BACHELOR OF COMPUTER APPLICATIONS

SEMESTER 5

DCA3101

WEB DESIGN

Unit 5

HTML – Images, Horizontal Rules, Address Tag and Text

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1. INTRODUCTION

In the previous unit, you learnt the concepts of markup language, structure of HTML, and creating web pages using basic HTML tags. In this unit you will become familiar with concepts of inserting Images into web page, setting height and width of an image, horizontal rules, setting alignments for horizontal rules, Quotation and citation tag, working with text, setting base font, colour, size for text and marquee tags.

1.1 Objectives:

After studying this unit, you should be able to:

- ❖ *Insert image in webpage and attributes for image tag*
- ❖ *Define image formats and differences*
- ❖ *Describe different styles of text*
- ❖ *Use image as background for web page*

1.2 Inserting Image

In previous unit you have created textual web document. It is rare these days to find a web document without pictures being used in some form. Images are inserted in HTML with IMG tag. Since the tag is specifying the point where image will appear, there is no close tag to indicate the end of image. To display an image on a page, you need to use the src attribute. SRC stands for "source". The value of the src attribute is the URL of the image. The most basic image tag will specify the name (source-SRC) of image file to be inserted.

Ex :< IMG SRC="picture.gif">

A picture is worth a thousand words so a picture can often indicate the purpose of link better than a word. Using images can also make it possible to use an image showing special text effects (such as shadows) that are difficult with html text.

1.1.1 Image Attributes

There are quite a few attributes that an image tag can have. Some of the attributes of the IMG tag are:-

- **SRC:** This is set to the URL of the image to be displayed.
- **LOWSRC:** This is set to a low resolution version of the image to be loaded. This image is displayed while the image specified in the SRC is being downloaded.
- **ALT:** The alternative text which is displayed, if the user has disabled loading of images.
- **BORDER:** This attribute is used to specify the width (in pixels) of the border around the image.
- **HEIGHT:** This attribute specifies the height of the image, either in pixels or in terms of percentage of the window or frame. To specify the height in terms of pixels, use integral values. To specify as a percentage put a % sign after the integral percentage value.
- **WIDTH:** This attribute is used to specify the width of the image in similar terms as the HEIGHT attribute.
- **ALIGN:** This attribute is used to specify the alignment of the image in relation to the surrounding text.

Some of the values that can be assigned to this attribute are

- **left:** This causes the image to be aligned with the left margin.
- **right:** This causes the image to be aligned with the right margin.
- **top:** This aligns the top of the image with the top of the tallest item in the current line.
- **middle:** This aligns the middle of the image with the base line of the text in the current line.
- **bottom:** This aligns the bottom of the image with the base line of the text in the current line.

Following is an example supporting insertion of image on the given webpage.

Example 1

```
<HTML>
  <Head>
    <Title>example of Image</Title>
</head>
  <Body>
  <p>
```

<img src="c:\Users\Desktop\image1.jpg">

Roses are often respected, carded and forms one of the main articles of decoration</P>

  </body>

</html>
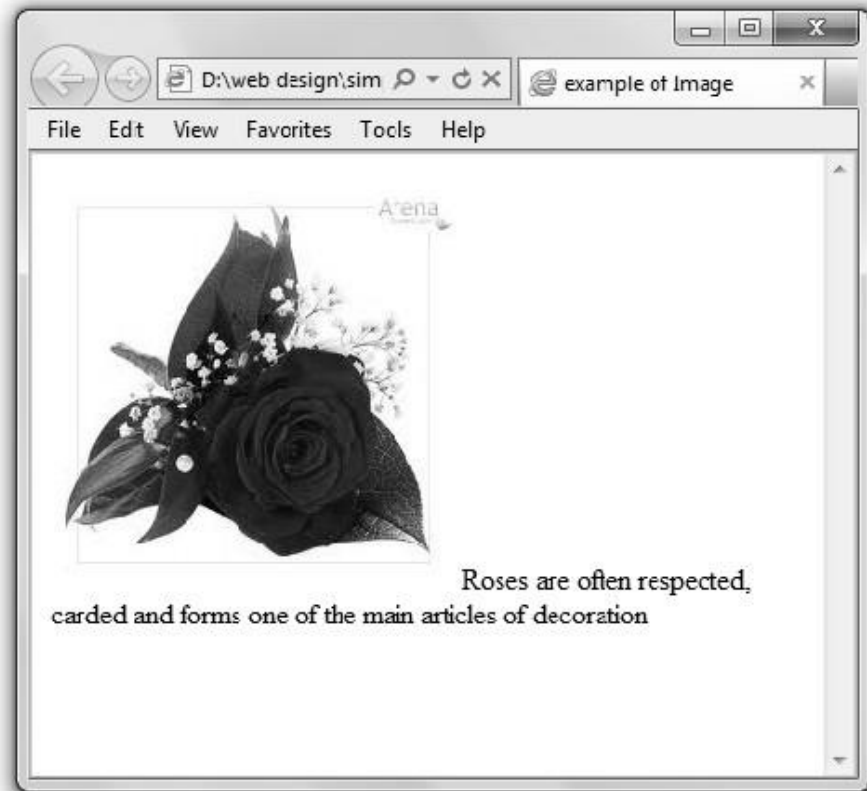
Figure 5.1: Web page for inserting image

Before executing the above html program, it has to be noted that value provided to the source attribute "image folder/rose1.jpg" is valid only if the above file and image folder are located in single directory. If they reside in different directories, then SRC attribute must be adhered with entire path where the image folder is located. Two image formats are widely used on the web. Those are:-

- GIF
- JPEG

There are two image formats commonly used throughout the Internet. These are GIF (Graphical Interchange Format) and JPEG (Joint Photographic Experts Group). The reason they are both so widely used is because they are both formats that can compress an image file size without too much loss in image quality. These smaller file sizes make them ideal for use on the Internet.

GIF Images

Graphic Interchange Format, developed by CompuServe. Standard gifs are usually GIF89a format. Animated gifs are GIF89b format. GIF87a standard is still sometimes used but doesn't support transparent areas.

File extension - .gif

JPEG Images

Eric Hamilton Joint Photographic Experts Group, Tom Lane, Independent JPEG Group invented JPEG format. File extension - .jpg .jpeg or .jpe

Unlike GIF with restricted format, you can create JPEG image using a virtually unlimited number of colors. The two popular formats use 256 colors (one per pixel, holding a color value from 0 to 255), 65,536 colors (two bytes stored per pixel) or 16,777,216 colors (three bytes stored per pixel).

Like GIF, JPEG files are stored as compressed. JPEG is a compression technology that can store images with various levels of perfection.

Table 5.1 shows the difference between GIF and JPEG images.

Table 5.1: GIF vs. JPEG Differences

GIF	JPEG
Best for drawings, logos, graphs,text	Best for scanned photos, artwork
No more than 256 colors	Approximately 16.7 million colors
Lossless format (no loss in quality)	Lossy format (loss in quality when saved)
Interlaced	Progressive rendering

1.1.2 Setting Height and Width of an Image Size Attributes

The size attributes defines the width and height of the image. They look like this:

<img src="image.jpg" width="200" height="150">

These attributes are optional but strongly recommended as they help the browser arrange the page more quickly.

Resizing the Image

If the size attributes are set to different values than the original image size, the browser will resize the image to the specified size (this doesn't affect the image file itself, just the way it's displayed in the page). In general you should always match the size attributes to the actual size of the image file. If you don't know the image file size, try either of these methods:

- Import the image into any graphics program and select "Image Size" from the menu. This will state the height and width.
- Open the image file in a browser, right-click the image, then select "Properties". This will tell you the width and height.

If the image file is the wrong size for your needs, you need to resize it properly using a graphics program.

Spacing Attributes

You can create space between the image and surrounding text by defining vertical and horizontal space like so:

<img src="image.jpg" vspace="5" hspace="10">

Alignment

You can use the align attribute to position the image:

<img src="image.jpg" align="left">

The following alignment options are available:

left, right, top, middle, bottom, absmiddle, absbottom, baseline, text top

Border Size

You can use the element's border attribute to add borders to images. These borders are simple lines of various thicknesses, which you can set by giving the border attribute value in pixels. Normally, the color of the border is the same as the current default text color, but if you are using the image as a hyperlink, the border will be the same color as the current default hyperlink color.

The border attribute places a border around the image.

<img src="image.jpg" border="1">

If no border attribute is specified, no border is applied, except when the image is used as a hyperlink. In this case a 1-pixel border is applied. If you want to make an image into a hyperlink without a border, specify a zero border like so: **<img src="image.jpg" border="0">**

 Example 2:
<Html>
<Head>
<Title>image example</Title>
</head>
<Body>
<Center> working with image</center>
<img src="c:\Users\Desktop\image2.jpg" width="150" height="150" border=8>
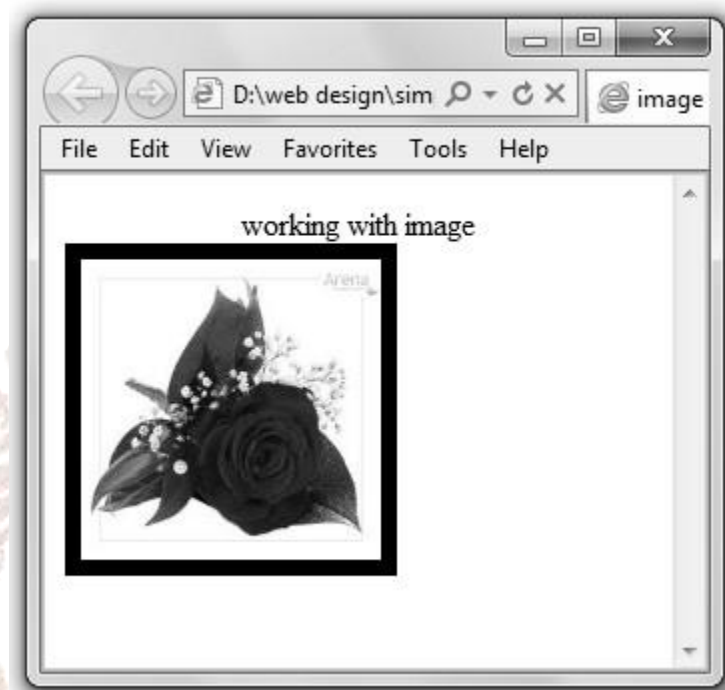</body>

</html>

Figure 5.2: Web page for setting height, width and border for image

1.1.3 Creating Image Links

In addition to appearing simply as an image, an image can also be embedded in an **<A HREF>** tag which the user can click on to open the URL.

 Examples:

   <IMG SRC = "image.gif">

   This adds a plain image to your web page.

   <A HREF = "http://www.iiit.net">   <IMG SRC = "image.gif"></A>

Now instead of text, an image serves as the link, which can be clicked. The href is adhered with destination path, so that, whenever the **www.iiit.net** website clicked, the browser redirected to **image.gif** file.

Before ending image concept, there is last concept which is worth discussing i.e., Image Maps. While browsing various internet sites, we often encounter certain images which when clicked at different locations, taken us to different web pages. This scenario is possible using a special concept known as "hotspots".

Image Maps

Image maps are of two types

- o   Server side image maps
- o   Client side image maps

The server side image implementation differs from type of server used and also they require certain special script (built using different web supported languages) which takes in the values of the regions (or hotspots on the image) selected by the user and accordingly takes them to the required web pages.

The client side image maps the required code is written in a single HTML script. The code directs the browsers to load definite web pages on the account of users selecting various regions they are called as hotpots on the image maps displayed. These hotspots are nothing but pixel values specified as coordinates in the code. The coordinate values are specified by considering various regions of map in form of circles, triangles, polygons etc. Here we often use **<MAP>** and **<AREA>** tags for creating client side image maps.

Note: these tags remain analogous to anchor <A> tag as both of them are meant to directing user for different web pages.

SELF-ASSESSMENT QUESTIONS - 1

1. _____ attribute is used to specify the width (in pixels) of the border around the image.
2. _____ is nothing but pixel values specified as coordinates in the code.

2. HORIZONTAL RULES

The HTML **<hr> tag** is used for creating a horizontal line. In HTML 4, this is also called Horizontal Rule. In HTML5, the <hr> tag defines a paragraph level thematic break. However, the <hr> tag may still be displayed as a horizontal rule in visual browser, but is now defined in semantic terms, rather than presentational terms.

In HTML4 the <hr> tag was not semantic. It was just a way to add a line into a document. This changed in HTML5. In HTML5 the <hr> tag became semantic because it now defines a "thematic break". This is a break in the flow of content that doesn't warrant a new page or other stronger delimiter, but it is change of topic. For example a scene changes in a story or transition to another topic with in section of reference book.

<p> this text will be followed by a horizontal line<hr/></p>

2.1 Changing height and width of horizontal rule

Using the <hr> tag alone without any attribute or value will draw a horizontal rule at the default height (2 pixels), at the default width (100% of the available horizontal space) and depending on the browser-with a simple two color groove effect.

As with almost every other HTML element, there are a number of attributes and values that you can apply to the <hr> tag to alter the resulting effect.

Table 5.2: attributes for horizontal rule

Attribute	Value	Description
Align	Left Right Center	Specifies the alignment of horizontal rule (this is not supportedin HTML5. Deprected in HTML4.0.1)
Size	Pixels of %	Specifies the height of horizontal rule this is not supported in HTML5. Deprected in HTML4.0.1
Width	Pixels of %	Specifies the width of horizontal rule this is not supported in HTML5. Deprected in HTML4.0.1
Noshade	Noshade	Removes the usual shading effect that most browsers display. this is not supported in HTML5. Deprected in HTML4.0.1

2.2 Changing Between Shaded And Un-Shaded Horizontal Rule

The noshade attribute is a boolean attribute. It specifies that a horizontal line should render in one solid color (no shaded), instead of a shaded color.

<hr width=50 height=3 noshade>

The "noshade" attribute, specified above is a peculiar one. It's one of the only properties ever that isn't followed by an equal sign and quote.

The code above would output horizontal line with width 50% of the screen, a height that's three pixels, and un-shaded in style.

In case you are speculating, the difference between a shaded and unshaded horizontal rule:

A shaded rule (by default all rules are shaded), appears to go into the page where an un-shaded rule appears to pop out of the page.

You can also add color to horizontal rule (usually it is gray color by default)

<hr color="red" width="50%" >

2.3 Setting Alignment Of A Horizontal Rule

The align attribute for a horizontal rule can have one of three values left, center and right. For those rules whose width is less than that of the current text flow, the rule will be positioned accordingly, relative to window margins. The default alignment is center.

For example: the code below alternates a 35% wide rule from right to center to the left margin (see figure 5.3)

Example 3:
<HTML>
<Head>
<Title>example for hr aligns </title>
 </head>
<Body>

_____

```
<h3><p align="right"> fruit packing </P> </h3>

<hr width=35% align="right"/>

<h3><p align="center"> vegetable packing </p></h3>

<hr width=35% align="center"/>

<h3> juice processing </h3>

<hr width=35% align="left"/>

</body>

</html>
```
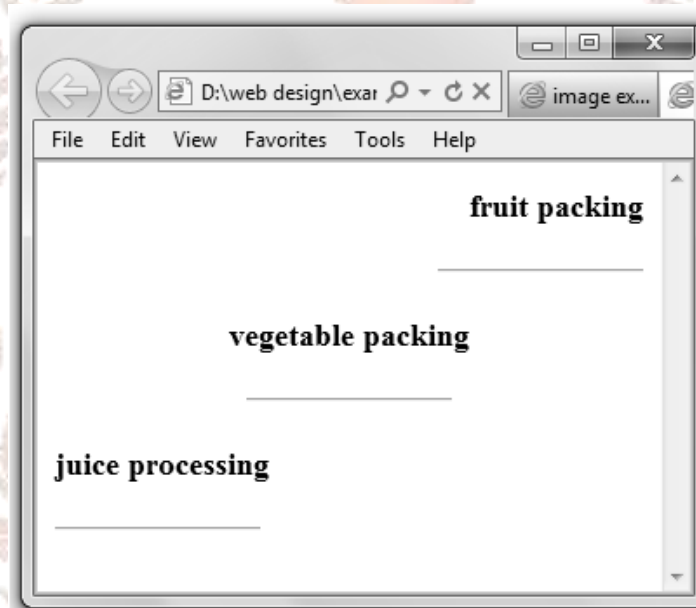

Figure 5.3: Web page for setting alignment for horizontal line

SELF-ASSESSMENT QUESTIONS - 2

3. In HTML_____ tag is used for creating a horizontal line.

3. WORKING WITH TEXT

HTML tag tells a browser how to present a page, including its text, image and multimedia. Text refers to all the words, letters and numbers you want to show on the webpage. Text is placed in the BODY area of the page code. With only a small set of HTML tags you can create a functional page. In previous unit you have learnt text alignments. HTML uses bold<b>, italic<i> and underline<U> tags for formatting output. It's time to start making text perform in different styles. In this unit you're working with tags for setting size, aligning text, changing color. Basically there are two types of HTML styles.

Physical HTML styles:

A physical tag defines how the text should be displayed in the browser. They are straight forward, but, the logical tags that let you specify your intention and leave the details up to the browser

<B> displays bold text

<I> displays italic form

<tt> displays teletype text: usually rendered in a moonscape font (where each character has the same width)

<Big> displays text larger than usual

 <s> and **<strike>** displays strikethrough,

<Small> displays text smaller than usual

<sub> displays subscript

<sup> displays superscript

Logical HTML Styles:

You use logical styles when you want to leave the formatting up to the browser.

<Address>: specifies the address

<Cite> citation or reference to another source

<Code> code (program listing) text

<em> Emphasized text

<Samp> sample output (as from program)

<Abbr> abbreviation

<Acronym> acronym

3.1 Text Alignment

You can set the alignment of any HTML element using the text-align concept. Text align can be used to set the alignment for paragraph, a section of document, or even the whole document. Text alignment can be used to set alignment to left, right, or center.

Align Left

This tag will align your text to the left of the screen. The starting tag is

<P ALIGN="LEFT"> and the closing tag is **</P>.** The text between these tags is what is aligned to the left. This tag also causes a double space (paragraph) at the end of the text.

Align Right

This tag will align your text to the right of the screen. The starting tag is

<P ALIGN="RIGHT"> and the closing tag is **</P>.** The text between these tags is what is aligned to the right. This tag also causes a double space (paragraph) at the end of the text.

Align Center

This tag will align your text to the center of the screen. The starting tag is

<P ALIGN="CENTER"> and the closing tag is **</P>.** The text between these tags is what is aligned to the center. This tag also causes a double space (paragraph) at the end of the text.

Center

This tag does the same thing as the previous tag but it is shorter, and there is no added paragraph space at the end of the text. The starting tag is

<CENTER> and the closing tag is **</CENTER>.** The text between these tags is what is aligned to the center.

3.2 Changing Font Size and Colors

One of your most powerful weapons for jazzing up your text is the **** tag and its size, colour and face attributes.

Purpose of tag: Lets you select font size, color and face

You can change the size of your text at any point by putting in tag as: **<font size=n),** where n is number between 1 and 7. A better way to use the size attribute is to put +1, +2 ,-1 or -2 instead of the number, like this

,which makes the text one size bigger, and again is turn off with .+2 makes two sizes bigger,-1 makes it one size smaller, and so on.

Another thing you can do with the tag is change the text color. The tag is (not the spelling –"colour" won't work), where n is several things. The easiest way to use it is to put in the name of colour.

**** /* turns text into blue colour */

You can combine a change of size and colour into one tag

Example: , which produces an effect of color   and size at a time.

The advantage of combining a colour and size change into one tag is that you turn both effects off together with single .

The third attribute is FACE, where you change the typeface (often called font).

Example: To change the text has a font called Arial, specify as

****

You can combine FACE, SIZE, COLOR into one tag, something like this ****

 Example 4:

<Html>

<Body>

web technology

font size example

font text example

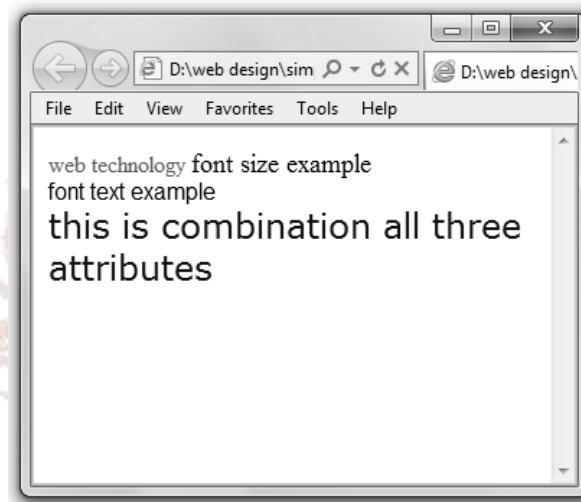this is combination all three attributes

</body>

</html>

Figure 5.4: Web page for FONT tag example

Using <DIV> and <SPAN>

Two important formatting elements are the <DIV> and <SPAN> elements. These elements will become very useful when working with style sheets. Using <div> (which stands for division) and <Span>you can specify a range of text and style it as you want it.

Using the DIV Tag:

The Div element defines logical division in your web page. It acts as p element, by placing new line before and after the division. A division can have multiple paragraphs in it.

To use the DIV element, simply surround the area of your page that you want as a separate division with <div> and </div> tags

<div id="mydiv">
<p>contents of div</P>
</div>

The DIV element gives a chance to define the style of whole section of the HTML. You can define a division of your page as a call out and give that area a different style from the surrounding text. That area could have images, paragraphs, and headlines, anything you want.

Using the SPAN Tag:

The <span> tag provides a way to add a hook to a part of text or part of a document. The SPAN element has very similar properties to the DIV element, in that it changes the style of text it encloses. The primary difference between the SPAN and DIV elements is that SPAN doesn't do any formatting its own. The DIV element includes a paragraph break. The SPAN element simply tells the browser to apply the style rules to whatever is within the SPAN.

3.3 Setting The Base Font

The HTML base font tag is used to specify a base font for the document (overall font for your page). The base font element was originally developed as a mechanism for resetting the default size for normal text using the seven font sizes. In most cases, web authors used it once in the document to set default for the entire document.

Example 5:
<Html>
<Head>
<Title>mypage</title>

</head>

<Body>

<basefont face="courier" size="4" color="green"> Hello! This is my page

All text looks like same

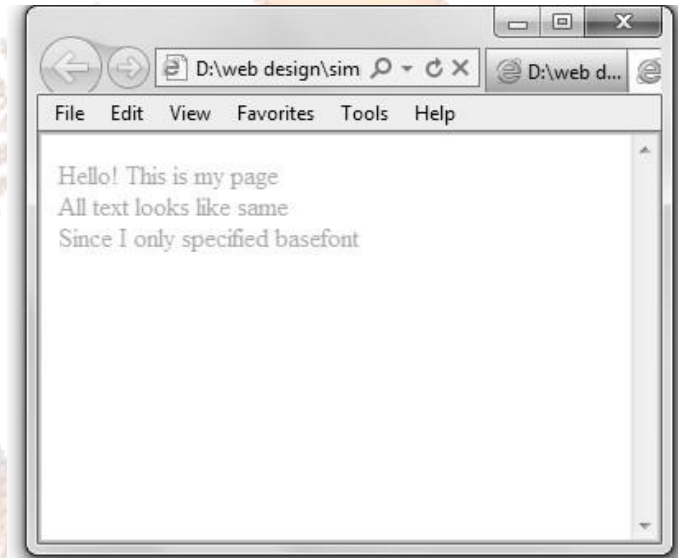Since I only specified basefont </body>

</html>

Figure 5.5: Web Page for Base Font tag example

In above example the colour attribute selects the desire colour for your text. The face attribute selects desire font. The size attribute specifies the desired size (between smallest 1 and biggest 7).

3.4 Quotation And Citation Tags

HTML's quotation marks allow you to enter passages of text that are different from the web page's regular text using the Quotation element. Some of the most used HTML quotation tags are listed below:

1. **<q> tag:** A group of text is placed inside quote marks using the q element. Both the opening and closing tags are present.

Example 6:

```
<html>
<head>
   <title>Quotations</title></head>
<body>
<p><q>eyes are blue lovely too</q></p>
</body>
</html>
```

2. **<blockquote> tag :** Quotations are also utilized in a different way with the <blockquote> element. This element adds space before the beginning of the sentence instead of putting the content in quotation marks. We can also use it to indent the beginning of a new paragraph. Both the opening and closing tags are present.

Example 7:
```
<html>
<head>
   <title>Block Quote</title></head>
<body>
<p> <blockquote>eyes are blue lovely too</blockquote></p>
</body>
</html>
```

3. **Address Tag**

   The HTML address tag provides contact information on a page. It could be used, for example, to provide information about the author of specific article or the author of website itself. The content of this element could include names, company names, email address, postal or zip code, etc.

   The HTML address tag is usually used in the footer of web page, or on contact page or about us page.

The **example** code for an address tag:

<Address>

Author…………. name of author

</address>

Sometime contact information link to some other page.

<Address

> Author:

w3school

</address>

4. **<abbr> tag:** An acronym or other abbreviations are defined in a document using the <abbr> element. When the mouse pointer passes over the <abbr> element, the title attribute is able to display the full version of the abbreviation or acronym. Opening tags and closing tags are present. Search engines and browsers can both benefit from this.

Example 9:
```
<html>
<head>
   <title> Abbreviations </title></head>
<body>
<p>Welcome to <abbr title="Web Programming">WP</abbr></p>
</body>
</html>
```

5. **<bdo> tag:** The bidirectional override element, or <bdo>, specifies whether text should be written from the right to the left or the left to the right. Opening tags and closing tags are present. It is used to override the text orientation that is currently in effect. To show the text from right to left, a property called "rtl" is required.

Example 10:

```
<html>
<head>
  <title> Bidirectional </title></head>
<body>
        <p><bdo dir="rtl"> Web Programming </bdo></p>
</body>
</html>
```

6. **<cite> tag:** This feature emphasizes a text and serves to define a work's title.

   Example 11:

```
<html>
<head>
  <title> Cite</title>
</head>
<body>
    <p>The <cite>HTML</cite> is the best Programming language to create web
pages.</p>
</body>
</html>
```

3.5 Using background image

Background: This attribute for body tag used for setting image or picture as a background.

<body background="./test.jpg">

The value of the attribute is the path of the image file. In this example we have an image file named test.jpg in the same directory of the html file, so we use the path as ./test.jpg

3.6 Marquee Tag

The HTML **<marquee>**tag is used for scrolling piece of text or image displayed either horizontally across or vertically down your web site page depending on the setting and alignment.

Example 12:

```
<Html>
<Head>
<Title>marquee example </Title>
</head>
 <Body>
<Marquee>simple example</marquee>
</body>
</html>
```

By running the above example in browser you can see scrolling text from right to left direction.

Attributes for marquee tag

Bgcolor – Denotes the background color of the marquee.

loop – Denotes how many times the marquee will scroll across the page. The value for this attribute can be a number used to denote how many times it should scroll or the value **"infinite"** denoting that the marquee should scroll forever.

height – This attribute takes a numerical value which denotes the height of the marquee.

width – This attribute takes a numerical value which denotes the width of the marquee.

direction – This attribute takes the value of either "left", "right", "up", or "down" to denote which way the marquee will scroll.

behavior – This attribute takes the value of either "scroll", "slide", or "alternate" to denote how the marquee will move. The value of "scroll" will make the marquee move one

way continuously and is the default movement method of the marquee. The value of "slide" will make the marquee come in and stop. The value of "alternate" will make the marquee come in from both sides interchangeably.

SELF-ASSESSMENT QUESTIONS - 3

4. In HTML_____ tag provides contact information on a page.
5. _____ attribute for body tag used for setting image or picture as a background.
6. _____ attribute takes the value of either "left", "right", "up", or "down" to denote which way the marquee will scroll.

4. SUMMARY

- In HTML, images are defined with the <img> tag. To display an image on a page, you need to use the src attribute. Src stands for "source".
- The value of the src attribute is the URL of the image you want to display.
- To create a border around image, use the border attribute, specify the size of the border. Example: border=" 2 "
- The HTML <hr> tag is used for creating a horizontal line.
- The HTML address element provides contact information on page. It could be used, for example, to provide information about author of web site.
- The HTML basefont tag is used to specify a base font for the document to use.
- The marquee tag is a non-standard HTML element which causes text to scroll up, down, left or right automatically.

5. TERMINAL QUESTIONS

1. Explain how to insert a image into webpage? Explain different image attributes available in HTML?
2. Discuss the horizontal rule tag?
3. Name and explain the three attribute values for font tag.
4. Explain the following tags:
   a) Background
   b) Marquee
   c) Base font

6. ANSWERS

Self Assessment Questions

1. Border
2. Hotspots
3. <hr>
4. Address
5. Background
6. direction

Terminal Questions

1. <Img> tag is used for insert an image into web page and there are different attributes available for image. For more details refer to section 5.1.1.

2. In HTML 4.0 <hr> tag known as horizontal rule. There are a number of attributes and values that you can apply to the <hr> tag. For more details refer to section5.2.

3. Font tag contains there attributes to set size, color and face. To change any of the font attributes at any time within your page, simply use any of
<font> attribute. For more details refer to section5.3.2.

4. a. Background tag is used to set image at background. For more details refer to section5.3.5

    b. Marquee tag is used to scroll the text. For more details refer to section5.3.6.

    c. Basefont is used to set default size to text. For more details refer to section 5.3.3.

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