

CHAPTER 9

IMAGE AND MULTIMEDIA

Learning Objectives:

After reading this INFORMATION SHEET, YOU MUST be able to:

- ❖ Insert a graphic within a web page;
- ❖ Adjust an image's height and width in HTML;
- ❖ Learn how to center, align, and pad images, along with how to adjust their opacity and make them stay at a fixed location;
- ❖ Insert embedded multimedia within the webpage;

This chapter demonstrates about the HTML Image and multimedia which are used to give the better looking for the web pages

CHAPTER 9.1: HTML Image

Images are very important to beautify as well as to depict many complex concepts in simple way on your web page. This tutorial will take you through simple steps to use images in your web pages.

Insert Image

You can insert any image in your web page by using **** tag. Following is the simple syntax to use this tag.

```
<img src = "Image URL" ... attributes-list/>
```

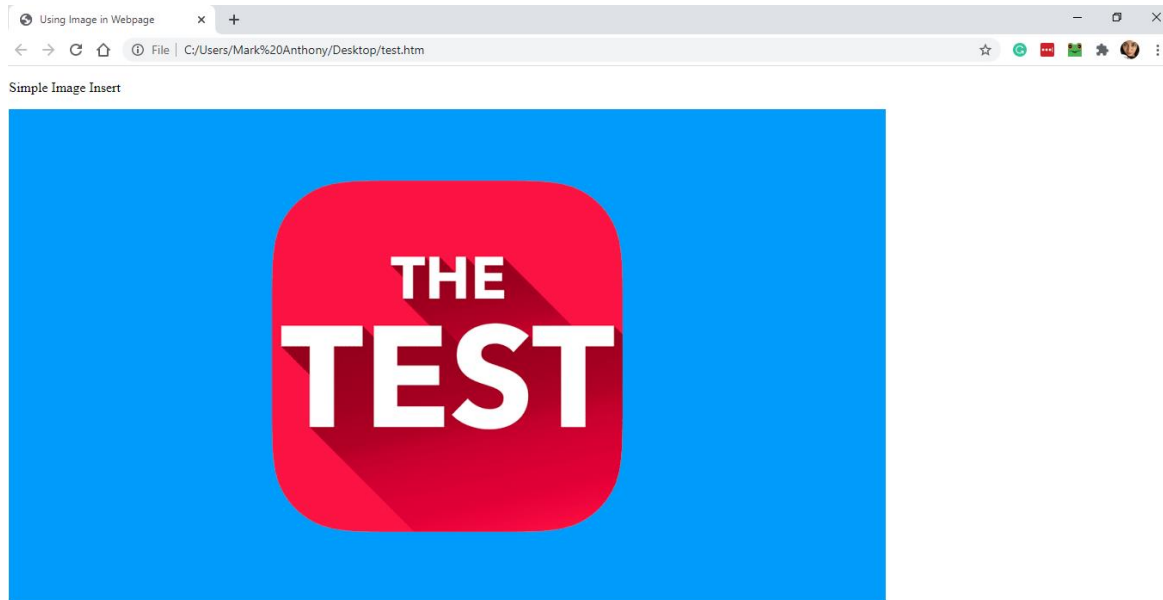
The **** tag is an empty tag, which means that, it can contain only list of attributes and it has no closing tag.

Example

To try following example, let's keep our HTML file test.htm and image file test.png in the same directory –

```
<!DOCTYPE html>
<html>
  <head>
    <title>Using Image in Webpage</title>
  </head>
  <body>
    <p>Simple Image Insert</p>
    <img src = "test.png" alt = "Test Image" />
  </body>
</html>
```

This will produce the following result –



You can use PNG, JPEG or GIF image file based on your comfort but make sure you specify correct image file name in **src** attribute. Image name is always case sensitive.

The **alt** attribute is a mandatory attribute which specifies an alternate text for an image, if the image cannot be displayed.

Set Image Location

Usually we keep all the images in a separate directory. So let's keep HTML file test.htm in our home directory and create a subdirectory **images** inside the home directory where we will keep our image test.png.

Example

Assuming our image location is "image/test.png", try the following example –

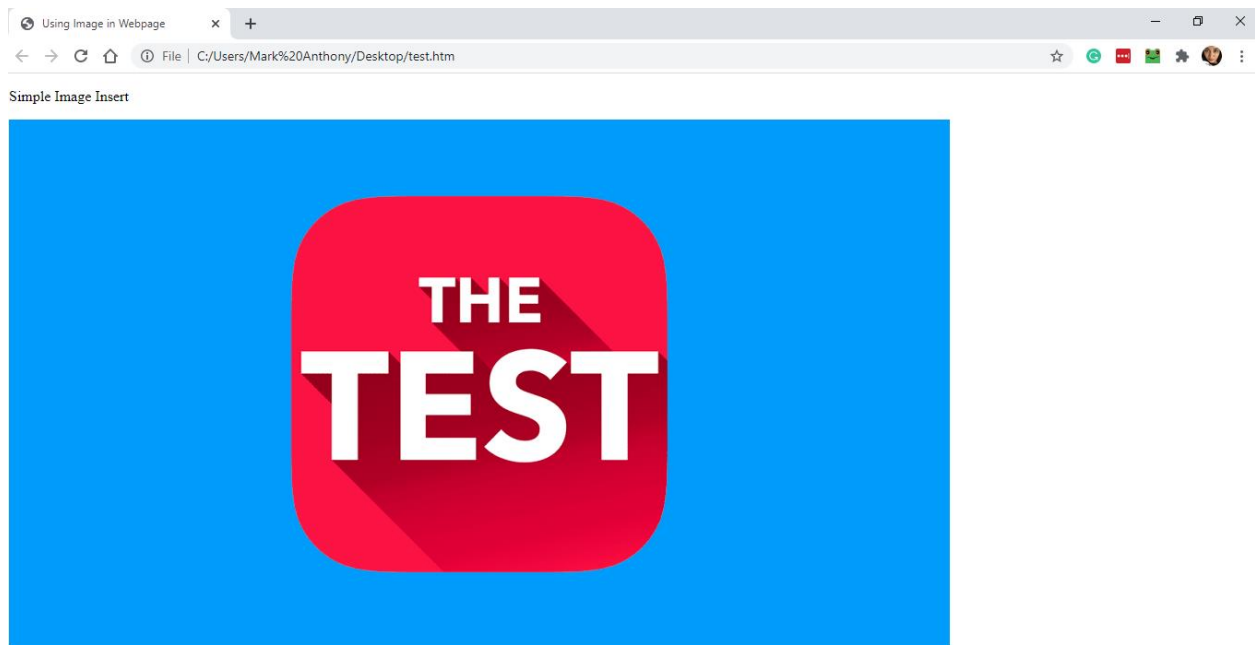
```
<!DOCTYPE html>
<html>

  <head>
    <title>Using Image in Webpage</title>
  </head>

  <body>
    <p>Simple Image Insert</p>
    <img src = "/html/images/test.png" alt = "Test Image" />
  </body>

</html>
```

This will produce the following result –



Set Image Width/Height

You can set image width and height based on your requirement using **width** and **height** attributes. You can specify width and height of the image in terms of either pixels or percentage of its actual size.

Example

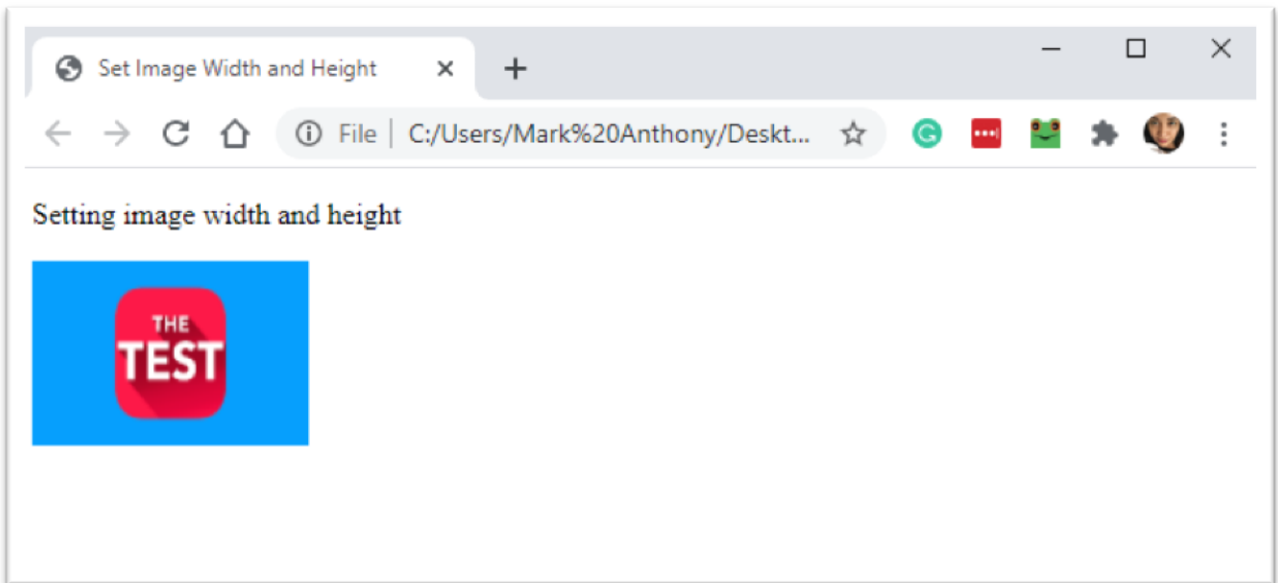
```
<!DOCTYPE html>
<html>

  <head>
    <title>Set Image Width and Height</title>
  </head>

  <body>
    <p>Setting image width and height</p>
    <img src = "/html/images/test.png" alt = "Test Image" width = "150" height = "100"/>
  </body>

</html>
```

This will produce the following result –



Set Image Border

By default, image will have a border around it, you can specify border thickness in terms of pixels using border attribute. A thickness of 0 means, no border around the picture.

Example

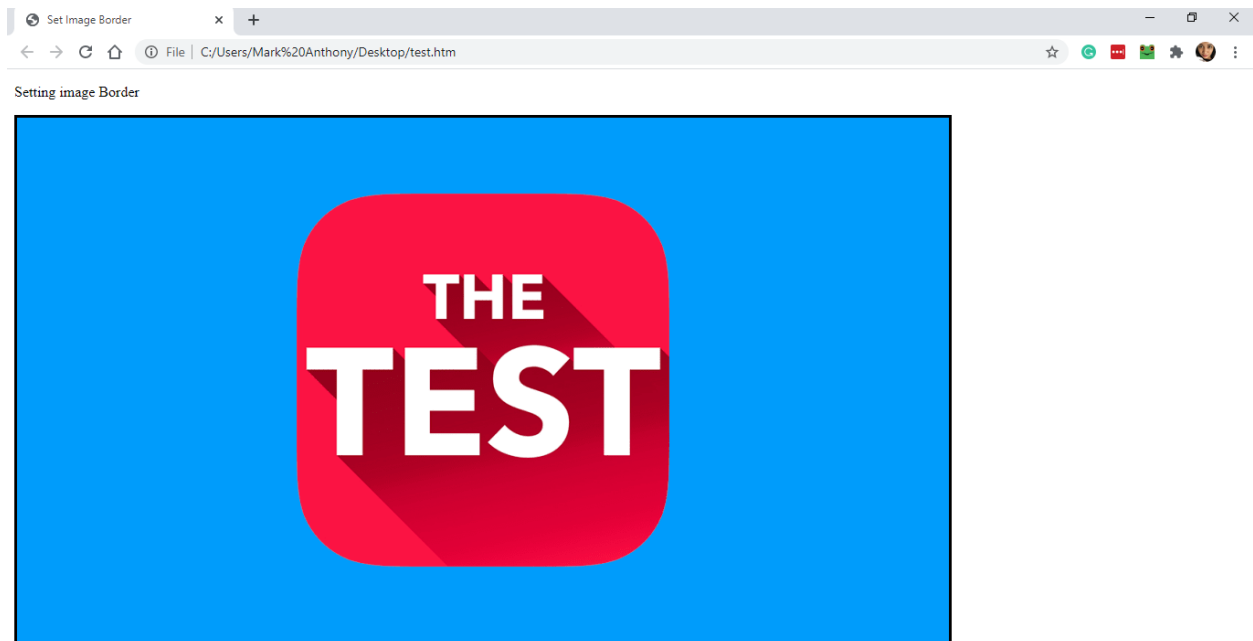
```
<!DOCTYPE html>
<html>

  <head>
    <title>Set Image Border</title>
  </head>

  <body>
    <p>Setting image Border</p>
    <img src = "/html/images/test.png" alt = "Test Image" border = "3"/>
  </body>

</html>
```

This will produce the following result –



Set Image Alignment

By default, image will align at the left side of the page, but you can use **align** attribute to set it in the center or right.

Example

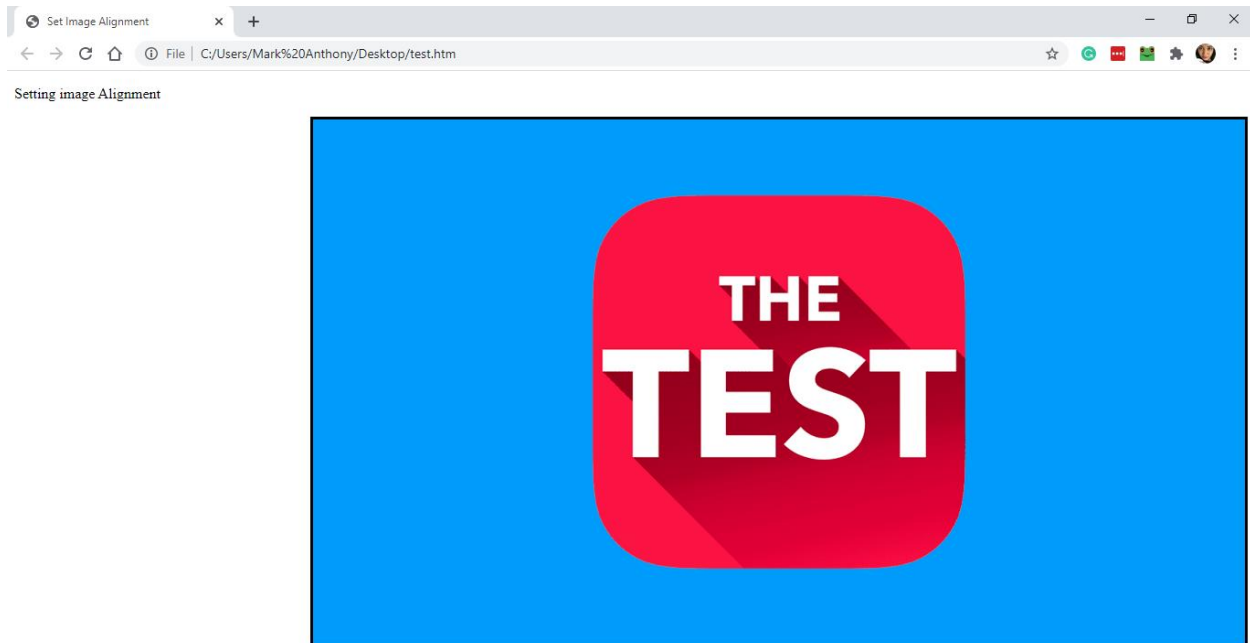
```
<!DOCTYPE html>
<html>

  <head>
    <title>Set Image Alignment</title>
  </head>

  <body>
    <p>Setting image Alignment</p>
    <img src = "/html/images/test.png" alt = "Test Image" border = "3" align = "right"/>
  </body>

</html>
```

This will produce the following result –



CHAPTER 9.1: HTML Background

By default, your webpage background is white in color. You may not like it, but no worries. HTML provides you following two good ways to decorate your webpage background.

- HTML Background with Colors
- HTML Background with Images

Now let's see both the approaches one by one using appropriate examples.

Html Background with Colors

The **bgcolor** attribute is used to control the background of an HTML element, specifically page body and table backgrounds.

Note – The *bgcolor* attribute deprecated in HTML5. Do not use this attribute.

Following is the syntax to use bgcolor attribute with any HTML tag.

```
<tagname bgcolor = "color_value"...>
```

This color_value can be given in any of the following formats –

```
<!-- Format 1 - Use color name -->  
<table bgcolor = "lime" >
```

```
<!-- Format 2 - Use hex value -->
<table bgcolor = "#f1f1f1" >

<!-- Format 3 - Use color value in RGB terms -->
<table bgcolor = "rgb(0,0,120)" >
```

Example

Here are the examples to set background of an HTML tag –

```
<!DOCTYPE html>
<html>

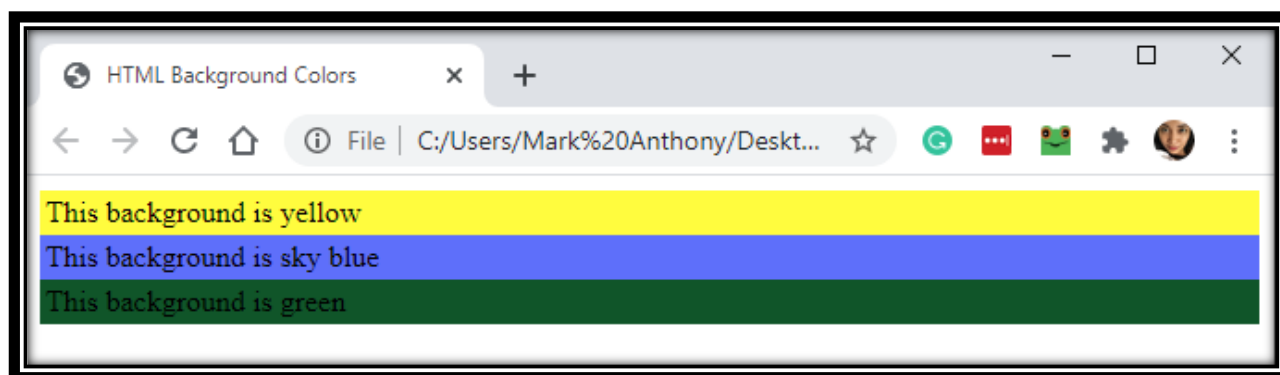
  <head>
    <title>HTML Background Colors</title>
  </head>

  <body>
    <!-- Format 1 - Use color name -->
    <table bgcolor = "yellow" width = "100%">
      <tr>
        <td>
          This background is yellow
        </td>
      </tr>
    </table>

    <!-- Format 2 - Use hex value -->
    <table bgcolor = "#6666FF" width = "100%">
      <tr>
        <td>
          This background is sky blue
        </td>
      </tr>
    </table>

    <!-- Format 3 - Use color value in RGB terms -->
    <table bgcolor = "rgb(255,0,255)" width = "100%">
      <tr>
        <td>
          This background is green
        </td>
      </tr>
    </table>
  </body>
</html>
```

This will produce the following result –



Html Background with Images

The **background** attribute can also be used to control the background of an HTML element, specifically page body and table backgrounds. You can specify an image to set background of your HTML page or table.

Note – The *background* attribute deprecated in HTML5. Do not use this attribute.

Following is the syntax to use background attribute with any HTML tag.

Note – The *background* attribute is deprecated and it is recommended to use Style Sheet for background setting.

```
<tagname background = "Image URL"...>
```

The most frequently used image formats are JPEG, GIF and PNG images.

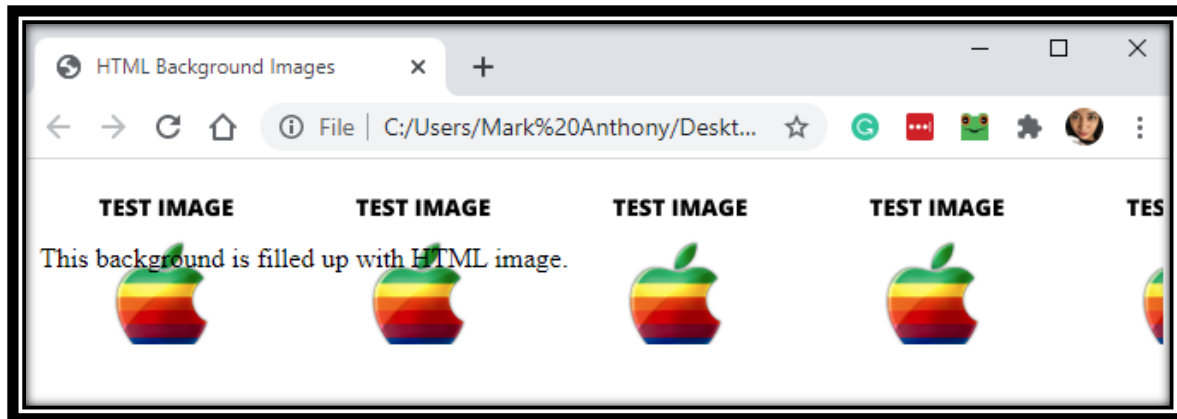
Example

Here are the examples to set background images of a table.

```
<!DOCTYPE html>
<html>
  <head>
    <title>HTML Background Images</title>
  </head>

  <body>
    <!-- Set table background -->
    <table background = "/images/html.gif" width = "100%" height = "100">
      <tr><td>
        This background is filled up with HTML image.
      </td></tr>
    </table>
  </body>
</html>
```


This will produce the following result –



Patterned & Transparent Backgrounds

You might have seen many pattern or transparent backgrounds on various websites. This simply can be achieved by using patterned image or transparent image in the background.

It is suggested that while creating patterns or transparent GIF or PNG images, use the smallest dimensions possible even as small as 1x1 to avoid slow loading.

Example

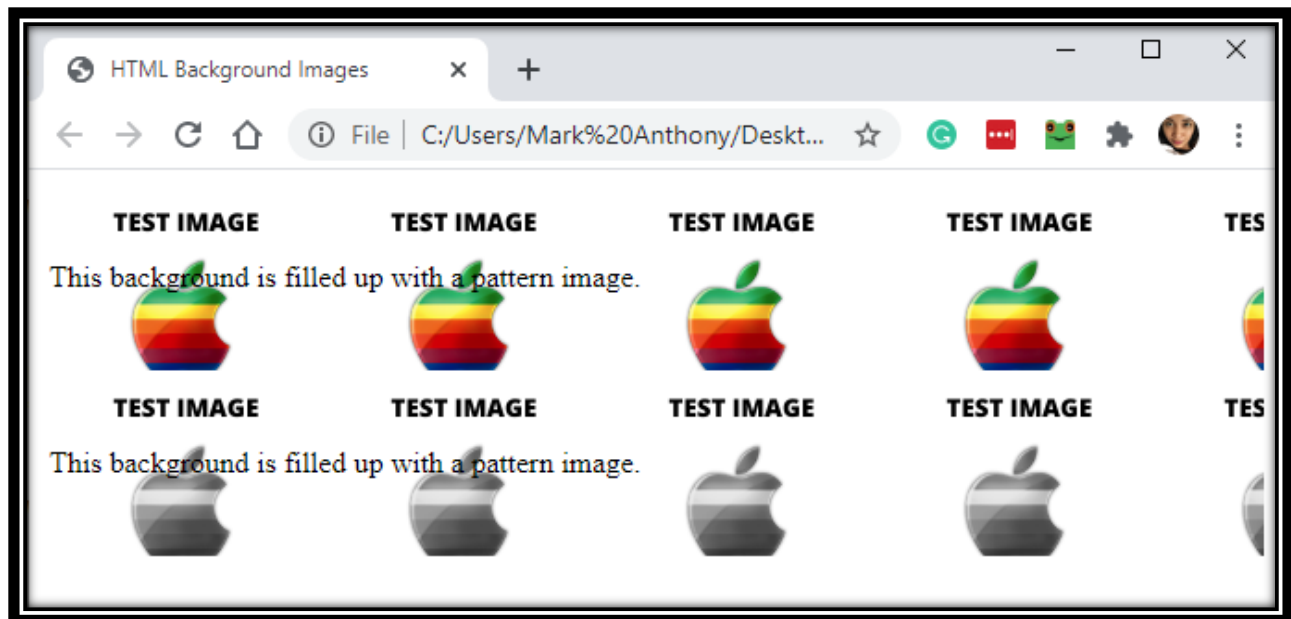
```
<!DOCTYPE html>
<html>

  <head>
    <title>HTML Background Images</title>
  </head>

  <body>
    <!-- Set a table background using pattern -->
    <table background = "/images/pattern1.gif" width = "100%" height = "100">
      <tr>
        <td>
          This background is filled up with a pattern image.
        </td>
      </tr>
    </table>

    <!-- Another example on table background using pattern -->
    <table background = "/images/pattern2.gif" width = "100%" height = "100">
      <tr>
        <td>
          This background is filled up with a pattern image.
        </td>
      </tr>
    </table>
  </body>
</html>
```

This will produce the following result –



CHAPTER 9.2: HTML - Embed Multimedia

Sometimes you need to add music or video into your web page. The easiest way to add video or sound to your web site is to include the special HTML tag called **<embed>**. This tag causes the browser itself to include controls for the multimedia automatically provided browser supports **<embed>** tag and given media type.

You can also include a **<noembed>** tag for the browsers which don't recognize the **<embed>** tag. You could, for example, use **<embed>** to display a movie of your choice, and **<noembed>** to display a single JPG image if browser does not support **<embed>** tag.

Example

Here is a simple example to play an embedded midi file –

```
<!DOCTYPE html>
<html>
  <head>
    <title>HTML embed Tag</title>
  </head>

  <body>
    <embed src = "/html/yourfile.mid" width = "100%" height = "60" >
      <noembed><img src = "yourimage.gif" alt = "Alternative Media" ></noembed>
    </embed>
  </body>
</html>
```

The <embed> Tag Attributes

Following is the list of important attributes which can be used with <embed> tag.

Note –The *align* and *autostart* attributes deprecated in HTML5. Do not use these attributes.

Number	Attribute & Description
1	align Determines how to align the object. It can be set to either center, <i>left</i> or <i>right</i> .
2	autostart This boolean attribute indicates if the media should start automatically. You can set it either true or false.
3	loop Specifies if the sound should be played continuously (set loop to true), a certain number of times (a positive value) or not at all (false)
4	playcount Specifies the number of times to play the sound. This is alternate option for <i>loop</i> if you are using IE.
5	hidden Specifies if the multimedia object should be shown on the page. A false value means no and true values means yes.
6	width Width of the object in pixels
7	height Height of the object in pixels

8	name A name used to reference the object.
9	src URL of the object to be embedded.
10	volume Controls volume of the sound. Can be from 0 (off) to 100 (full volume).

Supported Video Types

You can use various media types like Flash movies (.swf), AVI's (.avi), and MOV's (.mov) file types inside embed tag.

- **.swf files** – are the file types created by Macromedia's Flash program.
- **.wmv files** – are Microsoft's Window's Media Video file types.
- **.mov files** – are Apple's Quick Time Movie format.
- **.mpeg files** – are movie files created by the Moving Pictures Expert Group.

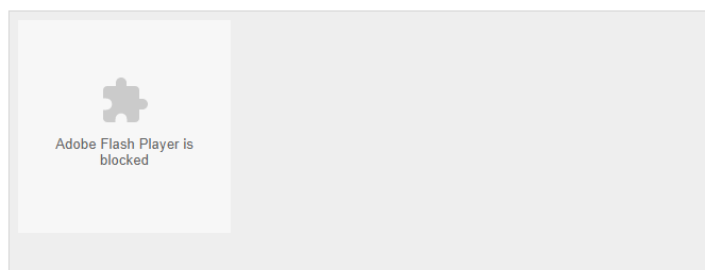
```
<!DOCTYPE html>
<html>

  <head>
    <title>HTML embed Tag</title>
  </head>

  <body>
    <embed src = "/html/yourfile.swf" width = "200" height = "200" >
      <noembed><img src = "yourimage.gif" alt = "Alternative Media" ></noembed>
    </embed>
  </body>

</html>
```

This will produce the following result –



Background Audio

You can use HTML **<bgsound>** tag to play a soundtrack in the background of your webpage. This tag is supported by Internet Explorer only and most of the other browsers ignore this tag. It downloads and plays an audio file when the host document is first downloaded by the user and displayed. The background sound file also will replay whenever the user refreshes the browser.

Note – The bgsound tag is deprecated and it is supposed to be removed in a future version of HTML. So they should not be used rather, it's suggested to use HTML5 tag audio for adding sound. But still for learning purpose, this chapter will explain bgsound tag in detail.

This tag is having only two attributes *loop* and *src*. Both these attributes have same meaning as explained above.

Here is a simple example to play a small midi file –

```
<!DOCTYPE html>
<html>

  <head>
    <title>HTML embed Tag</title>
  </head>

  <body>
    <bgsound src = "/html/yourfile.mid">
      <noembed><img src = "yourimage.gif" ></noembed>
    </bgsound>
  </body>

</html>
```

This will produce the blank screen. This tag does not display any component and remains hidden.

Internet Explorer can also handle only three different sound format files – wav, the native format for PCs; au, the native format for most Unix workstations; and MIDI, a universal music-encoding scheme.

HTML Object tag

HTML 4 introduces the **<object>** element, which offers an all-purpose solution to generic object inclusion. The **<object>** element allows HTML authors to specify everything required by an object for its presentation by a user agent.

Here are a few examples –

Example - 1

You can embed an HTML document in an HTML document itself as follows –

```
<object data = "data/test.htm" type = "text/html" width = "300"
height = "200">
  alt : <a href = "data/test.htm">test.htm</a>
</object>
```

Here *alt* attribute will come into picture if browser does not support *object* tag.

Example - 2

You can embed a PDF document in an HTML document as follows –

```
<object data = "data/test.pdf" type = "application/pdf" width =
"300" height = "200">
  alt : <a href = "data/test.pdf">test.htm</a>
</object>
```

Example - 3

You can specify some parameters related to the document with the **<param>** tag. Here is an example to embed a wav file –

```
<object data = "data/test.wav" type = "audio/x-wav" width = "200"
height = "20">
  <param name = "src" value = "data/test.wav">
  <param name = "autoplay" value = "false">
  <param name = "autoStart" value = "0">
  alt : <a href = "data/test.wav">test.wav</a>
</object>
```

Example - 4

You can add a flash document as follows –

```
<object classid = "clsid:D27CDB6E-AE6D-11cf-96B8-444553540000" id =
"penguin"
  codebase = "someplace/swflash.cab" width = "200" height = "300">

  <param name = "movie" value = "flash/penguin.swf" />
  <param name = "quality" value = "high" />
  <img src = "penguin.jpg" width = "200" height = "300" alt =
"Penguin" />
</object>
```

Example - 5

You can add a java applet into HTML document as follows –

```
<object classid = "clsid:8ad9c840-044e-11d1-b3e9-00805f499d93"  
    width = "200" height = "200">  
    <param name = "code" value = "applet.class">  
</object>
```

The **classid** attribute identifies which version of Java Plug-in to use. You can use the optional *codebase* attribute to specify if and how to download the JRE.

VIDEO TUTORIAL LINK

HTML – Images

<https://www.youtube.com/watch?v=K-GFNxiV7W0&list=PLWPirh4EWFpFI-w62QiV62FOVHcXnynon&index=9>

HTML – Embedded Multimedia

https://www.youtube.com/watch?v=nFCulrQ_Iz0&list=PLWPirh4EWFpFI-w62QiV62FOVHcXnynon&index=19

REFERENCES:

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- https://www.tutorialspoint.com/html/html_embed_multimedia.htm