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HTML Table Headers

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

HTML Element?

- An HTML element is defined by a start tag, some content, and an end tag:
- <tagname> Content goes here... </tagname>
- The HTML **element** is everything from the start tag to the end tag:
- <h1>My First Heading</h1>
- My first paragraph.

Start tag	Element content	End tag
<h1>	My First Heading	</h1>
	My first paragraph.	
 	none	*none*

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

Empty HTML Elements

HTML elements with no content are called empty elements.

The `<br>` tag defines a line break, and is an empty element without a closing tag

```
<!DOCTYPE html>

<html>

<body>

<p>This is a <br> paragraph with a line
break.</p>

</body>

</html>
```

OUTPUT –

This is a
paragraph with a line break.

Nested HTML Elements

HTML elements can be nested (this means that elements can contain other elements).

All HTML documents consist of nested HTML elements.

The following example contains four HTML elements (`<html>`, `<body>`, `<h1>` and `<p>`)

- The <!DOCTYPE html> declaration defines that 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> element defines the document's body, and is a container for all the visible contents, such as headings, paragraphs, images, hyperlinks, tables, lists, etc.
- The <h1> element defines a large heading
- The <p> element defines a paragraph

Web Browsers

The purpose of a web browser (Chrome, Edge, Firefox, Safari) is to read HTML documents and display them correctly.

A browser does not display the HTML tags, but uses them to determine how to display the document .

HTML Page Structure

Below is a visualization of an HTML page structure:

```
<html>
    <head>
        <title>Page title</title>
    </head>
    <body>
        <h1>This is a heading</h1>
        <p>This is a paragraph.</p>
        <p>This is another paragraph.</p>
    </body>
</html>
```

Note: The content inside the <body> section will be displayed in a browser.

The content inside the <title> element will be shown in the browser's title bar or in the page's tab.

SEO tags (Search Engine Optimization) , <meta>

HTML <meta> Tag

The `<meta>` tag defines metadata about an HTML document. Metadata is data (information) about data.

`<meta>` tags always go inside the <head> element, and are typically used to specify character set, page description, keywords, author of the document, and viewport settings.

Metadata will not be displayed on the page, but is machine parsable.

Metadata is used by browsers (how to display content or reload page), search engines (keywords), and other web services.

```
<head>
  <meta charset="UTF-8">
  <meta name="description" content="Free Web tutorials">
  <meta name="keywords" content="HTML, CSS, JavaScript">
  <meta name="author" content="John Doe">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
</head>
```

Define keywords for search engines:

```
<meta name="keywords" content="HTML, CSS, JavaScript">
```

Define a description of your web page:

```
<meta name="description" content="Free Web tutorials for HTML and CSS">
```

Define the author of a page:

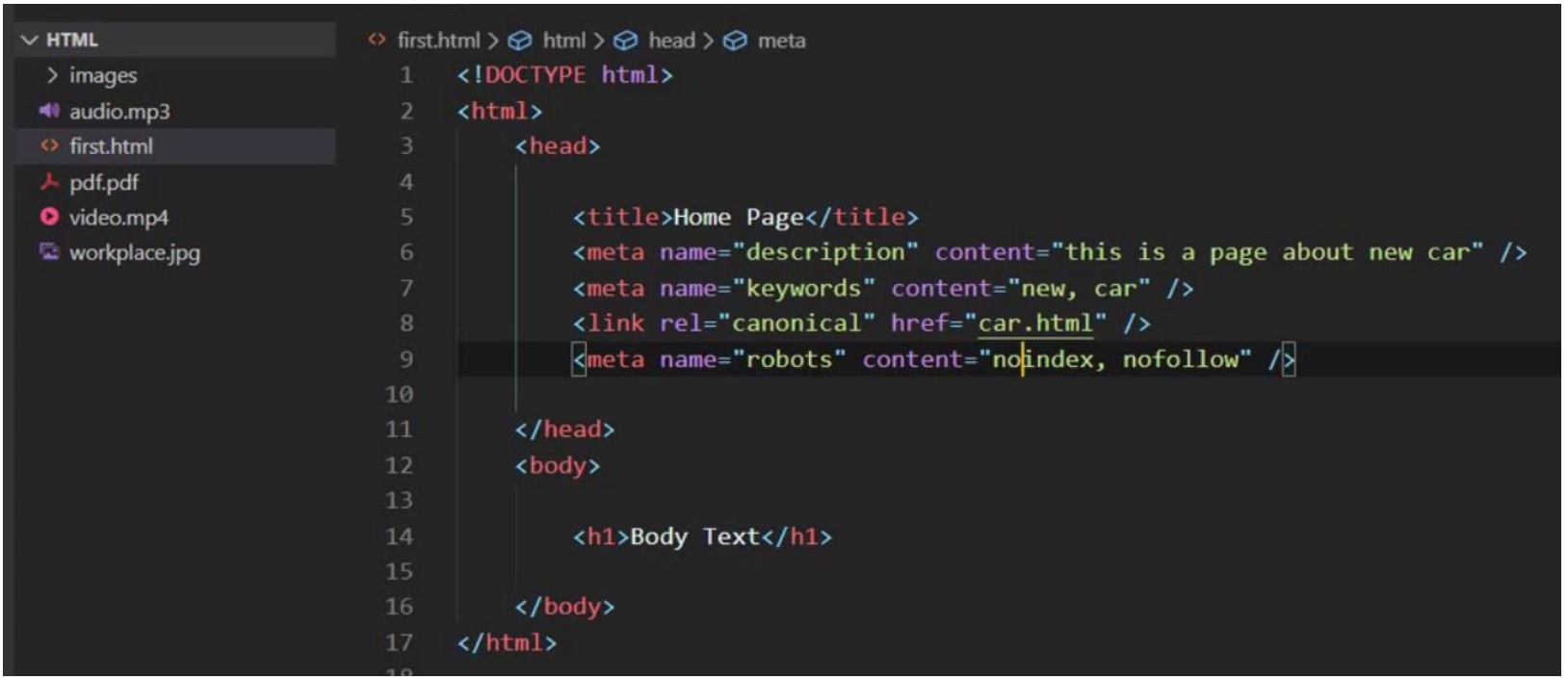
```
<meta name="author" content="John Doe">
```

Refresh document every 30 seconds:

```
<meta http-equiv="refresh" content="30">
```

Setting the viewport to make your website look good on all devices:

```
<meta name="viewport" content="width=device-width, initial-scale=1.0">
```



What is a Canonical Tag?

The canonical tag, also called "rel canonical" is an HTML tag that tells search engines that the enclosed URL is the original, definitive version of the page. The canonicalized URL.

The tag goes in the page's <head> section and looks like this:

<link rel="canonical" href="https://www.example.com">

Practically speaking, the canonical tag tells Google which page you want to appear in search results.

Why Do Canonical Tags Matter?

Humans tend to think of pages that look the same and have the same content as all one page. Like the homepage is the homepage is the homepage. Search engines, though, don't work the same way. They see different URLs as different pages, even if they serve the same purpose.

So to Google, all of these URLs are unique pages:

- https://www.example.com
- www.example.com/
- https://www.example.com/index.php
- example.com

To Google, you've got 5 unique copies of your homepage even though all humans will see is one page. This situation can cause you to suffer some of the issues associated with duplicate content.

<meta name ="robots" content="index">.

What the heck is it!? Is it a robot that automates your meta tags? Is it a piece of magical SEO tag? Does it summon the Google robot to your page?

Meta robots tag is a tag that tells search engines what to follow and what not to follow. It is a piece of code in the <head> section of your webpage. It's a simple code that gives you the power to decide about what pages you want to hide from search engine crawlers and what pages you want them to index and look at.

Another function of the meta robots tag is that it tells search engine crawlers what links to follow and what links to stop with.
When you have a lot of links going out of your website you should know that you lose some Google juice. And as a result, your page rank would lower down.

So what you want to do is to keep that juice to yourself with some of the links—and you tell the search engine crawlers not to follow the links going out of your site because in doing so, they will also take some of your Google juice with them.

If you don't have a meta robots tag though, don't panic. By default, the search engine crawlers WILL index your site and WILL follow links.

Let me make it clear that search engine crawlers following your links is not bad at all. Losing some of your juice won't affect your site much in exchange for getting the attention of other websites you're linking out to.

In fact I don't recommend using nofollow at all if you don't have too much outbound links.

Basically the meta robots tag can be cracked down to four main functions for the search engine crawlers:

- FOLLOW – a command for the search engine crawler to follow the links in that webpage
- INDEX – a command for the search engine crawler to index that webpage
- NOFOLLOW – a command for the search engine crawler NOT to follow the links in that webpage
- NOINDEX – a command for the search engine crawler NOT to index that webpage

First html code .

Made a file (first.html). drag the file and open in (vs code) .

How to see any web page HTML code(ctrl+U)

<!DOCTYPE> Declaration

The <!DOCTYPE> declaration represents the document type, and helps browsers to display web pages correctly.

It must only appear once, at the top of the page (before any HTML tags).

The <!DOCTYPE> declaration is not case sensitive.

The <!DOCTYPE> declaration for HTML5 is:

<!DOCTYPE html>

HTML Headings

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

`<h1>` defines the most important heading. `<h6>` defines the least important heading:

```
<!DOCTYPE html>
<html>
   <body>
    <h1>This is heading 1</h1>
    <h2>This is heading 2</h2>
    <h3>This is heading 3</h3>
   <h4>This is heading 4</h4>
   <h5>This is heading 5</h5>
    <h6>This is heading 6</h6>
  </body>
</html>
```

Headings Are Important

Search engines use the headings to index the structure and content of your web pages.

Users often skim a page by its headings. It is important to use headings to show the document structure.

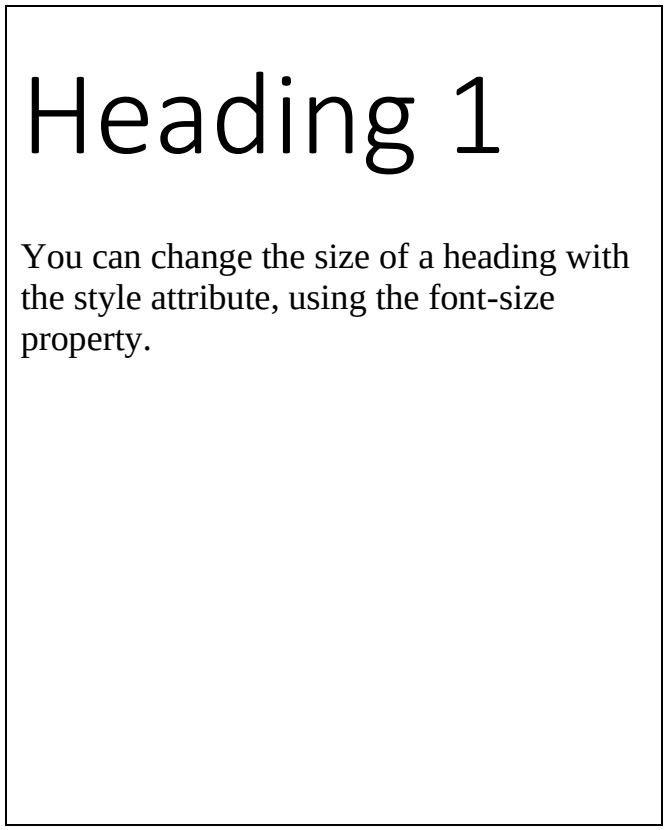
<h1> headings should be used for main headings, followed by <h2> headings, then the less important <h3>, and so on.

Note: Use HTML headings for headings only. Don't use headings to make text **BIG** or **bold**.

Bigger Headings

Each HTML heading has a default size. However, you can specify the size for any heading with the `style` attribute, using the CSS `font-size` property:

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

<h1 style="font-size:60px;">Heading 1</h1>

<p>You can change the size of a heading with the style attribute, using the font-size property.</p>

</body>
</html>
```



HTML Paragraphs

The HTML <p> element defines a paragraph.

A paragraph always starts on a new line, and browsers automatically add some white space (a margin) before and after a paragraph.

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

HTML Display

You cannot be sure how HTML will be displayed.

Large or small screens, and resized windows will create different results.

With HTML, you cannot change the display by adding extra spaces or extra lines in your HTML code.

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

HTML Horizontal Rules <hr>

The <hr> tag defines a thematic break in an HTML page, and is most often displayed as a horizontal rule.

The <hr> element is used to separate content (or define a change) in an HTML page:

The <hr> tag is an empty tag, which means that it has no end tag

HTML Line Breaks(<br>)

The HTML `<br>` element defines a line break.

Use `<br>` if you want a line break (a new line) without starting a new paragraph:

the `<br>` tag is an empty tag, which means that it has no end tag.

The HTML <pre>

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:

```
<!DOCTYPE html>

<html>

<body>

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

<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>
```

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.
```

Tag	Description
<p>	Defines a paragraph
<hr>	Defines a thematic change in the content
 	Inserts a single line break
<pre>	Defines pre-formatted text

HTML Links

HTML links are defined with the `<a>` tag:

```
<!DOCTYPE html>
<html>
<body>
<h2>HTML Links</h2>
<p>HTML links are defined with the a tag:</p>
<a href="https://www.w3schools.com">This is a link</a>
</body>
</html>
```

OUTP

HTML Links

HTML links are defined with the a tag:

This is a link

The link's destination is specified in the href attribute.

Attributes are used to provide additional information about HTML elements.

HTML Attributes

- All HTML elements can have **attributes**
- Attributes provide **additional information** about elements
- Attributes are always specified in **the start tag**
- Attributes usually come in name/value pairs like: **name="value"**

The href Attribute

The `<a>` tag defines a hyperlink. The `href` attribute specifies the URL of the page the link goes to:

```
<!DOCTYPE html>

<html>

<body>

<h2>The href Attribute</h2>

   <p>HTML links are defined with the a tag. The link
   address is specified in the href attribute:</p>

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

</body>

</html>
```

The href Attribute

HTML links are defined with the a tag. The link address is specified in the href attribute:

Visit W3Schools

The src Attribute

The `<img>` tag is used to embed an image in an HTML page. The `src` attribute specifies the path to the image to be displayed:

```
<img src="img_girl.jpg">
```

There are two ways to specify the URL in the `src` attribute:

1. Absolute URL - Links to an external image that is hosted on another website. Example: src="https://www.w3schools.com/images/img_girl.jpg".

Notes: External images might be under copyright. If you do not get permission to use it, you may be in violation of copyright laws. In addition, you cannot control external images; it can suddenly be removed or changed.

2. Relative URL - Links to an image that is hosted within the website. Here, the URL does not include the domain name. If the URL begins without a slash, it will be relative to the current page. Example: src="img_girl.jpg". If the URL begins with a slash, it will be relative to the domain. Example: src="/images/img_girl.jpg".

Tip: It is almost always best to use relative URLs. They will not break if you change domain.

The width and height Attributes

The `<img>` tag should also contain the `width` and `height` attributes, which specify the width and height of the image (in pixels):

```
<img src="img_girl.jpg" width="500" height="600">
```

The alt Attribute

The required `alt` attribute for the `<img>` tag specifies an alternate text for an image, if the image for some reason cannot be displayed. This can be due to a slow connection, or an error in the `src` attribute, or if the user uses a screen reader.

```
<img src="img_girl.jpg" alt="Girl with a jacket">
```

The style Attribute

The `style` attribute is used to add styles to an element, such as color, font, size, and more.

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

The lang Attribute

You should always include the `lang` attribute inside the `<html>` tag, to declare the language of the Web page. This is meant to assist search engines and browsers.

The following example specifies English as the language:

```
<!DOCTYPE html>
<html lang="en">
<body>
...
</body>
</html>
```

Country codes can also be added to the language code in the `lang` attribute. So, the first two characters define the language of the HTML page, and the last two characters define the country.

The following example specifies English as the language and United States as the country:

```
<!DOCTYPE html>
<html lang="en-US">
<body>
...
</body>
</html>
```

The title Attribute

The `title` attribute defines some extra information about an element.

The value of the title attribute will be displayed as a tooltip when you mouse over the element:

```
<!DOCTYPE html>

<html>

<body>

<h2 title="I'm a header">The title Attribute</h2>

<p title="I'm a tooltip">Mouse over this paragraph, to display the title attribute as a tooltip.</p>

</body>

</html>
```

The title Attribute

Mouse over this paragraph, to display the title attribute as a tooltip.

Single or Double Quotes?

Double quotes around attribute values are the most common in HTML, but single quotes can also be used.

In some situations, when the attribute value itself contains double quotes, it is necessary to use single quotes:

```
<p title='John "ShotGun" Nelson'>
```

Or vice versa:

```
<p title="John 'ShotGun' Nelson">
```

• All HTML elements can have **attributes**
• The href attribute of <a> specifies the URL of the page the link goes to
• The src attribute of <img> specifies the path to the image to be displayed
• The width and height attributes of <img> provide size information for images
• The alt attribute of <img> provides an alternate text for an image
• The style attribute is used to add styles to an element, such as color, font, size, and more
• The lang attribute of the <html> tag declares the language of the Web page
• The title attribute defines some extra information about an element

HTML COMMENTS

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

You can add comments to your HTML source by using the following syntax:

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

Hide Inline Content

Comments can be used to hide parts in the middle of the HTML code.

Hide a part of a paragaph:

```
<p>This <!-- great text --> is a paragraph.</p>
```

HTML Text Formatting

HTML contains several elements for defining text with a special meaning.

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

<p><b>This text is bold</b></p>
<p><i>This text is italic</i></p>
<p>This is<sub> subscript</sub> and
<sup>superscript</sup></p>

</body>
</html>
```

This text is bold

This text is italic

This is subscript and superscript

HTML Formatting Elements

Formatting elements were designed to display special types of text:

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

HTML <b> and Elements

The HTML `<b>` element defines bold text, without any extra importance.

The HTML `<strong>` element defines text with strong importance. The content inside is typically displayed in bold.

HTML <i> and Elements

The HTML `<i>` element defines a part of text in an alternate voice or mood. The content inside is typically displayed in italic.

Tip: The `<i>` tag is often used to indicate a technical term, a phrase from another language, a thought, a ship name, etc.

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

The HTML `<em>` element defines emphasized text. The content inside is typically displayed in italic.

Tip: A screen reader will pronounce the words in `<em>` with an emphasis, using verbal stress.

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

HTML <small> Element

The HTML `<small>` element defines smaller text:

```
<small>This is some smaller text.</small>
```

HTML <mark> Element

The HTML `<mark>` element defines text that should be marked or highlighted:

```
<p>Do not forget to buy <mark>milk</mark> today.</p>
```

Output - Do not forget to buy milk today.

HTML <del> Element

The HTML `<del>` element defines text that has been deleted from a document. Browsers will usually strike a line through deleted text:

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

My favorite color- ~~blue~~ is red.

HTML <ins> Element

The HTML `<ins>` element defines a text that has been inserted into a document. Browsers will usually underline inserted text:

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

My favorite color is ~~blue~~ red.

HTML <sub> Element

The HTML `<sub>` element defines subscript text. Subscript text appears half a character below the normal line, and is sometimes rendered in a smaller font. Subscript text can be used for chemical formulas, like H_2O:

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

This is _{subscripted} text.

HTML <sup> Element

The HTML `<sup>` element defines superscript text. Superscript text appears half a character above the normal line, and is sometimes rendered in a smaller font. Superscript text can be used for footnotes, like WWW[1]:

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

This is ^{superscripted} text.

HTML Quotation and Citation Elements

we will go through the `<blockquote>`,`<q>`, `<abbr>`, `<address>`, `<cite>`, and `<bdo>` HTML elements.

HTML <blockquote> for Quotations

The HTML `<blockquote>` element defines a section that is quoted from another source.

Browsers usually indent `<blockquote>` elements.

```
<p>Here is a quote from WWF's website:</p>
<blockquote cite="http://www.worldwildlife.org/who/index.html">
For 50 years, WWF has been protecting the future of nature.
The world's leading conservation organization,
WWF works in 100 countries and is supported by
1.2 million members in the United States and
close to 5 million globally.
</blockquote>
```

Output -

Here is a quote from WWF's website:

For 50 years, WWF has been protecting the future of nature. The world's leading conservation organization, WWF works in 100 countries and is supported by 1.2 million members in the United States and close to 5 million globally.

HTML <q> for Short Quotations

The HTML `<q>` tag defines a short quotation.

Browsers normally insert quotation marks around the quotation.

```
<p>WWF's goal is to: <q>Build a future where people live in harmony with
nature.</q></p>
```

Output –

Browsers usually insert quotation marks around the q element.

WWF's goal is to: “Build a future where people live in harmony with nature.”

HTML <abbr> for Abbreviations

The HTML `<abbr>` tag defines an abbreviation or an acronym, like "HTML", "CSS", "Mr.", "Dr.", "ASAP", "ATM".

Marking abbreviations can give useful information to browsers, translation systems and search-engines.

Tip: Use the global title attribute to show the description for the abbreviation/acronym when you mouse over the element.

```
<p>The <abbr title="World Health Organization">WHO</abbr> was founded in 1948.</p>
```

Output –

The WHO was founded in 1948. (when u hover on WHOit show full form)

HTML <address> for Contact Information

The HTML `<address>` tag defines the contact information for the author/owner of a document or an article.

The contact information can be an email address, URL, physical address, phone number, social media handle, etc.

The text in the `<address>` element usually renders in *italic,* and browsers will always add a line break before and after the `<address>` element.

```
<address>
Written by John Doe.<br>
Visit us at:<br>
Example.com<br>
Box 564, Disneyland<br>
USA
</address>
```

Written by John Doe.
Visit us at:
Example.com
Box 564, Disneyland
USA

HTML <cite> for Work Title

The HTML `<cite>` tag defines the title of a creative work (e.g. a book, a poem, a song, a movie, a painting, a sculpture, etc.).

Note: A person's name is not the title of a work.

The text in the `<cite>` element usually renders in *italic*.

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

<p>The HTML cite element defines the title of a work.</p>
<p>Browsers usually display cite elements in italic.</p>

<img src="img_the_scream.jpg" width="220" height="277" alt="The Scream">
<p><cite>The Scream</cite> by Edvard Munch. Painted in 1893.</p>

</body>
</html>
```

Output -

The HTML cite element defines the title of a work.

Browsers usually display cite elements in italic.

The Scream by Edvard Munch. Painted in 1893.

HTML <bdo> for Bi-Directional Override

BDO stands for Bi-Directional Override.

The HTML `<bdo>` tag is used to override the current text direction:

```
<bdo dir="rtl">This </bdo>
```

Ouput - siht

HTML Links

HTML links are hyperlinks.
You can click on a link and jump to another document.
When you move the mouse over a link, the mouse arrow will turn into a little hand.

Note: A link does not have to be text. A link can be an image or any other HTML element

The HTML `<a>` tag defines a hyperlink. It has the following syntax:

```
<a href="url">link text</a>
```

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

The *link text* is the part that will be visible to the reader.

Clicking on the link text, will send the reader to the specified URL address.

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

Output - Visit W3Schools.com! (when you click on Visit W3Schools.com! it send you to https://www.w3schools.com/">)

HTML Links - The target Attribute

By default, the linked page will be displayed in the current browser window. To change this, you must specify another target for the link.

The `target` attribute specifies where to open the linked document.

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

- `_self` - Default. Opens the document in the same window/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

Use target="_blank" to open the linked document in a new browser window or tab:

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

Output - Visit W3Schools!

Absolute URLs vs. Relative URLs

Both examples above are using an **absolute URL** (a full web address) in the `href` attribute.

A local link (a link to a page within the same website) is specified with a **relative URL** (without the "https://www" part):

```
<h2>Absolute URLs</h2>

<p><a href="https://www.w3.org/">W3C</a></p>

<p><a href="https://www.google.com/">Google</a></p>



<h2>Relative URLs</h2>

<p><a href="html_images.asp">HTML Images</a></p>

<p><a href="/css/default.asp">CSS Tutorial</a></p>
```

Absolute URLs

W3C

Google

Relative URLs

HTML Images

CSS Tutorial

HTML Links - Use an Image as a Link

To use an image as a link, just put the `<img>` tag inside the `<a>` tag:

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

<h2>Image as a Link</h2>

<p>The image below is a link. Try to click on it.</p>

<a href="default.asp"><img src="smiley.gif"
alt="HTML tutorial"
style="width:42px;height:42px;"></a>

</body>
</html>
```

Image as a Link

The image below is a link. Try to click on it.

Link to an Email Address

Use `mailto:` inside the `href` attribute to create a link that opens the user's email program (to let them send a new email):

```
<a href="mailto:someone@example.com">Send email</a>
```

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.

```
<a href="https://www.w3schools.com/html/" title="Go to W3Schools HTML section">Visit our HTML Tutorial</a>
```

Output - Visit our HTML Tutorial (when u hover on Visit our HTML Tutorial it show Go to W3Schools HTML section and when u click on Visit our HTML Tutorial it redirect you to https://www.w3schools.com/html/")

- Use the `<a>` element to define a link
- Use the `href` attribute to define the link address
- Use the `target` attribute to define where to open the linked document
- Use the `<img>` element (inside `<a>`) to use an image as a link
- Use the `mailto:` scheme inside the `href` attribute to create a link that opens the user's email program

HTML Links - Create Bookmarks

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

Create a Bookmark in HTML

Bookmarks can be useful if a web page is very long.
To create a bookmark - first create the bookmark, then add a link to it.
When the link is clicked, the page will scroll down or up to the location with the bookmark.

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

 <p><a href="#C4">Jump to Chapter 4</a></p>
 <p><a href="#C10">Jump to Chapter 10</a></p>

 <h2>Chapter 1</h2>
 <p>This chapter explains ba bla bla</p>

 <h2>Chapter 2</h2>
 <p>This chapter explains ba bla bla</p>

 <h2 id="C4">Chapter 4</h2>
 <p>This chapter explains ba bla bla</p>
  <h2>Chapter 6</h2>
 <p>This chapter explains ba bla bla</p>
 <h2>Chapter 7</h2>
 <p>This chapter explains ba bla bla</p>
 <h2>Chapter 8</h2>
 <p>This chapter explains ba bla bla</p>
  <h2>Chapter 9</h2>
 <p>This chapter explains ba bla bla</p>

 <h2 id="C10">Chapter 10</h2>
 <p>This chapter explains ba bla bla</p>
</body>
 </html>
```

Jump to Chapter 4

Jump to Chapter 10

Chapter 1

This chapter explains ba bla bla

Chapter 2

This chapter explains ba bla bla

Chapter 3

This chapter explains ba bla bla

Chapter 4

This chapter explains ba bla bla

Chapter 10

This chapter explains ba bla bla

HTML Images

The HTML `<img>` tag is used to embed an image in a web page.

The `<img>` tag is empty, it contains attributes only, and does not have a closing tag.

The `<img>` tag has two required attributes:

- src - Specifies the path to the image
- alt - Specifies an alternate text for the image

```
<img src="url" alt="alternatetext">
```

The src Attribute

The required `src` attribute specifies the path (URL) to the image.

The alt Attribute

The required `alt` attribute provides an alternate text for an image, if the user for some reason cannot view it (because of slow connection, an error in the src attribute, or if the user uses a screen reader).

The value of the `alt` attribute should describe the image:

```
<img src="img_chania.jpg" alt="Flowers in Chania">
```

Image Size - Width and Height

You can use the `style` attribute to specify the width and height of an image.

```
<img src="img_girl.jpg" alt="Girl in a
jacket" style="width:500px;height:600px;">
```

Alternatively, you can use the `width` and `height` attributes:

```
<img src="img_girl.jpg" alt="Girl in a jacket" width="500" height="600">
```

The `width` and `height` attributes always define the width and height of the image in pixels.

Note: Always specify the width and height of an image. If width and height are not specified, the web page might flicker while the image loads.

Width and Height, or Style?

The `width`, `height`, and `style` attributes are all valid in HTML.

However, we suggest using the `style` attribute. It prevents styles sheets from changing the size of images:

```
<!DOCTYPE html>
<html>
<head>
<style>
/* This style sets the width of all images to 100%: */
img {
  width: 100%;
}
</style>
</head>
<body>

<h2>Width/Height Attributes or Style?</h2>

<p>The first image uses the width attribute (set to 128 pixels), but the style in the head section overrides it, and sets the width to 100%.</p>

<img src="html5.gif" alt="HTML5 Icon" width="128" height="128">

<p>The second image uses the style attribute to set the width to 128 pixels, this will not be overridden by the style in the head section:</p>

<img src="html5.gif" alt="HTML5 Icon" style="width:128px;height:128px;">

</body>
</html>
```

Width/Height Attributes or Style?

The first image uses the width attribute (set to 128 pixels), but the style in the head section overrides it, and sets the width to 100%.

The second image uses the style attribute to set the width to 128 pixels, this will not be overridden by the style in the head section:

Images in Another Folder

If you have your images in a sub-folder, you must include the folder name in the `src` attribute:

```
<img src="/images/html5.gif" alt="HTML5
Icon" style="width:128px;height:128px;">
```

Images on Another Server/Website

Some web sites point to an image on another server.

To point to an image on another server, you must specify an absolute (full) URL in the `src` attribute:

```
<img src="https://www.w3schools.com/images/w3schools_green.jpg" alt="W3Schools.com">
```

Notes on external images: External images might be under copyright. If you do not get permission to use it, you may be in violation of copyright laws. In addition, you cannot control external images; they can suddenly be removed or changed.

Animated Images

HTML allows animated GIFs:

```
<img src="programming.gif" alt="Computer Man" style="width:48px;height:48px;">
```

Image as a Link

To use an image as a link, put the `<img>` tag inside the `<a>` tag:

```
<a href="default.asp">
  <img src="smiley.gif" alt="HTML tutorial" style="width:42px;height:42px;">
```

Image Floating

Use the CSS `float` property to let the image float to the right or to the left of a text:

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

<h2>Floating Images</h2>
<p><strong>Float the image to the right:</strong></p>

<p>
<img src="smiley.gif" alt="Smiley face"
style="float:right;width:42px;height:42px;">
A paragraph with a floating image. A paragraph with a floating image. A
paragraph with a floating image.
</p>

<p><strong>Float the image to the left:</strong></p>
<p>
<img src="smiley.gif" alt="Smiley face"
style="float:left;width:42px;height:42px;">
A paragraph with a floating image. A paragraph with a floating image. A
paragraph with a floating image.
</p>

</body>
</html>
```

Floating Images

Float the image to the right:

 A paragraph with a floating image. A paragraph with a floating image. A paragraph with a floating image.

Float the image to the left:

 A paragraph with a floating image. A paragraph with a floating image. A paragraph with a floating image.

Marquee tag

Marquee tag is used to create a moving or scrolling tag

```
<marquee> this is moving tag</marquee>

<marquee direction = “right”> this is moving tag</marquee>
```

HTML Lists

HTML lists allow web developers to group a set of related items in lists.

HTML List Tags

Tag	Description
	Defines an unordered list
	Defines an ordered list
	Defines a list item
<dl>	Defines a description list
<dt>	Defines a term in a description list
<dd>	Describes the term in a description list

HTML Ordered Lists

An ordered list starts with the `<ol>` tag. Each list item starts with the `<li>` tag.

The HTML `<ol>` tag defines an ordered list. An ordered list can be numerical or alphabetical.

```
<!DOCTYPE html>
<html>
<body>
<h2>An ordered HTML list</h2>
<ol>
  <li>Coffee</li>
  <li>Tea</li>
  <li>Milk</li>
</ol>
</body>
</html>
```

An ordered HTML list

1. Coffee
2. Tea
3. Milk

Ordered HTML List - The Type Attribute

The type attribute of the <ol> tag, defines the type of the list item marker:

Type	Description
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

```
<ol type="1">
  <li>Coffee</li>
  <li>Tea</li>
  <li>Milk</li>
</ol>
```

```
<ol type="A">
  <li>Coffee</li>
  <li>Tea</li>
  <li>Milk</li>
</ol>
```

```
<ol type="a">
  <li>Coffee</li>
  <li>Tea</li>
  <li>Milk</li>
</ol>
```

```
<ol type="I">
  <li>Coffee</li>
  <li>Tea</li>
  <li>Milk</li>
</ol>
```

```
<ol type="i">
  <li>Coffee</li>
  <li>Tea</li>
  <li>Milk</li>
</ol>
```

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:

```
<ol start="50">
  <li>Coffee</li>
  <li>Tea</li>
  <li>Milk</li>
</ol>
```

Nested HTML Lists

Lists can be nested (list inside list):

```
<ol>
  <li>Coffee</li>
  <li>Tea
    <ol>
      <li>Black tea</li>
      <li>Green tea</li>
    </ol>
  </li>
  <li>Milk</li>
</ol>
```

HTML Unordered Lists

An unordered list starts with the `<ul>` tag. Each list item starts with the `<li>` tag.

The list items will be marked with bullets (small black circles) by default:

```
<h2>An unordered HTML list</h2>


<ul>
 <li>Coffee</li>
 <li>Tea</li>
 <li>Milk</li>
</ul>
```

An unordered HTML list

- Coffee
- Tea
- Milk

Unordered HTML List - Choose List Item Marker

The CSS `list-style-type` property is used to define the style of the list item

Value	Description
disc	Sets the list item marker to a bullet (default)
circle	Sets the list item marker to a circle
square	Sets the list item marker to a square
none	The list items will not be marked

```
<ul style="list-style-type:disc;">
  <li>Coffee</li>
  <li>Tea</li>
  <li>Milk</li>
</ul>
```

```
<ul style="list-style-type:circle;">
  <li>Coffee</li>
  <li>Tea</li>
  <li>Milk</li>
</ul>
```

```
<ul style="list-style-type:square;">
  <li>Coffee</li>
  <li>Tea</li>
  <li>Milk</li>
</ul>
```

```
<ul style="list-style-type:none;">
  <li>Coffee</li>
  <li>Tea</li>
  <li>Milk</li>
</ul>
```

HTML Description Lists

A description list is a list of terms, with a description of each term.

- Use the HTML `<dl>` element to define a description list
- Use the HTML `<dt>` element to define the description term
- Use the HTML `<dd>` element to describe the term in a description list

```
<dl>
  <dt>Coffee</dt>
  <dd>- black hot drink</dd>
  <dt>Milk</dt>
  <dd>- white cold drink</dd>
</dl>
```

Coffee
- black hot drink

Milk
- white cold drink

HTML Tables

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

HTML Table Tags

Tag	Description
1. <table>	Defines a table
2. <th>	Defines a header cell in a table
3. <tr>	Defines a row in a table
4. <td>	Defines a cell in a table
5. <caption>	Defines a table caption
6. <colgroup>	Specifies a group of one or more columns in a table for formatting
7. <col>	Specifies column properties for each column within a <colgroup> element
8. <thead>	Groups the header content in a table
9. <tbody>	Groups the body content in a table
10. <tfoot>	Groups the footer content in a table

Table Cells

Each table cell is defined by a `<td>` and a `</td>` tag.

`td` stands for table data.

Everything between `<td>` and `</td>` are the content of the table cell.

Note: table data elements are the data containers of the table. They can contain all sorts of HTML elements: text, images, lists, other tables, etc.

```
<table border>
 <tr>
  <td>Emil</td>
  <td>Tobias</td>
  <td>Linus</td>
 </tr>
</table>
```

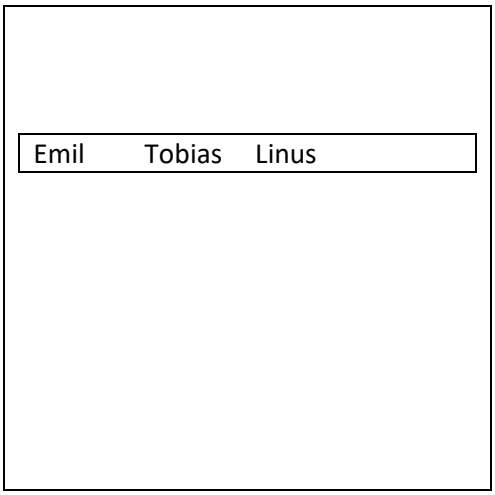


Table Rows

Each table row starts with a `<tr>` and ends with a `</tr>` tag.

tr stands for table row.

```
<table>
  <tr>
    <td>Emil</td>
    <td>Tobias</td>
    <td>Linus</td>
  </tr>
  <tr>
    <td>16</td>
    <td>14</td>
    <td>10</td>
  </tr>
</table>
```

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.

Table Headers

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

Let the first row be table headers:

```
<table>
  <tr>
    <th>Person 1</th>
    <th>Person 2</th>
    <th>Person 3</th>
  </tr>
  <tr>
    <td>Emil</td>
    <td>Tobias</td>
    <td>Linus</td>
  </tr>
  <tr>
    <td>16</td>
    <td>14</td>
    <td>10</td>
  </tr>
</table>
```

Output -

Person 1	Person 2	Person 3
Emil	Tobias	Linus
16	14	10

Table Border

HTML tables can have borders of different styles and shapes.

How To Add a Border

When you add a border to a table, you also add borders around each table cell:

To add a border, use the CSS `border` property on `table`, `th`, and `td` elements:

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

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

```
<tr>
    <td>Jill</td>
  </tr>
  <tr>
    <td>Eve</td>
  </tr>
  <tr>
    <td>John</td>
   </tr>
</table>
</body>
```

Output -

Firstname
Jill
Eve
John

Collapsed Table Borders

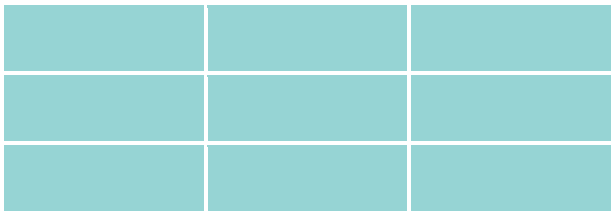
To avoid having double borders like in the example above, set the CSS `border-collapse` property to `collapse`.

This will make the borders collapse into a single border:


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

Style Table Borders

If you set a background color of each cell, and give the border a white color (the same as the document background), you get the impression of an invisible border:



```
table, th, td {
  border: 1px solid white;
  border-collapse: collapse;
}
th, td {
  background-color: #96D4D4;
}
```

Round Table Borders

With the `border-radius` property, the borders get rounded corners:

```
table, th, td {
  border: 1px solid black;
  border-radius: 10px;
}
```

Skip the border around the table by leaving out `table` from the css selector:


```
th, td {
  border: 1px solid black;
  border-radius: 10px;
}
```

Dotted Table Borders

With the `border-style` property, you can set the appearance of the border.

The following values are allowed:

- dotted 
- dashed 
- solid 
- double 
- groove 
- ridge 
- inset 
- outset 
- none
- hidden

```
 th, td {
  border-style: dotted;
}
```

Border Color

With the `border-color` property, you can set the color of the border.


```
 th, td {
  border-color: #96D4D4;
}
```

HTML Table Sizes

HTML tables can have different sizes for each column, row or the entire table.

Use the `style` attribute with the `width` or `height` properties to specify the size of a table, row or column.

HTML Table Width

To set the width of a table, add the `style` attribute to the `<table>` element:

Set the width of the table to 100%:

```
<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>
```

Note: Using a percentage as the size unit for a width means how wide will this element be compared to its parent element, which in this case is the `<body>` element.

HTML Table Column Width

To set the size of a specific column, add the `style` attribute on a `<th>` or `<td>` element:

Set the width of the first column to 70%:

```
<table style="width:100%">
  <tr>
    <th style="width:70%">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>
```

HTML Table Row Height

To set the height of a specific row, add the `style` attribute on a table row element:

Set the height of the second row to 200 pixels:

```
<table style="width:100%">
  <tr>
    <th>Firstname</th>
    <th>Lastname</th>
    <th>Age</th>
  </tr>
  <tr style="height:200px">
    <td>Jill</td>
    <td>Smith</td>
    <td>50</td>
  </tr>
  <tr>
    <td>Eve</td>
    <td>Jackson</td>
    <td>94</td>
  </tr>
</table>
```

HTML Table Headers

HTML tables can have headers for each column or row, or for many columns/rows.

EMIL	TOBIAS	LINUS

8:00		
9:00		
10:00		
11:00		
12:00		
13:00		

DECEMBER		

	MON	TUE	WED	THU	FRI
8:00					
9:00					
10:00					
11:00					
12:00					

HTML Table Headers

Table headers are defined with `th` elements. Each `th` element represents a table cell.

```
<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>
</table>
```

Vertical Table Headers

To use the first column as table headers, define the first cell in each row as a `th` element:

```
<table>
  <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>
```

Align Table Headers

By default, table headers are bold and centered:

Firstname	Lastname	Age
Jill	Smith	50
Eve	Jackson	94

To left-align the table headers, use the CSS `text-align` property:

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

Header for Multiple Columns

You can have a header that spans over two or more columns.

Name		Age
Jill	Smith	50
Eve	Jackson	94

To do this, use the `colspan` attribute on the `<th>` element:

```
<table>
  <tr>
    <th colspan="2">Name</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>
```

Table Caption

You can add a caption that serves as a heading for the entire table.

Monthly savings

Month	Savings
January	$100
February	$50

To add a caption to a table, use the `<caption>` tag:

```
<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>
```

Note: The `<caption>` tag should be inserted immediately after the `<table>` tag.

HTML Table Padding & Spacing

HTML tables can adjust the padding inside the cells, and also the space between the cells.

With Spacing		
hello	hello	hello
hello	hello	hello
hello	hello	hello

With Padding		
hello	hello	hello
hello	hello	hello
hello	hello	hello

HTML Table - Cell Padding

Cell padding is the space between the cell edges and the cell content.

By default the padding is set to 0.

To add padding on table cells, use the CSS `padding` property:

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

<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>


</body>
</html>
```

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

To add padding only above the content, use the `padding-top` property.

And the others sides with the `padding-bottom`, `padding-left`, and `padding-right` properties:

```
th, td {
  padding-top: 10px;
  padding-bottom: 20px;
  padding-left: 30px;
  padding-right: 40px;
}
```

HTML Table - Cell Spacing

Cell spacing is the space between each cell.

By default the space is set to 2 pixels.

To change the space between table cells, use the CSS `border-spacing` property on the `table` element:

```
table {
  border-spacing: 30px;
}
```

HTML Table Colspan & Rowspan

HTML tables can have cells that span over multiple rows and/or columns.

NAME		

APRIL		

2022		
FIESTA		

HTML Table - Colspan

To make a cell span over multiple columns, use the `colspan` attribute:

```
<table>
  <tr>
    <th colspan="2">Name</th>
    <th>Age</th>
  </tr>
  <tr>
    <td>Jill</td>
    <td>Smith</td>
    <td>43</td>
  </tr>
  <tr>
    <td>Eve</td>
    <td>Jackson</td>
    <td>57</td>
  </tr>
</table>
```

Name		Age
Jill	Smith	43
Eve	Jackson	57

Note: The value of the `colspan` attribute represents the number of columns to span.

HTML Table - Rowspan

To make a cell span over multiple rows, use the `rowspan` attribute:

```
<table>
  <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>
```

Name	Jill
Phone	555-1234
	555-8745

Note: The value of the `rowspan` attribute represents the number of rows to span.

HTML Block and Inline Elements

Every HTML element has a default display value, depending on what type of element it is.

There are two display values: block and inline.

A block-level element always starts on a new line and takes up the full width available
An inline element does not start on a new line and it only takes up as much width as necessary
The element is a block-level and is often used as a container for other HTML elements
The element is an inline container used to mark up a part of a text, or a part of a document

HTML Tags

Tag	Description
	Defines a section in a document (block-level)
	Defines a section in a document (inline)

Block-level Elements

A block-level element always starts on a new line, and the browsers automatically add some space (a margin) before and after the element.

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

Two commonly used block elements are: `<p>` and `<div>`.

The `<p>` element defines a paragraph in an HTML document.

The `<div>` element defines a division or a section in an HTML document.

The <p> element is a block-level element.

The element is a block-level element.

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

<p style="border: 1px solid black">Hello World</p>
<div style="border: 1px solid black">Hello World</div>

<p>The P and the DIV elements are both block elements, and they will always start on a new line and take up the full width available (stretches out to the left and right as far as it can).</p>

</body>
</html>
```

Output -

Hello World

Hello World

The P and the DIV elements are both block elements, and they will always start on a new line and take 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.

An inline element only takes up as much width as necessary.

This is a element inside a paragraph.

```
<!DOCTYPE html>

<html>

<body>

<p>This is an inline span <span style="border: 1px solid black">Hello
World</span> element inside a paragraph.</p>

<p>The SPAN element is an inline element, and will not start on a new line and
only takes up as much width as necessary.</p>

</body>

</html>
```

Output –

This is an inline span Hello World element inside a paragraph.

The SPAN element is an inline element, and will 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> <cite> <code> <dfn>
<em> <i> <img> <input> <kbd> <label> <map><object> <output> <q> <samp>
<script> <select> <small> <span> <strong> <sub> <sup> <textarea> <time>
<tt> <var>
```

The Element

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

The `<div>` element has no required attributes, but `style`, `class` and `id` are common.

When used together with CSS, the `<div>` element can be used to style blocks of content:

```
<div style="background-color:black;color:white;padding:20px;">

  <h2>London</h2>

  <p>London is the capital city of England. It is the most populous city in the United Kingdom, with a metropolitan area of over 13 million inhabitants.</p>

  <p>Standing on the River Thames, London has been a major settlement for two millennia, its history going back to its founding by the Romans, who named it Londinium.</p>

</div>
```

Output -

London

London is the capital city of England. It is the most populous city in the United Kingdom, with a metropolitan area of over 13 million inhabitants.

Standing on the River Thames, London has been a major settlement for two millennia, its history going back to its founding by the Romans, who named it Londinium.

The Element

The `<span>` element is an inline container used to mark up a part of a text, or a part of a document.

The `<span>` element has no required attributes, but `style`, `class` and `id` are common.

When used together with CSS, the `<span>` element can be used to style parts of the text:

```
<h1>The span element</h1>

<p>My mother has <span style="color:blue;font-weight:bold;">blue</span> eyes and my father has <span style="color:darkolivegreen;font-weight:bold;">dark green</span> eyes.</p>
```

Output –

The span element

My mother has **blue** eyes and my father has **dark green** eyes.

HTML Iframes

An HTML iframe is used to display a web page within a web page.

The HTML `<iframe>` tag specifies an inline frame.

An inline frame is used to embed another document within the current HTML document.

```
<iframe src="url" title="description"></iframe>
```

Tip: It is a good practice to always include a `title` attribute for the `<iframe>`. This is used by screen readers to read out what the content of iframe .

Iframe - Set Height and Width

Use the `height` and `width` attributes to specify the size of the iframe.

The height and width are specified in pixels by default:

```
<iframe src="demo_iframe.htm" height="200" width="300" title="Iframe Example"></iframe>
```

Iframe - Remove the Border

By default, an iframe has a border around it.

To remove the border, add the `style` attribute and use the CSS `border` property:

```
<iframe src="demo_iframe.htm" style="border:none;" title="Iframe Example"></iframe>
```

With CSS, you can also change the size, style and color of the iframe's border:

```
<iframe src="demo_iframe.htm" style="border:2px solid red;" title="Iframe Example"></iframe>
```

Iframe - Target for a Link

An iframe can be used as the target frame for a link.

The `target` attribute of the link must refer to the `name` attribute of the iframe

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

<h2>Iframe - Target for a Link</h2>

<iframe src="demo_iframe.htm" name="iframe_a" height="300px"
width="100%" title="Iframe Example"></iframe>

<p><a href="https://www.w3schools.com"
target="iframe_a">W3Schools.com</a></p>

<p>When the target attribute of a link matches the name of an iframe, the link
will open in the iframe.</p>

</body>
</html>
```

Add Audio in HTML

```
<audio controls>
        <source src="audio.mp3" type="audio/mpeg">

    </audio>
```

```
<body>

  <audio controls>

    <source src="audio.mp3" type="audio/mpeg">

    <source src="audio.ogg" type="audio/ogg">

     your brower doesnot support file<!-- if brower not support file -->

   </audio>
```

Add Video in HTML

```
<body>
    <audio controls>
        <source src="video.mp4" type="video/mp4">
         your brower doesnot support file<!-- if brower not support file -->
      </audio>
</body>
```

To autoplay video use autoplay

```
<body>
    <audio height= “100” width=”200” autoplay>
        <source src="video.mp4" type="video/mp4">


        your brower doesnot support file<!-- if brower not support file -->

    </audio>
</body>
```

Add PDF in HTML

Three way to add PDF documents

```
<body>
    <embed src="amarth.pdf" type="application/pdf" width="100" height="10">
</body>
```

```
<body>
    <iframe src="amarth.pdf"> </iframe>
</body>
```

```
<body>
    <object data="amarth.pdf" type="application/pdf">

    </object>
</body>
```

Embed (add) YOUTUBE video

Go to youtube and choose a video and click share and embed – copy link and paste between <body>

Embed (add) google map

Go to google map and search a location you want to add and click share and embed – copy link and paste between <body>

HTML Entities

Some characters are reserved in HTML.

Character entities are used to display reserved characters in HTML.

A character entity looks like this:

&*entity_name*;

OR

&#*entity_number*;

To display a less than sign (<) we must write: **<** or **<**

Some Useful HTML Character Entities			
Result	Description	Entity Name	Entity Number
	non-breaking space		
<	less than	<	<
>	greater than	>	>
&	ampersand	&	&
"	double quotation mark	"	"
'	single quotation mark (apostrophe)	'	'
¢	cent	¢	¢
£	pound	£	£
¥	yen	¥	¥
€	euro	€	€
©	copyright	©	©
®	registered trademark	®	®

🗻	&#128507;
🗼	&#128508;
🗽	&#128509;
🗾	&#128510;
🗿	&#128511;
😀	&#128512;
😁	&#128513;
😂	&#128514;
😃	&#128515;
😄	&#128516;
😅	&#128517;

HTML Semantic Elements

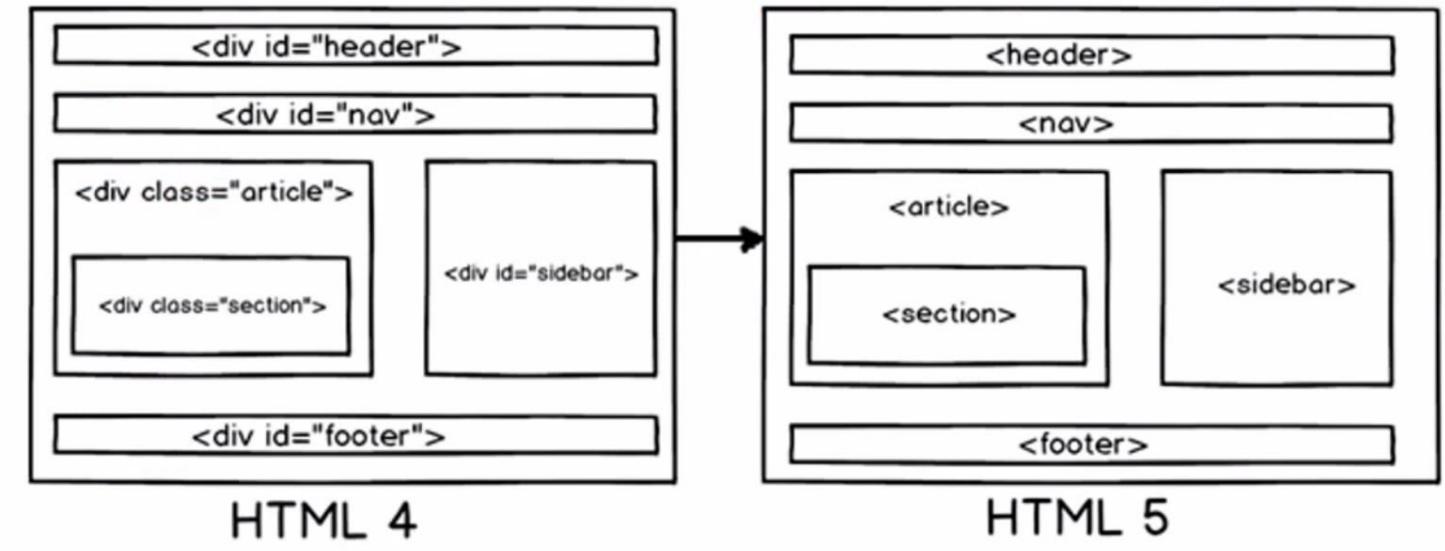
What are Semantic Elements?

Semantic elements = elements with a meaning.

Examples of **non-semantic** elements: and - Tells nothing about its content.

Examples of **semantic** elements: <form>, <table>, and <article> - Clearly defines its content.

NON – SEMANTIC ELEMENT **SEMANTIC ELEMENT**



CODE IN HTML 4 **CODE IN HTML 5**

```
<div id="header"></div>
<div class="section">
   <div class="article">
      <div class="figure">
         <img>
         <div class="figcaption"></div>
      </div>
   </div>
</div>
<div id="footer"></div>
```

```
<header></header>
<section>
    <article>
        <figure>
            <img>
            <figcaption></figcaption>
        </figure>
    </article>
</section>
<footer></footer>
```

Semantic Elements in HTML

Many web sites contain HTML code like: to indicate navigation, header, and footer.

In HTML there are some semantic elements that can be used to define different parts of a web page:

<article> <aside> <details> <figcaption> <figure>

<footer> <header> <main> <mark> <nav>

<section> <summary> <time>

HTML <section> Element

The <section> element defines a section in a document.

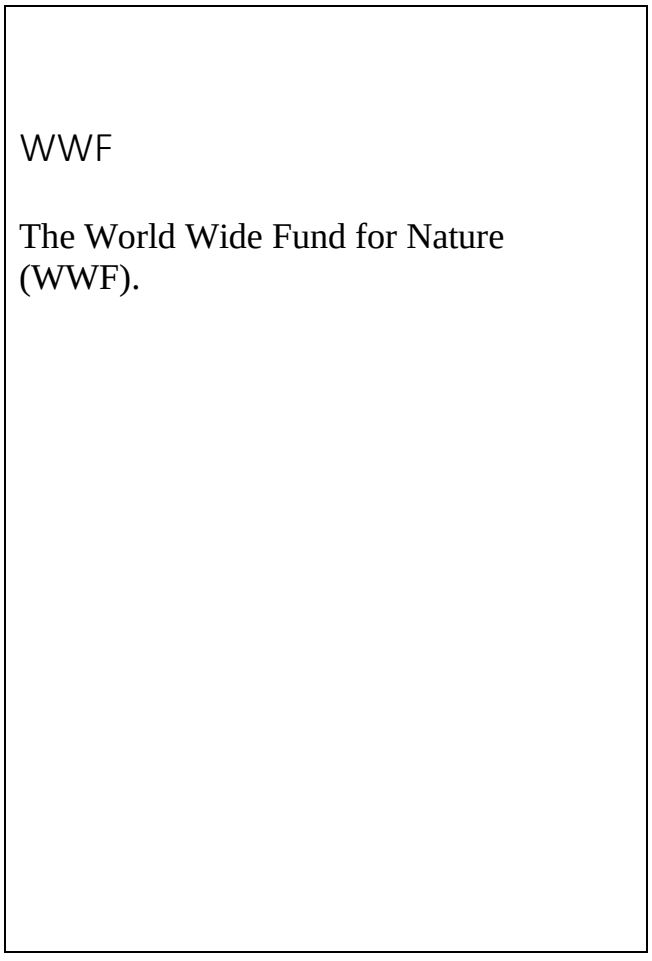
According to W3C's HTML documentation: "A section is a thematic grouping of content, typically with a heading."

Examples of where a <section> element can be used:

- Chapters
- Introduction
- News items
- Contact information

A web page could normally be split into sections for introduction, content, and contact information.

```
<!DOCTYPE html>

<html>

<body>

<section>

  <h1>WWF</h1>

  <p>The World Wide

Fund for Nature (WWF)

    .</p>

</section>

</body>

</html>
```



HTML <article> Element

The `<article>` element specifies independent, self-contained content.

An article should make sense on its own, and it should be possible to distribute it independently from the rest of the web site.

Examples of where the `<article>` element can be used:

- Forum posts
- Blog posts
- User comments
- Product cards
- Newspaper articles

Nesting <article> in <section> or Vice Versa?

The `<article>` element specifies independent, self-contained content.

The `<section>` element defines section in a document.

Can we use the definitions to decide how to nest those elements? No, we cannot!

So, you will find HTML pages with `<section>` elements containing `<article>` elements, and `<article>` elements containing `<section>` elements.

HTML <header> Element

The `<header>` element represents a container for introductory content or a set of navigational links.

A `<header>` element typically contains:

- one or more heading elements (<h1> - <h6>)
- logo or icon
- authorship information

HTML <footer> Element

The `<footer>` element defines a footer for a document or section.

A `<footer>` element typically contains:

- authorship information
- copyright information
- contact information
- sitemap
- back to top links
- related documents

You can have several `<footer>` elements in one document.

HTML <nav> Element

The `<nav>` element defines a set of navigation links.

HTML <aside> Element

The `<aside>` element defines some content aside from the content it is placed in (like a sidebar).

The `<aside>` content should be indirectly related to the surrounding content.

HTML <figure> and <figcaption> Elements

The `<figure>` tag specifies self-contained content, like illustrations, diagrams, photos, code listings, etc.

The `<figcaption>` tag defines a caption for a `<figure>` element.
The `<figcaption>` element can be placed as the first or as the last child of a `<figure>` element.

The `<img>` element defines the actual image/illustration.

Tag	Description
<article>	Defines independent, self-contained content
<aside>	Defines content aside from the page content
<details>	Defines additional details that the user can view or hide
<figcaption>	Defines a caption for a <figure> element
<figure>	Specifies self-contained content, like illustrations, diagrams, photos, code listings, etc.
<footer>	Defines a footer for a document or section
<header>	Specifies a header for a document or section
<main>	Specifies the main content of a document
<mark>	Defines marked/highlighted text
<nav>	Defines navigation links
<section>	Defines a section in a document
<summary>	Defines a visible heading for a <details> element
<time>	Defines a date/time

Image map

Go to imagemap.org

Select image map image

Copy and paste in html

HTML Forms

An HTML form is used to collect user input. The user input is most often sent to a server for processing.

```
<!DOCTYPE html>
<html>
<body>
<h2>HTML Forms</h2>
<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>
<p>If you click the "Submit" button, the form-data will be sent to a page called
"/action_page.php".</p>
</body>
</html>
```

HTML Forms

First name:

joe

Last name:

Doe

Submit

If you click the "Submit" button, the form-data will be sent to a page called "/action_page.php".

The <form> Element

The HTML `<form>` element is used to create an HTML form for user input:

```
<form>
.
form elements
.
</form>
```

The `<form>` element is a container for different types of input elements, such as: text fields, checkboxes, radio buttons, submit buttons, etc.

The <label> Element

Notice the use of the `<label>` element in the example above.

The `<label>` tag defines a label for many form elements.

The `<label>` element is useful for screen-reader users, because the screen-reader will read out loud the label when the user focus on the input element.

The `<label>` element also help users who have difficulty clicking on very small regions (such as radio buttons or checkboxes) - because when the user clicks the text within the `<label>` element, it toggles the radio button/checkbox.

The `for` attribute of the `<label>` tag should be equal to the `id` attribute of the `<input>` element to bind them together

HTML Form Attributes

The Action Attribute

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

Usually, the form data is sent to a file on the server when the user clicks on the submit button.

In the example below, the form data is sent to a file called "action_page.php". This file contains a server-side script that handles the form data:

On submit, send form data to "action_page.php":

```
<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>
```

The Target Attribute

The `target` attribute specifies where to display the response that is received after submitting the form.

Value	Description
_blank	The response is displayed in a new window or tab
_self	The response is displayed in the current window
_parent	The response is displayed in the parent frame
_top	The response is displayed in the full body of the window
framename	The response is displayed in a named iframe

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

The default value is `_self` which means that the response will open in the current window.

Here, the submitted result will open in a new browser tab:

```
<form action="/action_page.php" target="_blank">
```

The Method Attribute

The `method` attribute specifies the HTTP method to be used when submitting the form data.

The form-data can be sent as URL variables (with `method="get"`) or as HTTP post transaction (with `method="post"`).

The default HTTP method when submitting form data is GET.

Example

This example uses the GET method when submitting the form data:

```
<form action="/action_page.php" method="get">
```

Example

This example uses the POST method when submitting the form data:

```
<form action="/action_page.php" method="post">
```

Notes on GET:

Appends the form data to the URL, in name/value pairs

NEVER use GET to send sensitive data! (the submitted form data is visible in the URL!)

The length of a URL is limited (2048 characters)

Useful for form submissions where a user wants to bookmark the result

GET is good for non-secure data, like query strings in Google

Notes on POST:

Appends the form data inside the body of the HTTP request (the submitted form data is not shown in the URL)

POST has no size limitations, and can be used to send large amounts of data.

Form submissions with POST cannot be bookmarked

Tip: Always use POST if the form data contains sensitive or personal information!

The Autocomplete Attribute

The `autocomplete` attribute specifies whether a form should have autocomplete on or off.

When autocomplete is on, the browser automatically complete values based on values that the user has entered before.

Example

A form with autocomplete on:

```
<form action="/action_page.php" autocomplete="on">
```

The Novalidate Attribute

The `novalidate` attribute is a boolean attribute.

The novalidate attribute indicates that the form input is not to be validated on submit:

Example

A form with a novalidate attribute:

```
<form action="/action_page.php" novalidate>
```

The HTML <form> Elements

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

Tag	Description
<form>	Defines an HTML form for user input
<input>	Defines an input control
<textarea>	Defines a multiline input control (text area)
<label>	Defines a label for an <input> element
<fieldset>	Groups related elements in a form
<legend>	Defines a caption for a <fieldset> element
<select>	Defines a drop-down list
<optgroup>	Defines a group of related options in a drop-down list
<option>	Defines an option in a drop-down list
<button>	Defines a clickable button
<datalist>	Specifies a list of pre-defined options for input controls
<output>	Defines the result of a calculation

The <input> Element

One of the most used form element is the `<input>` element.

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

```
<form action="/action_page.php">
  <label for="fname">First name:</label><br>
  <input type="text" id="fname" name="fname"><br><br>
  <input type="submit" value="Submit">
</form>
```

Output -

The input Element

First name:

Submit

The <select> Element

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

The `<option>` elements defines an option that can be selected.

By default, the first item in the drop-down list is selected.

To define a pre-selected option, add the `selected` attribute to the option:

```
<form action="/action_page.php">
  <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" selected>Fiat</option>
    <option value="audi">Audi</option>
  </select>
  <input type="submit">
</form>
```

Output –

Pre-selected Option

You can preselect an option with the selected attribute:

Choose a car: Fiat Submit

Visible Values:

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

```
<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>
```

Allow Multiple Selections:

Use the `multiple` attribute to allow the user to select more than one value:

```
<label for="cars">Choose a car:</label>
<select id="cars" name="cars" size="4" multiple>
  <option value="volvo">Volvo</option>
  <option value="saab">Saab</option>
  <option value="fiat">Fiat</option>
  <option value="audi">Audi</option>
</select>
```

The <textarea> Element

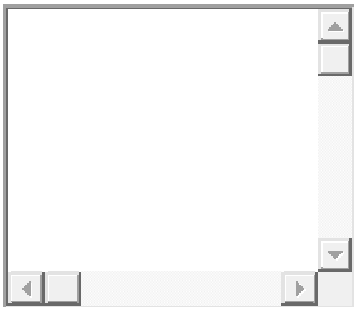
The `<textarea>` element defines a multi-line input field (a text area):

```
<form action="/action_page.php">

  <textarea name="message" rows="10" cols="30">The cat was playing in the garden.</textarea>

  <br><br>

  <input type="submit">
```

Output –

textarea

The textarea element defines a multi-line input field.



Submit

The <button> Element

The `<button>` element defines a clickable button:

```
<button type="button" onclick="alert('Hello World!')">Click Me!</button>
```

Output –

button

Click Me!

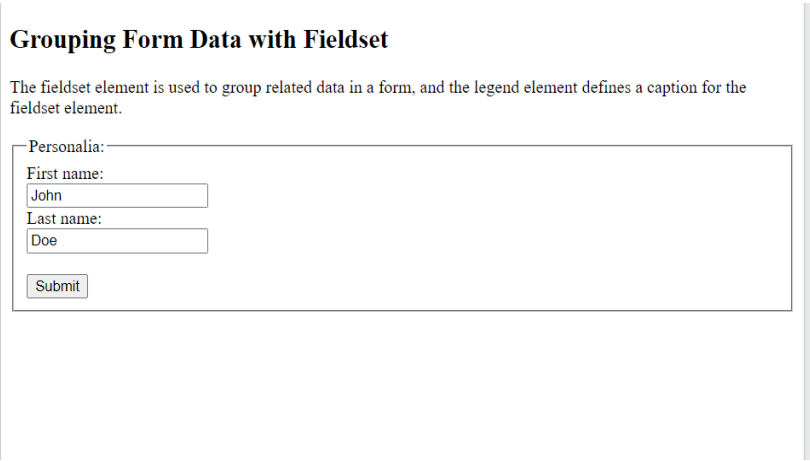
When you click on click me , it will show hello world

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.

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

<h2>Grouping Form Data with Fieldset</h2>

<p>The fieldset element is used to group related data in a form, and the legend element
defines a caption for the fieldset element.</p>

<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>
```



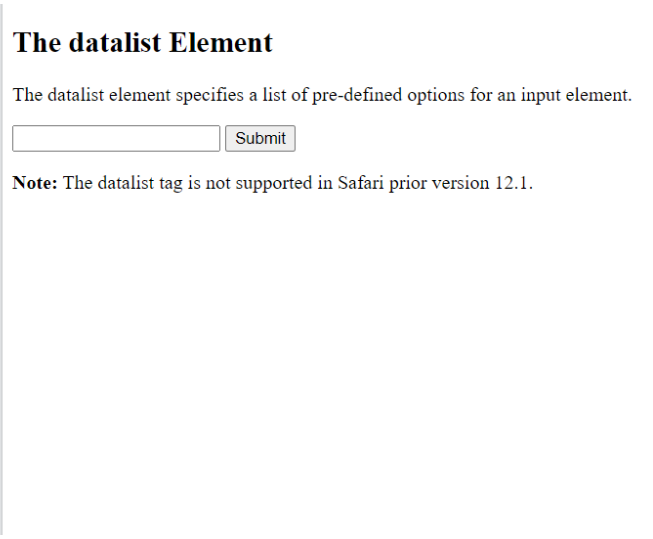
The <datalist> Element

The `<datalist>` element specifies a list of pre-defined options for an `<input>` element.

Users will see a drop-down list of the pre-defined options as they input data.

The `list` attribute of the `<input>` element, must refer to the `id` attribute of the `<datalist>` element.

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

<h2>The datalist Element</h2>

<p>The datalist element specifies a list of pre-defined options for an input element.</p>

<form action="/action_page.php">
  <input list="browsers" name="browser">
  <datalist id="browsers">
    <option value="Internet Explorer">
    <option value="Firefox">
    <option value="Chrome">
    <option value="Opera">
    <option value="Safari">
  </datalist>
  <input type="submit">
</form>

<p><b>Note:</b> The datalist tag is not supported in Safari prior version 12.1.</p>

</body>
</html>
```



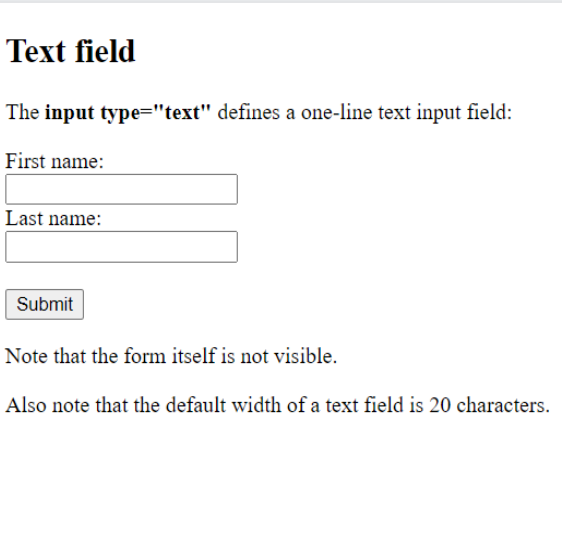
HTML Input Types

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">`

Tip: The default value of the `type` attribute is "text".

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

<h2>Text field</h2>
<p>The <strong>input type="text"</strong> defines a one-line text input field:</p>

<form action="/action_page.php">
  <label for="fname">First name:</label><br>
  <input type="text" id="fname" name="fname"><br>
  <label for="lname">Last name:</label><br>
  <input type="text" id="lname" name="lname"><br><br>
  <input type="submit" value="Submit">
</form>

<p>Note that the form itself is not visible.</p>
<p>Also note that the default width of a text field is 20 characters.</p>

</body>
</html>
```



Input Type Password

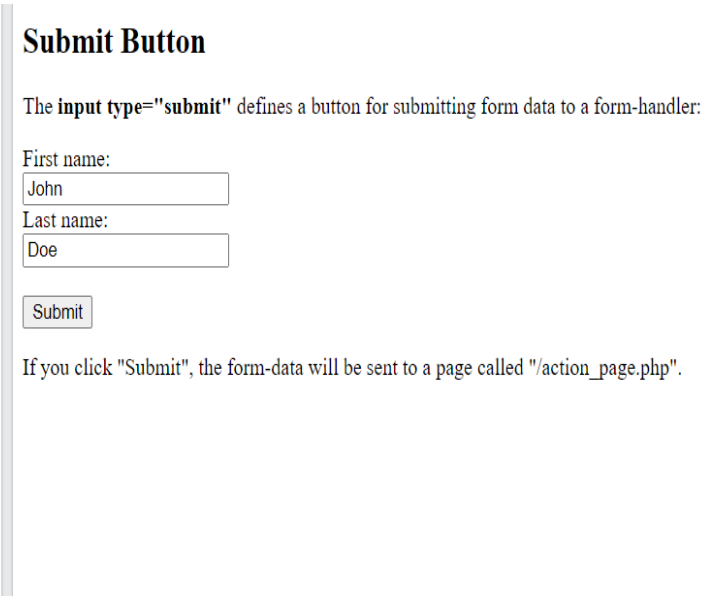
`<input type="password">` defines a **password field**

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

<h2>Password field</h2>

<p>The <strong>input type="password"</strong> defines a password field:</p>

<form action="/action_page.php">
  <label for="username">Username:</label><br>
  <input type="text" id="username" name="username"><br>
  <label for="pwd">Password:</label><br>
  <input type="password" id="pwd" name="pwd"><br><br>
  <input type="submit" value="Submit">
</form>

<p>The characters in a password field are masked (shown as asterisks or circles).</p>

</body>
</html>
```

Input Type Submit

`<input type="submit">` defines a button for **submitting** form data to a **form-handler**.
The form-handler is typically a server page with a script for processing input data.
The form-handler is specified in the form's `action` attribute:

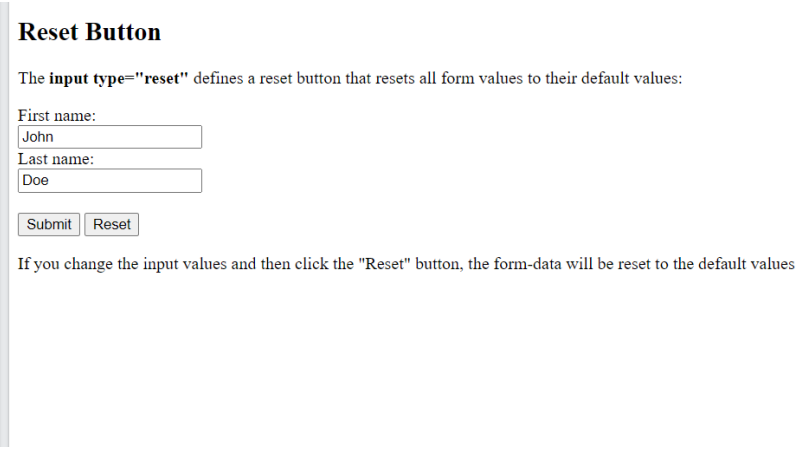
```
<!DOCTYPE html>
<html>
<body>

<h2>Submit Button</h2>

<p>The <strong>input type="submit"</strong> defines a button for submitting form data to
a form-handler:</p>

<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>

<p>If you click "Submit", the form-data will be sent to a page called "/action_page.php".
</p>

</body>
</html>
```



Input Type Reset

`<input type="reset">` defines a **reset button** that will reset all form values to their default values:

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

<h2>Reset Button</h2>

<p>The <strong>input type="reset"</strong> defines a reset button that resets all form values to their default values:</p>

<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">
  <input type="reset">
</form>

<p>If you change the input values and then click the "Reset" button, the form-data will be reset to the default values.</p>

</body>
</html>
```

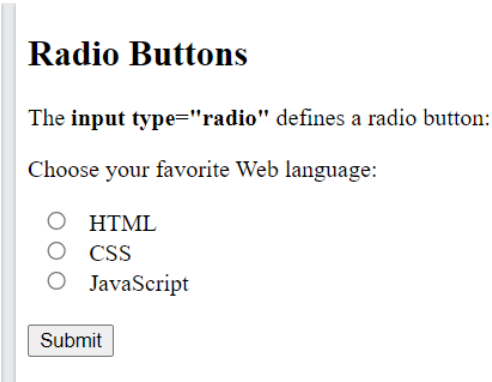


Input Type Radio

`<input type="radio">` defines a **radio button**.

Radio buttons let a user select ONLY ONE of a limited number of choices:

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

<h2>Radio Buttons</h2>

<p>The <strong>input type="radio"</strong> defines a radio button:</p>

<p>Choose your favorite Web language:</p>
<form action="/action_page.php">
  <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><br><br>
  <input type="submit" value="Submit">
</form>

</body>
</html>
```

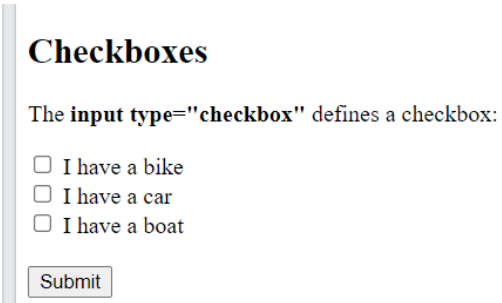


Input Type Checkbox

`<input type="checkbox">` defines a **checkbox**.

Checkboxes let a user select ZERO or MORE options of a limited number of choices.

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

<h2>Checkboxes</h2>
<p>The <strong>input type="checkbox"</strong> defines a checkbox:</p>

<form action="/action_page.php">
  <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><br><br>
  <input type="submit" value="Submit">
</form>

</body>
</html>
```



Input Type Button

`<input type="button">` defines a **button**:

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

<h2>Input Button</h2>

<input type="button" onclick="alert('Hello World!')" value="Click Me!">

</body>
</html>
```

Input Type Color

The `<input type="color">` is used for input fields that should contain a color.

Depending on browser support, a color picker can show up in the input field.

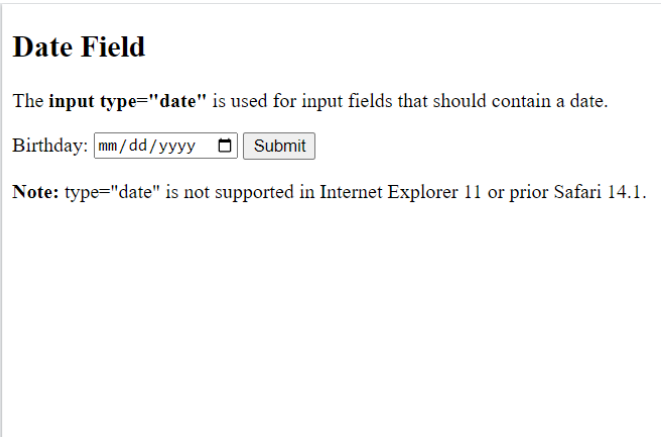
```
<!DOCTYPE html>
<html>
<body>

<h2>Show a Color Picker</h2>

<p>The <strong>input type="color"</strong> is used for input fields that should contain a color.</p>

<form action="/action_page.php">
  <label for="favcolor">Select your favorite color:</label>
  <input type="color" id="favcolor" name="favcolor" value="#ff0000">
  <input type="submit" value="Submit">
</form>

<p><b>Note:</b> type="color" is not supported in Internet Explorer 11 or Safari 9.1 (or earlier).</p>

</body>
</html>
```

Input Type Date

The `<input type="date">` is used for input fields that should contain a date.

Depending on browser support, a date picker can show up in the input field.

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

<h2>Date Field</h2>

<p>The <strong>input type="date"</strong> is used for input fields that should contain a date.</p>

<form action="/action_page.php">
  <label for="birthday">Birthday:</label>
  <input type="date" id="birthday" name="birthday">
  <input type="submit" value="Submit">
</form>

<p><strong>Note:</strong> type="date" is not supported in Internet Explorer 11 or prior Safari 14.1.</p>

</body>
</html>
```

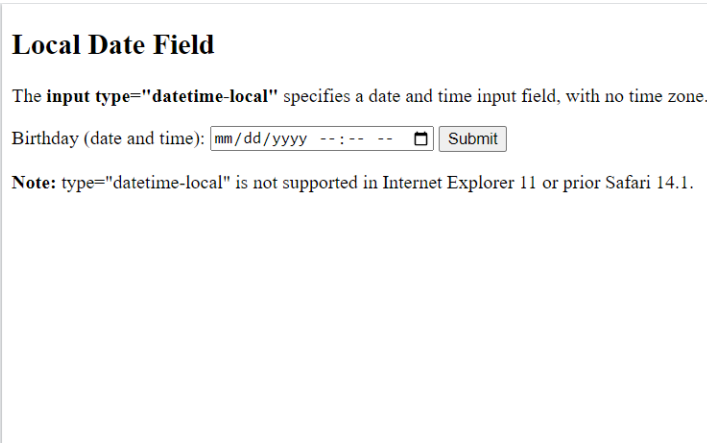


Input Type Datetime-local

The `<input type="datetime-local">` specifies a date and time input field, with no time zone.

Depending on browser support, a date picker can show up in the input field.

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

<h2>Local Date Field</h2>

<p>The <strong>input type="datetime-local"</strong> specifies a date and time input
field, with no time zone.</p>

<form action="/action_page.php">
  <label for="birthdaytime">Birthday (date and time):</label>
  <input type="datetime-local" id="birthdaytime" name="birthdaytime">
  <input type="submit" value="Submit">
</form>

<p><strong>Note:</strong> type="datetime-local" is not supported in Internet Explorer 11
or prior Safari 14.1.</p>

</body>
</html>
```



Input Type Email

The `<input type="email">` is used for input fields that should contain an e-mail address.
Depending on browser support, the e-mail address can be automatically validated when submitted.
Some smartphones recognize the email type, and add ".com" to the keyboard to match email input.

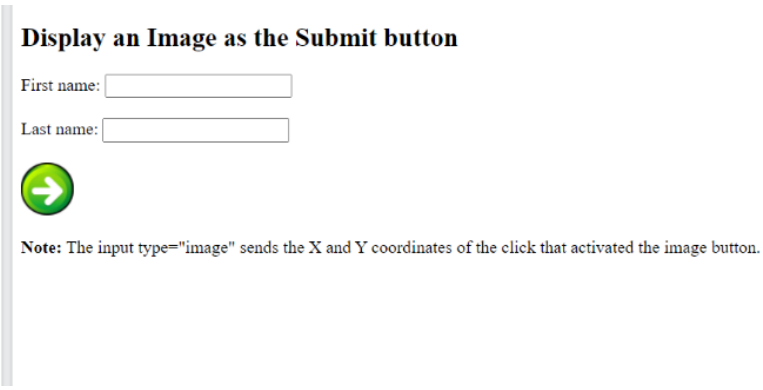
```
<!DOCTYPE html>
<html>
<body>

<h2>Email Field</h2>

<p>The <strong>input type="email"</strong> is used for input fields that should contain
an e-mail address:</p>

<form action="/action_page.php">
  <label for="email">Enter your email:</label>
  <input type="email" id="email" name="email">
  <input type="submit" value="Submit">
</form>

</body>
</html>
```

Input Type Image

The `<input type="image">` defines an image as a submit button.

The path to the image is specified in the `src` attribute.

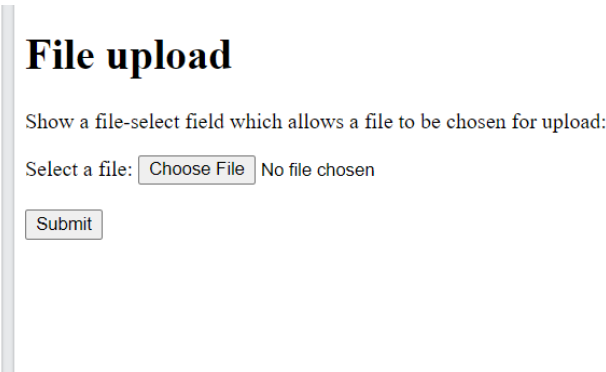
```
<!DOCTYPE html>
<html>
<body>

<h2>Display an Image as the Submit button</h2>

<form action="/action_page.php">
  <label for="fname">First name: </label>
  <input type="text" id="fname" name="fname"><br><br>
  <label for="lname">Last name: </label>
  <input type="text" id="lname" name="lname"><br><br>
  <input type="image" src="img_submit.gif" alt="Submit" width="48" height="48">
</form>

<p><b>Note:</b> The input type="image" sends the X and Y coordinates of the click that activated the image button.</p>

</body>
</html>
```



Input Type File

The `<input type="file">` defines a file-select field and a "Browse" button for file uploads.

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

<h1>File upload</h1>

<p>Show a file-select field which allows a file to be chosen for upload:</p>
<form action="/action_page.php">
  <label for="myfile">Select a file:</label>
  <input type="file" id="myfile" name="myfile"><br><br>
  <input type="submit" value="Submit">
</form>

</body>
</html>
```



Input Type Hidden

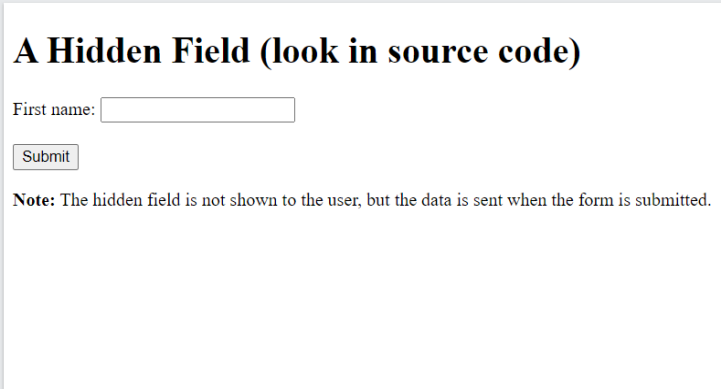
The `<input type="hidden">` defines a hidden input field (not visible to a user).

A hidden field lets web developers include data that cannot be seen or modified by users when a form is submitted.

A hidden field often stores what database record that needs to be updated when the form is submitted.

Note: While the value is not displayed to the user in the page's content, it is visible (and can be edited) using any browser's developer tools or "View Source" functionality. Do not use hidden inputs as a form of security!

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

<h1>A Hidden Field (look in source code)</h1>

<form action="/action_page.php">
  <label for="fname">First name:</label>
  <input type="text" id="fname" name="fname"><br><br>
  <input type="hidden" id="custId" name="custId" value="3487">
  <input type="submit" value="Submit">
</form>

<p><strong>Note:</strong> The hidden field is not shown to the user, but the data is sent when the form is submitted.</p>

</body>
</html>
```

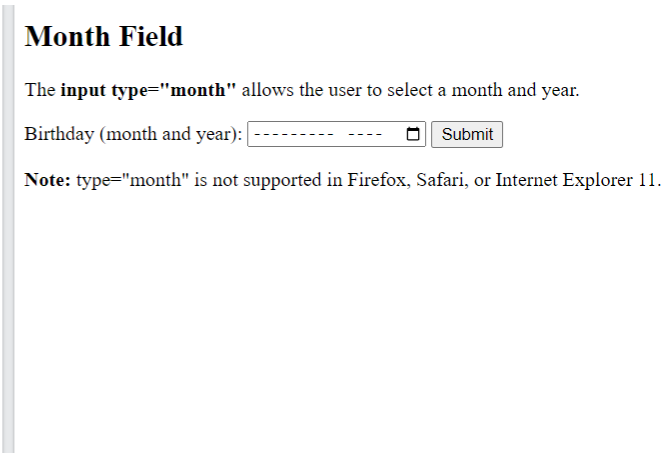


Input Type Month

The `<input type="month">` allows the user to select a month and year.

Depending on browser support, a date picker can show up in the input field.

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

<h2>Month Field</h2>

<p>The <strong>input type="month"</strong> allows the user to select a month and year.
</p>

<form action="/action_page.php">
  <label for="bdaymonth">Birthday (month and year):</label>
  <input type="month" id="bdaymonth" name="bdaymonth">
  <input type="submit" value="Submit">
</form>

<p><strong>Note:</strong> type="month" is not supported in Firefox, Safari, or Internet
Explorer 11.</p>

</body>
</html>
```



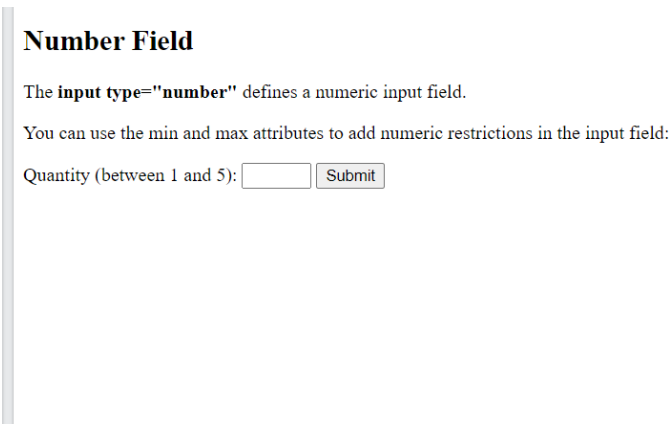
Input Type Number

The `<input type="number">` defines a **numeric** input field.

You can also set restrictions on what numbers are accepted.

The following example displays a numeric input field, where you can enter a value from 1 to 5:

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

<h2>Number Field</h2>

<p>The <strong>input type="number"</strong> defines a numeric input field.</p>

<p>You can use the min and max attributes to add numeric restrictions in the input field:
</p>

<form action="/action_page.php">
  <label for="quantity">Quantity (between 1 and 5):</label>
  <input type="number" id="quantity" name="quantity" min="1" max="5">
  <input type="submit" value="Submit">
</form>

</body>
</html>
```

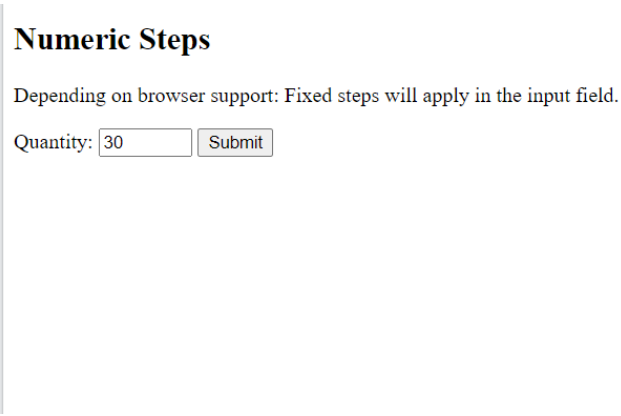


Input Restrictions

Here is a list of some common input restrictions:

Attribute	Description
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
step	Specifies the legal number intervals for an input field
value	Specifies the default value for an input field

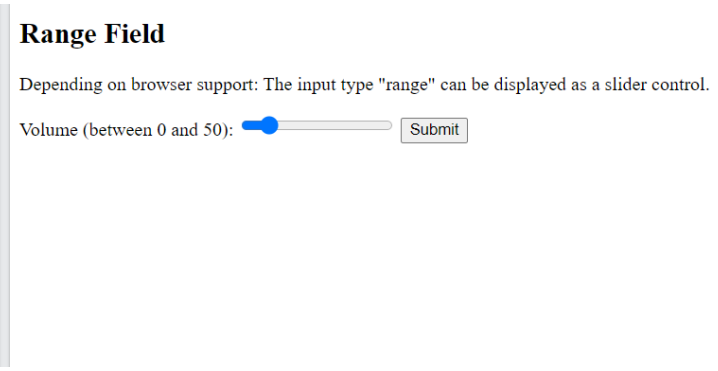
```
<!DOCTYPE html>
<html>
<body>

<h2>Numeric Steps</h2>

<p>Depending on browser support: Fixed steps will apply in the input field.</p>

<form action="/action_page.php">
  <label for="quantity">Quantity:</label>
  <input type="number" id="quantity" name="quantity" min="0" max="100" step="10"
value="30">
  <input type="submit" value="Submit">
</form>

</body>
</html>
```



Input Type Range

The `<input type="range">` defines a control for entering a number whose exact value is not important (like a slider control). Default range is 0 to 100. However, you can set restrictions on what numbers are accepted with the `min`, `max`, and `step` attributes

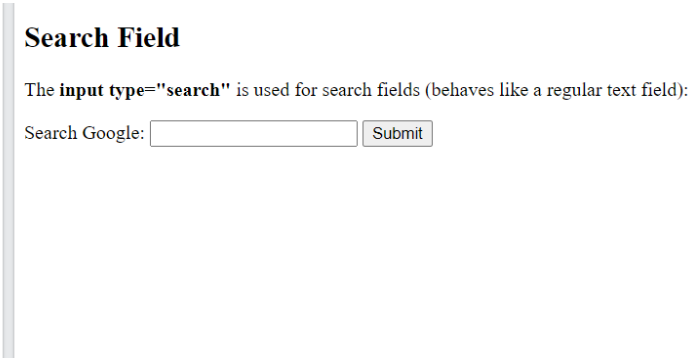
```
<!DOCTYPE html>
<html>
<body>

<h2>Range Field</h2>

<p>Depending on browser support: The input type "range" can be displayed as a slider control.</p>

<form action="/action_page.php" method="get">
  <label for="vol">Volume (between 0 and 50):</label>
  <input type="range" id="vol" name="vol" min="0" max="50">
  <input type="submit" value="Submit">
</form>

</body>
</html>
```



Input Type Search

The `<input type="search">` is used for search fields (a search field behaves like a regular text field).

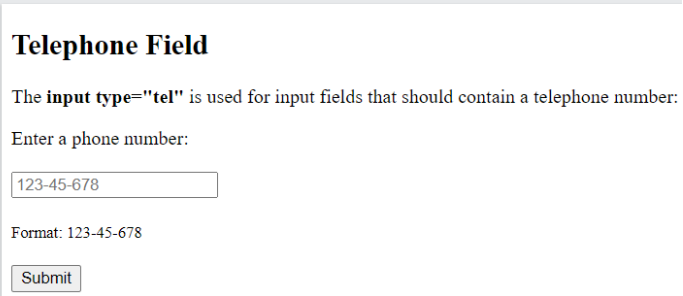
```
<!DOCTYPE html>
<html>
<body>

<h2>Search Field</h2>
<p>The <strong>input type="search"</strong> is used for search fields (behaves like a regular text field):</p>

<form action="/action_page.php">
  <label for="gsearch">Search Google:</label>
  <input type="search" id="gsearch" name="gsearch">
  <input type="submit" value="Submit">
</form>

</body>
</html>
```



Input Type Tel

The `<input type="tel">` is used for input fields that should contain a telephone number.

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

<h2>Telephone Field</h2>

<p>The <strong>input type="tel"</strong> is used for input fields that should contain a telephone number:</p>

<form action="/action_page.php">
  <label for="phone">Enter a phone number:</label><br><br>
  <input type="tel" id="phone" name="phone" placeholder="123-45-678" pattern="[0-9]{3}-[0-9]{2}-[0-9]{3}" required><br><br>
  <small>Format: 123-45-678</small><br><br>
  <input type="submit" value="Submit">
</form>

</body>
</html>
```



Telephone Field

The **input type="tel"** is used for input fields that should contain a telephone number:

Enter a phone number:

123-45-678

Format: 123-45-678

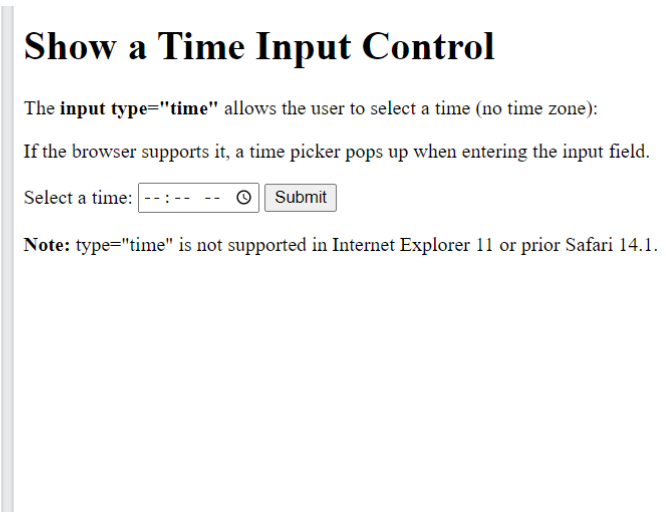
Submit

Input Type Time

The `<input type="time">` allows the user to select a time (no time zone).

Depending on browser support, a time picker can show up in the input field.

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

<h1>Show a Time Input Control</h1>

<p>The <strong>input type="time"</strong> allows the user to select a time (no time zone):</p>

<p>If the browser supports it, a time picker pops up when entering the input field.</p>

<form action="/action_page.php">
  <label for="appt">Select a time:</label>
  <input type="time" id="appt" name="appt">
  <input type="submit" value="Submit">
</form>

<p><strong>Note:</strong> type="time" is not supported in Internet Explorer 11 or prior Safari 14.1.</p>

</body>
</html>
```



Show a Time Input Control

The **input type="time"** allows the user to select a time (no time zone):

If the browser supports it, a time picker pops up when entering the input field.

Select a time: --:-- -- Submit

Note: type="time" is not supported in Internet Explorer 11 or prior Safari 14.1.

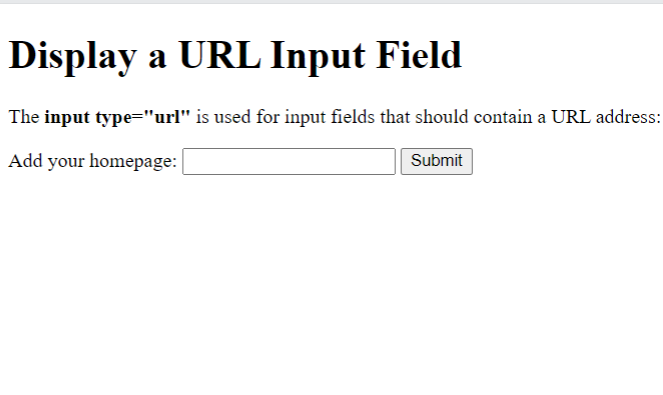
Input Type Url

The `<input type="url">` is used for input fields that should contain a URL address.

Depending on browser support, the url field can be automatically validated when submitted.

Some smartphones recognize the url type, and adds ".com" to the keyboard to match url input.

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

<h1>Display a URL Input Field</h1>

<p>The <strong>input type="url"</strong> is used for input fields that should contain a
URL address:</p>

<form action="/action_page.php">
  <label for="homepage">Add your homepage:</label>
  <input type="url" id="homepage" name="homepage">
  <input type="submit" value="Submit">
</form>

</body>
</html>
```

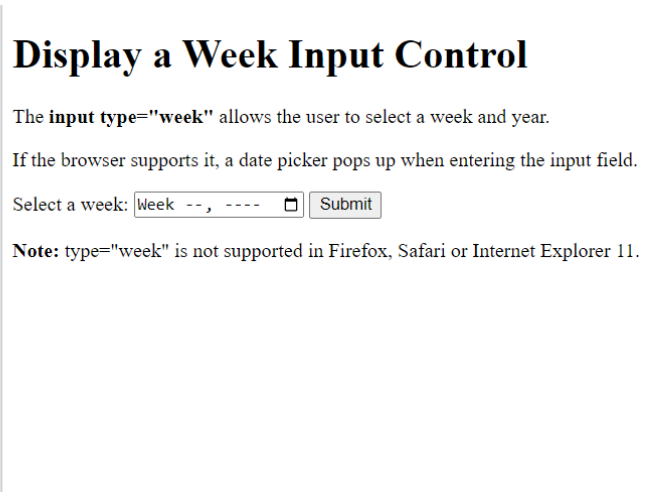


Input Type Week

The `<input type="week">` allows the user to select a week and year.

Depending on browser support, a date picker can show up in the input field.

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

<h1>Display a Week Input Control</h1>

<p>The <strong>input type="week"</strong> allows the user to select a week and year.</p>

<p>If the browser supports it, a date picker pops up when entering the input field.</p>

<form action="/action_page.php">
  <label for="week">Select a week:</label>
  <input type="week" id="week" name="week">
  <input type="submit" value="Submit">
</form>

<p><strong>Note:</strong> type="week" is not supported in Firefox, Safari or Internet
Explorer 11.</p>

</body>
</html>
```

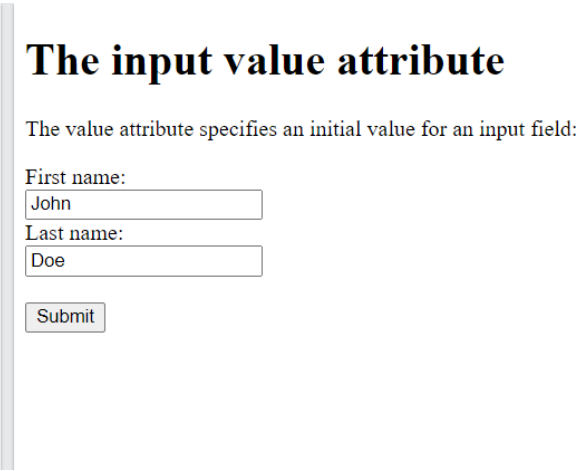


HTML Input Attributes

The value Attribute

The input `value` attribute specifies an initial value for an input field:

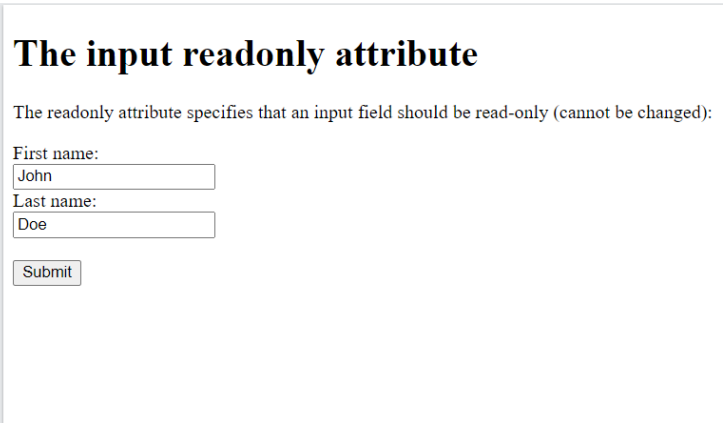
```
<!DOCTYPE html>
<html>
<body>

<h1>The input value attribute</h1>

<p>The value attribute specifies an initial value for an input field:</p>

<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>
```



The readonly Attribute

The input `readonly` attribute specifies that an input field is read-only.
A read-only input field cannot be modified (however, a user can tab to it, highlight it, and copy the text from it).
The value of a read-only input field will be sent when submitting the form!

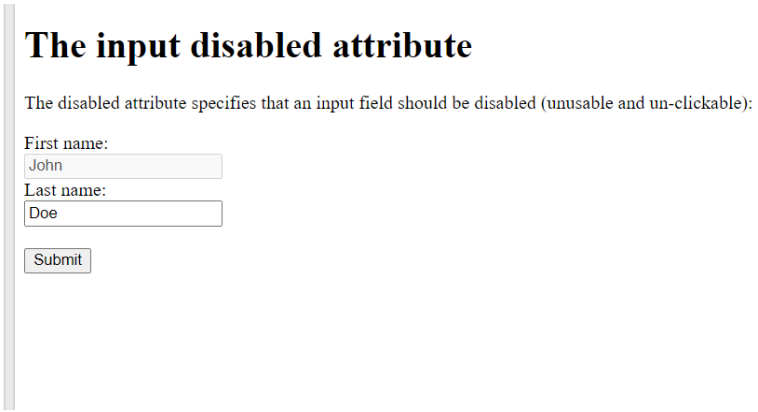
```
<!DOCTYPE html>
<html>
<body>

<h1>The input readonly attribute</h1>

<p>The readonly attribute specifies that an input field should be read-only (cannot be changed):</p>

<form action="/action_page.php">
  <label for="fname">First name:</label><br>
  <input type="text" id="fname" name="fname" value="John" readonly><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>
```



The disabled Attribute

The input `disabled` attribute specifies that an input field should be disabled.
A disabled input field is unusable and un-clickable.
The value of a disabled input field will not be sent when submitting the form!

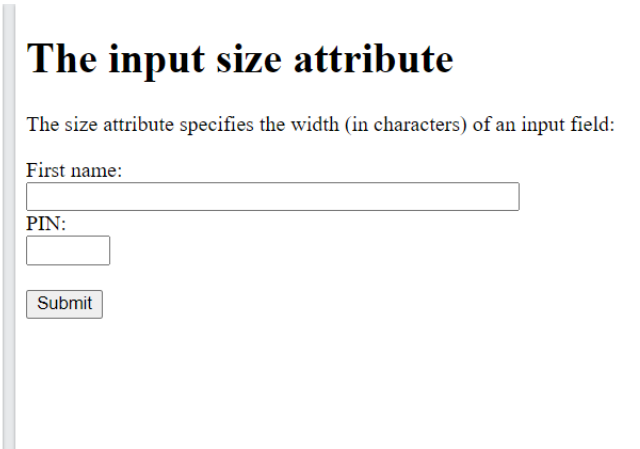
```
<!DOCTYPE html>
<html>
<body>

<h1>The input disabled attribute</h1>

<p>The disabled attribute specifies that an input field should be disabled (unusable and
un-clickable):</p>

<form action="/action_page.php">
  <label for="fname">First name:</label><br>
  <input type="text" id="fname" name="fname" value="John" disabled><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>
```



The size Attribute

The input `size` attribute specifies the visible width, in characters, of an input field.
The default value for `size` is 20.
Note: The `size` attribute works with the following input types: text, search, tel, url, email, and password.

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

<h1>The input size attribute</h1>

<p>The size attribute specifies the width (in characters) of an input field:</p>

<form action="/action_page.php">
  <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"><br><br>
  <input type="submit" value="Submit">
</form>

</body>
</html>
```

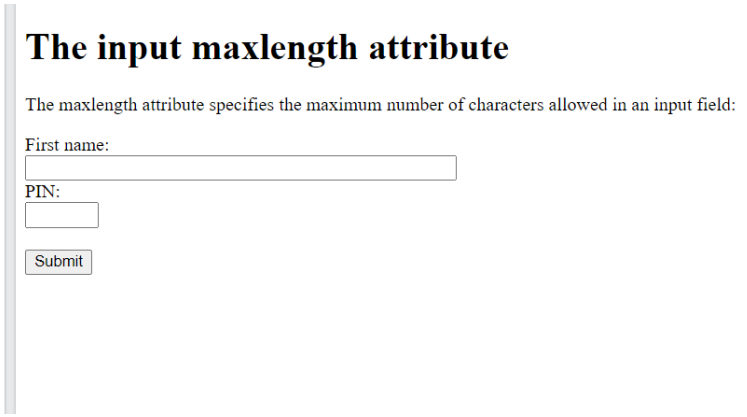


The maxlength Attribute

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

Note: When a `maxlength` is set, the input field will not accept more than the specified number of characters. However, this attribute does not provide any feedback. So, if you want to alert the user, you must write JavaScript code.

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

<h1>The input maxlength attribute</h1>

<p>The maxlength attribute specifies the maximum number of characters allowed in an input field:</p>

<form action="/action_page.php">
  <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"><br><br>
  <input type="submit" value="Submit">
</form>

</body>
</html>
```

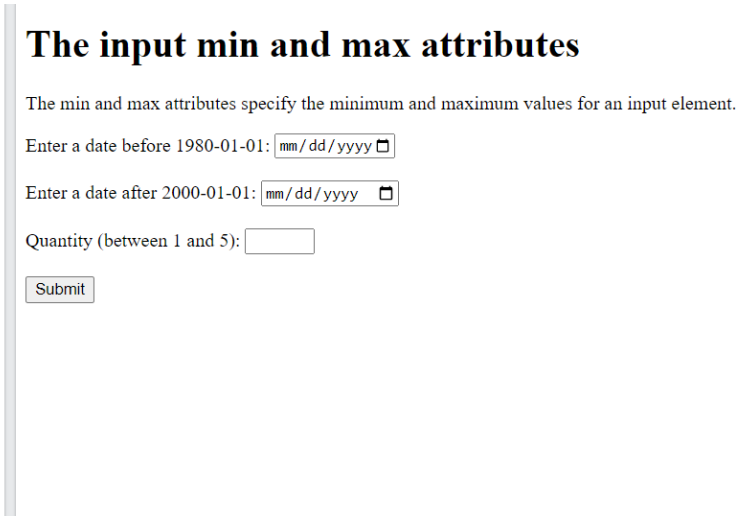


The min and max Attributes

The input `min` and `max` attributes specify the minimum and maximum values for an input field.
The `min` and `max` attributes work with the following input types: number, range, date, datetime-local, month, time and week.

Tip: Use the max and min attributes together to create a range of legal values.

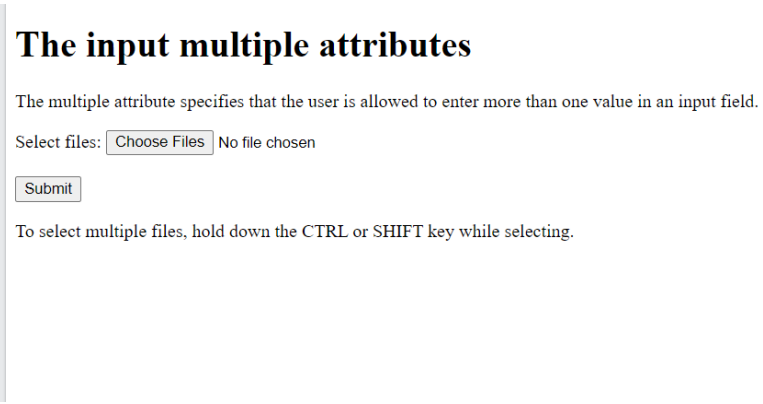
```
<!DOCTYPE html>
<html>
<body>

<h1>The input min and max attributes</h1>

<p>The min and max attributes specify the minimum and maximum values for an input element.</p>

<form action="/action_page.php">
  <label for="datemax">Enter a date before 1980-01-01:</label>
  <input type="date" id="datemax" name="datemax" max="1979-12-31"><br><br>

  <label for="datemin">Enter a date after 2000-01-01:</label>
  <input type="date" id="datemin" name="datemin" min="2000-01-02"><br><br>

  <label for="quantity">Quantity (between 1 and 5):</label>
  <input type="number" id="quantity" name="quantity" min="1" max="5"><br><br>

  <input type="submit" value="Submit">
</form>

</body>
</html>
```



The multiple Attribute

The input `multiple` attribute specifies that the user is allowed to enter more than one value in an input field.
The `multiple` attribute works with the following input types: email, and file.

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

<h1>The input multiple attributes</h1>

<p>The multiple attribute specifies that the user is allowed to enter more than one value
in an input field.</p>

<form action="/action_page.php">
  <label for="files">Select files:</label>
  <input type="file" id="files" name="files" multiple><br><br>
  <input type="submit" value="Submit">
</form>

<p>To select multiple files, hold down the CTRL or SHIFT key while selecting.</p>

</body>
</html>
```

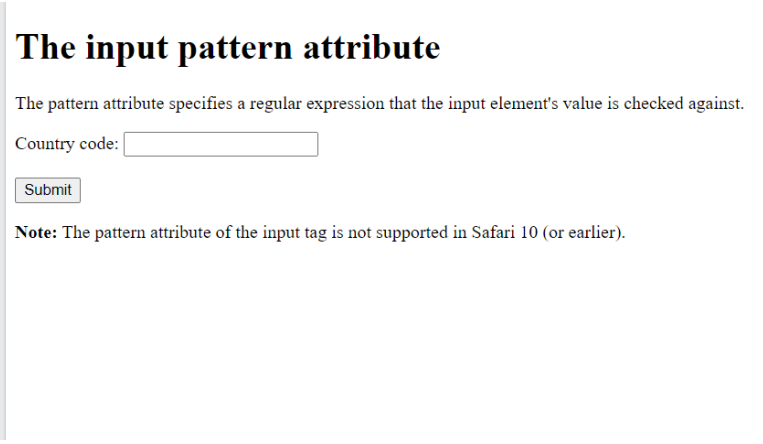


The pattern Attribute

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.

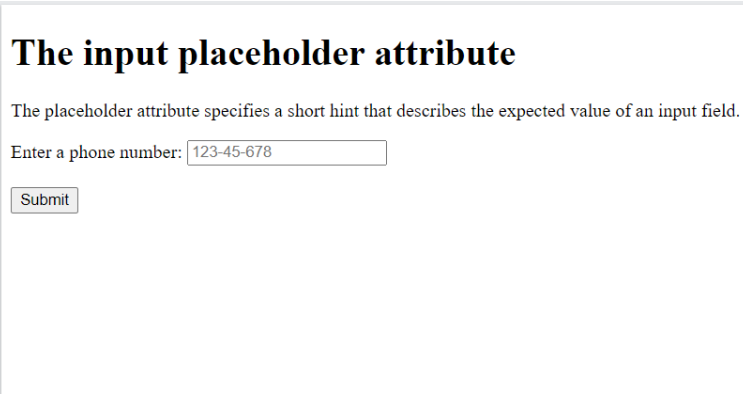
```
<!DOCTYPE html>
<html>
<body>

<h1>The input pattern attribute</h1>

<p>The pattern attribute specifies a regular expression that the input element's value is
checked against.</p>

<form action="/action_page.php">
  <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"><br><br>
  <input type="submit" value="Submit">
</form>

<p><strong>Note:</strong> The pattern attribute of the input tag is not supported in
Safari 10 (or earlier).</p>

</body>
</html>
```



The placeholder Attribute

The input `placeholder` attribute specifies a short hint that describes the expected value of an input field (a sample value or a short description of the expected format).
The short hint is displayed in the input field before the user enters a value.
The `placeholder` attribute works with the following input types: text, search, url, tel, email, and password.

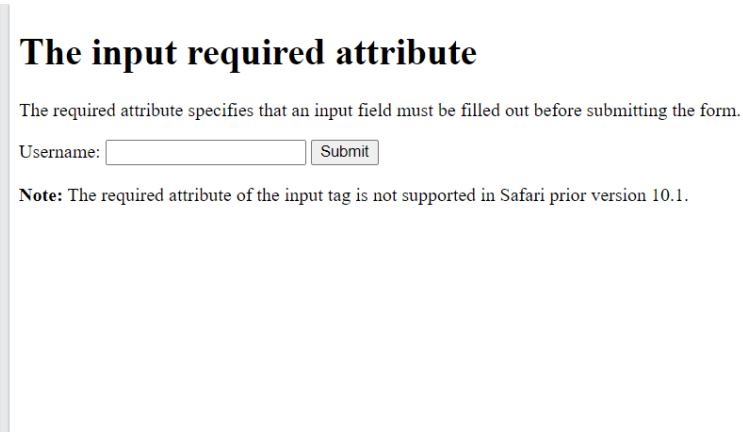
```
<!DOCTYPE html>
<html>
<body>

<h1>The input placeholder attribute</h1>

<p>The placeholder attribute specifies a short hint that describes the expected value of an input field.</p>

<form action="/action_page.php">
  <label for="phone">Enter a phone number:</label>
  <input type="tel" id="phone" name="phone" placeholder="123-45-678" pattern="[0-9]{3}-[0-9]{2}-[0-9]{3}"><br><br>
  <input type="submit" value="Submit">
</form>

</body>
</html>
```



The required Attribute

The input `required` attribute specifies that an input field must be filled out before submitting the form.
The `required` attribute works with the following input types: text, search, url, tel, email, password, date pickers, number, checkbox, radio, and file.

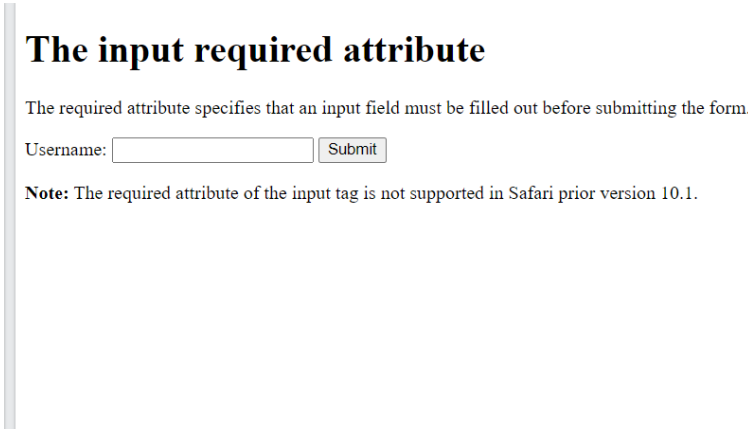
```
<!DOCTYPE html>
<html>
<body>

<h1>The input required attribute</h1>

<p>The required attribute specifies that an input field must be filled out before submitting the form.</p>

<form action="/action_page.php">
  <label for="username">Username:</label>
  <input type="text" id="username" name="username" required>
  <input type="submit" value="Submit">
</form>

<p><strong>Note:</strong> The required attribute of the input tag is not supported in Safari prior version 10.1.</p>

</body>
</html>
```



The step Attribute

The input `step` attribute specifies the legal number intervals for an input field.
Example: if step="3", legal numbers could be -3, 0, 3, 6, etc.
Tip: This attribute can be used together with the max and min attributes to create a range of legal values.
The `step` attribute works with the following input types: number, range, date, datetime-local, month, time and week.

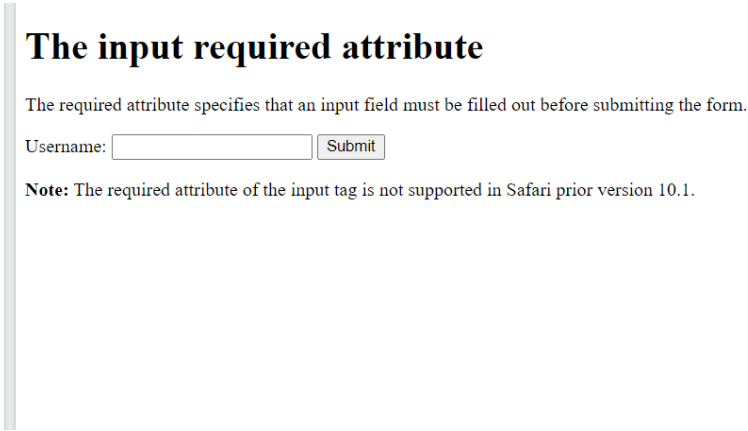
```
<!DOCTYPE html>
<html>
<body>

<h1>The input required attribute</h1>

<p>The required attribute specifies that an input field must be filled out before
submitting the form.</p>

<form action="/action_page.php">
  <label for="username">Username:</label>
  <input type="text" id="username" name="username" required>
  <input type="submit" value="Submit">
</form>

<p><strong>Note:</strong> The required attribute of the input tag is not supported in
Safari prior version 10.1.</p>

</body>
</html>
```



The autofocus Attribute

The input `autofocus` attribute specifies that an input field should automatically get focus when the page loads.

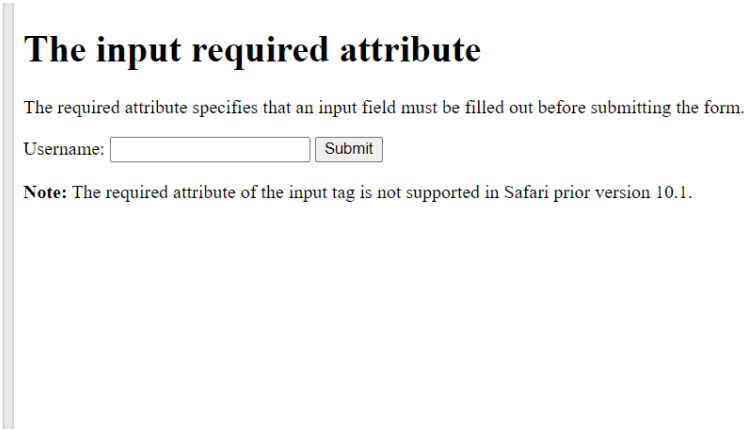
```
<!DOCTYPE html>
<html>
<body>

<h1>The input required attribute</h1>

<p>The required attribute specifies that an input field must be filled out before
submitting the form.</p>

<form action="/action_page.php">
  <label for="username">Username:</label>
  <input type="text" id="username" name="username" required>
  <input type="submit" value="Submit">
</form>

<p><strong>Note:</strong> The required attribute of the input tag is not supported in
Safari prior version 10.1.</p>

</body>
</html>
```



The list Attribute

The input `list` attribute refers to a `<datalist>` element that contains pre-defined options for an <input> element.

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

<h1>The input required attribute</h1>

<p>The required attribute specifies that an input field must be filled out before
submitting the form.</p>

<form action="/action_page.php">
  <label for="username">Username:</label>
  <input type="text" id="username" name="username" required>
  <input type="submit" value="Submit">
</form>

<p><strong>Note:</strong> The required attribute of the input tag is not supported in
Safari prior version 10.1.</p>

</body>
</html>
```



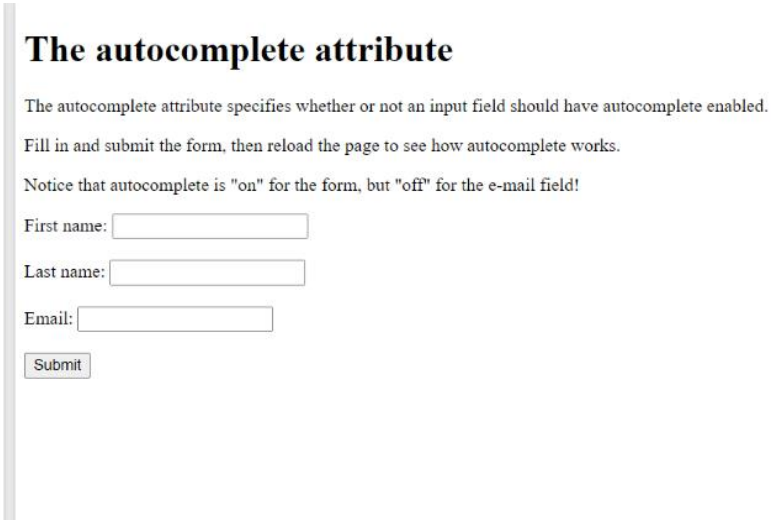
The autocomplete Attribute

The input `autocomplete` attribute specifies whether a form or an input field should have autocomplete on or off.

Autocomplete allows the browser to predict the value. When a user starts to type in a field, the browser should display options to fill in the field, based on earlier typed values.

The `autocomplete` attribute works with `<form>` and the following `<input>` types: text, search, url, tel, email, password, datepickers, range, and color.

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

<h1>The autocomplete attribute</h1>

<p>The autocomplete attribute specifies whether or not an input field should have
autocomplete enabled.</p>

<p>Fill in and submit the form, then reload the page to see how autocomplete works.</p>

<p>Notice that autocomplete is "on" for the form, but "off" for the e-mail field!</p>

<form action="/action_page.php" autocomplete="on">
  <label for="fname">First name:</label>
  <input type="text" id="fname" name="fname"><br><br>
  <label for="lname">Last name:</label>
  <input type="text" id="lname" name="lname"><br><br>
  <label for="email">Email:</label>
  <input type="email" id="email" name="email" autocomplete="off"><br><br>
  <input type="submit" value="Submit">
</form>

</body>
</html>
```



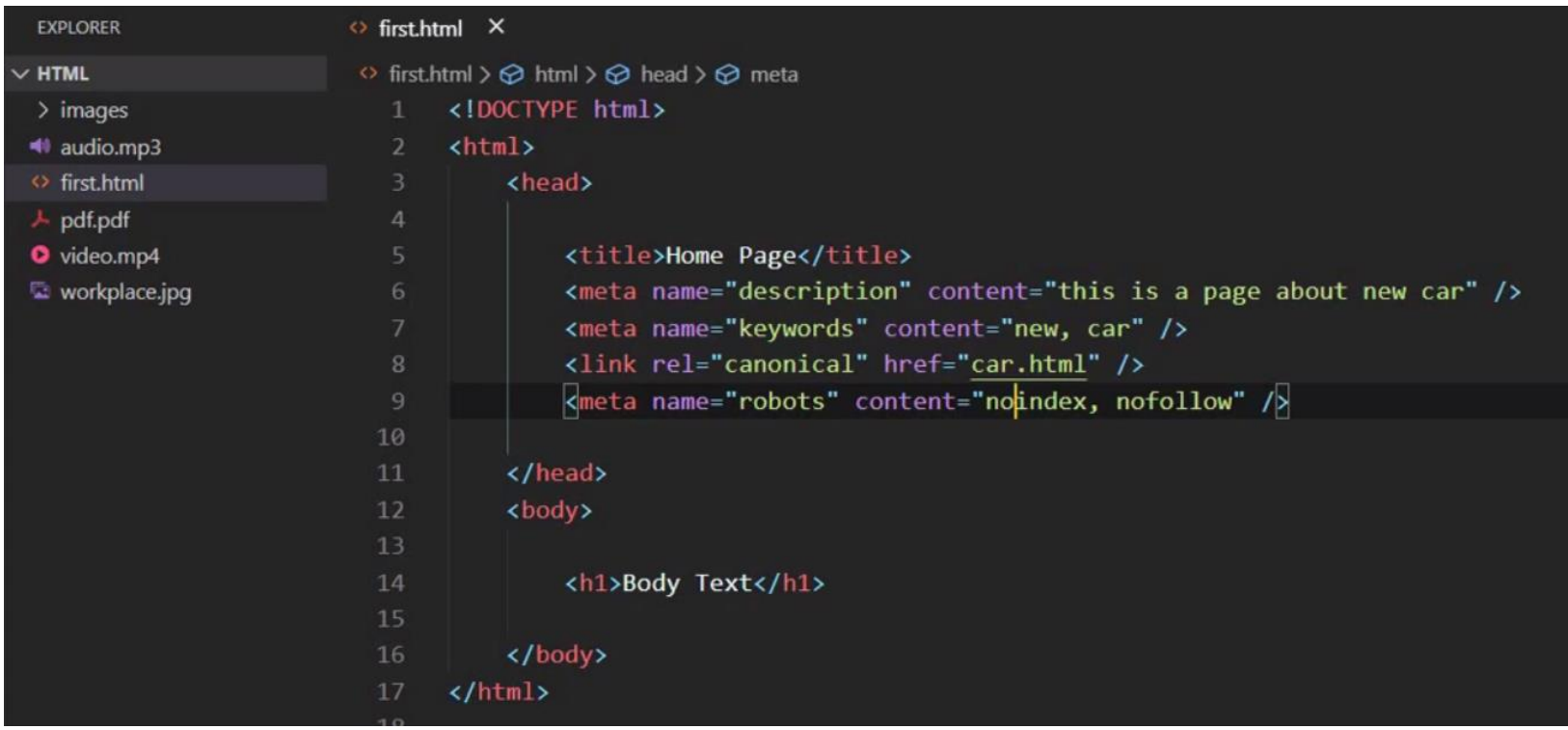
HTML Favicon

You can use any image you like as your favicon

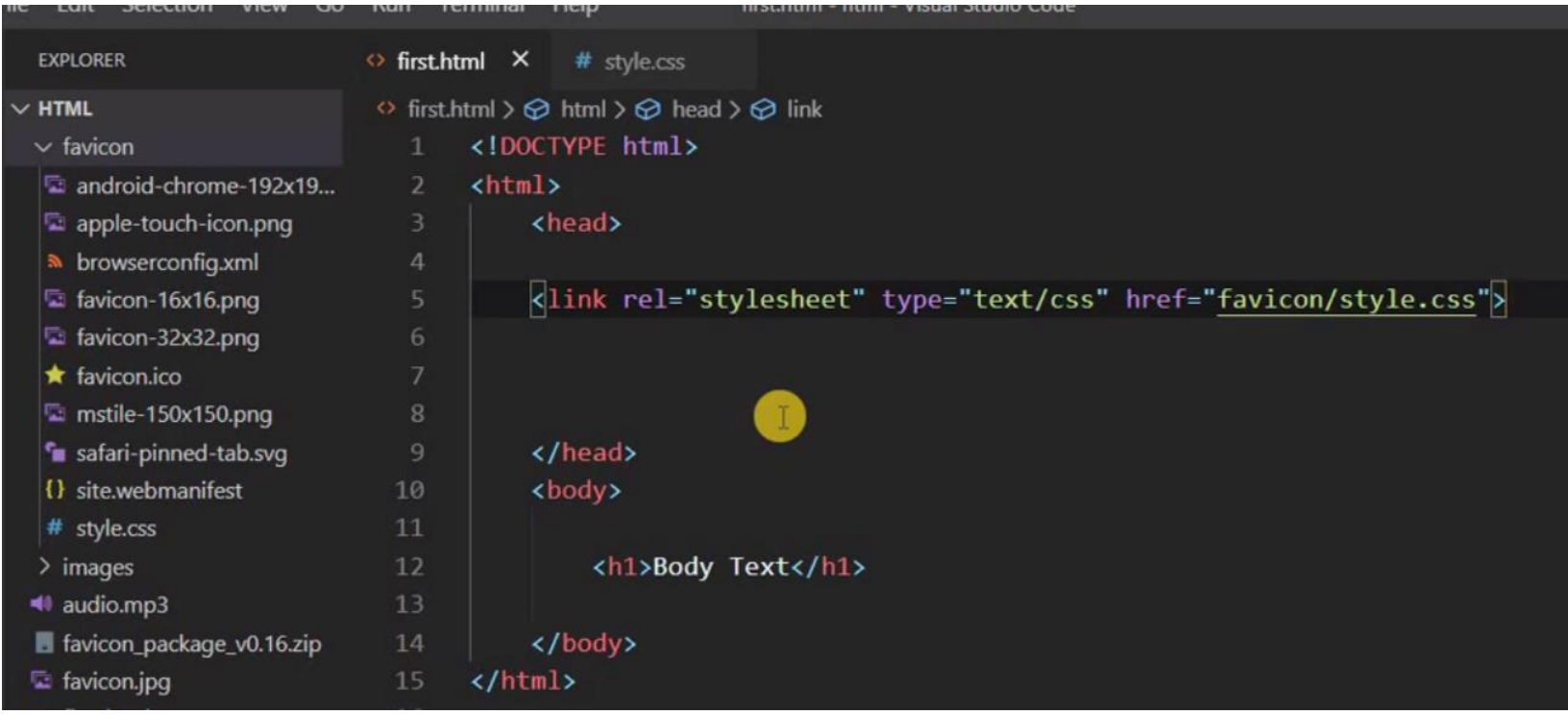
Step –

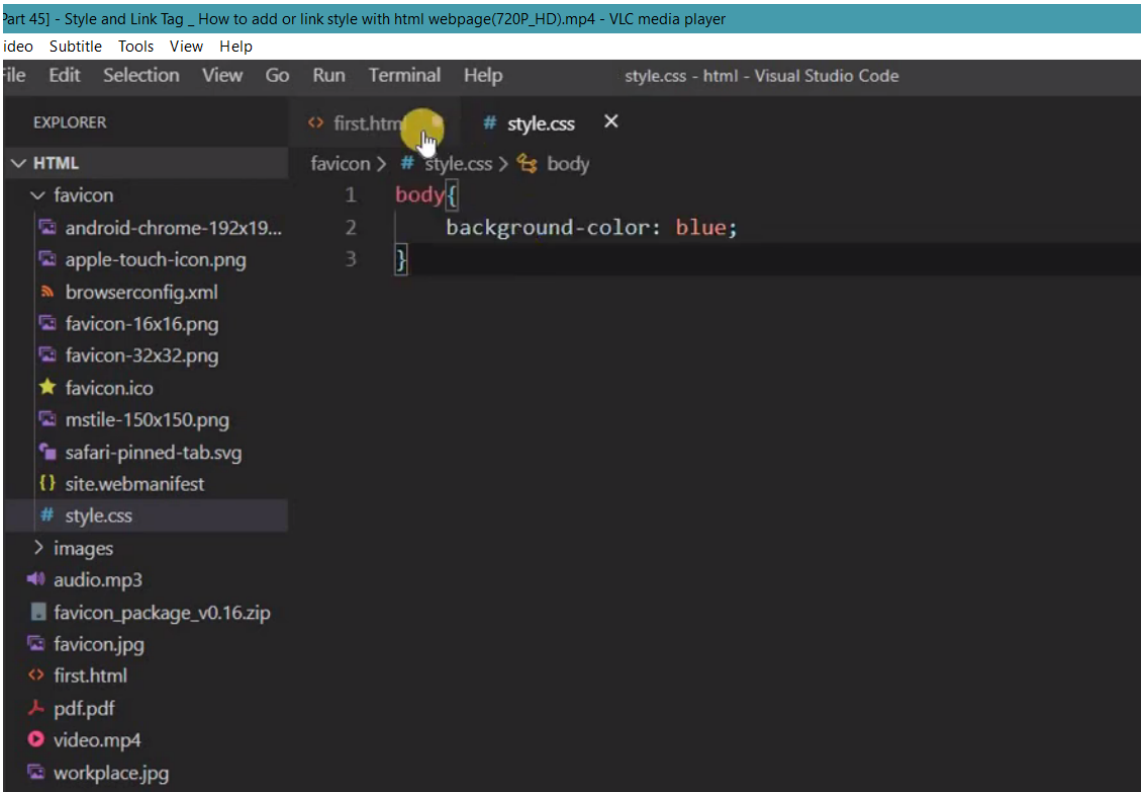
First select a image go to favion generator .

Uploade that image , copy html code and paste

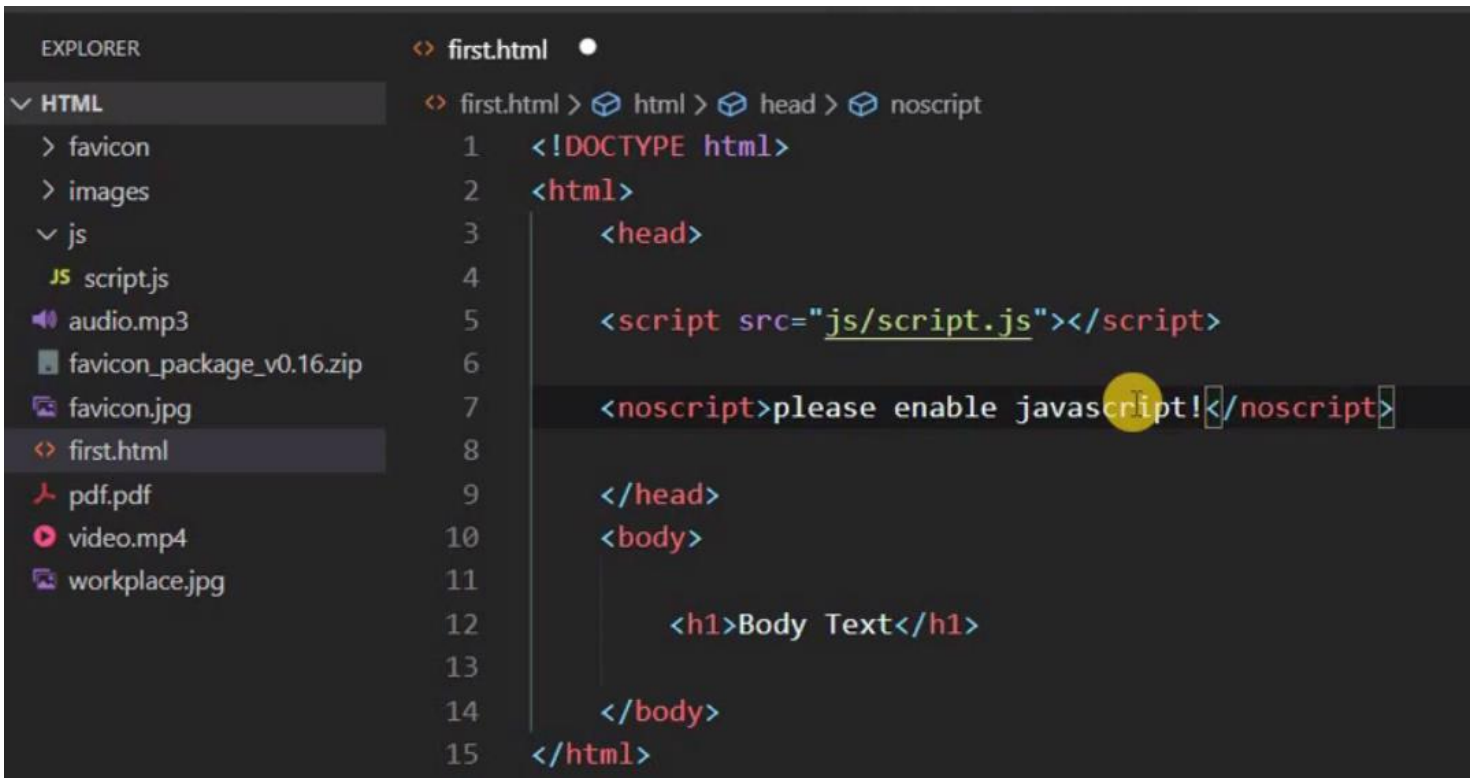


How to add or link style tag with html .

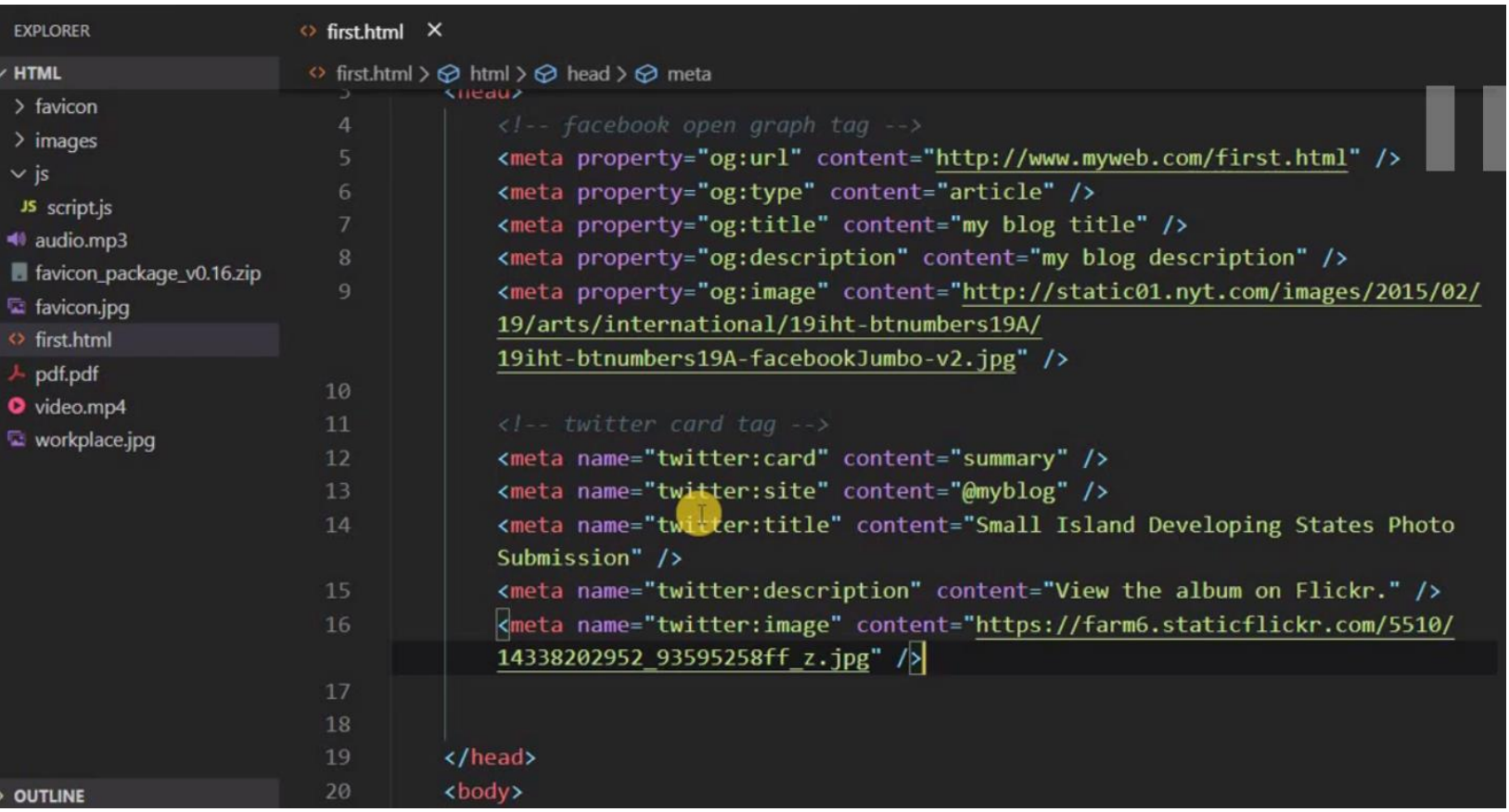




How to add JS IN html



(OG TAG OPEN GRAPH TAG FACEBOOK) AND (TWITTER CARD TAG)

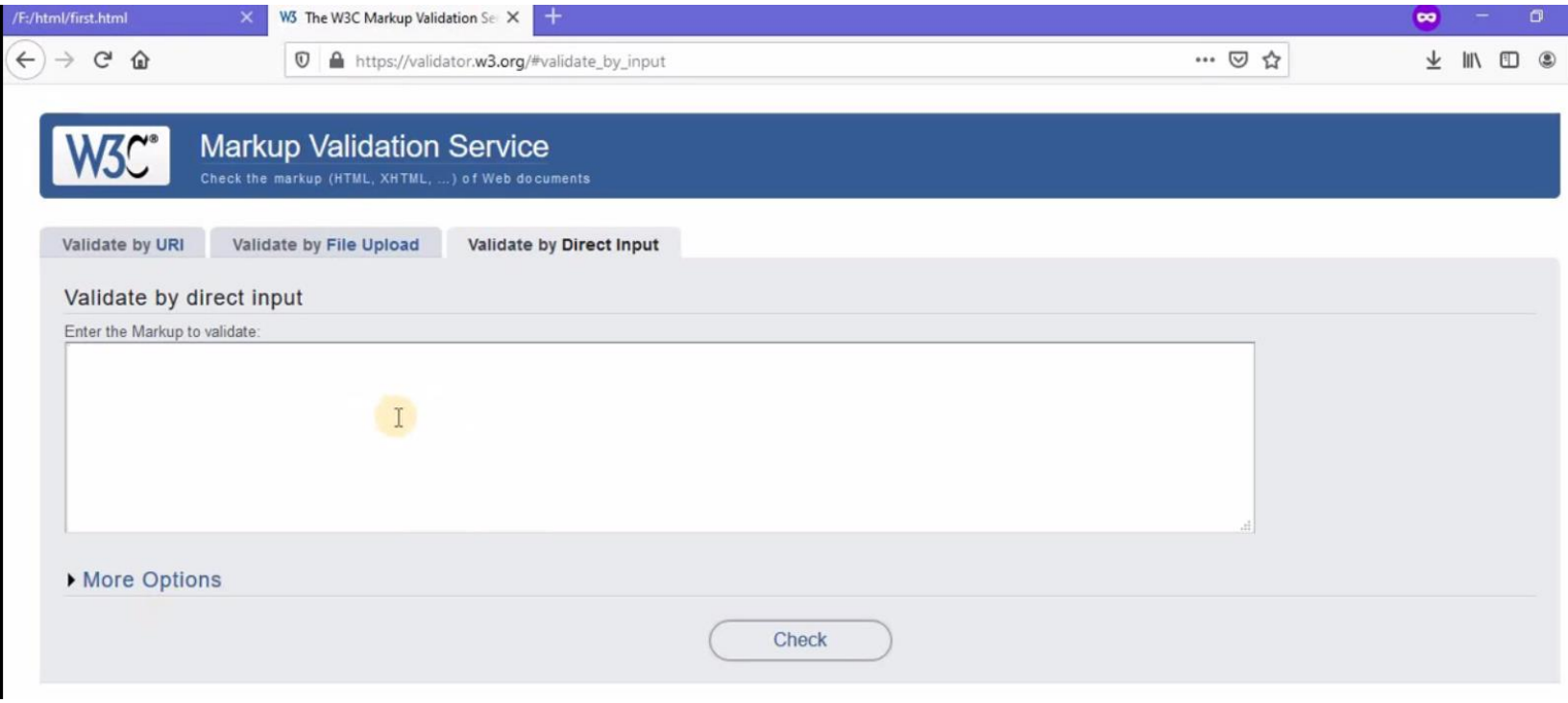


RIGHT TO LEFT A WEB PAGE (AREBIC LANGUAGE)

W3C AND W3C MARKUP VALIADATION

GO TO SITE W3C

AND COPY PASTE HTML TO CHECK error in code



File Edit Selection View Go Run Terminal Help index.html - cchapter2 - Visual Studio Code

EXPLORER

CCHAPTER2
- .vscode
- about.html
- image.jpg
- index.html

Get Started | index.html | about.html

index.html > html > body > br

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Document</title>
</head>
    <body>
    <h1>List of books</h1>
    <h2>List of books</h2>
    <h3>List of books</h3>
    <h4>List of books</h4>
    <h5>List of books</h5>
    <h6>List of books</h6><hr>
    <p>Lorem, ipsum dolor sit amet consectetur adipisicing elit.
    </p><hr>
    <!-- bold italic tag  -->
    <b>this is bold tag</b><br>
    <i>this is italic tag</i><br>
    <u>this is underline</u><br>
    <big>this is big</big><br>
    <small>this is small</small><br>
    CO<sub>2</sub><br>
    a<sup>2</sup><hr>

    <!-- example of absolute link  -->
    <a href="http://www.google.com">click here</a><br>
    <!-- relative link example  -->
    <a href="/about.html">about</a> <hr><br>
    <pre>Python Programming Examples
        Last Updated : 01 Jul, 2022


       The following Python section contains a wide collection of Python programming examples.
        The examples are categorized based on the topics including List, strings, dictionary,
        tuple, sets, and many more. Each program example contains multiple approaches to solve the problem.</pre><hr>
    <!-- image tag -->
    <img src="image.jpg" alt="image of laptop, phone"width="500" height="250">
    <img src="https://cdn.searchenginejournal.com/wp-content/uploads/2019/08/c573bf41-6a7c-4927-845c-4ca0260aad6b-1520x800.jpeg" alt="why" width="500" height="200" >
    </body>
</html>
```

File Edit Selection View Go Run Terminal Help about.html - cchapter2 - Visual Studio Code

EXPLORER

CCHAPTER2
- .vscode
- about.html
- image.jpg
- index.html

Get Started | index.html | about.html

about.html > html > body

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Document</title>
</head>
<body>
    Lorem ipsum dolor sit amet consectetur adipisicing elit. Earum velit magni sint illum quidem perspiciatis maxime placeat, consequuntur omnis, inventore temporibus qui iste recusandae ipsam non.
    Fugiat nihil, ducimus aliquam voluptatem vero temporibus perspiciatis porro dolorum nostrum facilis vitae! Ipsam facilis rem error officiis excepturi. Voluptatem illum provident id minus.
</body>
</html>
```

output

Document | Python Programming Examples | W3Schools Tryit Editor

127.0.0.1:5502/index.html

Apps | Gmail | Python String Meth... | open chorme codin... | LinkedIn | Python - Geeksfor... | CodeWithHarry | Applications | Amaz... | New folder | Home | Mynaukri

List of books

List of books

List of books

List of books

List of books

List of books

Lorem, ipsum dolor sit amet consectetur adipisicing elit.

---

this is bold tag
this is italic tag
this is underline
this is big
<small>this is small</small>
CO_2
a^2

---

click here
about

```
Python Programming Examples
        Last Updated : 01 Jul, 2022


        The following Python section contains a wide collection of Python programming examples.
         The examples are categorized based on the topics including List, strings, dictionary,
         tuple, sets, and many more. Each program example contains multiple approaches to solve the problem.
```

HTML Encoding (Character Sets)

To display an HTML page correctly, a web browser must know which character set to use.

To display an HTML page correctly, a web browser must know the character set used in the page.

This is specified in the `<meta>` tag:

```
<meta charset="UTF-8">
```

HTML Uniform Resource Locators (URL)

A URL is another word for a web address.

A URL can be composed of words (e.g. w3schools.com), or an Internet Protocol (IP) address (e.g. 192.68.20.50).

Most people enter the name when surfing, because names are easier to remember than numbers.

URL - Uniform Resource Locator

Web browsers request pages from web servers by using a URL.

A Uniform Resource Locator (URL) is used to address a document (or other data) on the web.

A web address like https://www.w3schools.com/html/default.asp follows these syntax rules:

```
scheme://prefix.domain:port/path/filename
```

Explanation:

- **scheme** - defines the **type** of Internet service (most common is **http or https**)
- **prefix** - defines a domain **prefix** (default for http is **www**)
- **domain** - defines the Internet **domain name** (like w3schools.com)
- **port** - defines the **port number** at the host (default for http is **80**)
- **path** - defines a **path** at the server (If omitted: the root directory of the site)
- **filename** - defines the name of a document or resource

Common URL Schemes

table below lists some common schemes:

Scheme	Short for	Used for
http	HyperText Transfer Protocol	Common web pages. Not encrypted
https	Secure HyperText Transfer Protocol	Secure web pages. Encrypted
ftp	File Transfer Protocol	Downloading or uploading files
file		A file on your computer

URL Encoding

URLs can only be sent over the Internet using the ASCII character-set. If a URL contains characters outside the ASCII set, the URL has to be converted.

URL encoding converts non-ASCII characters into a format that can be transmitted over the Internet.

URL encoding replaces non-ASCII characters with a "%" followed by hexadecimal digits.

URLs cannot contain spaces. URL encoding normally replaces a space with a plus (+) sign, or %20.