



HTML

Hypertext Markup Language

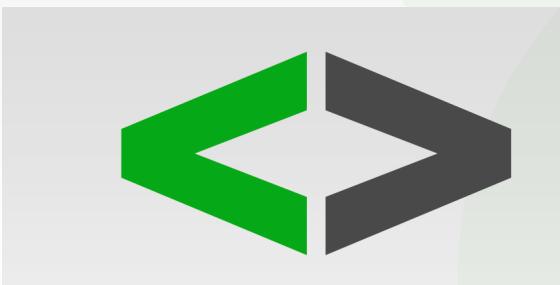


HTML

Fundamentals

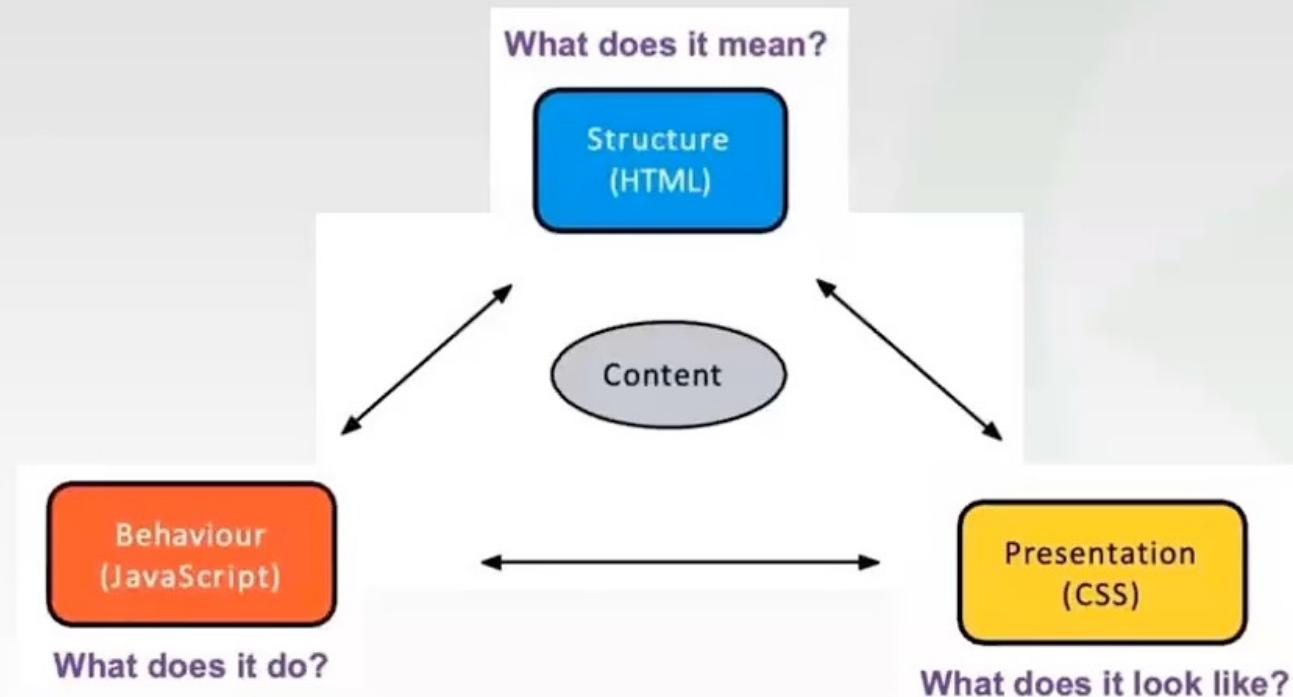
- » What is HTML?
- » How to create HTML page

HTML





What makes a webpage?





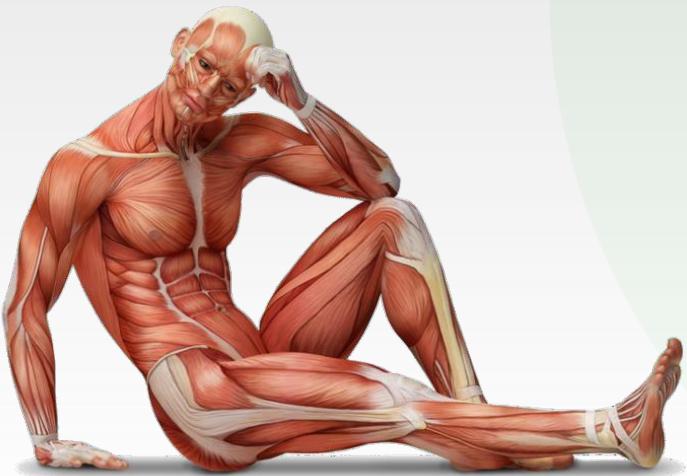
What is HTML?

HTML



Structure

JAVASCRIPT

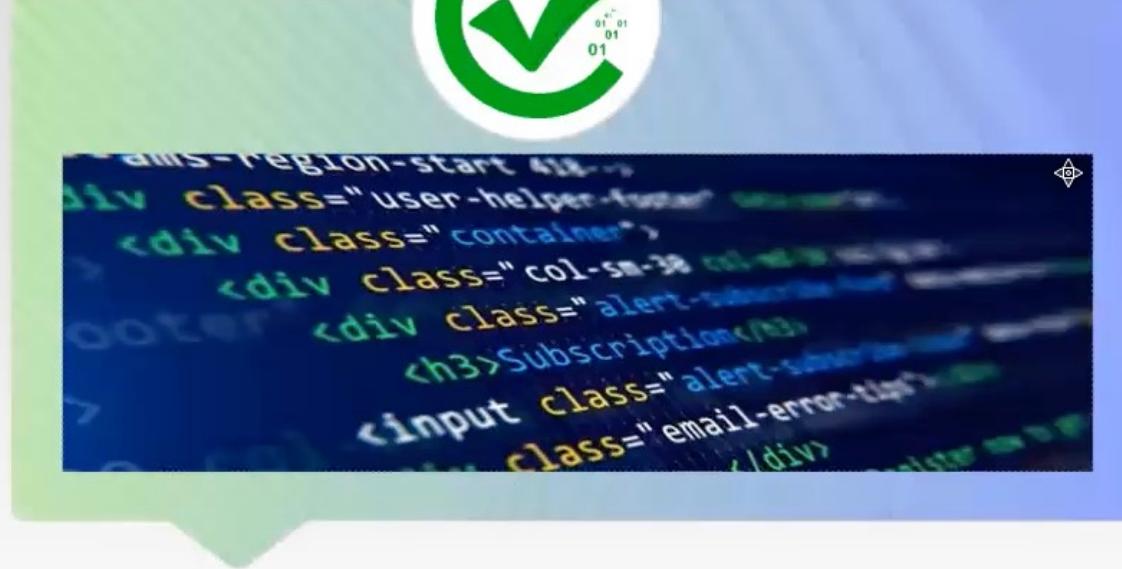


Action / Ability to perform

CSS



Presentation / appearance



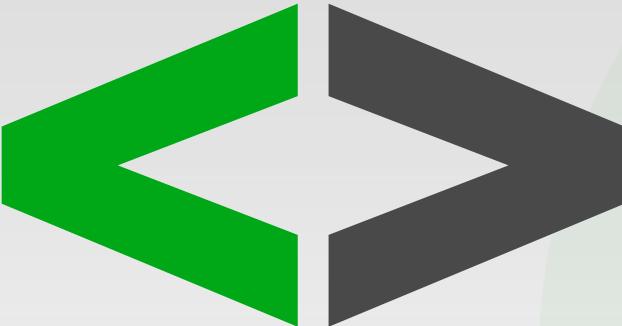
HTML Fundamentals

- › What is HTML?
- › Creating an HTML page
- › HTML's journey





What is HTML?



Hyper Text Markup Language

HTML is the standard **markup language** for Web pages.

It's NOT a programming language.

It's a documentation that is used for 'display' on browsers/ webpages.





What is HTML?

➤ Introduction to web technologies:



- **HTML(Hypertext Markup Language)** is the language that creates a document and web page that is displayed in the web browser. HTML is not a programming language (cannot define an algorithm with html).
 - Example : Create a button
- **CSS (Cascading Style Sheets)** is a style sheet language that shows how the html is displayed (color, layout, font size,).
 - Example: Change the color of a button
- **Javascript** how css and html is loaded in a website. It makes the website interactive and responsive.
 - Example: Make button interactive. When user clicks on the button, then login the application.



Html without CSS and JS



- **HTML** to create the document structure and content
- **CSS** to control its visual aspect
- **Javascript** for interactivity

*When you only know
HTML and develop a
web application*





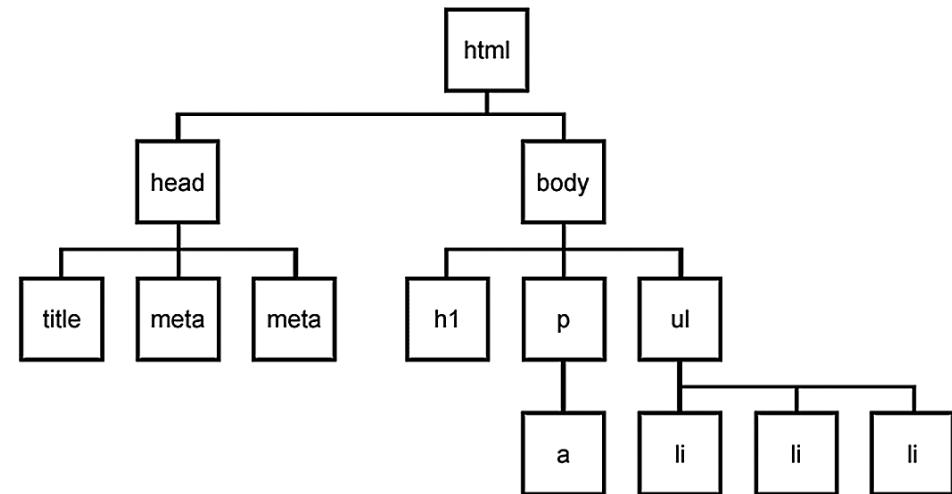
What is HTML?

- HTML is the mark-up language for the web pages
- Gives our web pages content and meaning
- Provides features like:
 - Headings
 - Paragraphs
 - Sections
 - Footer
- First Language most front-end developers learn
- HTML is like a word processor but designed for the web
- It provides structure to the content appearing on a website such as images, text or videos
- The same way we use Notes to compose music, we use HTML to create web pages



DOM Tree

- Every element can only have one parent
- Every element can have several children
- DOM structure looks like a tree.





IDE (integrated development environment)



- IDE is used to create development frameworks
- IDE is used to keep project documents all together in organized way



Notepad++



Sublime Text



Atom



Visual Studio
Code

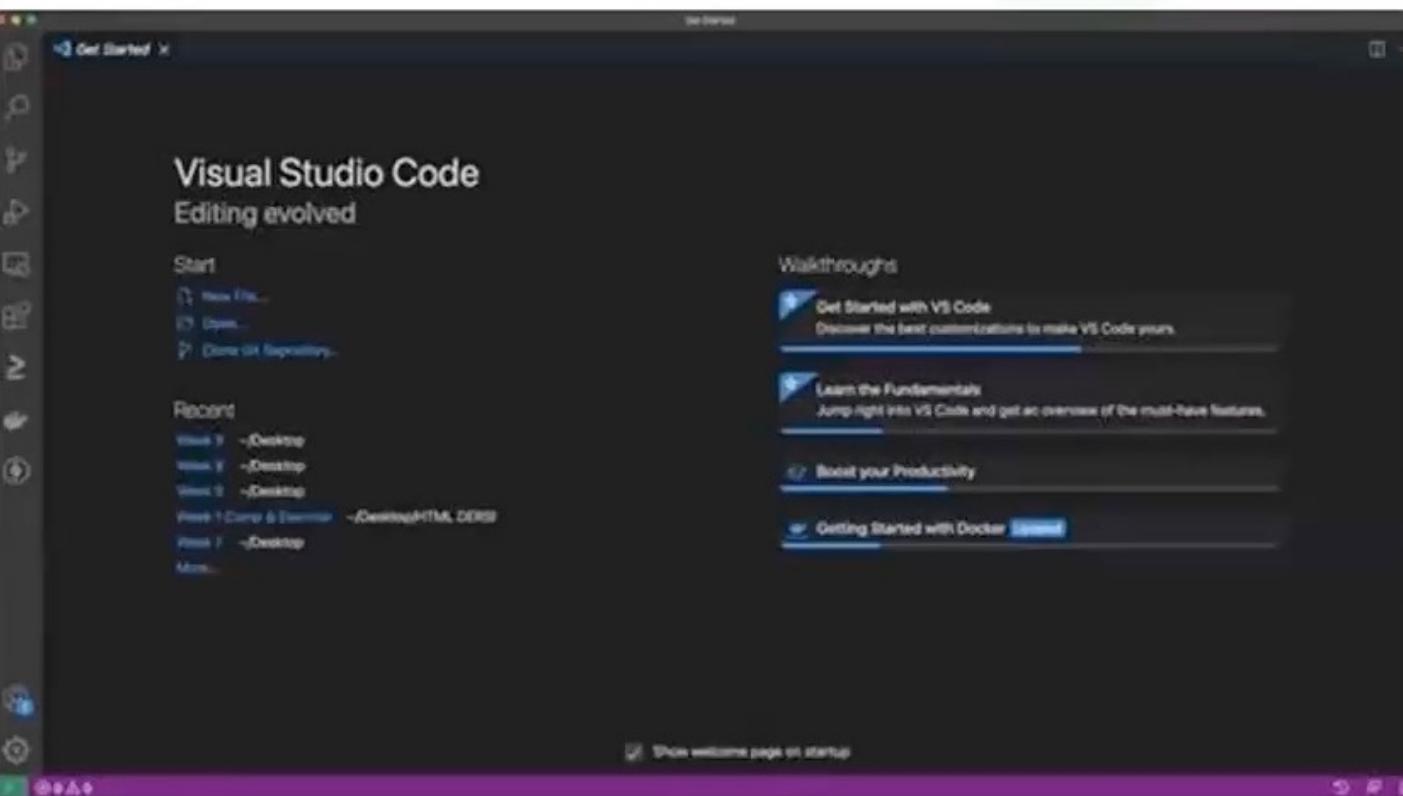


Adobe
DreamViewer



Visual Studio Code (VS Code)

- As we need an instrument to play music, we need a code editor to write the code and create the web page.





Extensions to add

❖ Live server

The screenshot shows the VS Code Marketplace search results for 'live'. The 'Live Server' extension by Ritwick Dey is highlighted. The extension details page is open, showing version v5.7.9, 35,300,071 downloads, and a 4.5-star rating from 444 reviews. It is described as launching a development local Server with live reload feature for static & dynamic pages. The extension is enabled globally. The page also includes sections for 'Live Server loves your multi-root workspace', 'Live Server for server side pages like PHP', and 'For command not found error #78'. At the bottom, there is a preview of a browser showing a live reload in progress.

Extension: Live Server

Live Server v5.7.9

Ritwick Dey | 35,300,071 | ★★★★★ (444)

Launch a development local Server with live reload feature for static & dynamic pages

Disable | Uninstall | ⚙️

This extension is enabled globally.

DETAILS FEATURE CONTRIBUTIONS CHANGELOG RUNTIME STATUS

[Wanna try LIVE SERVER++ (BETA) ? It'll enable live changes without saving file. <https://github.com/ritwickdey/vscode-live-server-plus-plus>]

Live Server

Live Server loves ❤️ your multi-root workspace

Live Server for server side pages like PHP. [Check Here](#)

[For 'command not found error' #78]

vscode marketplace v5.7.9 downloads 62M rating 4.3/5 (444)

travis branch no longer available appveyor branch passing license MIT

Launch a local development server with live reload feature for static & dynamic pages.

Categories Other

Extension Resources Marketplace Repository License Ritwick Dey

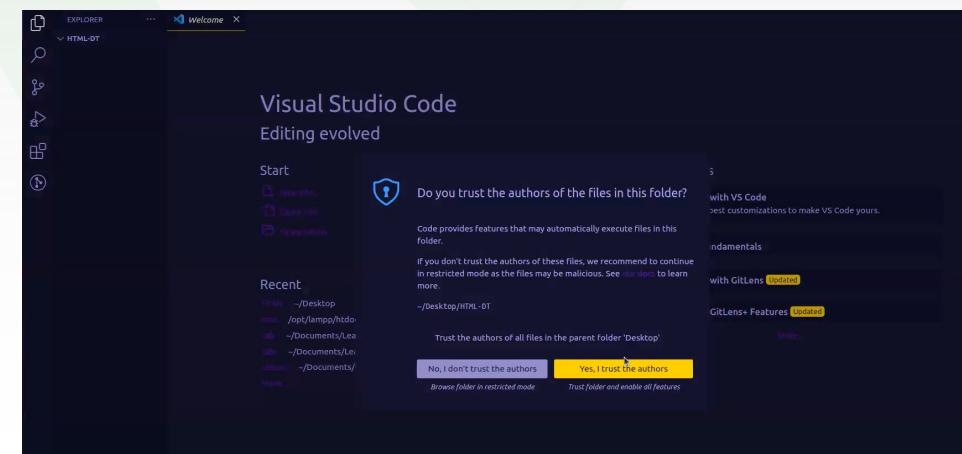
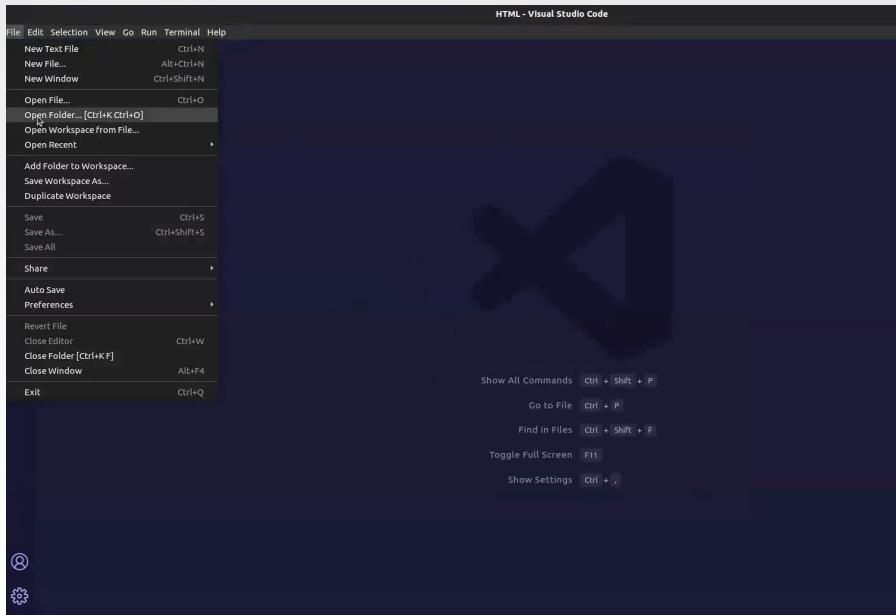
More Info

Published	6/28/2017, 02:14:04
Last released	8/31/2022, 08:03:25
Last updated	4/22/2023, 22:04:52
Identifier	ritwickdey.liveserver



How to start?

1. Create a folder on desktop
2. Go to file
3. Open folder
4. Choose the folder you created
5. Click on 'Yes, I trust the authors' option
6. Create your first index.html file





What is HTML?

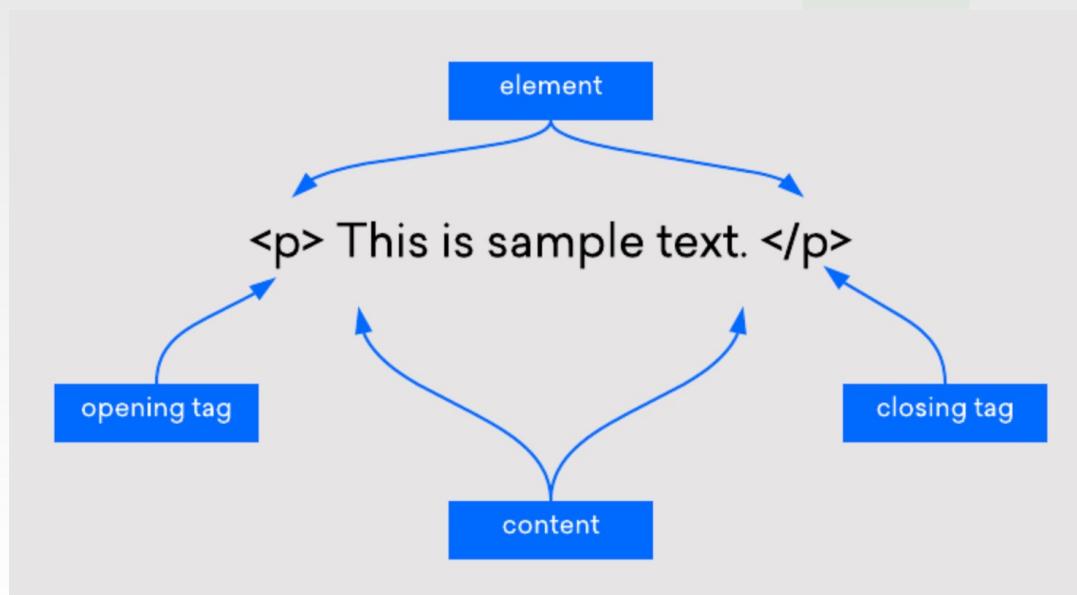
<tag>

- HTML commands are called **tags**.
- Tags are written between angle brackets.
Example: <html> <u> <p>
- With exceptions, tags have beginnings and endings. End tags are indicated by the "/" sign.
Example: Hello <p>How are you</p>
- **Exceptions** are ,
 and <hr>.



HTML Elements

- HTML elements consist of 'tag' and 'content'.
- HTML tags help browsers converts HTML document into a webpage

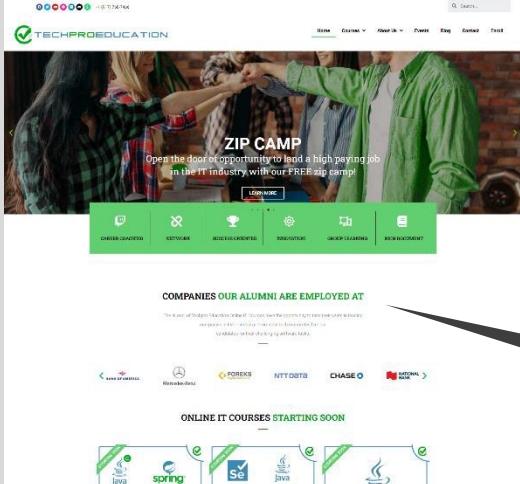




How to Create HTML Page

.html
extension file

```
<html>
  <head>
    </head>
  <body>
    <!-- Page Content -->
    </body>
</html>
```



The screenshot shows a website for 'TECHPROEDUCATION'. At the top, there's a navigation bar with links like 'HOME', 'COURSES', 'ABOUT', 'PRIVACY', 'FAQ', 'CONTACT', and 'LOG IN'. Below the navigation is a banner with three people and the text 'ZIP CAMP' and 'Open the door of opportunity to land a high paying job in the IT industry, with our FREE zip camp!'. Underneath the banner is a section titled 'COMPANIES OUR ALUMNI ARE EMPLOYED AT' featuring logos for Bank of America, Mercedes-Benz, FOREKS, NTT DATA, CHASE, and MNC. At the bottom, there's a section for 'ONLINE IT COURSES STARTING SOON' with icons for Java, Spring, Selenium, and others.

Everything is contained between **html** expressions

Preliminary information and settings about the page are located in the **head**.

Everything the visitor sees is in the **body**.



- `<!DOCTYPE html>` informs the web that we are using the latest HTML

5 index.html ●

```
src > 5 index.html > ⚡ html > ⚡ head > ⚡ meta
1   <!DOCTYPE html>
2   <html lang="en">
3   <head>
4       <meta charset="UTF-8">
5       <meta http-equiv="X-UA-Compatible" content="IE=edge">
6       <meta name="viewport" content="width=device-width, initial-scale=1.0">
7       <title>Document</title>
8   </head>
9   <body>
10
11  </body>
12  </html>
```



- `<!DOCTYPE html>` informs the web that we are using the latest HTML

```
<!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">
    }

```





How to Create HTML Page

<title>

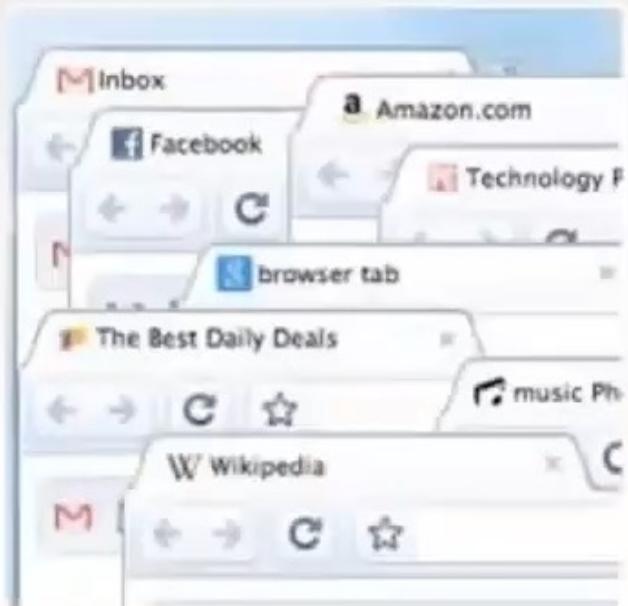
It is contained within the head tag and specifies the **text to be displayed** in the browser's **title bar**.

SEO

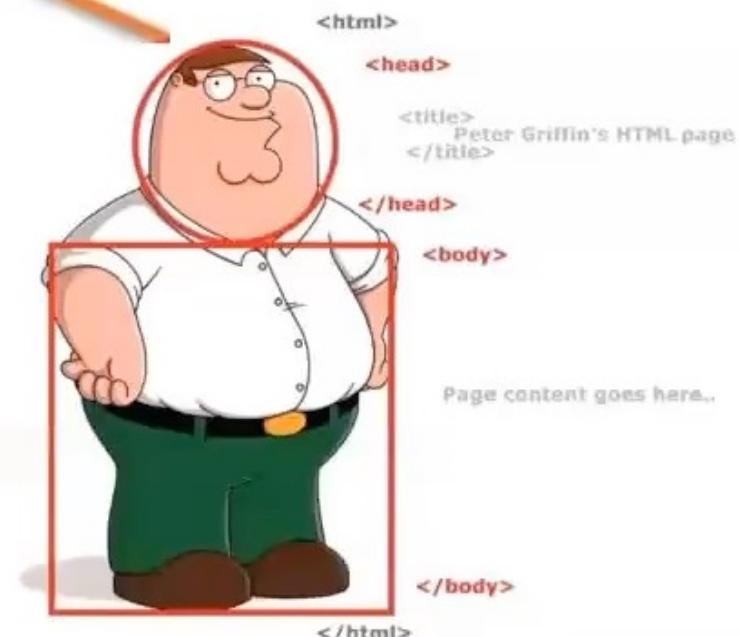
Title is important for SEO. The most important words must be in the title.
Key words should be used in the title.
It should not be longer than 60 characters.



HTML Structure



Tab on the
browser





How to Create HTML Page

Basic code template of a web page

Tag

```
<html>
  <head>
    <title>My First Page</title>
  </head>
  <body>
    Hello, this is my first page.
  </body>
</html>
```

- Element
- Parent
 - Child

REMEMBER TO SAVE BEFORE RUNNING!!



HTML Structure

■ **<head></head>**

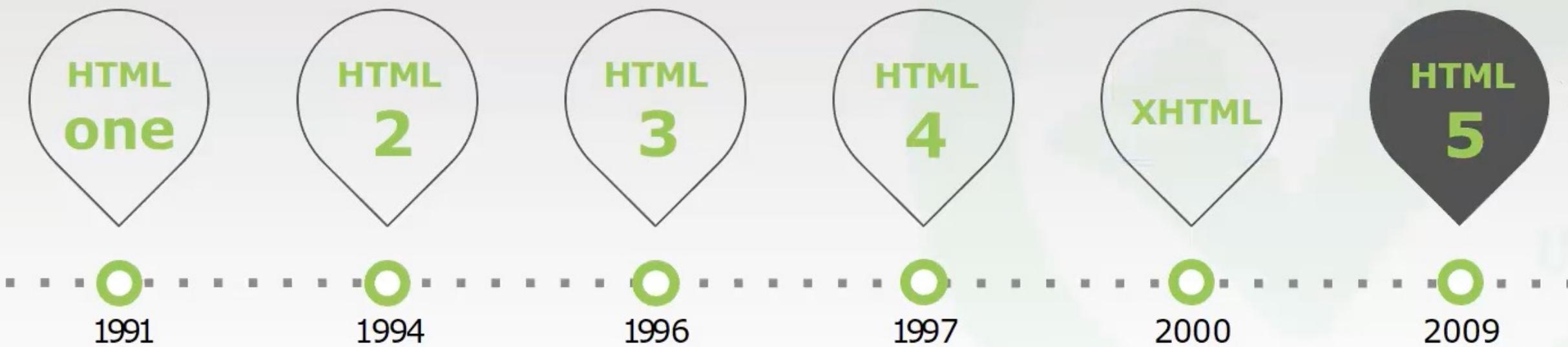
- <meta/> tags are typically used to specify some settings such as character set, page description, keywords, etc.
- **<title></title>**
 - Content within "title" tag will be seen on the tab.

■ **<body></body>**

- All content written within the body tag will be seen on the body of webpage.



Development of HTML





What's new in HTML5



multimedia
tags



Semantics
tags



New types
for inputs



INTERVIEW



vector
illustrati
on



Format tags



dynamic
properties



Basic Formatting Tags

<hx>

heading

<h1>

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

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

<h2>

<h3>

<h4>

<h5>

<h6>

`<h1>Heading 1</h1>`

`<h2>Heading 2<`

- The most important information on the page should be written in h1.
- A page must have 1H1.
- This information should also be relevant to how people find this page.
- The next h tags should be hierarchical.



HTML Tags <h1>

- <h1> to <h6> are used to define HTML Headings.
- <h1> is used for most important, <h6> is used for the least

First-level heading

Second-level heading

Third-level heading

Fourth-level heading

Fifth-level heading

Sixth-level heading





Use Of Head Tags

<h1>How to add website to the search engine?</h1>

<p>Lorem Ipsum is simply dummy text of the printing and typesetting industry.</p>

<h2> How to add website to Google?</h2>

<p>Contrary to popular belief, Lorem Ipsum is not simply random text. It has roots in a piece of classical Latin literature from 45 BC, making it over 2000 years old.</p>

<h2> How to add any link?</h2>

<p>It is a long established fact that a reader will be distracted by the readable content of a page when looking at its layout. </p>



Basic Formatting Tags

< p >

paragraph

The `<p>` tag defines a paragraph.

`<p>` Lorem Ipsum is simply dummy text of the printing and typesetting industry. Lorem Ipsum has been the industry's standard dummy text ever since the 1500s, when an unknown printer took a galley of type and scrambled it to make a type specimen book `</p>`

< br >

break

The `
` tag inserts a single line break.

`<p>` Lorem Ipsum is simply dummy text of the printing and typesetting industry. `
` Lorem Ipsum has been the industry's standard dummy text ever since the 1500s, when an unknown printer took a galley of type and scrambled it to make a type specimen book `</p>`



Basic Formatting Tags and

What is whitespace?

Whitespace is any string of text composed only of spaces, tabs or line breaks.

For example, with the phrasing "extra space" using a double space, we have the following code in our HTML.

extra space

White Spaces

Browsers treat consecutive space characters in HTML codes as a single character. In addition, they do not treat the enter (going to the bottom line) character at all. In this way, developers can write their code in a more readable way.



Format tags

<hr>

horizontal row

Used to create a horizontal line

<hr>

<!-- -->

Comment

It is used when the designer wants to put comment lines inside the html codes that cannot be seen by the user.

<!-- these lines are not displayed on the screen -->



Semantic vs Non-semantic

semantic

Semantic tags contain meaning for search engines or developers. Such tags put the element they contain in a certain form according to the meaning they carry.

Non-Semantic

Non-semantic tags are meaningless. They are only used to group semantic tags.

<div> and ****

div (division-section) **span** (openness, distance).

For Example - p tag represents a paragraph, a tag represents anchor tag, form tag, table tag, article tag and many more are semantic elements in HTML. Whereas, div tag, span tag, bold tag are not semantic elements.



Format tags

They are used to bold text.

Strong tag has more semantic value than b.

bold

<p>Lorem Ipsum has been used as industry-standard pseudotexts since the 1500s, when an unknown printer took a gallery of fonts and scrambled them to create a type sample book. </p>



INTERVIEW



Formatting Tags

<i>

bold

To make the text *italic*.

<i>This text is bold.</i>

emphasis

Defines emphasized text. The content inside is displayed in italic.

This text is emphasized.

This is better for search engines.

<u>

underline

Defines misspelled words. The content inside is typically displayed with an underline.

<p>This is some <u>mispeled</u> text.</p>



Nested Tags

The rule to consider when using nested tags: The tag that is opened first is closed last.

```
<p>
  <b>Hello</b>
  <u>World</u>
</p>
```



```
<p>
  <b>Hello
    <u>World</u>
  </b>
</p>
```



```
<p>
  <b>Hello</b>
  <u>World</p>
</u>
```



```
<p>
  <i>Hello
  <u>world </i>
  </u>
</p>
```





Format tags

delete

It is used to cross over the text. It is especially used when showing the non-discounted price on shopping sites.

52€

I
<code>

It is used when computer codes want to be displayed on the web page. The font of the text is shown as monospace, clearly distinguishing it from other texts.

<code>Integer x=5;</code>
<code><p> lorem ipsum...</code>

<mark>

It is used to highlight text. It gives highlight feature.

<mark>Techproeducation</mark>



Format tags

<sub>

subscript

Used to show as subscript

F₂

<sup>

superscript

Used to show as superscript

X²



Exercise

TECHPROEDUCATION OUR MISSION

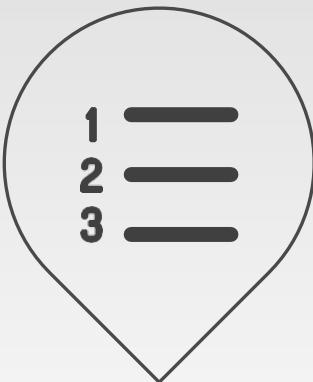
TechPro Education is a *coding bootcamp* founded in 2019 by a group of passionate IT field experts with 10 years of teaching experience. They all have domain knowledge and are actively working in **top Fortune 500 companies**. As such, they witness industry progression first-hand and update the curricula where needed, making the online it courses content always relevant.

OUR VISION

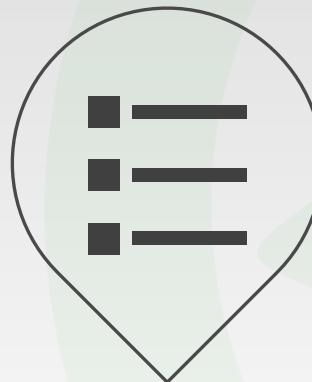
In as little as six months, **TechPro Education** Online *IT Courses & Bootcamps* can equip you with the IT knowledge and skills required by the tech job market. They can help you land a tech job by guiding you with career development through IT coaching and training even after you graduate.



List Tags



Ordered List



Unordered List



List Tags

Ordered list

Defines an ordered list. An ordered list can be numerical or alphabetical.

``

List item

Defines each list item.

```
<ol>
  <li>Family</li>
  <li>Home</li>
  <li>Work</li>
</ol>
```



List Tags

How to create nested list

```
<ol>
  <li>Turkey
    <ul>
      <li>Istanbul</li>
      <li>Ankara</li>
      <li>Izmir</li>
    </ul>
  </li>
  <li>Germany
    <ul>
      <li>Berlin</li>
      <li>Hamburg</li>
    </ul>
  </li>
</ol>
```



List Tags

Unordered list

Defines an unordered list
list .

List item

Family
Home
Work



List Tags

<dt>

definition term

Used to add a descriptor to the list

```
<dt>HTML</dt>
```

<dd>

Def. description

Used to add an explanation of the term

```
<dl>
  <dt>HTML</dt>
  <dd>The markup language used to create a web page.</dd>
</dl>
```



Hands-On

Create and nested ordered and unordered list to display minimum meaningful items and display in your webpage.

1. USA
 - Florida
 - Georgia
 - New Jersey
2. Florida
 - Orlando
 - Miami
 - Tampa



List Tags

Create a nested list

```
<ol>
  <li> USA
    <ul>
      <li> Florida </li>
      <li> Georgia </li>
      <li> New Jersey </li>
    </ul>
  </li>
  <li> Florida
    <ul>
      <li> Orlando </li>
      <li> Miami </li>
      <li> Tampa </li>
    </ul>
    <li>
</ol>
```



List Tags

Changing List Type

```
<ol type="1 | A | a | I | i">  
  <li>Istanbul</li>  
  <li>Ankara</li>  
  <li>Izmir</li>  
</ol>
```

```
<ul type="disc | square | circle">  
  <li>Istanbul</li>  
  <li>Ankara</li>  
  <li>Izmir</li>  
</ul>
```

attribute

Expressions that are written inside the html tag
and add additional features to the html tag



List Tags

Changing List Type

```
<ol type="a" start="3">  
    <li>Beşiktaş</li>  
    <li>Fenerbahçe</li>  
    <li>Galatasaray</li>  
</ol>
```

start="3"



HTML Attributes

- We can use the attributes in order to provide additional information regarding HTML elements.
- All HTML elements can have attributes.
- Attributes are always specified in the opening tag after the tag name.
- It is possible to write more than one attribute to an element.

```
<a attribute='value'> CONTENT </a>
```



Link Tag

< a >

anchor

Used for creating link from a place to another place:

- <a> tag uses “href” attribute to indicate link destination.
- <a> tag also uses target=“_black” to open a new page on another tab.
 - From page to page
 - To different section of the same page
 - To a different part of another page
 - To a different site
 - To your email address
 - To phone number
 - To WhatsApp



Link Tag

< a >

anchor

To create a link to another site

```
<a href="https://techproeducation.com/">Go to TechPro</a>
```

To open the link in a new tab

```
<a href="https://techproeducation.com/" target="_blank"> Go to TechPro </a>
```



Link Tag

< a >

anchor

To create link in a page to another page

```
<a href=" index.html "> Click</a>
```

index.html

< a >

anchor

Linking to a file

```
<a href=" files/image.jpg "> Click</a>
```



Adding Image

image

It is done by tag. Jpg, png and svg files are recommended.

```

```



link tag

<a>

anchor

To link to your email address:

```
<a href="mailto:sdiktas.techproed@gmail.com">Send Email</a>
```

To link to a phone number:

```
<a href="tel:+905552226633">Call</a>
```

To link to Whatsapp number:

```
<a href="https://wa.me/905552226633">Whatsapp</a>
```

```
<a href="https://wa.me/905552226633?text=Hello%205">Whatsapp</a>
```



Add a photo

image

Adding photos is done with the img tag. Jpg, png and svg are preferred.

```

```



The alt attribute used in the img tag is important for SEO. It is one of the places search engines look for indexing.

Free image stores: unsplash.com, pexels.com, flaticon.com



Add a photo

	JPG	GIF	PNG	SVG
Usage area	Digital Photo	Simple Animation	Logo, icon, graphic	Logo, icon, graphic, animation
Compression	Good	No bad	Good	Perfect
Compression Type	lossy	lossy	Lossless	Lossless
High Definition	Good	None	Good	Perfect
Number of Colors	Millions	256	256 - Millions	Unlimited
transparent floor	None	None	There is	There is



Task: Link to image

Add ANY 3 images and make them appear larger in the new tab when clicked on them.





Adding sound to the page

5

<audio>

Adding sound to the page is done with the audio tag.

```
<audio controls="" autoplay="" muted="">
<source src="music1.mp3" type="audio/mp3">
    Your browser does not support the audio element.
</audio>
```



Mp3, wav, ogg files can be used, but mp3 is the most supported by browsers.

INTERVIEW



Adding a video to the page



<video>

Adding video to the page is done with the video tag.



Files with the ^I extension MP4, WEBM, OGG can be used, but mp4 is the most supported.

FREE VIDEOS: <https://www.pexels.com/>



iframe

<iframe>

It is used to display the page of a different site within your page. This is how maps and youtube videos are added.

```
<iframe src="https://www.britannica.com/"></iframe>
```

NOTE: Not every website supports iframes!



INTERVIEW



Tables

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

SN	Name of the product	Price
one	notebook	1000\$
2	Mouse	\$5
3	Keyboard	\$5
4	Monitor	\$150
5	Adapter	\$50
6	Sound system	350\$

O.N.	Country Name	Population
1	China	1,439,323,776
2	India	1,380,004,385
3	USA	331,002,651
4	Indonesia	273,523,615
5	Pakistan	220,892,340
6	Brazil	212,559,417



Tables

<table>

The table tag is used to create a table.

<head>

Table header

Cells in the header are located in the thead

<tbody>

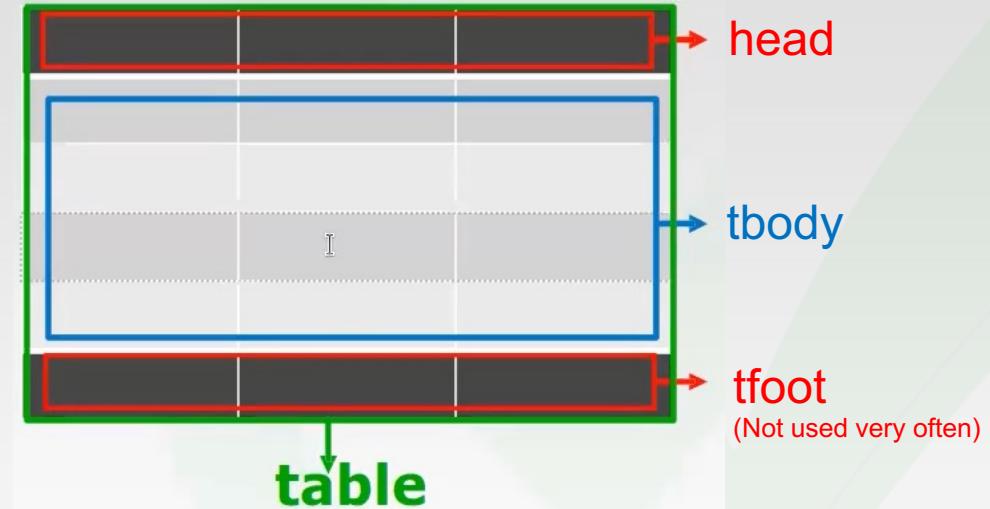
Table body

Data cells are contained in tbody

<tfoot>

table footer

Footer cells are located in tfoot



NOTE: It is not mandatory to use thead, tbody, tfoot etc. but it's very convenient when it comes to CSS



Inside the Tables

<tr>

Table row

Used for creating **row**

<td>

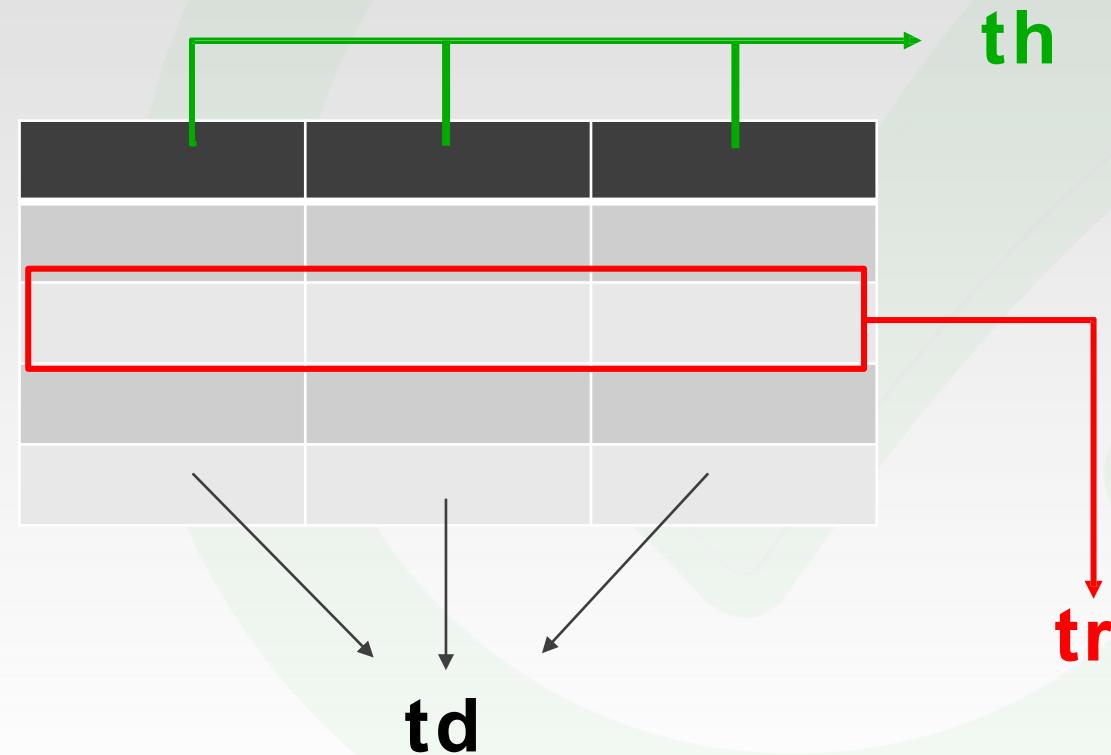
Table data

Used for creating **data cell**

<th>

Table head

Used for creating **header cell**





Tables

```
<table>
  <tr>
    <th>O.N.</th>
    <th>Name</th>
  </tr>
  <tr>
    <td>1</td>
    <td>John Doe</td>
  </tr>
  <tr>
    <td>2</td>
    <td>Mark Twain</td>
  </tr>
</table>
```

O.N.	Name
1	John Doe
2	Mark Twain



Tables

colspan

Used to merge cells horizontally

	colspan	
rowspan		

rowspan

Used to merge cells vertically

```
<td colspan="2"></td>
<td rowspan="3"></td>
  ↴
```



INTERVIEW



Table Exercise

Create the table below

Time chart						
Days	Session	monday	Tuesday	Wed.	thursday	Friday
Batch 123-124	1	Re-Cap	Html	JS	HTML	LWC
	2	Re-Cap	Html	JS	HTML	LWC
	REST					
	3	Mentoring	CSS	JS	JS	LWC
	4	Mentoring	CSS	JS	JS	LWC



Form

- Form is used to take information from the user or page visitor:



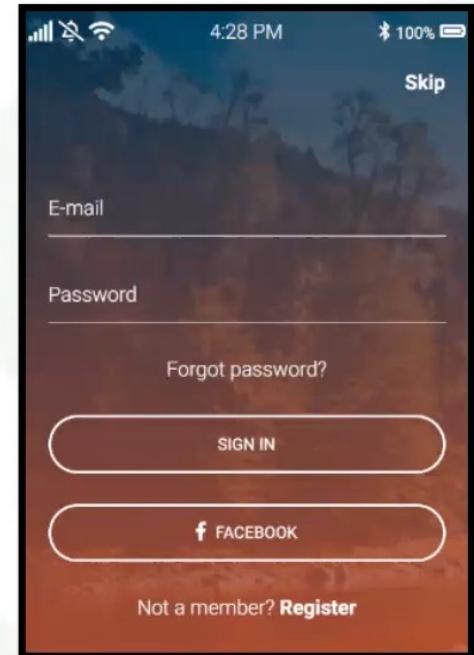
Includes all form elements



Input is used to take information from user



It is used to give information about form elements





Form input types

```
<form>  
  <label>Email</label>  
  <input type="text">  
  <input type="button" value="Save">  
</form>
```

Email Save



Form input types

```
<input type="text | email | number | ...." placeholder="Enter your ...">
```

text

number

email

password

url

tel

hidden



Form input types

```
<input type="button | submit | reset" name="btn" value="Save">
```

button

submit

reset



Linking Label and Input

```
<form>
    <label for="email">Email</label>
    <input id="email" type="email">
</form>
```



Form Validation

Attributes used for form validation:

```
<input type="email" placeholder="Enter email" required minlength="2">
```

required

maxlength

min

max

minlength



Form – Practice 1

— Create the following form:

Email

Password

Security Code

Save

Clear



Input – disabled and readonly

Disabled attribute - users cannot interact

```
<input type="button" value="Click" disabled>
```

JavaScript is used to enable the disabled attribute!

Readonly attribute – makes read only

```
<input type="email" placeholder="techpro@hotmail.com" readonly>
```



Form input types

```
<input type="radio | checkbox | file" name="hobbies" value="football">
```

radio

checkbox

file

colour



Form input types

```
<input type="date | time" name="date" value="">
```

date

time

week

month

datetime-local



Form - Select

```
<select name="languages" multiple size="3" >
  <option value="en">English</option>
  <option value="tr">Turkish</option>
  <option value="fr">French</option>
  <option value="es">Spanish</option>
</select>
```





Form - textarea

<textarea>

This input allows user to write larger text

```
<textarea name="mytext" rows="4" cols="50"></textarea>
```



Form - Practice

— Create the registration form below. Perform form validation in the most appropriate way.

First Name

Last Name

Gender

Male Female Don't want to specify

City



Email

Personal Website

Phone

Hobbies

- Football
- Volleyball
- Basketball

Profile Picture

Choose a File

Birth Date

Address

Register



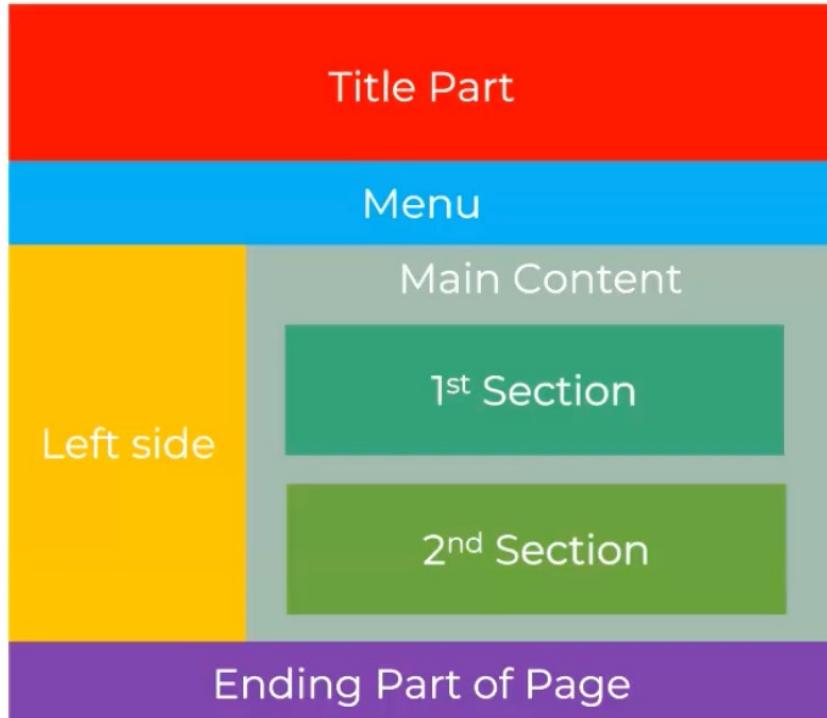
Semantic tags (HTML5)

New meaningful tags are released with HTML5

| | | | |
|------------------------------|------------------------------|------------------------------|---------------------------------|
| <code><article></code> | <code><aside></code> | <code><details></code> | <code><figcaption></code> |
| <code><figure></code> | <code><footer></code> | <code><header></code> | <code><main></code> |
| <code><nav></code> | <code><section></code> | <code><mark></code> | <code><summary></code> |



Semantic tags (HTML5)



```
<header>Title Part</header>
<nav>Menu</nav>
<aside>Left Side</aside>
<main>
    Main Content
    <section>1st Section</section>
    <section>2nd Section</section>
</main>
<footer>End of Page</footer>
```



INTERVIEW



Semantic tags (HTML5)

<article>

- “article” means it contains article like<p>

```
<article>This is an article</article>
```

<details>

- “details” show there is a detailed information about a subject.
- Information inside “details” is not visible by default. When clicked on, it opens in a dropdown section. To show title for this dropdown, “summary” tag is used.

```
<details>
  <summary>Details</summary>
  Our product is the most unique...
</details>
```



Semantic tags (HTML5)

<figure>

- “figure” contains photographs, drawings etc.
- It’s used to indicate that there is a visual element
- It allows the image to be added semantically

```
<figure>
  
  <figcaption>
    Here goes the caption of the image.
  </figcaption>
</figure>
```



CSS

Cascading Style Sheet



What is Css?

CSS

Cascading Style Sheet (CSS) is a markup language that determines the style properties of HTML elements. To add CSS, style attribute is added to the relevant tag. This is called an inline style.

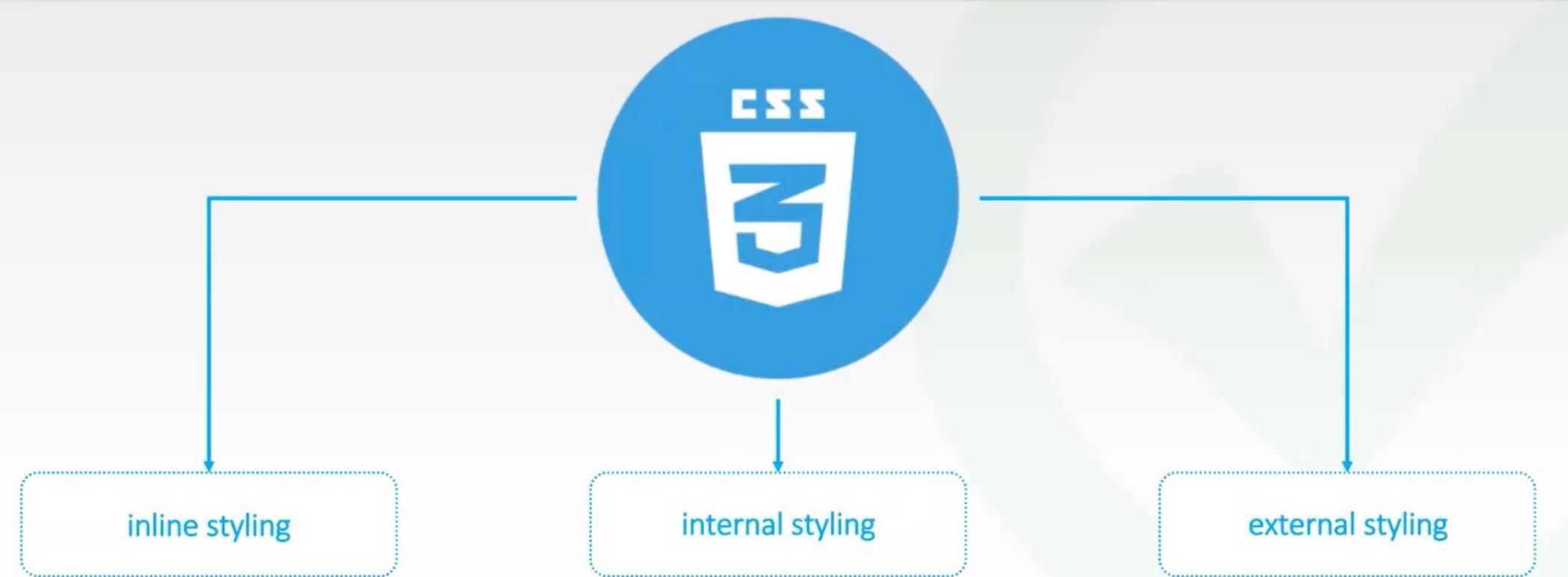
```
<p style="color: red">Hello</p>
```

Property

Value



Different ways to add CSS





Basic CSS properties

font-size

Used for **resizing** the text

```
<a href="page1.html" style="font-size:20px">click</a>
```

font-family

Used for changing the **font** for an element.

```
<div style="font-family:tahoma">Hello</div>
```

text-align

Used for specifying the horizontal alignment of text in an element.
Values: left, right, center, justify

```
<div style="text-align:center">Welcome to Our Site</div>
```



Basic CSS properties

color

Used for changing the color.

Values: (red, green, yellow ...), hexadecimal system (#12AF45), rgb, rgba

```
<p style="color:#1255FA">Hello</p>
```

background-color

Used for changing the background color.

Values are same with color.

```
<p style="background-color:#1255FA">Hello</p>
```



Inline Styling Practice

What is Lorem Ipsum

Lorem ipsum dolor sit amet consectetur adipisicing elit. Molestiae magnam quod officia saepe, veritatis aliquam voluptatem sapiente eaque quos pariatur non neque voluptatibus animi laborum voluptatum corporis, ipsam nostrum dolorem?

Lorem ipsum dolor sit amet consectetur adipisicing elit. Molestiae magnam quod officia saepe, veritatis **aliquam voluptatem sapiente** eaque quos pariatur non neque voluptatibus animi laborum voluptatum corporis, ipsam nostrum dolorem?

Lorem ipsum dolor sit amet consectetur adipisicing elit. Molestiae magnam quod officia saepe, veritatis aliquam voluptatem sapiente eaque quos pariatur non neque voluptatibus animi laborum voluptatum corporis, ipsam nostrum dolorem?



Style tag (Internal)

```
<html>
<head>
  <style>
    p{
      color: red;
      text-align: center;
    }
  </style>
</head>
<body>
  <p>Hello</p>
</body>
</html>
```

Page Level Styling

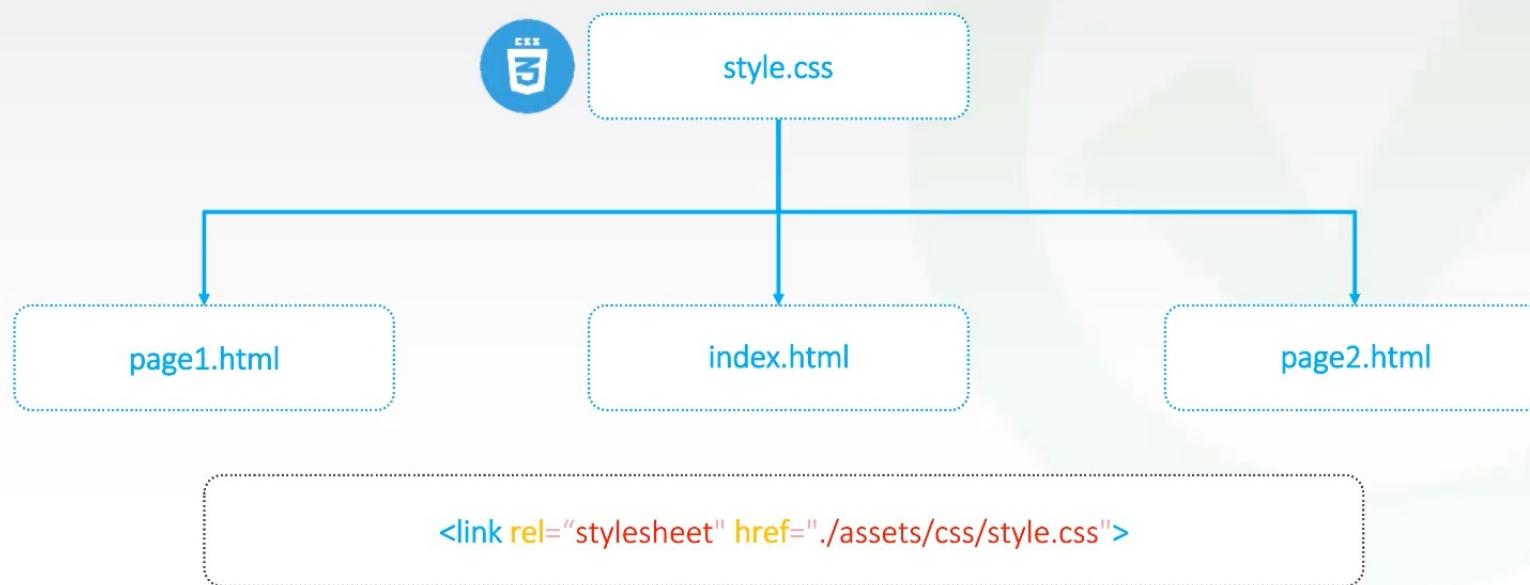
- **<style>** tag is used for declaring a style for a whole page.
- **<style>** tag is used inside the **<head>** tag.



Style tag (External)

Site Level Styling

- External Style is used to affect more than one HTML pages.
- CSS file is created separately (outside the html files)
- Widely used way of styling





Selectors



1

To select all html elements, we use '*'.

```
* {  
    text-align: center;  
    color: blue;  
}
```



Selectors



2

To select a specific html element, the name of element is used as selector.

```
h1 {  
    text-align: right;  
    font-weight: 300;  
}
```



Selectors



3

The `.class` selector selects elements with a specific class attribute.

HTML

```
<p class="center">  
  Hello  
</p>
```

CSS

```
.center {  
  color: blue;  
  text-align: center;  
}
```



Selectors



4

To select more specific elements, you can select specific class in a specific tag.

HTML

```
<p class="center ">  
    Hello  
</p>
```

CSS

```
p.center {  
    text-align: center;  
    color: blue;  
}
```



Selectors



5

To select one specific element, an **id** is assigned to HTML element and this id is then used in CSS styling. To style that specific **id**, hashtag (#) is used before the id name. **id** should be UNIQUE.

HTML

```
<p id ="center ">  
    Hello  
</p>
```

CSS

```
#center {  
    text-align: center;  
    color: blue;  
}
```



Active Style

If there are more than one selector trying to change the same property of the same element, then browser follows the rule below:

- 1 Inline selectors always overwrite others.
- 2 Selectors that define the elements most detailed overwrite others.
- 3 If selector definitions are the same, closest to the element overwrites other.



Active Style

```
<html>
  <head>
    <link rel="stylesheet" href="style.css">
    <style>
      .title {
        color: blue;
      }
    </style>
  </head>
  <body>
    <h1 class="title" style="color:red">
      What is my color?
    </h1>
  </body>
</html>
```

style.css

```
.title {
  color: green;
}
```



Active Style

```
<html>
  <head>
    <link rel="stylesheet" href="style.css">
    <style>
      .title {
        color: blue;
      }
    </style>
  </head>
  <body>
    <h1 class="title">
      What is my color?
    </h1>
  </body>
</html>
```

style.css

```
.title {
  color: green;
}
```



Active Style

```
<html>
  <head>
    <style>
      .title {
        color:blue;
      }
    </style>
    2 <link rel="stylesheet" href="style.css">
  </head>
  <body>
    <h1 class="title">
      What is my color?
    </h1>
  </body>
</html>
```

The code illustrates two ways to apply CSS styles. Method 1 uses an inline style block within the head section. Method 2 uses an external stylesheet linked via the `link` tag.

style.css

```
.title {
  color: green;
}
```



Active Style

```
<html>
  <head>
    <link rel="stylesheet" href="style.css">
    <style>
      .title {
        color:blue;
      }
    </style>
  </head>
  <body>
    <h1 class="title">
      What is my color?
    </h1>
  </body>
</html>
```

style.css

```
.title {
  color:red;
}

h1 {
  color: gold;
}

h1.title {
  color:purple;
}

* {
  color:green;
}
```



Task – Create Menu



- Create the menu on the left

Rules:

1. Menu has **gray** background color
2. Menu item texts are **center** aligned
3. Create a class with name of “active”.
4. This class name should have **background color** of **black** and **text color** of **white**.
5. Give that class name to any element you want



Text Styles

text-decoration

Used for adding lines to text.
Values: underline, overline, line-through, none

```
a{  
    text-decoration: none;  
}
```

font-weight

Used for setting the weight (or boldness) of the font.
Values: 100 – 900, bold, bolder, lighter

```
font-weight : 500;
```



Text Styles

a: link

Specifies unvisited links.

```
a:link{color: #000000 }
```

a: visited

Specifies the link the user has visited.

```
a:visited{color: #000000 }
```

a: hover

Specifies the link when the user hover over it.

```
a:hover{color: #000000 }
```



hover can
be used on
all links.



Text Styles

list-style-type

Specifies the type of list-item marker in a list.
Values: disc, square, circle, none, ‘emoji’

```
list-style-type: disc;
```

list-style-image

Used to change symbol at the beginning of the list

```
list-style-image: url("./assets/img/troll_face")
```

list-style-position

Used to determine the position of the list symbol: inside | outside

```
list-style-position: inside
```



Display

The **display** property specifies the display behavior of an element.

Values: inline, block and inline-block ...

inline

Displays an element as an inline element. Any height and width properties will have no effect. (like button)

block

Displays an element as a block element. It starts on a new line, and takes up the whole width.

inline-block

Displays an element as an inline-level block container. The element itself is formatted as an inline element, but you can apply height and width values

none

The element is completely removed



Units of Measurement

Constant Units of Measurement

- cm
- mm
- in
- px

Relative Units of Measurement

- %
- em
- rem
- vh
- vw



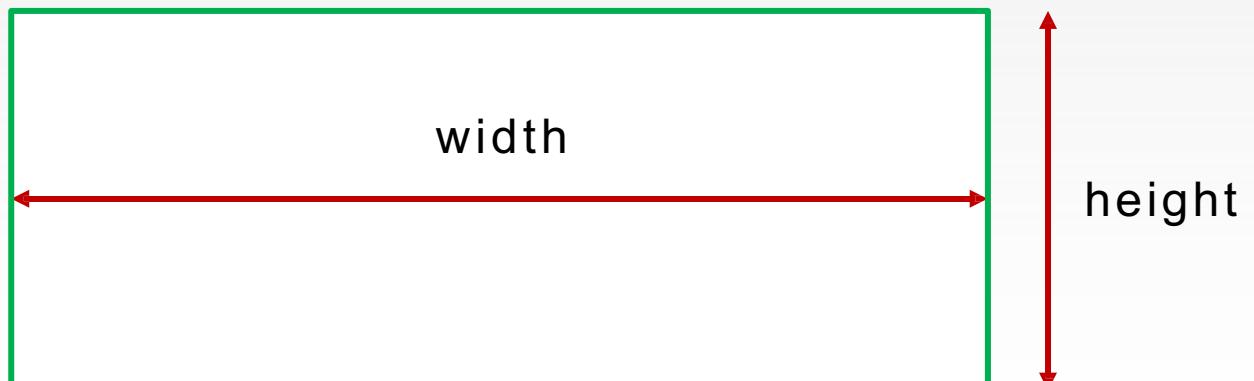
CSS Basic Properties

width

The **width** property sets the width of an element.

height

The **height** property sets the height of an element.



For width and height, %, px, vw, vh can be used.



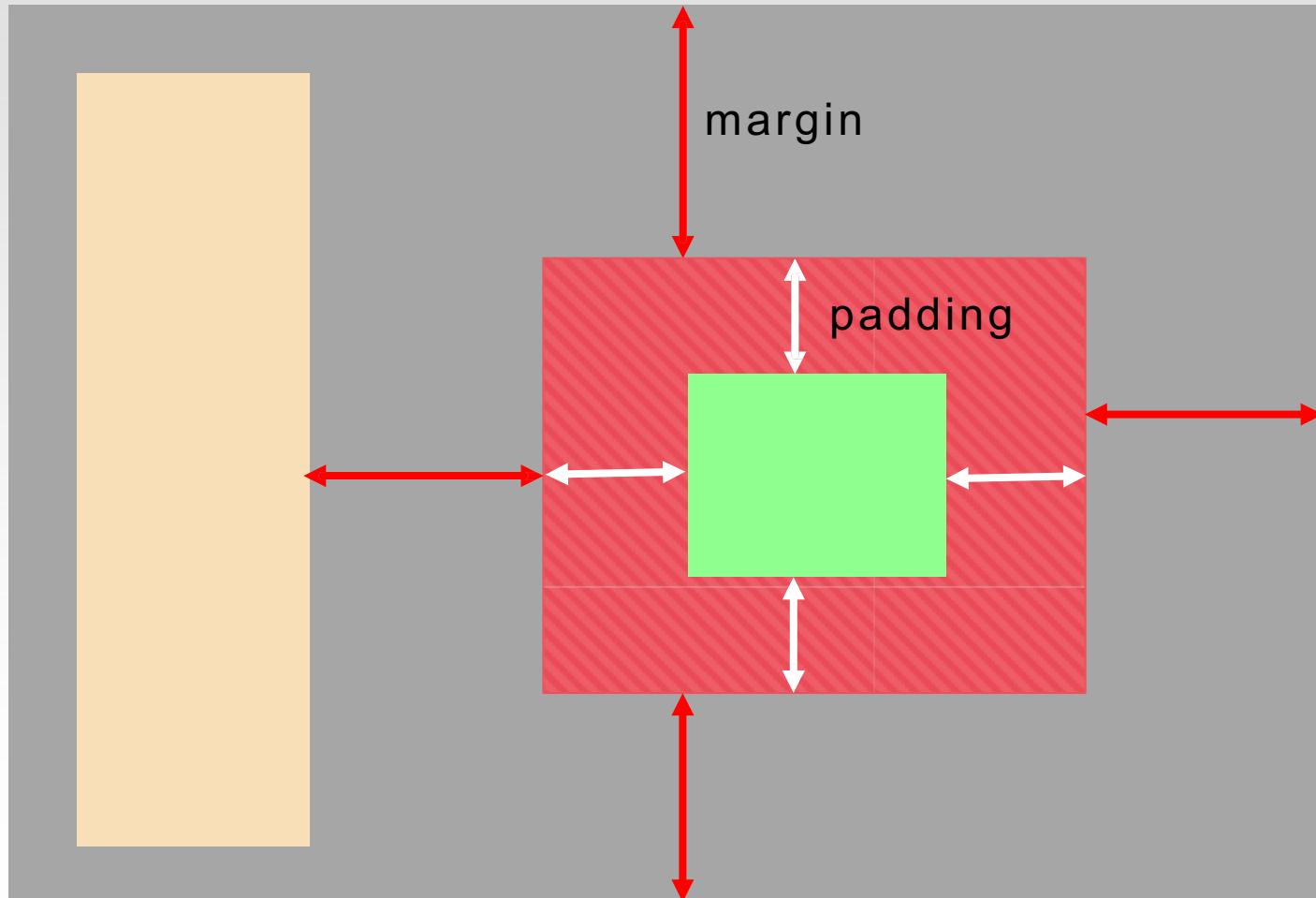
Width and height are not used for inline elements.



Do not use width and height, if it is not necessary.



Padding & Margin

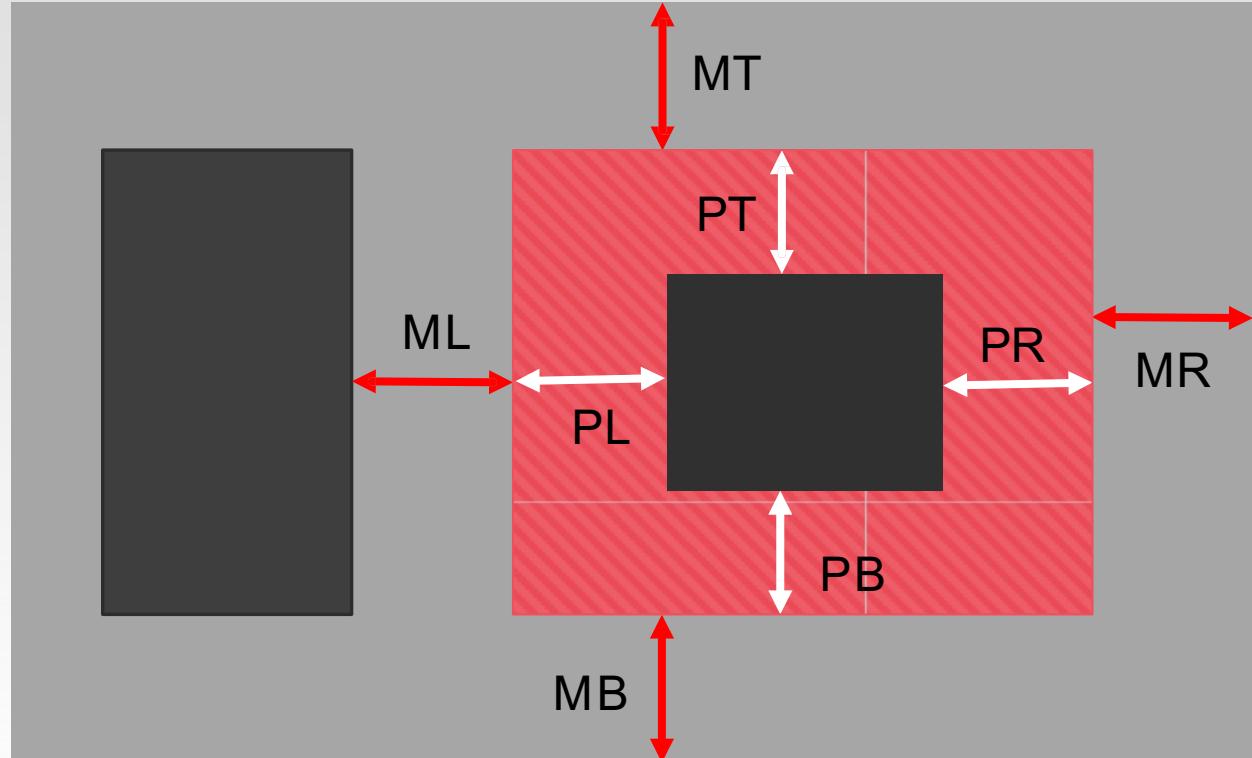


```
<div>
  <div></div>
  <div class="box">
    <div>
      </div>
    </div>
  </div>
</div>
```

```
.box{
  padding: 50px;
  margin: 90px;
}
```



Padding & Margin



Only horizontal padding and margin can be applied to inline elements.

Margin and padding values can be defined separately.

```
margin-top: 10px;  
padding-left: 20px;
```

can be defined as **upper right lower left**

```
margin: 5px 3px 7px 8px;  
padding: 64px 80px 192px 0;
```

can also be defined as **vertical horizontal**

```
margin: 5px 3px;  
padding: 64px 80px;
```



Padding vs Margin

- Margin and padding can be defined in clockwise:

```
margin: 10px 5px 15px 20px;
```

```
margin-top: 10px;  
margin-right: 5px;  
margin-bottom: 15px;  
margin-left: 20px;
```

- Margin and padding can be defined in horizontally or vertically (x or y axis):

```
margin: 8px 22px;
```

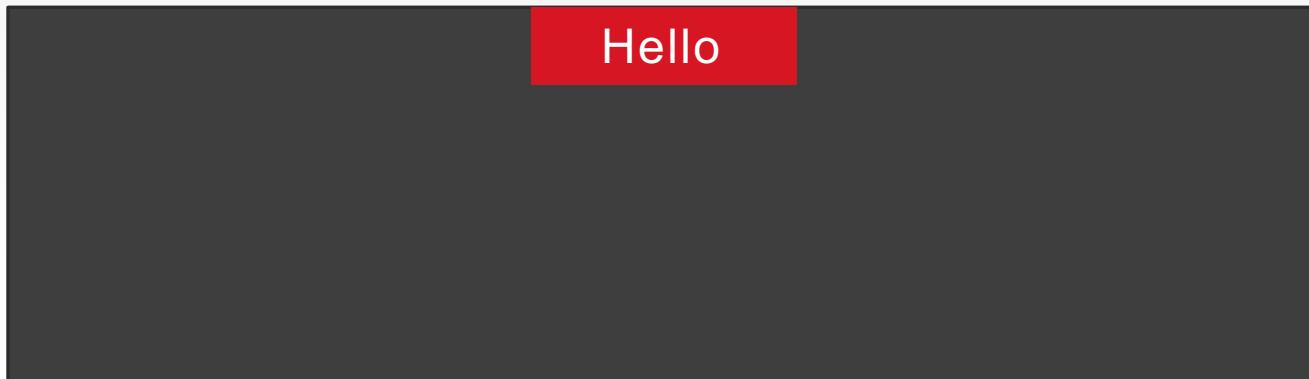
```
margin-top: 8px;  
margin-right: 22px;  
margin-bottom: 8px;  
margin-left: 22px;
```



Horizontal alignment

To position a block element horizontally within another block element

```
<div>  
    <div>Hello</div>  
</div>
```



Align left

```
margin-left:0;  
margin-right: auto;
```

Align right

```
margin-left: auto;  
margin-right:0;
```

Centering

```
margin-left:auto;  
margin-right:auto;
```

/*or*/
margin:80px auto;



Selectors ...



5

To select elements within an element, selectors can be written with spaces in between.

```
<nav class="navbar">
  <ul>
    <li><a href="home.html">Homepage</a></li>
    <li><a href="products.html">Products</a></li>
    <li><a href="about.html">About Us</a></li>
    <p><a href="index.html">Index</p>

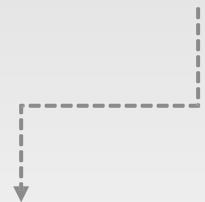
  </ul>
</nav>
```

```
.navbar ul p{
  font-weight: 900;
  color: red;
}
```



Borders

`border: width type color;`



dotted, dashed, solid, double, groove, ridge, inset, outset, none

`border: 3px solid red;`

`border: 3px dashed blue;`

`border: 5px dotted gray;`



Borders

Border can be given to 4 sides of the elements or only the desired side can be given.

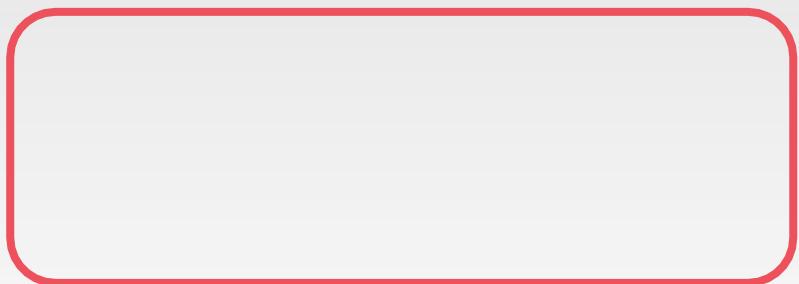
border-left | border-right | border-bottom | border-top

border-top: 3px solid red;



Borders

"border-radius" property allows you to add rounded corners to elements!



```
div{  
    border:2px solid red;  
    border-radius: 8px;  
}
```



```
div{  
    background-color:red;  
    border-radius: 8px;  
}
```

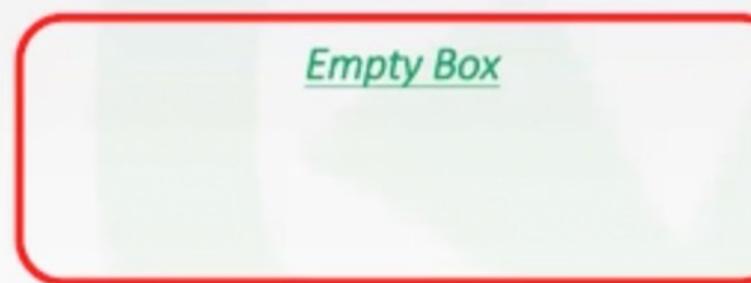


Border practice

----- 500px width -----



----- 500px width -----



200px height

Empty Box

Filled Box

Filled Box



Background image

background-image

Set a background-image for the element

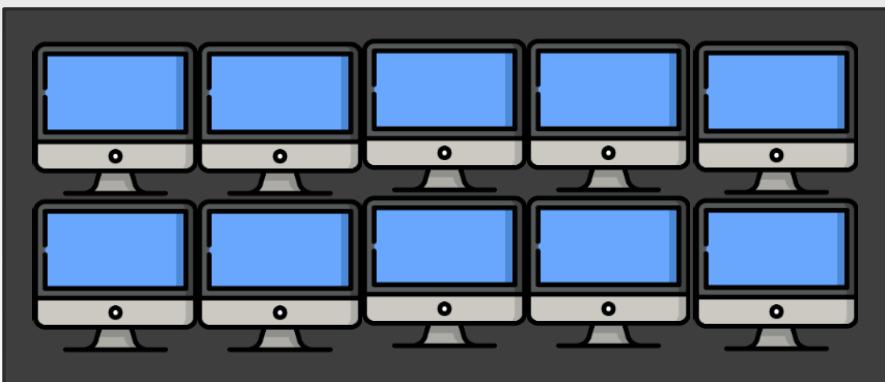
```
div{  
    background-image: url("img/bg.png");  
}
```



Background image

background-repeat

The background image is repeated both vertically and horizontally. This is default.



Repeat: default

No-repeat: The image will only be shown once

Repeat-x: The background image is repeated only horizontally

Repeat-y: The background image is repeated only vertically



Background image

background-position

The **background-position** property sets the starting position of a background image. For horizontal left, right, center; for vertical top, bottom, center statements can be used.

```
div{  
background-image: url('img/bg.png');  
background-repeat: no-repeat;  
background-position: center bottom;  
}
```

horizontal

vertical





Background image

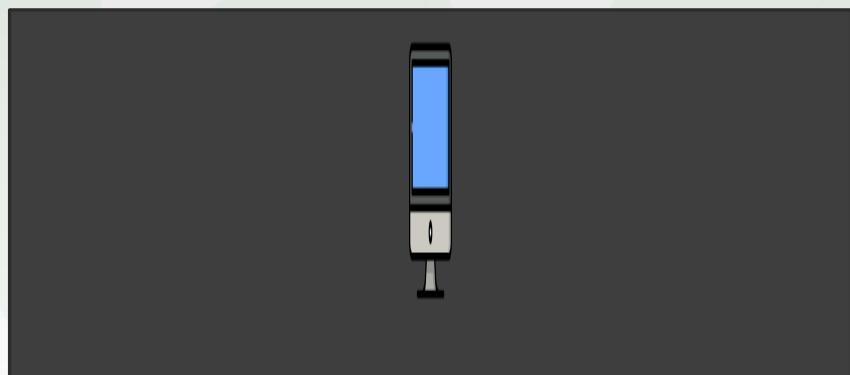
background-size

The **background-size** property specifies the **size** of the background images. A certain value can be given for the size, or one of the values of **cover** or **contain** can be given.

```
div{  
    background-image: url('img/bg.png');  
    background-repeat: no-repeat;  
    background-position: center bottom;  
    background-size:10px 80px;  
}
```

Width

Hight





Background image



`background-size:contain;`

Places the photo inside the browser so that the entire image is visible.



`background-size:cover;`

Enlarges the photo to fill the entire browser, cropping the image if necessary.



For more information

<https://emojipedia.org/sparkles>

<https://www.w3schools.com/css/>

<https://developer.mozilla.org/en-US/docs/Web/CSS>