

Introduction of HTML

HTML is the standard markup language for creating Web pages.

What is Html

- HTML stands for Hyper Text Markup Language.
- HTML is the standard markup language for creating Web pages.
- HTML describes the structure of a Web page.
- HTML consists of a series of elements.
- HTML elements tell the browser how to display the content.

A simple Html document

INPUT

```
<!DOCTYPE html>
<html>
  <head>
    <title>Page Title</title>
  </head>
  <body>
    <h1>My First Heading</h1>
    <p>My first paragraph.</p>
  </body>
</html>
```

The `<!DOCTYPE html>` defines this document is an HTML5 document.

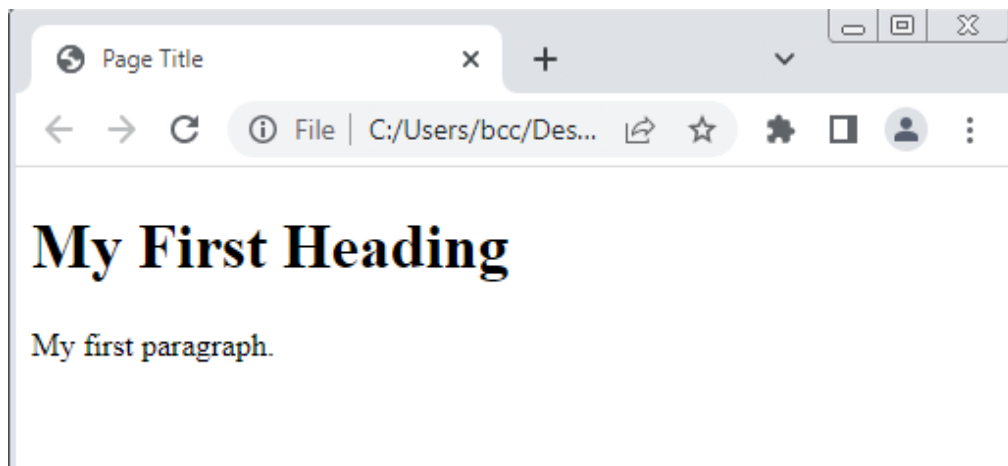
The `<html>` element is the root element of an HTML page.

The `<head>` element contains meta information about the HTML page.

The `<title>` element specifies a title for the HTML page. (which is shown in the browser's title bar or in the page's tab.)

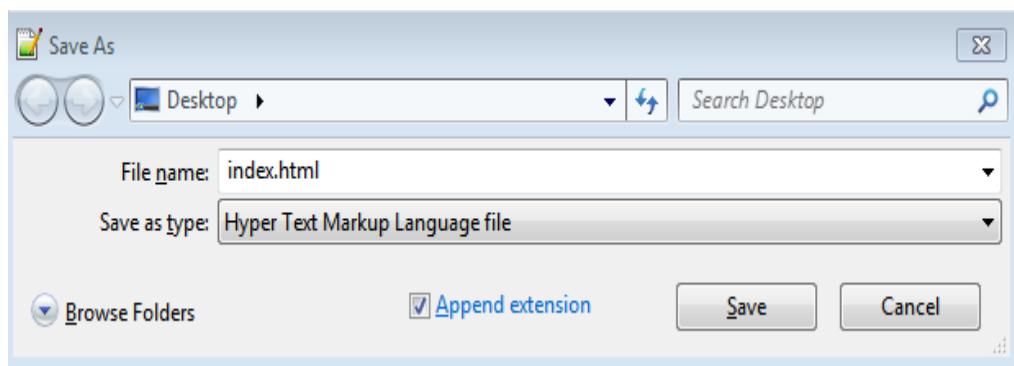
The `<body>` the main body of the page and is a container for all the visible contents, such as headings, paragraphs, images, hyperlinks, tables, lists, etc.

Output



Save the HTML Page

Save the file on your computer. Select **File> Save** in the Notepad menu. Name the file **"index.html"**.



Tip

You can use either .htm or .html as file extension. There is no difference; it is up to you.

HTML Element

An HTML element is defined by a start tag, some content, and an end tag:

```
<body>  
<h1>My First Heading</h1>  
<p>My first paragraph.</p>  
</body>
```

Note

Some HTML elements have no content (like the
 and <hr> element). These elements are called empty elements. Empty elements do not have an end tag!

HTML is Not Case Sensitive

HTML tags are not case sensitive:
<P> means the same as <p>.

HTML Attributes

HTML attributes provide additional information about HTML elements.

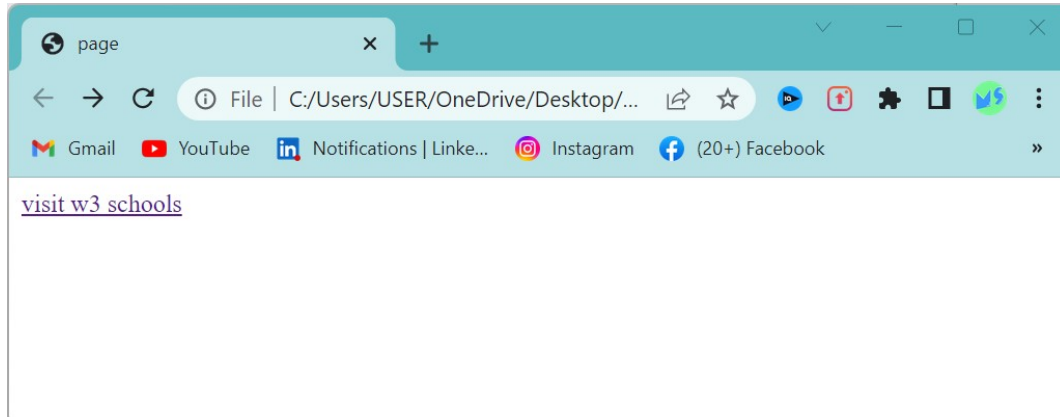
Attributes are always specified in the start tag.

Attributes usually come in name/value pairs like: name="value"

Input

```
<a href="https://www.w3schools.com">Visit W3Schools</a>
```

Output



HTML Headings

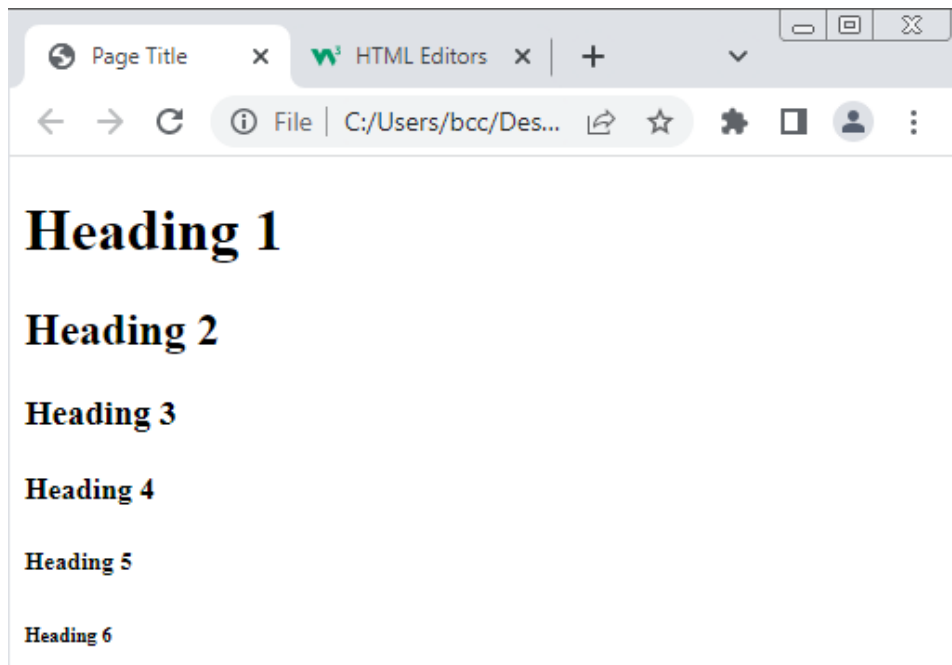
HTML headings are titles or subtitles that you want to display on a webpage.

HTML headings are defined with the `<h1>` to `<h6>` tags.

Input

```
<!DOCTYPE html>
<html>
  <head>
    <title>Page Title</title>
  </head>
  <body>
    <h1>Heading 1</h1>
    <h2>Heading 2</h2>
    <h3>Heading 3</h3>
    <h4>Heading 4</h4>
    <h5>Heading 5</h5>
    <h6>Heading 6</h6>
  </body>
</html>
```

Output



HTML Paragraphs

The HTML `<p>` element defines a paragraph.

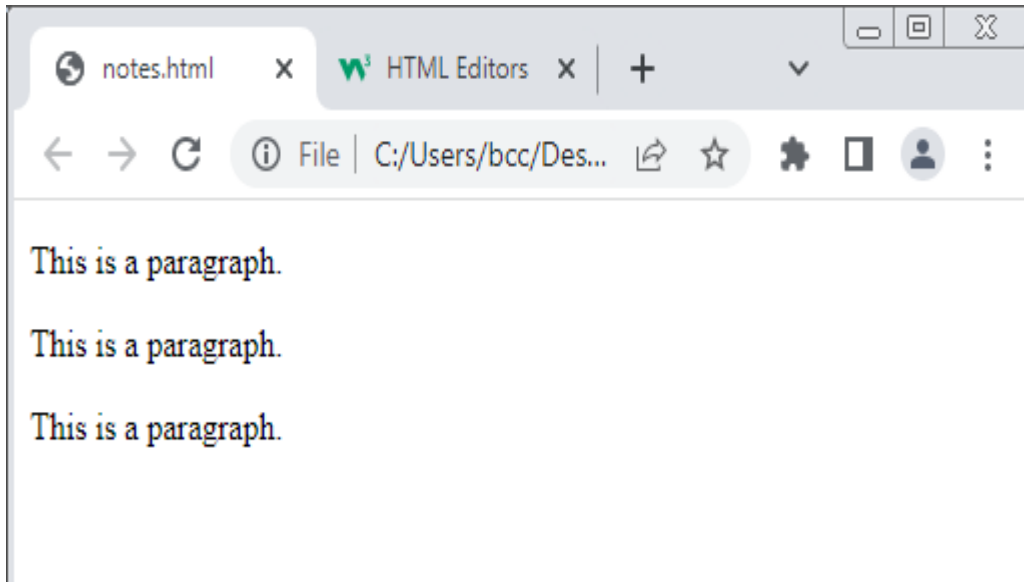
Input

```
<!DOCTYPE html>
<html>
<body>

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

</body>
</html>
```

Output



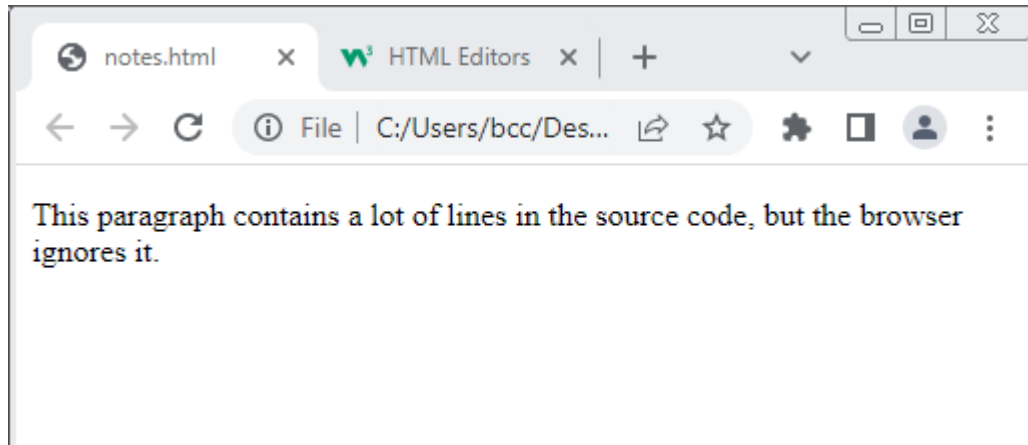
HTML Display

The browser will automatically remove any extra spaces and lines when the page is displayed

Input

```
<!DOCTYPE html>
<html>
<body>
<p>
This paragraph
contains      a lot of lines
in the      source code,
|
|
|
but the browser
ignores it.
</p>
</body>
</html>
```

Output



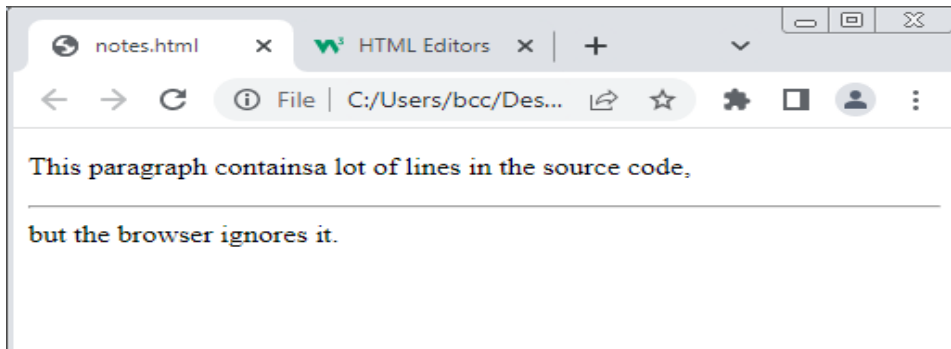
HTML Horizontal Rules

The `<hr>` tag displayed as a horizontal rule in the html page. The `<hr>` tag is an empty tag, which means that it has no end tag.

Input

```
<!DOCTYPE html>
<html>
<body>
<p>
This paragraph
contains a lot of lines
in the source code,
<hr>
but the browser
ignores it.
</p>
</body>
</html>
```

Output



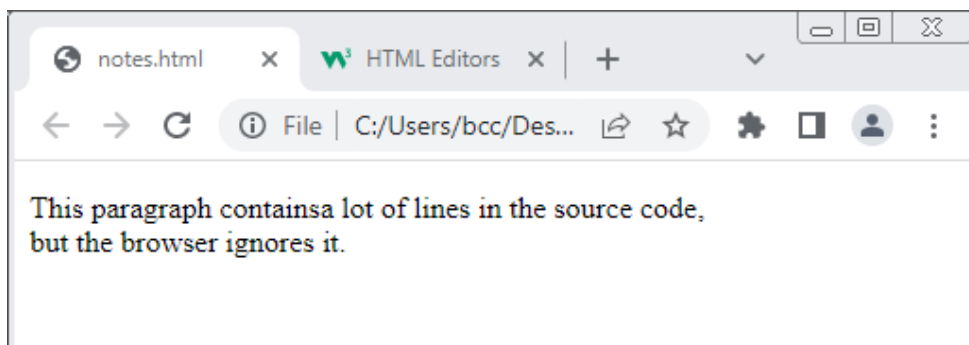
HTML Line Breaks

The HTML `
` element defines a line break.

Input

```
<!DOCTYPE html>
<html>
<body>
<p>
This paragraph
contains a lot of lines
in the source code,
<br>
but the browser
ignores it.
</p>
</body>
</html>
```

Output



HTML `<pre>` Element

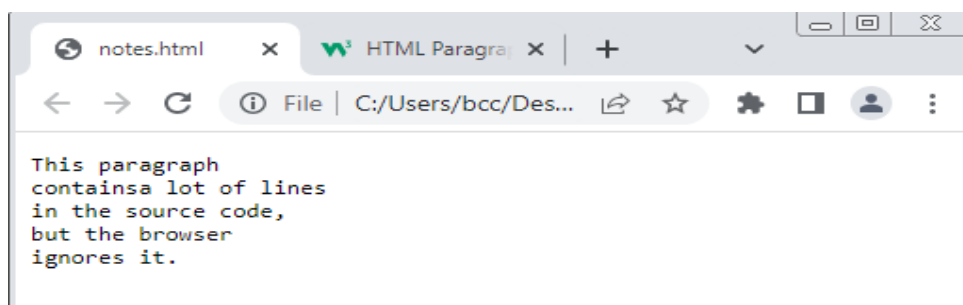
The HTML `<pre>` element defines preformatted text.

The text inside a `<pre>` element is displayed in a fixed-width font (usually Courier), and it preserves both spaces and line breaks

Input

```
<!DOCTYPE html>
<html>
<body>
<pre>
This paragraph
contains a lot of lines
in the source code,
but the browser |
ignores it.
</pre>
</body>
</html>
```

Output



HTML Formatting Elements

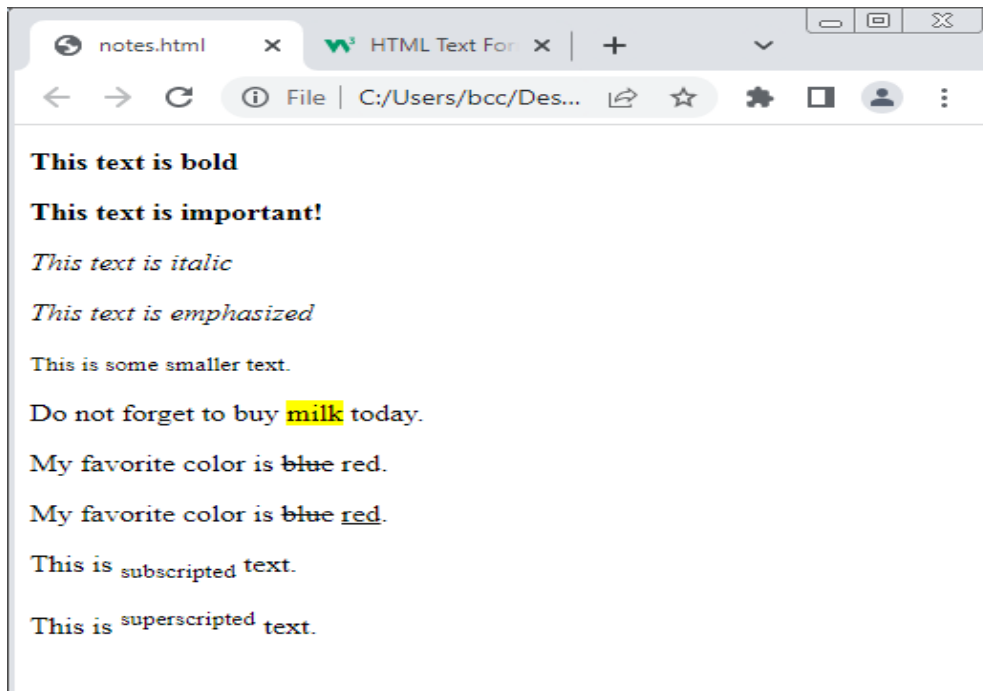
Formatting elements were designed to display special types of text:

- `` - Bold text
- `` - Important text
- `<i>` - Italic text
- `` - Emphasized text
- `<mark>` - Marked text
- `<small>` - Smaller text
- `` - Deleted text
- `<ins>` - Inserted text
- `<sub>` - Subscript text
- `<sup>` - Superscript text

Input

```
<!DOCTYPE html>
<html>
<body>
<p><b>This text is bold</b></p>
<p><strong>This text is important!</strong></p>
<p><i>This text is italic</i></p>
<p><em>This text is emphasized</em></p>
<p><small>This is some smaller text.</small></p>
<p>Do not forget to buy <mark>milk</mark> today.</p>
<p>My favorite color is <del>blue</del> red.</p>
<p>My favorite color is <del>blue</del> <ins>red</ins>.</p>
<p>This is <sub>subscripted</sub> text.</p>
<p>This is <sup>superscripted</sup> text.</p>
</body>
</html>
```

Output



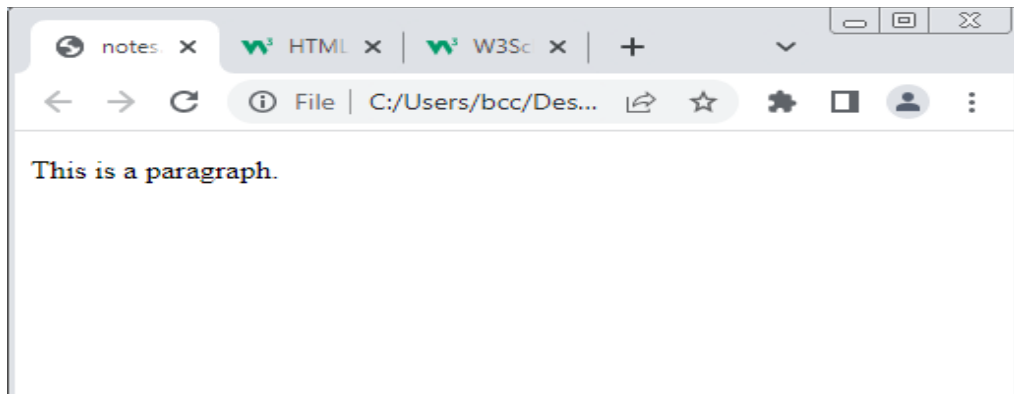
HTML Comments

HTML comments are not displayed in the browser, but they can help document your HTML source code.

Input

```
<!DOCTYPE html>
<html>
<body>
  <!-- This is a comment -->
  <p>This is a paragraph.</p>
  <!-- Comments are not displayed in the browser -->
</body>
</html>
```

Output



Background colour in HTML tag

We can also change background color with the help of HTML tag by using bgcolor attribute. This HTML attribute works only in body tag.

Input

```
<!DOCTYPE html>
<html>
<head>
<title>notes</title>
</head>
<body bgcolor="red">
<h1>work</h1>
</body>
</html>
```

Output



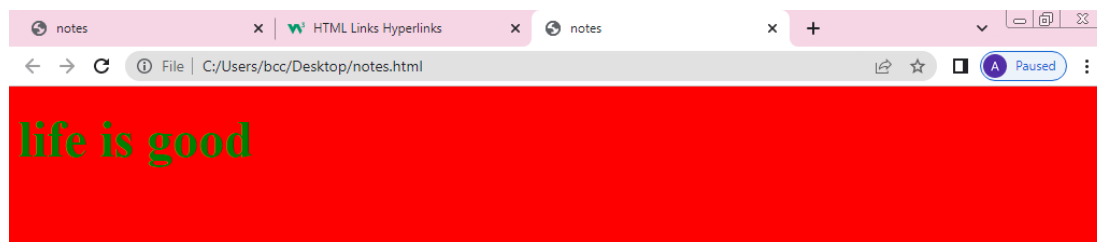
Font tag (color and size)

This HTML tag is used to change color and size of the text.

Input

```
<!DOCTYPE html>
<html>
<head>
<title>notes</title>
</head>
<body bgcolor="red">
<h1>
<font color="green" size="40px">life is good .
</font>
</h1>
</body>
</html>
```

Output



HTML Links - Hyperlinks

HTML links are hyperlinks. The HTML `<a>` tag defines a hyperlink.

The most important attribute of the `<a>` element is the `href` attribute, which indicates the link's destination.

HTML links-the target attributes

The `target` attribute specifies

where to open the link document.

The `target` attributes can have one of the following values:

`_self`

Default, opens the document in this same window or tab as it was clicked.

`_Blank`

Opens the document in a new window or tab.

`_Parent`

Opens the document in the parent frame.

`_top`

Opens the document in the full body of the window.

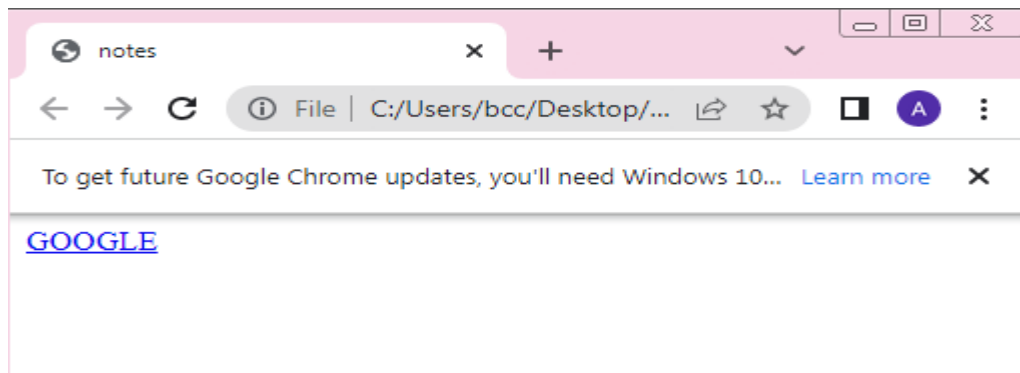
FrameName

Opens the link document in the named target frame.

Input

```
<!DOCTYPE html>
<html>
<head>
<title>notes</title>
</head>
<body bgcolor="red">
<a href="http://www.google.com" target="_blank">GOOGLE</a>
</body>
</html>
```

Output



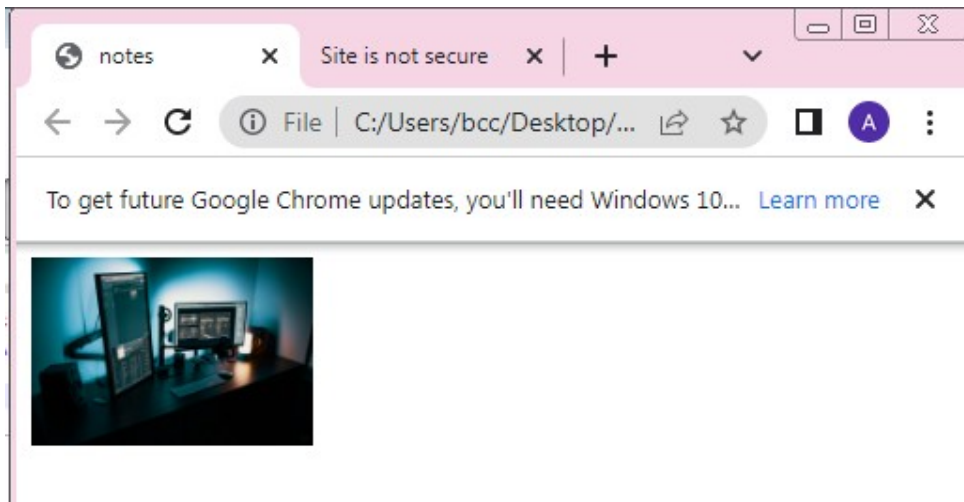
Use an image as a link

To use an image as a link just put the `` tag inside the `<a>` tag.

Input

```
<!DOCTYPE html>
<html>
<head>
<title>notes</title>
</head>
<body>
<a href="http://www.google.com" target="_blank">
</a>
</body>
</html>
```

Output



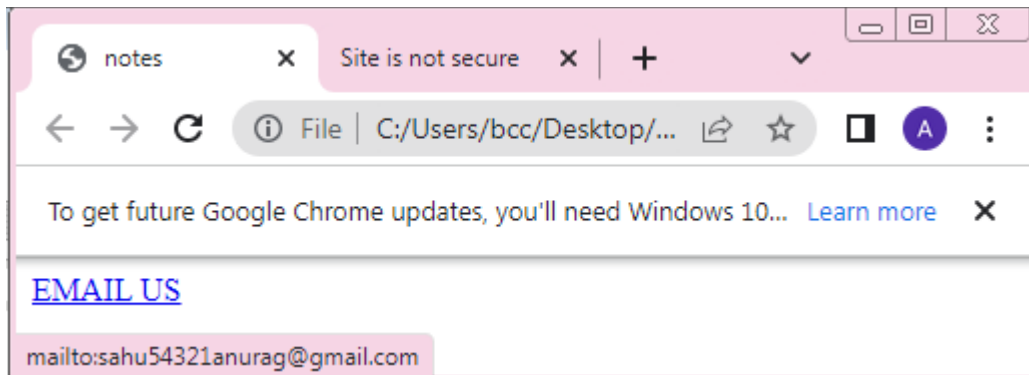
Link to an email address

Use `mailto:` inside the `href` attribute to create a link that opens the users email program to let them send a new message.

Input

```
<!DOCTYPE html>
<html>
<head>
<title>notes</title>
</head>
<body>
<a href="mailto:sahu54321anurag@gmail.com" target="_blank">EMAIL US</a>
</body>
</html>
```


Output



Creating a bookmark using anchor tag

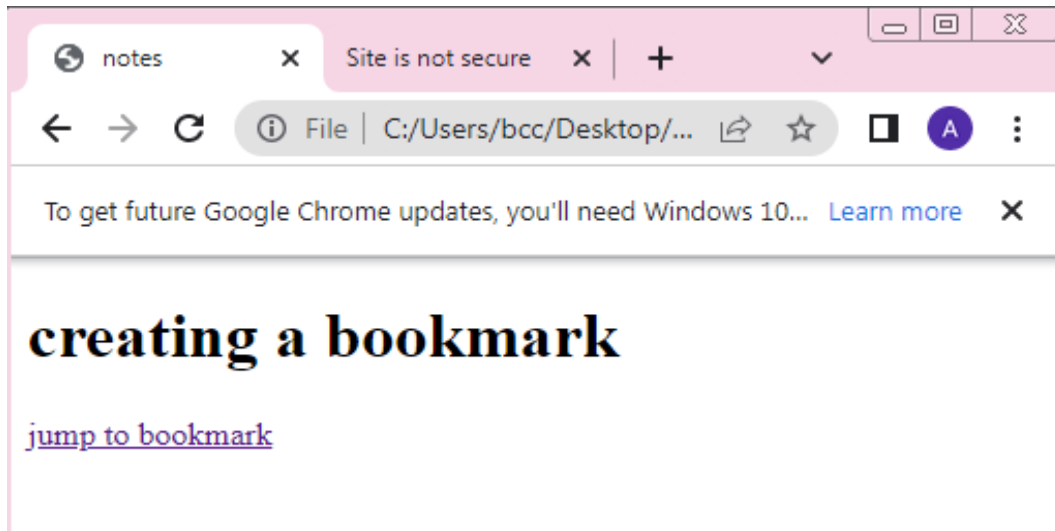
HTML links can be used to create bookmarks so that readers can jump to specific parts of a web page.

- first use the **id** attribute to create a bookmark.
- Then add the **a** link to the bookmark from within the same page.

Input

```
<!DOCTYPE html>
<html>
<head>
<title>notes</title>
</head>
<body>
<h1 id="bookmark">creating a bookmark</h1>
<a href="#bookmark">jump to bookmark</a>
</body>
</html>
```

Output



- You can also add a link to a bookmark on another page.

Link titles

The **title** attribute specifies extra information about an element the information is most often shown as a tooltip text when the mouse moves over the element.

Image maps

The HTML **<map>** tag defines an image map. An image map is an image with clickable areas. The areas are defined with one or more **<area>** tags.

Create image map

To use image map first you have to insert image by using the **** tag and must add a **usemap** attribute.

The `usemap` values that hash tag `#` followed by the name of the image map.

```
<Img src ="url" alt="error" usemap="#workmap">
```

Then add a `<map>` element. The `<map>` element is used to create an image map, and is link to the image by using the required `name` attribute.

```
<map name="workmap">
```

The `name` attribute must have the same value as the `` tag's `usemap` attribute.

Then, add a clickable areas. A clickable area is defined using an `<area>` element.

You must define the shape of the clickable area, and you can choose one of these values:-

- **Rect** defines a rectangular region.
- **Circle** defines circular region.
- **Poly** defines a polygon region.

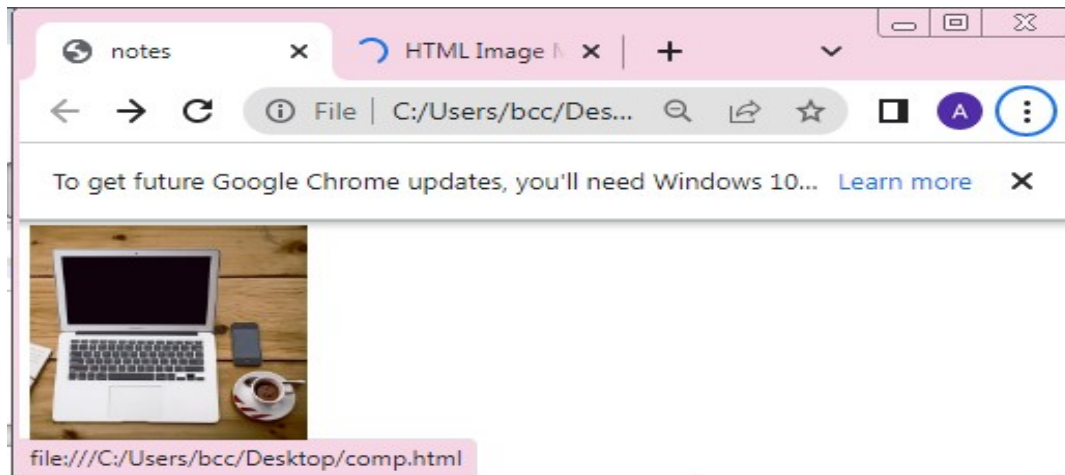
Shape="rect"

The coordinates of the `shape="rect"` come in pairs, one for the x-axis and one for the y-axis.

Input

```
<!DOCTYPE html>,  
<html>  
<head>  
<title>notes</title>  
</head>  
<body>  
<img src = "C:\Users\bcc\Downloads\workplace.jpg" alt="error" usemap="#workmap">  
<map name="workmap">  
<area shape="rect"  
      coords="34,44,270,350"  
      href="comp.html"  
      title="computer">  
</body>  
</html>
```

Output



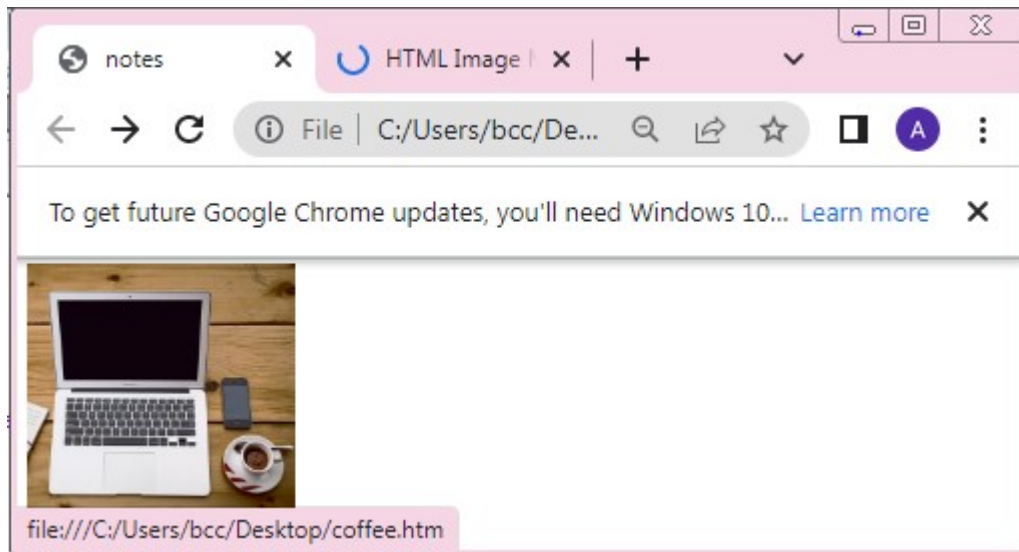
Shape = "circle"

To add a **circle** area, first locate the coordinates of the centre of the circle. Then specify the radius of the circle.

Input

```
<!DOCTYPE html>,  
<html>  
<head>  
<title>notes</title>  
</head>  
<body>  
<img src = "C:\Users\bcc\Downloads\workplace.jpg" alt="error" usemap="#workmap">  
<map name="workmap">  
<area shape="circle"  
      coords="337, 300, 44"  
      href="coffee.htm"  
      title="coffee">  
</body>  
</html>
```

Output



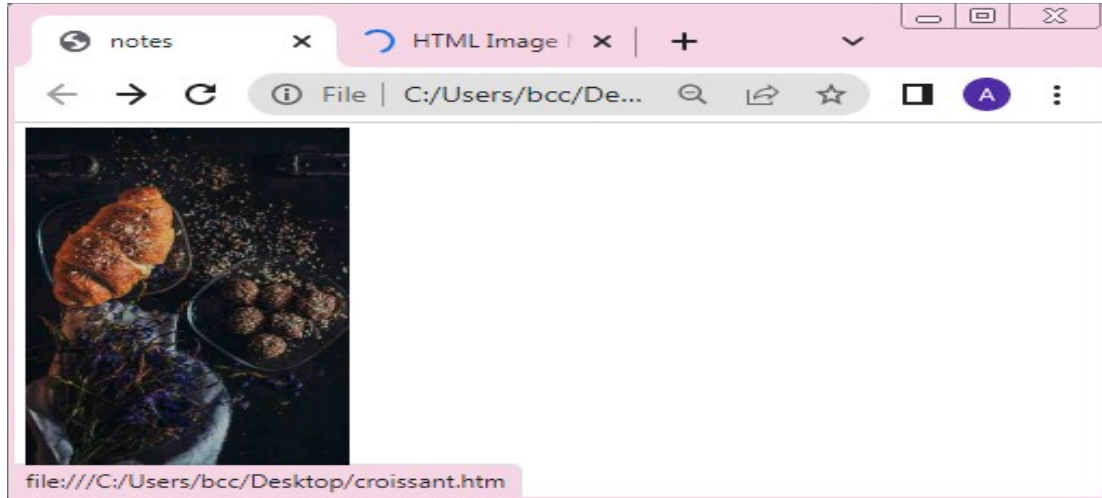
Shape="poly"

The shape **poly** contains several coordinate points, which creates a shape formed with straight line (a polygon).

Input

```
<!DOCTYPE html>,  
<html>  
<head>  
<title>notes</title>  
</head>  
<body>  
<img src = "C:\Users\bcc\Downloads\frenchfood.jpg" alt="error" usemap="#workmap">  
<map name="workmap">  
<area shape="poly"  
      coords="140,121,181,116,204,160,204,222,  
            191,270,140,329,85,355,58,352,37,322,40,  
            259,103,161,128,147"  
      href="croissant.htm">  
</body>  
</html>
```

Output



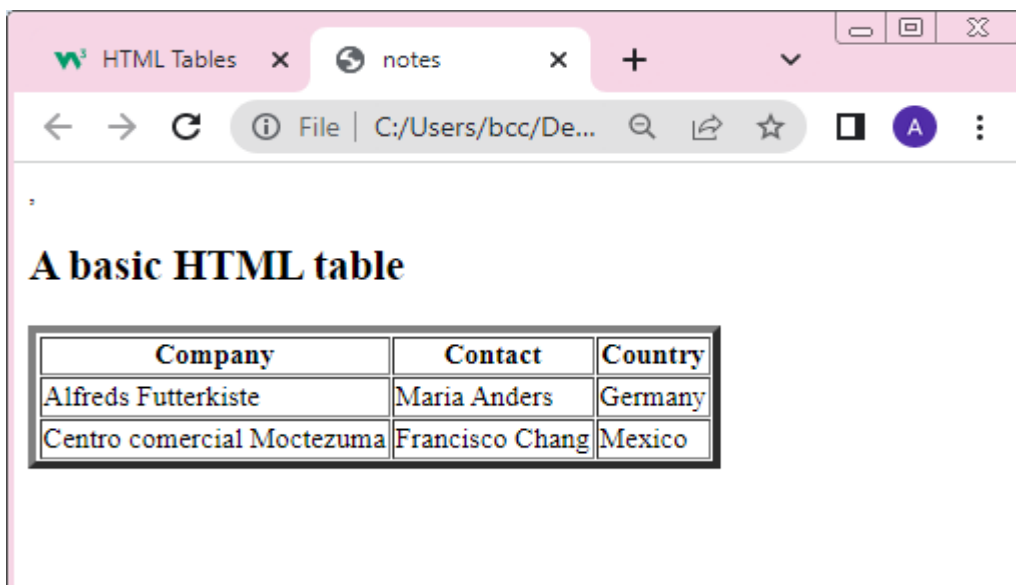
HTML tables

HTML table allow web developers to arrange data into rows and columns.

Input

```
<!DOCTYPE html>,  
<html>  
<head>  
<title>notes</title>  
</head>  
<body>  
<h2>A basic HTML table</h2>  
<table border="5px">  
<tr>  
<th>Company</th>  
<th>Contact</th>  
<th>Country</th>  
</tr>  
<tr>  
<td>Alfreds Futterkiste</td>  
<td>Maria Anders</td>  
<td>Germany</td>  
</tr>  
<tr>  
<td>Centro comercial Moctezuma</td>  
<td>Francisco Chang</td>  
<td>Mexico</td>  
</tr>  
</table>  
</body>  
</html>
```

Output



The <Table>

Table tag consist of table cells inside rows and columns.

Table rows

Each table row starts with a `<tr>` and end with `</tr>` tag.`tr` stand for table row.

Table cells

Each table cell is defined by a `<td>` and `</td>` tag stands for table data. Everything between `<td>` and `</td>` the content of the table cell.

Table headers

Sometimes you want your cells to be headers, in those cases use the `<th>` tag instead of the `<td>` tag.

*You can have as many Rows as you like in a table, just make sure that the number of cells are the same in each row.

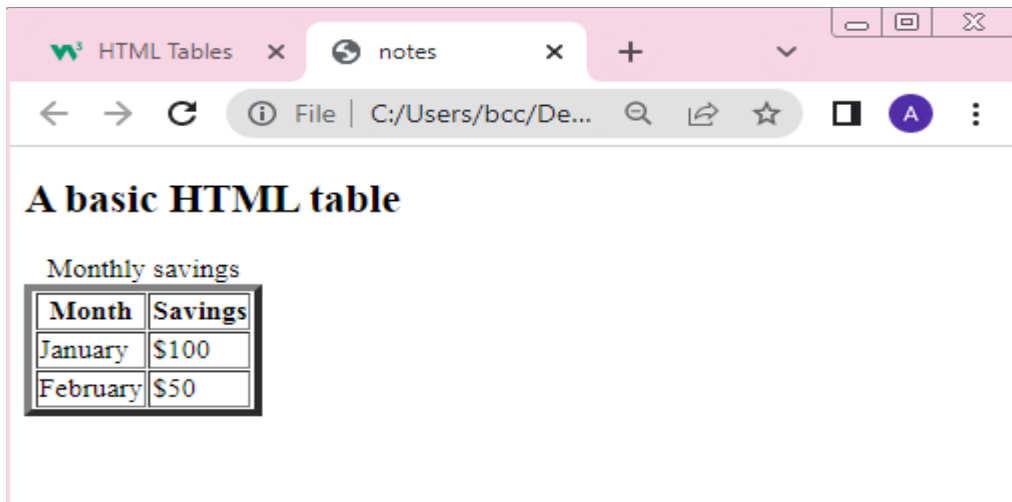
Caption

It is used to defines a table caption. To add a caption to a table, use the `<caption>` tag.

Input

```
<!DOCTYPE html>
<html>
<head>
<title>notes</title>
</head>
<body>
<h2>A basic HTML table</h2>
<table border="5px">
<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>
</body>
</html>
```


Output



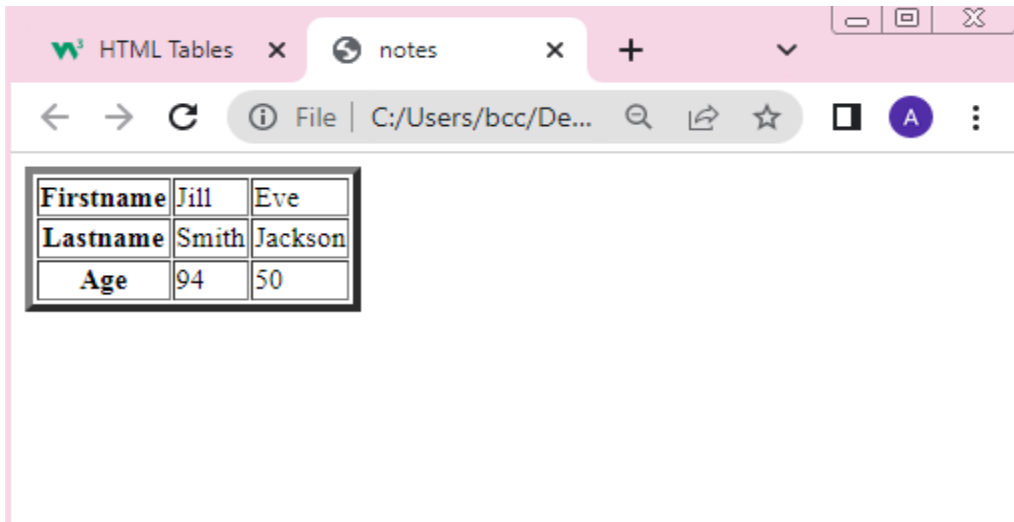
Vertical table

To use the first column as table headers, define the first cell in each row as a `<th>`.

Input

```
<!DOCTYPE html>
<html>
<head>
<title>notes</title>
</head>
<body>
<table border="5px">
<tr>
<th>Firstname</th>
<td>Jill</td>
<td>Eve</td>
</tr>
<tr>
<th>Lastname</th>
<td>Smith</td>
<td>Jackson</td>
</tr>
<tr>
<th>Age</th>
<td>94</td>
<td>50</td>
</tr>
</table>
</body>
</html>
```

Output



Firstname	Jill	Eve
Lastname	Smith	Jackson
Age	94	50

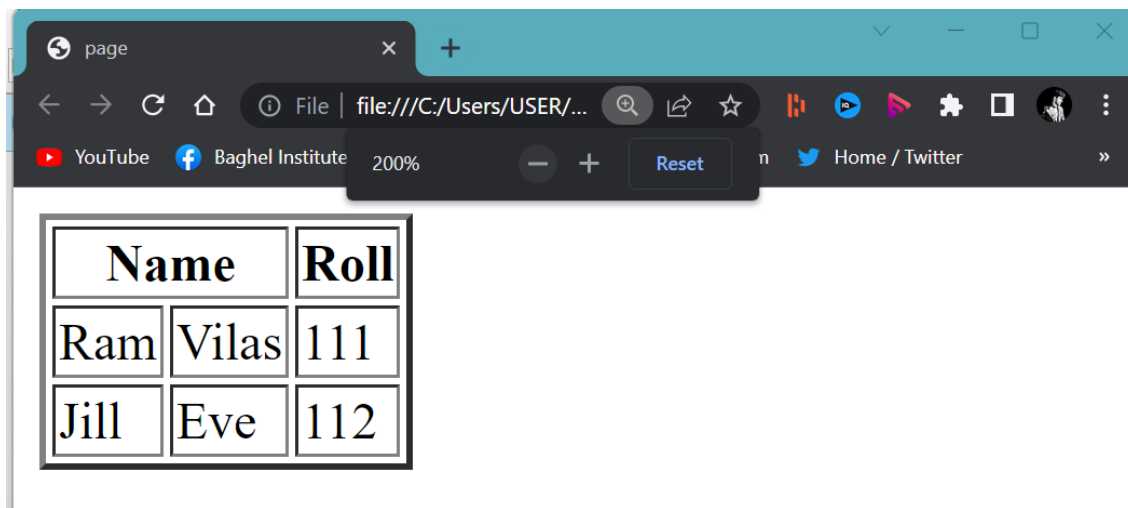
Merge columns(colspan)

To make a cell span over multiple columns, use the `colspan` attribute. The value of the `colspan` attribute represent the number of the column to span.

Input

```
<!doctype html>
<html>
<head>
<title>page</title>
</head>
<body>
<table border="2">
<tr>
<th colspan="2">Name</th>
<th>Roll</th>
</tr>
<tr>
<td>Ram</td>
<td>Vilas</td>
<td>111</td>
</tr>
<tr>
<td>Jill</td>
<td>Eve</td>
<td>112</td>
</tr>
</body>
</html>
```

Output



Name		Roll	
Ram	Vilas	111	
Jill	Eve	112	

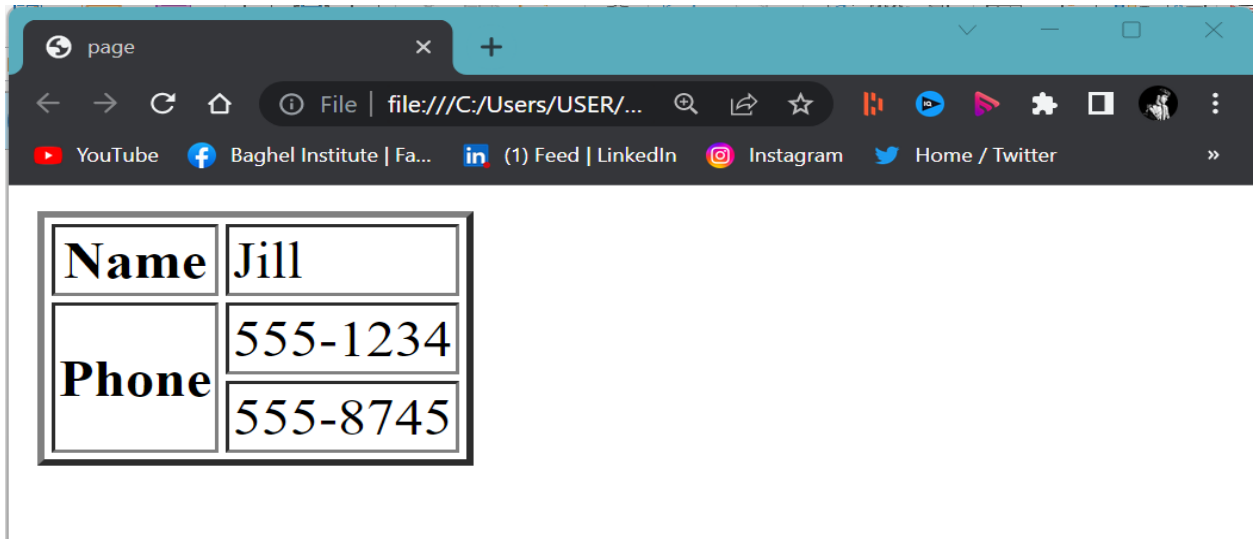
Merge rows(**rowspan**)

To make a cell span over multiple rows, use the `rowspan` attribute. The value of the `rowspan` attribute present the number of rows to span.

Input

```
<!doctype html>
<html>
<head>
<title>page</title>
</head>
<body>
<table border="2">
<tr>
<th>Name</th>
<td>Jill</td>
</tr>
<tr>
<th rowspan="2">Phone</th>
<td>555-1234</td>
<td>555-8745</td>
</tr>
</table>
</body>
</html>
```

Output



Some attributes of table tag

Cellpadding

It is used to create space between cell and the text.

Cellspacing

It is used to create spacing between the table border and the cell.

Border

It is used to create border around the table.

Align

It is used to align the table in center, left or right.

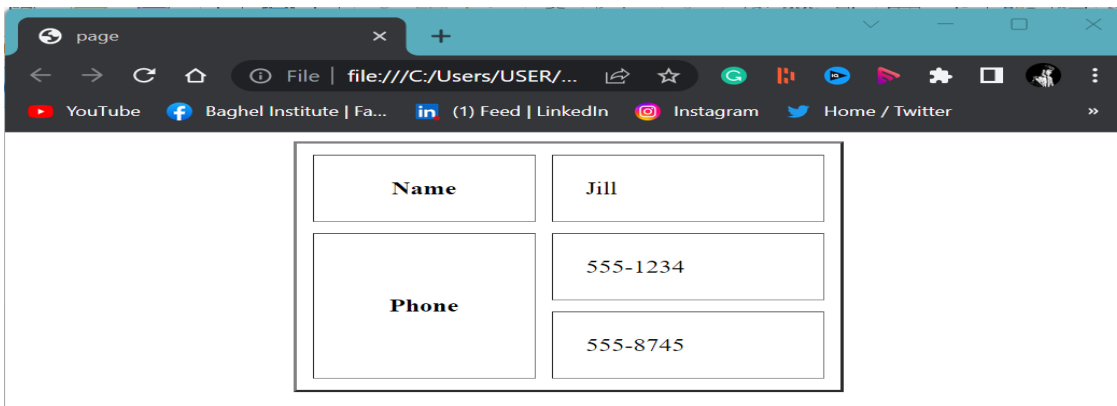
Width

It is used to define size of the table.

Input

```
<!doctype html>
<html>
<head>
<title>page</title>
</head>
<body>
<table border="2" align="center" cellpadding="20px" cellspacing="10px" width="50%">
<tr>
<th>Name</th>
<td>Jill</td>
</tr>
<tr>
<th rowspan="2">Phone</th>
<td>555-1234</td>
</tr>
<tr>
<td>555-8745</td>
</tr>
</table>
</body>
</html>
```

Output



HTML lists

HTML list allows web developer to group a set of related items in lists. There are three types of lists;

- Ordered list ().
- Unordered list ().
- Description list(<dl>).

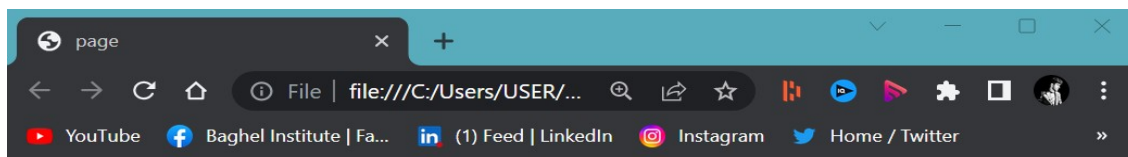
Ordered list

An ordered list start with the `` tag. Each list item start with the `` tag. The list items will be marked with numbers by default.

Input

```
<!doctype html>
<html>
<head>
<title>page</title>
</head>
<body>
<ol>
<li>Coffee</li>
<li>Tea</li>
<li>Milk</li>
</ol>
</body>
</html>
```

Output



1. Coffee
2. Tea
3. Milk

Unordered list

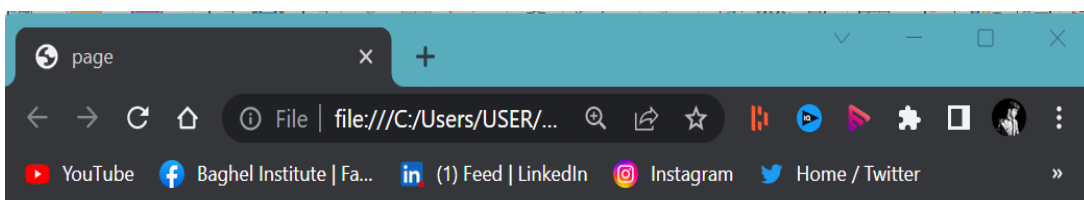
An unordered list start with the `` tag. Each list item starts with the `` tag.

The list item will be marked with bullets (small black circles) by default.

Input

```
<!doctype html>
<html>
<head>
<title>page</title>
</head>
<body>
<ul>
<li>Coffee</li>
<li>Tea</li>
<li>Milk</li>
</ul>
</body>
</html>
```

Output



- Coffee
- Tea
- Milk

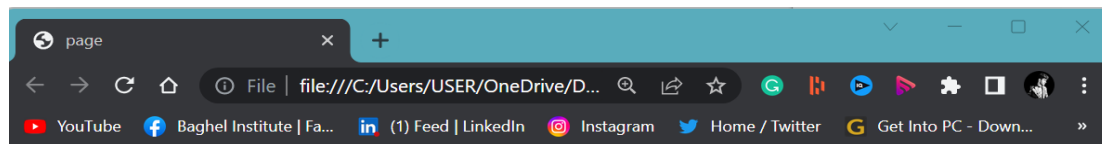
Description list

HTML also supports description lists. A description list is a list of terms, with a description of each term. The `<dl>` tag define the description list, the `<dt>` tag defines the term (name), and the `<dd>` tag describe each term.

Input

```
<!doctype html>
<html>
<head>
<title>page</title>
</head>
<body>
<dl>
<dt>Coffee</dt>
<dd>- black hot drink</dd>
<dt>Milk</dt>
<dd>- white cold drink</dd>
</dl>
</body>
</html>
```

Output



Coffee
- black hot drink
Milk
- white cold drink

Ordered list the type attribute

type="1"

The list items will be numbered with numbers (default).

type="A"

The list items will be numbered with uppercase letters.

type="a"

The list items will be numbered with lowercase letters.

type="I"

The list items will be numbered with uppercase roman numbers.

type="i"

The list items will be numbered with lowercase roman numbers.

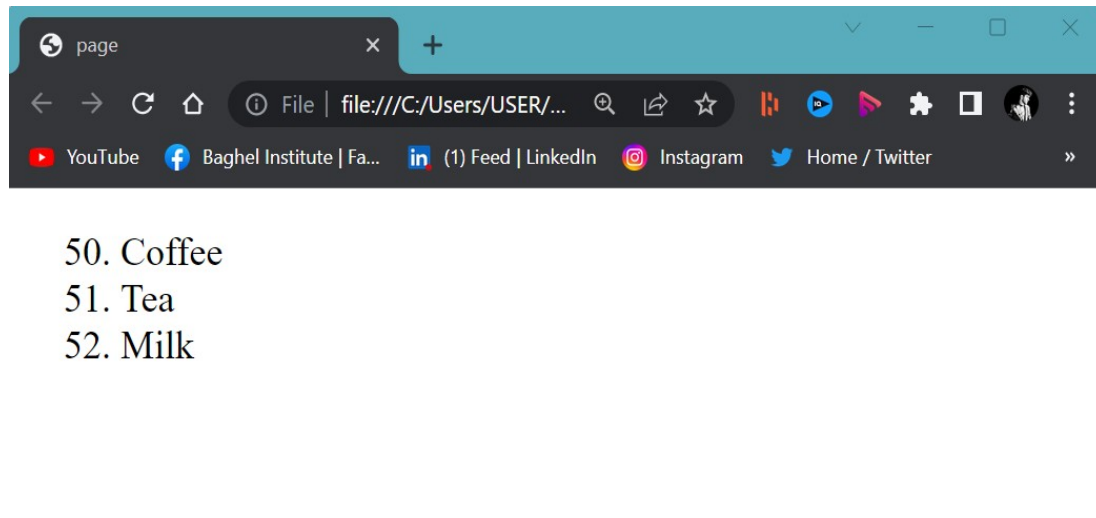
Control List Counting

By default, an ordered list will start counting from 1. If you want to start counting from a specified number, you can use the start attribute:

Input

```
<!doctype html>
<html>
<head>
<title>page</title>
</head>
<body>
<ol type="1" start="50">
<li>Coffee</li>
<li>Tea</li>
<li>Milk</li>
</ol>
</body>
</html>
```

Output



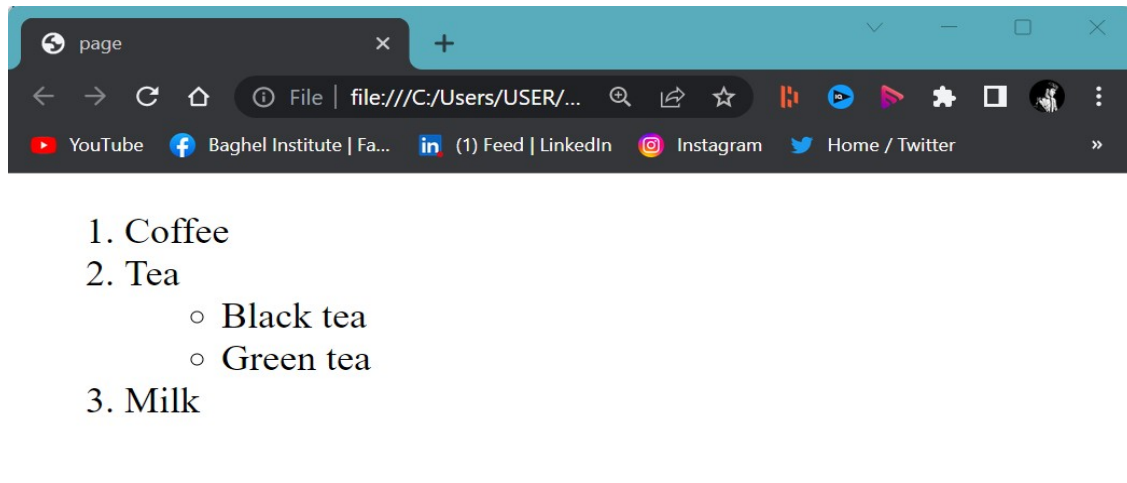
Nested HTML Lists

Lists can be nested (list inside list).

Input

```
<!doctype html>
<html>
<head>
<title>page</title>
</head>
<body>
<ol>
<li>Coffee</li>
<li>Tea</li>
<ul>
<li>Black tea</li>
<li>Green tea</li>
</ul>
</li>
<li>Milk</li>
</ol>
</body>
</html>
```

Output



Note: A list item (``) can contain a new list, and other HTML elements, like images and links, etc.

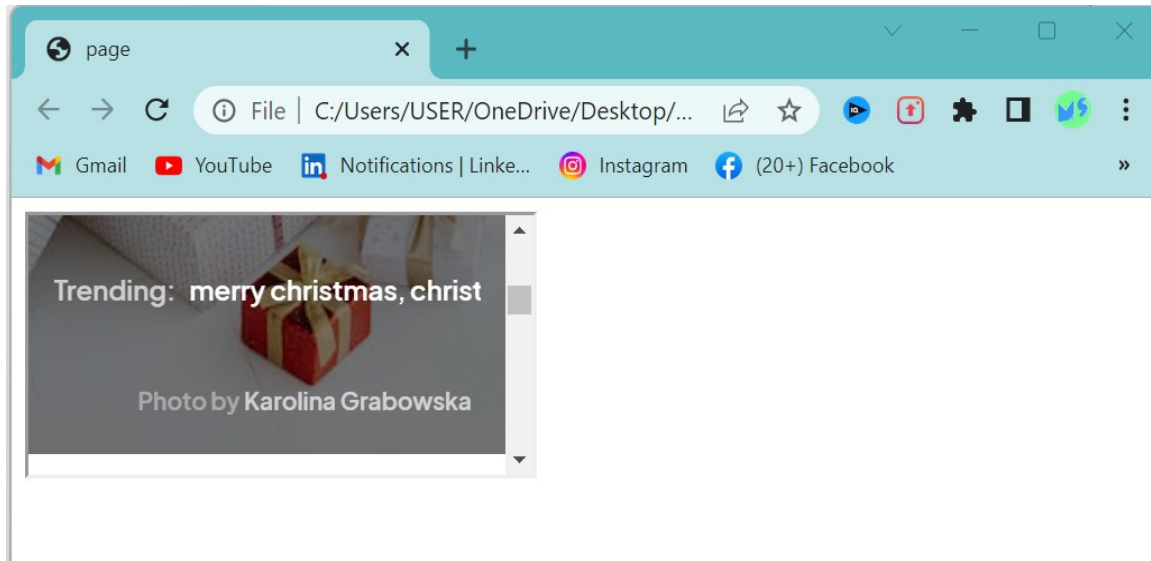
HTML Iframe

An HTML `<Iframe>` tag is used to display a web page within a web page. The HTML Iframe tag specifies an inline frame. Always include a `title` attribute for the `<iframe>` tag.

Input

```
<!doctype html>
<html>
<head>
<title>page</title>
</head>
<body>
<iframe src="https://www.pexels.com/" title="pexels" ></iframe>
</body>
</html>
```

Output



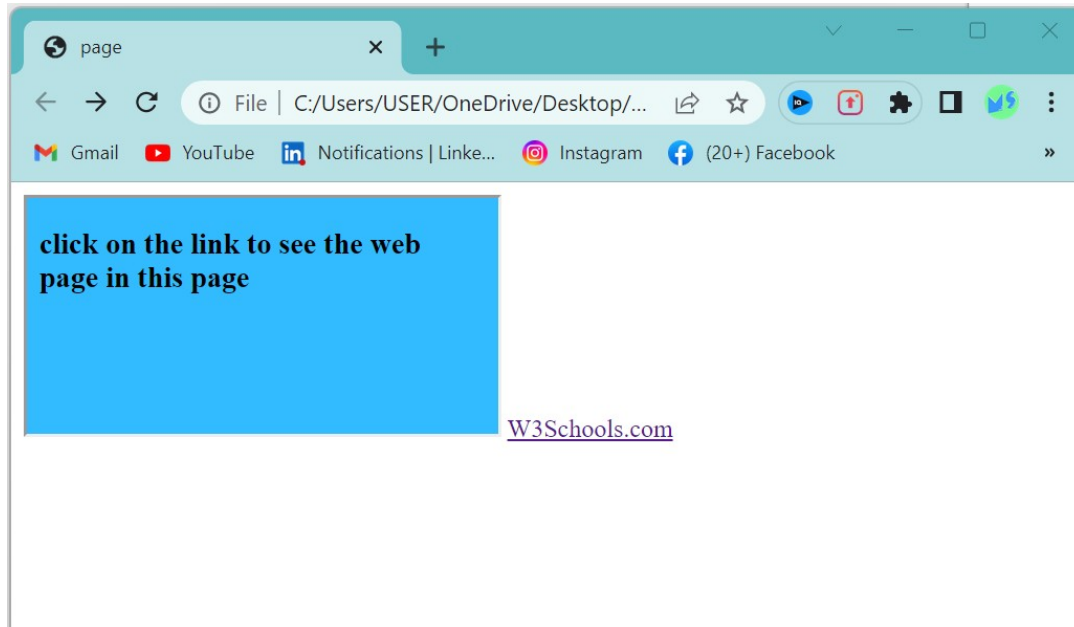
Iframe-Target for a link

An Iframe can be used as a target frame for a link. The `target` attribute for the link must refer to the `name` attribute of the iframe.

Input

```
<!doctype html>
<html>
<head>
<title>page</title>
</head>
<body>
<iframe src="web.html" name="frame" title="Iframe Example"> </iframe>
<a href="https://www.pexels.com/" target="frame">
pexels.com
</a>
</body>
</html>
```

Output



HTML frames:frameset, nested frames

Websites have sticky navigation menus that are visible either in the page sidebar or at the top of the page as you scroll up and down the page.

- Use the frame set element in place of the head element in an HTML document.
- Different file with the contents for each frame.

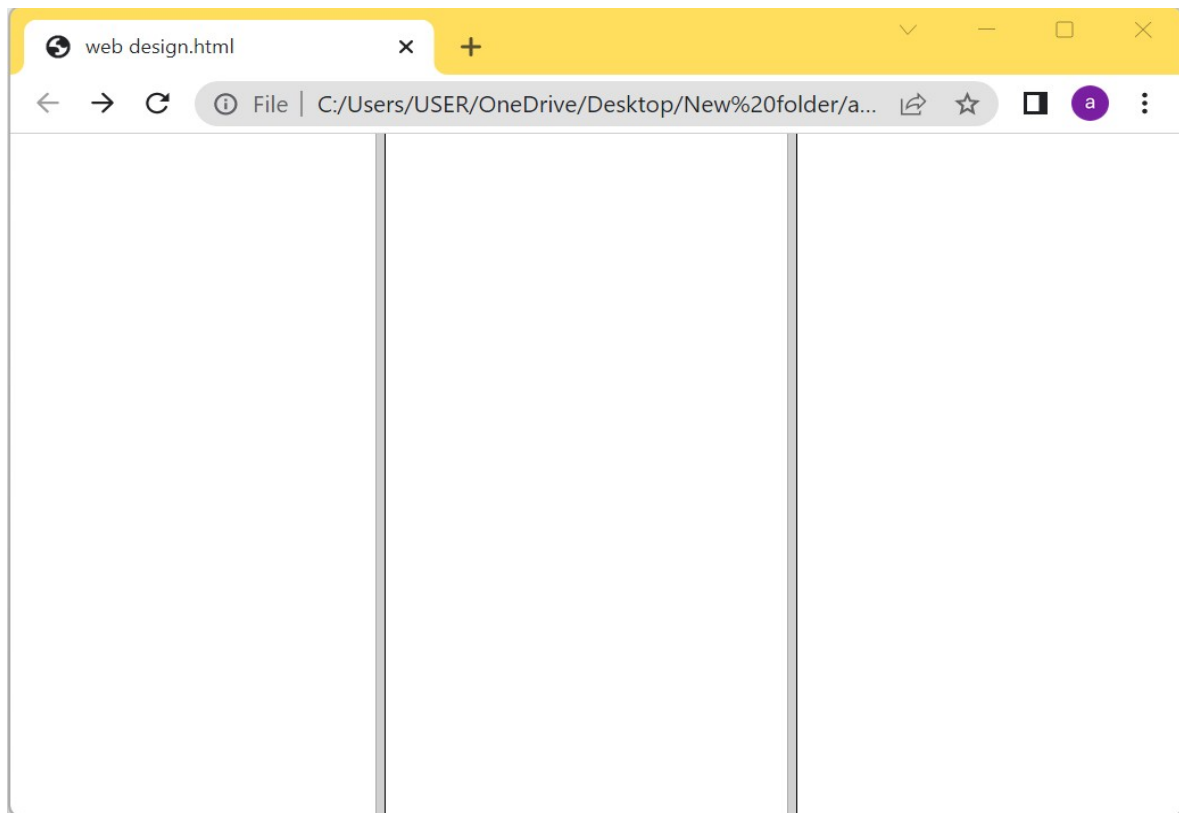
Creating vertical columns

To create a set of vertical columns we need to use the frameset element with the cols attribute. Where we define the size and number of the column.

Input

```
<!doctype html>
<html>
<head>
<frameset cols="33%,33%,33%">
  <frame name="frame1">
  <frame name="frame2">
  <frame name="frame3">
</frameset>
<title>page</title>
</head>
<body>
</body>
</html>
```

Output



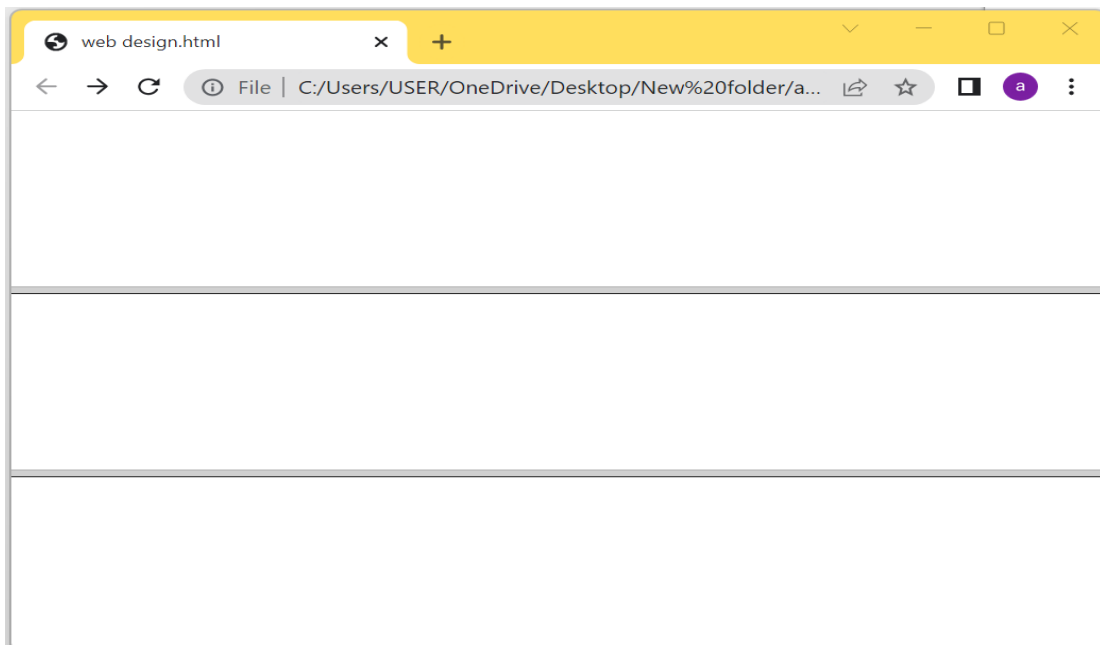
Creating a horizontal rows

Rows of the frame can be created by using the rows attribute rather than the column attribute as shown in the HTML below.

Input

```
<!doctype html>
<html>
<head>
<frameset rows="33%,33%,33%">
  <frame name="frame1">
  <frame name="frame2">
  <frame name="frame3">
</frameset>
<title>page</title>
</head>
<body>
</body>
</html>
```

Output



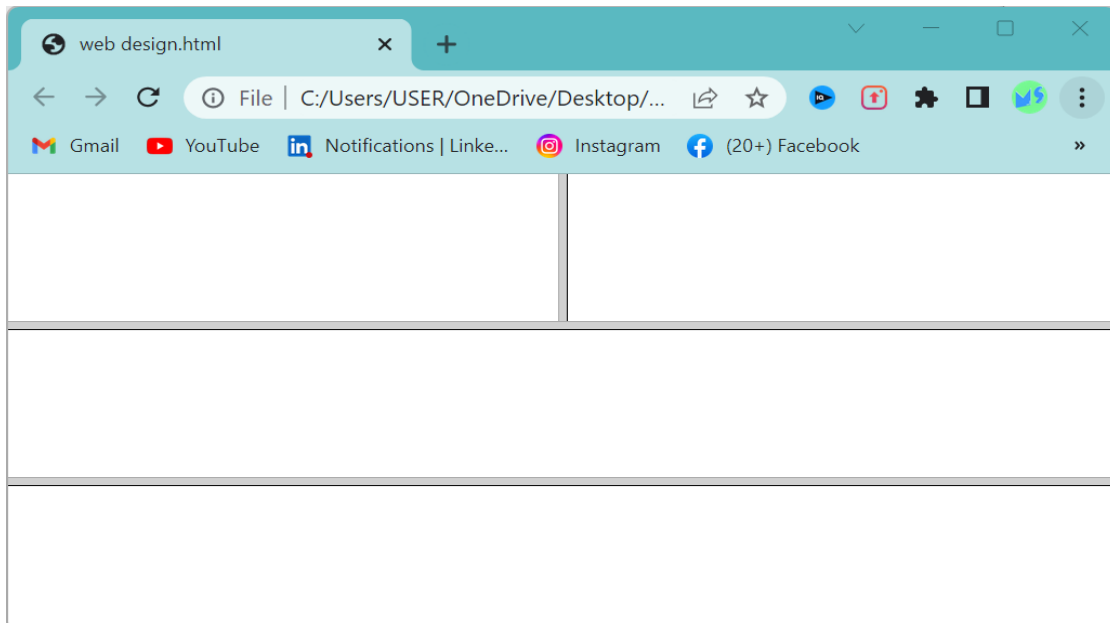
Nested frames

The nested frameset takes the place of the first frame within the parent element; the nested element can be placed in any position.

Input

```
<!doctype html>
<html>
<head>
<frameset rows="33%,33%,33%">
<frameset cols="50%,50%">
<frame name="frame1">
<frame name="frame2">
</frameset>
<frame name="frame3">
<frame name="frame4">
</frameset>
<title>page</title>
</head>
<body>
</body>
</html>
```

Output



Targeting frame with links

you can use a frame as a target frame for a link. Anchor tag can be formatted to target specific frames by assigning a name attribute to a targeted frame element.

- In order to do this we need to assign a name to our target.

Input

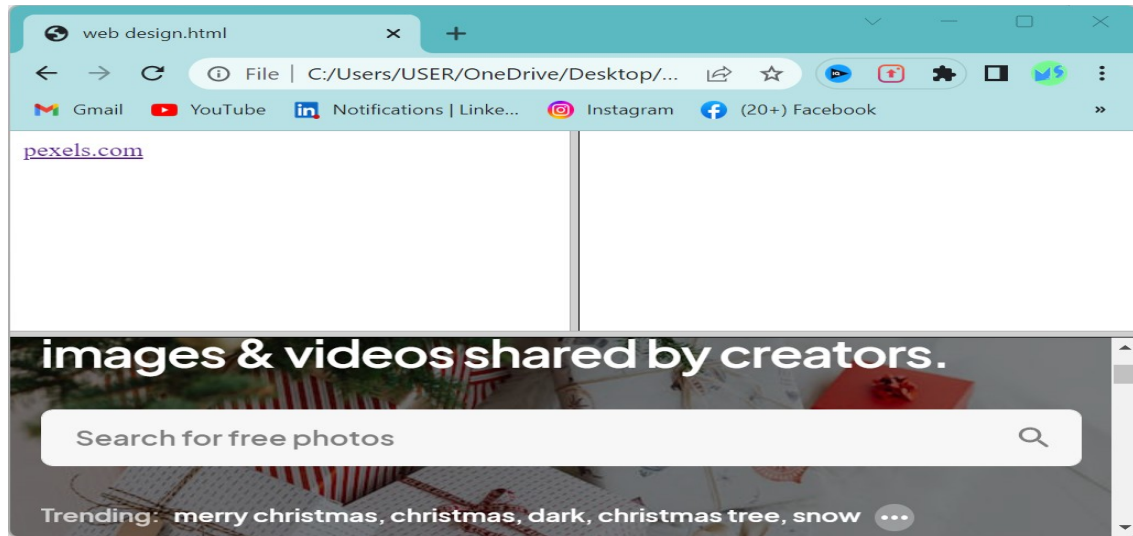
```
<!doctype html>
<html>
<head>
<head>
<Frameset
rows="50%,50%">
<frameset cols="33%,33%">
<frame name="frame1"src="web.html">
<frame name="frame2"> </frameset>
<frame name="frame3">
</frameset>
<title>page</title>
</head>
<body>
</body>
</html>
```

- Now create a page where you want to add an anchor for targeting link and then you can link the page with your frame.

Input

```
<!doctype html>
<html>
<head>
<head>
<title>page</title>
</head>
<body>
<a href="https://www.pexels.com/" target="frame3"> pexels.com</a>
</body>
</html>
```

Output



Some optional attributes for frameset

frameborder

Specifies whether or not to display a border around a frame.

marginheight

Specifies the top and bottom of a frame. It can be defined in pixels.

marginwidth

Specifies the left and right margin of a frame and value is defined in pixels.

Name

Specifies the name of a frame. It cannot be started with a number.

Noresize

Specifies that a frame is not resizable.

Scrolling

Specifies whether or not display scrolling bar in a frame. you can put any one value in scrolling attribute in this three values; yes,no,auto .

Src

Specifies the URL of the document to show in a frame.

HTML Block and Inline Elements

Block-level Elements

A block-level element always starts on a new line and always takes up the full width available .(stretches out to the left and right as far as it can).

Here 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>
<p>          <pre>
<section>    <table>
<tfoot>      <ul>
<video>
```

Inline Elements

An inline element does not start on a new line and only takes up as much width as necessary.

Here are the inline elements in HTML

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

*Note

An inline element cannot contain a block-level element!

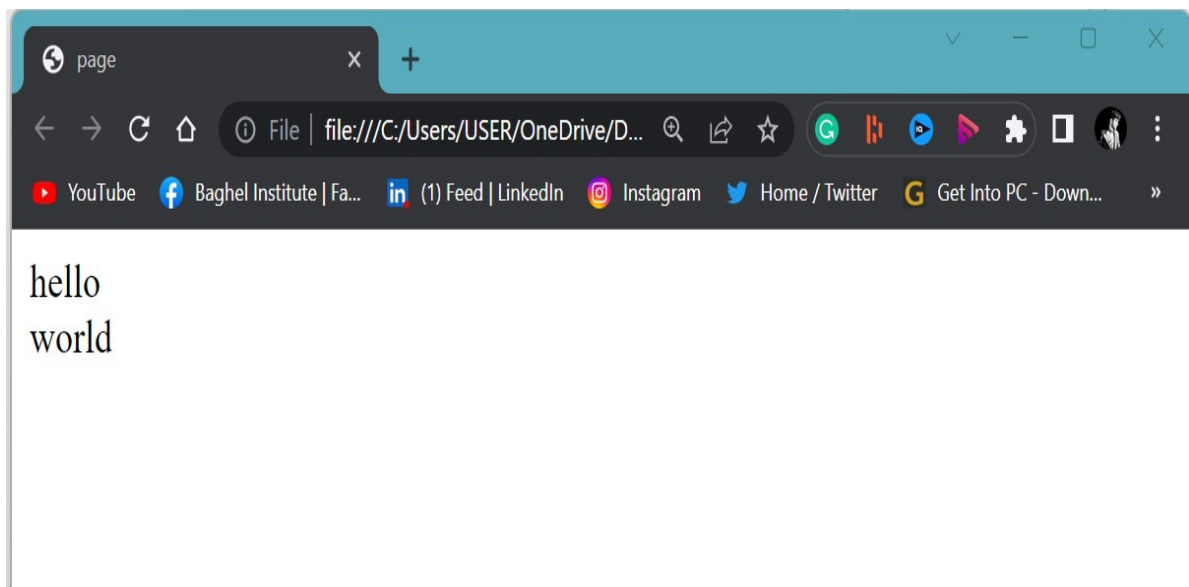
Div tag

This is a block element. The `<div>` element is often used as a container for other HTML element.

Input

```
<!doctype html>
<html>
<head>
<title>page</title>
</head>
<body>
<div> hello</div>
<div> world</div>
</body>
</html>
```

Output



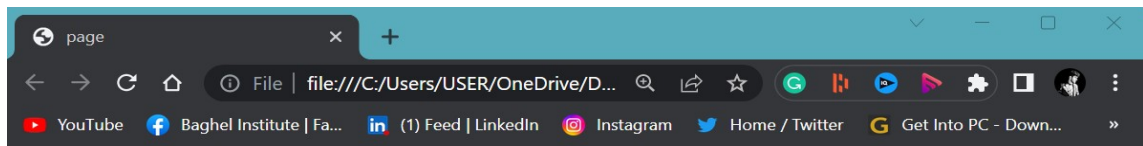
Span tag

This is an inline element .The span element is an element container used to markup a part of a text or a part of a document.

Input

```
<!doctype html>
<html>
<head>
<title>page</title>
</head>
<body>
<span> hello</span>
<span> world</span>
</body>
</html>
```

Output



hello world

HTML forms

An HTML form is used to collect user input. The user input is most often sent to the server for processing. The HTML `<form>` element is used to create an HTML form for user input:

Example `<form>`

`-- form element--`

`</form>`

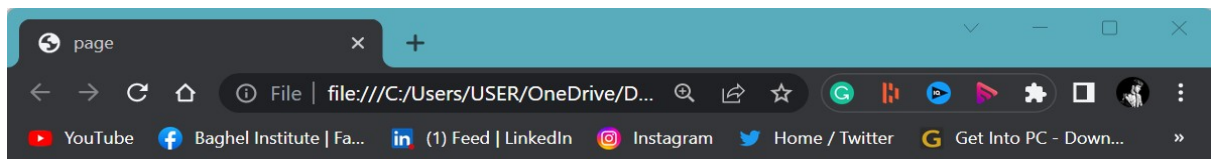
The <label> Element

The `<label>` tag defines a label for many form elements. The `for` attribute of the `<label>` tag should be equal to the `id` attribute of the element to bind them together.

Input

```
<!doctype html>
<html>
<head>
<title>page</title>
</head>
<body>
<form>
<label for="fname">First name:</label>
</form>
</body>
</html>
```

Output



First name:

The <input> Element

The HTML `<input>` element is the most used form element.

An `<input>` element can be displayed in many ways, depending on the `type` attribute.

Here are some examples:

Type	Description
<code><input type="text"></code>	Displays a single-line text input field
<code><input type="radio"></code>	Displays a radio button (for selecting one of many choices)
<code><input type="checkbox"></code>	Displays a checkbox (for selecting zero or more of many choices)
<code><input type="submit"></code>	Displays a submit button (for submitting the form)
<code><input type="button"></code>	Displays a clickable button

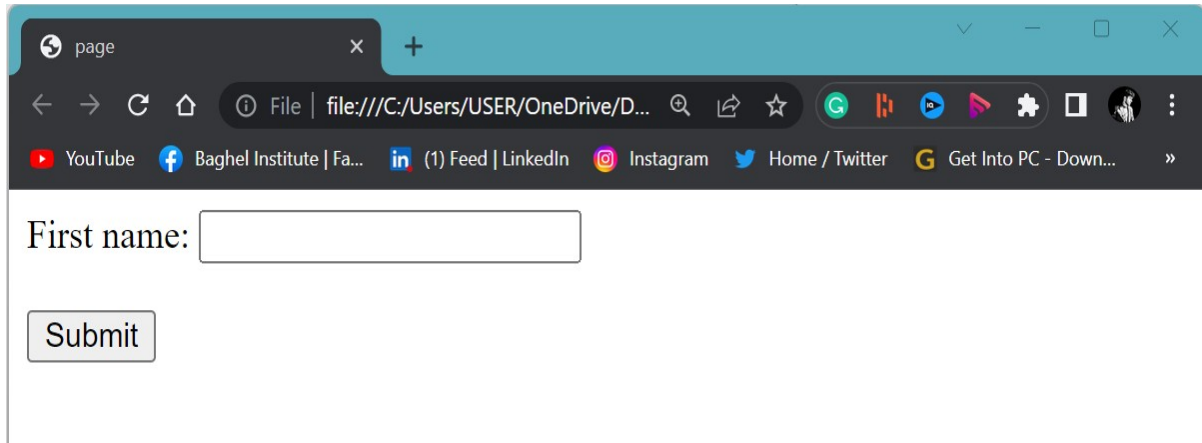
Text Fields

The `<input type="text">` defines a single-line input field for text input.

Input

```
<!doctype html>
<html>
<head>
<title>page</title>
</head>
<body>
<form>
<label for="fname">First name:</label>
<input type="text" id="fname" name="fname">
<br><br>
<input type="submit" value="Submit">
</Form>
</body>
</html>
```


Output



A screenshot of a web browser window. The address bar shows a file path: file:///C:/Users/USER/OneDrive/D... The browser's toolbar includes icons for YouTube, Facebook, LinkedIn, Instagram, Twitter, and Google. The main content area displays a form with the label "First name:" followed by a text input field. Below the input field is a button labeled "Submit".

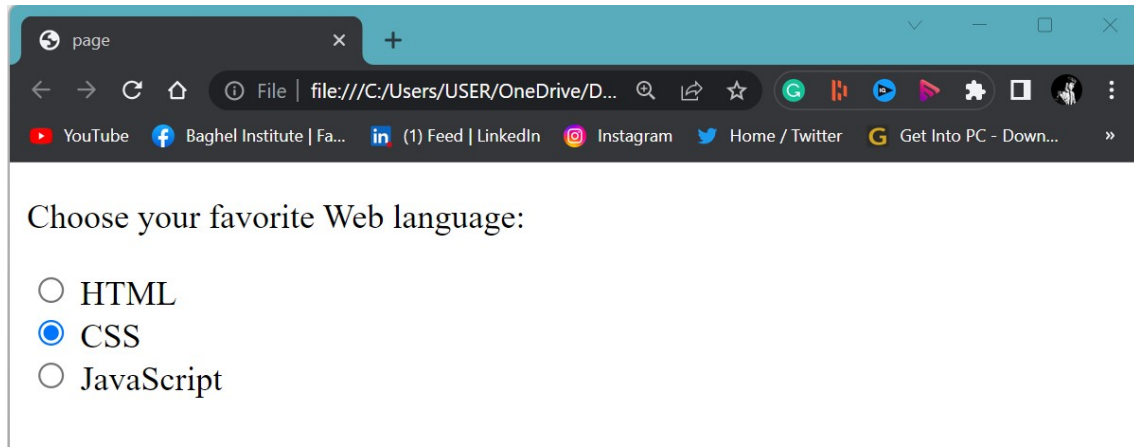
Radio Buttons

The `<input type="radio">` defines a radio button. Radio buttons let a user select ONE of a limited number of choices.

Input

```
<!doctype html>
<html>
<head>
<title>page</title>
</head>
<body>
<p>Choose your favorite Web language:</p>
<form>
<input type="radio" id="html" name="fav_language" value="HTML">
<label for="html">HTML</label><br>
<input type="radio" id="css" name="fav_language" value="CSS">
<label for="css">CSS</label><br>
<input type="radio" id="javascript" name="fav_language" value="JavaScript">
<label for="javascript">JavaScript</label>
</form>
</body>
</html>
```

Output



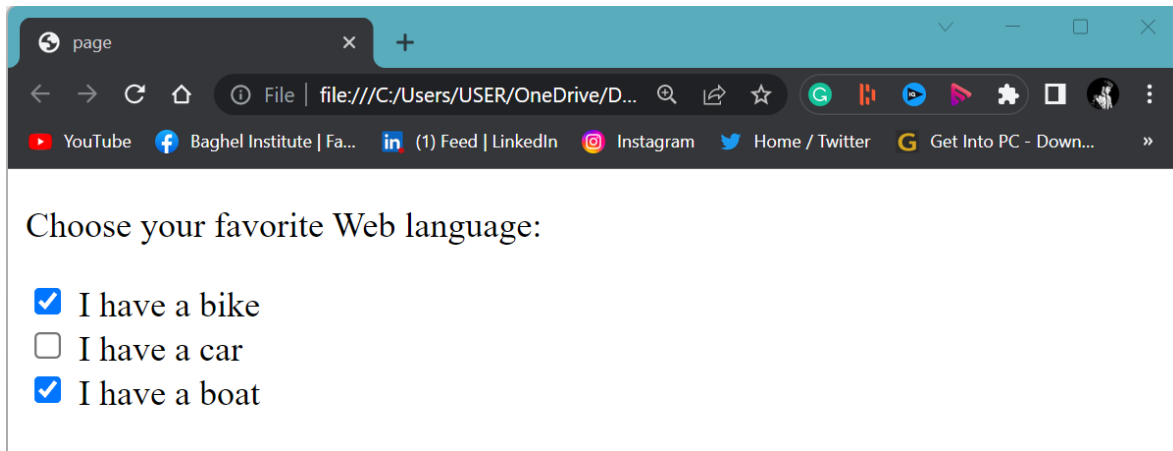
Checkboxes

The `<input type="checkbox">` defines a **checkbox**. Checkboxes let a user select ZERO or MORE options of a limited number of choices.

Input

```
<!doctype html>
<html>
<head>
<title>page</title>
</head>
<body>
<p>Choose your favorite Web language:</p>
<form>
<input type="checkbox" id="vehicle1" name="vehicle1" value="Bike">
<label for="vehicle1"> I have a bike</label><br>
<input type="checkbox" id="vehicle2" name="vehicle2" value="Car">
<label for="vehicle2"> I have a car</label><br>
<input type="checkbox" id="vehicle3" name="vehicle3" value="Boat">
<label for="vehicle3"> I have a boat</label>
</form>
</body>
</html>
```

Output



A screenshot of a web browser window. The address bar shows a local file path. The page content includes the text "Choose your favorite Web language:" followed by three checkboxes: "I have a bike" (checked), "I have a car" (unchecked), and "I have a boat" (checked).

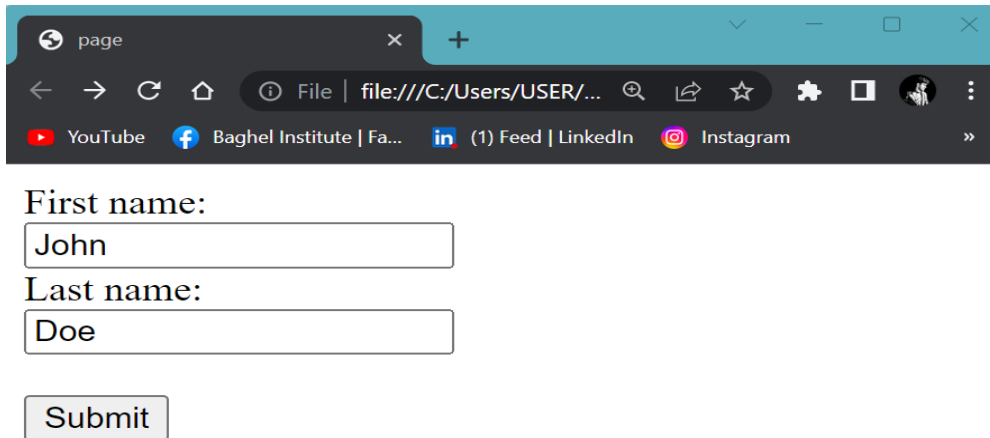
The Submit Button

The `<input type="submit">` defines a button for submitting the form data to a form-handler. The form-handler is specified in the form's `action` attribute.

Input

```
<!doctype html>
<html>
<head>
<title>page</title>
</head>
<body>
<form action="/action_page.php">
<label for="fname">First name:</label>
<br>
<input type="text" id="fname" name="fname" value="John">
<br>
<label for="lname">Last name:</label>
<br>
<input type="text" id="lname" name="lname" value="Doe">
<br><br>
<input type="submit" value="Submit">
</form>
</body>
</html>
```

Output



A screenshot of a web browser window. The address bar shows a file path: file:///C:/Users/USER/... The browser has several tabs open, including YouTube, Baghel Institute | Fa..., (1) Feed | LinkedIn, and Instagram. The main content area displays a simple form with the following elements:

- Label: "First name:"
- Text input field containing the value "John".
- Label: "Last name:"
- Text input field containing the value "Doe".
- Submit button with the text "Submit".

The Name Attribute for <input>

Notice that each input field must have a **name** attribute to be submitted. If the **name** attribute is omitted, the value of the input field will not be sent at all.

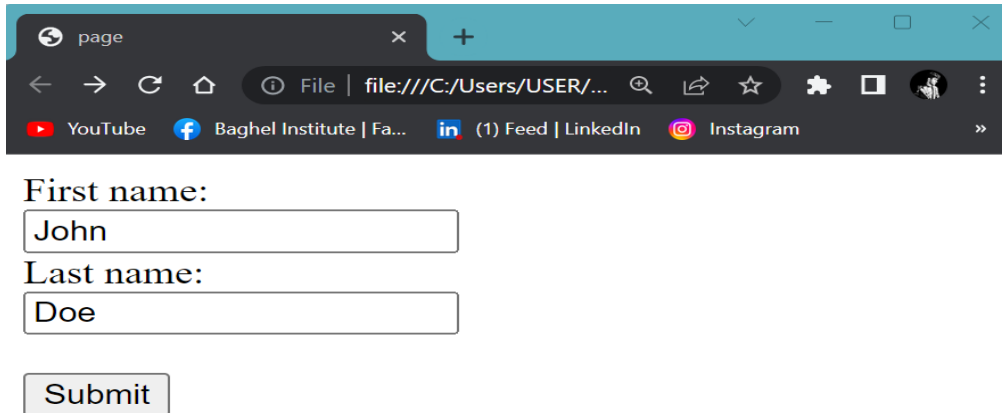
The Action Attribute

The **action** attribute defines the action to be performed when the form is submitted.

Input

```
<!doctype html>
<html>
<head>
<title>page</title>
</head>
<body>
<form action="/action_page.php">
<label for="fname">First name:</label>
<br>
<input type="text" id="fname" name="fname" value="John">
<br>
<label for="lname">Last name:</label>
<br>
<input type="text" id="lname" name="lname" value="Doe">
<br><br>
<input type="submit" value="Submit">
</form>
</body>
</html>
```

Output



The screenshot shows a web browser window with a teal header. The address bar contains the text "File | file:///C:/Users/USER/...". Below the address bar, there are social media icons for YouTube, Facebook (with text "Baghel Institute | Fa..."), LinkedIn (with text "(1) Feed | LinkedIn"), and Instagram. The main content area of the browser displays a form with the following elements:

First name:

Last name:

The HTML `<form>` Elements

The HTML `<form>` element can contain one or more of the following form elements:

- `<input>`
- `<label>`
- `<select>`
- `<textarea>`
- `<button>`
- `<fieldset>`
- `<legend>`
- `<datalist>`
- `<option>`
- `<optgroup>`

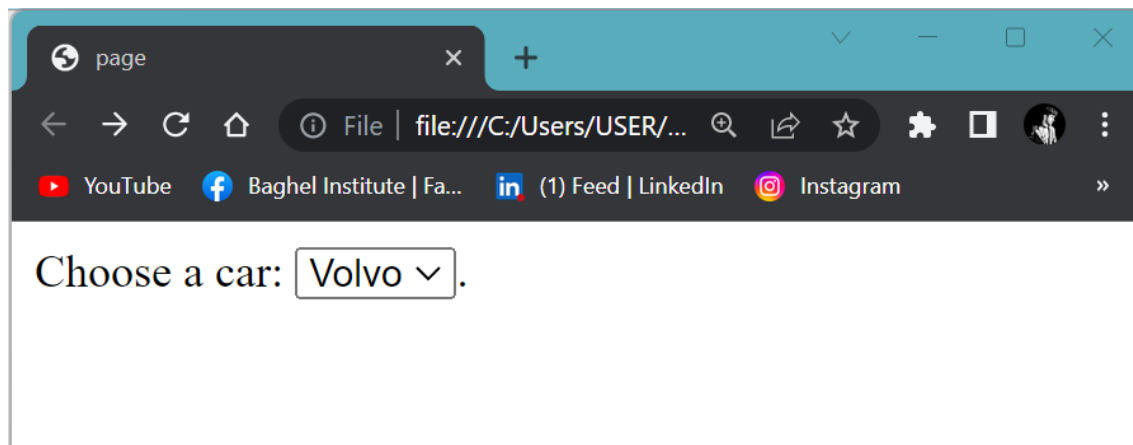
The `<select>` Element

The `<select>` element defines a drop-down list:

Input

```
<!doctype html>
<html>
<head>
<title>page</title>
</head>
<body>
<label for="cars">Choose a car:</label>
<select id="cars" name="cars">
<option value="volvo">Volvo</option>
<option value="saab">Saab</option>
<option value="fiat">Fiat</option>
<option value="audi">Audi</option>
</select>.
</body>
</html>
```

Output



The `<option>` elements defines an option that can be selected. By default, the first item in the drop-down list is selected.

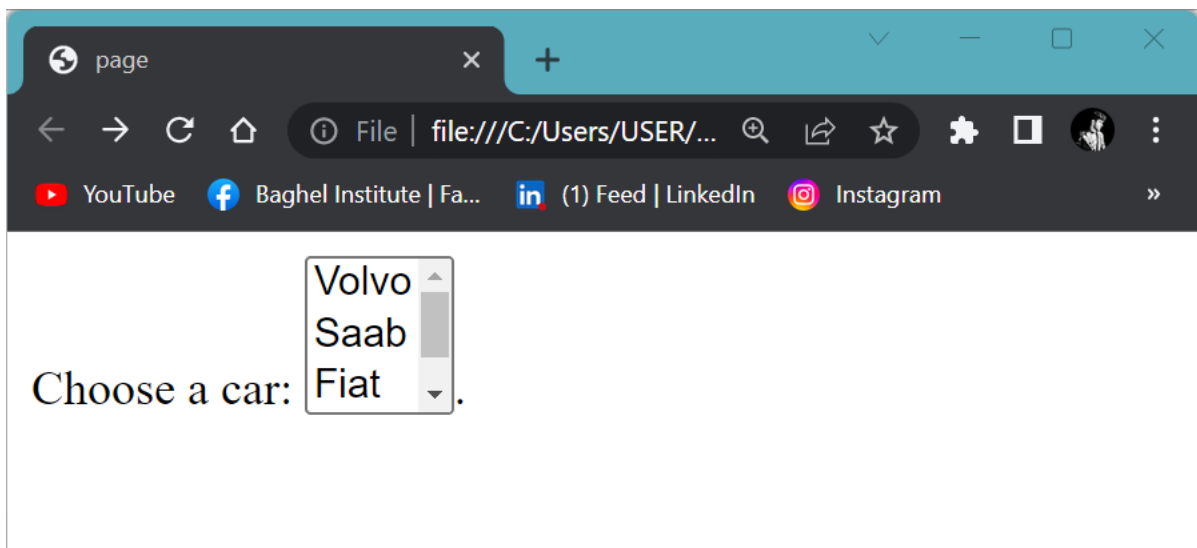
Visible Values

Use the `size` attribute to specify the number of visible values.

Input

```
<!doctype html>
<html>
<head>
<title>page</title>
</head>
<body>
<label for="cars">Choose a car:</label>
<select id="cars" name="cars" size="3">
<option value="volvo">Volvo</option>
<option value="saab">Saab</option>
<option value="fiat">Fiat</option>
<option value="audi">Audi</option>
</select>.
</body>
</html>
```

Output



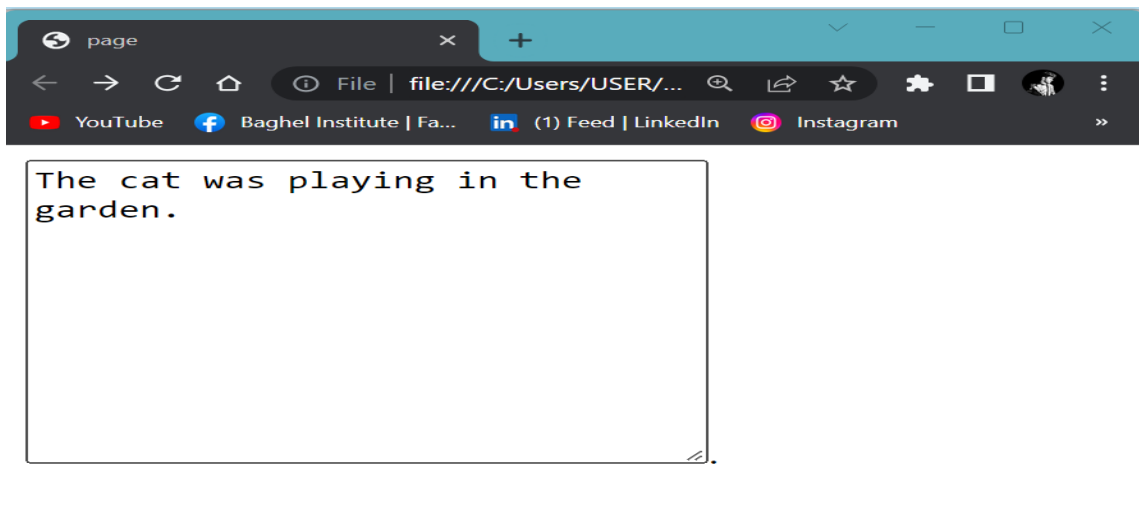
The <textarea> Element

The <textarea> element defines a multi-line input field (a text area):

Input

```
<!doctype html>
<html>
<head>
  <title>page</title>
</head>
<body>
  <textarea name="message" rows="10" cols="30">
    The cat was playing in the garden.
  </textarea>
</body>
</html>
```

Output



The `rows` attribute specifies the visible number of lines in a text area.

The `cols` attribute specifies the visible width of a text area.

The <fieldset> and <legend> Elements

The <fieldset>

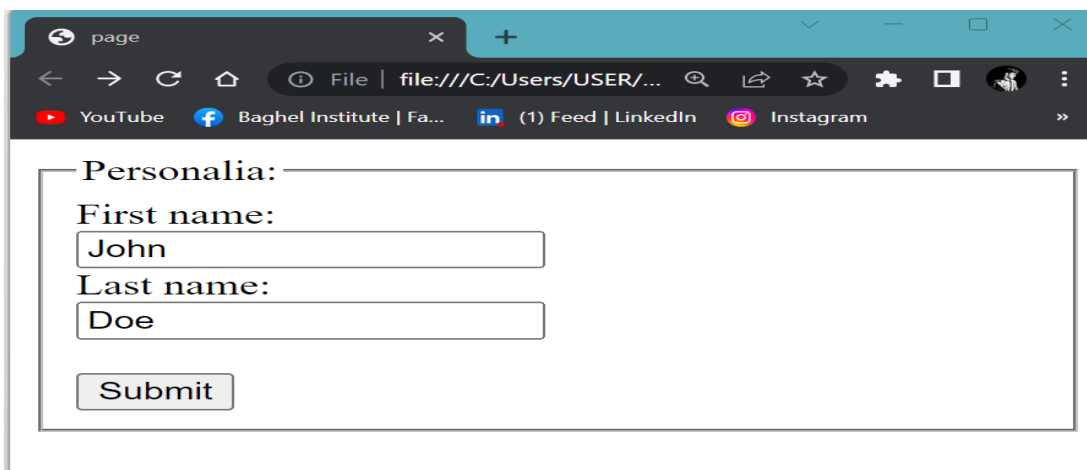
element is used to group related data in a form.

The <legend> element defines a caption for the <fieldset> element.

Input

```
<!doctype html>
<html>
<head>
<title>page</title>
</head>
<body>
<form action="/action_page.php">
<fieldset>
<legend>Personalia:</legend>
<label for="fname">First name:</label><br>
<input type="text" id="fname" name="fname" value="John">
<br>
<label for="lname">Last name:</label>
<br>
<input type="text" id="lname" name="lname" value="Doe">
<br><br>
<input type="submit" value="Submit">
</fieldset>
</form>
</body>
</html>
```

Output



Personalia:

First name:
John

Last name:
Doe

Submit

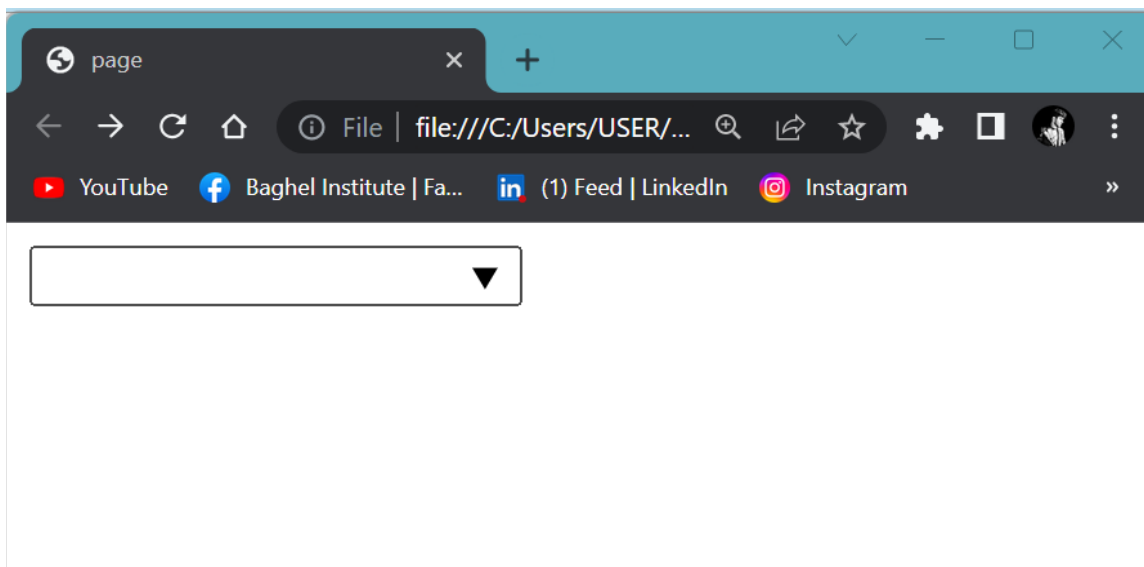
The <datalist> Element

The <datalist> element specifies a list of pre-defined options for an <input> element. The list attribute of the <input> element, must refer to the id attribute of the <datalist> element.

Input

```
<!doctype html>
<html>
<head>
<title>page</title>
</head>
<body>
<form action="/action_page.php">
<input list="browsers">
<datalist id="browsers">
<option value="Internet Explorer">
<option value="Firefox">
<option value="Chrome">
<option value="Opera">
<option value="Safari">
</datalist>
</form>
</body>
</html>
```

Output



HTML Input Types

Here are the different input types you can use in HTML:

- `<input type="button">`
- `<input type="checkbox">`
- `<input type="color">`
- `<input type="date">`
- `<input type="datetime-local">`
- `<input type="email">`
- `<input type="file">`
- `<input type="hidden">`
- `<input type="image">`
- `<input type="month">`
- `<input type="number">`
- `<input type="password">`
- `<input type="radio">`
- `<input type="range">`
- `<input type="reset">`
- `<input type="search">`

- `<input type="submit">`
- `<input type="tel">`
- `<input type="text">`
- `<input type="time">`
- `<input type="url">`
- `<input type="week">`

Input attributes

Here is a list of some common input attributes

Checked

Specifies that an input field should be pre-selected when the page loads (for `type="checkbox"` or `type="radio"`).

Disabled

Specifies that an input field should be disabled.

Max

Specifies the maximum value for an input field.

Maxlength

Specifies the maximum number of character for an input field.

Min

Specifies the minimum value for an input field.

Pattern

Specifies a regular expression to check the input value against.

Readonly

Specifies that an input field is read only (cannot be changed).

Required

Specifies that an input field is required (must be filled out).

Size

Specifies the width (in characters) of an input field.

Value

Specifies the default value for an input field.

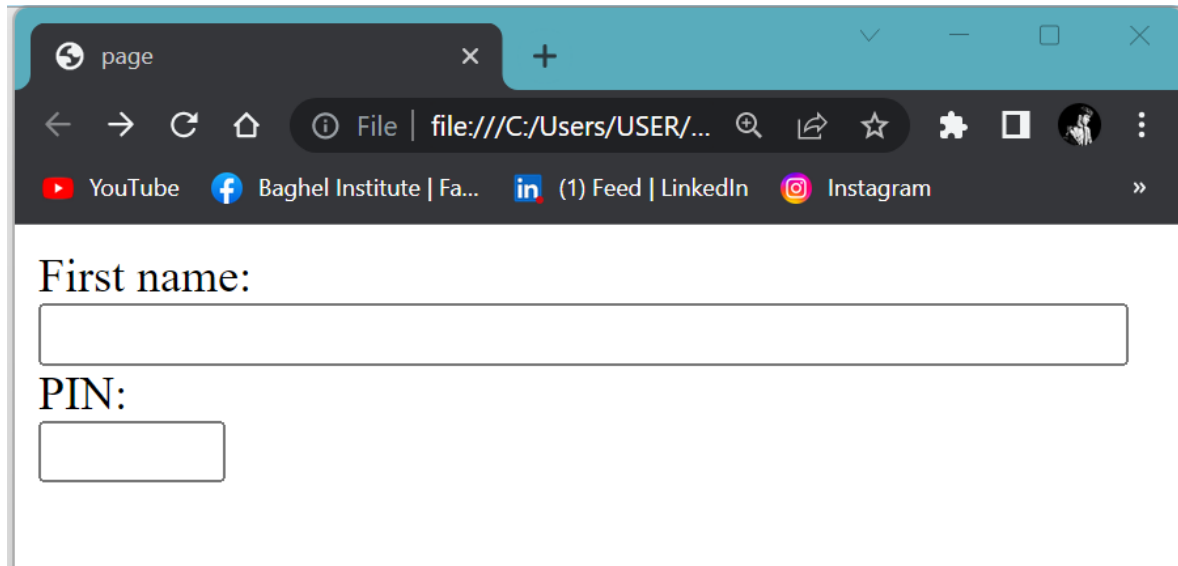
The size Attribute

The default value for size is 20. The size attribute works with the following input types: text, search, tel, url, email, and password.

Input

```
<!doctype html>
<html>
<head>
<title>page</title>
</head>
<body>
<form>
<label for="fname">First name:</label>
<br>
<input type="text" id="fname" name="fname" size="50">
<br>
<label for="pin">PIN:</label>
<br>
<input type="text" id="pin" name="pin" size="4">
</form>
</body>
</html>
```

Output



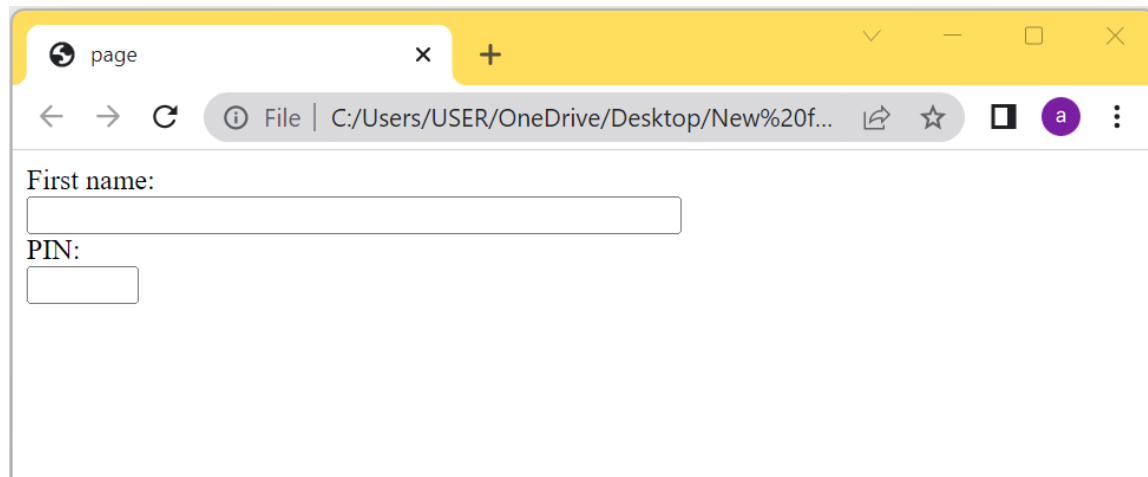
The maxlength Attribute

The input maxlength attribute specifies the maximum number of characters allowed in an input field.

Input

```
<!doctype html>
<html>
<head>
<title>page</title>
</head>
<body>
<form>
<label for="fname">First name:</label>
<br>
<input type="text" id="fname" name="fname" size="50">
<br>
<label for="pin">PIN:</label>
<br>
<input type="text" id="pin" name="pin" maxlength="4" size="4">
</form>
</body>
</html>
```

Output



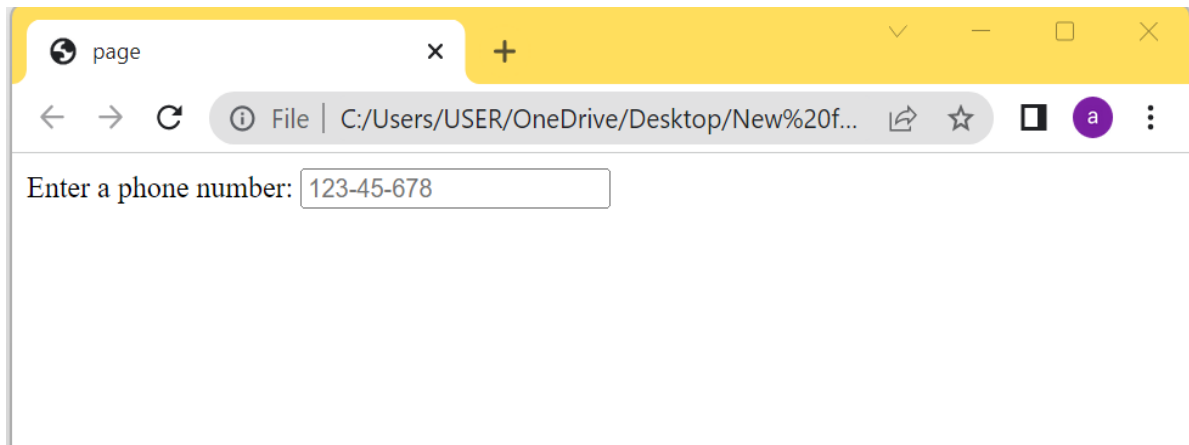
The placeholder Attribute

The short hint is displayed in the input field before the user enter a value. The placeholder attribute works with the following input types: text, search, url, tel, email, and password.

Input

```
<!doctype html>
<html>
<head>
<title>page</title>
</head>
<body>
<form>
<label for="phone">Enter a phone number:</label>
<input type="tel" id="phone" name="phone"placeholder="123-45-678">
</form>
</body>
</html>
```

Output



The pattern Attribute

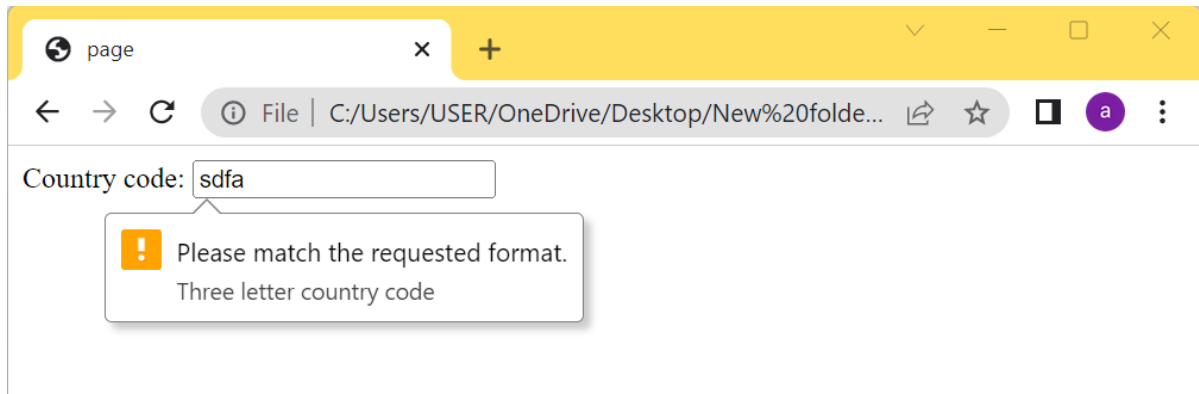
The input `pattern` attribute specifies a regular expression that the input field's value is checked against, when the form is submitted.

The `pattern` attribute works with the following input types: text, date, search, url, tel, email, and password.

Input

```
<!doctype html>
<html>
<head>
  <title>page</title>
</head>
<body>
  <form>
    <label for="country_code">Country code:</label>
    <input type="text" id="country_code" name="country_code"
      pattern="[A-Za-z]{3}" title="Three letter country code">
  </form>
</body>
</html>
```


Output



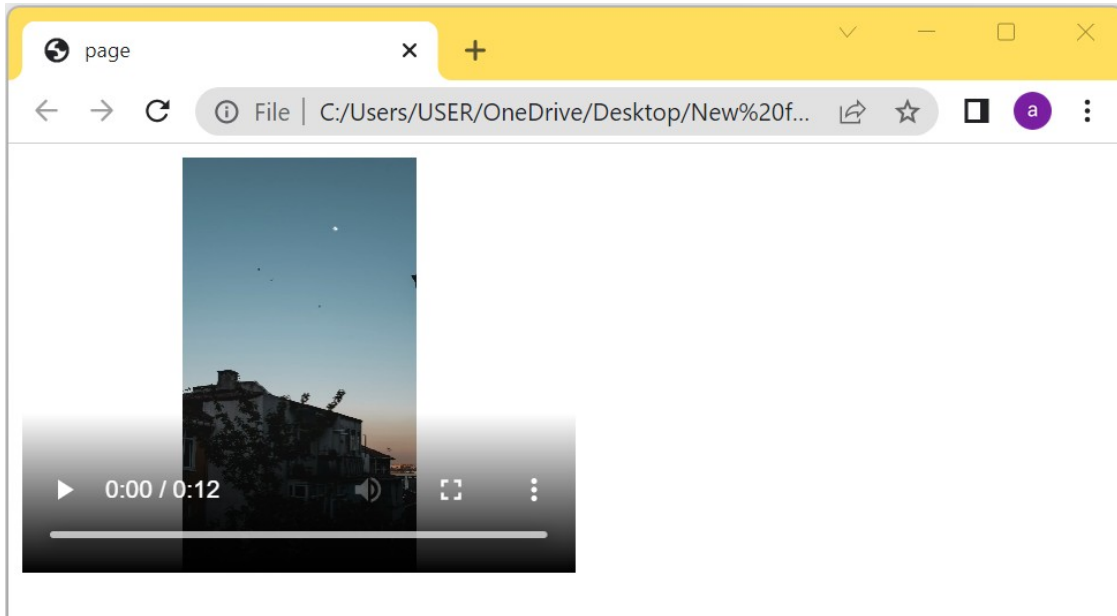
HTML Video

The HTML `<video>` element is used to show a video on a web page.

Input

```
<!doctype html>
<html>
<head>
  <title>page</title>
</head>
<body>
  <video width="320" height="240" controls>
    <source src="video.mp4" type="video/mp4">
  </video>
</body>
</html>
```

Output



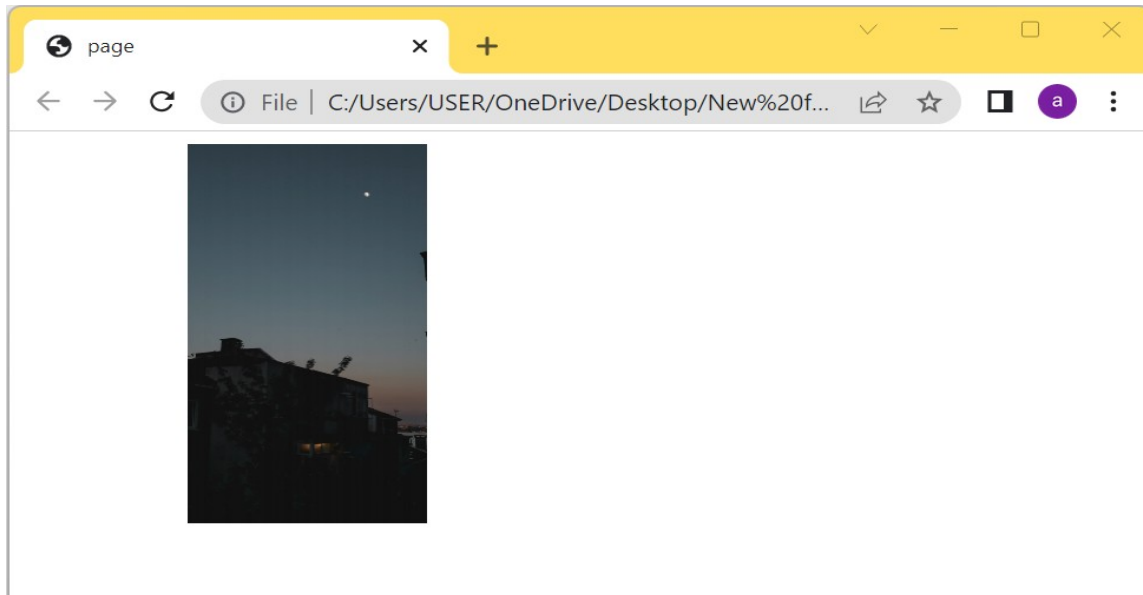
HTML <video> Autoplay muted

Add muted after autoplay to let your video start playing automatically (but muted):

Input

```
<!doctype html>
<html>
<head>
<title>page</title>
</head>
<body>
<video width="320" height="240" autoplay muted>
<source src="video.mp4" type="video/mp4">
</video>
</body>
</html>
```

Output



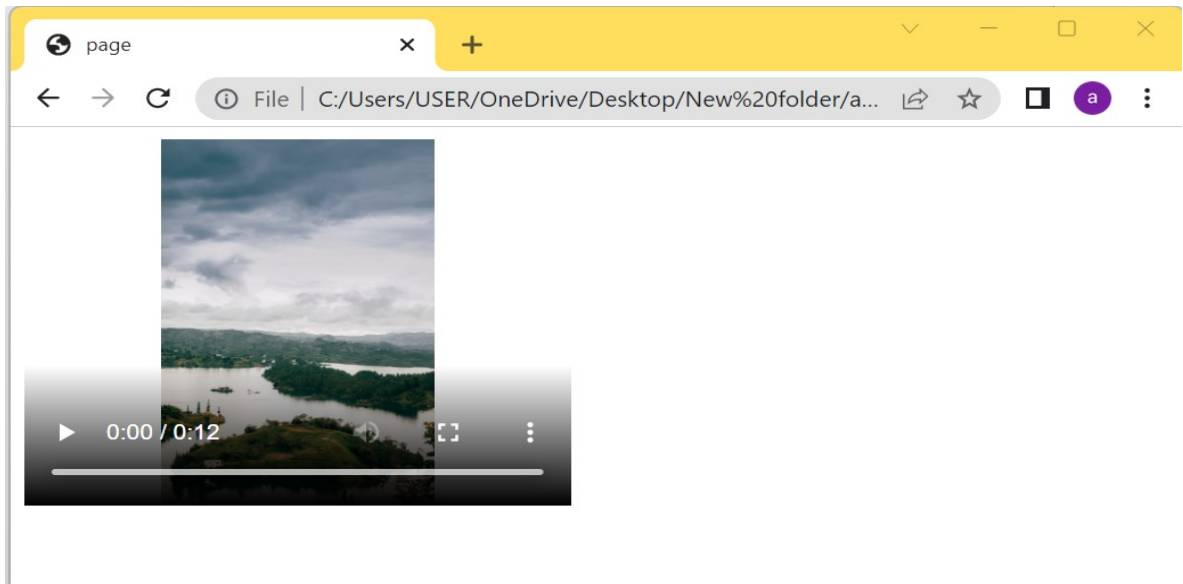
HTML poster Attribute

The `poster` attribute specifies an image to be shown while the video is downloading, or until the user hits the play button.

Input

```
<!doctype html>
<html>
  <head>
    <title>page</title>
  </head>
  <body>
    <video width="320" height="240" poster="image.jpg" controls>
      <source src="video.mp4" type="video/mp4">
    </video>
  </body>
</html>
```

Output



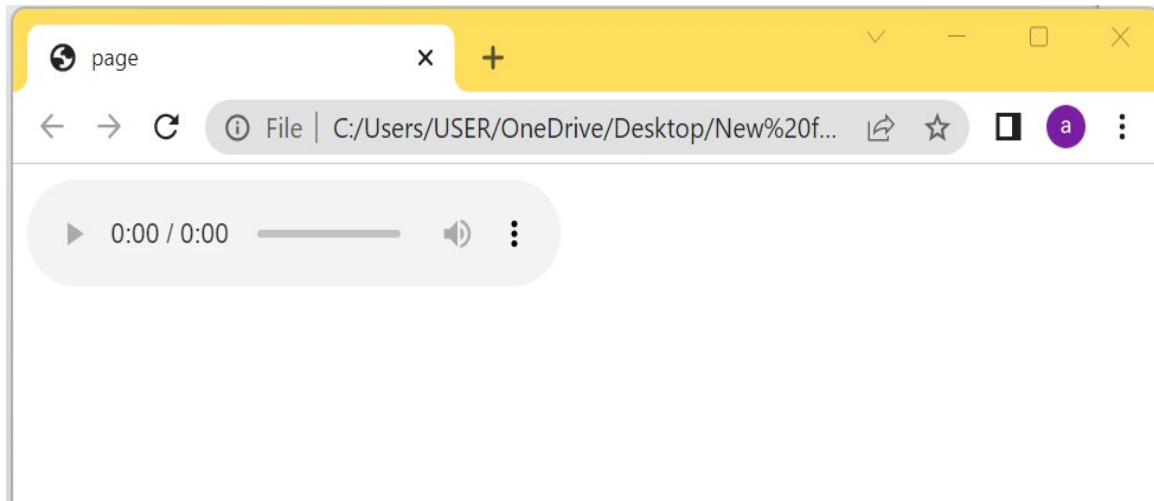
HTML Audio

The HTML `<audio>` element is used to play an audio file on a web page.

Input

```
<!doctype html>
<html>
<head>
<title>page</title>
</head>
<body>
<audio controls>
<source src="horse.mp3" type="audio/mpeg">
</audio>
</body>
</html>
```

Output



HTML `<audio>` Autoplay

To start an audio file automatically, use the `autoplay` attribute:

Example

```
<!doctype html>
<html>
<head>
<title>page</title>
</head>
<body>
<audio controls autoplay>
<source src="horse.mp3" type="audio/mpeg">
</audio>
</body>
</html>
```

HTML <audio> Autoplay muted

Add muted after autoplay to let your audio file start playing automatically (but muted):

Example

```
<!doctype html>
<html>
<head>
<title>page</title>
</head>
<body>
<audio controls autoplay muted>
<source src="horse.mp3" type="audio/mpeg">
</audio>
</body>
</html>
```