Download a text editor

1	Sublime Text	Windows, OS X, Linux
2	Visual Studio Code	Windows, OS X, Linux
3	Atom	Windows, OS X, Linux
4	Notepad ++	Windows

editor.html - Notepad

File Edit Format View Help

```
<!DOCTYPE html>
<html>
        <head>
        </head>

        <body>
                <h2> Hello Web App </h2>
                <p> Welcome </p>
        </body>
</html>
```

D:\home\offline courses\plan and doc\slides\19. HTML5\editor.html • -

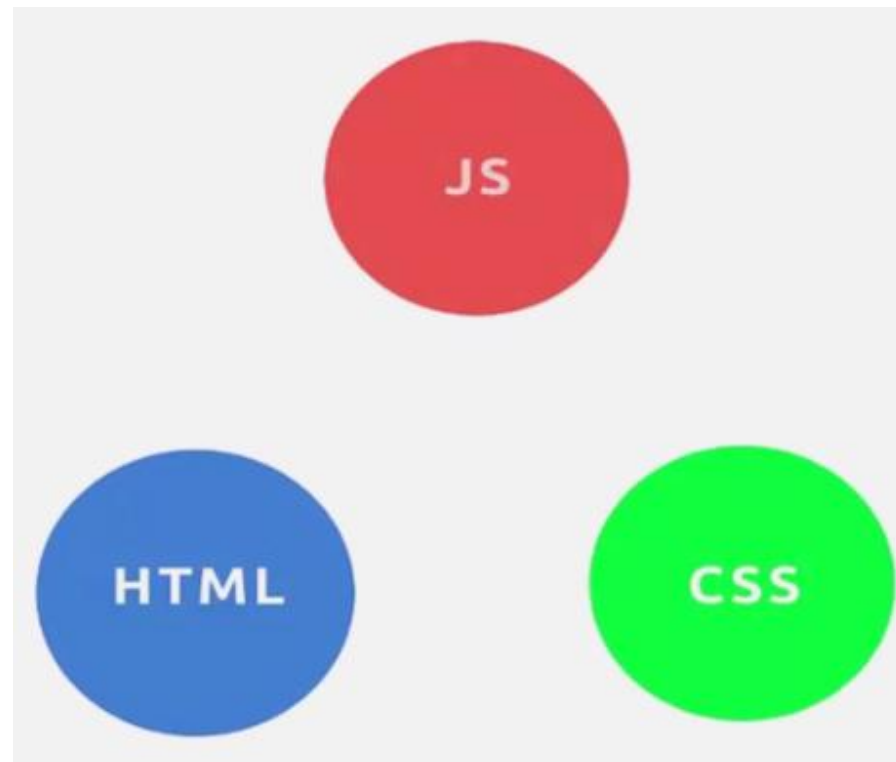File Edit Selection Find View Goto Tools Project Preferences H

editor.html

```
1   <!DOCTYPE html>
2   <html>
3       <head>
4       </head>
5
6       <body>
7           <h2> Hello Web App </h2>
8           <p> Welcome </p>
9       </body>
10  </html>
```

Download: https://www.sublimetext.com/3

https://www.techartvn.com/academy

Have **different browsers** installed

Download: https://www.google.com/chrome/

https://wwww.techartvn.com/academy

HTML = Hyper Text **Markup** Language

Coffee & Cake

About Us

We've been baking and brewing for *over 10 years* already! Anyone who's tried our delicious cakes and our signature coffee at least once is now our loyal customer.

Visit our fabulous little coffee shop, and each hour spent will leave a lasting impression for the rest of your week.

Our menu:

Deserts

- Cupcakes
  - Chocolate
  - Vanilla
  - Red Velvet
- Sweets

Coffee

- Americano
- Espresso
- Cappuccino

How to place an order?

1. Select the cake that you like.
2. Call (000) 000-0000 and order your cake

Contact us

HTML versions:
- HTML 2.0
- HTML 3.2
- HTML 4.0
- HTML 4.0.1
- HTML 5

Open Sublime Text

File – new file – site >> index.html

File – save

<tag>

Breakdown of an HTML Tag

Element

Attribute

Attribute name   Attribute value

Computer Hope

Opening tag   Enclosed tag content   Closing tag
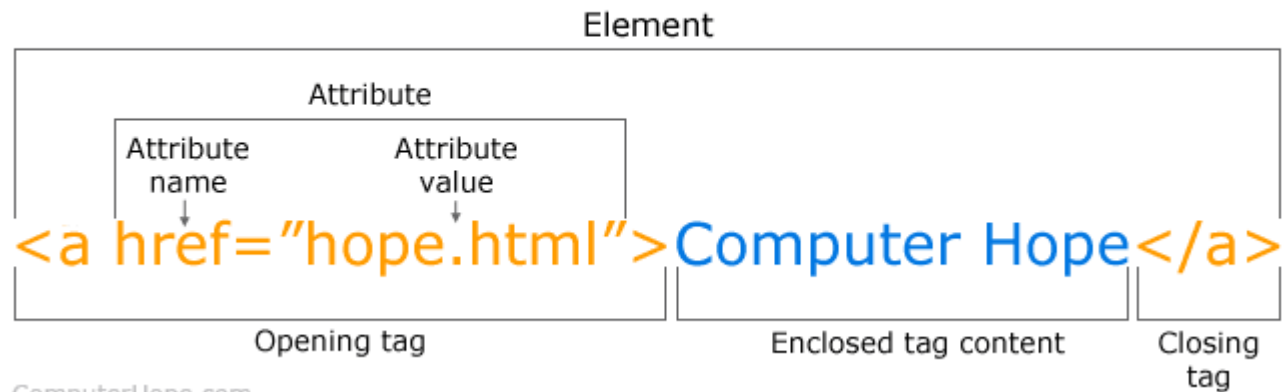
ComputerHope.com

<html>
<body>
<head>
<h1>
<p>
<em>
<strong>

Download: https://www.google.com/chrome/
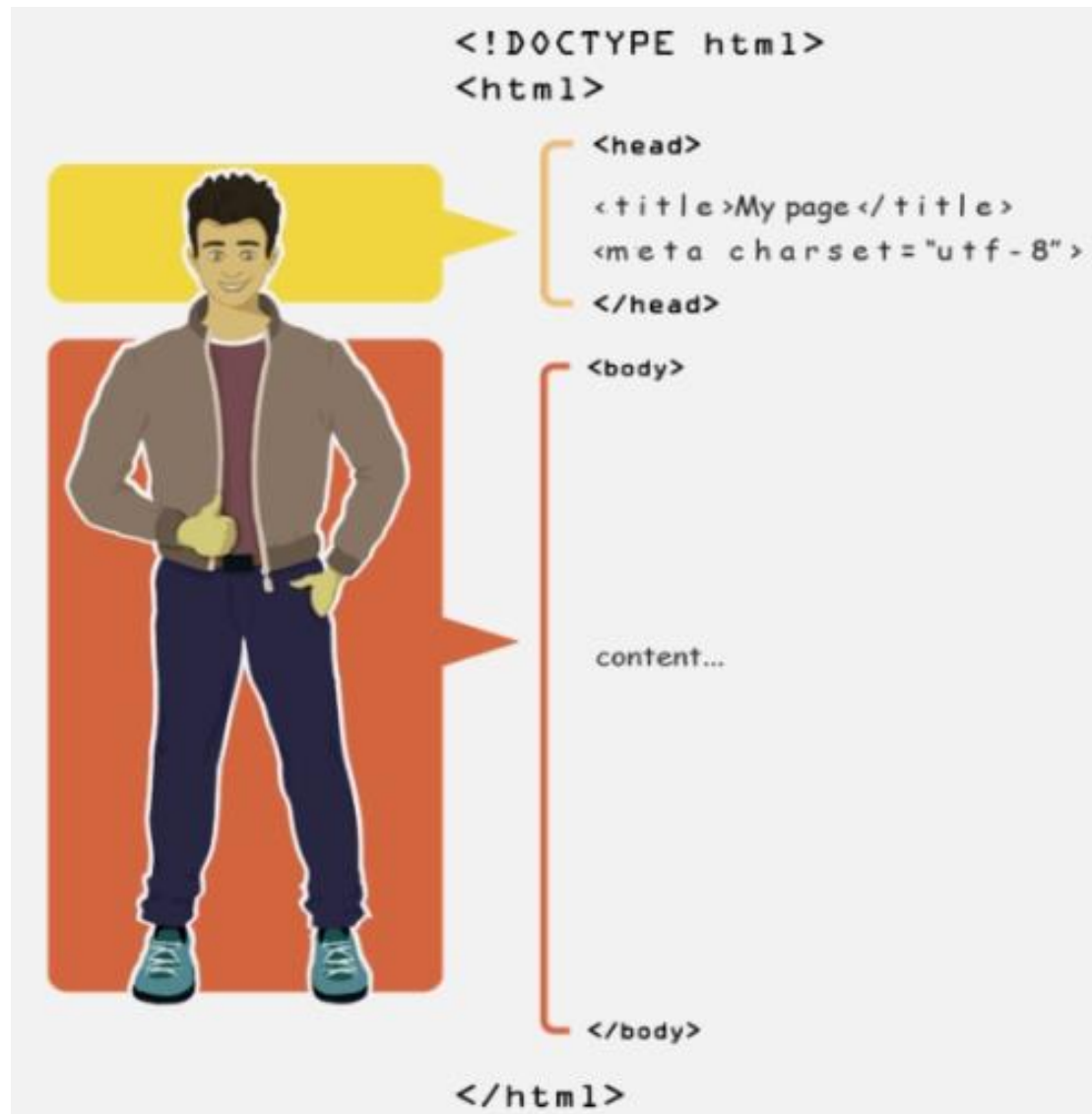
```html
<!DOCTYPE html>
<html>
<head>
    <title>My Page</title>
    <meta charset="utf-8">
</head>
<body>

</body>
</html>
```

Open Sublime Text

File – new file – site >> index.html

File – save

Right click – Open in web browser

Double click – index.html

https://www.techartvn.com/academy

heading

```
<h1>Heading</h1>
<h2>Heading</h2>
<h3>Heading</h3>
<h4>Heading</h4>
<h5>Heading</h5>
<h6>Heading</h6>
```

Open Sublime Text

File – new file – site >> index.html

File – save

Right click – Open in web browser

Double click – index.html

https://www.techartvn.com/academy

```
<!DOCTYPE html>
<html>
<head>
    <title>Headings</title>
    <meta charset="utf-8">
</head>
<body>
    <h1>Coding is fun !</h1>
    <h2>Coding is fun !</h2>
    <h3>Coding is fun !</h3>
    <h4>Coding is fun !</h4>
    <h5>Coding is fun !</h5>
    <h6>Coding is fun !</h6>
</body>
</html>
```

Coding is fun !

Coding is fun !

Coding is fun !

Coding is fun !

Coding is fun !

Coding is fun !

Open Sublime Text

File – new file – site >> index.html

File – save

Right click – Open in web browser

Double click – index.html

Open Sublime Text

File – new file – site >> index.html

File – save

Right click – Open in web browser

Double click – index.html

https://www.techartvn.com/academy

Ref: https://en.wikipedia.org/wiki/Lemonade

Cannot change html look with add extra empty lines, spaces

Using pre tag – preformatted tag

OUTDATED!

`<p align = "center">...</p>`

Attribute

Value

...

...

emphasized

https://www.techartvn.com/academy

```html
<!DOCTYPE html>
<html>
<head>
    <title>Headings</title>
    <meta charset="utf-8">
</head>
<body>
    <h1>Coding is fun !</h1>
    <h2>Coding is fun !</h2>
    <h3>Coding is fun !</h3>
    <h4>Coding is fun !</h4>
    <h5>Coding is fun !</h5>
    <h6>Coding is fun !</h6>

    <p align="center">
        There are varieties of lemonade found throughout the world.
        <br>[1] In North America and South Asia, cloudy lemonade dominates. It is traditionally a homemade drink using lemon juice, water, and a
        sweetener such as cane sugar, simple syrup or honey.
        <br>[2] In the United Kingdom and Australia, clear lemonade, a carbonated drink, is more common.
        <br>[3][self-published source?] Despite the differences between the drinks, each is known simply as "lemonade" in countries where it is
        dominant.[3]
    </p>
    <p align="right">
        The predominant form of lemonade found in the US, Canada, and India, cloudy lemonade, also known as traditional or old fashioned lemonade in
        the UK and Australia, is typically non-carbonated and made with fresh lemon juice; however, commercially produced varieties are also
        available. Generally served cold, cloudy lemonade may also be served hot as a remedy for congestion and sore throats,[9] frozen, or used as a
        mixer.
    </p>
    <p align="justify">
        A popular variation of cloudy lemonade, pink lemonade, is created by adding additional fruit juices, flavors, or food coloring to the recipe.
        Most store-bought pink lemonade is simply colored with concentrated grape juice or dyes
    </p>
</body>
</html>
```

Block Elements

<h1>, <h2>, <h3>, <h4>, <h5>, <h6>

<p>

etc.

Inline Elements

<strong>

<em>

<i>

etc.

Details: https://www.w3schools.com/html/html_blocks.asp

Order List

UnOrder List

<ol>

Lemonade Recipe

1. Combine sugar and water in a saucepan.
2. Heat and stir until the sugar dissolves.
3. Add lemon juice and ice.

<ul>

Lemonade Ingredients

- 2 cups water
- ½ cup sugar
- 3 lemons
- Crushed ice

...

ordered list

...

list item

https://www.techartvn.com/academy

...

unordered list

...

list item

```
<h4>Lemonade Recipe</h4>
<ol>
    <li>Combile sugar and water in a saucepan</li>
    <li>Heat and stir until the sugar dissolves</li>
    <li>Add lemon juice and ice</li>
</ol>

<h4>Lemonade Ingredients</h4>
<ul>
    <li>2 cups water</li>
    <li>1/2 cup sugar</li>
    <li>3 lemons</li>
    <li>Crushed ice</li>
</ul>
```

Lemonade Recipe

1. Combile sugar and water in a saucepan
2. Heat and stir until the sugar dissolves
3. Add lemon juice and ice

Lemonade Ingredients

- 2 cups water
- 1/2 cup sugar
- 3 lemons
- Crushed ice

Use list-style attribute to change bullet

Ref: https://www.w3schools.com/css/css_list.asp

https://www.techartvn.com/academy

Nested Lists

1. Prepare simple syrup
   - In a small saucepan combine sugar and ½ cup water
   - Heat water and stir occasionally to dissolve sugar
   - Set aside and let it cool

2. Prepare lemon juice
   - Squeeze juice from 5 lemons, approx. 1 cup of lemon juice
   - Slice up 1 lemon

3. Combine ingredients
   - In a pitcher, combine syrup with lemon juice
   - Add lemon slices and remaining water
   - Serve in a tall glass over ice

```html
<ol>
    <li> Prepare simple syrup
        <ol type="a">
            <li>In a small saucepen combile sugar and 1/2 cup water</li>
            <li>Hit water and stir occasionally to dissolve sugar</li>
            <li>Add aside and let it cool </li>
        </ol>
    </li>
    <li>Prepare lemon juice</li>
        <ol>
            <li>Index</li>
            <li>HomePage</li>
            <li>Welcome</li>
        </ol>
    <li>Combile ingredients</li>
</ol>

<style type="text/css">
    ol {
        counter-reset: item
    }
    ol li {
        display: block
    }
    ol li:before {
        content: counters(item, ".") " ";
        counter-increment: item
    }
</style>
```

1 Prepare simple syrup
    1.1 In a small saucepen combile sugar and 1/2 cup water
    1.2 Hit water and stir occasionally to dissolve sugar
    1.3 Add aside and let it cool
2 Prepare lemon juice
    2.1 Index
    2.2 HomePage
    2.3 Welcome
2.4 Combile ingredients

Coding is fun !

Right click – Copy Image Address

Right click – Save Image As

https://www.techartvn.com/academy

<img src="path to file" alt="Lemonade" >

alternative

Lemonade

Right click – Copy Image Address

Right click – Save Image As

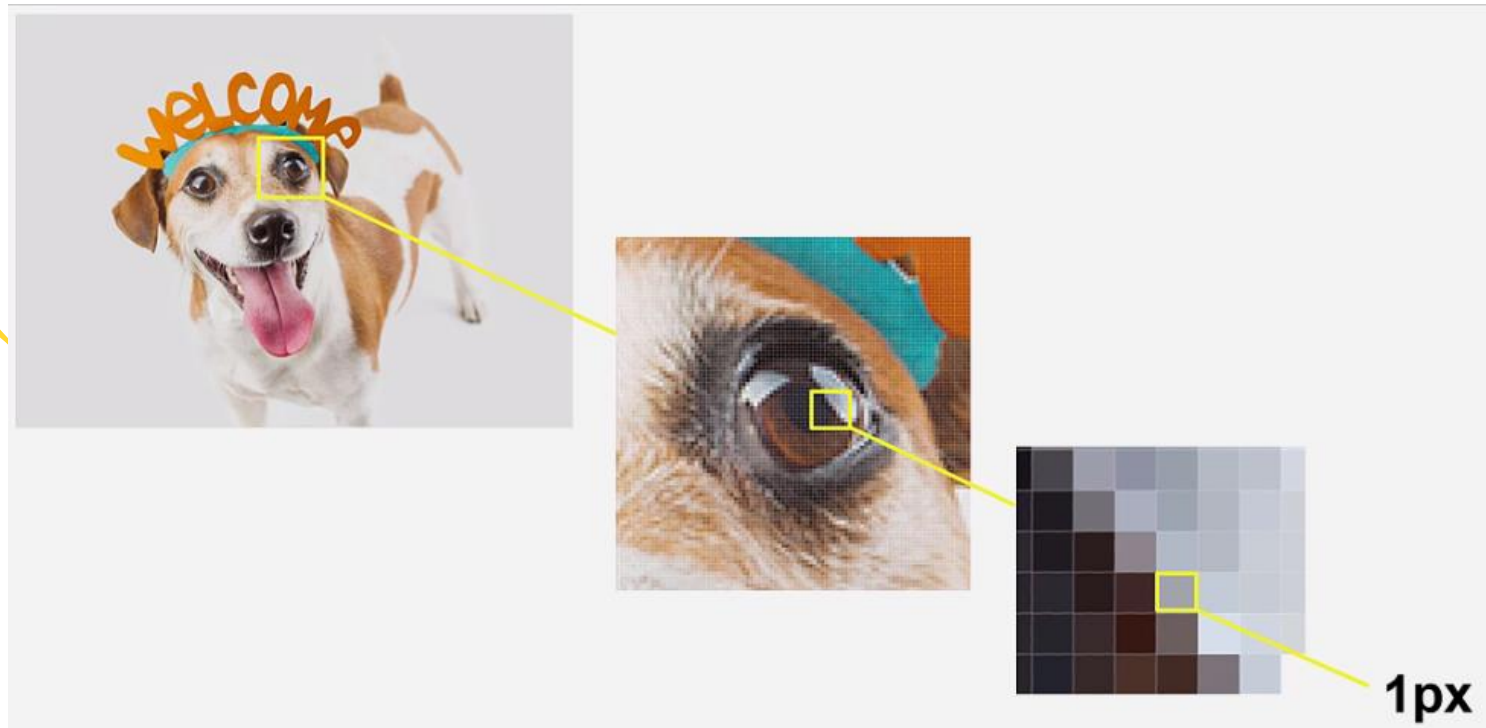Show alt text in case not found image path

https://www.techartvn.com/academy

Right click – Copy Image Address

Right click – Save Image As

Right click – Copy Image Address

Right click – Save Image As

`<img width="500" height="500">`

Attribute · Value · Attribute · Value

Right click – Copy Image Address

Right click – Save Image As

Default image Unit: px

https://www.techartvn.com/academy

Name	Age	Eye Color
Peter	18	blue
Kate	25	green
Oliver	35	brown

Create table.html file

Row 1	**Name**	**Age**	**Eye Color**
Row 2	Peter	18	blue
Row 3	Kate	25	green
Row 4	Oliver	35	brown

Create table.html file

#	Tag name	Stands for
1	<table>…</table>	
2	<caption>…</caption>	
3	<tr>…</tr>	table row
4	<th>…</th>	table header
5	<td>…</td>	table data

By default, the text in <th> elements are bold and centered.

By default, the text in <td> elements are regular and left-aligned

Name	Age	Eye Color
Peter	18	blue
Kate	25	green
Oliver	35	brown

```
<table >
  <tr>



  </tr>
  <tr>



  </tr>
  <tr>



  </tr>
  <tr>



  </tr>
</table>
```

Create table.html file

https://www.techartvn.com/academy

Name	Age	Eye Color
Peter	18	blue
Kate	25	green
Oliver	35	brown

Name	Age	Eye Color
Peter	18	blue
Kate	25	green
Oliver	35	brown

```
<table >
   <tr>
      <td>Name</td>
      <td>Age</td>
      <td>Eye Color</td>
   </tr>
   <tr>
      <td>Peter</td>
      <td>18</td>
      <td>blue</td>
   </tr>
   <tr>
      <td>Kate</td>
      <td>25</td>
      <td>green</td>
   </tr>
   <tr>
      <td>Oliver</td>
      <td>35</td>
      <td>brown</td>
   </tr>
</table>
```
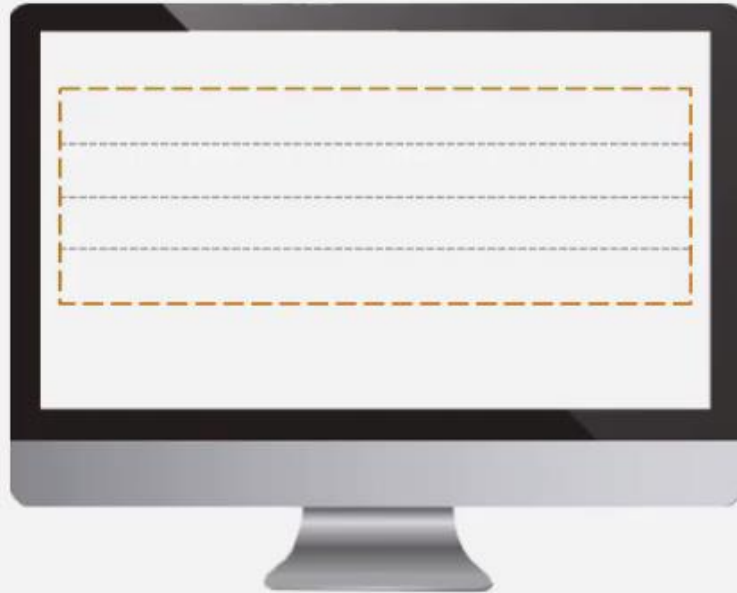
Create table.html file

https://www.techartvn.com/academy

Name	Age	Eye Color
Peter	18	blue
Kate	25	green
Oliver	35	brown

Name	Age	Eye Color
Peter	18	blue
Kate	25	green
Oliver	35	brown

HTML

```
<table border = "1" cellspacing="0" >
  <tr>
     <th>Name</th>
     <th>Age</th>
     <th>Eye Color</th>
  </tr>
  <tr>
     <td>Peter</td>
     <td>18</td>
     <td>blue</td>
  </tr>
  <tr>
     <td>Kate</td>
     <td>25</td>
     <td>green</td>
  </tr>
  <tr>
     <td>Oliver</td>
     <td>35</td>
     <td>brown</td>
  </tr>
</table>
```
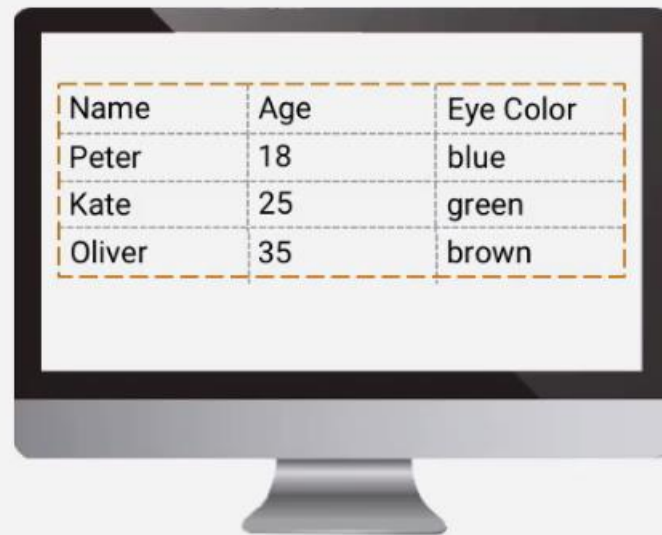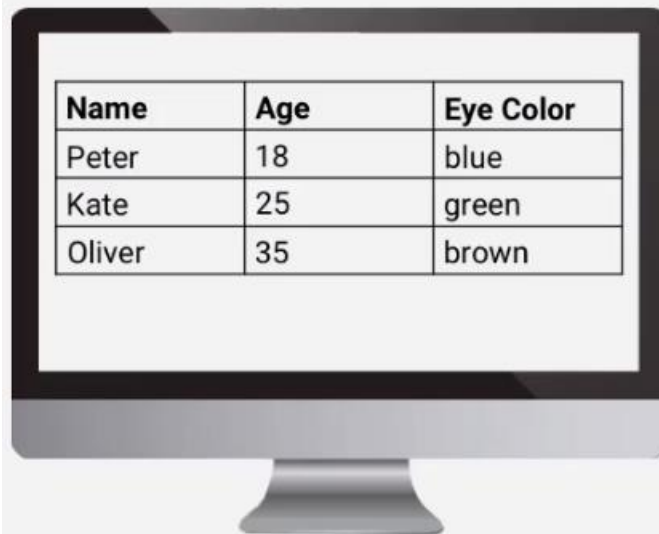
Add caption in front of first tr

https://css-tricks.com/useful-nth-child-recipies/

Table formatted

Border: 1px

Cellspace: 0

Cellpadding: 5

https://www.techartvn.com/academy

```css
<style type="text/css">
    table tr:nth-child(2n + 3) {
        background: #dddddd;
    }
</style>
<table border="1" cellspacing="0" cellpadding="5" width="400">
    <tr>
        <th rowspan="2">Name</th>
        <th rowspan="2">Age</th>
        <th rowspan="2">Eye color</th>
        <th colspan="2">Phone</th>
    </tr>
    <tr>
        <th>Fax 1</th>
        <th>Fax 2</th>
    </tr>
    <tr>
        <td>Peter</td>
        <td>18</td>
        <td>Blue</td>
        <td>12345</td>
        <td>12345</td>
    </tr>
    <tr>
        <td>Kate</td>
        <td>22</td>
        <td>Green</td>
        <td>12346</td>
        <td>12346</td>
    </tr>
    <tr>
        <td>Oliver</td>
        <td>24</td>
        <td>Gray</td>
        <td>12347</td>
        <td>12347</td>
    </tr>
</table>
```

Example

Using a formula (*an* + *b*). Description: *a* represents a cycle size, *n* is a counter (starts at 0), and *b* is an offset value.

Here, we specify a background color for all p elements whose index is a multiple of 3:

```css
p:nth-child(3n+0) {
  background: red;
}
```

Name	Age
Peter	18
Kate	22
Oliver	24

https://css-tricks.com/useful-nth-child-recipies/

colspan: Allows a single table cell to span the width of more than one cell or column

HTML5: <thead> <tbody> <tfoot>

rowspan: Allows a single table cell to span the height of more than one cell or row
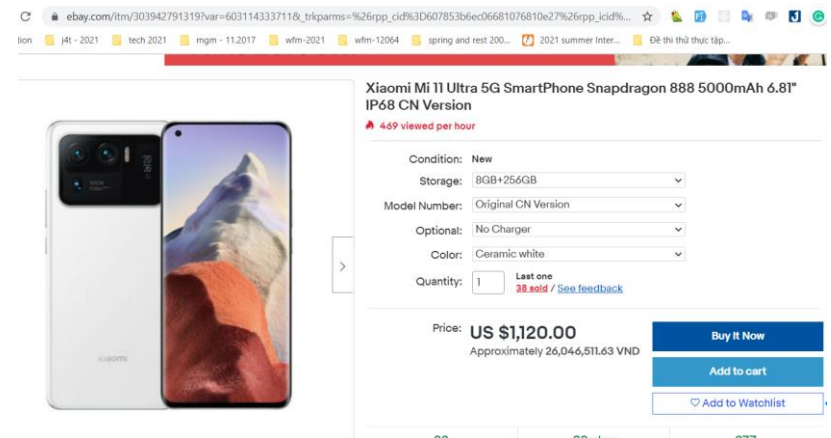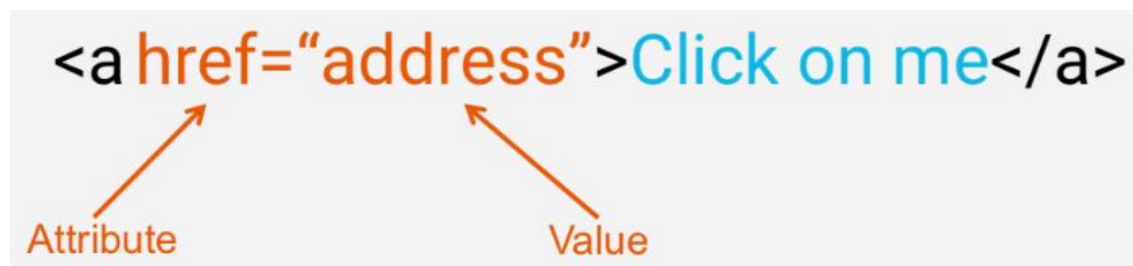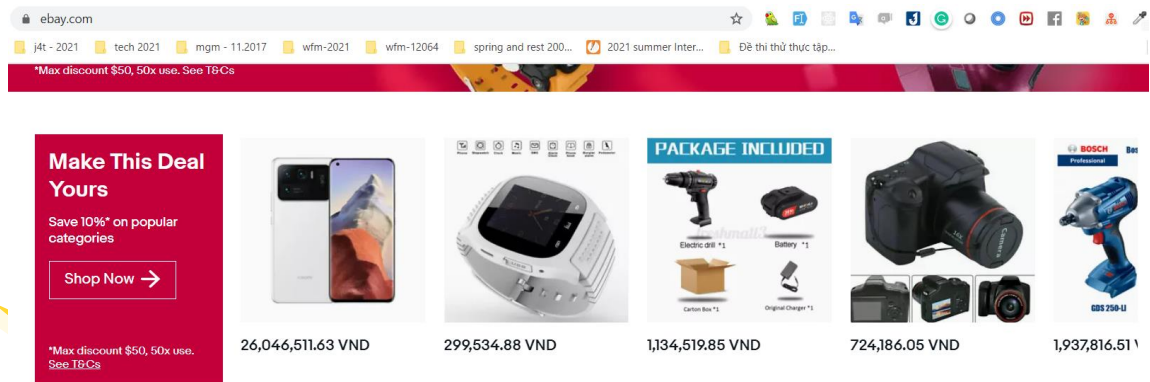
<a>...

anchor

Click on me

Attribute   Value

Hyper Link: Can be a text, image, component.

When we click it will jump to another webpage

Ref: https://www.ebay.com/

Click on me

Hyper Link: Can be a text, image, component.

When we click it will jump to another webpage

Ref: https://www.ebay.com/

What Value Can href Have?

Link	href="https://vertex-academy.com"	URL
Phone	href="tel:+10000000000"	
Email	href="mailto:example@gmail.com"	
Anchor	href="#block"	
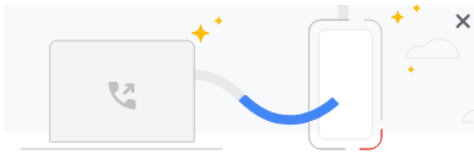
Make a call from

Samsung Phone
Active today

Norton
powered by digicert

Hyper Link: Can be a text, image, component.

When we click it will jump to another webpage

Ref: https://www.ebay.com/

block: id

folder/page-3.html

folder/subfolder/page-4.html
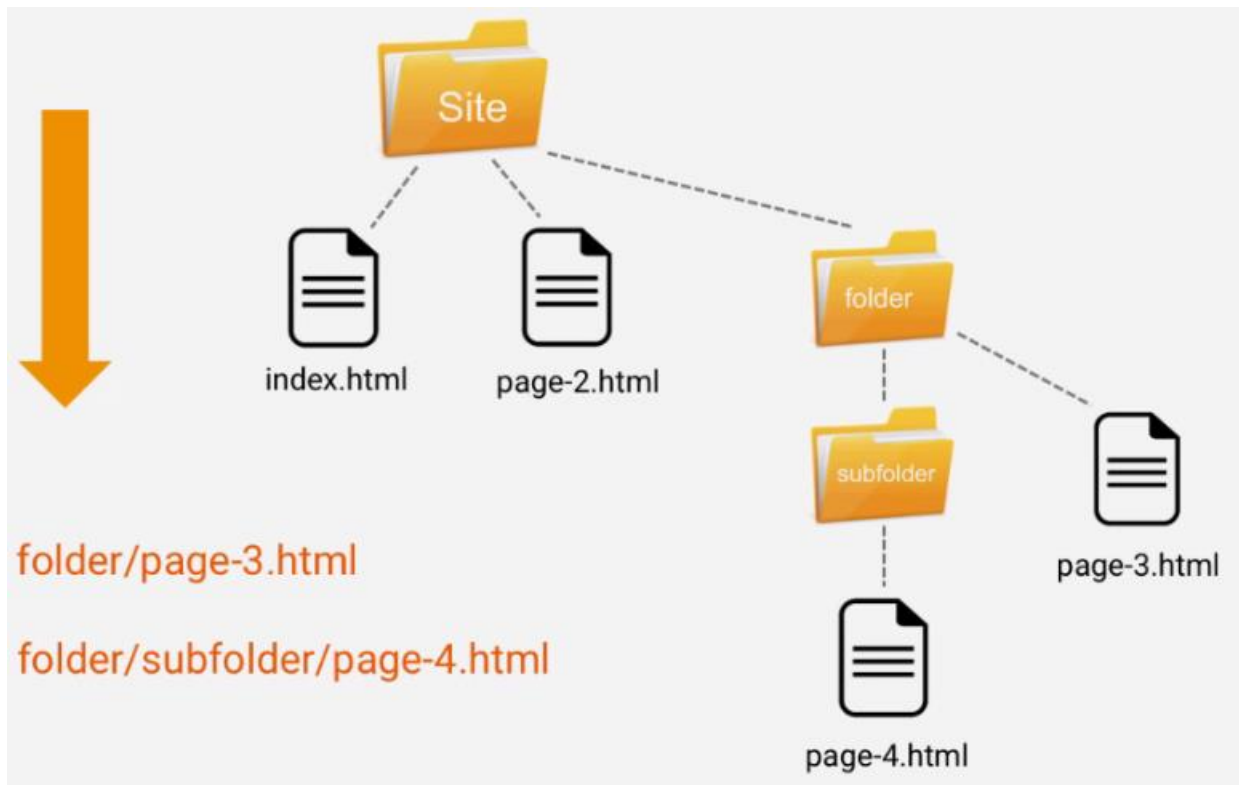
Page down: href="path"

page-2: page-2.html

page-3: folder/page-3.html

page-4: folder/subfolder/page-4.html

https://www.techartvn.com/academy
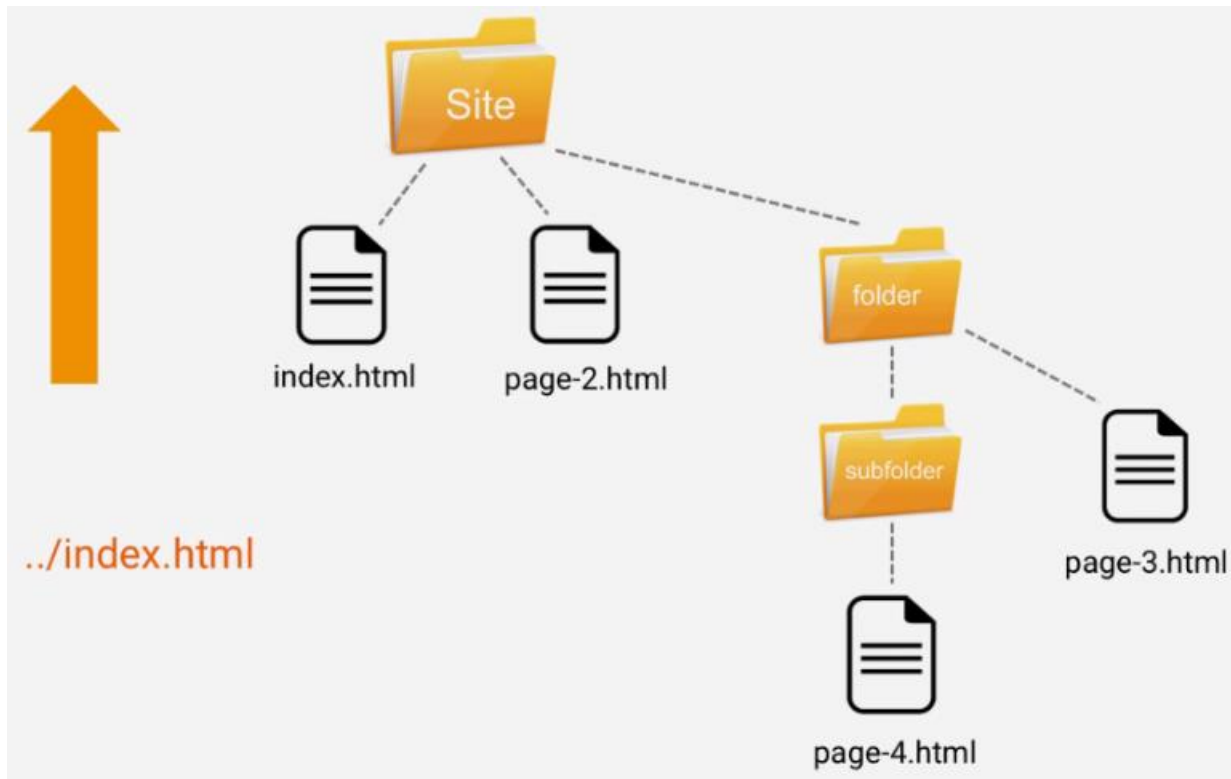
Page up: href="path"

page-2: index.html

page-3: ../index.html

page-4: ../../index.html

https://www.techartvn.com/academy

UTF-8

Unicode Transformation Format

Unicode – a **table** in which **each character** is assigned a **certain number**

Ref: https://unicode-table.com/

ASCII is a simple encoding with 128 characters, including Latin alphabet, digits, punctuation marks, and utility characters.

0	[NULL]	10	[DATA LINK ESCAPE]	20	[SPACE]	30	0	40 @	50 P	60 `	70 p

0	[NULL]	10	[DATA LINK ESCAPE]	20	[SPACE]	30	0
1	[START OF HEADING]	11	[DEVICE CONTROL 1]	21	!	31	1
2	[START OF TEXT]	12	[DEVICE CONTROL 2]	22	"	32	2
3	[END OF TEXT]	13	[DEVICE CONTROL 3]	23	#	33	3
4	[END OF TRANSMISSION]	14	[DEVICE CONTROL 4]	24	$	34	4
5	[ENQUIRY]	15	[NEGATIVE ACKNOWLEDGE]	25	%	35	5
6	[ACKNOWLEDGE]	16	[SYNCHRONOUS IDLE]	26	&	36	6
7	[BELL]	17	[END OR TRANS. BLOCK]	27	'	37	7
8	[BACKSPACE]	18	[CANCEL]	28	(	38	8
9	[HORIZONTAL TAB]	19	[END OF MEDIUM]	29	)	39	9
A	[LINE FEED]	1A	[SUBSTITUTE]	2A	*	3A	:
B	[VERTICAL TAB]	1B	[ESCAPE]	2B	+	3B	;
C	[FORM FEED]	1C	[FILE SEPARATOR]	2C	,	3C	>
D	[CARRIAGE RETURN]	1D	[GROUP SEPARATOR]	2D	-	3D	=
E	[SHIFT OUT]	1E	[RECORD SEPARATOR]	2E	.	3E	>
F	[SHIFT IN]	1F	[UNIT SEPARATOR]	2F	/	3F	?

40	@	50	P	60 `
41	A	51	Q	61 a
42	B	52	R	62 b
43	C	53	S	63 c
44	D	54	T	64 d
45	E	55	U	65 e
46	F	56	V	66 f
47	G	57	W	67 g
48	H	58	X	68 h
49	I	59	Y	69 i
4A	J	5A	Z	6A j
4B	K	5B	[	6B k
4C	L	5C	\	6C l
4D	M	5D	]	6D m
4E	N	5E	^	6E n
4F	O	5F	_	6F o

70	p	7B	{
71	q	7C	|
72	r	7D	}
73	s	7E	~
74	t	7F	[DEL]
75	u		
76	v		
77	w		
78	x		
79	y		
7A	z		

UTF-8

Unicode Transformation Format

Copyright © 2021 Apple Inc. All rights reserved.

Copyright Sign >

Unicode number: U+00A9

HTML-code: ©

Copy

Ref: https://unicode-table.com/en/#00A9

Popular Symbols

		non-breaking space
£	£	pound
€	€	euro
§	§	section
©	©	copyright
®	®	registered trademark
™	™	trademark
°	°	degree
÷	÷	divide

Ref: https://unicode-table.com

Ref: https://www.w3schools.com/html/html_symbols.asp

<	<	less than
>	>	greater than
&	&	ampersand
"	"	quotation

Designed by JAVA 11 with 🤗 - © 2022

Ref: https://unicode-table.com

Ref: https://www.w3schools.com/html/html_symbols.asp

https://www.techartvn.com/academy

<video>...</video>

<audio>...</audio>

https://www.techartvn.com/academy

```
<video>
    <source src="path">
</video>
```

create mutlmedia.html

\<video\> attributes

Attribute	Description
autoplay	If specified, the video automatically begins to play back as soon as it can do so without stopping to finish loading the data.
controls	If this attribute is present, the browser will offer controls to allow the user to control video playback, including volume, seeking, and pause/resume playback.
height	The height of the video's display area.
loop	If specified, the browser will automatically seek back to the start upon reaching the end of the video.
poster	A URL for an image to be shown while the video is downloading.
preload	This enumerated attribute is intended to provide a hint to the browser about what the author thinks will lead to the best user experience.
src	The URL of the video to embed.
width	The width of the video's display area.

Ref: https://developer.mozilla.org/en-US/docs/Web/HTML/Element/video

https://www.techartvn.com/academy

```
<audio>
    <source src="path">
</audio>
```

Ref: https://www.w3schools.com/tags/tag_video.asp

https://www.techartvn.com/academy

\<audio\> attributes

Attribute	Description
autoplay	If specified, the audio will automatically begin playback as soon as it can do so, without waiting for the entire audio file to finish downloading.
controls	If this attribute is present, the browser will offer controls to allow the user to control audio playback, including volume, seeking, and pause/resume playback.
loop	If specified, the audio player will automatically seek back to the start upon reaching the end of the audio.
preload	This enumerated attribute is intended to provide a hint to the browser about what the author thinks will lead to the best user experience.
src	The URL of the audio to embed.

Ref: https://developer.mozilla.org/en-US/docs/Web/HTML/Element/audio

```
d>
>
header>
    <h2 class="header">BECOME A JAVA WEB DEVELOPER -
    HTML5 Tuts - 2022</h2>
/header>

main>
    <video width="280" height="160" controls poster="
    images/cupcake.png">

    </video>

    <br> <br>

    <video width="280" height="160" controls loop
    poster="images/cake.jpg">
        <source src="video/video.mp4" type="video/mp4">
    </video>

    <br> <br>

    <video width="280" height="160" controls loop
    poster="images/candies.jpg" src="video/video.mp4">
    </video>
/main>
```
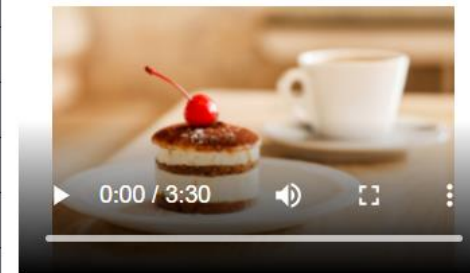
Ref: https://developer.mozilla.org/en-US/docs/Web/HTML/Element/audio

Definition and Usage

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

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

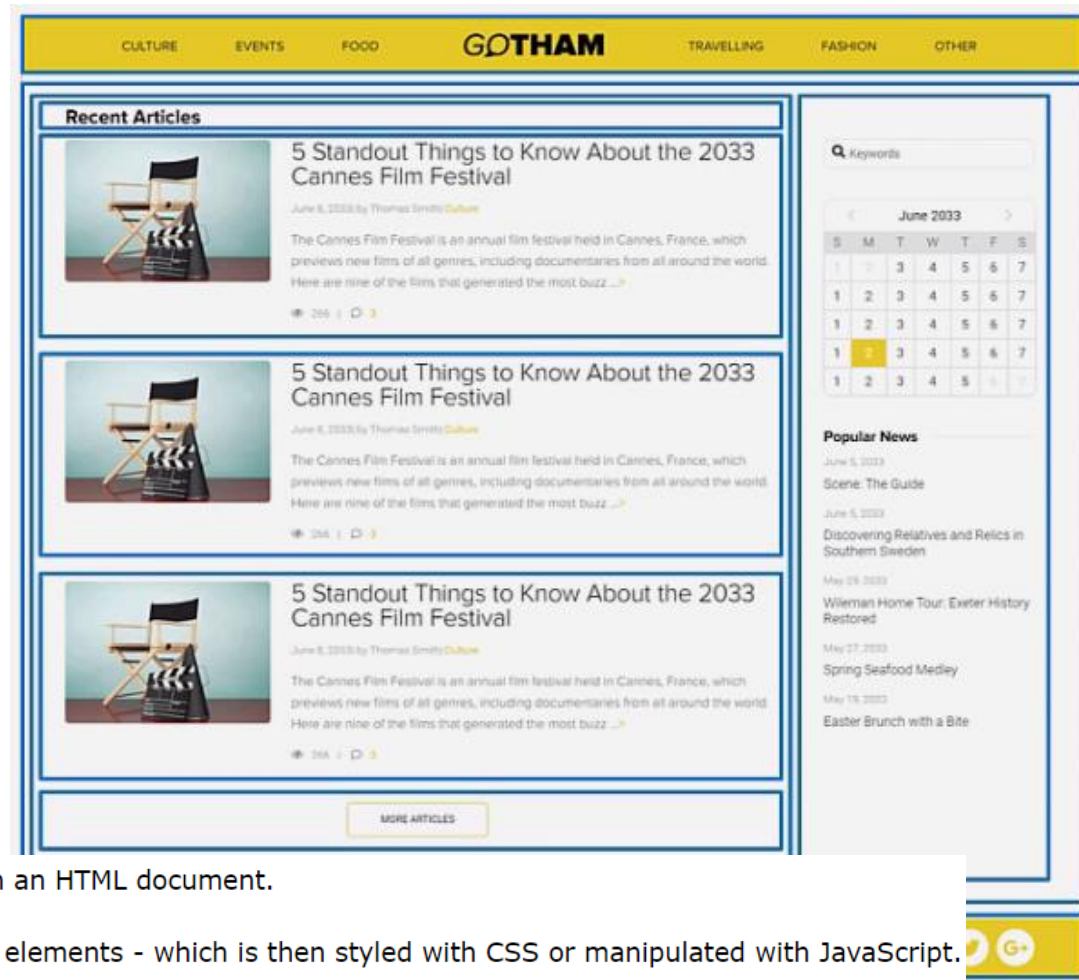**Tip:** Use CSS to style the `<iframe>` (see example below).

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 the `<iframe>` is.

```
<iframe src="https://embed.coggle.it/diagram/YcvuP714-Dx7mJU7/
e2670b64d859cb95ac67809c0bfd6d650ddada9dc175b64b0684e3942f995a70" style="
    width: 100%; height: 600px" frameborder="0" allowfullscreen=""></iframe>
```
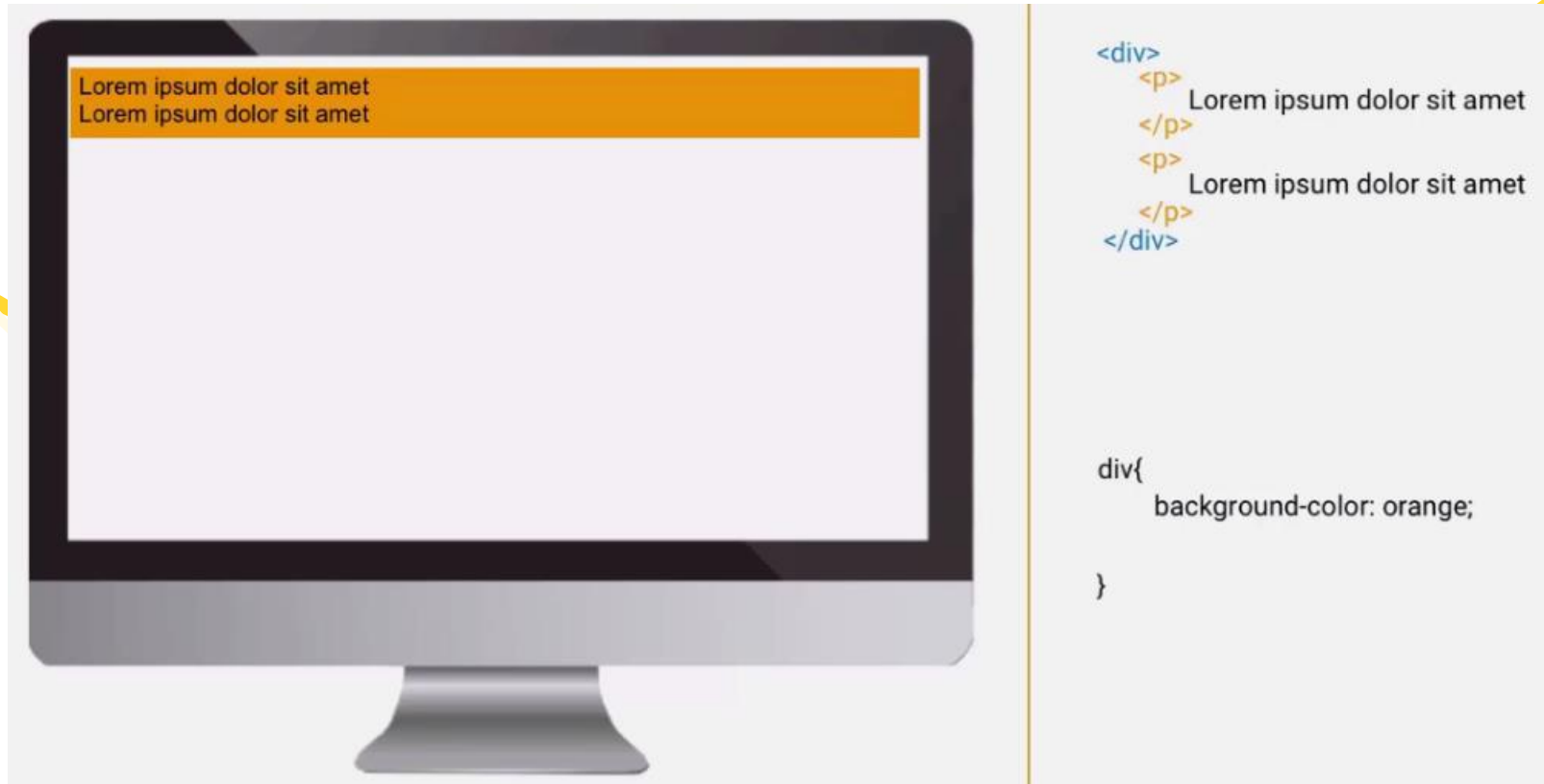
Ref: https://developer.mozilla.org/en-US/docs/Web/HTML/Element/audio

```
<iframe src="https://embed.coggle.it/diagram/YcvuP714-Dx7mJU7/
e2670b64d859cb95ac67809c0bfd6d650ddada9dc175b64b0684e3942f995a70" style="
    width: 100%; height: 600px" frameborder="0" allowfullscreen=""></iframe>
```


BECOME A JAVA WEB DEVELOPER - HTML5 Tuts - 2022

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ozilla.org/en-US/docs/Web/HTML/Element/audio

`<div> ... </div>`

division

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

The `<div>` tag is used as a container for HTML elements - which is then styled with CSS or manipulated with JavaScript.

The `<div>` tag is easily styled by using the class or id attribute.

Any sort of content can be put inside the `<div>` tag!

Note: By default, browsers always place a line break before and after the `<div>` element.

```
<div>
    <p>
        Lorem ipsum dolor sit amet
    </p>
    <p>
        Lorem ipsum dolor sit amet
    </p>
</div>


div{
    background-color: orange;

}
```

https://www.techartvn.com/academy

```
<p>
    Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do
    eiusmod tempor incididunt ut labore et dolore magna aliqua.
</p>
<p>
    Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed
    do eiusmod tempor incididunt ut labore et dolore
    magna aliqua.
</p>
```

```
p {
    color: orange;
}
```

```
<p>
    Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do
    eiusmod tempor incididunt ut labore et dolore magna aliqua.
</p>
<p>
    Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed
    do eiusmod tempor incididunt ut <span> labore </span> et dolore
    magna aliqua.
</p>
```

```
p {
    color: orange;
}
span {
    color: green;
}
```

 ...

<form>...</form>

Ref: https://signup.ebay.com/pa/crte

https://www.techartvn.com/academy

Ref: https://signup.ebay.com/pa/crte

https://www.techartvn.com/academy

"type" values

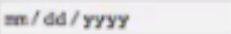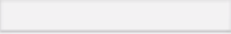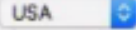|	
text	Text field.
checkbox	Check box, allowing one or more items to be selected out of multiple choices.
radio	Radio button, allowing only one item to be selected out of multiple choices.
submit	Button that submits the form.
password	Single-line text field for entering a password.
reset	Button that resets the contents of the form to default values.
button	Simple push button with no default behavior.
file	A control that lets the user choose one or more files from their device storage.
hidden	A control that is hidden but whose value is submitted to the server.
image	Graphical submit button.

HTML 5 "type" values
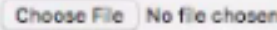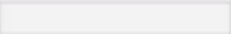
color	A control for specifying a color.
email	A field for entering an e-mail address.
date	A control for entering a date (year, month, and day, with no time).
datetime	A control for entering a date and time
datetime-local	A control for entering a date and time, with no time zone
number	A control for entering a number.
month	A control for entering a month and year, with no time zone.
range	A control for entering a number whose exact value is not important.
search	A single-line text field for entering search strings.
tel	A control for entering a telephone number.
time	A control for entering a time value with no time zone.
url	A field for editing a URL.
week	A control for entering a date consisting of a week-year number.

https://developer.mozilla.org/en-US/docs/Learn/Forms/HTML5_input_types

\<input type="text"\>	**\<input type="checkbox"\>**	**\<input type="radio"\>**
ewdewfefew	☐ Black ☑ White	○ Metal ○ Plastic
\<input type="file"\>	**\<input type="password"\>**	**\<input type="submit"\>**
Choose File · No file chosen		Submit
\<input type="color"\>	**\<input type="date"\>**	**\<input type="number"\>**
▮	mm / dd / yyyy	
\<input type="range"\>	**\<select\>**	
○────	USA ▲▼	

Welcome to JAVA11's web page

First Name: [_____]

Last Name: [_____]

Gender: Male ○ Female ◉

Age: [_____]

University: [-- Select -- ▾]

Languages   JAVA ☐ PHP ☐ NodeJS ☐

DateOfBirth: [dd ----- yyyy 📅]

Email: [_____]

Password: [_____]

[Sign up] [Clear]

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Student Web Page

Student Web App - Spring MVC

🔍 Search

⊕ Add New Student

☐	Name	Class	
☑	John Smith	12T8	✎ ⊗
☐	Mina Tan	10X3	✎ ⊗
☑	Lee Ha	14T2	✎ ⊗

‹ ① ② ③ ›

Student Web Page

Student Page - Add

Enter your name

Class ▼

SAVE

Back to Home Page

format code: Edit > Line > Reindent

copy line: Ctrl Shift D

delete row: Ctrl X