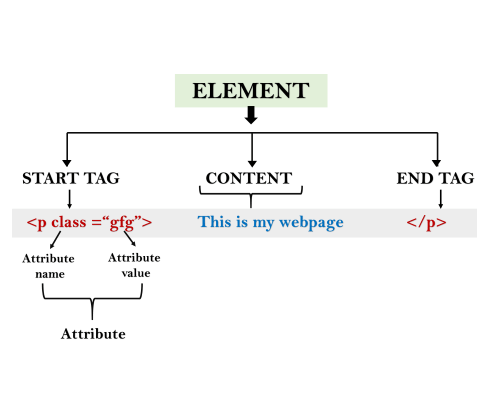
## Tags, Elements and ****Attributes****

# Building blocks of HTML

An HTML document consists of its basic building blocks which are:

* **Tags:** An HTML tag surrounds the content and applies meaning to it. It is written between < and > brackets.
* **Attribute:** An attribute in HTML provides extra information about the element, and it is applied within the start tag. An HTML attribute contains two fields: name & value.



**HTML Tags:** Tags are the starting and ending parts of an HTML element. They begin with < symbol and end with > symbol. Whatever written inside < and > are called tags.

<p></p>

**HTML elements:** Elements enclose the contents in between the tags. They consist of some kind of structure or expression. It generally consists of a start tag, content and an end tag.

<p>Hello World!</p>

**Technically, an element is a collection of start tag, attributes, end tag, content between them**.

**HTML Attributes:** It is used to define the character of an HTML element. It always placed in the opening tag of an element. It generally provides additional styling (attribute) to the element.

<p align="center">This is paragraph.</p>

| **HTML Tags** | **HTML Elements** | **HTML Attributes** |
| --- | --- | --- |
| HTML tags are used to hold the HTML element. | HTML element holds the content. | HTML attributes are used to describe the characteristic of an HTML element in detail. |
| HTML tag starts with < and ends with > | Whatever written within a HTML tag are HTML elements. | HTML attributes are found only in the starting tag. |
| HTML tags are almost like keywords where every single tag has unique meaning. | HTML elements specifies the general content. | HTML attributes specify various additional properties to the existing HTML element. |

**Case Insensitivity in HTML Tags and Attributes**

In HTML, tag and attribute names are not case-sensitive (but most attribute values are case-sensitive). It means the tag <P>, and the tag <p> defines the same thing in HTML which is a paragraph.

**Empty HTML Elements**

Empty elements (also called self-closing or void elements) are not container tags — that means, you can not write

<hr>some content</hr> or <br>some content</br>.

A typical example of an empty element is the <br> element, which represents a line break. Some other common empty elements are <img>, <input>, <link>, <meta>, <hr>, etc.

<!DOCTYPE html>

<html lang="en">

<head>

<title>HTML Empty Elements</title>

</head>

<body>

<p>This paragraph contains <br> a line break.</p>

<img src="/examples/images/sky.jpg" alt="Cloudy Sky">

<input type="text" name="username">

</body>

</html>

## Nesting HTML Elements

## Placing one element inside another is called nesting. A nested element, also called a child element.

Most HTML elements can contain any number of further elements (except [empty elements](https://www.tutorialrepublic.com/html-tutorial/html-elements.php#empty-elements)), which are, in turn, made up of tags, attributes, and content or other elements.

<!DOCTYPE html>

<html lang="en">

<head>

<title>Nesting HTML Elements</title>

</head>

<body>

<p>Here is some <b>bold</b> text.</p>

<p>Here is some <em>emphasized</em> text.</p>

<p>Here is some <mark>highlighted</mark> text.</p>

</body>

</html>

## HTML Elements Types

Elements can be placed in two distinct groups:

[Block level](https://www.tutorialrepublic.com/css-tutorial/css-visual-formatting.php#block-level)

[Inline level](https://www.tutorialrepublic.com/css-tutorial/css-visual-formatting.php#inline-level)

**Block-level Elements**

1. Make up the document's structure.
2. Block-level elements are those elements that are formatted visually as blocks with a line break before and after the element.
3. Block element occupies 100% of the available width and it is rendered with a line break before and after.
4. These are the elements, which structure main part of web page, by dividing a page into coherent blocks.
5. A block-level element always starts with new line and takes the full width of web page, from left to right.
6. These elements can contain block-level as well as inline elements.

For example, paragraph element ([<p>](https://www.tutorialrepublic.com/html-reference/html-p-tag.php)), headings ([<h1> to <h6>](https://www.tutorialrepublic.com/html-reference/html-headings-tag.php)), divisions ([<div>](https://www.tutorialrepublic.com/html-reference/html-div-tag.php))

<form>, <ol>, <ul>, <li>etc.

Following are the block-level elements in HTML.

<address>, <article>, <aside>, <blockquote>, <canvas>, <dd>, <div>, <dl>, <dt>, <fieldset>, <figcaption>, <figure>, <footer>, <form>, <h1>-<h6>, <header>, <hr>, <li>, <main>, <nav>, <noscript>, <ol>, <output>, <p>, <pre>, <section>, <table>, <tfoot>, <ul> and <video>.

**Inline-level Elements**

1. Dress up the contents of a block.
2. An inline element will take up only as much space as it needs.
3. Inline-level elements are those elements of the source document that do not form new blocks of content; the content is distributed in lines.
4. Inline elements are those elements, which differentiate the part of a given text and provide it a particular function.
5. These elements does not start with new line and take width as per requirement.
6. The Inline elements are mostly used with other elements.

For example, emphasized pieces of text within a paragraph ([<em>](https://www.tutorialrepublic.com/html-reference/html-em-tag.php)), spans ([<span>](https://www.tutorialrepublic.com/html-reference/html-span-tag.php)), strong element ([<strong>](https://www.tutorialrepublic.com/html-reference/html-strong-tag.php))

<img>, <a>, <span>, <b>, <i>, <code>, <input>, <button>, etc.

**Following are the inline level elements in HTML**

<a>, <abbr>, <acronym>, <b>, <bdo>, <big>, <br>, <button>, <cite>, <code>, <dfn>, <em>, <i>, <img>, <input>, <kbd>, <label>, <map>, <object>, <q>, <samp>, <script>, <select>, <small>, <span>, <strong>, <sub>, <sup>, <textarea>, <time>, <tt>, <var>.

**What are Attributes**

Attributes define additional characteristics or properties of the element such as width and height of an image.

Definition

1. HTML tags contain have one or more attributes are support.
2. HTML Attributes are added in tag to provide the more additional information about how the tag should be appear or behaviour.
3. HTML Attributes are always specified in the start tag.
4. HTML Attributes consist on name/value pairs like: i.e. name="value" and separated by an equals (=) sign.
5. Attribute values always be enclosed in double/single quotes.
6. Double quotes are the most common use, but single quotes are also allowed.

**HTML Attributes (Global Attributes)**

There are many attributes are in HTML elements.

some are common attributes and others can only be used on certain tags.

* Some of the more common attributes are:

|  |  |  |
| --- | --- | --- |
| Tag | Value | Description |
| id | ID Name | Declared unique id for the element. |
| class | Class Name | Used in Cascading Style Sheet (CSS). |
| style | CSS properties | CSS code specifies inline the HTML element is presented. |
| title | Title Description | Display on the "tooltip" for your elements. |

**General Purpose Attributes**

There are some attributes, such as id, title, class, style, etc. that you can use on the majority of HTML elements.