

Getting started with HTML

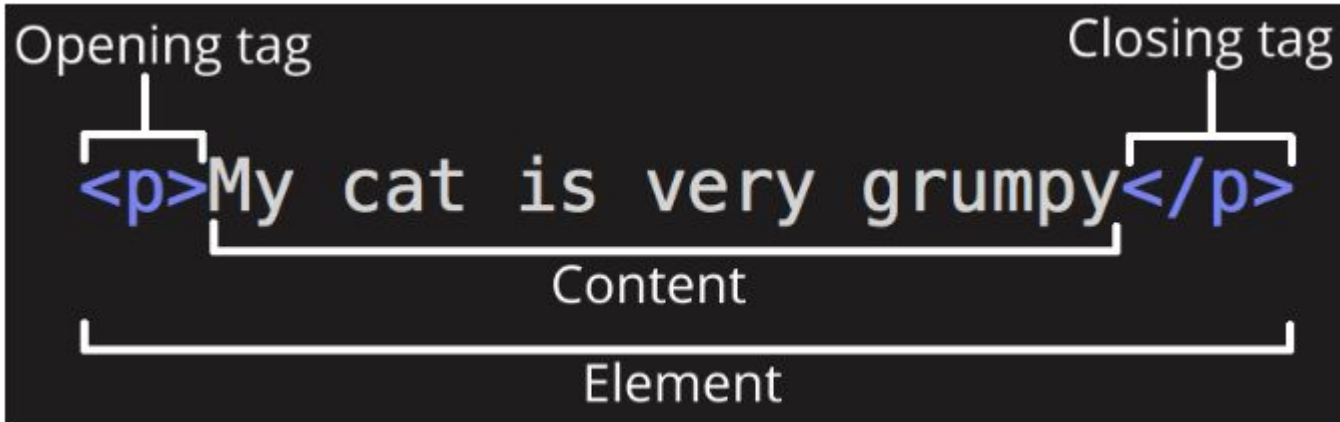


What is HTML ?

1. HTML (**Hypertext Markup Language**) is not a programming language
2. it is a markup language used to tell your browser how to structure the web pages you visit
3. It can be as complicated or as simple as the web developer wishes it to be
4. HTML consists of a series of elements, which you use to enclose, wrap, or mark up different parts of the content to make it appear or act a certain way
5. The enclosing tags can make a bit of content into a hyperlink to link to another page on the web, italicize words, and so on

HTML element

1. The 'Closing Tag' is a must, but some elements don't need a closing tag, like empty elements ``.
2. The content of HTML element doesn't have to be just string.
3. Like: `<p>My cat is very grumpy</p>`



Block VS Inline elements

Block-level elements like: p, div, section, header, footer, ul, ol etc.,

Inline elements like: a, span, em, strong etc.,

We can use css to change the this behavior which will be explored in later lecture

[Demo](#)

Attributes



```
<p class="editor-note">My cat is very grumpy</p>
```

appear in the actual content.

Some attributes can be applied to all elements, some attributes can only be used to a specific element

The '**class**' is like a mark for this element, which will be used if we want to select the element in css or javascript. For unique element, '**id**' would be used

[Example of <a> and <input> to show the use of attribute](#)

A HTML Web Page

Demo

Special characters in HTML

The characters like: <, >, “, ‘, & etc,. are special characters.

Here is the list of them: <https://dev.w3.org/html5/html-author/charref>

[Demo](#)

The `<head>` element. Metadata in HTML

1. The head of an HTML document is the part that is not displayed in the web browser when the page is loaded.
2. It contains information such as the page `<title>`, CSS, javascripts, links to custom favicons, and other metadata (data about the HTML, such as the author, and important keywords that describe the document.)
3. [Open Graph Data](#) is a metadata protocol that Facebook invented to provide richer metadata for websites

<title> element

The <title> element is metadata that represents the title of the overall HTML page.

It will be shown as the tab name, it will also be the name if when you save the page into bookmark

Quick Demo

I -- Metadata in <meta>

Metadata is data that describes data, and HTML has an official way of adding it.

<meta charset="utf-8"> This simply specifies the document's character encoding -- the character set that the document is permitted to use.

"Utf-8" is a universal character set that includes pretty much any character from any human language, which means that your web page will be able to handle displaying any language

If you set character encoding to ISO-8859-1, try this element

<p>Japanese example: ご飯が熱い。</p>

II -- Metadata in <meta>

Add author and description

```
<meta name="author" content="Chris Mills">
```

```
<meta name="description" content="intro and keywords about your website">
```

Specifying a description that includes keywords relating to the content of your page is useful as it has the potential to make your page appear higher in relevant searches performed in search engines (**SEO -- Search Engine Optimization**)

III -- Open Graph Data in <meta>

```
<meta property="og:image" content="some_image.png">
```

```
<meta property="og:description" content="Web Site description">
```

```
<meta property="og:title" content="the title you want to show">
```

[Open Graph Data](#) is a metadata protocol that Facebook invented to provide richer metadata for websites.

Twitter also has its own similar proprietary metadata, which has a similar effect when the site's URL is displayed on twitter.com.

```
<meta name="twitter:title" content="Mozilla Developer Network">
```

Add custom icons to your site

```
<link rel="shortcut icon" href="favicon.ico" type="image/x-icon">
```

Saving it in the same directory as the site's index page, saved in .ico(.gif .png) format

Take a look it in Gmail

Applying Css and Javascript to HTML

<head>

```
<link href='my-css.css' rel='stylesheet'>
```

The <link> element always goes inside the head of your document. This takes two attributes, rel="stylesheet", which indicates that it is the document's stylesheet, and href, which contains the path to the stylesheet file

```
<script href='my-scripts.js' type='application/javascript'></script>
```

The <script> element does not have to go in the head, in most case it is better to have it at the bottom of the page

</head>

Language of the HTML

`<html lang="en-US">`

Your HTML document will be indexed more effectively by search engines

it is useful to people with visual impairments using screen readers

Also you can set it in the subsection of your document

`<p>Japanese example: ご飯が熱い。.</p>`

Basics Heading and Paragraphs

`<h1> <h2> <h3> <h4> <h5> <h6>` heading element

`<p>` Paragraph element

1. Users looking at a web page tend to scan quickly to find relevant content
2. Search engines indexing your page consider the contents of headings as important keywords for influencing the page's search rankings.
3. Help screen reader(accessibility) to get the important info of the page

More elements for Paragraphs

 for listing content

<i> <u>

Hyperlinks by <a>

 link test

The value of href could any path/url that can live on the web

If the web browser doesn't know how to display or handle the file, it will ask you if you want to open the file (in which case the duty of opening or handling the file is passed to a suitable native app on the device) or download the file (in which case you can try to deal with it later on.)

Exp: the Mozilla homepage

[More demo](#)

URLs and paths

URL or Uniform Resource Locator is simply a string of text that defines where something is located on the Web

Paths specify where in the filesystem the file you are interested in is located

Demo in index.html:

<p>Want to contact a specific staff member?

Find details on our contacts page.</p>

<p>Visit my project homepage.</p>

<p>A link to my project brief.</p>

Absolute and relative path

Use `<a>` to find document fragment

```
<h2 id="Mailing_address">Mailing address</h2>
```

```
<p>Want to write us a letter? Use our <a  
href="contacts.html#Mailing_address">mailing address</a>.</p>
```

```
<p>The <a href="#Mailing_address">company mailing address</a> can be found at  
the bottom of this page.</p>
```

Download

```
<a href="xxx.jpg" download>
```

E-mail links by <a>

email to nowhere

Href format to send email :

mailto:cj@gmail.com,nobody@mozilla.org

mailto:nowhere@corp.org?cc=nobody@corp.org

[mailto:nowhere@corp.org](mailto:nowhere@corp.org?cc=nobody@corp.org&subject=This%20is%20the%20subject)?cc=nobody@corp.org&subject=This%20is%20the%20subject

https://developer.mozilla.org/en-US/docs/Learn/HTML/Introduction_to_HTML/Creating_hyperlinks#E-mail_links

Website structure with semantic tag

Header: <header>

Nav bar: <nav>

Main content: <main> <article> <section> <div>

Sidebar: <aside>

Footer: <footer>

[Demo](#) -
 <hr>

https://www.w3schools.com/html/html5_new_elements.asp

Form elements - input

<input> type could text, number, password, submit, radio, checkbox, button, color, date, email, month, range, file etc.,.

Attribute: disabled, maxlength, readonly, size, value

New for HTML5: required, max, min, step, pattern, etc.,.

Demo

Other form elements

<select> and <option>

<textarea>

Use <label> to control elements

<fieldset> and <legend>

[Demo](#)

<Table>

Demo

<https://developer.mozilla.org/en-US/docs/Web/HTML/Element/table>

Canvas and SVG

https://www.w3schools.com/html/html_responsive.asp

https://www.w3schools.com/html/html5_svg.asp

https://www.w3schools.com/html/html5_canvas.asp

[HTML Multimedia](#)