



# Revisiting the Basics of HTML

⌚ 8 minutes

## The Basics of HTML

The *HyperText Markup Language* (HTML) revolutionized the way that we use computers. Before HTML and Web browsers, all computer applications were so-called "desktop applications" that had to be created by software developers using Win32 C and other such specialized languages. With the advent of HTML, anyone with a text editor and a way to host HTML files could create content that people all over the world could see!

In this reading, you will either get to know HTML or brush up on the basics. At the end, you should know

- The three components that are the building blocks of HTML
- How to add a title to a Web page
- Add some headings to your HTML document
- Add blocks of paragraph text
- Use lists to itemize or define content
- Use hyperlinks to instruct the browser to go from one page (or *resource*) to another
- Put an image in your Web page
- Properly display tabular data
- Put comments in the source of your HTML code

## The three components of HTML

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HTML has three components that form its basic building blocks: **tags**, **elements**, and **attributes**. Once you've learned the rules for how each of these components function, you should have no trouble writing and editing

HTML.

## These things called "tags"

Any text that you write inside the angle brackets "<" and ">" will not be displayed in the browser. The text inside the angle brackets is just used to tell the browser how to display or transform regular text located between the opening tag (also called the start tag) and the closing tag (also called the end tag).

Tags usually come in pairs, and the difference between an opening tag and a closing tag is that the first symbol inside the brackets of a closing tag is a slash “/“ symbol.

For example, here's a pair of h1 tags (used to identify heading text), with some content in-between:

```
<h1>This is some content.</h1>
```

In that example, the <h1> is the opening tag and the </h1> is the closing tag.

There are a whole mess of tags in HTML for you to use. The ones that you should know because you'll put them to use are in the following list. Go read *each of the following documentation pages*.

- [html](#)
- [head](#)
- [title](#)
- [link](#)
- [script](#)
- [Header tags](#) There are six of these. This link is to just "h1".
- [p](#)
- [article](#)
- [section](#)
- [main](#)
- [nav](#)
- [header](#)
- [footer](#)

- Itemized list tags

- `ul`
- `ol`
- `li`

- `a`
- `img`

- Table tags

- `table`
- `thead`
- `tbody`
- `tfoot`
- `tr`
- `th`
- `td`

There are two main rules that you need to follow when using tags. So, don't forget them.

1. *You must always use angle brackets for tags.* Square brackets, curly braces, parentheses, none of those are for tags in HTML. Just the "<" and ">".
2. Tags almost *always come in pairs*. This means that, except for a few number of tags, you *must always close a tag after opening it*. If you forget to add a closing tag, sometimes the browser will kindly figure it out and insert one for you when it renders your content. However, *don't rely on that behavior!* Different browsers will do different things. Put the closing tag when you are supposed to put it.

There's also a general guideline for writing tags: *please write them in lower case letters*. Sure, you can write them with upper case letters. The browsers will accept "img" and "IMG" and "ImG" and "iMg" as the image tag. However, for consistency, convention, and clarity, please choose lower case.

## These things called elements

You now know that most tags come in pairs, and some tags don't have a closing tag. An **HTML element** is defined as

- If a tag is supposed to have both an opening tag and a closing tag, then when you refer to it as an *HTML element*, you actually mean:
  - The opening tag
  - The closing tag
  - All of the content between the opening and closing tags
- If a tag is *not* supposed to have a closing tag, then when you refer to it as an *HTML element*, you mean just the tag itself.

Here's an example of how to specify a title in an HTML document.

```
<title>Pictures of Barry's Beautiful Baby</title>
```

The *HTML element* is the opening tag (`<title>`), the closing tag (`</title>`), and the content inside the tags ("Pictures of Barry's Beautiful Baby").

Here's an example of how you can show an image in an HTML document.

```

```

Because images don't have closing tags, the *HTML element* is everything from `<img` to the `>`. Tags that don't have closing tags are called **empty tags**.

In some examples you find on the Internet, you are going to see empty tags with a weird slash at the end like this.

```
<!-- This is bad code with the slash -->

```

That is *OLD SYNTAX* and should not be used unless you are working on an old Web site where *all* of the empty elements have that syntax. (It is from an old standard called "XHTML", an abomination if ever there was one on the face of the World Wide Web.)

## These things called "attributes"

Attributes are used to define additional information about an element. They are located inside the opening tag, and usually come in name/value pairs (name= "value").

All HTML elements can have attributes, but for most elements, we only use them when we need to. Attributes common to *all* HTML elements are the *class* and *id* attributes that you can use to categorize and identify HTML elements in your HTML document. Of course, the most common reason to use those is so that you can write CSS to style those elements or write JavaScript to manipulate the elements through the document object model.

You may have noticed that the previous example had a name-value pair in it. That is an attribute. Here's the example, again, for convenience.

```

```

The attribute's *name* is "src" and the attribute's *value* is "./images/baby-bess-bouncing-backwards.jpg". The "src" attribute provides the additional information to the browser that this specific image's source file can be found at that path.

There are three main guidelines for using attributes. They're not really rules. However, you should follow them irrespective of the examples you see on the Internet, especially some of the sludge found on Stack Overflow.

1. *Write attributes in lower case only.* You can write them in upper case. HTML tags and attributes are "case insensitive". So, `` is the same to a browser as `<IMG SRC="...">` is the same as `<Img Src="...">`. Just use lower case. Everybody else does it, too. Be cool. Stay in the lower-case HTML school.
2. *Put quotation marks around the value.* This makes it easy to identify. In some cases, you will find it necessary because you'll need to put a space in the value of the attribute.
3. *Those quotations marks, make them double quotes.* HTML will take single quotes as delimiters for attributes. Just don't do it. Double quotes are the convention, even though you'll see plenty of people railing against the convention, proclaiming "It doesn't matter! I like single quotes better!" Let them do what they want. If you don't have any real compelling reason, please use double quotes.

When you put together all of these guidelines, the general way an HTML element should look is

```
<closeabletag attribute="value">Some content</closeabletag>  
<noclosetag attribute="value">
```

## Whitespace, tags, attributes, and content

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When a browser is parsing an HTML document, it ignores whitespace, including line breaks, between the tag name and the attributes. So, the three element declarations are considered the same to the browser. The whitespace that is ignored is called **negligible whitespace**.

```
<tag attr1="value1" attr2="value2" attr3="really-long-attribute-value-that-is-really-long">content</tag>  
  
<tag attr1="value1" attr2="value2" attr3="really-long-attribute-value-that-is-really-long">content</tag>  
  
<tag attr1="value1" attr2="value2" attr3="really-long-attribute-value-that-is-really-long">content</tag>
```

You *cannot* put space between the opening angle bracket and the tag name. This is wrong HTML.

```
<!-- This is NOT HTML. -->  
< tag attr1="value">content</tag>
```

Whitespace between the opening tag and the closing tag is part of the content of the tag. So, the two elements in the following HTML snippet are not the same because the second one has a line break and two spaces before the words and a line break after the words. This kind of whitespace is called **non-negligible whitespace**.

```
<tag attr1="value">Some content</tag>  
  
<tag attr1="value">
```

```
Some content  
</tag>
```

## What you've learned

You've learned about the three components of HTML documents: tags, elements, and attributes. You've learned about how to write them in the document. You've also gone and read about some of the most commonly used elements. You also know about how to add line breaks in-between attributes to make your document easier to read.

Did you find this lesson helpful?



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