week::five
Coding Imagery for the Web

Inline Images in HTML

Overview

- The original method for inserting images into an HTML page.
- Inline images are part of the document flow and affect other page elements.
- Images by default are displayed as **inline** (don't create new paragraphs when closed).
  - They can, however, be converted to *block* for display purposes.
  - `display: block;`
- Use the **<img />** tag to add images:

  ```
  <img src="common/art/pooka.png" alt="Dig Dug Pooka" />
  ```

  - The **alt** attribute allows you to specify a text alternative to the image, giving users who have limited/no vision information about the image, and providing search engines with some description of the image.
  - Width and height can by specified in the HTML but are not required and not encourage. Sizing should instead be set using CSS, either directly or preferably by setting the size of its parent container.

Common HTML & CSS Options for Inline Images

- Image can be made links by wrapping them in an <a> tag.

  ```
  <a href="/contact.html"><img src="art/contact_btn.png" /></a>
  ```

- Can be **floated** left or right to allow text to wrap around the image.

  ```
  article p img {
      float: right;
  }
  ```

- Use **border-radius** to round the corners of an image. To make a circle of a square image, set the value to half of the image width/height.

  ```
  article p img {
      border-radius: 10px;
      border-radius: 50%;      /* For full-circle appearance for square images */
  }
  ```

- Use the **border** property to draw a border around an image. To create space between the image and the border, add **padding** to the image.

  ```
  article p img {
      border: 1px solid #aaa;
      padding: 10px;
  }
  ```

- Images can have **margin** applied to push other elements away.

  ```
  article p img {
      float: right;
      margin-left: 1.2em;
  }
  ```

Background Imagery with CSS

Overview

- o CSS can add imagery to a Web page via the `background` property.
- o Images added this way reside in the "background" of an element (including the `<body>` tag), allowing other content (text, other images, etc.) to be placed above it.
- o Images that are **simply decoration** in a site design should, if possible, be set as background images in CSS (keeping content & presentation separate).
- o By default, background images **repeat left-to-right; top-to-bottom**.
- o Almost all elements can have a background image added to it, including when using the `:hover` CSS pseudo-class.
- o Background images *cannot* have anchor links directly applied to them.

Browser Support

- o Elements with a single background image are well-supported in all browsers.
- o Support for *multiple* **background images** in the same element is now supported in all modern browsers.

Z-Ordering of HTML Content

Properties

- o `background-color`   Set the color of the background.

- o `background-image`   Set the URL of the image to be used. Link is relative to the location of the CSS code (not the HTML file).

- o `background-position`   Set the image's position in the CSS box.
  Left/right is **first** value; top/bottom is **second**.

- o `background-repeat`   Set how the image repeats. By default, the image repeats left-to-right, top-to-bottom.

- o `background-size`   Set the size of a background image. Can be set using %, px, ems, or use auto for default image size. Use the `cover` option to auto-scale the background image to fill the container element.

- o `background-origin`   Change the starting point of the background positioning calculation. Default is `padding-box`, but can also be `border-box` and `content-box`.

- o `background`   Shorthand to define all of the above. Note that unspecified properties are reset to the defaults.

Examples

```
div#header {
     background-color: #dfdfdf;              /* Set Bg color to light gray
     background-image: url(art/my_logo.gif); /* Specify the file
     background-position: left top;          /* Specify origin point
     background-repeat: no-repeat;           /* Don't repeat the image
     background-size: 90%;                   /* Shrink image to 90%;
     background-origin: content-box;         /* Images contained within content box
}
div#header {                                 /* Shorthand Bg example
     background: #dfdfdf url(art/my_logo.gif) left top no-repeat;
   /*   Background color is set to light gray, the URL is specified,
        the image origin is the left top point (0 0), and the image
        will not repeat.      */
}
div#header section {
   /*   CSS3 supports multiple background images in the same element */
     background: url(../art/pooka.gif) center center no-repeat,
       url(../art/round_church.jpg) left bottom no-repeat,
       url(../art/diagonal_stripes.png) 0 -280px repeat-x,
       url(../art/grid.png) 0 0 repeat,
       rgba(144,199,228,1);
}
```