DATE : 07/18/2024

DT/NT : DT

LESSON : HTML

SUBJECT: LIST & LINK & MEDIA TAGS

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HTML

Fundamentals

- What is HTML?
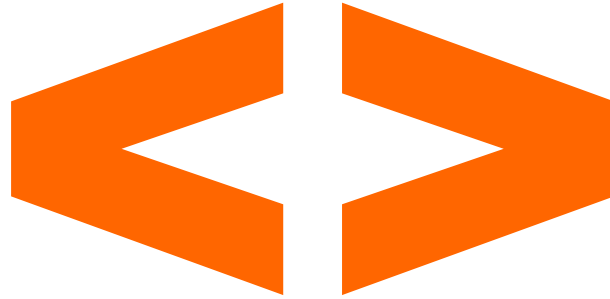- Creating HTML page
- Journey of the HTML

What is HTML?

HTML

JAVASCRIPT

CSS

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What is HTML?

Hyper **T**ext **M**arkup **L**anguage

— HTML is a markup language used to create web pages.
HTML is not a programming language,
it is a markup language .

What is HTML?

‹tag›

- HTML commands are called **tags**.

- Tags are written between the greater than or less than signs.

  Example: ‹html› ‹b› ‹u› ‹p›

- With exceptions, tags have beginnings and endings. End tags are indicated by the **‹/›** sign.

  Example: ‹b›Hello‹/b› ‹p›How are you?‹/p›

- *Exceptions are **‹img›, ‹br› and ‹hr›.***

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Creating An HTML Page

<html>

   <head>

   </head>
   <body>

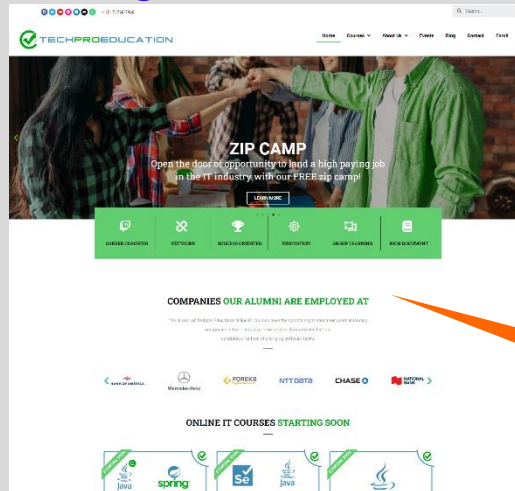   **</body>**

</html>

file with **".html"** extension

Everything is contained between **html** expressions.

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

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

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Creating An HTML Page

<title>

It is contained within the **head** tag and specifies the text to be displayed in the **browser's title bar**. <u>It is very valuable for SEO</u>.

SEO The most important keywords for the page should be here. It should be relevant to the page and should not exceed 60 characters. The title in the search results is the phrase written here.

Creating An HTML Page

The most basic template for a website

Tag

```
<html>
    <head>
        <title>My First Website</title>
    </head>
    <body>
        Hello! This is my first website.
    </body>
</html>
```

Element
- Parent
- Child

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Journey of The HTML Pages

Client

https://techproeducation.com

```html
<html>
    <head>
        <title>Techproeducation</title>
    </head>
    <body>
        <h1> Techproeducation</h1>
        <h2>Welcome</h2>
        <img src="img/logo.jpg"/>
    </body>
</html>
```

HTML
CSS
JavaScript
json
xml

ISP
(Internet Service Provider)

INTERNET

Web Server

Java
C#
php
Python
Node.js

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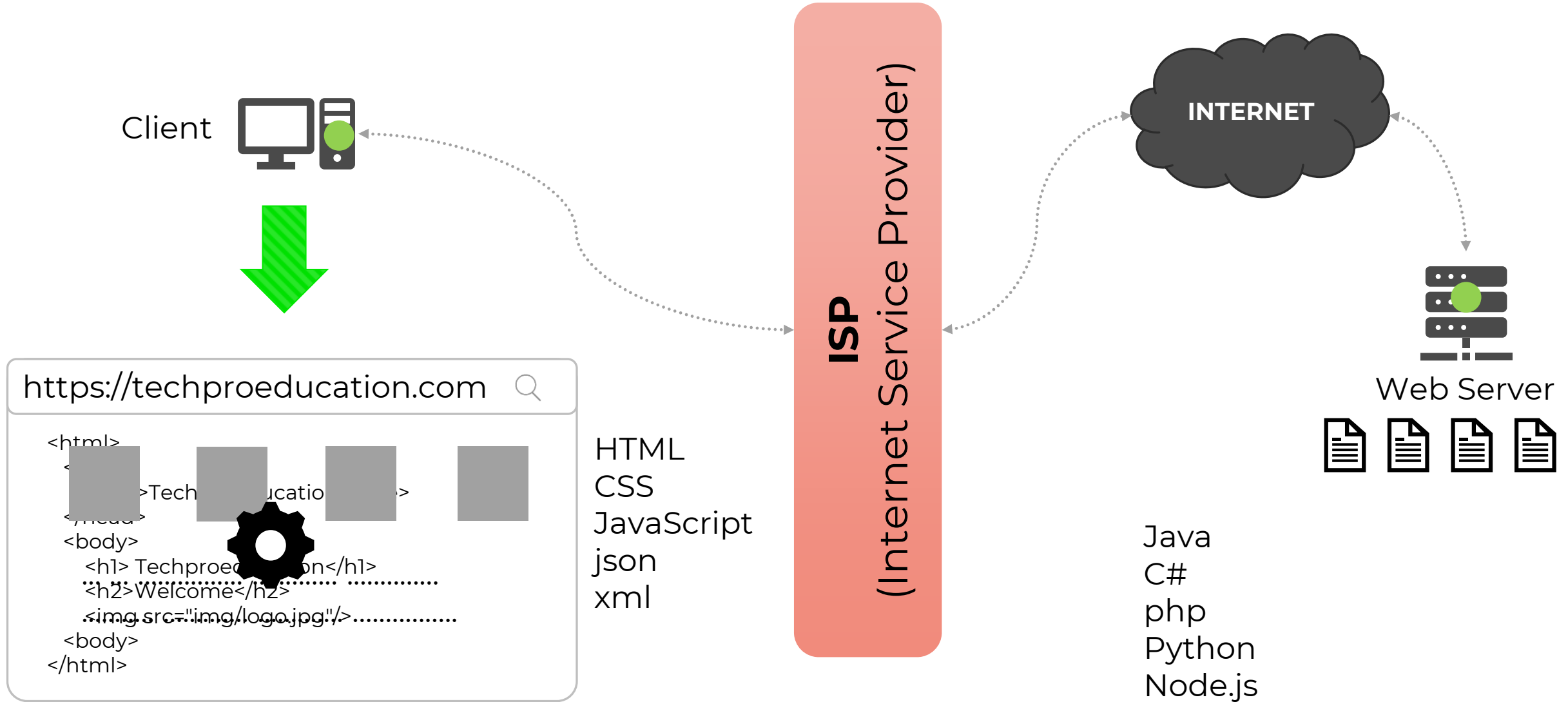
HTML Throughout The Years

HTML 1 — 1991

HTML 2 — 1994

HTML 3 — 1996

HTML 4 — 1997

XHTML — 2000

HTML 5 — 2009

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New Features in HTML5

Multimedia Tags

Semantic Tags

New Types For Inputs

Vectoral Draws

Formatting Tags

API

Dynamic Features

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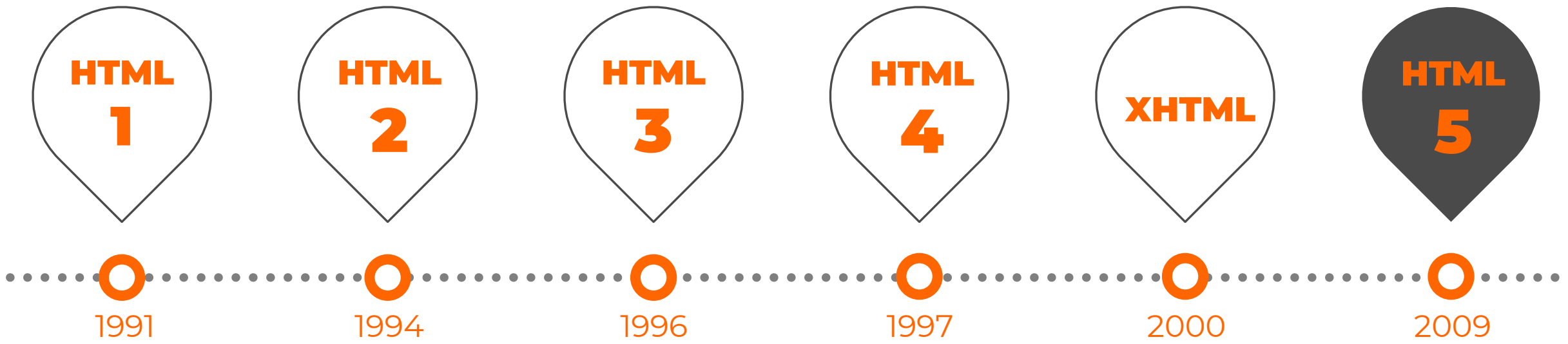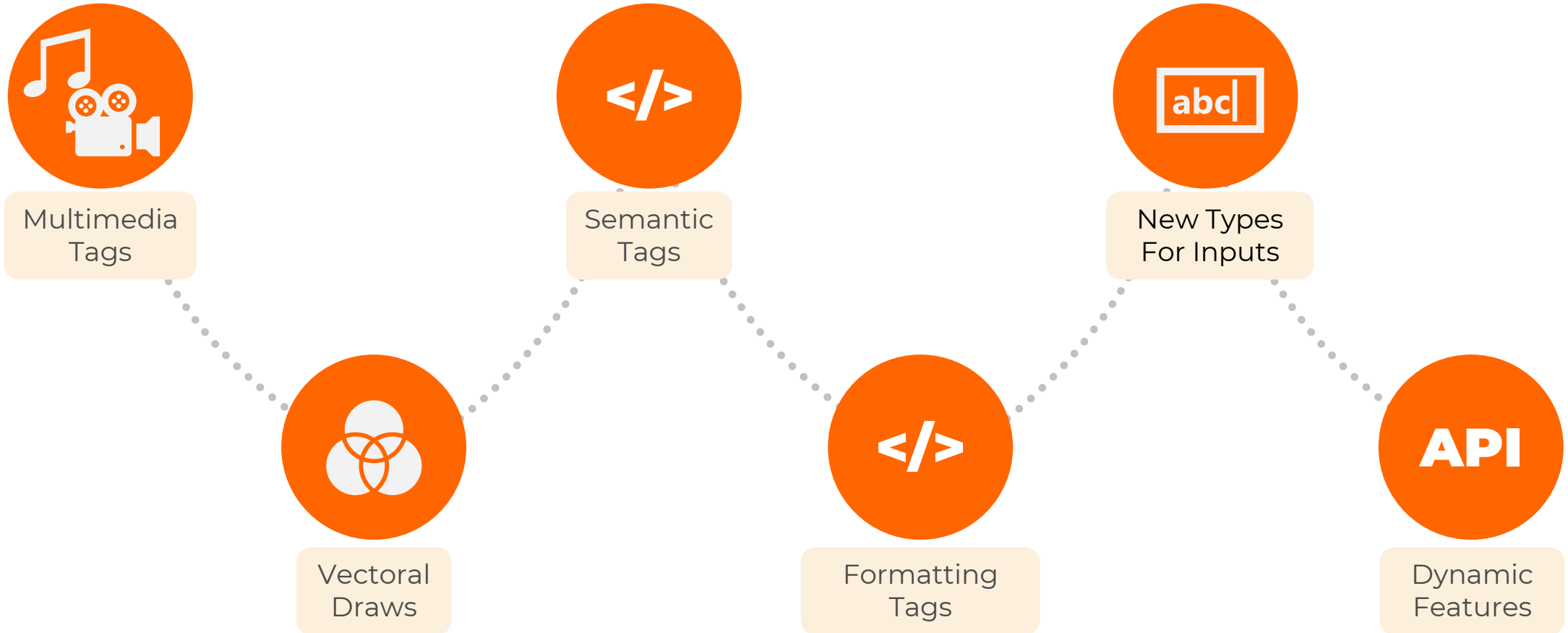
HTML 5

For a website to be regarded as HTML5,

The following line should be added to the top of the page.

```html
<!doctype html>
<html>
    <!-- template and your codes -->
</html>
```
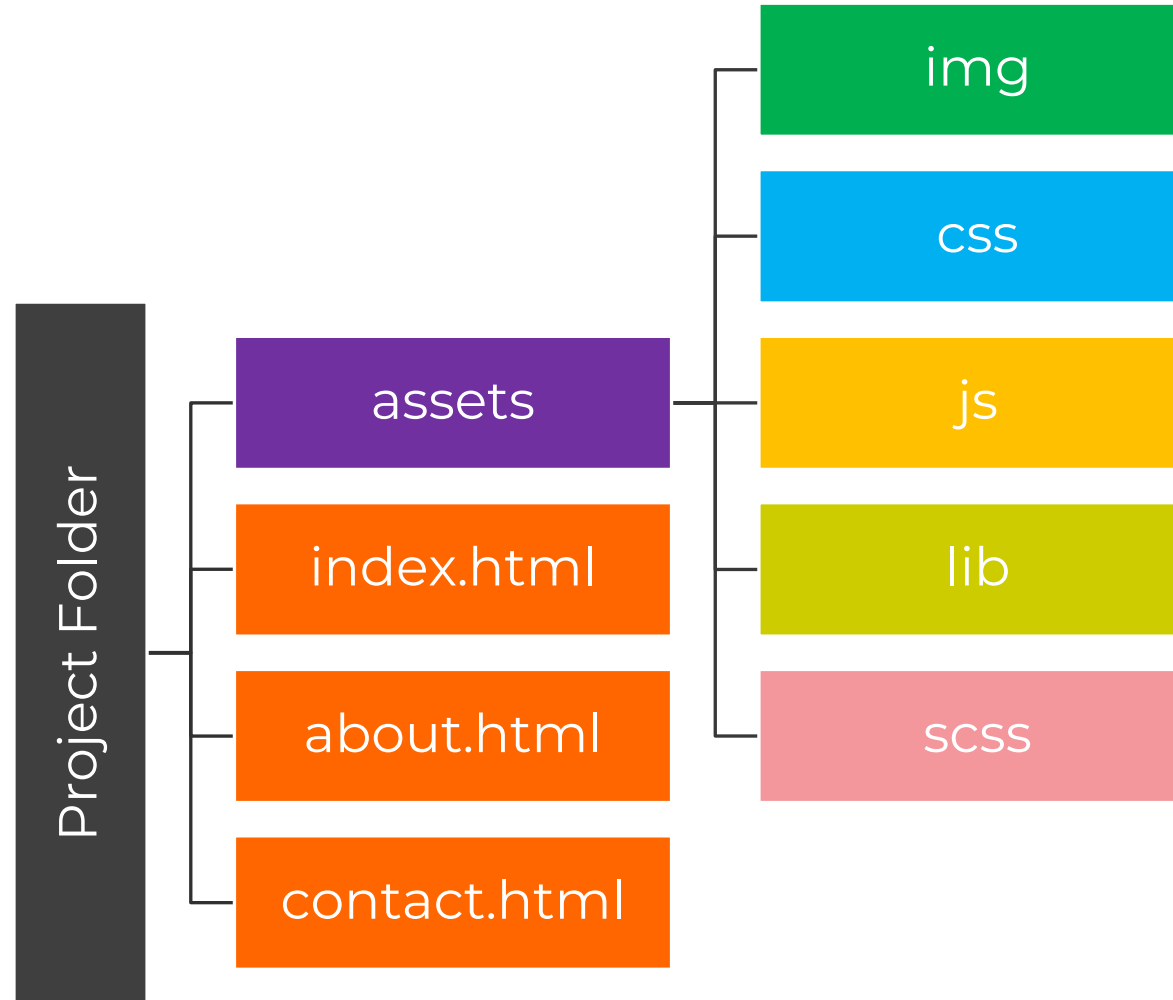
w3schools.com/tags   HTML reference and documents

caniuse.com   Check which browser supports what feature

Folder Structure

Basic Formatting Tags

<hx>

heading

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

— **Creates title texts. There are 6 title tags:**

`<h1>Title 1</h1>`

`<h2>Title 2</h2>`

`<h3>Title 3</h3>`

`<h4>Title 4</h4>`

`<h5>Title 5</h5>`

`<h6>Title 6</h6>`

SEO

⊙ The most important information on the page should be written in h1.

⊙ There should be 1 H1 on a page.

⊙ This information should also be relevant to how people will find this page.

⊙ The following h tags must be hierarchical.

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Basic Formatting Tags

\<p\>
paragraph

— **Used to create paragraphs out of texts**

\<p\> Lorem Ipsum has been used as industry standard dummy text ever since the 1500s, when an unknown printer took a gallery of type and scrambled it to create a type specimen book. **\</p\>**

\<br\>
break

— **Used to go to next line in texts**

\<p\> Lorem Ipsum has been used as industry standard dummy text ever since the 1500s, **\<br /\>** when an unknown printer took a gallery of type and scrambled it to create a type specimen book. **\</p\>**

Basic Formatting Tags

<hr>

Horizontal Row

— **It is used to create horizontal line**

<hr>

<!-- -->

Comment

— **It is used to add comments inside code that are not visible to users.**

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

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Semantic vs Non-Semantic

Semantic

Semantic tags contain meaning for search engines or developers. Such tags put the element they contain into 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 **<span>**

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Basic Formatting Tags

\<strong\>

\<b\>

bold

— **Both are used to make texts bold**

— **Strong is more powerful in the case of SEO compared to b**

\<p\>

Even when crossing the short distance between White Orchard and Vizima, Geralt and Yennefer cannot have a quiet moment as they are soon set upon by hounds of the Wild Hunt. Fortunately for our hero no harm comes to either **\<b\>**Geralt**\</b\>** or Yennefer and they arrive safely in Vizima where Emperor Emhyr enlists Geralt's aid in finding the emperor's daughter **\<strong\>**Ciri **\</strong\>** who is believed to have the Wild Hunt closing in on her.

\</p\>

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Basic Formatting Tags

****
emphasize

<i>
italic

<u>
underline

— **Both are used to make texts italic.**

— *** is more powerful in the case of SEO compared to <i>***

<p>

In the cities of ****_Piltover and Zaun_****, unrest stirs as inventors and thieves, politicians and crime lords chafe against the constraints of a society torn asunder. As dissent reaches a fever pitch, two sisters steal an artifact of untold power. **<i>**_Discovery_**</i>** and danger intertwine as heroes are born and bonds are broken.

</p>

— <u>**Used to underline texts**</u>

<p> Will this power **<u>**change the world**<u>**, or lead it to ruin? This is the world of Arcane.**</p>**

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Nested Tags

Hamburger Rule for nested tags

First opened, last closed

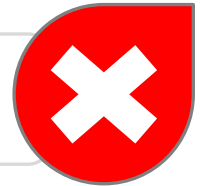`<p><strong> Hello </strong><u> World </u></p>` ✅

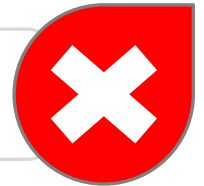`<p><strong> Hello <u>World</u></trong></p>` ✅

`<p><strong> Hello </strong><u> World </p></u>` ❌

`<p><i> Hello <u> World </i></u></p>` ❌

Basic Formatting Tags

<del>
delete

— **It is used to strikethrough the text.**

— Especially used when showing the non-discounted price on shopping sites.

`<del>`52₺`</del>`

<pre>

— **It is used to reflect the white areas in the development environment exactly to the visitor side.**

`<pre>`Hello   World`</pre>`

<mark>
highlight

— **Used to highlight texts**.

<p>King Koopa abducted **<mark>**Princess Toadstool and trapped her faithful Mushroom People**</mark>** in seven of his castles.**</p>**

Basic Formatting Tags

<sub>

subscript

— **"sub" is used to show as subscript**

<p>log**<sub>**10**</sub></p>**

<sup>

superscript

— **"sup" is used to show as superscript**

<p>X**<sub>**2**</sub></p>**

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HTML Entities

There are various codes to print special characters in the HTML language or characters that are not available on the keyboard. These are called **html entities**.

İşaret	Html Kod
(White Space)	
<	<
>	>
"	"
&	&
©	©
®	®
TM	™

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

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<OUR MISSION>

Techpro Education is a *coding bootcamp* founded in 2019 by a group of passionate IT field experts with ~~10 years~~ 11 years of teaching experience. They all have domain *knowledge and are actively* working in **top Fortune 500 companies**[1]. As such, they witness industry progression first-hand and update the curricula where needed, making the online it courses content always relevant.
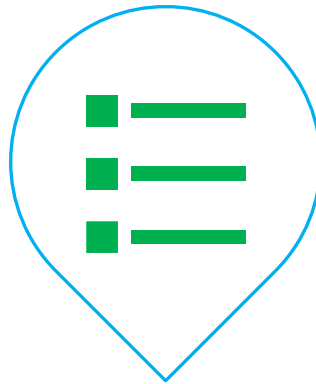

<OUR VISION>

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.

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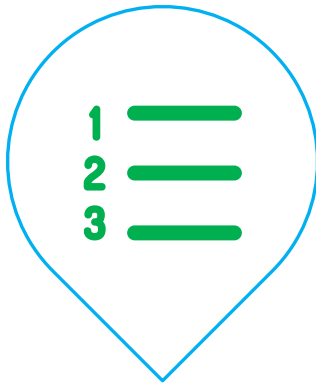
List Tags

Ordered List

Unordered List
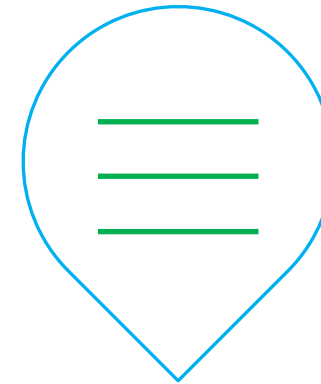
Description List

List Tags

<ol>

ordered list

— Used to create a numerated list

`<ol></ol>`

<li>

list item

— Used to add item to the list

```
<ol>
    <li>Manchester City</li>
    <li>Arsenal</li>
</ol>
```

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List Tags

<ul>

unordered list

— Used to create a list without order

`<ul></ul>`

<li>

list item

— **Used to add item to the list**

```
<ul>
    <li>Manchester City</li>
    <li>Arsenal</li>
</ul>
```

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List Tags

<dl>
definition list

— Used to create a definition list

`<dl></dl>`

<dt>
definition term

— Used to add a definition term to the list

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

<dd>
def. description

— Used to add a description for the definition term

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

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List Tags — Nested List

```html
<ol>
    <li> Florida
        <ul>
            <li>  Miami Heat </li>
            <li> Orlando Magic </li>
    </ul>
    </li>
    <li> California
        <ul>
            <li> Golden State Warriors </li>
            <li> Los Angeles Lakers </li>
        </ul>
    <li>
</ol>
```

List Tags

Changing List Types

```
<ol type=" 1 | A | a | I | i ">
    <li>Celtics</li>
    <li>Bucks</li>
    <li>Cavaliers</li>
</ol>
```

```
<ul type="disc | square | circle">
    <li>Nuggets</li>
    <li>Pelicans</li>
    <li>Grizzlies</li>
</ul>
```

attributes are written inside opening **HTML tags** and giving additional features to the tag.

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List Tags — Start Value

```html
<ol type="a" start="3">
    <li>Trabzonspor</li>
    <li>Fenerbahce</li>
    <li>Galatasaray</li>
    <li>Besiktas</li>
</ol>
```

start="3"

Link Tags

<a>

anchor

— "a" tag is used to link html elements to somewhere else

- ⊙ From one page to another,
- ⊙ Different sections of the same page,
- ⊙ Different section of another page
- ⊙ To another website
- ⊙ To email
- ⊙ To a phone number
- ⊙ To WhatsApp application

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Link Tags

<a>

anchor

Link from one page to another page:

```
<a href="page1.html" title="Cheap Computers">
    Click Here
</a>
```

index.html
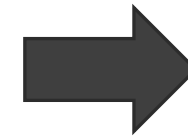
page1.html

SEO

The title attribute used in the A tag is very important for SEO. It is one of the places search engines look for indexing.

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Link Tags

<a>

anchor

Different sections of the same page:

```
<a href="#products">Click Here</a>
·
·
·
·
·
·
·
·
·
<h2 id="products">Products</footer>
```

Link Tags

<a>

anchor

— Different section of a different page:

```
<a href="./page2.html#projects">
    Click Here
</a>
```

```
.
.
.
.
.
.
.
<p id="projects"></p>
.
.
```

index.html

page2.html

Link Tags

<a>

anchor

— **Linking to another website:**

```
<a href="https://youtube.com">Go to YouTube</a>
```

— **Linking a file:**

```
<a href="img/bg-image.jpg">Open the picture</a>
```

— **Opening link on new tab:**

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

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Link Tags

`<a>`

anchor

— **Link to an email address:**

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

— **Link to a phone number:**

`<a href="tel:+905554443322">Call</a>`

— **Link to WhatsApp:**

`<a href="https://wa.me/905554443322">WhatsApp</a>`

`<a href="https://wa.me/905554443322?text=Hello">WhatsApp</a>`
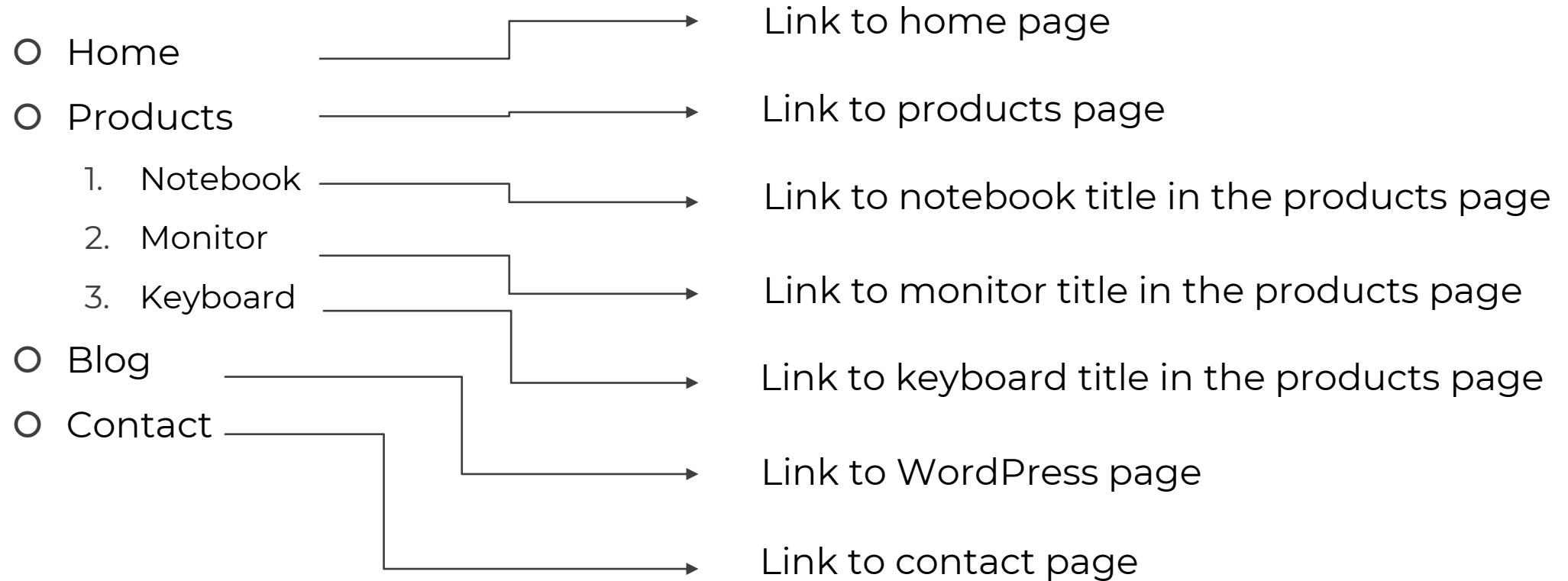
Link Tags

<a>

anchor

— When a link is given to a non-HTML file, if the browser can display the file, it displays it, otherwise it downloads it.

```
<a href="products.pdf">Products</a>
```

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Create the Main Menu Below

O Home → Link to home page

O Products → Link to products page

   1. Notebook → Link to notebook title in the products page

   2. Monitor → Link to monitor title in the products page

   3. Keyboard → Link to keyboard title in the products page

O Blog → Link to WordPress page

O Contact → Link to contact page

— Create a link named **"download catalog"** on the products page and link to a pdf file.

— Provide a link to e-mail address, WhatsApp and phone number on the contact page.

Adding Images

<img>
image

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

```
<img src="img/picture1.png" alt="picture1" width="100" height="75">
```

SEO

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: freepik.com, unsplash.com, pexels.com, flaticon.com

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Adding Images

	RASTER				VECTOR
	JPG	**GIF**	**PNG**	**WEBP**	**SVG**
Usage Area	Digital Image	Simple Animation	Logo, icon, graphics	All	Logo, icon, graphics animation
Compression	Good	Not Bad	Good	Better	Perfect
Compression	Lossy	Limited	Lossless	Versatile	Scalable
High Definition	Good	Not possible	Good	Good	Perfect
Number of Colors	Over 16 million	256	Over 16 million	Over 16 million	Unlimited
Transparent Background	No	No	Yes	Yes	Yes
Browser Support	Yes	Yes	Yes	Varies	Yes

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Giving Links To Images

Add 3 pictures on your page, when clicked on, open in new page with their untouched version:

Adding Audio

<audio>

— **You can add audio using "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.

Free music stores: *pixabay.com*

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Adding Video

`<video>`

— **You can add video using "video" tag:**

```html
<video controls autoplay muted loop poster="…" width="320" height="240">
    <source src="video1.mp4" type="video/mp4" >
    Your browser does not support the video element
</video>
```

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

Free video stores: *pexels.com*

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iframe

<iframe>

— **It is used to show different website inside a website.**

— **Maps and YouTube videos are added this way.**

```
<iframe src="https://www.w3schools.com" title="W3Schools Free Online Web Tutorials"></iframe>
```

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Adding Maps

— Create a transportation website and add a map in it.

Adding YouTube Videos

— Add a YouTube video inside your website

Tables

— It is used to select list-shaped structures consisting of rows and columns on web pages.

*Product price lists are prepared with tables.

Num	Game Name	Price
1	Lies of P	59.99$
2	Starfield	69.99$
3	Baldur's Gate 3	59.99$
4	Diablo IV	69.99$
5	Armored Core VI	59.99$

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Tables

<table> — Creates table.

<thead> *Table header* — Data cells in header section put inside table head

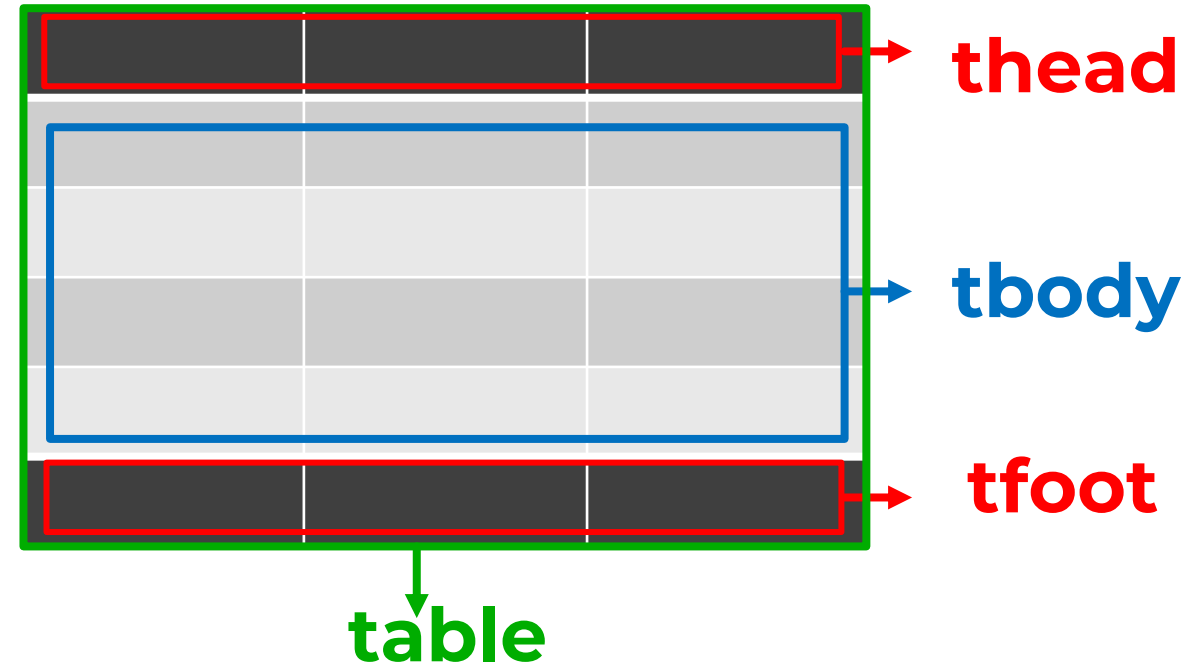**<tbody>** *Table body* — Data cells are put inside table body

<tfoot> *Table footer* — Data cells in footer section put inside table footer

thead

tbody

tfoot

table

! It is not mandatory to use **thead**, **tbody**, **tfoot**, but it is a great convenience when defining styles with CSS.

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Tables

<tr>
Table row
— Creates table row

<td>
Table data
— Creates table data cell

<th>
Table head
— Creates table title cell

th

tr

td

Tables

```html
<table>
    <thead>
        <tr>
            <th>Num</th>
            <th>Full Name</th>
        </tr>
    </thead>
    <tbody>
        <tr>
            <td>1</td>
            <td>Michael Jackson</td>
        </tr>
        <tr>
            <td>2</td>
            <td>Kobe Bryant</td>
        </tr>
    </tbody>
</table>
```
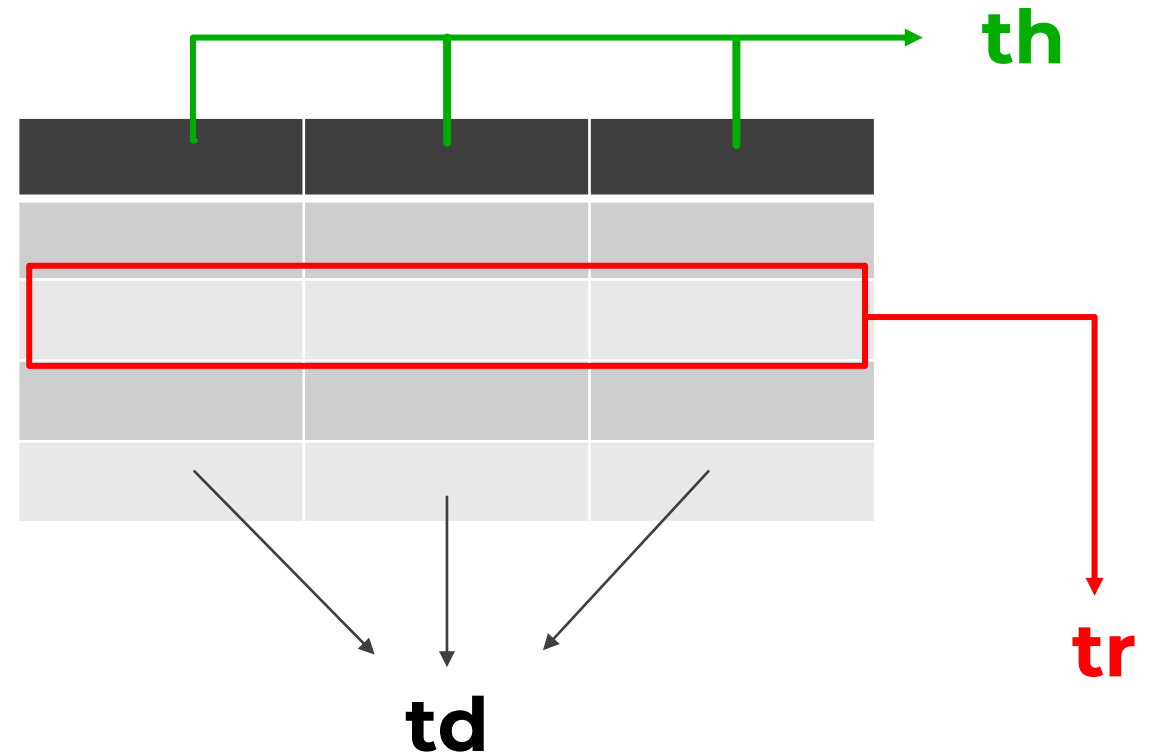
Num	Full Name
1	Michael Jackson
2	Kobe Bryant

Tables

— Create 2023 Women's European Volleyball Championship Group Stage

#	Team	MP	W	L	PTS
1	Turkey	5	5	0	15
2	Czechia	5	2	3	10
3	Germany	5	2	3	9
4	Sweden	5	2	3	7
5	Azerbaijan	5	2	3	8
6	Greece	5	1	4	5

Tables

colspan — Used to merge cells horizontally

rowspan — Used to merge cells vertically

	colspan	
rowspan		

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

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Tables

— Create the table below

Time chart						
Days		**Monday**	**Tuesday**	**Wednesday**	**Thursday**	**Friday**
Schedule	1	English	Math	English	Math	Science
	2	English	Math	English	Math	Science
	REST					
	3	Social	Music	Social	Science	Religion
	4	Social	Body	Social	Science	Religion

Forms

— Structures used to receive information from the user are called forms. Textbox, button, radio button, checkbox etc. in the form. elements can be found.

<form> — The container that includes all form elements

<input> — Input is used to take information from user

<label> — It is used to give information about form elements

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Forms

```
<form>

    <label>E-mail</label>

    <input type="text">

    <input type="button" value="Save">

</form>
```

E-mail [   ] Save

Forms

— **Form tag has different attributes**

```
<form method="post" action="users/update">
```

action — Action attribute specifies **where** to send the form-data when a form is submitted

method — Specifies **how** to send the form-data. It can be sent as URL variables ("get") or as HTTP post transaction ("post").

Forms

— Form tag has different attributes

```
<form method="post" action="users/update" enctype="multipart/form-data" novalidate>
```

enctype

Encode type

— It is determined how the data to be sent will be encrypted (coded). The file upload must take the value multipart/form-data.

novalidate

— Disables the form handler that comes with HTML5.

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Forms

```
<input type=" text | email | number | ... " placeholder="Enter your ... " name="myInput" value="15">
```

text

number

email

password

search

url

tel

hidden

Forms

<input type=" button | submit | reset | ... " name="myButton" value="Save">

button

submit

reset

Forms

— Create the form below

E-mail

Password

Security Code

Save   Clear

Connecting Label and Input

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

Disabled — Readonly

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

— Visitors cannot interact

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

— Makes it read only

Forms

```
<form method="post" action="users/update">
    <label>Username</label>

    <input type="text" name="username" value="">
    <br />

    <label>Password</label>
    <input type="password" name="password" value="">
    <br />

    <input type="button" value="Save">
</form>
```
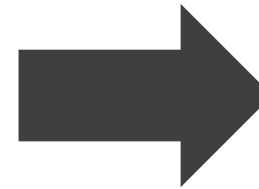
username=John
password=12345

Forms

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

| checkbox | radio | file | color | range |

Forms

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

date

time

datetime-local

month

week

Select

```html
<select name="countries" multiple size="5">
    <option value="01">Adana</option>
    <option value="02">Adıyaman</option>
    <option value="03">Afyon</option>
    <option value="04">Ağrı</option>
</select>
```

Forms

<textarea> — The form element that allows you to enter very long amounts of text is the textarea. The current value can be written between textarea tags.

```
<textarea name="w3review" rows="4" cols="50"></textarea>
```

Validation

Attributes used to validate forms

required   minlength   maxlength   min   max

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Form & Validation

— Create the form below. And do the validations accordingly

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 | Browse

Birth Date

Address

Register

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Semantic Tags

New semantic tags released with HTML5:

`<header>`	`<main>`	`<footer>`	`<aside>`
`<nav>`	`<section>`	`<figure>`	`<figcaption>`
`<article>`	`<details>`	`<mark>`	`<summary>`

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Semantic Tags Released with HTML5

Title Part
Menu

Left side	Main Content
	1st Section
	2nd Section

Ending Part of Page
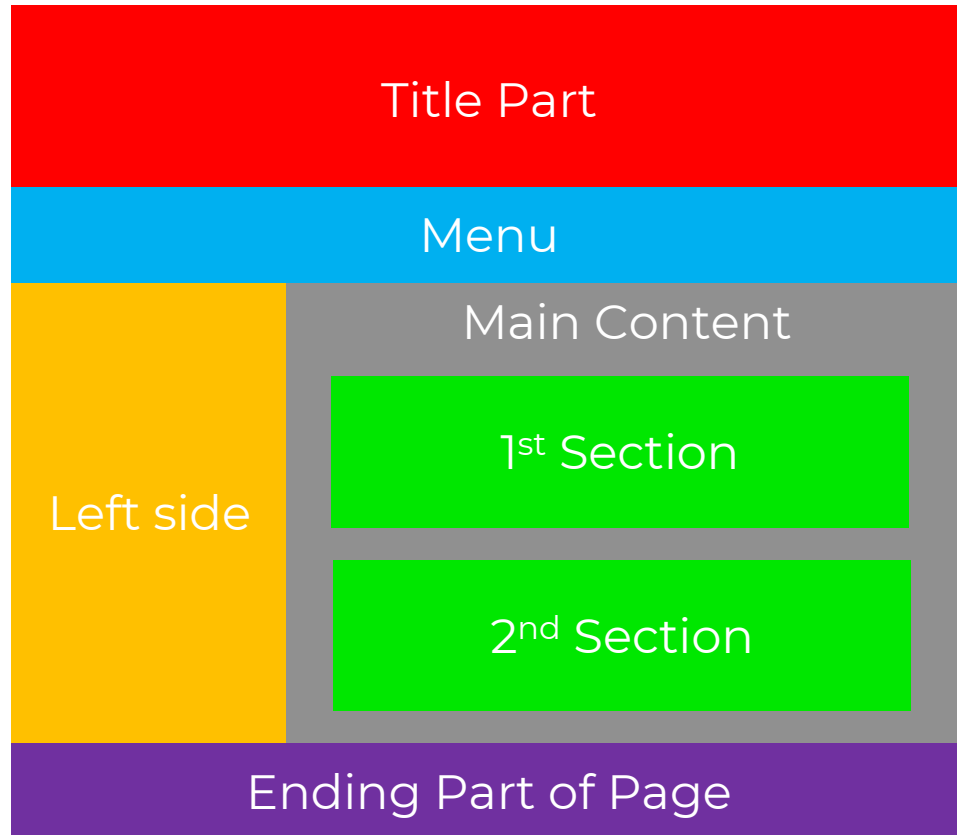
```
<header>Title Part</header>

<nav>Menu</nav>

<aside>Left Side</aside>

<main>

    Main Content

    <section>1st Section</section>

    <section>2nd Section</section>

</main>

<footer>End of Page</footer>
```

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<article>

— "**article**" describes it contains article.

> **<article>**This is an article**</article>**

<details>

— "**details**" shows there is a detailed information about a subject. Information inside details are not visible by default. When clicked on, it is opened in a dropdown section. To show title "**summary**" tag is used.

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

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<figure>

— "**figure**" contains photographs, drawings, etc. Indicates that there is a visual element. This allows the image to be added semantically.

```
<figure>
      <img src="image1.jpg" alt="image description" />
      <figcaption>
            Here goes the caption of the image.
      </figcaption>
</figure>
```

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Elements By Display Type

HTML elements are divided into two categories according to space they occupy.

Block Elements

div	header
p	aside
h1-6	main
ol, ul, li	table
hr	footer
blockquote	nav
form	section

Inline Elements

a	button
b, strong	input
i, em	textarea
br	select
img	label
sup, sub	
code	
span	

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Meta Tags

These are tags located within the head tag, containing various information for browsers or search engines.

```
<meta name="…" content="…">
```

Meta Tags

description

It is a valuable field for search engines. Summary information about the content of the page should be included. It should not exceed 155-160 characters.

```
<meta name="description" content="Techpro Education provides...">
```


https://techproeducation.com ▾ Bu sayfanın çevirisini yap

Techpro Education | Online It Courses & Bootcamps

Techproeducation provides quality online IT courses and coding bootcamps with reasonable prices to prepare individuals for next-generation jobs. from beginners ...

robots

It determines the search engines' information about the page. **index**: means index the programs, **follow**: means follow the links on the page. **no-index** and **no-follow** values, which mean the opposite, can also be taken.

```
<meta name="robots" content="index follow">
```

```
<a href="..." rel="nofollow">
```

Meta Tags

SEO

backlink

Another factor that affects the scoring system created by search engines to rank a website at the top is backlink. The address of a site "A" is found in other sites and visitors can reach site "A" through those links.

B `<a href="https://a.com">Click</a>`

A

C `<a href="https://a.com">Click</a>`

Meta Tags

SEO

backlink

```
<a href="…" rel="noreferrer noopener">
```

It is placed to prevent a link from being considered as a **backlink** by search engines.

It is placed on the page to be opened to prevent JavaScript from obtaining information about the previous page with the window.opener command.

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Meta Tags

viewport

Required for the page to appear properly on different devices such as desktop, tablet and phone.

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

charset

It is used to determine the character encoding on the page. With utf8 definition, problem-free display of all languages and characters is guaranteed.

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

Glossary

HTML Hyper Text Markup Language is a markup language used to create Web pages.

CSS Cascading Style Sheet is a markup language used to format Web pages.

JavaScript It is a lightweight programming language mostly used to make web pages interactive.

Tag HTML commands are called tags

SEO Search Engine Optimization is optimizing the coding and design of web pages to appear at the top of search engines.

Parent Parent is the parent element that surrounds an HTML element.

Child Child is each child element within an HTML element.

Server Devices that serve in a network are called server

Client Devices that receive service in a network are called client

ISP Internet Service Provider is a company that provides internet service to its subscribers.

Semantic These are tags that have a certain meaning for search engines.

Attribute Expressions written inside the HTML tag and adding additional features to the HTML tag are called

Endpoint These are called external endpoints of the application running on the backend.