

1 IMAGES AND ICONS

HTML5 and CSS3

2 IMAGES IN HTML—PAGE 1

- Since HTML is text, images are not inserted into the HTML document but rather uses the `<img>` tag to place the images into the web page
- Creates a holding place in the document for the referenced image

3 IMAGES IN HTML—PAGE 2

- Different image types used on the web:
 - .jpg or .jpeg (Joint Photographic Experts Group)—best used for photographs and scans; uses a type of compression that can display complex colors
 - .gif (Graphic Interchange Format)—mostly used for small illustrations and logos; supports only 256 colors and transparency on a single color; animated option
 - .png (Portable Network Graphics)—replacement for .gif with millions of colors and multiple color transparency; developed specifically for the web

4 INLINE IMAGES—PAGE 1

- The `<img>` tag is a one-sided element that inserts a graphic image file into the web document
- Format:

```
<img src= "path/filename" alt="content" />
```

 - `src`—name and location of the graphic image file
 - `alt`—alternate “text” displayed instead if the image file is not available (called a *broken image*)

5 INLINE IMAGES—PAGE 2

- Example:

```

```

 - The optional width and height attributes should represent actual size of image file measured in pixels (holds required space to display image) and not be used to resize it
 - To resize an image use graphics software

7 HYPERLINK ON AN IMAGE—PAGE 1

- An object such as an image may *replace* the content in a hyperlink so the user can click on the object
- Format:

```
<a href = "address"> <img src = "path/filename /"> </a>
```

8 HYPERLINK ON AN IMAGE—PAGE 2

- Example:

```
<a href="http://www.sunysuffolk.edu">  
  
```

```
</a>
```

- Renders as a clickable image

9 ☐ THUMBNAILS—PAGE 1

- A thumbnail is small image representation of a larger image usually intended to make it easier and faster to look at or manage a *group* of larger images
- The series (group) of smaller images might serve as an “index” to the individual larger ones
- The user clicks on the thumbnail image and the larger image then is retrieved and displayed

10 ☐ THUMBNAILS—PAGE 2

- Format:

```
<a href = "path/filename">  
  <img src = "path/filename" />  
</a>
```

- The href in the anchor <a> points to the larger image
- The src for image is the thumbnail

11 ☐ THUMBNAILS—PAGE 3

- Example:

```
<a href="rainbow_lg.png">  
    
</a>
```

13 ☐ THE HTML5 FIGURE ELEMENT—PAGE 1

- The <figure> tag specifies self-contained graphical content
- Used both for:
 - Documentation
 - To identify a specific image (and related elements) for CSS formatting

14 ☐ THE HTML5 FIGURE ELEMENT—PAGE 2

- Format:

```
<figure>  
    
</figure>
```

- There may be other tags/elements inside <figure>

15 ☐ THE HTML5 FIGURE ELEMENT—PAGE 3

- Example:

```
<figure>  
    
</figure>
```

16 ☐ **SAMPLE CSS FOR A FIGURE ELEMENT**

- Example:


```
figure
{
    display: block;
    width: 100%;
    margin-bottom: 10px;
}
figure img
{
    display: block;
    margin: 0px auto;
}
```

17 ☐ **THE HTML5 FIGCAPTION ELEMENT—PAGE 1**

- The <figcaption> element defines a “caption” for a <figure> element
- Within the <figure> as a “child” element, can be:
 - The first item (displayed above image)
 - The last last (displayed below image)

18 ☐ **THE HTML5 FIGCAPTION ELEMENT—PAGE 2**

- The <figcaption> element is used both for:
 - Documentation
 - To identify a specific caption under an image (and within a figure element) for CSS formatting

19 ☐ **THE HTML5 FIGCAPTION ELEMENT—PAGE 3**

- Format:


```
<figure>
    
    <figcaption>caption_text</figcaption>
</figure>
```

 - The <figcaption> element may be the first or last element inside the <figure> block

20 ☐ **THE HTML5 FIGCAPTION ELEMENT—PAGE 4**

- Example:


```
<figure>
    
    <figcaption>Colorado Double Rainbow by Watts213</figcaption>
</figure>
```

21 ☐ **SAMPLE CSS FOR A FIGCAPTION ELEMENT**

- Example:

```
figcaption
{
    display: block;
    width: 100%;
    margin: 10px auto 0px;
    line-height: 1em;
    text-align: center;
    font-style: italic;
    font-size: 0.7em;
}
```

23 IMAGE ROLLOVER USING CSS—PAGE 1

- A rollover effect occurs when a user moves ("hovers") the mouse over an object
- For an image this might be changing one image to another
- Could be accomplished by modifying background-image property value for the :hover selector of a block-level element such as a paragraph, e.g.
p:hover

24 IMAGE ROLLOVER USING CSS—PAGE 2

- Format:

```
element
{
    background-image: url("path/filename")
}
element:hover
{
    background-image: url("path/alternateFilename")
}
```

- The *element* is the same one

25 IMAGE ROLLOVER USING CSS—PAGE 3

- Example:

```
figure#thirds p
{
    background-image: url("thirds.jpg");
    width: 505px;
    height: 355px;
    margin-left: 75px;
}
figure#thirds p:hover
{
```

```
background-image: url("thirdsFlipped.jpg");
}
```

27 IMAGE MAPS

- Sometime a user may be able to click on different regions (called hotspots) within the same image
- Clicking on these different areas of the image lets the user link to different web resources
- The developer begins by defining the locations on the image
- Use a graphics software program to “map out” the different regions

28 THE MAP BLOCK—PAGE 1

- The map block defines the structure of areas on an image, each of which, when clicked, can link to a different web resource
- Format:

```
<map name = "mapName">
    the individual areas are defined here
</map>
```

29 THE MAP BLOCK—PAGE 2

- Example:

```
<map name="logomap">
  <area shape="circle" coords="82, 82, 80" href="home.htm" alt="CAMShots" />
  <area shape="rect" coords="235, 120, 310, 150" href="tips.htm" alt="Tips" />
  <area shape="rect" coords="340, 120, 510, 150" href="glossary.htm"
  alt="Glossary" />
</map>
```

30 THE AREA “HOTSPOTS”—PAGE 1

- Within the map block individual <area> tags specify the separate regions on the image and each of the web resources to which they link
- The *coordinates* of the individual hotspots are measured from the upper-left corner of the image itself
 - (Not from upper-left corner of web page)

31 THE AREA “HOTSPOTS”—PAGE 2

- Format:

```
<area shape="shape" coords="coordinates" href="reference" alt="text" />
```

- The *shape* may be:

- rect—a rectangle with the x and y *coordinates* of the upper-left and lower-right corners
- circle—with center x and y *coordinates*, plus the radius
- poly—a multi-sided polygon with a series of x and y corner *coordinates* as determined by the designer

- The href reference is the web document or other resource linked to

32 **THE AREA “HOTSPOTS”—PAGE 3**

- Example:

```
<map name="logomap">
  <area shape="circle" coords="82, 82, 80" href="home.htm" alt="CAMShots" />
  <area shape="rect" coords="235, 120, 310, 150" href="tips.htm" alt="Tips" />
  <area shape="rect" coords="340, 120, 510, 150" href="glossary.htm"
alt="Glossary" />
</map>
```

- First example is a circle with the center at x = 82 and y = 82 with radius of 80
- Last two examples are rectangles with coordinates:
 1. Upper-left x = 235 and y = 120, and lower-right x = 310 and y = 150
 2. Upper-left x = 340 and y = 120, and lower-right x = 510 and y = 150

33 **APPLYING AN IMAGE MAP**

- The image tag must contain a reference to the map name
- The value assigned to the usemap attribute is the designer assigned name that matches the name attribute value in the map tag
- The format is:

```

```

- The hash (#) symbol precedes the mapName

- Example:

```

```

35 **FAVICON IMAGES—PAGE 1**

- A favicon (meaning “favorite icon”) is a small “icon” image file displayed next to the page’s title on the browser tab
 - Icon images should be 16 × 16 pixels in size
- Created by using a <link> tag in the <head> section

36 **FAVICON IMAGES—PAGE 2**

- Format:

```
<link href="path/filename" rel="shortcut icon" />
```

- href—name and location of the graphic icon file
- rel—assigned the value “shortcut icon” means a *favicon*

- Example:

```
<link href="camshotsIcon.ico" rel="shortcut icon" />
```