

# Internet Engineering HTML

مهندسی اینترنت

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# HTML Most Used Tags

# HTML

- HTML describes the structure of a Web page
- HTML elements tell the browser how to display the content

Version	Year
HTML	1991
HTML 2.0	1995
HTML 3.2	1997
HTML 4.01	1999
XHTML	2000
HTML5	2014

# Main HTML Tags

- <!DOCTYPE>

- Represents the document type. Must only appear once, at the top of the page (before any HTML tags). It's simply a required preamble.

- <html>

- Represents the root of an HTML document. It is the container that contains all other HTML elements. Therefore, it must come first (except for the <!DOCTYPE> which is located prior to the opening HTML element).

- <head>

- Represents the "head" of an HTML document. It contains a collection of metadata content (i.e. content that sets up the presentation or behavior of the rest of the document) such as the document's title, meta description, style sheets, scripts, etc.

- <title>

- Represents the title or name of the HTML document. The <title> element's contents are typically displayed in the browser's title bar. It is also often displayed out of context, such as in browser bookmarks and search results.
  - The <title> tag should be used to provide a title that identifies the document even when it's taken out of context.

- <body>

- This element is used for declaring the main content section of the HTML document. Most web page content is inserted between the opening and closing <body> tags.

- <h1>

- Represents a level 1 heading. This is the highest level of all HTML headings. Headings range from <h1> (highest ranked) to <h6> (lowest ranked).

- <p>

- Represents a paragraph. To add a new paragraph, simply insert the new paragraph inside a new set of <p> tags.

# Attributes often used in HTML

Attribute	Description
alt	Specifies an alternative text for an image, when the image cannot be displayed
disabled	Specifies that an input element should be disabled
href	Specifies the URL (web address) for a link
id	Specifies a unique id for an element
src	Specifies the URL (web address) for an image
style	Specifies an inline CSS style for an element
title	Specifies extra information about an element (displayed as a tool tip)

# HTML Paragraph



# HTML Horizontal Rules

- Defines a thematic change in the content.

`<h1 style="font-size:60px;"> This is first heading </h1>`

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

`<hr>`

`<h2>This is second heading </h2>`

`<p>This is some other text.</p>`

`<hr>`

# Preformatted Text

- text between `<pre>` tags has both its spaces and line break preserved in addition to being displayed in a fixed-width font.

`<pre>`

My Bonnie lies over the ocean.

My Bonnie lies over the sea.

My Bonnie lies over the ocean.

Oh, bring back my Bonnie to me.

`</pre>`

# Example

The pre tag preserves both spaces and line breaks:

---

```
My Bonnie lies over the ocean.
```

```
My Bonnie lies over the sea.
```

```
My Bonnie lies...           over the ocean.
```

```
Oh, bring back my Bonnie to me.
```



```
<!DOCTYPE html>
```

```
<html>
```

```
<body>
```

```
<p>The pre tag preserves both spaces and line breaks:</p>
```

```
<hr>
```

```
<pre>
```

```
My Bonnie lies over the ocean.
```

```
My Bonnie lies over the sea.
```

```
My Bonnie lies...      over the ocean.
```

```
Oh, bring back my Bonnie to me.
```

```
</pre>
```

```
</body>
```

```
</html>
```

Tag	Description
<u>&lt;p&gt;</u>	Defines a paragraph
<u>&lt;br&gt;</u>	Inserts a single line break
<u>&lt;pre&gt;</u>	Defines pre-formatted text
<u>&lt;hr&gt;</u>	Defines a thematic change in the content

# HTML Style Attribute

# HTML Style Attribute

`<tagname style="property:value;"> --- </tagname>`

# Background Color

```
<body style="background-color:powderblue;">
```

```
<h1>This is a heading</h1>
```

```
<p>This is a paragraph.</p>
```

```
</body>
```



# Text Color

`<h1 style="color:blue;">This is a heading</h1>`

`<p style="color:red;">This is a paragraph.</p>`

# Fonts

`<h1 style="font-family:verdana;">This is a heading</h1>`

`<p style="font-family:courier;">This is a paragraph.</p>`

# Text Size

`<h1 style="font-size:300%;">This is a heading</h1>`

`<p style="font-size:160%;">This is a paragraph.</p>`

# Text Alignment

`<h1 style="text-align:center;">Centered Heading</h1>`

`<p style="text-align:center;">Centered paragraph.</p>`

# Example

**This is a heading**

This is a paragraph.

**This is a heading**

This is a paragraph.

**This is a heading**

This is a paragraph.

**This is a heading**

This is a paragraph.

**Centered Heading**

Right paragraph.



```
<!DOCTYPE html>
```

```
<html>
```

```
<head> <title> Style Attribute </title> </head>
```

```
<body style="background-color:powderblue">
```

```
<h1>This is a heading</h1>
```

```
    <p>This is a paragraph.</p>
```

```
<h1 style="color:blue;">This is a heading</h1>
```

```
    <p style="color:red;">This is a paragraph.</p>
```

```
<h1 style="font-family:verdana;">This is a heading</h1>
```

```
    <p style="font-family:courier;">This is a paragraph.</p>
```

```
<h1 style="font-size:300%;">This is a heading</h1>
```

```
    <p style="font-size:160%;">This is a paragraph.</p>
```

```
<h1 style="text-align:center;">Centered Heading</h1>
```

```
    <p style="text-align:right;">Right paragraph.</p>
```

```
</body>
```

```
</html>
```

# Color Names

**Tomato**



**Orange**




**DodgerBlue**



**MediumSeaGreen**




**Gray**



**SlateBlue**



**Violet**



**LightGray**



# Border Color

```
<h1 style="border:2px solid Tomato;">Hello World</h1>
```

```
<h1 style="border:2px dashed DodgerBlue;">Hello World</h1>
```

```
<h1 style="border: double Violet;">Hello World</h1>
```

---

**Hello World**

**Hello World**

**Hello World**





# HTML Text Formatting

# Text Formatting

**<b>** - Bold text

**<strong>** - Important text

**<i>** - Italic text

**<em>** - Emphasized text

**<mark>** - Marked text

**<small>** - Small text

**<del>** - Deleted text

**<ins>** - Inserted text

**<sub>** - Subscript text

**<sup>** - Superscript text

# Example

This text is bold

This text is strong

*This text is italic*

*This text is emphasized*

HTML Small Formatting

HTML **Marked** Formatting

My favorite color is ~~blue~~ red.

My favorite color is red.

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

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

“ This is important to know how to add Quotation Mark”

<!DOCTYPE html>

<html>

<head> <title> Text Formatting </title> </head>

<body>

<p><b>This text is bold</b></p>

<p><strong>This text is strong</strong></p>

<p><i>This text is italic</i></p>

<p><em>This text is emphasized</em></p>

<h2>HTML <small>Small</small> Formatting</h2>

<h3>HTML <mark>Marked</mark> Formatting</h3>

<p>My favorite color is <del>blue</del> red.</p>

<p>My favorite <ins>color</ins> is red.</p>

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

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

<p><q> This is important to know how to add Quotation Mark</q></p>

</body>

</html>

# Note

- Browsers display `<strong>` as `<b>`, and `<em>` as `<i>`.
- However, there is a difference in the meaning of these tags:

`<b>` and `<i>` defines bold and italic text, but `<strong>` and `<em>` means that the text is "important".

# HTML Comments

# Write Comment

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

# Example

```
<!-- Do not display this image at the moment  
  
-->
```



# HTML Image

# HTML Image

- ``
- ``
- ``
- ``

# Tip

- Always specify the width and height of an image. If width and height are not specified, the page might flicker while the image loads.
- Stylesheet sets the width of all images to 100%.

## Styling Images

The image below has the width attribute set to 128 pixels, but the stylesheet overrides it, and sets the width to 100%.

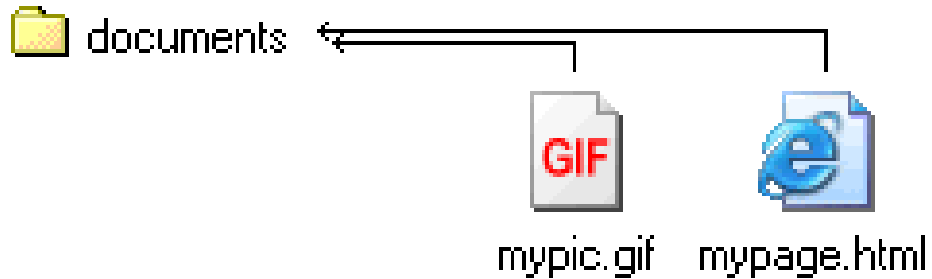


The image below uses the style attribute, where the width is set to 128 pixels which overrides the stylesheet:

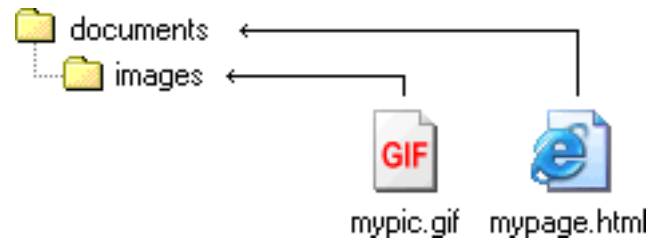


# HTML Image ...

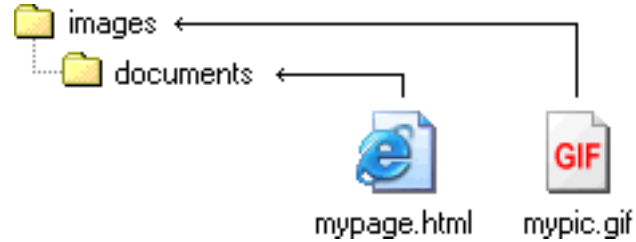
- First, try putting the image in the same folder as your html document.



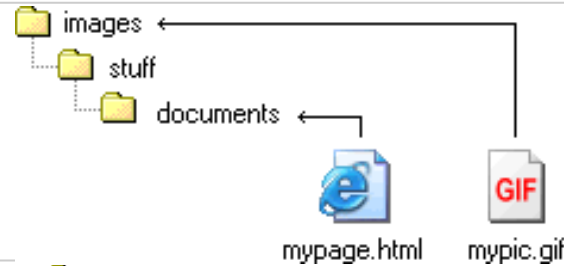
`src="mypic.gif"` means that the image is in the same folder as the html document that called for it.



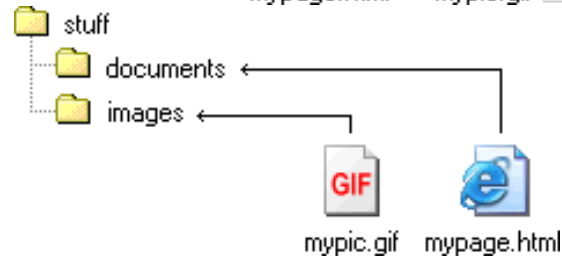
`src="images/mypic.gif"` means that the image is one folder down from the html document that called for it. This can go on down as many layers as necessary.



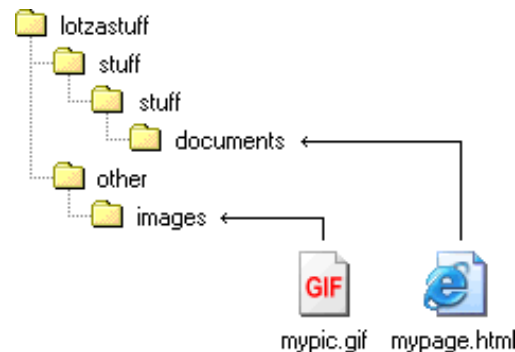
`src="../mypic.gif"` means that the image is in one folder up from the html document that called for it.



`src="../../mypic.gif"` means that the image is two folders up from the html document that called for it.



`src="../images/mypic.gif"` means that the image is one folder up and then another folder down in the images directory.



`src="../../../other/images/mypic.gif"` I'm not even going to try and put this into words. I hope you get the drift.

# Image as a Link + Border

- To use an image as a link, put the `<img>` tag inside the `<a>` tag
- `<a href="default.asp">`  
    ``  
    `</a>`

## Image as a Link

The image is a link. You can click on it.



Add `"border:0;"` to prevent IE9 (and earlier) from displaying a border around the image.

# Image Floating

```
<p>
```

The image will float to the right of the text.</p>

```
<p>
```

The image will float to the left of the text.</p>

# All about Image

- Use the HTML `<img>` element to define an image
- Use the HTML `src` attribute to define the URL of the image
- Use the HTML `alt` attribute to define an alternate text for an image, if it cannot be displayed
- Use the HTML `width` and `height` attributes to define the size of the image
- Use the CSS `float` property to let the image float
- Use the HTML `<map>` element to define an image-map
- Use the HTML `<area>` element to define the clickable areas in the image-map
- Use the HTML `<img>`'s element `usemap` attribute to point to an image-map
- Use the HTML `<picture>` element to show different images for different devices



# HTML Table

# HTML Table

- An HTML table is defined with the `<table>` tag.
- Each **table row** is defined with the `<tr>` tag.
- A **table header** is defined with the `<th>` tag.
  - By default, table headings are bold and centered.
- A table **data/cell** is defined with the `<td>` tag.

# Example

```
<table style="width:100%">
  <tr>
    <th>Firstname</th>
    <th>Lastname</th>
    <th>Age</th>
  </tr>
  <tr>
    <td>Jill</td>
    <td>Smith</td>
    <td>50</td>
  </tr>
  <tr>
    <td>Eve</td>
    <td>Jackson</td>
    <td>94</td>
  </tr>
</table>
```

# Example

## Basic HTML Table

Firstname	Lastname	Age
Jill	Smith	50
Eve	Jackson	94
John	Doe	80

```
<!DOCTYPE html>
```

```
<html>
```

```
<body>
```

```
<h2>Basic HTML Table</h2>
```

```
<table style="width:100%">
```

```
<tr>
```

```
<th>Firstname</th>
```

```
<th>Lastname</th>
```

```
<th>Age</th>
```

```
</tr>
```

```
<tr
```

```
style="text-align:center;">
```

```
<td>Jill</td>
```

```
<td>Smith</td>
```

```
<td>50</td>
```

```
</tr>
```

```
<tr
```

```
style="text-align:center;">
```

```
<td>Eve</td>
```

```
<td>Jackson</td>
```

```
<td>94</td>
```

```
</tr>
```

```
<tr
```

```
style="text-align:center;">
```

```
<td>John</td>
```

```
<td>Doe</td>
```

```
<td>80</td>
```

```
</tr>
```

```
</table>
```

```
</body>
```

```
</html>
```

# Tip

- The `<td>` elements are the data containers of the table.  
They can contain all sorts of HTML elements; **text, images, lists, other tables, etc.**

# Adding a Border

```
<head>
```

```
<style>
```

```
table, th, td {
```

```
  border: 1px solid black;
```

```
}
```

```
</style>
```

```
</head>
```

# Example

## Bordered Table

Use the CSS border property to add a border to the table.

Firstname	Lastname	Age
Jill	Smith	50
Eve	Jackson	94
John	Doe	80



```
<!DOCTYPE html>
<html>
<head>
<style>
table, th, td {
  border: 1px solid black;
}
</style>
</head>
<body>

<h2>Bordered Table</h2>
<p>Use the CSS border property to add a border to the
table.</p>

<table style="width:100%">
  <tr>
    <th>Firstname</th>
    <th>Lastname</th>
    <th>Age</th>
  </tr>
  <tr>
```

```
    style="text-align:center;">
      <td>Jill</td>
      <td>Smith</td>
      <td>50</td>
    </tr>
    <tr>
      style="text-align:center;">
        <td>Eve</td>
        <td>Jackson</td>
        <td>94</td>
      </tr>
    <tr>
      style="text-align:center;">
        <td>John</td>
        <td>Doe</td>
        <td>80</td>
      </tr>
    </table>

  </body>
</html>
```

# Collapsed Borders

```
<head>
```

```
<style>
```

```
table, th, td {
```

```
    border: 1px solid black;
```

```
    border-collapse: collapse;
```

```
}
```

```
</style>
```

```
</head>
```

## Collapsed Borders

If you want the borders to collapse into one border, add the CSS border-collapse property.

Firstname	Lastname	Age
Jill	Smith	50
Eve	Jackson	94
John	Doe	80

# Adding Cell Padding

```
<head>
```

```
<style>
```

```
table, th, td {  
  border: 1px solid black;  
  border-collapse: collapse;  
}
```

```
th, td {  
  padding: 15px;  
}
```

```
</style>
```

```
</head>
```

## Cellpadding

Cell padding specifies the space between the cell content and its borders.

Firstname	Lastname	Age
Jill	Smith	50
Eve	Jackson	94
John	Doe	80

# Example

## Cellpadding

Cell padding specifies the space between the cell content and its borders.

Firstname	Lastname	Age
Jill	Smith	50
Eve	Jackson	94
John	Doe	80

```
<!DOCTYPE html>
<html>
<head>
<style>
table, th, td {
  border: 2px dashed Tomato;
  border-collapse: collapse;
}
th, td {
  padding: 15px;
}
</style>
</head>
<body>
```

```
<h2>Cellpadding</h2>
```

```
<p>Cell padding specifies the space between the cell content
and its borders.</p>
```

```
<table style="width:100%">
  <tr>
    <th>Firstname</th>
```

```
    <th>Lastname</th>
    <th>Age</th>
  </tr>
  <tr>
    <td>Jill</td>
    <td>Smith</td>
    <td>50</td>
  </tr>
  <tr>
    <td>Eve</td>
    <td>Jackson</td>
    <td>94</td>
  </tr>
  <tr>
    <td>John</td>
    <td>Doe</td>
    <td>80</td>
  </tr>
</table>
```

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

# Left-align Headings

```
<head>
```

```
<style>
```

```
table, th, td {  
  border: 1px solid black;  
  border-collapse: collapse;  
}
```

```
th, td {  
  padding: 15px;  
}
```

```
th {  
  text-align: left;  
}
```

```
</style>
```

```
</head>
```

# Example

## Left-align Headings

To left-align the table headings, use the CSS text-align property.

Firstname	Lastname	Age
Jill	Smith	50
Eve	Jackson	94
John	Doe	80

```
<!DOCTYPE html>
<html>
<head>
<style>
table, th, td {
  border: 1px solid black;
  border-collapse: collapse;
}
th,td {
  padding: 15px;
}
th {
  text-align: left;
}
</style>
</head>
<body>

<h2>Left-align Headings</h2>
<p>To left-align the table headings, use the CSS text-align
property.</p>

<table style="width:100%">
```

```
<tr>
  <th>Firstname</th>
  <th>Lastname</th>
  <th>Age</th>
</tr>
<tr>
  <td>Jill</td>
  <td>Smith</td>
  <td>50</td>
</tr>
<tr>
  <td>Eve</td>
  <td>Jackson</td>
  <td>94</td>
</tr>
<tr>
  <td>John</td>
  <td>Doe</td>
  <td>80</td>
</tr>
</table>
</body>
</html>
```



# Adding Border Spacing

```
<head>
```

```
<style>
```

```
table, th, td {  
  border: 1px solid black;  
  padding: 7px;  
}
```

```
table {  
  border-spacing: 15px;  
}
```

```
</style>
```

```
</head>
```

## Border Spacing

Border spacing specifies the space between the cells.

Firstname	Lastname	Age
Jill	Smith	50
Eve	Jackson	94
John	Doe	80

# Cells that Span Many Columns

```
<table style="width:100%">
  <tr>
    <th>Name</th>
    <th colspan="2">Telephone</th>
  </tr>
  <tr>
    <td>John Doa</td>
    <td>55577854</td>
    <td>55577855</td>
  </tr>
</table>
```

# Example

## Cell that spans two columns

To make a cell span more than one column, use the colspan attribute.

Name	Telephone		
John Doa	55577854	55577855	55577866

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
<style>
```

```
table, th, td {
```

```
  border: 1px solid black;
```

```
  border-collapse: collapse;
```

```
}
```

```
th, td {
```

```
  padding: 5px;
```

```
  text-align: left;
```

```
}
```

```
</style>
```

```
</head>
```

```
<body>
```

```
<h2>Cell that spans two columns</h2>
```

```
<p>To make a cell span more than one column, use
```

the colspan attribute.</p>

```
<table style="width:80%">
```

```
<tr>
```

```
<th>Name</th>
```

```
<th colspan="3">Telephone</th>
```

```
</tr>
```

```
<tr>
```

```
<td>John Doa</td>
```

```
<td>55577854</td>
```

```
<td>55577855</td>
```

```
<td>55577866</td>
```

```
</tr>
```

```
</table>
```

```
</body>
```

```
</html>
```

# Cells that Span Many Rows

```
<table style="width:100%">
  <tr>
    <th>Name:</th>
    <td>Bjohn Doa</td>
  </tr>
  <tr>
    <th rowspan="2">Telephone:</th>
    <td>55577854</td>
  </tr>
  <tr>
    <td>55577855</td>
  </tr>
</table>
```

# Example

## Cell that spans two rows

To make a cell span more than one row, use the `rowspan` attribute.

<b>Name:</b>	<b>John Doa</b>
<b>Telephone:</b>	55577854
	55577855
	55577866

```
<!DOCTYPE html>
<html>
<head>
<style>
table, th, td {
  border: 1px solid black;
  border-collapse: collapse;
}
th, td {
  padding: 5px;
  text-align: left;
}
</style>
</head>
<body>
```

<h2>Cell that spans two rows</h2>

<p>To make a cell span more than one row, use the rowspan attribute.</p>

```
<table style="width:100%">
<tr>
  <th>Name:</th>
  <td> <b> John Doa </b> </td>
</tr>
<tr>
  <th rowspan="3">Telephone:</th>
  <td>55577854</td>
</tr>
<tr>
  <td>55577855</td>
</tr>
<tr>
  <td>55577866</td>
</tr>
</table>

</body>
</html>
```

# Adding a Caption

```
<table style="width:100%">
  <caption>Monthly savings</caption>
  <tr>
    <th>Month</th>
    <th>Savings</th>
  </tr>
  <tr>
    <td>January</td>
    <td>$100</td>
  </tr>
  <tr>
    <td>February</td>
    <td>$50</td>
  </tr>
</table>
```

## Table Caption

To add a caption to a table, use the caption tag.

Month	Savings
January	\$100
February	\$50



# Note

- The `<caption>` tag must be inserted immediately after the `<table>` tag.

# Special Style for One Table

```
<table id="t01">  
  <tr>  
    <th>Firstname</th>  
    <th>Lastname</th>  
    <th>Age</th>  
  </tr>  
  <tr>  
    <td>Eve</td>  
    <td>Jackson</td>  
    <td>94</td>  
  </tr>  
</table>
```

# Special Style for One Table ...

- can define a special style for table:

```
table#t01 {  
    width: 100%;  
    background-color: #f1f1c1;  
}  
  
table#t01 tr:nth-child(even) {  
    background-color: #eee;  
}
```

```
table#t01 tr:nth-child(odd) {  
    background-color: #fff;  
}  
  
table#t01 th {  
    color: white;  
    background-color: black;  
}
```

# Example

## Styling Tables

Firstname	Lastname	Age
Jill	Smith	50
Eve	Jackson	94
John	Doe	80

Firstname	Lastname	Age
Jill	Smith	50
Eve	Jackson	94
John	Doe	80

```
<!DOCTYPE html>
<html>
<head>
<style>
table {
  width:100%;
}
table, th, td {
  border: 1px solid black;
  border-collapse: collapse;
}
th, td {
  padding: 15px;
  text-align: left;
}
table#t01 tr:nth-child(even) {
  background-color:
powderblue;
}
table#t01 tr:nth-child(odd)
{
  background-color: tomato;
```

```
}
table#t01 th {
  background-color: black;
  color: white;
}
</style>
</head>
<body>
<h2>Styling Tables</h2>
<table>
  <tr>
    <th>Firstname</th>
    <th>Lastname</th>
    <th>Age</th>
  </tr>
  <tr>
    <td>Jill</td>
    <td>Smith</td>
    <td>50</td>
```

```
</tr>
<tr>
  <td>Eve</td>
  <td>Jackson</td>
  <td>94</td>
</tr>
<tr>
  <td>John</td>
  <td>Doe</td>
  <td>80</td>
</tr>
</table>
<br>
<table id="t01">
  <tr>
    <th>Firstname</th>
    <th>Lastname</th>
    <th>Age</th>
  </tr>
  <tr>
    <td>Jill</td>
```

```
    <td>Smith</td>
    <td>50</td>
  </tr>
  <tr>
    <td>Eve</td>
    <td>Jackson</td>
    <td>94</td>
  </tr>
  <tr>
    <td>John</td>
    <td>Doe</td>
    <td>80</td>
  </tr>
</table>
</body>
</html>
```

# Table Tags

Tag	Description
<u>&lt;table&gt;</u>	Defines a table
<u>&lt;th&gt;</u>	Defines a header cell in a table
<u>&lt;tr&gt;</u>	Defines a row in a table
<u>&lt;td&gt;</u>	Defines a cell in a table
<u>&lt;caption&gt;</u>	Defines a table caption
<u>&lt;colgroup&gt;</u>	Specifies a group of one or more columns in a table for formatting
<u>&lt;col&gt;</u>	Specifies column properties for each column within a <colgroup> element
<u>&lt;thead&gt;</u>	Groups the header content in a table
<u>&lt;tbody&gt;</u>	Groups the body content in a table
<u>&lt;tfoot&gt;</u>	Groups the footer content in a table



# HTML Elements

# View HTML Source Code

- Right-click in an HTML page and select "View Page Source" (in Chrome) or "View Source" (in Edge), or similar in other browsers. This will open a window containing the HTML source code of the page.

• بر روی صفحه HTML کلیک راست کرده و "View Page Source" (در Chrome) یا "View Source" (در Edge) یا مشابه در سایر مرورگرها را انتخاب کنید. با این کار یک پنجره حاوی کد منبع HTML صفحه باز می شود.



# Inspect an HTML Element

- Right-click on an element (or a blank area), and choose "Inspect" or "Inspect Element" to see what elements are made up of (you will see both the HTML and the CSS). You can also edit the HTML or CSS on-the-fly in the Elements or Styles panel that opens.
- با کلیک راست بر روی یک عنصر (یا یک ناحیه خالی) ، و گزینه Inspect یا Inspect Element را انتخاب کنید تا ببینید چه عنصری از آنها ساخته شده است ( HTML و CSS را مشاهده خواهید کرد).

از توجه شما به این بخش سپاسگزارم.