may take a number of attributes.
 - `border` = size of the table border, in pixels.
 - `cellpadding` = padding within cells between the table entry and the cell border, in pixels.
 - `cellspacing` = spacing between adjacent cell borders, in pixels.
 - `width` = width of the table either in pixels or as a percent of the window's width.

Tables



Example

- As a simple example, see the HTML file for the syllabus on the website for this course.
- Create a web page showing the data in the `employees` table of the `company` database.
- Create a photo album of 12 photos with captions, arranged in 3 rows of 4 photos each.

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Assignment

Assignment

- Visit the W3Schools website
 - `http://www.w3schools.com/html/`
 - Visit the sections labeled “Introduction” through “Lists.”