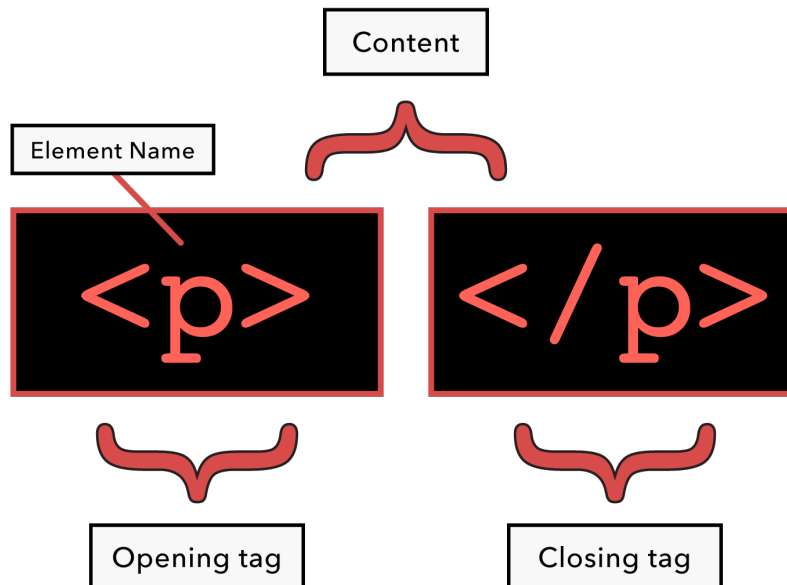# HTML Tags

The structure of webpages is described by Hypertext Markup Language (HTML). The language specifies what elements we can use for text and objects in webpages. In an HTML Editor, you'll see that HTML elements are enclosed in angle brackets, or less-than (<) and greater-than (>). The **opening tag** is written like so <tag>, and the **closing tag** is written the same way, but with a slash preceding the tag itself: </tag>.

This syntax makes up an HTML tag. For example, the paragraph tag is written as <p>. The "p" is the HTML element, and together with the angle brackets (< and >) and matching closing tag, they make up an HTML tag.

HTML Element vs. HTML Tags	
HTML Element	An individual component of an HTML document. An HTML element is the collection of start tag, its attributes (if any), and end tag and the content in between. Elements tell us the role or function of each item on the page.
HTML Tag	HTML tags mark the start and end of an element. HTML tags can either be opening (<) or closing (>).

With only a handful of exceptions, all HTML elements have closing tags. The closing tag is written with a forward slash (/) before the HTML element.

For example, to code a paragraph, we would open with the <p> tag, and when we are finished adding the paragraph text, we would close with the closing tag </p>. The "p" in this tag communicates to the browser that the content that follows should be treated as a paragraph. The syntax of the paragraph element is illustrated below:

HTML Tags: Best Practices

Always Close Tags in the Order They Were Opened

The HTML tags that make up a webpage are mostly nested inside of other tags. For example, here's what a bare-bones HTML page looks like without any content.

```
<!DOCTYPE html>
<html>
   <head>
      <title></title>
   </head>

   <body>
   </body>
```

```
    </body>
  </html>
```

Because our HTML editor gives us clear visual cues to indicate the hierarchy and nesting level of tags in the page, it's easy to see that the <html> tag contains all other tags within the page. It is opened first in the file and closed last

The <head> tag is the first one nested within the <html> tag, so it closes right before the <html> tag closes at the end of the file. Within the <head> tag, there's another level of nesting: the <title> tag opens and closes within the <head> tag.

When we have nested tags, the first tag opened is the last tag closed.

Note: There are some HTML tags —called self-closing tags— that do not need closing tags. These tags will be discussed in a following assignment.

Therefore, remember:

The last tag opened is the first tag closed.

For example:

```
<> index.html ▸ …
1     <!DOCTYPE html>
2  ⊟ <html lang="en">
3        <head></head>
4  ⊟    <body>
5          <p><b>It is important to close tags in the order in which they were opened!</b></p>
6
7        </body>
8     </html>
9
```

Notice that since the <b> tag was opened after the <p> tag, the <b> tag must be closed before the <p> tag.

The following is an example of tags that are closed out of order. Notice in this example that the <p> tag was opened after the <b> tag, yet the <b> tag is closed before the <p> tag. This syntax is incorrect.

```
<> index.html ▸ 🔶 html ▸ 🔶 body
1     <!DOCTYPE html>
2  ⊟ <html lang="en">
3        <head></head>
4  ⊟    <body>
5
6        <b><p>This is an example of tags that are out of order</b></p>
7
8        </body>
9     </html>
```

HTML Tags and Case Insensitivity

HTML tags are not case-sensitive. But, we recommend that you always use lowercase: it's much easier and faster to write, and it's much easier to scan the structure of a page when the tags are lowercase. Also, just about every Web professional in the entire world writes HTML in lowercase.

While the current HTML standard does allow for the mixing of both uppercase and lowercase element names within tags, it is generally recommended to use lowercase letters for element names. Again, the reason for this is that lowercase both looks cleaner and is easier to write.

Writing element names in lowercase can also prepare a document to be more compliant in future upgrades of HTML.

HTML Tag Tips

- The vast majority of HTML tags must be opened (<tag>) and closed (</tag>)

- Write your HTML tags in lowercase

Exercise: Debugging HTML Source Code

Examine the code in the code tool window below. Identify and correct what is wrong with the html code by typing your updates into the code tool window.

When you have completed making your corrections to the code, click on the 'run code block' button to see how the code renders in a browser window.

Run Code   Save   Export   Reset

index.html

```
1  <!doctype html>
2  <html>
3      <head>
4    <meta charset="utf-8">
5    </head>
6   <body>
7      <h1>Debugging HTML Source Code</h1>
8
9      <p>The following list outlines common causes
10 of errors in HTML source code:</p>
11
12     <ul>
13     <li>Unclosed elements: If an element
14   is <b> not closed, then its
15   properties spread to unintended areas</b></li>
16
17     <li>Failing to <b>close</b>
```

Theme Select:

rubyblue

Click the following tab to check your answer.

Answer Feedback

The following list reviews the errors with the code in this problem.

- The <h1> tags were written using mixed cases. The first <h1> was written in uppercase, using a capital 'H,' while the second <h1> was written using a lowercase 'h.' It is recommended to write tags in lowercase letters.
- The first <p> tag does not have a corresponding closing tag (</p>)
- The first tag does not have a corresponding closing tag () which results in this tag's effects spreading down on to the rest of the content on the page.
- The nested tags <b> and <em> are closed out of order.
- The <ul> tag and its closing tag are mismatched (). The correct closing tag is .

The corrected code is below:

```
<html>
<head>
<meta charset="utf-8">
</head>
<body>
  <h1>Debugging HTML Source Code</h1>

  <p>The following list outlines common causes errors in HTML
 source code:</p>

  <ul>
    <li>Unclosed elements: If an element is <b>not closed, then its properties spread
to unintended areas</b></li>
    <li>Failing to <b>close</b> tags in the <em>order</em> in which they were
opened</li>
  </ul>
</body>
</html>
```

Run Code block

index.html

```
 1 <h1>Debugging HTML Source Code</h1>
 2
 3 <p>The following list outlines common
   causes errors in HTML source code:</p>
 4
 5 <ul>
 6   <li>Unclosed elements: If an element
   is <b>not closed,
 7  then its properties spread to
   unintended areas</b></li>
 8
 9   <li>Failing to <b>close</b> tags
10     in the <em>order</em> in which
   they were opened</li>
11 </ul>
12
13
```

Debugging HTML Source Code

The following list outlines common causes errors in HTML source code:

- Unclosed elements: If an element is **not closed, then its properties spread to unintended areas**
- Failing to **close** tags in the *order* in which they were opened

Review Checkpoint

To test your understanding of the content presented in this assignment, please click on the Questions icon below. If you have trouble answering any of the questions presented here, you are always free to return to this or any assignment to re-read the material.

1. True or False?

HTML tags are case-sensitive.

    a. True

Incorrect. Try again.

    b. False

Correct. This is a false statement. HTML tags are not case-sensitive.

2. Identify what is wrong with the following HTML code:

```
<p>Paragraph tags are used to
define a paragraph of text in HTML<p>
```

    a. The opening tag syntax is incorrect

Incorrect. Try again.

    b. The closing tag syntax is incorrect

Correct. The closing tag syntax is incorrect. Proper syntax for a closing tag is to place a forward slash (/) before the HTML element.

    c. There should be a space before and after the angle brackets (i.e < p >)

Incorrect. Try again.

    d. Nothing, the code syntax is correct.

Incorrect. Try again.