

## **Lecture 5**

### **Images in HTML**

#### **1. Images**

Images are still the most common and universal media. On the Internet, images are used for all kinds of reasons such as to enhance websites, to illustrate stories, in as displays, to present products or services, as stand-alone "a picture is worth a thousand words" meaning rich tool, and sure, on social media.

#### **2. Image Types**

Images come in all shapes and sizes, and offer users several forms of data presentation options to choose from. Two of these options are raster and vector images.

##### **2.1 Raster image**

Raster image is a type of map image composed of tiny dots called pixels to form an image. JPEGs, GIFs and PNGs are all raster images. Every photo find online or in print is a raster image. It cannot be scaled to a higher resolution without the loss of quality. They are better at showing photographs and satellite images.

- **GIF Graphics Interchange Format**

GIFs are formed from up to 256 colors in the RGB color space. Due to the limited number of colors, the file size is drastically reduced, therefore these images with just a few color.

- **JPEG (or JPG) - Joint Photographic Experts Group**

JPEGs might be the most common file type you run across on the web, and more than likely the kind of image that is in your company's MS Word version of its letterhead. JPEGs are known for their "lossy" compression, meaning that the quality of the image decreases as the file size decreases.

- **PNG – Portable Network Graphics**

PNGs are amazing for interactive documents such as web pages, but are not suitable for print. While PNGs are "lossless", meaning you can edit them and not lose quality, they are still low resolution. It is the image good for both flat color and photographic images.

### 2.1 Vector image

Vector image is a type of map image composed of connected lines and curves; it is more flexible and can be scaled up or down (zoomed in or out) without any loss of quality. They are better at showing map outlines and contours, and they are highly scalable.

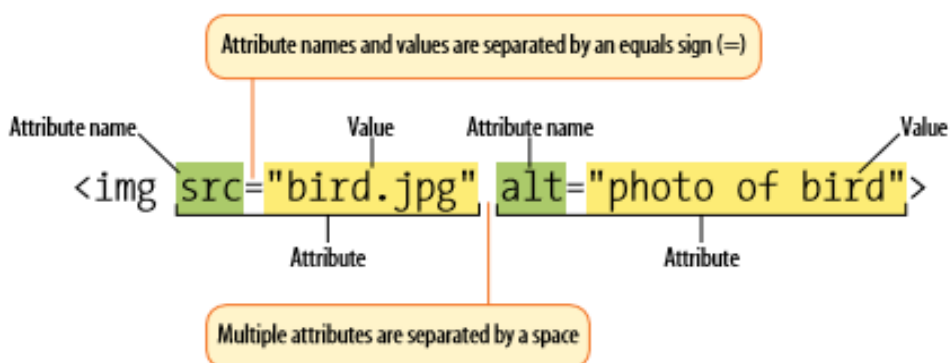
### 3. Adding Images

Images appear on web pages in two ways which are embedded in the inline content or as background images. Background images are added using **Cascading Style Sheets**.

To add one or more one image in web page the **img** element is used, as example to add a particular image

```

```



- The image element (<img>) is an empty element, without a separate closing tag which tells the browser to get an image file and insert it in the text.
- The src and alt attributes are required in the img element. The attributes go after the element name, separated by a space.
- The src ("source") attribute is required and defines the source of the image, It specifies the path pointing to the image that is need to embed in the page, which can be a relative path or absolute URL.
- The alt (alternative text) attribute provides brief description of the image, for use in situations where the image cannot be seen or displayed or takes a long time to display because of a slow internet connection or an error in the src attribute. The value of the alt attribute should describe the image.

**Note:** The broken link icon and the alt text are shown if the browser cannot find the image. Therefore, make sure that the image actually stays in the same path in relation to the web page

- Width and height attributes can be used to specify the width and height of image in pixels. These attributes tell the browser the dimensions at which the image should be displayed

### **Example 1:**

The following code disply Apple logo image:

```
<html>
<head>
  <title>First image example</title>

</head>
<body>
<h1> This is an apple company image </h1>

</body>
</html>
```

And the output

**This is an apple company image**



### **Example 2:**

```
<!DOCTYPE html>
<Html>
<Head>
<Title> Image Tge </Title>
</Head>
<Body>
<h3>Displayed Image </h3>

</Body>
</Html>
</Body>
</Html>
```

### **Example 3:**

```
<!DOCTYPE html>
<Html>
<Head>
<Title> Image Tge </Title>
</Head>
<Body>
<h3>Displayed Image </h3>

</Body>
</Html>
</Body>
</Html>
```