HTML - Text Links

A webpage can contain various links that take you directly to other pages and even specific parts of a given page. These links are known as hyperlinks.

Hyperlinks allow visitors to navigate between Web sites by clicking on words, phrases, and images. Thus, you can create hyperlinks using text or images available on a webpage.

Linking Documents

A link is specified using HTML tag <a>. This tag is called **anchor tag** and anything between the opening <a> tag and the closing tag becomes part of the link and a user can click that part to reach to the linked document. Following is the simple syntax to use <a> tag.

```
<a href = "Document URL" ... attributes-list>Link Text</a>
```

Example

Let's try following example which links http://www.tutorialspoint.com at your page –

```
<!DOCTYPE html>
<html>
   <head>
    <title>Hyperlink Example</title>
  </head>
  <body>
    <p>Click following link</p>
    <a href = "https://www.tutorialspoint.com" target = "_self">Tutorials Point</a>
  </body>
</html>
```

The target Attribute

We have used **target** attribute in our previous example. This attribute is used to specify the location where linked document is opened. Following are the possible options –

Sr.No	Option & Description
1	**_blank** Opens the linked document in a new window or tab.
2	**_self** Opens the linked document in the same frame.

Example

Try following example to understand basic difference in few options given for target attribute.

```
<!DOCTYPE html>
<html>
  <head>
    <title>Hyperlink Example</title>
    <base href = "https://www.tutorialspoint.com/">
  </head>
  <body>
```

```
    <p>Click any of the following links</p>
    <a href = "/html/index.htm" target = "_blank">Opens in New</a> |
    <a href = "/html/index.htm" target = "_self">Opens in Self</a> |
  </body>
</html>
```

Use of Base Path

When you link HTML documents related to the same website, it is not required to give a complete URL for every link. You can get rid of it if you use **<base>** tag in your HTML document header. This tag is used to give a base path for all the links. So your browser will concatenate given relative path to this base path and will make a complete URL.

Example

Following example makes use of <base> tag to specify base URL and later we can use relative path to all the links instead of giving complete URL for every link.

```
<!DOCTYPE html>
<html>
  <head>
    <title>Hyperlink Example</title>
    <base href = "https://www.tutorialspoint.com/">
  </head>
  <body>
    <p>Click following link</p>
    <a href = "/html/index.htm" target = "_blank">HTML Tutorial</a>
  </body>
</html>
```

This will produce the following result, where you can click on the link generated **HTML Tutorial** to reach to the HTML tutorial.

Now given URL <a href = "/html/index.htm" is being considered as <ahref = "http://www.tutorialspoint.com/html/index.htm"

Linking to a Page Section

You can create a link to a particular section of a given webpage by using **name** attribute. This is a two-step process.

First create a link to the place where you want to reach with-in a webpage and name it using <a...> tag as follows –

```
<h1>HTML Text Links <a name = "top"></a></h1>
```

Second step is to create a hyperlink to link the document and place where you want to reach –

```
<a href = "/html/html_text_links.htm#top">Go to the Top</a>
```

This will produce following link, where you can click on the link generated **Go to the Top** to reach to the top of the HTML Text Link tutorial.

Go to the Top

Setting Link Colors

You can set colors of your links, active links and visited links using **link**, **alink** and **vlink** attributes of <body> tag.

Example

Save the following in test.htm and open it in any web browser to see how **link**, **alink** and **vlink** attributes work.

```
<!DOCTYPE html>
<html>
   <head>
    <title>Hyperlink Example</title>
    <base href = "https://www.tutorialspoint.com/">
  </head>
  <body alink = "#54A250" link = "#040404" vlink = "#F40633">
    <p>Click following link</p>
    <a href = "/html/index.htm" target = "_blank" >HTML Tutorial</a>
  </body>
  </html>
```

Download Links

You can create text link to make your PDF, or DOC or ZIP files downloadable. This is very simple; you just need to give complete URL of the downloadable file as follows –

```
<!DOCTYPE html>
<html>
  <head>
    <title>Hyperlink Example</title>
  </head>
  <body>
    <a href = "https://www.tutorialspoint.com/page.pdf">Download PDF File</a>
  </body>
</html>
```

HTML - Image Links

how to use images to create hyperlinks.

Example

It's simple to use an image as hyperlink. We just need to use an image inside hyperlink at the place of text as shown below –

```
<!DOCTYPE html>
<html>
  <head>
    <title>Image Hyperlink Example</title>
  </head>
  <body>
    <p>Click following link</p>
    <a href = "https://www.tutorialspoint.com" target = "_self">
      <img src = "/images/logo.png" alt = "Tutorials Point" border = "0"/>
    </a>
```

```
  </body>
</html>
```

Client-Side Image Maps

Client-side image maps are enabled by the **usemap** attribute of the <img /> tag and defined by special <map> and <area> extension tags.

The image that is going to form the map is inserted into the page using the <img /> tag as a normal image, except it carries an extra attribute called **usemap**. The value of the usemap attribute is the value which will be used in a <map> tag to link map and image tags. The <map> along with <area> tags define all the image coordinates and corresponding links.

The <area> tag inside the map tag, specifies the shape and the coordinates to define the boundaries of each clickable hotspot available on the image. Here's an example from the image map –

```
<!DOCTYPE html>
<html>
  <head>
    <title>USEMAP Hyperlink Example</title>
  </head>
  <body>
    <p>Search and click the hotspot</p>
    <img src = /images/html.gif alt = "HTML Map" border = "0" usemap = "#html"/>
    <!-- Create  Mappings -->
        <map name = "html">
      <area shape = "circle" coords = "80,80,20"
        href = "/css/index.htm" alt = "CSS Link" target = "_self" />
            <area shape = "rect" coords = "5,5,40,40" alt = "jQuery Link"
        href = "/jquery/index.htm" target = "_self" />
    </map>
  </body>

</html>
```

Coordinate System

The actual value of coords is totally dependent on the shape in question. Here is a summary, to be followed by detailed examples –

- **rect = x_1 , y_1 , x_2 , y_2**
  x_1 and y_1 are the coordinates of the upper left corner of the rectangle; x_2 and y_2 are the coordinates of the lower right corner.
- **circle = x_c , y_c , radius**
  x_c and y_c are the coordinates of the center of the circle, and radius is the circle's radius. A circle centered at 200,50 with a radius of 25 would have the attribute *coords = "200,50,25"*
- **poly = x_1 , y_1 , x_2 , y_2 , x_3 , y_3 , ... x_n , y_n**
  The various x-y pairs define vertices (points) of the polygon, with a "line" being drawn from one point to the next point. A diamond-shaped polygon with its top point at 20,20

and 40 pixels across at its widest points would have the attribute *coords = "20,20,40,40,20,60,0,40"*.

All coordinates are relative to the upper-left corner of the image (0,0). Each shape has a related URL. You can use any image software to know the coordinates of different positions.

HTML - Email Links

HTML **<a>** tag provides option to specify an email address to send an email. While using <a> tag as an email tag, you will use **mailto: email address** along with *href* attribute.

```
<a href = "mailto: abc@example.com">Send Email</a>
```

This code will generate the following link which you can use to send email.

Send Email

Now, if a user clicks this link, it launches one Email Client (like Lotus Notes, Outlook Express etc.) installed on user's computer. There is another risk to use this option to send email because if user do not have email client installed on their computer, then it would not be possible to send email.

HTML - Backgrounds

By default, webpage background is white in color. HTML provides following two good ways to decorate webpage background.

- HTML Background with Colors
- HTML Background with Images

Html Background with Colors

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

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

```
<!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>
```

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.

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

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

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

Example

```
<!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>
```

Patterned & Transparent Backgrounds

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

Here are the examples to set background pattern of a table –

```
<!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>
```

HTML - Colors

Colors are very important to give a good look and feel to website. this can specify colors on page level using <body> tag or can set colors for individual tags using **bgcolor** attribute.

The <body> tag has following attributes which can be used to set different colors –

- **bgcolor** – sets a color for the background of the page.
- **text** – sets a color for the body text.
- **alink** – sets a color for active links or selected links.
- **link** – sets a color for linked text.
- **vlink** – sets a color for *visited links* – that is, for linked text that have already clicked on.

HTML Color Coding Methods

There are following three different methods to set colors in web page –

- **Color names** – can specify color names directly like green, blue or red.
- **Hex codes** – A six-digit code representing the amount of red, green, and blue that makes up the color.
- **Color decimal or percentage values** – This value is specified using the rgb( ) property.

Now we will see these coloring schemes one by one.

HTML Colors - Color Names

this can specify direct a color name to set text or background color. W3C has listed 16 basic color names that will validate with an HTML validator but there are over 200 different color names supported by major browsers.

W3C Standard 16 Colors

Here is the list of W3C Standard 16 Colors names and it is recommended to use them.

	Black		Gray		Silver		White
	Yellow		Lime		Aqua		Fuchsia

	Red		Green		Blue		Purple
	Maroon		Olive		Navy		Teal

Example

```
<!DOCTYPE html>
<html>
  <head>
    <title>HTML Colors by Name</title>
  </head>
  <body text = "blue" bgcolor = "green">
    <p>Use different color names for for body and table and see the result.</p>
      <table bgcolor = "black">
      <tr>
        <td>
          <font color = "white">This text will appear white on black background.</font>
        </td>
      </tr>
    </table>
  </body>
  </html>
```

HTML Colors - Hex Codes

A hexadecimal is a 6 digits representation of a color. The first two digits (RR) represent a red value, the next two are a green value (GG), and the last are the blue value(BB).
A hexadecimal value can be taken from any graphics software like Adobe Photoshop, Paintshop Pro or MS Paint.
Each hexadecimal code will be preceded by a pound or hash sign #. Following is a list of few colors using hexadecimal notation.

Color	Color HEX
	#000000
	#FF0000
	#00FF00
	#0000FF
	#FFFF00
	#00FFFF
	#FF00FF
	#C0C0C0
	#FFFFFF

Example

Live Demo

```
<!DOCTYPE html>
<html>
  <head>
    <title>HTML Colors by Hex</title>
  </head>
  <body text = "#0000FF" bgcolor = "#00FF00">
    <p>Use different color hexa for for body and table and see the result.</p>
        <table bgcolor = "#000000">
      <tr>
        <td>
          <font color = "#FFFFFF">This text will appear white on black background.</font>
        </td>
      </tr>
    </table>
  </body>
  </html>
```

HTML Colors - RGB Values

This color value is specified using the **rgb( )** property. This property takes three values, one each for red, green, and blue. The value can be an integer between 0 and 255 or a percentage.

Note – All the browsers does not support rgb() property of color so it is recommended not to use it.

Following is a list to show few colors using RGB values.

Color	Color RGB
	rgb(0,0,0)
	rgb(255,0,0)
	rgb(0,255,0)
	rgb(0,0,255)
	rgb(255,255,0)
	rgb(0,255,255)
	rgb(255,0,255)
	rgb(192,192,192)
	rgb(255,255,255)

Example:

Here are the examples to set background of an HTML tag by color code using rgb() values –

```
<!DOCTYPE html>
<html>
  <head>
    <title>HTML Colors by RGB code</title>
  </head>
  <body text = "rgb(0,0,255)" bgcolor = "rgb(0,255,0)">
    <p>Use different color code for for body and table and see the result.</p>
       <table bgcolor = "rgb(0,0,0)">
      <tr>
        <td>
          <font color = "rgb(255,255,255)">This text will appear white on black background.</font>
        </td>
      </tr>
    </table>
  </body>
  </html>
```

HTML - Fonts

Fonts play a very important role in making a website more user friendly and increasing content readability. Font face and color depends entirely on the computer and browser that is being used to view page but can use HTML **** tag to add style, size, and color to the text on website.

The font tag is having three attributes called **size, color**, and **face** to customize fonts. To change any of the font attributes at any time within webpage, simply use the tag. The text that follows will remain changed until close with the tag. this can change one or all of the font attributes within one <font> tag.

Set Font Size

this can set content font size using **size** attribute. The range of accepted values is from 1(smallest) to 7(largest). The default size of a font is 3.

Example

```
<!DOCTYPE html>
<html>
  <head>
    <title>Setting Font Size</title>
  </head>
  <body>
    <font size = "1">Font size = "1"</font><br />
    <font size = "2">Font size = "2"</font><br />
    <font size = "3">Font size = "3"</font><br />
    <font size = "4">Font size = "4"</font><br />
    <font size = "5">Font size = "5"</font><br />
    <font size = "6">Font size = "6"</font><br />
    <font size = "7">Font size = "7"</font>
  </body>
</html>
```

Relative Font Size

this can specify how many sizes larger or how many sizes smaller than the preset font size should be. like **<font size = "+n">** or **<font size = "–n">**

Example

```
<!DOCTYPE html>
<html>
  <head>
    <title>Relative Font Size</title>
  </head>
  <body>
    <font size = "-1">Font size = "-1"</font><br />
    <font size = "+1">Font size = "+1"</font><br />
    <font size = "+2">Font size = "+2"</font><br />
    <font size = "+3">Font size = "+3"</font><br />
    <font size = "+4">Font size = "+4"</font>
  </body>
</html>
```

Setting Font Face

We can set font face using *face* attribute but be aware that if the user viewing the page doesn't have the font installed, they will not be able to see it. Instead, user will see the default font face applicable to the user's computer.

Example

```
<!DOCTYPE html>
<html>

  <head>
    <title>Font Face</title>
  </head>
  <body>
    <font face = "Times New Roman" size = "5">Times New Roman</font><br />
    <font face = "Verdana" size = "5">Verdana</font><br />
    <font face = "Comic sans MS" size =" 5">Comic Sans MS</font><br />
    <font face = "WildWest" size = "5">WildWest</font><br />
    <font face = "Bedrock" size = "5">Bedrock</font><br />
  </body>
</html>
```

Specify alternate font faces

A visitor will only be able to see font if they have that font installed on their computer. So, it is possible to specify two or more font face alternatives by listing the font face names, separated by a comma.

```
<font face = "arial,helvetica">
<font face = "Lucida Calligraphy,Comic Sans MS,Lucida Console">
```

When page is loaded, their browser will display the first font face available. If none of the given fonts are installed, then it will display the default font face *Times New Roman*.