

# HTML Elements

An HTML file is made of elements. These elements are responsible for creating web pages and define content in that webpage. An element in HTML usually consist of a start tag <tag name>, close tag </tag name> and content inserted between them. **Technically, an element is a collection of start tag, attributes, end tag, content between them.**

**Note: Some elements does not have end tag and content, these elements are termed as empty elements or self-closing element or void elements.**

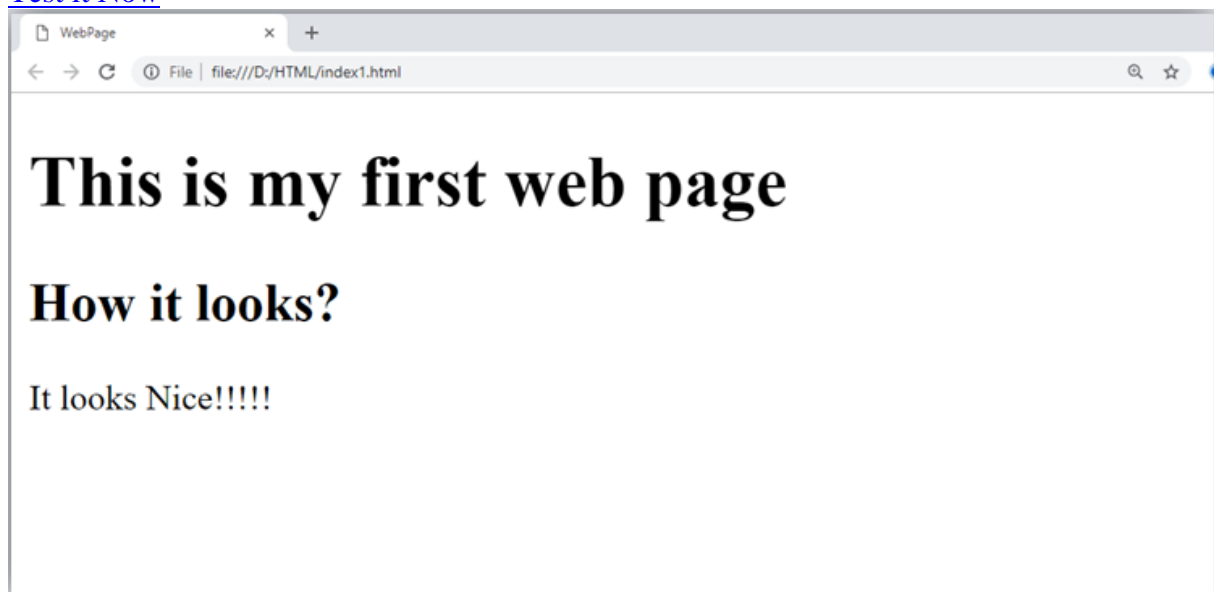
Such as:

1. <p> Hello world!!! </p>

## Example

1. <!DOCTYPE html>
2. <html>
3. <head>
4.     <title>WebPage</title>
5. </head>
6. <body>
7.     <h1>This is my first web page</h1>
8.     <h2> How it looks?</h2>
9.     <p>It looks Nice!!!!</p>
10. </body>
11. </html>

[Test it Now](#)



- All the content written between body elements are visible on web page.

**Void element:** All the elements in HTML do not require to have start tag and end tag, some elements does not have content and end tag such elements are known as Void elements or empty elements. **These elements are also called as unpaired tag.**

**Some Void elements are** <br> (represents a line break) , <hr>(represents a horizontal line), etc.

**Nested HTML Elements:** HTML can be nested, which means an element can contain another element.

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## Block-level and Inline HTML elements

For the default display and styling purpose in HTML, all the elements are divided into two categories:

- Block-level element
- Inline element

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### Block-level element:

- These are the elements, which structure main part of web page, by dividing a page into coherent blocks.
- A block-level element always start with new line and takes the full width of web page, from left to right.
- These elements can contain block-level as well as inline elements.

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>.

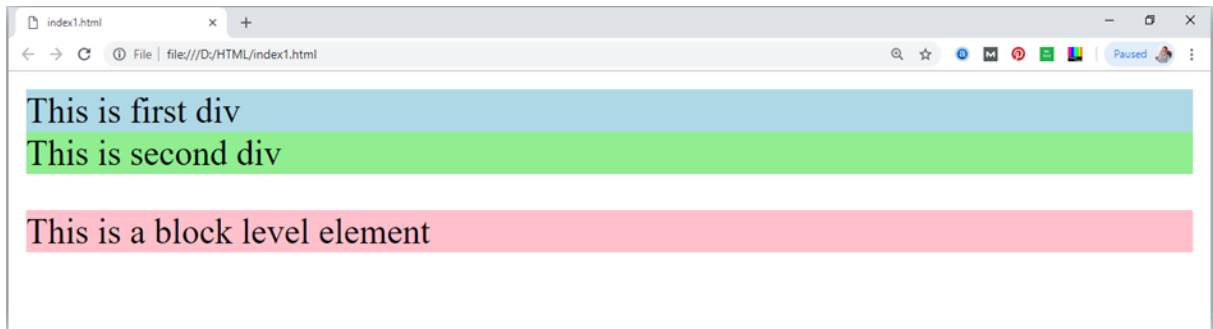
**Note:** All these elements are described in later chapters.

### Example:

1. <!DOCTYPE html>
2. <html>
3.       <head>
4.     </head>
5. <body>
6.     <div style="background-color: lightblue">This is first div</div>
7.     <div style="background-color: lightgreen">This is second div</div>
8.     <p style="background-color: pink">This is a block level element</p>
9. </body>
10. </html>

[Test it Now](#)

### Output:



In the above example we have used

tag, which defines a section in a web page, and takes full width of page.

We have used style attribute which is used to styling the HTML content, and the background color are showing that it's a block level element.

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## Inline elements:

- Inline elements are those elements, which differentiate the part of a given text and provide it a particular function.
- These elements does not start with new line and take width as per requirement.
- The Inline elements are mostly used with other elements.

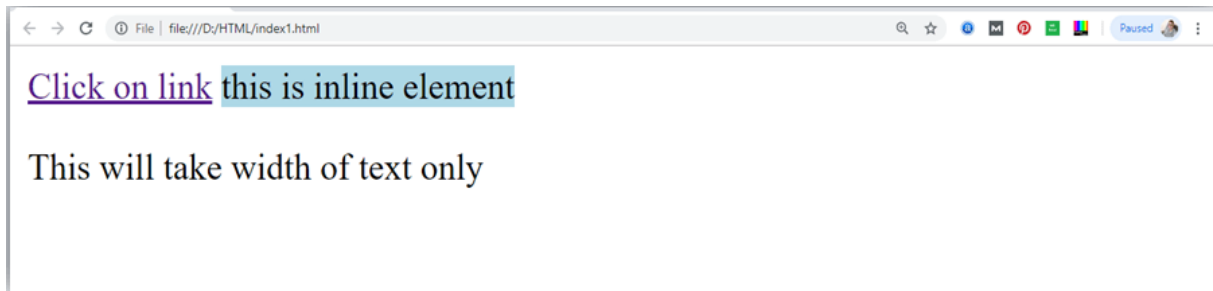
<a>, <abbr>, <acronym>, <b>, <bdo>, <big>, <br>, <button>, <cite>, <code>, <dfn>, <em>, <i>, <img>, <input>, <kbd>, <label>, <map>, <object>, <q>, <samp>, <script>, <select>, <small>, <span>, <strong>, <sub>, <sup>, <textarea>, <time>, <tt>, <var>.

## Example:

1. <!DOCTYPE html>
2. <html>
3. <head>
4. </head>
5. <body>
6. <a href="https://www.javatpoint.com/html-tutorial">Click on link</a>
7. <span style="background-color: lightblue">this is inline element</span>
8. <p>This will take width of text only</p>
9. </body>
10. </html>

[Test it Now](#)

### Output:



Following is the list of the some main elements used in HTML:

Start tag	Content	End tag	Description
<code>&lt;h1&gt; .....</code> <code>&lt;h6&gt;</code>	These are headings of HTML	<code>&lt;/h1&gt;??..&lt;/h6&gt;</code>	These elements are used to provide the headings of page.
<code>&lt;p&gt;</code>	This is the paragraph	<code>&lt;/p&gt;</code>	This element is used to display a content in form of paragraph.
<code>&lt;div&gt;</code>	This is div section	<code>&lt;/div&gt;</code>	This element is used to provide a section in web page.
<code>&lt;br&gt;</code>			This element is used to provide a line break. ( void element)
<code>&lt;hr&gt;</code>			This element is used to provide a horizontal line. (void element)

## HTML Anchor

The **HTML anchor tag** defines *a hyperlink that links one page to another page*. It can create hyperlink to other web page as well as files, location, or any URL. The "href" attribute is the most important attribute of the HTML a tag. and which links to destination page or URL.

### href attribute of HTML anchor tag

The href attribute is used to define the address of the file to be linked. In other words, it points out the destination page.

The syntax of HTML anchor tag is given below.

```
<a href = "....."> Link Text </a>
```

Let's see an example of HTML anchor tag.

1. `<a href="second.html">Click for Second Page</a>`

[Test it Now](#)

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## Specify a location for Link using target attribute

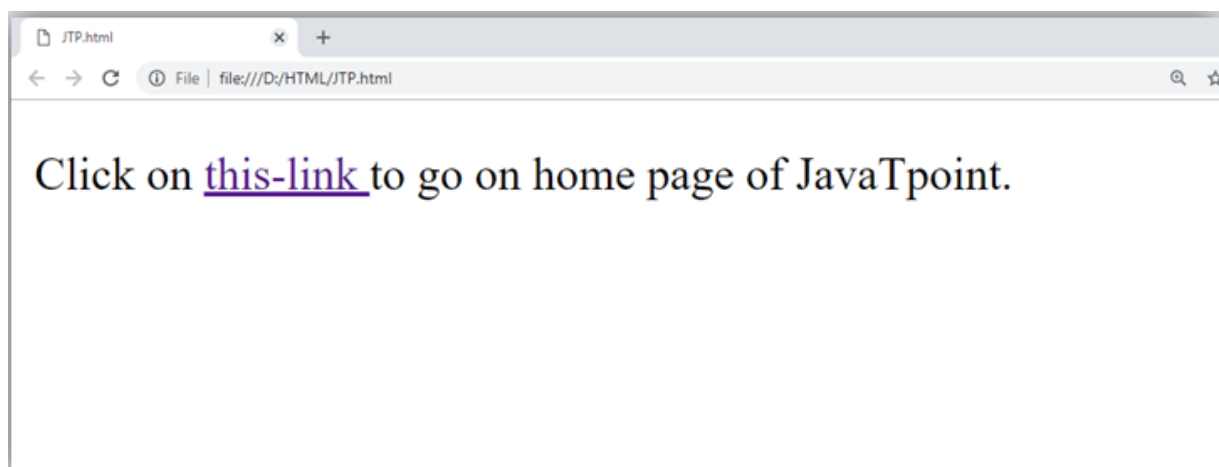
If we want to open that link to another page then we can use target attribute of <a> tag. With the help of this link will be open in next page.

### Example:

1. <!DOCTYPE html>
2. <html>
3. <head>
4.     <title></title>
5. </head>
6. <body>
7.     <p>Click on <a href="https://www.javatpoint.com/" target="\_blank"> this-link </a>to go on home page of JavaTpoint.</p>
8.     </body>
9. </html>

[Test it Now](#)

### Output:



### Note:

- The **target** attribute can only use with href attribute in anchor tag.
- If we will not use target attribute then link will open in same page.

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## Appearance of HTML anchor tag

An **unvisited link** is displayed underlined and blue.

A **visited link** displayed underlined and purple.

An **active link** is underlined and red.

## HTML Image

**HTML img tag** is used to display image on the web page. HTML img tag is an empty tag that contains attributes only, closing tags are not used in HTML image element.

Let's see an example of HTML image.

1. `<h2>HTML Image Example</h2>`
2. ``

[Test it Now](#)

Output:



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## Attributes of HTML img tag

The src and alt are important attributes of HTML img tag. All attributes of HTML image tag are given below.

### 1) src

It is a necessary attribute that describes the source or path of the image. It instructs the browser where to look for the image on the server.

The location of image may be on the same directory or another server.

### 2) alt

The alt attribute defines an alternate text for the image, if it can't be displayed. The value of the alt attribute describe the image in words. The alt attribute is considered good for SEO prospective.

### 3) width

It is an optional attribute which is used to specify the width to display the image. It is not recommended now. You should apply CSS in place of width attribute.

#### 4) height

It h3 the height of the image. The HTML height attribute also supports iframe, image and object elements. It is not recommended now. You should apply CSS in place of height attribute.

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## Use of height and width attribute with img tag

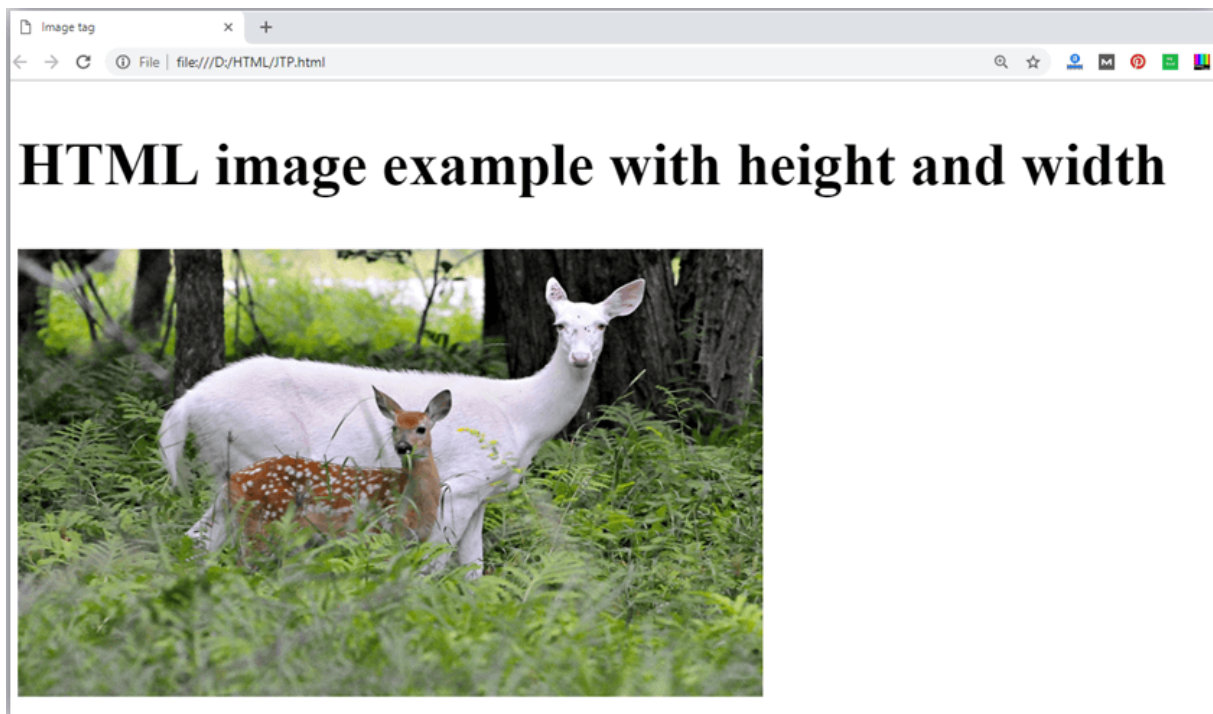
You have learnt about how to insert an image in your web page, now if we want to give some height and width to display image according to our requirement, then we can set it with height and width attributes of image.

### Example:

1. ``

[Test it Now](#)

**Output:**



**Note:** Always try to insert the image with height and width, else it may flicker while displaying on webpage.

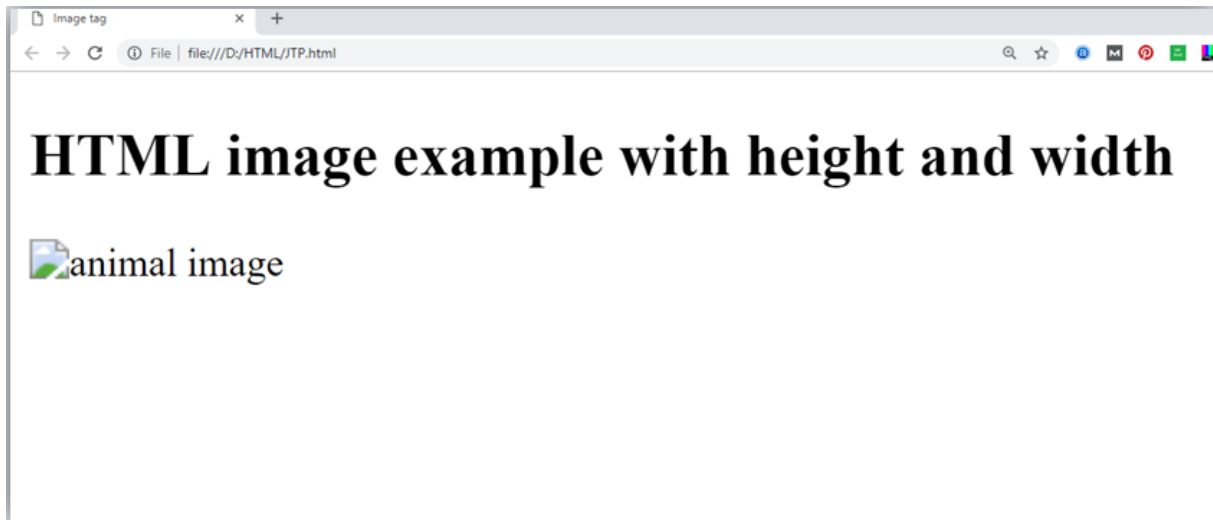
---

## Use of alt attribute

We can use alt attribute with `<img>` tag. It will display an alternative text in case if image cannot be displayed on browser. Following is the example for alt attribute:

1. ``

**Output:**



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## How to get image from another directory/folder?

To insert an image in your web, that image must be present in your same folder where you have put the HTML file. But if in some case image is available in some other directory then you can access the image like this:

1. ``

In above statement we have put image in local disk E----->images folder----->animal.png.

**Note:** If src URL will be incorrect or misspell then it will not display your image on web page, so try to put correct URL.

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## Use `<img>` tag as a link

We can also link an image with other page or we can use an image as a link. To do this, put `<img>` tag inside the `<a>` tag.

**Example:**



1. `<a href="https://www.javatpoint.com/what-is-robotics"></a>`

[Test it Now](#)

**Output:**



# Supporting Browsers

Element  Chrome  IE  Firefox  Opera  Safari

<img>    Yes                Yes    Yes                Yes                Yes

---

## HTML Table

**HTML table tag** is used to display data in tabular form (row \* column). There can be many columns in a row.

We can create a table to display data in tabular form, using <table> element, with the help of <tr> , <td>, and <th> elements.

In Each table, table row is defined by <tr> tag, table header is defined by <th>, and table data is defined by <td> tags.

HTML tables are used to manage the layout of the page e.g. header section, navigation bar, body content, footer section etc. But it is recommended to use div tag over table to manage the layout of the page .

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## HTML Table Tags

Tag	Description
<table>	It defines a table.
<tr>	It defines a row in a table.
<th>	It defines a header cell in a table.
<td>	It defines a cell in a table.
<caption>	It defines the table caption.
<colgroup>	It specifies a group of one or more columns in a table for formatting.
<col>	It is used with <colgroup> element to specify column properties for each column.
<tbody>	It is used to group the body content in a table.

<thead> It is used to group the header content in a table.

<tfoot> It is used to group the footer content in a table.

---

## HTML Table Example

Let's see the example of HTML table tag. Its output is shown above.

1. <table>
2. <tr><th>First\_Name</th><th>Last\_Name</th><th>Marks</th></tr>
3. <tr><td>Sonoo</td><td>Jaiswal</td><td>60</td></tr>
4. <tr><td>James</td><td>William</td><td>80</td></tr>
5. <tr><td>Swati</td><td>Sironi</td><td>82</td></tr>
6. <tr><td>Chetna</td><td>Singh</td><td>72</td></tr>
7. </table>

[Test it Now](#)

**Output:**

First_Name	Last_Name	Marks
Sonoo	Jaiswal	60
James	William	80
Swati	Sironi	82
Chetna	Singh	72

In the above HTML table, there are 5 rows and 3 columns =  $5 * 3 = 15$  values.

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## HTML Table with Border

There are two ways to specify border for HTML tables.

1. By border attribute of table in HTML
  2. By border property in CSS
- 

### 1) HTML Border attribute

You can use border attribute of table tag in HTML to specify border. But it is not recommended now.

1. `<table border="1">`
2. `<tr><th>First_Name</th><th>Last_Name</th><th>Marks</th></tr>`
3. `<tr><td>Sonoo</td><td>Jaiswal</td><td>60</td></tr>`
4. `<tr><td>James</td><td>William</td><td>80</td></tr>`
5. `<tr><td>Swati</td><td>Sironi</td><td>82</td></tr>`
6. `<tr><td>Chetna</td><td>Singh</td><td>72</td></tr>`
7. `</table>`

[Test it Now](#)

**Output:**

First_Name	Last_Name	Marks
Sonoo	Jaiswal	60
James	William	80
Swati	Sironi	82
Chetna	Singh	72

---

## 2) CSS Border property

It is now recommended to use border property of CSS to specify border in table.

1. `<style>`
2. `table, th, td {`
3. `border: 1px solid black;`
4. `}`
5. `</style>`

[Test it Now](#)

You can collapse all the borders in one border by border-collapse property. It will collapse the border into one.

1. `<style>`
2. `table, th, td {`
3. `border: 2px solid black;`
4. `border-collapse: collapse;`
5. `}`
6. `</style>`

[Test it Now](#)

**Output:**

Name	Last Name	Marks
Sonoo	Jaiswal	60
James	William	80
Swati	Sironi	82
Chetna	Singh	72

---

## HTML Table with cell padding

You can specify padding for table header and table data by two ways:

1. By cellpadding attribute of table in HTML
2. By padding property in CSS

The cellpadding attribute of HTML table tag is obsolete now. It is recommended to use CSS. So let's see the code of CSS.

1. <style>
2. table, th, td {
3. border: 1px solid pink;
4. border-collapse: collapse;
5. }
6. th, td {
7. padding: 10px;
8. }
9. </style>

[Test it Now](#)

**Output:**

Name	Last Name	Marks
Sonoo	Jaiswal	60
James	William	80
Swati	Sironi	82
Chetna	Singh	72

---

## HTML Table width:

We can specify the HTML table width using the **CSS width** property. It can be specify in pixels or percentage.

We can adjust our table width as per our requirement. Following is the example to display table with width.

```
1. table{
2.     width: 100%;
3. }
```

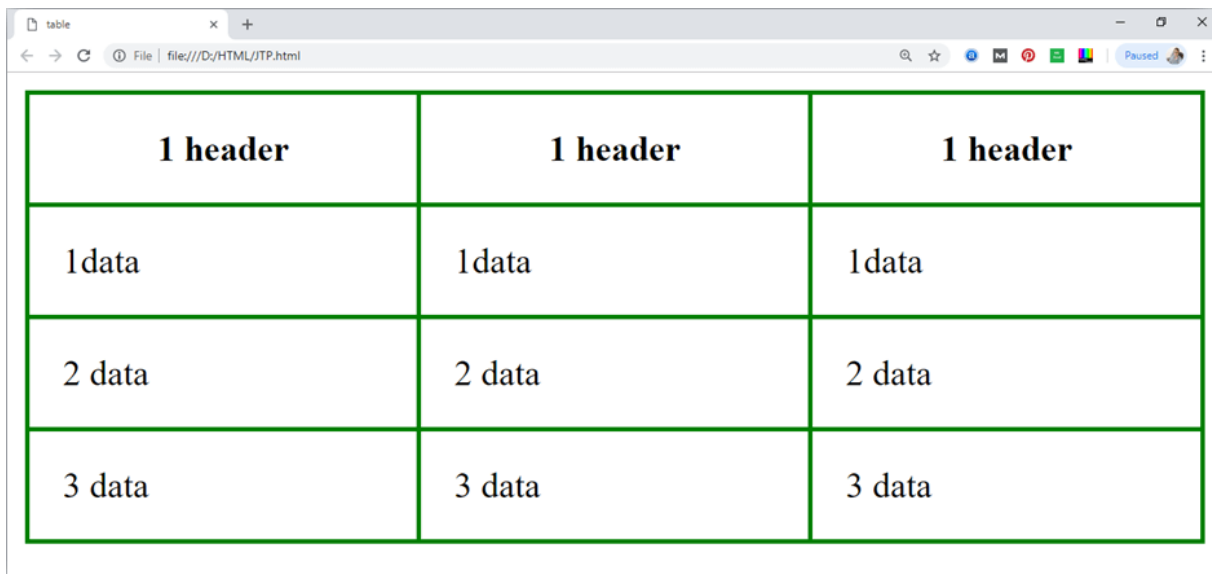
### Example:

```
1. <!DOCTYPE html>
2. <html>
3. <head>
4.     <title>table</title>
5.     <style>
6.         table{
7.             border-collapse: collapse;
8.             width: 100%;
9.         }
10.    th,td{
11.        border: 2px solid green;
12.        padding: 15px;
13.    }
14.
15. </style>
16. </head>
17. <body>
18. <table>
19. <tr>
20.     <th>1 header</th>
21.     <th>1 header</th>
22.     <th>1 header</th>
23. </tr>
24. <tr>
25.     <td>1 data</td>
26.     <td>1 data</td>
27.     <td>1 data</td>
28. </tr>
29. <tr>
30.     <td>2 data</td>
31.     <td>2 data</td>
32.     <td>2 data</td>
33. </tr>
34. <tr>
35.     <td>3 data</td>
36.     <td>3 data</td>
37.     <td>3 data</td>
```

```
38. </tr>
39. </table>
40. </body>
41. </html>
```

[Test it Now](#)

**Output:**



1 header	1 header	1 header
1 data	1 data	1 data
2 data	2 data	2 data
3 data	3 data	3 data

## HTML Table with colspan

If you want to make a cell span more than one column, you can use the colspan attribute.

It will divide one cell/row into multiple columns, and the number of columns depend on the value of colspan attribute.

Let's see the example that span two columns.

CSS code:

```
1. <style>
2. table, th, td {
3.   border: 1px solid black;
4.   border-collapse: collapse;
5. }
6. th, td {
7.   padding: 5px;
8. }
9. </style>
```

HTML code:

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

```
2. <tr>
3. <th>Name</th>
4. <th colspan="2">Mobile No.</th>
5. </tr>
6. <tr>
7. <td>Ajeet Maurya</td>
8. <td>7503520801</td>
9. <td>9555879135</td>
10. </tr>
11. </table>
```

[Test it Now](#)

**Output:**

Name	Mobile No.	
Ajeet Maurya	7503520801	9555879135

## HTML Table with rowspan

If you want to make a cell span more than one row, you can use the rowspan attribute.

It will divide a cell into multiple rows. The number of divided rows will depend on rowspan values.

Let's see the example that span two rows.

CSS code:

```
1. <style>
2. table, th, td {
3.   border: 1px solid black;
4.   border-collapse: collapse;
5. }
6. th, td {
7.   padding: 10px;
8. }
9. </style>
```

HTML code:

```
1. <table>
2. <tr><th>Name</th><td>Ajeet Maurya</td></tr>
3. <tr><th rowspan="2">Mobile No.</th><td>7503520801</td></tr>
4. <tr><td>9555879135</td></tr>
5. </table>
```



[Test it Now](#)

**Output:**

<b>Name</b>	Ajeet Maurya
<b>Mobile No.</b>	7503520801
	9555879135

---

## HTML table with caption

HTML caption is displayed above the table. It must be used after table tag only.

1. `<table>`
2. `<caption>Student Records</caption>`
3. `<tr><th>First_Name</th><th>Last_Name</th><th>Marks</th></tr>`
4. `<tr><td>Vimal</td><td>Jaiswal</td><td>70</td></tr>`
5. `<tr><td>Mike</td><td>Warn</td><td>60</td></tr>`
6. `<tr><td>Shane</td><td>Warn</td><td>42</td></tr>`
7. `<tr><td>Jai</td><td>Malhotra</td><td>62</td></tr>`
8. `</table>`

[Test it Now](#)

---

## Styling HTML table even and odd cells

CSS code:

1. `<style>`
2. `table, th, td {`
3. `border: 1px solid black;`
4. `border-collapse: collapse;`
5. `}`
6. `th, td {`
7. `padding: 10px;`
8. `}`
9. `table#alter tr:nth-child(even) {`
10. `background-color: #eee;`
11. `}`
12. `table#alter tr:nth-child(odd) {`
13. `background-color: #fff;`
14. `}`
15. `table#alter th {`
16. `color: white;`

```
17. background-color: gray;
18. }
19. </style>
```

[Test it Now](#)

**Output:**

First_Name	Last_Name	Marks
Sonoo	Jaiswal	60
James	William	80
Swati	Sironi	82
Chetna	Singh	72

**NOTE:** You can also create various types of tables using different CSS properties in your table.

---

## Supporting Browsers

Element  Chrome  IE  Firefox  Opera  Safari

<table>    Yes            Yes    Yes            Yes            Yes

Next Topic [HTML tbody Tag](#)

## HTML <tbody> tag

HTML <tbody> tag is used to group the table rows (<tr>) together, which indicates that this is body part of a table (<table>).

The <tbody> tag must be a child of <table> element.

The <tbody> is used along with <thead> and <tfoot> which shows the different part of the table that are table head, table body, and table footer, however, it does not affect the layout of the table.

These elements can be used for providing semantic information which can be helpful in accessibility purpose, or rendering the header at top and footer at the bottom while printing a large table.

**Tips: The <tbody> tag must contain one or more <tr> elements.**

#### Syntax

1. <tbody>.....</tbody>

**Following are some specifications about the HTML <tbody> tag**

**Display**                      **Inline**

**Start tag/End tag** Both Start and End tag

**Usage**                      Table body

#### Example

1. <!DOCTYPE html>
2. <html>
3. <head>
4.     <title>HTML tbody tag</title>
5.     <style>
6.         body{
7.             margin-left: 195px;"
8.         }
9.     </style>
10. </head>
11. <body>
12. <h2>Example of the tbody tag</h2>
13. <table border="1" bgcolor="#98f5ff">
14.     <thead>
15.         <tr>
16.             <th>EmpId</th>
17.             <th>Name</th>
18.             <th>Email-Id</th>
19.         </tr>
20.     </thead>
21.     <tbody>
22.         <tr>
23.             <td>121</td>
24.             <td>John</td>
25.             <td>john123@gmail.com</td>
26.         </tr>
- 27.

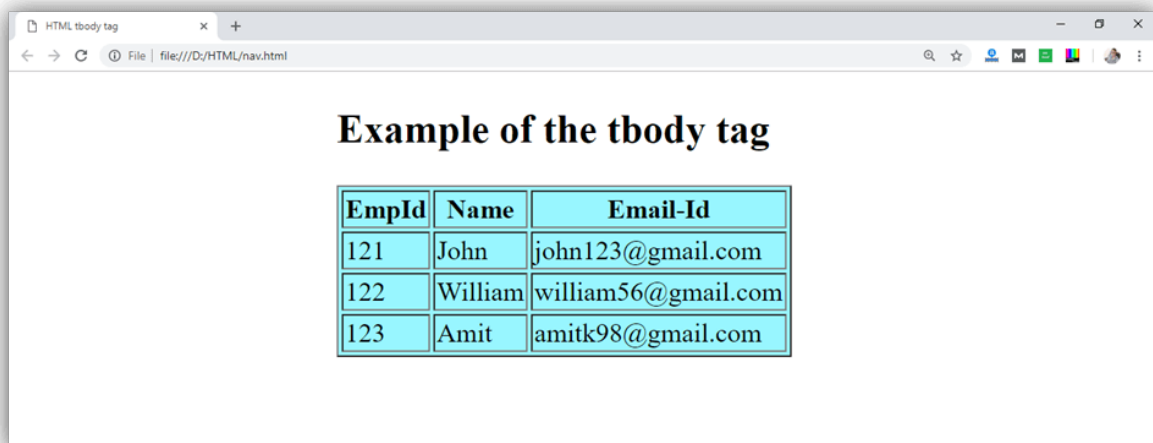
```

28. <tr>
29.   <td>122</td>
30.   <td>William </td>
31.   <td>william56@gmail.com</td>
32. </tr>
33.
34. <tr>
35.   <td>123</td>
36.   <td>Amit</td>
37.   <td>amitk98@gmail.com</td>
38. </tr>
39. </tbody>
40. </table>
41. </body>
42. </html>

```

[Test it Now](#)

**Output:**



## Attribute:

Tag-specific attributes:

Attribute	Value	Description
align	right left center justify char	It determines the alignment of the content inside the <tbody> element. <b>(Not Supported in HTML5)</b>
char	character	It specifies the alignment of the <tbody> content to the character. <b>(Not Supported in HTML5)</b>

charoff	Number	It specifies the number of characters the content will be aligned from the character specified by the char attribute. <b>(Not Supported in HTML5)</b>
valign	top	It determines the vertical alignment of the content inside the <tbody> element. <b>(Not Supported in HTML5)</b>
	middle	
	bottom	
	baseline	

Global attribute:

The <tbody> tag supports the Global attributes in HTML.

Event attribute:

The <tbody> tag supports the Event attributes in HTML.