

HTML

What is html?

- Html stands for hyper text markup language was created by Tim Berners-Lee in 1991 as a standard for creating web pages.
- HTML is like the skeleton of a website.
- Html gives structure to web page
- It contains text known as tags
- Tags are understandable by browser.

What is a html document?

- An HTML document is a text document saved with the '.html' or '.htm' extension, containing text and specific tags enclosed in '< >'.

What is tag?

- Html instructions known as tags
- An HTML tag acts as a container for content or other HTML tags.
- Tags are words enclosed within < and > angle brackets.



Type of tags in html

1. Open tags or container tags
 - It has a range
 - E.g. <p></p>
2. Close tags or empty tags
 - It does not have a range.
 - E.g.
, </hr>

What is an html element?

- An HTML element is a complete set that consists of a start tag (or opening tag), content, and an end tag (or closing tag).
- HTML Element = Start Tag + Content + End Tag
- E.g.
- <h1>Content</h1>

What is an attribute in html?

- Attributes defines the properties or characteristics of a html element.
- Attributes modify the behavior, functionality, or appearance of an element by providing additional information.
- They allow you to customize the behavior of HTML elements.
- E.g.
- `Go to Example`

Basic structure of html

```
<!doctype html>
<html>
  <head>
    <title></title>
  </head>
  <body>
    <h1>hello html</h1>
  </body>
</html>
```



<!doctype html5>

- It defines that this document is the html5 document

<html>

- Root element for html document

<head>

- It contains meta information about the web page

<title>

- Element specifies a title for the HTML page (which is shown in the browser's title bar or in the page's tab)

<body>

- Element defines the document's body, and is a container for all the visible contents, such as headings, paragraphs, images, hyperlinks, tables, lists, etc.

Heading tags

- Its defines heading
 - Displayed in larger and bolder font
 - There are 6 level of heading tags
1. `<h1></h1>`
 2. `<h2></h2>`
 3. `<h3></h3>`
 4. `<h4></h4>`
 5. `<h5></h5>`
 6. `<h6></h6>`



Text formatting tags

1. Paragraph tags
 - Used to create paragraph
 - Syntax `<p>this is paragraph</p>`
2. Used to insert black line in the document
 - Syntax `
`
3. Horizontal ruler
 - Used to draw horizontal line across the web page
 - Syntax `<hr>`
4. **Physical and logical tags**

A. Physical tag

- It describes the physical appearance of the content.
- Physical tags are used to indicate exactly how specific characters are to be formatted.

1. Bold tags
 - Defines bold text
 - ``
2. Italic tag
 - Defines italic text
 - `<i></i>`
3. Big tag
 - Defines big text
 - `<big></big>`
4. Small tag
 - Defines small text
 - `<big></big>`
5. Sup tag
 - Defines superscripted text
 - `^{hello}`
6. Sub tag
 - Defines subscripted text
 - `_{hello}`



B. Logical tags

- These tags indicate the purpose of text, such as whether it's a heading, code, or an address.

1. Abbreviation tag
 - It used to defines abbreviation or short of an element
 - `<abbr title="world health organization">WHO</abbr>`
2. Address tag
 - Used to indicate the contact information about person or organization
 - Text inside the address tag will be displayed in italic format.
 - `<address>shant niwas, pune</address>`

3. Blockquote

- Used to specify the text is quoted from another section
- Cite tag –it specify source of quotation (author)
- `<blockquote>`
 `<p>`
 Google is an American multinational corporation technology
 company that offers a variety of products and services
 `</p>`
 `<cite>`
 http://www.google.com
 `</cite>`
`</blockquote>`

4. Code tag

- Used specify the text is computer code
- `<code></code>`

5. Del tag

- Used to specify portion of text deleted from document
- `the content is deleted`

6. Ins tag

- Specify text has been inserted into document
- `deleted text <ins>inserted text</ins>`

7. Def tag

- Used to mark term that is being defined in document
- `<p>`
 `<def>java</def>` is programming language.
`</p>`

8. Kbd tag

- Used to define keyword input
- `<kbd>this is keyboard input</kbd>`

9. Samp tag

- Used to define sample output from computer program
- `<samp></samp>`

10. Strong tag

- Used to define text with strong importance
- `java is high level programming language`

11. Var tag

- Used to define variable in programming or mathematical expression
- Content displayed in italic format
- `<var></var>`

Semantic and non-semantic element

Semantic element

- Semantic elements clearly describes the purpose of content they contain to both browser and developer

1. Article tag

- Used to define article
- `<article></article>`



2. Section tags

- Represents a thematic grouping of content.
- Defines section of documents such as chapter , header or any other content
- `<section></section>`

3. Mark tag

- Used to mark or highlight the content
- `<mark></mark>`

4. Figure tag

- It used to add self-contained content like illustration , diagrams and photos in a document
- Figcaption tag- it used to set caption image
- E.g.

```
<figure>  
    <img src="">  
    <figcaption></figcaption>  
</figure>
```



5. Details tag

- It used for content or information which initially hidden but could be displayed if user wants to see it
- Summary tag
- Used with details tag to specify visible heading
- `<details>`

```
    <summary>More Info</summary>
    <p>This is the additional information that can be revealed
    by clicking the summary.
    </p>

</details>
```

6. Header tag

- Used to define the introductory content of a section or a webpage.
 - It typically contains elements like headings, logos, navigation links, and other introductory information relevant to the content that follows.
- ```
<header>
 <h1>welcome to my web page</h1>
</header>
```
- 

#### 7. Main tag

- The `<main>` tag is used to encapsulate the main content
- `<main></main>`

#### 8. Footer tag

- used to define the footer section of a document
- it typically contain information about copyright information , contact details, links related documents or social media.
- `<footer></footer>`

### Non semantic elements

- A non-semantic element don't have any meaning.
- They don't tell anything about content they contain
- Used for only grouping purpose

## 1. Div

- Its generic container for grouping other HTML elements together.
- It does not provide any specific meaning or structure on its own but is commonly used for layout and styling purposes.

```
<div><div>
```

## 2. Span

- The `<span>` tag in HTML is an inline, non-semantic element used to group and style a portion of text or other inline elements.
- It does not provide any meaning or structure but is useful for applying CSS styles or JavaScript functions to a specific part of content.

```

```

### List in html

- In html list is way to display item in structured format, either in ordered or unordered way.
- There are main three type of list

1. Unordered list
2. Ordered list
3. Descriptive list



### 1. Unordered list

- An unordered list displays items in bullets format
- Unordered list enclosed within `<ul></ul>` tag
- Each list item is enclosed within `<li></li>` tag
- Type attribute specify type of bullet
- Disc – solid circle
- Square – solid square
- Circle – hollow circle

```
<ul type="disc">
```

```
 item 1
```

```
 item 2
```

```
 item 3
```

```

```



## 2. Ordered list

- An ordered list displays the items in numbered format
- Ordered list enclosed within `<ol></ol>` tag
- Each element enclosed within `<li></li>` tags
- Type attribute specify type of sequence (bullet)
- Type- 1, A, a, I, i

```

 item 1
 item 2
 item 3

```

## 3. Definition list or descriptive list

- Definition list is not list of items.
- Its list of term and explanation of term



```
<dl>
 <dt>HTML</dt>
 <dd>A markup language for creating web pages</dd>

 <dt>CSS</dt>
 <dd>A style sheet language for designing web pages</dd>
</dl>
```

## 4. Nested list

- The list inside another list is known as a nested list