

91.113 Exploring the Internet, Fall 2011

## Lecture 14. A Very Brief Introduction to HTML and XHTML, part III



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### Image

- Images:
  - The `img` element's `src` attribute specifies an image's location
  - Every `img` element must have an `alt` attribute, which contains text that is displayed if the client cannot render the image
    - The `alt` attribute makes web pages more accessible to users with disabilities, especially vision impairments
    - `width` and `height` are optional attributes
      - If omitted, the browser uses the image's actual width and height
      - Images are measured in pixels

```

1 <?xml version = "1.0" encoding = "utf-8"?>
2 <!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
3   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
4
5 <!-- Fig. 4.5: picture.html -->
6 <!-- Images in XHTML files. -->
7 <html xmlns = "http://www.w3.org/1999/xhtml">
8   <head>
9     <title>Images</title>
10  </head>
11
12  <body>
13  <p>
14    <img src = "apple.jpg" width = "50" height = "100"
15      alt = "Apple how to program book cover" />
16    <img src = "http://img.jpg" width = "50" height = "100"
17      alt = "Java How to Program book cover" />
18  </p>
19  </body>
20 </html>

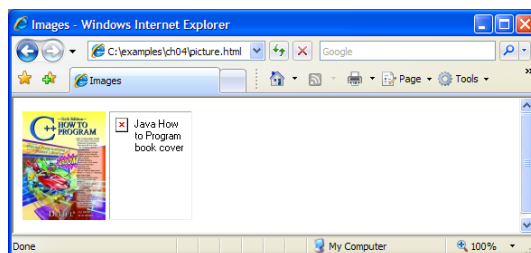
```

Specifies the image file's location

Specifies the image's width

Specifies the image's height

Specifies text to display if the image is unavailable



Images in XHTML files.

- Create an image hyperlink by nesting an `img` element in an anchor element

```

1 <?xml version = "1.0" encoding = "utf-8"?>
2 <!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
3   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
4
5 <!-- Fig. 4.6: nav.html -->
6 <!-- Images as link anchors. -->
7 <html xmlns = "http://www.w3.org/1999/xhtml">
8   <head>
9     <title>Navigation Bar</title>
10  </head>
11
12  <body>
13  <p>
14    <a href = "index.html">
15      <img src = "buttons/index.jpg" width = "65"
16        height = "50" alt = "Index Page" />
17    </a>
18
19    <a href = "list.html">
20      <img src = "buttons/list.jpg" width = "65"
21        height = "50" alt = "List Example Page" />
22    </a>
23
24    <a href = "contact.html">
25      <img src = "buttons/contact.jpg" width = "65"
26        height = "50" alt = "Contact Page" />
27    </a>
28  </p>

```

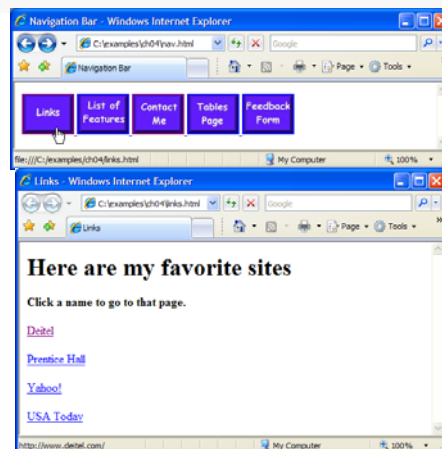
Creates a hyperlinked image

Images as link anchors  
(Part 1 of 2).

```

29   <a href = "table1.html">
30     <img src = "buttons/table.jpg" width = "65"
31       height = "50" alt = "Table Page" />
32   </a>
33
34   <a href = "form.html">
35     <img src = "buttons/form.jpg" width = "65"
36       height = "50" alt = "Feedback Form" />
37   </a>
38 </p>
39 </body>
40 </html>

```



Images as link anchors  
(Part 1 of 2).

## table

- **table element**
  - defines an XHTML table
  - Attribute `summary` summarizes the table's contents and is used by speech devices to make the table more accessible to users with visual impairments
  - Element `caption` describes the table's content
    - The text inside the `<caption>` tag is rendered above the table in most browsers

- A table can be split into three distinct sections:
  - Head (`thead` element)
    - Table titles
    - Column headers
  - Body (`tbody` element)
    - Primary table data
  - Foot (`tfoot` element)
    - Calculation results
    - Footnotes
    - Above body section in the code, but displays at the bottom in the page

- Element tr
  - Defines individual table rows
  - Element th
    - Defines a header cell
  - Element td
    - Contains table data elements

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```

1 <?xml version = "1.0" encoding = "utf-8"?>
2 <!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
3   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
4
5 <!-- Fig. 4.10: table1.html -->
6 <!-- Creating a basic table. -->
7 <html xml ns = "http://www.w3.org/1999/xhtml">
8   <head>
9     <title>A simple XHTML table</title>
10  </head>
11
12  <body>
13
14    <!-- the <table> tag opens a table -->
15    <table border = "1" width = "40%"
16      summary = "this table provides information about
17        the price of fruit">
18
19      <!-- the <caption> tag summarizes the table's -->
20      <!-- contents (this helps the visually impaired) -->
21      <caption><strong>Price of Fruit</strong></caption>
22
23      <!-- the <thead> section appears first in the table -->
24      <!-- It formats the table header area -->
25      <thead>
26        <tr> <!--<tr> inserts a table row -->
27          <th>Fruit</th> <!-- insert a heading cell -->
28          <th>Price</th>
29        </tr>
30      </thead>
31

```

Begins a new XHTML table

Sets the table's border to be one pixel wide

Sets the table's width to 40% of the screen

Describes the table's contents in the summary attribute

Sets the text above the table

Creates a head element

Makes a new table row

Creates a table heading cell in the new table row

Creates the next cell in the row

Creating a basic table (Part 1 of 3).

```

32 <!-- the <tfoot> section appears last in the table -->
33 <!-- It formats the table footer -->
34 <tfoot>
35 <tr>
36 <th>Total</th>
37 <th>$3.75</th>
38 </tr>
39 </tfoot>
40
41 <!-- all table content is enclosed -->
42 <!-- within the <tbody> -->
43 <tbody>
44 <tr>
45 <td>Apple</td> <!-- insert a data cell -->
46 <td>$0.25</td>
47 </tr>
48 <tr>
49 <td>Orange</td>
50 <td>$0.50</td>
51 </tr>
52 <tr>
53 <td>Banana</td>
54 <td>$1.00</td>
55 </tr>
56 <tr>
57 <td>Pineapple</td>
58 <td>$2.00</td>
59 </tr>
60 </tbody>
61 </table>
62
63 </body>
64 </html>

```

Creates a foot section

Creates table header cells at the bottom of the table

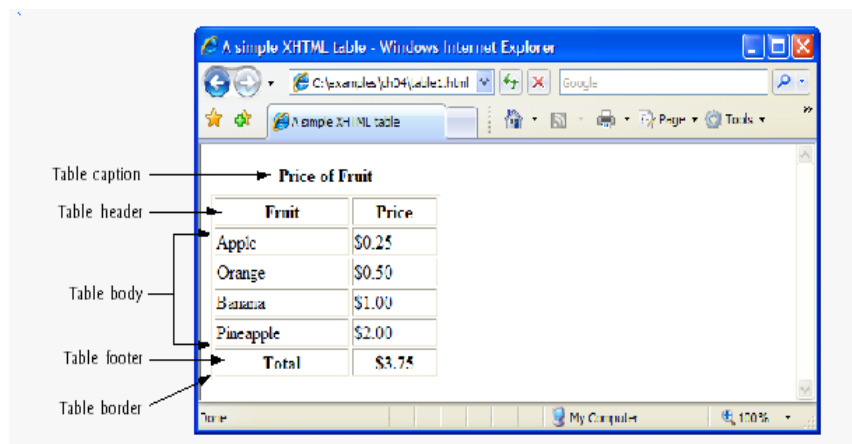
Creates a body section

Inserts a cell in the body of the table

Ends the table

Creating a basic table (Part 2 of 3).

Creating a basic table (Part 3 of 3).



- You can merge data cells with the rowspan and col span attributes
  - The values of these attributes specify the number of rows or columns occupied by the cell
  - Can be placed inside any data cell or table header cell

## Further Reading

- Wikipedia's explanation of HTML:
  - <http://en.wikipedia.org/wiki/HTML>
- W3schools.com XHTML Tutorial
  - <http://www.w3schools.com/xhtml/>
- W3schools.com CSS Tutorial
  - <http://www.w3schools.com/css/default.asp>
- W3schools.com JavaScript Tutorial
  - <http://www.w3schools.com/js/default.asp>
- HTML Color Codes:
  - <http://www.computerhope.com/htmlcolor.htm>
  - <http://html-color-codes.info/>
- HTML Tag Quick Reference Guide
  - <http://www.devx.com/projectcool/Article/19816>