HTML Fundamentals

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

```html
<!DOCTYPE html>

<html lang="en">

  <head>

    <meta charset="UTF-8" />
    <meta name="viewport" content="width=device-width, initial-scale=1.0" />
    <title>Document</title>

  </head>

  <body>

  </body>

</html>
```

Text Formatting:

```html
<!DOCTYPE html>

<html lang="en">

  <head>
    <meta charset="UTF-8" />
    <meta name="viewport" content="width=device-width, initial-scale=1.0" />
```

```html
    <title>My Web Page</title>
  </head>

  <body>

    <!-- paragraph -->
    <p>
      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!
    </p>

    <!-- bold text -->
    <b>Hello</b>

    <!-- important text : same as bold -->
    <strong>John Doe</strong>

    <!-- 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</small>

    <!-- 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>

    <!-- 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>

    <!-- line break tag -->
    <br />

  </body>

</html>
```

Headings / Headlines:

```
<!DOCTYPE html>

<html lang="en">
  <head>
    <meta charset="UTF-8" />
    <meta name="viewport" content="width=device-width, initial-scale=1.0" />
    <title>Headlines</title>
  </head>

  <body>

    <!-- There are 6 heading tags in HTML. We can use them to create headings. h1
to h6. Larger to Smaller -->
    <h1>Heading1</h1>

    <h2>Heading2</h2>

    <h3>Heading3</h3>

    <h4>Heading4</h4>

    <h5>Heading5</h5>

    <h6>Heading6</h6>

  </body>

</html>
```

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 -->

    <table border="1">

      <tr>
        <th>A1</th>
        <th>B1</th>
        <th>C1</th>
      </tr>

      <tr>
        <td>A2</td>
        <td>B2</td>
        <td>C2</td>
      </tr>

      <tr>
        <td>A3</td>
        <td>B3</td>
        <td>C3</td>
      </tr>

    </table>

  </body>

</html>
```

List (ordered and unordered):

```
<!DOCTYPE html>

<html lang="en">
  <head>
    <meta charset="UTF-8" />
    <meta name="viewport" content="width=device-width, initial-scale=1.0" />
    <title>List</title>
```

```
    </head>

    <body>

      <ul>
        <li>Item 1</li>
        <li>Item 2</li>
        <li>Item 3</li>
        <li>Item 4</li>
      </ul>

      <ol>
        <li>Item 1</li>
        <li>Item 2</li>
        <li>Item 3</li>
        <li>Item 4</li>
      </ol>

    </body>

</html>
```

Form:

```
<!DOCTYPE html>

<html lang="en">

  <head>
    <meta charset="UTF-8" />
    <meta name="viewport" content="width=device-width, initial-scale=1.0" />
    <title>Form</title>
  </head>

  <body>

    <label for="">User name:</label>
    <input type="text" /><br /><br />

    <label for="">Password:</label>
    <input type="password" /><br /><br />

    <label for="">Age:</label>
    <input type="number" /><br /><br />

    <label for="">Email:</label>
    <input type="email" /><br /><br />
```

```html
    <label for="">Male</label>
    <input type="radio" /><br /><br />
    <label for="">Female</label>
    <input type="radio" /><br /><br /><br /><br />

    <label for="">Male</label>
    <input type="checkbox" /><br /><br />
    <label for="">Female</label>
    <input type="checkbox" /><br /><br /><br /><br />

    <select name="" id="">
      <option value="">Choose City</option>
      <option value="">Dhaka</option>
      <option value="">Rangpur</option>
      <option value="">Sylhet</option></select
    ><br /><br /><br /><br />

    <button>Submit</button>

  </body>

</html>
```

Image:

```html
<!DOCTYPE html>

<html lang="en">

  <head>
    <meta charset="UTF-8" />
    <meta name="viewport" content="width=device-width, initial-scale=1.0" />
    <title>Image</title>
  </head>

  <body>
    <img
      src="https://img.freepik.com/free-photo/beautiful-mountains-landscape_23-
2150788152.jpg?
t=st=1723279433~exp=1723283033~hmac=646300252f35e2759c81758a6ef27d7b51a2f9aa9d494
fbe8c23a382d9a05128&w=1480"
      alt="random image"
      width="100%"
      height="950px"
    />
  </body>
```

```
</html>
```

Video:

```html
<!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:

```html
<!DOCTYPE html>

<html lang="en">

  <head>
    <meta charset="UTF-8" />
    <meta name="viewport" content="width=device-width, initial-scale=1.0" />
    <title>Audio</title>
  </head>

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

```
</html>
```

YouTube Embed:

```html
<!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:

```html
<!DOCTYPE html>

<html lang="en">

  <head>
    <!-- we always use meta tags in the head section. Not visible for users, but
these are instructions for the system, for Search Engine Optimization meta tags
are important -->

    <!-- 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
```

```html
   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:

```html
<!DOCTYPE html>

<html lang="en">

  <head>
```

```html
    <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:

```html
<!DOCTYPE html>

<html lang="en">

  <head>
    <meta charset="UTF-8" />
    <meta name="viewport" content="width=device-width, initial-scale=1.0" />
    <title>Time and Mark</title>
  </head>
```

```
  <body>
    <p>Birth Date <time datetime="2002-01-06">21st November 1980</time></p>
  </body>

</html>
```

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:

```
<!DOCTYPE html>

<html lang="en">

  <head>
```

```html
    <meta charset="UTF-8" />
    <meta name="viewport" content="width=device-width, initial-scale=1.0" />
    <title>emojis</title>
  </head>

  <body>
    <!-- search html emojis codes, just grab and use -->
    <p>
      &#128507; &#128508; &#128509; &#128510; &#128511; &#128512; &#128513;
      &#128514; &#128515; &#128516; &#128517;
    </p>
  </body>

</html>
```