HTML

COEN 10

Lecture 2

HTML

★Hyper Text Markup Language

◎Language for describing web pages.

★Markup language

◎Not a programming language

◎Set of tags to describe web pages

HTML Tags

★HTML markup tags

◎Keywords surrounded by angle brackets

◎Example: <html>

HTML documents

★HTML documents = Web Pages

◎describe web pages

◎contain HTML tags and plain text

HTML documents

★ **Web browser**
  ◎ **Read HTML documents**
     ◇ Display them as web pages
  ◎ **Does not display the HTML tags**
     ◇ Creates a readable page by interpreting the tags

the browser will process the tags and show the text formatted into a webpage

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Example of an html document

```
<html>
<body>

<h1>Heading 1</h1>

<p>Paragraph</p>

</body>
</html>
```

Example of an html document

webpage

```
<html>
<body>

<h1>Heading 1</h1>

<p>Paragraph</p>

</body>
</html>
```

body: visible page content

heading

paragraph

HTML Elements

★ HTML elements
  ◎ start with a start tag
  ◎ end with an end tag
  ◎ include the content
     ◇ tags and text in between
★ Some HTML elements have no content
  ◎ Empty elements are closed in the start tag
★ Most HTML elements can have attributes

HTML Attributes

★**Attributes**
  ◎Provide additional information about the element
  ◎Are specified in the start tag
★**Attributes come in name/value pairs**
  ◎name="value"

Example of an html document

```
<html>
<body style="background-color:magenta">

<h1>Heading 1</h1>

<p>Paragraph</p>

</body>
</html>
```

attribute

HTML Nested Elements

★HTML elements can be nested
  ◎can contain other HTML elements

→HTML documents consist basically of nested HTML elements.

HTML Nested Elements

★Example

```
<html>

<body>
<p>This is my <b>first</b> paragraph</p>
</body>

</html>
```

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HTML Headings

★**Headings**
  ◎**<h1> and </h1> to**   this is the size of the
  ◎**<h6> and </h6>**   heading, h1 is the
                        largest, h6 is the
★**Example**   smallest

<h1>Heading 1</h1>

<h2>Heading 2</h2>

<h3>Heading 3</h3>

HTML Paragraphs

★**Paragraphs**   you use <p> and </p> when
  ◎**<p> and </p>** you are starting a new
                    paragraph, which means there
★**Example**   will be space between the lines

<p>This is a paragraph.</p>

<p>This is also a paragraph.</p>

HTML Links

★**HTML links**
  ◎**<a> and **

HTML Links

★**Example of a remote link**
****
Dr. Figueira
****   attribute

★**Creates a clickable link:**
<u>**Dr. Figueira**</u>

HTML Links

★**Example of a local link**

`<a href="10/10.html">`
`COEN 10`
`</a>`

★**Creates a clickable link:**

<u>COEN 10</u>

HTML Images

★**HTML images**

★`<img />`

← empty element

so inserting image is a case that you don't
need to close the statement with </img>

HTML Images

★**Example of a remote picture**

start with — `<img`
`src="http://www.cse.scu.edu/~sfigueira/Figueira.jpg" ;`
`width="200" ; height="150" />` — end with

← attributes

★**Shows the picture in file**
www.cse.scu.edu/~sfigueira/Figueira.jpg

HTML Images

★**Example of a local picture**

`<img`
`src="figueira.jpg" ;`
`width="200" ; height="150"` /> this is the size you want the
image to display in the webpage

★**Shows the picture in file**
Figueira.jpg

HTML Videos

★HTML videos with controls

```
<video controls>
    <embed>
    <source src="name of the file or URL" />
    </embed>
</video>
```

HTML Videos

★HTML videos with autoplay

```
<video autoplay>
    <embed>
    <source src="name of the file or URL" />
    </embed>
</video>
```

HTML Lines

★The <hr /> tag displays a horizontal line.

HTML Comments

★Comments
  ★Make the code readable and understandable.
  ★Ignored by the browser and not displayed.
★Example
```
<!-- comment -->
```

HTML Breaks

if you don't want space between the lines, you should use <br> and </br>

★ To break a line without starting a new paragraph
  ◎
  ◎ Empty tag, with no ending.
★ Example
<p>This is
an exam
ple of line breaks.</p>

HTML Formatting Tags

★ For formatting output
  ◎ and -- bold
  ◎ <i> and </i> -- italic
  ◎ <u> and </u> -- underline
  ◎ <center> and </center> -- centered
  ◎ <big> and </big> -- increase size
  ◎ <small> and </small> -- decrease size

HTML Formatting Tags

★ Example
<html>
<body>
<h1><big>big</big></h1>
<h2><i>italic</i></h2>
<p>bold</p>
<p><small>small</small></p>
</body>
</html>

HTML Styles

★ Added to HTML elements
  ◎ Style attributes
  ◎ Style sheets (CSS files)
★ Example
style="background-color:red"
style="color:white"
style="font-family:helvetica"
style="text-align:center"

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HTML Styles

★**Examples**

◎**Background Color**

<body style="background-color:red ; color:white">

◎**Header**

<h1 style="text-align:center">

◎**Paragraph**

<p style="font-family:helvetica; color:blue">

HTML Lists

★**Unordered Lists**
  ◎**Bulleted list of items**
  ◎**Tags**
    ◎** and enclose the list**
    ◎** is used for each item**
  ◎**Example**
  <ul>
  **
item 1 **   ·item 1
  **
item 2 **   ·item 2
  **
**

HTML Lists

★**Ordered Lists**
  ◎**Numbered list of items**
  ◎**Tags**
    ◎** and enclose the list**
    ◎** is used for each item**
  ◎**Example**
  <ol>
  **
item 1 **   1. item 1
  **
item 2 **   2. item 2
  **
**

HTML Lists

★**Definition Lists**

  ◎**List of items with a description of each item**

  ◎**Tags**

    ✧**<dl> and </dl> for the list**

    ✧**<dt> and </dt> for each definition**

    ✧**<dd> and </dd> for each description**

HTML Lists

★**Definition Lists**

◎**Example**

    COEN 10
        Intro to Programming
    COEN 11
        Advanced Programming

```
<dl>
  <dt> COEN 10 </dt>
   <dd> Intro to Programming </dd>
   <dt> COEN 11 </dt>
   <dd> Advanced Programming </dd>
</dl>
```

HTML Tables

★**Enclosed by <table> and </table>**

◎**Rows**

◇**Enclosed by <tr> and </tr>**

◇**Data cells**

—**Enclosed by <td> and </td>**

★**A data cell can contain**

◎**text, images, lists, paragraphs, tables, etc.**

HTML Tables

★ **Example**
```
<table>
<tr>
  <td>row A, cell 1</td>
  <td>row A, cell 2</td>
</tr>
<tr>
  <td>row B, cell 1</td>
  <td>row B, cell 2</td>
</tr>
</table>
```