

HTML

What is HTML?

- HTML stands for **Hyper Text Markup Language**
- HTML is the standard **markup language** for creating Web pages
- HTML describes the **structure of a Web page**
- HTML consists of a series of elements
- HTML elements tell the browser how to display the content

What is an HTML Tag and Element?

- An **HTML tag** is used to indicate the beginning and end of an html element in an HTML document

Tag: `< tagname > </ tagname >`

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

Element : `< tagname > Content goes here... </ tagname >`

HTML Documents:

- All HTML documents must start with a document type declaration: `<!DOCTYPE html>`
- The HTML document itself begins with `<html>` and ends with `</html>`
- The visible part of the HTML document is between `<body>` and `</body>`

Structure of HTML:

```
<!DOCTYPE html>
```

```
<html>
```

```
  <head>
```

```
  </head>
```

```
  <body>
```

```
    <h1>My First Heading</h1>
```

```
  </body>
```

```
</html>
```

HTML Attributes:

- All HTML elements can have **attributes**
- Attributes provide **additional information** about elements
- Attributes are always specified in **the start tag**
- href ----- hypertext reference
- src ----- source
- alt ----- alternative, style, width , height

HTML Headings:

- HTML headings are defined with the `<h1>` to `<h6>` tags.

`<h1>Heading 1</h1>`

`<h2>Heading 2</h2>`

`<h3>Heading 3</h3>`

`<h4>Heading 4</h4>`

`<h5>Heading 5</h5>`

`<h6>Heading 6</h6>`

Output:

Heading 1

Heading 2

Heading 3

Heading 4

Heading 5

Heading 6

HTML Paragraphs:

- The HTML `<p>` element defines a paragraph.
- A paragraph always starts on a new line, and browsers automatically add some white space (a margin) before and after a paragraph.

HTML Display:

- You cannot be sure how HTML will be displayed.
- Large or small screens, and resized windows will create different results.

Example for p tag:

```
<h1>P Tag</h1>
```

```
<p>
```

This paragraph
contains a lot of lines

```
</p>
```

```
<h1>Pre Tag</h1>
```

```
<pre>
```

This paragraph
contains a lot of spaces

```
</pre>
```

Output:

P Tag

This paragraph contains a lot of lines

Pre Tag

This paragraph
contains a lot of spaces

HTML Horizontal Rules:<hr>

- The <hr> tag defines a thematic break in an HTML page, and is most often displayed as a horizontal rule.
- The <hr> element is used to separate content (or define a change) in an HTML page.

HTML Line Breaks

- The HTML
 element defines a line break.
- Use
 if you want a line break (a new line) without starting a new paragraph.

Example for <hr> and
:

```
<!DOCTYPE html>
```

```
<html>
```

```
<body>
```

```
    <p>This <br> is some text.
```

```
    </p>
```

```
    <hr>
```

```
    <h2>This is some text.</h2>
```

```
    <hr>
```

```
</body>
```

```
</html>
```

Output:

This
is some text.

This is some text.

HTML Formatting Elements:

- Formatting elements were designed to display **special types of text**:
- `` - Bold text
- `` - Important text
- `<i>` - Italic text
- `` - Emphasized text
- `<mark>` - Marked text
- `<small>` - Smaller text
- `` - Deleted text
- `<ins>` - Inserted text
- `<sub>` - Subscript text
- `<sup>` - Superscript text

HTML and Elements:

Example Code:

```
<!DOCTYPE html>
<html>
<body>
  <p>This text is normal.</p>
  <b> This text is bold</b>
  <strong>
    This text is important!
  </strong>
</body>
</html>
```

Output:

This text is normal.

This text is bold

This text is important!

HTML <i> and Elements:

Example Code:

```
<!DOCTYPE html>
<html>
<body>
  <p>This text is normal.</p>
  <i> This text is italic</i>
  <em>
    This text is emphasized.
  </em>
</body>
</html>
```

Output:

This text is normal.

This text is italic

This text is emphasized.

HTML <small> and <mark> Element

Example Code:

```
<body>  
  <p>This text is normal</p>  
  <small>  
    This is some smaller text.  
  </small>  
  <p>  
    Do not forget to buy  
    <mark>milk</mark> today.  
  </p>  
</body>
```

Output:

This text is normal

This is some smaller text.

Do not forget to buy **milk** today.

HTML and <ins> Element:

Example Code:

```
<!DOCTYPE html>
```

```
<html>
```

```
<body>
```

```
    <p>
```

```
        My favorite color is
```

```
        <del> blue </del>
```

```
        <ins> red </ins>
```

```
    </p>
```

```
</body>
```

```
</html>
```

Output:

My favorite color is ~~blue~~ red.

HTML <sub> and <sup> Element:

Example Code:

```
<body>
```

```
<p>This is <sub>subscripted</sub>  
text.</p>
```

```
<p>This is <sup>superscripted</sup>  
text.</p>
```

```
</body>
```

Output:

This is subscripted text.

This is superscripted text.

HTML Quotation and Citation Elements:

- `<q>` - Defines a short inline quotation
- `<bdo>` - Defines the text direction
- `<cite>` - Defines the title of a work
- `<abbr>` - Defines an abbreviation or acronym
- `<blockquote>` - Defines a section that is quoted from another source
- `<address>` - Defines contact information for the author/owner of a document

HTML <blockquote> for Quotations:

<body>

<p>Here is a quote from WWF's website:</p>

<blockquote >

For 60 years, WWF has worked to help people and nature thrive. As the world's leading conservation organization, WWF works in nearly 100 countries.

</blockquote>

</body>

Output:

Here is a quote from WWF's website:

For 60 years, WWF has worked to help people and nature thrive. As the world's leading conservation organization, WWF works in nearly 100 countries.

HTML <q> for Short Quotations:

Example Code:

```
<body>
```

```
    <h1> <q> Hello </q> World</h1>
```

```
</body>
```

Output:

“Hello” World

HTML <abbr> for Abbreviations:

Example Code:

```
<body>
```

```
    <p>The <abbr title="World Health Organization">WHO</abbr>  
        was founded in 1948.
```

```
    </p>
```

```
</body>
```

Output:

The WHO was founded in 1948.

HTML <address> for Contact Information:

Example Code:

```
<body>
```

```
    <address>
```

```
        Written by John Doe.<br> Visit us at:<br>
```

```
        Example.com<br>Box 564, Disneyland<br>USA
```

```
    </address>
```

```
</body>
```

Output:

Written by John Doe.

Visit us at:

Example.com

Box 564, Disneyland

USA

HTML <cite> for Work Title:

Example code:

```
<body>
```

```
    <p>The HTML cite element defines the title of a work.</p>
```

```
    <p><cite>The Scream</cite> by Edward Munch. Painted in 1893.</p>
```

```
</body>
```

Output:

The HTML cite element defines the title of a work.

The Scream by Edvard Munch. Painted in 1893.

HTML <bdo> for Bi-Directional Override:

Example Code:

```
<body>
```

```
    <h1><bdo dir="rtl">Hello World</bdo></h1>
```

```
</body>
```

Output:

dlroW olleH

HTML Comments:

- HTML comments are not displayed in the browser, but they can help document your HTML source code.
- You can add comments to your HTML source by using the following syntax:

`<!-- Write your comments here -->`

HTML Links:

- HTML links are hyperlinks.
- You can click on a link and jump to another document.
- When you move the mouse over a link, the mouse arrow will turn into a little hand.

HTML Links - Syntax

```
<a href="url">link text</a>
```

- The most important attribute of the `<a>` element is the `href` attribute, which indicates the link's destination.
- The *link text* is the part that will be visible to the reader.
- Clicking on the link text, will send the reader to the specified URL address.

HTML Links - The target Attribute:

- By default, the linked page will be displayed in the current browser window. To change this, you must specify another target for the link.
- The **target** attribute specifies where to open the linked document.
- The **target** attribute can have one of the following values:
- **_self** - Default. Opens the document in the same window/tab as it was clicked
- **_blank** - Opens the document in a new window or tab
- **_parent** - Opens the document in the parent frame
- **_top** - Opens the document in the full body of the window
- `click`

HTML Images:

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

Syntax:

``

- Images are not technically inserted into a web page; images are linked to web pages. The `` tag creates a holding space for the referenced image.
- The `` tag is empty, it contains attributes only, and does not have a closing tag.
- The `` tag has two required attributes:
 - `src` - Specifies the path to the image
 - `alt` - Specifies an alternate text for the image

Image Size - Width and Height:

- You can use the height and width attribute to specify the width and height of an image.

Syntax:

```

```

Images in Another Folder:

```

```

HTML Favicon:

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

How To Add a Favicon in HTML:

- You can use any image you like as your favicon.
- add a `<link>` element to your "index.html" file, after the `<title>` element

Example Code for Favicon:

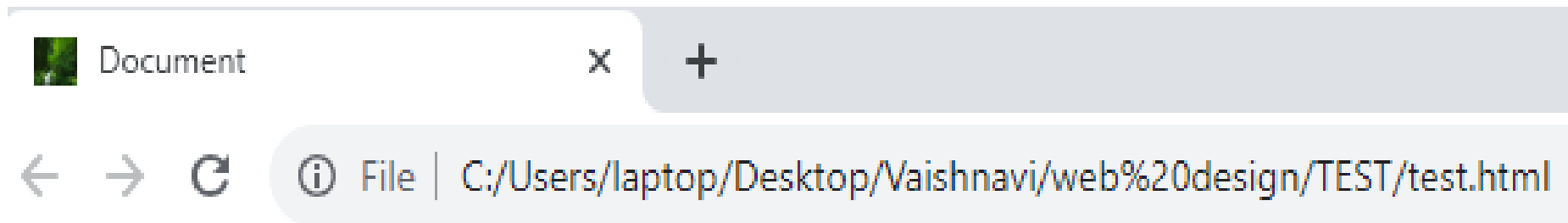
```
<head>
```

```
  <title>Demo Project</title>
```

```
  <link rel="icon" href="IMAGE/1712283.jpg">
```

```
</head>
```

Output:



HTML Tables:

- HTML tables allow web developers to arrange data into rows and columns.
- A table in HTML consists of table **cells** inside rows and columns.

Table Cells

- Each table cell is defined by a `<td>` and ends with a `</td>` tag
- td stands for table data.

Table Rows

- Each table row starts with a `<tr>` and ends with a `</tr>` tag.
- tr stands for table row.

Table Headers

- Sometimes you want your cells to be table header cells. In those cases use the `<th>` tag instead of the `</th>` tag. th stands for table header.

Example Code for table:

```
<table>  
  <tr>  
    <th> Name </th> <th> Mark </th>  
  </tr>  
  <tr>  
    <td> Kalai </td> <td> 96 </td>  
  </tr>  
  <tr>  
    <td> Deepa </td> <td> 99 </td>  
  </tr>  
</table>
```

HTML Lists:

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

Types of lists

- Ordered list
- Unordered list
- Description list

Ordered HTML List:

- An ordered list starts with the `` tag. Each list item starts with the `` tag.
- The list items will be marked with numbers by default

Example code :

```
<h2>An ordered HTML list</h2>
```

```
<ol>
```

```
  <li>Coffee</li>
```

```
  <li>Tea</li>
```

```
  <li>Milk</li>
```

```
</ol>
```

Output:

An ordered HTML list

1. Coffee

2. Tea

3. Milk

Unordered HTML List:

- An unordered list starts with the `` tag. Each list item starts with the `` tag.
- The list items will be marked with bullets (small black circles) by default

Example code:

```
<h2>An unordered HTML list</h2>
```

```
<ul>
```

```
  <li>Coffee</li>
```

```
  <li>Tea</li>
```

```
  <li>Milk</li>
```

```
</ul>
```

Output:

An unordered HTML list

- Coffee
- Tea
- Milk

HTML Description Lists:

- HTML also supports description lists.
- A description list is a list of terms, with a description of each term.
- The `<dl>` tag defines the description list, the `<dt>` tag defines the term (name), and the `<dd>` tag describes each term

Example code:

```
<h2>A Description List</h2>
<dl>
  <dt>Coffee</dt>
  <dd> black hot drink</dd>
  <dt>Milk</dt>
  <dd> white cold drink</dd>
</dl>
```

Output:

A Description List

Coffee

black hot drink

Milk

white cold drink

HTML Block and Inline Elements:

Block-level Elements:

- A block-level element always starts on a new line, and the browsers automatically add some space (a margin) before and after the element.
- A block-level element always takes up the full width available (stretches out to the left and right as far as it can).
- Two commonly used block elements are: `<p>` and `<div>`

Here are the block-level elements in HTML:

- `<address>` , `<article>` , `<aside>` , `<blockquote>` , `<canvas>` , `<dd>` , `<div>` , `<dl>`

Inline Elements:

- An inline element does not start on a new line.
- An inline element only takes up as much width as necessary.
- This is a `` element inside a paragraph.

Here are the inline elements in HTML:

- `<a>` `` , `` , `` , `<i>` , `<q>`, `<mark>`

HTML Iframes:

- An HTML iframe is used to display a web page within a web page.

HTML Iframe Syntax

- The HTML <iframe> tag specifies an inline frame.
- An inline frame is used to embed another document within the current HTML document.

```
<iframe src="url" title="description"></iframe>
```

Example Code for iframe:

```
<body>
```

```
<h2>Iframe - Target for a Link</h2>
```

```
    <iframe src="IMAGE/images.jfif" name="iframe_a" height="300px"  
        width="500px" title="Iframe Example">
```

```
</iframe>
```

```
<p>
```

```
    <a href="Mediaqurry.html" target="iframe_a">
```

```
        Clickto get the HTML page
```

```
    </a>
```

```
</p>
```

```
</body>
```

Output:

Before Button Click:

Iframe - Target for a Link

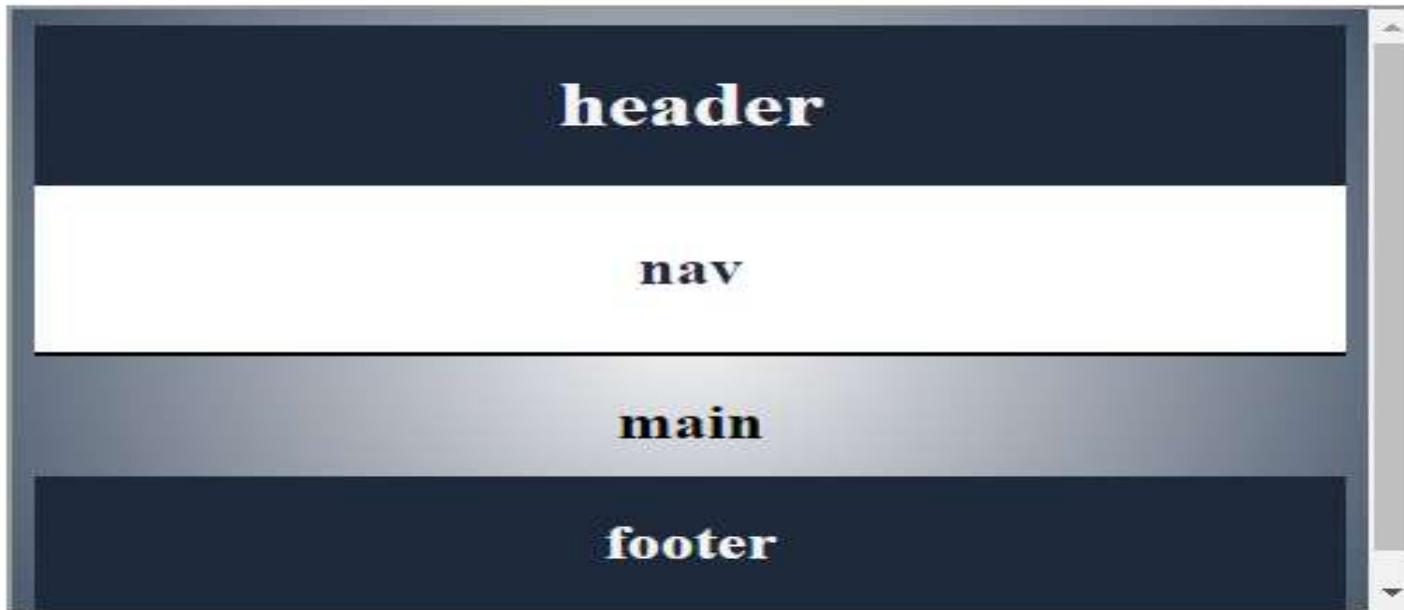


[Click to get the HTML page](#)

Output:

After Button Click:

Iframe - Target for a Link



[Click to get the HTML page](#)

HTML Semantic Elements:

- Semantic elements = elements with a meaning.
- A semantic element clearly describes its meaning to both the browser and the developer.
- Examples of **non-semantic** elements: `<div>` and `` - Tells nothing about its content.
- Examples of **semantic** elements: `<form>` and `<table>` - Clearly defines its content.

Using Emoji's in HTML:

- Emoji's look like images, or icons, but they are not.
- They are letters (characters) from the UTF-8 (Unicode) character set.

The HTML charset Attribute:

- To display an HTML page correctly, a web browser must know the character set used in the page.
- This is specified in the <meta> tag

`<meta charset="UTF-8">`

- UTF-8 stands for Unicode Transformation Format 8 bit

Emoji Characters:

- Emoji's are also characters from the UTF-8 alphabet:
- 😊 is 128516
- 😍 is 128525
- ❤️ is 128151

Example Code:

```
<body>  
    <h1>My First Emoji &#128512 </h1>  
</body>
```

Output:

My First Emoji 😊

HTML Video:

- The HTML <video> element is used to show a video on a web page.

Syntax:

```
<video width="320" height="240" controls autoplay muted >
```

```
    <source src="movie.mp4">
```

```
</video>
```

```
<video src="movie.mp4" controls autoplay muted width="320" height="240" >
```

```
</video>
```


HTML Audio:

- The HTML `<audio>` element is used to play an audio file on a web page.

Syntax:

```
<audio controls autoplay muted >
```

```
    <source src="horse.mp3" >
```

```
</audio>
```

```
<audio src="horse.mp3" controls autoplay muted ></audio>
```

HTML Forms:

- An HTML form is used to collect user input. The user input is most often sent to a server for processing.

The <form> Element:

- The HTML <form> element is used to create an HTML form for user input
- The <form> element is a container for different types of input elements, such as: text fields, checkboxes, radio buttons, submit buttons, etc.

```
<form>
```

```
<label>First name:</label><br>
```

```
<input type="text" placeholder="Enter Your Name"><br>
```

```
<label>Last name:</label><br>
```

```
<input type="password" placeholder="Enter Password" >
```

```
</form>
```

The <input> Element:

- The HTML <input> element is the most used form element.
- An <input> element can be displayed in many ways, depending on the type attribute.

Type	Description
<code><input type="text"></code>	Displays a single-line text input field
<code><input type="radio"></code>	Displays a radio button (for selecting one of many choices)
<code><input type="checkbox"></code>	Displays a checkbox (for selecting zero or more of many choices)
<code><input type="submit"></code>	Displays a submit button (for submitting the form)
<code><input type="button"></code>	Displays a clickable button

The <label> Element:

- Notice the use of the <label> element in the example above.
- The <label> tag defines a label for many form elements.
- The <label> element is useful for screen-reader users, because the screen-reader will read out loud the label when the user focuses on the input element.

THANK YOU