OBJECT™ TECHNOLOGIES

HTML basic tags

What will be covered

- Formatting tags
- Using marquee
- Handling images
- Creating lists
- Use of div and span tags

Formatting tags

OBJECT

- HTML also defines special **elements** for defining text with a special **meaning**.
- Formatting elements help in highlightinh the text so that we can catch the attention of end users.
- Formatting elements were designed to display special types of text. Examples are :
  - <b> - Bold text
  - - Important text
  - <i> - Italic text
  - - Emphasized text
  - <mark> - Marked text
  - <small> - Small text
  - <del> - Deleted text
  - <ins> - Inserted text
  - <sub> - Subscript text
  - <sup> - Superscript text

Using marquee

- The **Marquee HTML** tag is a non-standard HTML element which is used to scroll a image or text horizontally or vertically.
- In simple words, you can say that it scrolls the image or text up, down, left or right automatically.

```
<marquee>This is an example of html marquee </marquee>
```

- **Attributes OF MARQUEE ELEMENT**
- **Behavior :** Sets how the text is scrolled within the marquee. Possible values are scroll, slide and alternate. If no value is specified, the default value is scroll.
- **Direction :** Sets the direction of the scrolling within the marquee. Possible values are left, right, up and down. If no value is specified, the default value is left.

Using marquee

OBJECT

- **Scrollamount :** Sets the amount of scrolling at each interval in pixels. The default value is 6.
- **Scrolldelay :** Sets the interval between each scroll movement in milliseconds. The default value is 85. Note that any value smaller than 60 is ignored and the value 60 is used instead, unless truespeed is specified.
- Example :

```
<marquee direction="down" width="250" height="200" behavior="alternate" style="border:solid">
  <marquee behavior="alternate">
    This text will bounce
  </marquee>
</marquee>
```

Using marquee

OBJECT

- Marquee was not replaced with any tags in HTML5. You are recommended to use CSS animations. CSS transitions and animations are a more appropriate mechanism.
- Marquee is deprecated in HTML 5.

Handling images

OBJECT

- **HTML img tag** is used to display image on the web page. HTML img tag is an empty tag that contains attributes only, closing tags are not used in HTML image element.

```
<h2>HTML Image Example</h2>
<img src="good_morning.jpg" alt="Good Morning Friends"/>
```

- It is common to store images in a sub-folder. You must then include the folder name in the src attribute.

```
<img src="/images/html5.gif" alt="HTML5 Icon"
style="width:128px;height:128px;">
```

Handling images

- you can access images from any web address in the world.

```
<img src="http://www.imageworld.com/images/nature.jpg"  width="200"
     height="200" />
```

- To use an image as a link, simply nest the <img> tag inside the <a> tag:

```
<a href="default.asp">
  <img src="smiley.gif" alt="HTML tutorial"
style="width:42px;height:42px;border:0;">
</a>
```

Handling images

OBJECT

Attributes of HTML img tag

1) src

It is a necessary attribute that describes the source or path of the image. It instructs the browser where to look for the image on the server. The location of image may be on the same directory or another server.

2) alt

The alt attribute defines an alternate text for the image, if it can't be displayed. The value of the alt attribute describe the image in words. The alt attribute is considered good for SEO prospective.

3) width

It is an optional attribute which is used to specify the width to display the image. It is not recommended now. You should apply CSS in place of width attribute.

4) height

It specifies the height of the image. It is not recommended now. You should apply CSS in place of height attribute.

Creating lists

- HTML Lists are used to specify lists of information. All lists may contain one or more list elements. There are three different types of HTML lists:
  - Ordered List or Numbered List (ol)
  - Unordered List or Bulleted List (ul)
  - Description List or Definition List (dl)

Creating lists - Unordered list

OBJECT

In HTML Unordered list, all the list items are marked with bullets. It is also known as bulleted list also. The Unordered list starts with <ul> tag and list items start with the <li> tag.

```
<ul>
<li>Beetroot</li>
<li>Ginger</li>
<li>Potato</li>
<li>Radish</li>
</ul>
```

produces :

- Beetroot
- Ginger
- Potato
- Radish

To change the type of bullet, attribute 'type' can be used which can take the values as 'disc', 'circle' or 'square'.

```
<ul type="square">
<li>Beetroot</li>
<li>Ginger</li>
<li>Potato</li>
<li>Radish</li>
</ul>
```

produces :

- Beetroot
- Ginger
- Potato
- Radish

Creating lists - Ordered list

- In the ordered HTML lists, all the list items are marked with numbers. It is known as numbered list also. The ordered list starts with <ol> tag and the list items start with <li> tag

```
<ol>
 <li>HTML</li>
 <li>Java</li>
 <li>JavaScript</li>
 <li>SQL</li>
</ol>
```

Produces :

1. HTML
2. Java
3. JavaScript
4. SQL

Creating lists - Ordered list

OBJECT

- To change type of numbering, 'type' attribute can ne used with ol element. It can have values as 'i', 'I', 'a', 'A' , '1'. Default value is '1'.

  In this way list can be displayed with roman numbers or even alphabets.

```
<ol type="I">
 <li>HTML</li>
 <li>Java</li>
 <li>JavaScript</li>
 <li>SQL</li>
</ol>
```

Produces :

I. HTML
II. Java
III. JavaScript
IV. SQL

Creating lists - Definition list

OBJECT

- It is also known as descriptive list where entries are listed like a dictionary or encyclopedia.
- The definition list is very appropriate when you want to present glossary, list of terms or other name-value list.
- The HTML definition list contains following three tags:
  - **<dl> tag** defines the start of the list.
  - **<dt> tag** defines a term.
  - **<dd> tag** defines the term definition (description).

```
<dl>
  <dt>Coffee</dt>
  <dd>- black hot drink</dd>
  <dt>Milk</dt>
  <dd>- white cold drink</dd>
</dl>
```

Produces :

A Description List

Coffee
- black hot drink

Milk
- white cold drink

Creating lists - Nesting of lists

OBJECT

- List items can contain new list, and other HTML elements, like images and links, etc.

```
<ul>
  <li>Coffee</li>
  <li>Tea
    <ul>
    <li>Black tea</li>
    <li>Green tea</li>
    </ul>
  </li>
  <li>Milk</li>
</ul>
```

Produces :

A Nested List

- Coffee
- Tea
  - Black tea
  - Green tea
- Milk

Use of div and span elements

OBJECT

- Both the elements are used to define the section on the page
- The tag defines a division or a section in an HTML document which is used to group block-elements to format them with CSS.
- The tag provides a way to add a hook to a part of a text or a part of a document which is used to group inline-elements in a document.
- Both the tags provides no visual change by itself.

Use of div and span elements

OBJECT

Examples

- A section in a document containing heading and paragraph that will be displayed in blue:

```
<div style="color:#0000FF">
  <h3>This is a heading</h3>
  <p>This is a paragraph.</p>
</div>
```

- A element used to color a part of a text:

```
<p>My mother has <span style="color:blue">blue</span> eyes.</p>
```

Html Tags

As we are aware of the basic purpose and structure of the web page, now we will see few more tags that we need to often use in professional web page. We will now deal with images, tabular data and list which is often needed in generation of dynamic HTML.

Text formatting tags

The following HTML tags are used to format the appearance of the text on your web page. These tags are mostly similar to the options that are available in any document editor. Purpose of these tags in just to highlight a word or group of words in a chunk of information.

**Bold - **

The text in between the tags will be bold, and stand out against text around it, the same as in a word processor.

**Italic - **

Also working the same way as a word processor, italics displays the text at a slight angle.

Underline - <u> </u>

Again, the same as underline in a word processor.

Preformatted Text - <pre> </pre>

Any text between the pre tags, including spaces, carriage returns and punctuation will be rendered by the browser as it is.

Typewriter Text - <tt> </tt>

The text appears to have been typed by a typewriter, in a fixed-width font. (*)

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Block Quote - <blockquote> </blockquote>

Defines a long quotation, and the quote is displayed with an extra wide margin on the left hand side of the block quote.

Small - <small> </small>

Instead of having to set a font size, you can use the small tag to render text slightly smaller than the text around it.

**Super script - **

The <sup> tag defines superscript, that is set slightly above the normal line of type and is relatively smaller than the rest of the text. The baseline passes through upper or lower edge of the symbols.

**Sub script - **

The <sub> defines subscript texts. Subscript text is under the baseline of other symbols of the line and has smaller font.

Marked text - <mark> </mark>

The <mark> tag is used to present a part of text in one document as marked or highlighted for reference purposes.

Quoted text - <q> </q>

The <q> tag is an inline element specifying short quotes, that don't span multiple lines. To insert longer quotes, you need to use the <blockquote> block-level element.

Examples :

```
<body>
  <!-- highligting -->
  <b> Bold text </b> <br/>
  <strong> Strong text</strong> <br/>
  <i> Italics text </i> <br/>
  <u> Underlined text </u> <br/>
  <blockquote>
```

Examples :

```
<body>
  <!-- highligting -->
  <b> Bold text </b> <br/>
  <strong> Strong text</strong> <br/>
  <i> Italics text </i> <br/>
  <u> Underlined text </u> <br/>
  <blockquote>
    This is block quoted text <br/>
    leaves spaces from all around <br/>
    from all four sides.
  </blockquote>
  <mark> Marked text </mark> <br/>
  <q> Quoted text </q> <br/>
  <p style="color:red;text-align:center"> C-DAC, ACTS - <span style="color:magenta"> PG-DAC </span> </p>
  <del> Wrong </del> <br/>
  H<sub>2</sub>O  <br/>
  5<sup>2</sup> = 25 <br/>
</body>
```

Handling Images

The <img> tag is used to insert an image into an HTML document. The image itself isn't inserted directly into the document, the browser inserts an HTML image from the source specified in the <img> tag.

There are two required attributes for an <img> element: src and alt

The src (source) attribute shows the image source. It is required, as it defines the path to the image. The value of the src attribute can be either the file name it is in the same directory or path if in the different directory or its URL if it is available as inernet resource.

The alt attribute defines an alternate name for the image. It is required for the <img> tag too. Its value is a descriptive text displayed in the browser before the image is loaded. The browser also shows this text when you hover over the image.

Height and width attributes can be used for specifying the respective dimension of the image in pixels.

To make HTML images clickable, you should place the <img> tag inside the <a> tag, which is used for inserting an HTML image link.

The <img> tag is empty, which means that the closing tag isn't required. It contains only attributes.

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```
<!-- image file in the same folder as that of html page -->
<img src="Hydrangeas.jpg" width="200" height="200" />
<!-- image file in the images folder  -->
<img src="images/Hydrangeas.jpg" width="200" height="200" />
<!-- image as hyperlink -->
<a href="formatting.html">
   <img src="Hydrangeas.jpg" width="200" height="200" />
</a>
```

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List items can contain new list, and other HTML elements, like images and links, etc.

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Produces :

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Assignments

1. Create different paragraphs which will describe about the different data structures that you have learned. Give proper alignment and word highlighting for the information.

   e.g.

   Stack is a linear data structure. It works on the principle of LIFO (Last In First Out) which means lastly pushed element can be popped out first. Stack can be implemented using array or linked list. Dynamic stack is a stack which will never exercise *stack overflow condition*. Stack data structure is used by operating systems to solve different kinds of expression
2. Display an image(Sunset.jpg in my pictures folder) on the web page. Change its height and width.
3. Display welcome message to the user as a scrolling text. Try to scroll in different directions.
4. Create a page having hyperlinks :

   That should link to another html page

   That should link to another URL

   Make the image as hyperlink
5. Create a page that will contain a list of data structures. Each list element is an hyperlink which links to a paragraph describing the respective data structure(created in assignment no 1) . The description page should contain a hyperlink that should link to original page containing list.

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