HTML

HTML — HyperText Markup Language

- HyperText → one web page is linked to other
- Markup → 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 HTML5 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 tag   Closing 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/>`   - `<link/>`

     - `<br/>`

     - `<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> Learn 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.