HTML Tutorial

HTML stands for Hyper Text Markup Language, which is the most widely used language on Web to develop web pages. HTML was created by Berners-Lee in late 1991 but "HTML 2.0" was the first standard HTML specification which was published in 1995. HTML 4.01 was a major version of HTML and it was published in late 1999. Though HTML 4.01 version is widely used but currently we are having HTML-5 version which is an extension to HTML 4.01, and this version was published in 2012.

Why to Learn HTML?

Originally, HTML was developed with the intent of defining the structure of documents like headings, paragraphs, lists, and so forth to facilitate the sharing of scientific information between researchers. Now, HTML is being widely used to format web pages with the help of different tags available in HTML language.

- **Create Web site** - You can create a website or customize an existing web template if you know HTML well.
- **Become a web designer** - If you want to start a carrer as a professional web designer, HTML and CSS designing is a must skill.
- **Understand web** - If you want to optimize your website, to boost its speed and performance, it is good to know HTML to yield best results.
- **Learn other languages** - Once you understands the basic of HTML then other related technologies like javascript, php, or angular are become easier to understand.

Applications of HTML

As mentioned before, HTML is one of the most widely used language over the web. I'm going to list few of them here:

- **Web pages development** - HTML is used to create pages which are rendered over the web. Almost every page of web is having html tags in it to render its details in browser.

- **Internet Navigation** - HTML provides tags which are used to navigate from one page to another and is heavily used in internet navigation.
- **Responsive UI** - HTML pages now-a-days works well on all platform, mobile, tabs, desktop or laptops owing to responsive design strategy.
-
- **Offline support** HTML pages once loaded can be made available offline on the machine without any need of internet.
- **Game development**- HTML5 has native support for rich experience and is now useful in gaming developent arena as well.

HTML Tags

<!DOCTYPE...>

This tag defines the document type and HTML version.

2 <html>

This tag encloses the complete HTML document and mainly comprises of document header which is represented by <head>...</head> and document body which is represented by <body>...</body> tags.

3 <head>

This tag represents the document's header which can keep other HTML tags like <title>, <link> etc.

4 <title>

The <title> tag is used inside the <head> tag to mention the document title.

5 <body>

This tag represents the document's body which keeps other HTML tags like <h1>, , etc.

6 <h1>

This tag represents the heading.

7

This tag represents a paragraph.

Heading Tags

Any document starts with a heading. You can use different sizes for your headings. HTML also has six levels of headings, which use the elements <h1>, <h2>, <h3>, <h4>, <h5>, and <h6>. While displaying any heading, browser adds one line before and one line after that heading.

Paragraph Tag

The tag offers a way to structure your text into different paragraphs. Each paragraph of text should go in between an opening and a closing tag.

Line Break Tag

Whenever you use the
 element, anything following it starts from the next line. This tag is an example of an empty element, where you do not need opening and closing tags, as there is nothing to go in between them.

Centering Content

You can use tag to put any content in the center of the page or any table cell.

Horizontal Lines

Horizontal lines are used to visually break-up sections of a document. The <hr> tag creates a line from the current position in the document to the right margin and breaks the line accordingly.

Again <hr /> tag is an example of the empty element, where you do not need opening and closing tags, as there is nothing to go in between them.

Preserve Formatting

Sometimes, you want your text to follow the exact format of how it is written in the HTML document. In these cases, you can use the preformatted tag <pre>.

Any text between the opening <pre> tag and the closing </pre> tag will preserve the formatting of the source document.

HTML - Elements

An HTML element is defined by a starting tag. If the element contains other content, it ends with a closing tag, where the element name is preceded by a forward slash as shown below with few tags −

Start Tag	Content	End Tag
	This is paragraph content.	
<h1>	This is heading content.	</h1>
	This is division content.	

So here .... is an HTML element, <h1>...</h1> is another HTML element. There are some HTML elements which don't need to be closed, such as <img.../>, <hr /> and
 elements. These are known as void elements.

HTML – Attributes

An attribute is used to define the characteristics of an HTML element and is placed inside the element's opening tag. All attributes are made up of two parts − a name and a value

The name is the property you want to set. For example, the paragraph <p> element in the example carries an attribute whose name is align, which you can use to indicate the alignment of paragraph on the page.

The value is what you want the value of the property to be set and always put within quotations. The below example shows three possible values of align attribute: left, center and right.

Attribute names and attribute values are case-insensitive. However, the World Wide Web Consortium (W3C) recommends lowercase attributes/attribute values in their HTML 4 recommendation.

Example

Live Demo

```
<!DOCTYPE html>
<html>

  <head>
    <title>Align Attribute  Example</title>
  </head>

  <body>
    <p align = "left">This is left aligned</p>
    <p align = "center">This is center aligned</p>
    <p align = "right">This is right aligned</p>
  </body>

</html>
```

This will display the following result –

This is left aligned

This is center aligned

This is right aligned

Core Attributes

The four core attributes that can be used on the majority of HTML elements (although not all) are –

Id

Title

Class

Style

The Id Attribute

The **id** attribute of an HTML tag can be used to uniquely identify any element within an HTML page. There are two primary reasons that you might want to use an id attribute on an element –

- If an element carries an id attribute as a unique identifier, it is possible to identify just that element and its content.
- If you have two elements of the same name within a Web page (or style sheet), you can use the id attribute to distinguish between elements that have the same name.

The title Attribute

The title attribute gives a suggested title for the element. They syntax for the title attribute is similar as explained for id attribute –

The behavior of this attribute will depend upon the element that carries it, although it is often displayed as a tooltip when cursor comes over the element or while the element is loading.

The class Attribute

The class attribute is used to associate an element with a style sheet, and specifies the class of element. You will learn more about the use of the class attribute when you will learn Cascading Style Sheet (CSS). So for now you can avoid it.

The style Attribute

The style attribute allows you to specify Cascading Style Sheet (CSS) rules within the element.

Internationalization Attributes

There are three internationalization attributes, which are available for most (although not all) XHTML elements.

- dir
- lang
- xml:lang

The dir Attribute

The **dir** attribute allows you to indicate to the browser about the direction in which the text should flow. The dir attribute can take one of two values, as you can see in the table that follows –

Value	Meaning
ltr	Left to right (the default value)
rtl	Right to left (for languages such as Hebrew or Arabic that are read right to l

The lang Attribute

The lang attribute allows you to indicate the main language used in a document, but this attribute was kept in HTML only for backwards compatibility with earlier versions of HTML. This attribute has been replaced by the xml:lang attribute in new XHTML documents.

HTML – Formatting

If you use a word processor, you must be familiar with the ability to make text bold, italicized, or underlined; these are just three of the ten options available to indicate how text can appear in HTML and XHTML.

Bold Text

Anything that appears within ... element, is displayed

```
<!DOCTYPE html>
<html>

   <head>
      <title>Bold Text Example</title>
   </head>

   <body>
      <p>The following word uses a <b>bold</b> typeface.</p>
   </body>

</html>
```

This will produce the following result –

The following word uses a **bold.**

Italic Text

Anything that appears within **...** element is displayed in italicized

Underlined Text

Anything that appears within <u>...</u> element, is displayed with underline.

Strike Text

Anything that appears within <strike>...</strike> element is displayed with strikethrough, which is a thin line through the text.

Monospaced Font

The content of a <tt>...</tt> element is written in monospaced font. Most of the fonts are known as variable-width fonts because different letters are of different widths (for example, the letter 'm' is wider than the letter 'i'). In a monospaced font, however, each letter has the same width.

Superscript Text

The content of a ^{...} element is written in superscript; the font size used is the same size as the characters surrounding it but is displayed half a character's height above the other characters.

Deleted Text

Anything that appears within ~~...~~ element, is displayed as deleted text.

Grouping Content

The and elements allow you to group together several elements to create sections or subsections of a page.

For example, you might want to put all of the footnotes on a page within a element to indicate that all of the elements within that