

CS120

Introduction to Web Site Development

Lecture 2 - HTML

Gabor Kondas

California State University, Los Angeles

(Based on slides by John Hurley)

Special Characters

- Characters like © , ½, €, and Σ are available in HTML, but we need a special format for them.
- Example: ©
- There are also numeric codes, used with &#. For example, © can be written as ©
- Ironically, this makes it unsafe to use an ampersand when you really want one. Use this: &
- Complete lists of special characters are easily located on the WWW.

Non-Breaking Space

- ` ` is a non-breaking space
- You can just type a blank space in text, of course, but browsers will usually collapse any series of spaces into one space
- Most browsers will render a series of non-breaking spaces in the way intended
- This is an example of (discouraged) physical formatting

Sub and Sup

- Description
 - Marks subscript and superscript phrasing content.
- Comments
 - Start Tag: Required
 - End Tag: Required
 - Self-Closing Tag: Forbidden
- Example
 - `b₀2⁰ + b₁2¹`

Attributes

- Elements have attributes which may be set by the developer
- Attributes are set inside the element start tag with this syntax:
`<element attribute name = "attribute value">`
- For example
`<p id = "godzilla">`

Global Attributes

- HTML elements may specify attributes within the start tag
- Global attributes are attributes common to all HTML elements. All elements have these attributes, while most elements also have other attributes.
- These include
 - title
 - id

The TITLE Attribute

- Title of the element.
- Most browsers will displays a tooltip when you hover the mouse over an HTML element. No spaces.
- Example
 - `<p title="skin">`It has long been known that there is more than one way to skin a cat, but experts have debated just how many ways there are. The latest research from the Johns Hopkins School of Forensic Vetrinary Medicine indicates that there are exactly three ways to skin a cat. The first way is A. The second way is B. The third way is C. If you learn all three approaches, you will always be prepared to skin any cat you encounter.`</p>`

More HTML Elements

- Don't try to memorize all the elements we discuss
- Labs and the exam in this class are open-book and open-notes, so you will be able to consult references for elements
- You will soon know the most common elements by memory anyway

More HTML Elements

- The hr Element (Horizontal Rule)
- The pre Element (Preformatted Text)
- The bdo Element (Bidirectional Override)
- The ol and ul Elements (Lists)
 - The li Element (List Item)

The Pre Element

- Description:
 - Used to render preformatted text
- Comments:
 - Start Tag: Required
 - End Tag: Required
 - Self-Closing Tag: Forbidden
- Example:
 - `<pre>Preformatted text!</pre>`
- Works well for showing poetry, programming code, etc, where line breaks and indentations must be preserved

The Pre Element

Compare this:

<p>

Hamlet

Whose grave's this, sirrah?

Gravedigger

Mine, sir.

Hamlet

I think it be thine, indeed; for thou
liest in't.

</p>61

To this:

<pre>

Hamlet

Whose grave's this, sirrah?

Gravedigger

Mine, sir.

Hamlet

I think it be thine, indeed; for thou
liest in't.

61

</pre>

The Pre Element

<pre>

When I die
My atoms will come undone
I'll be space dust once again.

The wind will carry me,
Scatter me everywhere
Like a dandelion in springtime.

I'll visit worlds and alien moons
It will be so darned poetic,
Until I land on your sandwich.

</pre>

The Code Element

- Used to render programming code
- Browsers often display in a monospaced font
- Does NOT preserve line breaks and indentation in most browsers; put it inside <pre>

<pre>

<code>

```
public class Mathematician{
    public static void main(String[] args){
        int i = 0;
        int j = 1;
        while(i != 1) {
            j += 1;
        }
        System.out.println("value of i after the loop is " + i);
    }
}
```

</code>

</pre>

The LI Element

- Description:
 - Defines an ordered or unordered list item
 - Do not omit the closing tag, even if the code appears to work correctly in a browser!
- Example:
 - `Cs120`

The OL Element

- Description:
 - Defines an ordered list
 - Optional START attribute may be overridden

- Example:

```
<ol start="3">  
  <li>Thomas Jefferson</li>  
  <li>James Madison</li>  
  <li>James Monroe</li>  
</ol>
```

The UL Element

- Description:
 - Defines an unordered list
- Example:

```
<ul>  
  <li>John</li>  
  <li>Paul</li>  
  <li>George</li>  
  <li>Ringo</li>  
</ul>
```


The Anchor Element (Basics)

- Example:
 - `Yahoo`
- Use the anchor element to define hyperlinks
 - A hyperlink is a reference to an external document such as another HTML page, image, movie, etc.
- The content of the anchor element forms the link

The A Element (Attributes)

- Attributes

- href: Specify the destination
- target: Specify where to open the linked document
 - There are several options for this
 - The only one we are concerned with now is "_blank", which means open in a new window
 - Omit this attribute to open the link in the same window as the linking document
- title: Specify a tool tip when the mouse hovers over the anchor text

Comments

Comments are ignored by browsers; they are used to help human beings understand your markup

- Syntax:
 - `<!-- comment text -->`
 - Comment text may not contain double dashes
 - Comment text should not contain `<` or `>` either
- Example:
 - `<!-- This is a comment. -->`

Viewing Source From WWW Sites

- All common browsers have “view source” functions
- Usually found in the menus or by right-clicking in the document window
- At this point, you know enough to be able to learn from viewing HTML on sites over the internet
- Also note that different sites use different html standards, and that there is a lot of sloppy html around

Validator

You can check validity of html online

<http://validator.w3.org>

The easiest of several ways is to go to the “validate by direct input” page and cut and paste the html