HTML

HTML — HyperText Markup Language

one web page is linked to other

Annotations/tags used to markup content

What is HTML?

* Basic building block.
* It describes the structure of a Web page.
* It is a skeleton of Web page.
* It tells browser how to render the content.
* It is not case sensitive.

Explained

`<!DOCTYPE html>` It defines that this document is an HTML 5 document.

`<html>` It is a root element of HTML page.

`<head>` It contains metadata about HTML page.

data about data

`<title>` It specifies a title for the HTML page. (which is shown in the browser's title bar)

`<body>` It defines the document's body, and is container for all the visible contents, such as headings, paragraphs, images, hyperlinks, lists, etc.

`<h1>`   It defines a large heading.

`<h6>`   It defines a small heading.

`<p>`   It defines a paragraph.

What is an HTML Element?

An HTML element is defined by a start tag, some content, and an end tag.

`<tagname>` Hello Dot Batch `</tagname>`
— start tag — content — end tag —
———————— Element ————————

The HTML element is everything from the start tag to the end tag.

Tags in HTML

HTML tags are keywords which defines that how web browser will format & display the content.

* Tags are enclosed within <> brackets.

Ex — `<p>`   `<img>`   `<a>`
        ↓   ↓   ↓
    Paragraph   Image   Link

`<tag>`   content   `</tag>`

Opening   Closing
tag   tag

Exceptions in HTML elements. [Homework]

There are some tags which do not have any
closing tag.

HTML elements with no content are called
empty elements.

Ex — `<br>` — It defines a line break.
{ It has no closing tag. }

Self Closing tag.

* A self closing tag in HTML is kind of HTML
tag that does not need to be closed manually
by its closing tag.
* It does not have a seperate closing tag as
`</tag>`.
* Some of few self-closing tags are —

     — `<input>`   — `<col/>`
     — `<hr/>`
     — `<br/>`   — `<link/>`
     — `<img/>`   — `<meta/>`
                   ---etc.

when we try to close the empty tag

HTML Attributes

* All HTML elements can have attributes.
* Attributes provide additional information about elements.
* Attributes are always specified in the start tag.
* Attributes usually come in name/value pair like : name = "value" .

href Attribute

The `<a>` tag defines a hyperlink.

Ex — `<a href = "https://www.thecodehelp.in"> Atal Satya </a>`

src Attribute

src attribute specifies the path to the image to be desplayed.

Ex — `<img src = "dot_batch.jpg">`

alt Attribute

The required alt attribute for the `<img>` tag specifies an alternative text for an image, if the the image for some reason can't be displayed.

Ex — `<img src = "dot_batch.jpg" alt = "Dot batch thumbnail">`

title Attribute

* The title attribute defines some extra info" about an element.

* The value of the title attribute will be displayed as a tooltrip when your mouse is hovered over the element.

Ex— `<p title="I'm a tooltrip">This is a para.</p>`

HTML Styles [will learn more in CSS]

The HTML styles attribute is used to add styles to an element, such as color, font, size.

Syntax — `<tagname style="property:value;">`

HTML Text Formatting

HTML contains several elements for defining text with a special meaning.

Ex— `<b>`   — Bold text   `<sub>` — Subscript text
      `<strong>` — Important text   `<sup>` — Superscript text
      `<i>`   — Italic text
      `<em>`   — Emphasized text
      `<mark>`   — Marked text
      `<small>` — Smaller text
      `<del>`   — Deleted text
      `<ins>`   — Inserted text

HTML Quotation and Citation Elements

HTML `<blockquote>`

The HTML `<blockquote>` element defines a section that is quoted from another source.

Ex —
```
<p> Here is a quote from WWF's website! </p>
<blockquote cite="http://www.wwf.org/who/index.html">
for 60 years, WWF has worked — — — — —
— — — — — .
</blockquote>
```

HTML `<q>` for short notes

The HTML `<q>` tag defines a short quotation.

Ex —
```
<p> Our goal is to : <q> Learn Web Dev. </q></p>
```

HTML `<address>` for contact information

Ther HTML `<address>` tag defines the contact information for the auther of a document.

Ex —
```
<address>
112, <br>
Thana, <br>
Police station, <br>
UP, <br>
</address>
```

HTML Comments

HTML comments are not displayed in the browser, but they can help in documentation of your HTML HTML source code.

Ex - `<!-- This is a comment -->`

HTML Favicon

A favicon is a small image displayed next to the page title in the browser tab.

⇒ In order to display favicon, we need to add a `<link>` element to your "index.html" file, after the `<title>` element.

Ex -
```
<!DOCTYPE html>
<html>
<head>
    <title> Favicon </title>
    <link rel = "icon" type = "image/x-icon" href = "img.jpg">
</head>
</html>
```

HTML Images

Images can improve the design and the appearance of a web page.

Ex - `<img src ="img.png" alt =" Image is there">`

HTML Lists

HTML lists allow web developers to group a set of related items in lists.

Types of Lists

It is of 3 types—

1) Ordered List
2) Unordered List
3) Description List

* Ordered List

An ordered list starts with the `<ol>` tag.
Each list item starts with the `<li>` tag.

```
Ex—    <ol>
           <li> Tea </li>
           <li> Milk </li>
       </ol>
```

Output—

1. Tea
2. Milk

* Unordered List

An unordered list starts with the `<ul>` tag.
Each list items start with the `<li>` tag.

```
Ex —   <ul>
           <li> Water </li>
           <li> Tea </li>
       </ul>
```

Output—

• Water
• Tea

* Description List

⇒ A description list is a list of terms, with a description of each items.

⇒ The `<dl>` tag defines the description list, the `<dt>` tag defines the term (name), and the `<dd>` tag describes each term.

Ex—
```
<dl>
    <dt> Coffee </dt>
    <dd>- Black hot drink. </dd>
    <dt> Milk </dt>
    <dd>- White cold drink.</dd>
</dl>
```

Output —
Coffee
    —Black hot drink.
  Milk
    —White cold drink.