

Lab 02. HTML (2)

인터넷과웹기초

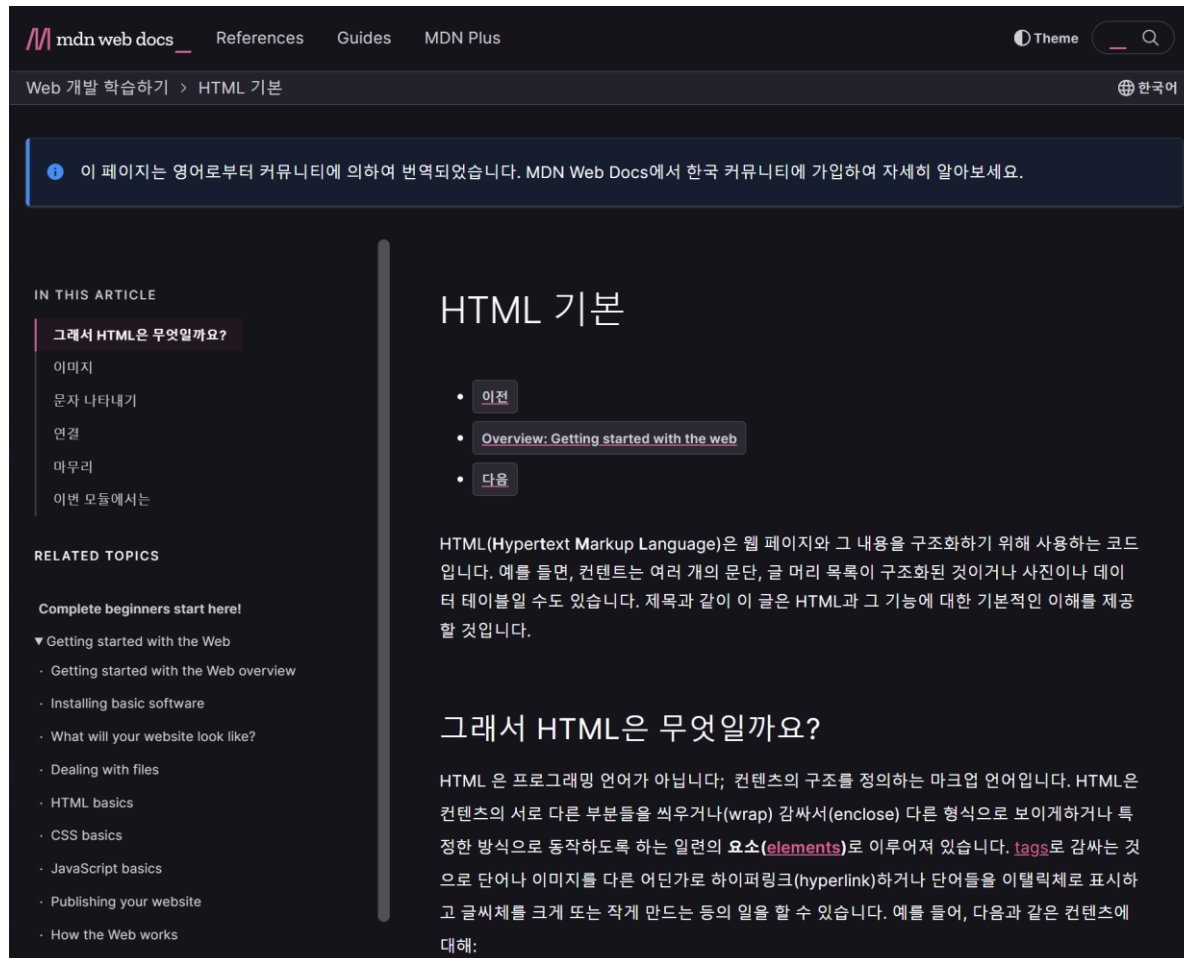


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- HTML Multimedia
- HTML File Paths
- HTML Class and ID
- HTML Links
- HTML Forms
- HTML Semantic Elements
- HTML DOM

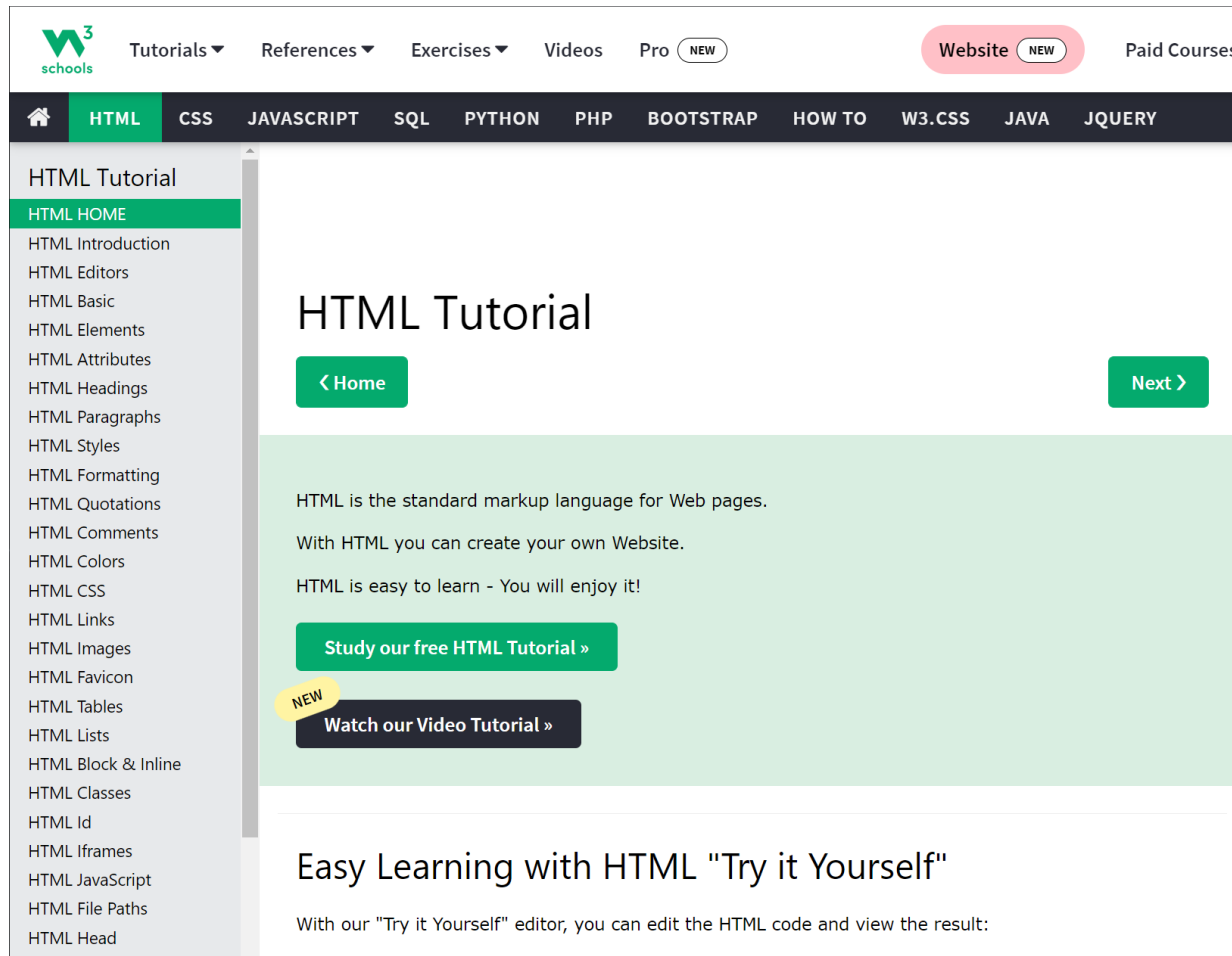
References

- MDN Web Docs
 - [link](#)



References

- W3schools
 - [link](#)



Multimedia



Images

- ``
 - The HTML `` tag is used to embed an image in a web page.
 - `src` : Specifies the path to the image
 - `alt` : Specifies an alternate text for the image
 - `width` : width of image in pixels
 - `height` : height of image in pixels

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

```
HTML ▾
<html>
  <head>
  </head>
  <body>
    
  </body>
</html>
```



Audio

- `<audio>`
 - It is used to embed sound content in a document.
- Type of audio files
 - MP3 (.mp3)
 - OGG (.ogg, .oga)
 - WAV (.wav)

Audio Format and Browser Support

Browser	MP3	WAV	OGG
Edge / IE	YES	YES*	YES*
Chrome	YES	YES	YES
Firefox	YES	YES	YES
Safari	YES	YES	NO
Opera	YES	YES	YES

https://www.w3schools.com/tags/tag_audio.asp



Audio

- Attributes

Attribute	Value	Description
<u>autoplay</u>	autoplay	Specifies that the audio will start playing as soon as it is ready
<u>controls</u>	controls	Specifies that audio controls should be displayed (such as a play/pause button etc)
<u>loop</u>	loop	Specifies that the audio will start over again, every time it is finished
<u>muted</u>	muted	Specifies that the audio output should be muted
<u>preload</u>	auto metadata none	Specifies if and how the author thinks the audio should be loaded when the page loads
<u>src</u>	URL	Specifies the URL of the audio file

Audio

- examples



Result Size: 625 x 1173

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

<h1>The audio element</h1>

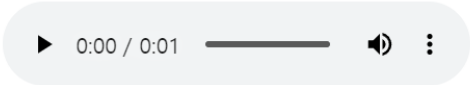
<p>Click on the play button to play a sound:</p>

<audio controls>
  <source src="horse.ogg" type="audio/ogg">
  <source src="horse.mp3" type="audio/mpeg">
  Your browser does not support the audio element.
</audio>

</body>
</html>
```

The audio element







Click on the play button to play a sound:



Video

- `<video>`
 - It is used to embed video content in a document.

- Examples



Result Size: 625 x 1173


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

<h1>The video element</h1>

<video width="320" height="240" controls>
  <source src="movie.mp4" type="video/mp4">
  <source src="movie.ogv" type="video/ogg">
  Your browser does not support the video tag.
</video>

</body>
</html>
```

The video element





File Paths

File Paths




- A file path describes the location of a file in a web site's folder structure.
- File paths are used when linking to external files like:
 - Web pages
 - Images
 - Style sheets
 - JavaScript

Path	Description
<code></code>	picture.jpg is located in the same folder as the current page
<code></code>	picture.jpg is located in the images folder in the current folder
<code></code>	picture.jpg is located in the images folder at the root of the current web
<code></code>	picture.jpg is located in the folder one level up from the current folder

Absolute File Paths

- An absolute file path is the **full URL** to an internet file:

[Home](#) > [HTML](#) > [HTML file paths](#) > Tryit: absolute url

    [Run](#) >


Result Size: 625 x 1142

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

<h2>Using a Full URL File Path</h2>


</body>
</html>
```

Using a Full URL File Path



Relative File Paths

- A relative file path points to a file relative to the current page.

HomeHTMLHTML file pathsTryit: relative url

Run >

Result Size: 625 x 1142

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


<h2>Using a Relative File Path</h2>


</body>
</html>
<!DOCTYPE html>
<html>
<body>


<h2>Using a Relative File Path</h2>


</body>
</html>
```

Using a Relative File Path



Using a Relative File Path





Class and ID





Class

- The HTML class attribute is used to specify a class for an HTML element.
 - To a class name in a style sheet
 - To access and manipulate elements with the specific class name
- HTML elements can belong to more than one class.
- Different HTML elements can point to the same class name.
- To create a Class
 - Write a period (.) character, followed by a class name.
 - Define the CSS properties within curly braces { }

Class

- Examples

[Home](#) > [HTML](#) > [HTML Classes](#) Tryit: HTML class attribute



Run >

Result Size: 625 x 1142 [Get your own website](#)

```
<!DOCTYPE html>
<html>
<head>
<style>
.city {
  background-color: tomato;
  color: white;
  border: 2px solid black;
  margin: 20px;
  padding: 20px;
}
.main {
text-align: center
}
</style>
</head>
<body>

<div class="city">
<h2>London</h2>
<p>London is the capital of England.</p>
</div>

<div class="city main">
<h2>Paris</h2>
<p>Paris is the capital of France.</p>
</div>

<div class="city">
<h2>Tokyo</h2>
<p>Tokyo is the capital of Japan.</p>
</div>

</body>
</html>
```

London

London is the capital of England.

Paris

Paris is the capital of France.

Tokyo

Tokyo is the capital of Japan.






ID

- The id attribute specifies a unique id for an HTML element.
 - To point to a specific style declaration
 - To access and manipulate the element with the specific id
- The value of the id attribute must be unique within the HTML document.
- The syntax for id is:
 - Write a hash character (#), followed by an id name
 - Define the CSS properties within curly braces { }

ID

- Examples

[Home](#) [HTML](#) [HTML id attribute](#) Tryit: use id to style element

    [Run](#) 

Result Size: 625 x 1142 [Get your own website](#)

```
<!DOCTYPE html>
<html>
<head>
<style>
#myHeader {
  background-color: lightblue;
  color: black;
  padding: 40px;
  text-align: center;
}
</style>
</head>
<body>

<h2>The id Attribute</h2>
<p>Use CSS to style an element with the id "myHeader":</p>

<h1 id="myHeader">My Header</h1>

</body>
</html>
```

The id Attribute

Use CSS to style an element with the id "myHeader":

My Header



Links

Links

- The HTML `<a>` tag defines a hyperlink.
 - ` link text `
- The most important attribute of the `<a>` element is the `href` attribute, which indicates the link's destination.
- The `target` attribute specifies where to open the linked document.
 - `_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

Defines a set of links.

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



Result Size: 625 x 1173

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

<h1>The nav element</h1>

<p>The nav element defines a set of navigation links:</p>

<nav>
<a href="/html/">HTML</a> |
<a href="/css/">CSS</a> |
<a href="/js/">JavaScript</a> |
<a href="/python/">Python</a>
</nav>

</body>
</html>
```






The nav element

The nav element defines a set of navigation links:

[HTML](#) | [CSS](#) | [JavaScript](#) | [Python](#)

Bookmark

- examples



Result Size: 625 x 1142

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

<p><a href="#C4">Jump to Chapter 4</a></p>
<p><a href="#C6">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>Chapter 3</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 5</h2>
<p>This chapter explains ba bla bla</p>

<h2 id="C6">Chapter 6</h2>
<p>This chapter explains ba bla bla</p>

<h2>Chapter 7</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 5

This chapter explains ba bla bla

Chapter 6

This chapter explains ba bla bla

Chapter 7

This chapter explains ba bla bla

Semantic Elements



Semantic Elements

- Semantic Elements in HTML

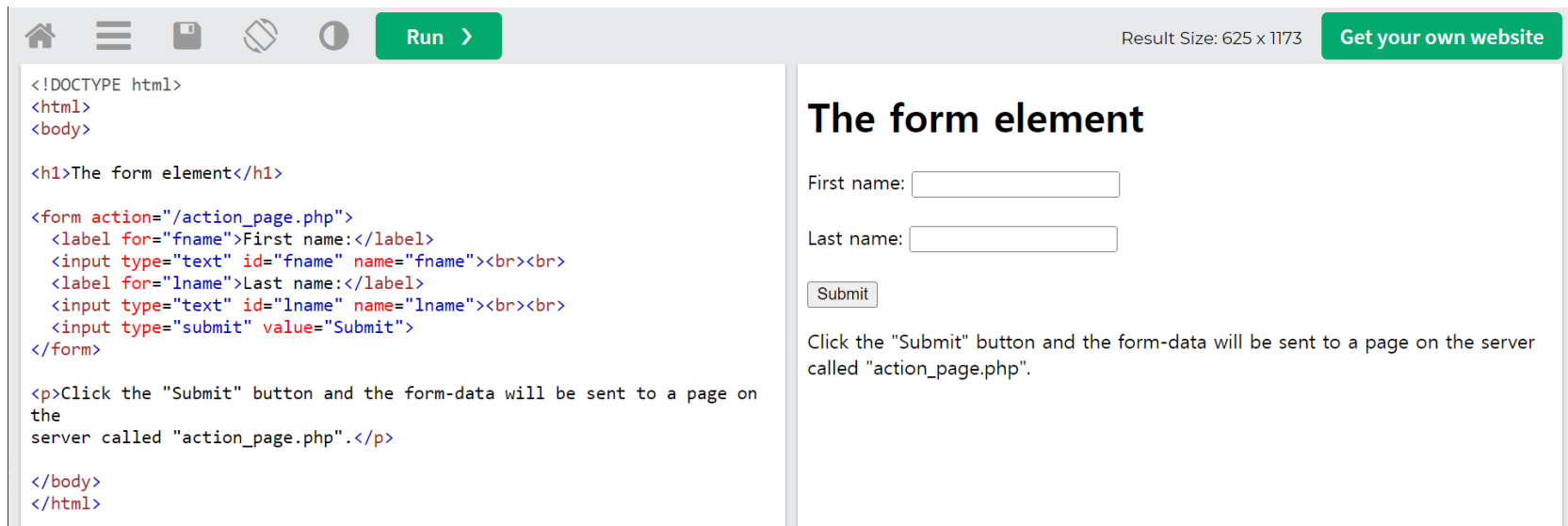
Tag	Description
<code><article></code>	Defines independent, self-contained content
<code><aside></code>	Defines content aside from the page content
<code><details></code>	Defines additional details that the user can view or hide
<code><figcaption></code>	Defines a caption for a <code><figure></code>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



Webform

Form

- `<form>`
 - It is used to create an HTML form for user input.
- Examples



The screenshot shows a web browser interface with a code editor on the left and a rendered form on the right. The code editor contains the following HTML code:

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

<h1>The form element</h1>

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

<p>Click the "Submit" button and the form-data will be sent to a page on the
the
server called "action_page.php".</p>

</body>
</html>
```

The rendered form on the right has the title "The form element" and contains the following elements:

First name:

Last name:

Click the "Submit" button and the form-data will be sent to a page on the server called "action_page.php".

Form

- Attributes

Attribute	Value	Description
accept-charset	<i>character_set</i>	Specifies the character encodings that are to be used for the form submission
action	<i>URL</i>	Specifies where to send the form-data when a form is submitted
autocomplete	on off	Specifies whether a form should have auto-complete on or off
enctype	application/x-www-form-urlencoded multipart/form-data text/plain	Specifies how the form-data should be encoded when submitting it to the server (only for method="post")
method	get post	Specifies the HTTP method to use when sending form-data
name	<i>text</i>	Specifies the name of a form
novalidate	novalidate	Specifies that the form should not be validated when submitted
rel	external help license next nofollow noopener noreferrer opener prev search	Specifies the relationship between a linked resource and the current document
target	_blank _self _parent _top	Specifies where to display the response that is received after submitting the form

Input

- `<input>`
 - It specifies an input field where the user can enter data.
 - `<input>` element is the most important form element.
- Input types are as follows:
 - `<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">` (default value)
 - `<input type="time">`
 - `<input type="url">`
 - `<input type="week">`

Input types

- Button

A push button that activates a JavaScript when it is clicked:

```
<input type="button" value="Click me" onclick="msg()">
```

Try it Yourself »

https://www.w3schools.com/tags/att_input_type.asp

- Checkbox

Checkboxes let a user select one or more options of a limited number of choices:

```
<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>
```

Try it Yourself »

https://www.w3schools.com/tags/att_input_type.asp

Input types

- Submit

Define a submit button:

```
<input type="submit">
```

Try it Yourself »

https://www.w3schools.com/tags/att_input_type.asp

- Reset

Define a reset button (resets all form values to default values):

```
<input type="reset">
```

Try it Yourself »

https://www.w3schools.com/tags/att_input_type.asp

Input types

- Email

Define a field for an e-mail address (will be automatically validated when submitted):

```
<label for="email">Enter your email:</label>  
<input type="email" id="email" name="email">
```

Try it Yourself »

https://www.w3schools.com/tags/att_input_type.asp

- File

Define a file-select field and a "Browse..." button (for file uploads):

```
<label for="myfile">Select a file:</label>  
<input type="file" id="myfile" name="myfile">
```

Try it Yourself »

https://www.w3schools.com/tags/att_input_type.asp

Input types

- Password

Define a password field (characters are masked):

```
<label for="pwd">Password:</label>  
<input type="password" id="pwd" name="pwd">
```

Try it Yourself »

https://www.w3schools.com/tags/att_input_type.asp

- Radio

Radio buttons let a user select only one of a limited number of choices:

```
<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>
```

Try it Yourself »

https://www.w3schools.com/tags/att_input_type.asp

Input types

- Date

Define a date control:

```
<label for="birthday">Birthday:</label>  
<input type="date" id="birthday" name="birthday">
```

Try it Yourself »

https://www.w3schools.com/tags/att_input_type.asp

- Time

Define a control for entering a time (no time zone):

```
<label for="appt">Select a time:</label>  
<input type="time" id="appt" name="appt">
```

Try it Yourself »

https://www.w3schools.com/tags/att_input_type.asp