

HTML(Hyper Text Markup Language)



-  Use to build **web pages** for website.
-  Develop by **Sir Timothy John Berners-Lee (TimBL)**.
-  First publicly available in **1991**.

Html Working



Website

- A website is the collection of web pages that runs on a server.
- Website is accessed by client/user through a web browser with an active internet connection.



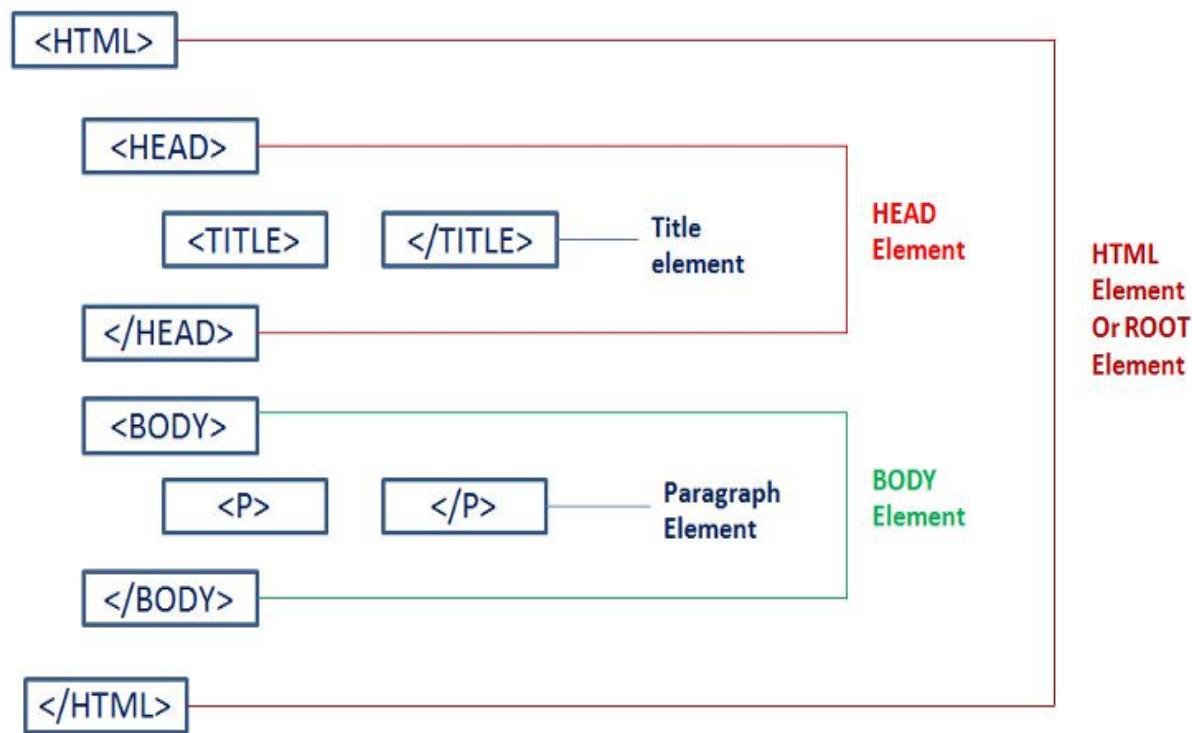
Tool Required



**Visual Studio Code
Software**

Creating First Web Page

First.html OR First.htm



Html <!Doctype>



- It is used to inform the browser about the document type.
- It is not case sensitive.

In html 5:

```
<!DOCTYPE html>
```

In html 4:

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01  
Transitional//EN" "http://www.w3.org/TR/html4/loose.dtd">
```

- HTML has six levels of headings. **<h1>, <h2>, <h3>, <h4>, <h5>, and <h6>**.
- While displaying any heading, browser adds line break before and after that heading.

<h1>Heading 1</h1>

<h2>Heading 2</h2>

<h3>Heading 3</h3>

<h4>Heading 4</h4>

<h5>Heading 5</h5>

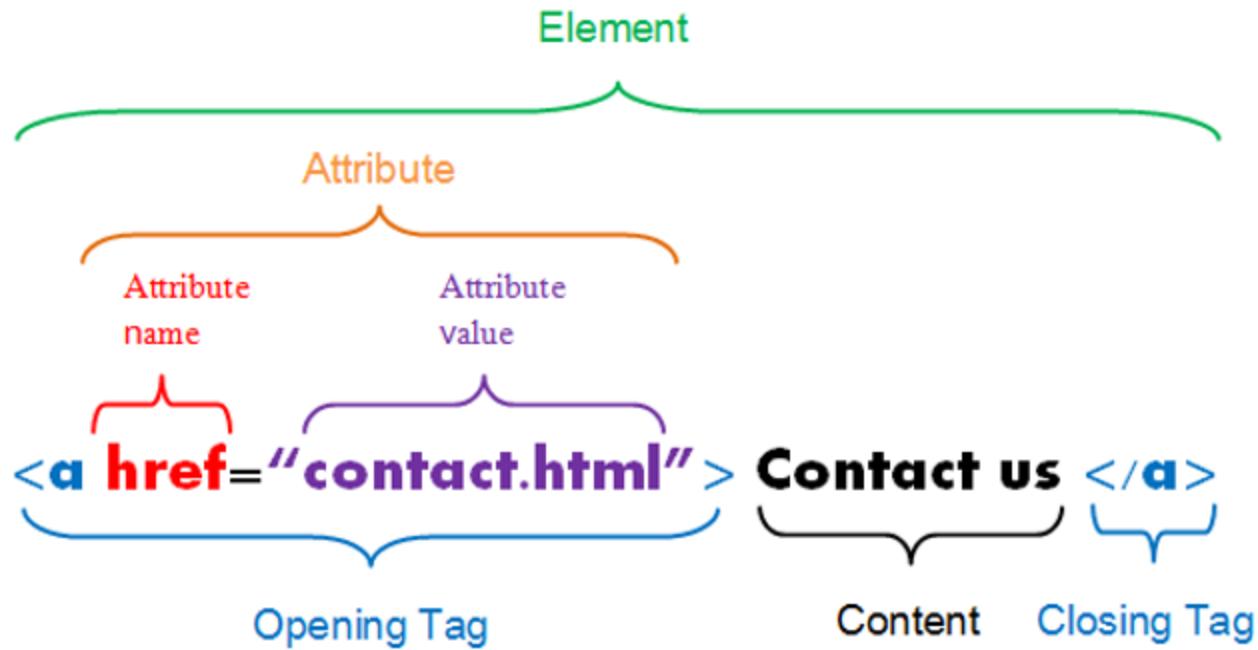
<h6>Heading 6</h6>

Html Hyperlink

- It allow to navigate between Web pages by clicking on words, phrases, and images.
- It is specified using HTML tag **<a>** (known as **anchor tag**).
- If we want to open page in new tab of the window, use target attribute as **target=" _blank"**

```
<a href="contact.html" > Contact us </a>
```

Html Element Anatomy



- It is used to add comment in the source code. Comment is not displayed in the browsers.

```
<!-- This Code is doing XYZ job -->
```

Note: Do not use // as comment in html, // is JavaScript comment.

Setting the Colors

- By using **style** attribute, we can provide colors.

```
<h1 style="color:red" > My Heading1 </h1>
```

```
<h1 style="background-color:yellow" > My Heading2 </h1>
```

Working with Images



- We can insert any image in your web page by using **** tag.

```

```

Attributes we can use:

source file (src) – Defines image url

alternative text (alt) – Defines image description

border – Defines border of image

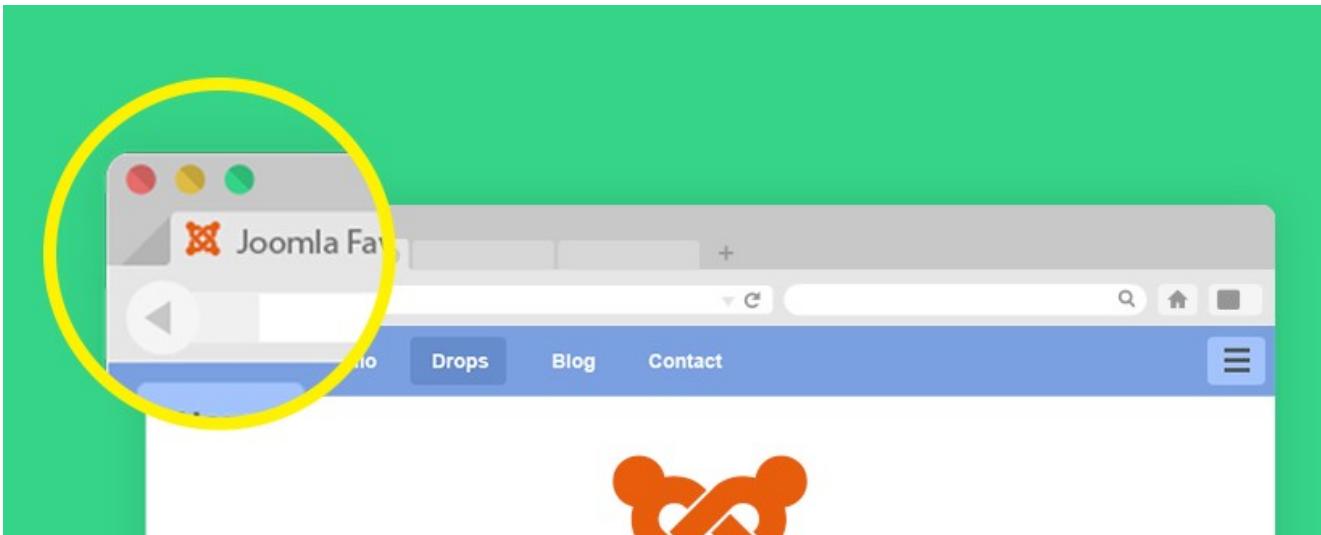
width – Defines width of image

height – Defines height of image

Html Favicon Image

- It is a small icon or logo found in front of the website.
- There are png, jpg, gif, svg and icon image formats supported.
- This must comes under the **<head>** tag.

```
<link rel="icon" href="your_icon.ico" />
```



Line-Break and Horizontal-Line



**
** tag is used for line break.

<hr> tag is used for horizontal line.

<div> tag



- The <div> tag defines a **division** or a **section** in an HTML document.

```
<div>
  <h1>Heading</h1>
  <p>This is a paragraph. </p>
</div>
```

Html Center Tag



- It is used to horizontally center any content of a page.

<center> content </center>

Text Formatting

Bold Text-

```
<p>this <b>paragraph</b> has a word in bold.</p>
```

this **paragraph** has a word in bold.

Italic Text-

```
<p>this <i>paragraph</i> has a word in italic.</p>
```

this *paragraph* has a word in italic.

Underlined Text-

```
<p>this <u>paragraph</u> has a word underlined.</p>
```

this paragraph has a word underlined.

Strike Text-

```
<p>this <strike>paragraph</strike> has a word strike through.</p>
```

this ~~paragraph~~ has a word strike through.

Text Formatting continue..

Marked Text-

```
<p>this <mark>paragraph</mark> has a word marked..</p>
```

this **paragraph** has a word marked..

Smaller Text-

```
<p>this <small>paragraph</small> has a word smaller than other  
words..</p>
```

this paragraph has a word smaller than other words..

Big Text-

```
<p>this <big>paragraph</big> has a word larger than other  
words..</p>
```

this **paragraph** has a word **larger than** other words..

HTML provides many ways for specifying lists of information.

Ordered List (ol)

1. Html
2. Css
3. Js

Unordered List (ul)

- Html
- Css
- Js

Definition List (dl)

Html

Hyper Text Markup Language

Css

Cascading Style Sheet

Js

Java Script

Html Table

- The HTML table allows to arrange data into rows and columns of cells.
- The HTML tables are created using the **<table>** tag.
- The three elements for separating the head, body, and foot of a table are:
 - <thead>** - to create a separate table header.
 - <tbody>** - to indicate the main body of the table.
 - <tfoot>** - to create a separate table footer.
- **<th>** tag is used to create table heading and **<tr>** tag is used to create table rows and **<td>** tag is used to create data cells.

Column 1	Column 2	Column 3
Row 1 Cell 1	Row 1 Cell 2	Row 1 Cell 3
	Row 2 Cell 2	Row 2 Cell 3
Row 3 Cell 1		

Html Table continue..

- **bgcolor** attribute - We can set background color for whole table or just for one cell.
- **border** attribute - We can set border size for table.
- **colspan** attribute, if we want to merge two or more columns into a single column.
- **attribute, if you want to merge two or more rows into a single row.**

Column 1	Column 2	Column 3
Row 1 Cell 1	Row 1 Cell 2	Row 1 Cell 3
	Row 2 Cell 2	Row 2 Cell 3
Row 3 Cell 1		

Html Character Entities

- Character entities are used to display reserved characters in HTML.
- Entity names are Case Sensitive.

Result	Description	Entity Name	Entity Number
	non-breaking space	 	
<	less than	<	<
>	greater than	>	>
&	ampersand	&	&
"	double quotation mark	"	"
'	single quotation mark (apostrophe)	'	'
¢	cent	¢	¢
£	pound	£	£
¥	yen	¥	¥
€	euro	€	€
©	copyright	©	©
®	registered trademark	®	®

Html Form

- HTML Forms are required when you want to collect some data from the site visitor.

```
<form action="URL" method="GET or POST" >  
    Form elements like input, textarea etc.  
</form>
```

Enter your Details:

Name:

Email:

Age:

Input Elements

<code><input type="text"></code>	A text field.
<code><input type="email"></code>	An email address field.
<code><input type="number"></code>	A number field.
<code><input type="password"></code>	A password field.
<code><input type="range"></code>	A range field.
<code><input type="tel"></code>	A phone number field.
<code><input type="color"></code>	A color picker field.
<code><input type="url"></code>	A website url field.
<code><input type="date"></code>	A date picker field.
<code><input type="time"></code>	A time picker field.
<code><input type="month"></code>	A month picker field.
<code><input type="week"></code>	A week picker field.
<code><input type="radio"></code>	An option button.
<code><input type="checkbox"></code>	A check box.

Input Elements



<code><input type="file"></code>	A file-select field and a Browse button for uploading files.
<code><input type="submit"></code>	A submit button.
<code><input type="reset"></code>	A reset button.
<code><input type="image"></code>	An image submit button.
<code><input type="search"></code>	A field for entering a search string.
<code><input type="button"></code>	A clickable button.
<code><select></code>	A drop-down list containing <code><option></code> elements.
<code><textarea></code>	A multiline text input field.
<code><button></code>	A clickable button, which can be set to <code>button</code> (default), <code>reset</code> , or <code>submit</code> .

Html Semantic Elements

- Semantic HTML elements are those that clearly describe their meaning to both the browser and the designer.
- Elements such as **<header>**, **<footer>** , **<nav>** and **<article>** etc. are all considered semantic because they accurately describe the purpose of the element and the type of content that is inside them.



With out Semantic Elements

```
<body>
    <div>Page Header Content</div>
    <div>
        <div>
            <div>
                <img> Image File
                <p>
                    Figure caption
                </p>
            </div>
            <p>
                main content
            </p>
        </div>
    </div>
    <div>Footer Content</div>
</body>
```

With Semantic Elements

```
<body>
    <header>Page Header Content</header>
    <section>
        <article>
            <figure>
                <img> Image File
                <figcaption>
                    Figure caption
                </figcaption>
            </figure>
            <main>
                main content
            </main>
        </article>
    </section>
    <footer>Footer Content</footer>
</body>
```

Html Semantic Elements Continue..

- List of some of the semantic elements in HTML.

Tag	Description
<u><article></u>	Defines an article
<u><aside></u>	Defines content aside from the page content
<u><details></u>	Defines additional details that the user can view or hide
<u><figcaption></u>	Defines a caption for a <figure> element
<u><figure></u>	Specifies self-contained content, like illustrations, diagrams, photos, code listings, etc.
<u><footer></u>	Defines a footer for a document or section
<u><header></u>	Specifies a header for a document or section
<u><main></u>	Specifies the main content of a document
<u><mark></u>	Defines marked/highlighted text
<u><nav></u>	Defines navigation links
<u><section></u>	Defines a section in a document
<u><summary></u>	Defines a visible heading for a <details> element
<u><time></u>	Defines a date/time

Html iframe



- Iframe tag is used to display a web page inside the web page.

```
<iframe src="https://www.incapp.in"  
height="300" width="500"> </iframe>
```

This is IFrame Example

A screenshot of a web browser window displaying the incapp website. The main content area shows a banner with the text "We are providing BEST IT Training." and "We are in the field of Professional Training to groom human resources for IT sector." Below the banner are two buttons: "CONTACT OUR REPRESENTATIVE" and "0120-4108484". A green button at the bottom left encourages users to "Click Here for ONLINE COURSES". The entire main content area is enclosed in a light gray box, which is itself within a larger white frame.

Showing a Video

```
<video width="400" height="300" controls>
  <source src="myvideo.mp4" type="video/mp4">
  This browser does not support the video tag.
</video>
```

- File formats supported are **mp4**, **ogg** and **webm** .

This is Video Example



Playing a YouTube Video

```
<iframe width="500" height="400"  
src="https://www.youtube.com/embed/JOgK6YI9tpl"  
allowfullscreen>  
</iframe>
```

This is Youtube Video Example



Playing an Audio

```
<audio controls>
```

```
  <source src="loca.mp3" type="audio/mp3">
```

This browser does not support the audio tag.

```
</audio>
```

This is Audio Example



- File formats supported are **mp3**, **ogg** and **wav** .

Meta Tag

- HTML meta tag specifies the metadata. Meta tag gives information about a document in a variety of ways.
- This must comes under the **<head>** tag.

Define the author of a page:

```
<meta name="author" content= "Rahul Chauhan" />
```

Define a description of your web page:

```
<meta name="description" content= "This is portfolio page" />
```

Define keywords for search engines:

```
<meta name="keywords" content= "Best Website Designer, Website Creator" />
```

Refresh document every 5 seconds:

```
<meta http-equiv="refresh" content= "5" />
```

Redirect document after 5 seconds:

```
<meta http-equiv="refresh" content= "5; url = https://www.incapp.in" />
```