### **Hyper Text Markup Language**

## References:

https://www.w3schools.com/tags/ref\_byfunc.asp https://developer.mozilla.org/en-US/docs/Web/HTML/Element

## **Basic Structure:**

- html tag
- head tag: inside head tag there will be -> meta tags, title and links
- body tag: the whole page code will be inside of this

```
<h1> Basic Structure :</h1>
  <br />
  <h1>---->html element starts</h1>
  <br />
  <h2>----- > head element starts</h2>
  <h3>----- title element starts</h3>
  <h4>----- / write title'</h4>
  <h3>----- → title element ends</h3>
  <h2>----- head element ends</h2>
  <br />
  <h2>----- ≥ body element starts</h2>
  -----there can be p element (also called tag)
  </h3>
  <h3>
    -----there can be also other different elements
    (different tags)
  </h3>
  <h2>----- body element ends</h2>
  <br />
  <h1>----►html element ends</h1>
 </body>
</html>
```

## **HTML Attributes:**

- Attributes are those things, which are defined to add some additional features to the html element.
- For example, 'style="" 'attribute is used to add some color to the text, 'src="" 'attribute is used to add the source of the image, and 'alt="" 'attribute is used to add the alternative text to the image.
- So, that means attributes are defined or used only in html elements.

```
<!DOCTYPE html>
<html>
```

```
<head>
   <title>HTML Attributes</title>
 </head>
 <body>
   <!-- here style="" is an attribute -->
   Hello World!
   <!-- here src="" and alt="" are two attributes -->
   <img src="" alt="" />
   >
     <br/>b>That means attributes are those things, which are defined to add some
       additional features to the html element. For example, ' style="" '
       attribute is used to add some color to the text, ' src="" ' attribute
is
       used to add the source of the image, and 'alt="" 'attribute is used
to
       add the alternative text to the image. So, that means attributes are
       only defined or used only in html elements.
     </b>
   </body>
</html>
```

Text Formatting (Use of different elements or tags like - p, b, i, strong, em, mark, code, small, del, ins, u, sub, sup, br etc.):

```
<!-- paragraph -->
   <g>>
     Lorem, ipsum dolor sit amet consectetur adipisicing elit. Quia facilis
     repellendus ab adipisci at, deleniti rem? Voluptatem accusantium officia
     magnam, hic aliquid perspiciatis est enim repudiandae quia architecto
     voluptatum in qui quidem ipsam voluptates dignissimos optio. Reiciendis
     nisi culpa molestias distinctio recusandae est aut, magnam quasi, hic
     officiis obcaecati sit!
   <!-- bold text -->
   <b>Hello</b>
   <!-- important text : same as bold -->
   <strong>John Doe
   <!-- italic text -->
   <i>John Doe</i>
   <!-- emphasized text : italic -->
   <em>John Doe</em>
   <!-- marked text : will be highlighted -->
   <mark>John Doe</mark>
   <!-- will show like code -->
   <code> const x = 10; </code>
   <!-- small font -->
   <small>John Doe
   <!-- deleted text/eliminated text -->
   <del>John Doe</del>
   <!-- inserted text/added text : works like underlined text -->
   <ins>John Doe</ins>
   <!-- underlined text -->
   <u>>John Doe</u>
   <!-- subscript is a character (such as a number or letter) that is set
slightly below of the normal line of type -->
   <sub>John Doe</sub>
   H<sub>2</sub>0
   <!-- superscript is a character (such as a number or letter) that is set
```

```
slightly above of the normal line of type -->
   <sup>John Doe</sup>
   (a+b)<sup>2</sup> = a<sup>2</sup> + 2ab + b<sup>2</sup>
   >
     a
     <sup
       >b <sup>c <sup>d </sup> </sup>
     </sup>
   <!-- line break tag -->
   <br />
   <!-- when we use 'p' tag, whatever formatting or line breaks we give, it
will be shown always in one line, but when we use 'pre' tag, it will be shown
as it is. Just like we wrote, whatever we write, it will be shown as it is --
   <
                         Lorem ipsum dolor sit,
       amet consectetur adipisicing elit.
       Harum recusandae quod quia,
       cupiditate dolore numquam reiciendis,
       expedita sit optio ut aspernatur cumque,
                 ducimus vitae autem est porro! Voluptatibus, laborum iste?
           Numquam ducimus inventore perspiciatis odio at itaque pariatur
distinctio quis nemo explicabo!
       Reiciendis sapiente repudiandae, modi saepe, ipsam neque quo assumenda
aperiam corporis voluptatum,
       fuga nemo eaque est atque natus dolorum exercitationem pariatur minus
harum dolores corrupti eveniet nobis consequatur?
                         Tempore quam voluptate velit hic dolor ex optio
consequatur laborum perspiciatis odit quidem dolorum dolorem unde quod magni
omnis,
       quo expedita eum accusantium error facilis labore saepe, magnam
accusamus!
       Porro.
   <!-- horizontal rule element/hr tag -->
   <h1>Below this is a horizontal rule element (hr tag)</h1>
```

<!-- blockquote tag -> to show the quote in the webpage, with the author's

<hr />

<!-- we will see a horizontal line here -->

```
name, and the source of the quote with cite="" attribute -->
    <blockguote cite="https://www.goodreads.com/quotes">
      "If you want to know what a man's like, take a good look at how he
treats
      his inferiors, not his equals." - J.K. Rowling, Harry Potter and the
      Goblet of Fire
    </blockquote>
    <!-- quote tag -> to show the quote in the webpage. It will automatically
show the quote in double quotes -->
      >If you want to know what a man's like, take a good look at how he
treats
     his inferiors, not his equals.
   </q>
    <!-- abbr tag -> to show the abbreviation in the webpage, with the title
attribute to show the full name of the abbreviation. On mouse cursor hovering
on the abbreviation, it will show the full name -->
    I live in <abbr title="Bangladesh">BD.</abbr>
    <!-- address tag -> to show the address in the webpage. It will be seen
that, the text is in italic form -->
    <address>Dhaka, Bangladesh</address>
   <!-- bdo tag with dir="rtl"/right-to-left attribute. It will reverse the
text -->
   <bdo dir="rtl">John Doe</bdo>
 </body>
</html>
```

# **Headings / Headlines:**

# **HTML Styling with CSS:**

```
<!DOCTYPE html>
<html>
 <head>
   <title>HTML Styling</title>
 </head>
 <body>
   This is a paragraph with red color.
   This is a paragraph with red color and Courier New font.
   <p
    style="
      color: red;
      font-family: 'Courier New', Courier, monospace;
      font-size: 20px;
    This is a paragraph with red color, Courier New font, and 20px font
```

```
size.
   <p
     style="
       color: red;
       font-family: 'Courier New', Courier, monospace;
       font-size: 20px;
       text-align: center;
     This is a paragraph with red color, Courier New font, 20px font size,
and
     center alignment.
   <p
     style="
       color: red;
       font-family: 'Courier New', Courier, monospace;
       font-size: 20px;
       text-align: center;
       background-color: lightblue;
     This is a paragraph with red color, Courier New font, 20px font size,
and
     center alignment, and lightblue background color.
    <!-- here, style is an attribute and color, font-family, font-size, and
text-align, background-color are css styling properties. As we can see, we can
use multiple properties in one style attribute -->
 </body>
</html>
```

### HTML (Inline CSS):

```
<!DOCTYPE html>
<html>
<head>
```

#### HTML (Internal CSS):

### HTML (External CSS):

```
p {
  color: brown;
}
```

# **HTML Anchor Tag:**

## **Absolute URL:**

## HTML Anchor Tag (with absolute URL):

```
All links point to Faizul Bitto's GitHub profile.
    Since these links include the full URL (with https://), they are
considered **absolute URLs**, meaning they point to a resource on a different
website or domain.
   -->
    <a
      href="https://github.com/Faizul-Bitto"
     target="_blank"
     title="GitHub Profile"
     >Faizul Bitto's Github Profile (opens in new tab)
    </a>
    <br />
    <a
      href="https://github.com/Faizul-Bitto"
     target="_self"
     title="GitHub Profile"
     >Faizul Bitto's Github Profile (opens in same tab)
    </a>
    <br />
    <a
     href="https://github.com/Faizul-Bitto"
     target="_parent"
     title="GitHub Profile"
     >Faizul Bitto's Github Profile (opens in parent frame)
    </a>
    <br />
    <a
     href="https://github.com/Faizul-Bitto"
     target="_top"
     title="GitHub Profile"
     >Faizul Bitto's Github Profile (opens in top frame)
    </a>
 </body>
</html>
```

## **HTML** Anchor Tag -> for mobile (absolute URL):

#### **Relative URL:**

```
<!DOCTYPE html>
<html lang="en">
 <head>
   <meta charset="UTF-8" />
   <meta name="viewport" content="width=device-width, initial-scale=1.0" />
   <title>Relative URL</title>
 </head>
 <body>
    <p
      style="
       color: aqua;
        font-size: 50px;
        text-align: center;
        font-family: 'Courier New', Courier, monospace;
        background-color: black;
        padding: 20px;
        border-radius: 20px;
        text-transform: uppercase;
        letter-spacing: 2px;
       text-shadow: 2px 2px 5px red;
        box-shadow: 2px 2px 5px red;
      Demo
   </body>
</html>
```

```
<!DOCTYPE html>

<html>

<head>
    <title>Anchor Tag</title>
    </head>

<body>
```

## Table:

```
<!DOCTYPE html>
<html lang="en">
 <head>
   <meta charset="UTF-8" />
   <meta name="viewport" content="width=device-width, initial-scale=1.0" />
   <title>Table</title>
 </head>
 <body>
   <!-- x axis: rows ; y axis: columns -->
   A1
      B1
      C1
    A2
```

#### **Row and Column Span:**

```
<!DOCTYPE html>
<html lang="en">
 <head>
   <meta charset="UTF-8" />
   <meta name="viewport" content="width=device-width, initial-scale=1.0" />
   <title>Table</title>
 </head>
 <body>
   This table displays average height, width, and red eye percentages for
males and females.
     - <caption> adds a title to the table.
     -  merges two columns for the "Average" heading.
     -  merges two rows vertically for "Red Eyes".
     -  contains the actual data cells.
   The structure helps create a multi-level header with properly aligned
data.
   -->
```

```
<caption>
   <box><b>A Test Table</b></b>
  </caption>
  <!-- now we have to work with rows -->
  Average
   Red Eyes
  Height
   Width
  </tr>
  Male
   1.9
   0.33
   40%
  </tr>
  Female
   1.7
   0.3
   43%
  </body>
</html>
```

## List:

#### **Ordered List:**

```
<!DOCTYPE html>
```

```
<html lang="en">
 <head>
   <meta charset="UTF-8" />
   <meta name="viewport" content="width=device-width, initial-scale=1.0" />
   <title>Ordered List</title>
 </head>
 <body>
   < ! --
   This is an ordered list () where items are automatically numbered
using lowercase letters (a, b, c...). We can also capital letters (A, B,
C...), even roman numbers (i, ii, iii...).
    - 'type="a"' sets the list style to lowercase alphabet.
    - 'type="A"' sets the list style to uppercase alphabet.
    - 'type="i"' sets the list style to lowercase roman numbers.
    -  tags define each list item.
   type="a">
    Item 1
    Item 2
    Item 3
    Item 4
   type="A">
    Item 1
    Item 2
    Item 3
    Item 4
   type="i">
    Item 1
    Item 2
    Item 3
    Item 4
   type="i">
    Rice
    Dal
    Meat
```

#### **Unordered List:**

```
<!DOCTYPE html>
<html lang="en">
 <head>
   <meta charset="UTF-8" />
   <meta name="viewport" content="width=device-width, initial-scale=1.0" />
   <title>Unordered List</title>
 </head>
 <body>
   This is an unordered list () where each item is marked with a square
bullet.
     - 'type="square"' sets the bullet style to square.
     - 'type="circle"' sets the bullet style to circle.
     -  tags define each list item.
   Other possible types are: 'disc' (default), 'circle', and 'square'.
   ul type="circle">
     Item 1
     Item 2
     Item 3
     Item 4
   Item 1
```

```
Item 2
  Item 3
  Item 4
 Rice
  Dal
  Meat
  Chicken
  Beef
  >0il
 </body>
</html>
```

## Form:

```
<label for="">Email:</label>
   <input type="email" /><br />
   <label for="">Male</label>
   <input type="radio" /><br />
   <label for="">Female</label>
   <input type="radio" /><br /><br /><br /><br />
   <label for="">Male</label>
   <input type="checkbox" /><br />
   <label for="">Female</label>
   <input type="checkbox" /><br /><br /><br /><br /></pr
   <select name="" id="">
     <option value="">Choose City</option>
     <option value="">Dhaka</option>
     <option value="">Rangpur</option>
     <option value="">Sylhet</option></select</pre>
   ><br /><br /><br /><</pre>
   <button>Submit
 </body>
</html>
```

## **Image:**

# **Favlcon Linking:**

```
<!DOCTYPE html>
<html lang="en">
 <head>
    <meta charset="UTF-8" />
    <meta name="viewport" content="width=device-width, initial-scale=1.0" />
    <!--
    This k> tag sets a favicon (favorite icon) for the webpage.
      - 'rel="shortcut icon"' specifies it's a favicon.
      - 'href' provides the image URL to be used as the icon.
      - 'type' defines the file type of the icon (image/x-icon).
    This icon appears in the browser tab beside the page title.
    -->
    link
     rel="shortcut icon"
      href="https://img.icons8.com/?
size=100&id=BdjA3Y8bTxW8&format=png&color=000000"
      type="image/x-icon"
    />
```

```
<title>fav icon</title>

</head>

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

## Video:

```
<!DOCTYPE html>
<html lang="en">
 <head>
   <meta charset="UTF-8" />
   <meta name="viewport" content="width=device-width, initial-scale=1.0" />
   <title>Video</title>
 </head>
 <body>
   <video
     controls
      src="https://videos.pexels.com/video-files/17554657/17554657-
uhd_2560_1440_24fps.mp4"
     width="500px"
     height="500px"
   ></video>
 </body>
</html>
```

## Audio:

```
</head>
  <body>
        <audio controls src="./music/audio.mp3"></audio>
        </body>
</html>
```

## YouTube Embed:

```
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="UTF-8" />
    <meta name="viewport" content="width=device-width, initial-scale=1.0" />
    <title>Youtube Embed</title>
  </head>
  <body>
    <iframe
      src="https://www.youtube.com/embed/CVFFcgvdLts"
      frameborder="0"
      width="100%"
      height="940"
    ></iframe>
  </body>
</html>
```

# **Meta Tags:**

```
<!-- FOR GOOGLE - to catch properly google site -->
    <!-- character set="UTF-8" -->
    <meta charset="UTF-8" />
    <!-- viewport -> initially how the web application will be viewed.
"width=device-width" - says view the webpage with the width of the device
width (device wise width) and "initial-scale=1.0" means 100% zoom, the lesser
than 1 means the lesser than 100% -->
    <meta name="viewport" content="width=device-width, initial-scale=1.0" />
    <!-- description -> description of the webpage -->
    <meta name="description" content="anything" />
    <!-- keyword -> keywords of the webpage, which keywords going to be used,
as a web developer it's not our work to define the content of the keyword,
it's for those who works with SEO, we developer just need to keep this meta
tag properties so that those who works with SEO can define as they want -->
    <meta name="keyword" content="" />
    <!-- author -> define the name of the owner of the webpage -->
    <meta name="author" content="John Doe" />
    <!-- FOR FACEBOOK - to catch properly facebook -->
    <!-- only these meta tags defined up - these are for google, are not
sufficient. as the web pages are shared in the facebook, social medias or
youtube, so we need some needed meta tags, so that we can maintain the rule of
these. EX - facebook has some rules -->
    <!-- for targeting facebook, we don't use 'name' in meta tags, rather we
use 'property', for facebook properties, we use 'og'-> open graph, defined by
facebook, and we use 'site_name' so that facebook can recognize our website --
    <meta property="og:site_name" content="John Doe" />
    <!-- same goes for 'og:url' to confirm facebook the website's url -->
    <meta property="og:url" content="johndoe.com" />
    <!-- same goes for 'og:title' to confirm facebook the website's title -->
    <meta property="og:title" content="Meta Tags Tutorial" />
    <!-- same goes for 'og:image' to confirm facebook the image, in 'content'
- define the location -->
    <meta property="og:image" content=".//" />
    <title>Meta Tags Tutorial</title>
 </head>
 <body>
 </body>
</html>
```

### No Cache Meta:

```
<!DOCTYPE html>
<html lang="en">
 <head>
    <meta charset="UTF-8" />
    <meta name="viewport" content="width=device-width, initial-scale=1.0" />
    <!-- in our web application, when we don't want to keep any cache, or to
define the keeping time, we can define these by meta tags. for that we use
'http-equiv=', why we need this, sometimes it happens that, after updating the
webpage, users don't get the updates, but the previous cache control solves
the problem, so to get rid off this, we use No Cache Meta Tags -->
    <!-- normally we don't want caching in our web application, it's so common
that, after update users not getting the update, so we use 'no-cache' header -
for no cache saving in cache memory -->
    <meta http-equiv="cache-control" content="no-cache" />
    <!-- another same thing - -->
    <meta http-equiv="pragma" content="no-cache" />
    <!-- for these two, web page header won't do any caching -->
   <!-- for expiration control -->
    <meta http-equiv="expires" content="0" />
    <meta http-equiv="expires" content="Tue, 01 Jan 1980 1:00:00 GMT" />
   <!-- and of course keep that in mind, for every browser these cache-
control work like same, that's not true, for some browsers, cache control may
not work -->
    <title>No Cache Meta Tags (Caching Header)</title>
 </head>
 <body>
 </body>
</html>
```

### Time:

# **Auto Complete Suggestions and Datalist Tags:**

```
<!DOCTYPE html>
<html lang="en">
 <head>
    <meta charset="UTF-8" />
    <meta name="viewport" content="width=device-width, initial-scale=1.0" />
    <title>Auto Complete Suggestions or DataList Tags</title>
 </head>
 <body>
    <!-- whenever user try to write the name of his/her country, after writing
first letter or just writing something, the related suggestions would pop-up,
user can simply select, and that will be selected automatically -->
    <label>My Country : </label><br />
    <input name="country" list="country_name" />
    <datalist id="country_name">
      <option value="Bangladesh"></option>
      <option value="USA"></option>
      <option value="Germany"></option>
      <option value="England"></option>
    </datalist>
 </body>
```

</html>

# **Emojis:**