

# Introduction for front-end

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# What is a Website?



# What is a Website?

A website is a collection of related web pages that are accessible through a web browser. It is a digital platform that provides information, resources, and services to users on the Internet. They can be used for various purposes, including personal blogs, e-commerce stores, corporate websites, news portals, and more.

# Frontend vs. Backend



## FRONT-END

Front-end development involves creating and implementing the visual and interactive elements of a website or application. It includes writing code in HTML, CSS, and JavaScript to design the user interface.

# Frontend vs. Backend



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Back-end development refers to the server-side of web development. It involves the implementation of the logic, database operations, and server configuration that power the website or application. Back-end developers use languages such as Python, Ruby, or PHP.

# Frontend vs. Backend



## FRONT-END

Front-end development involves creating and implementing the visual and interactive elements of a website or application. It includes writing code in HTML, CSS, and JavaScript to design the user interface.

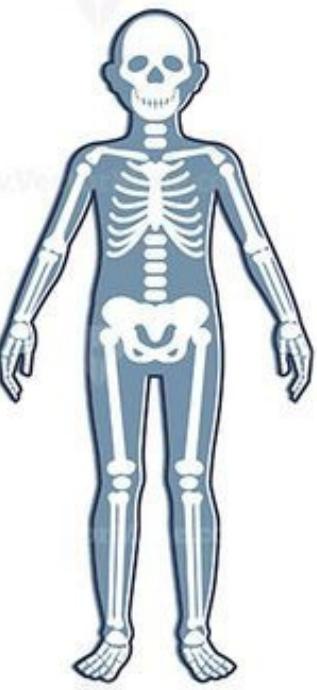


## BACK-END

Back-end development refers to the server-side of web development. It involves the implementation of the logic, database operations, and server configuration that power the website or application. Back-end developers use languages such as Python, Ruby, or PHP.



**django**



**HTML**



**HTML + CSS**



**HTML + CSS + JavaScript**

# What I need to Learn?

## Text Editor

- Vs Code
- Brackets
- Atom
- Notepad++

## Internet Browser

- Edge
- Chrome
- Firefox
- and more...

## Always Search

Foucs

Have a Target

# Setup Your First Project

1. Don't save your project on C or Desktop
2. Don't name using Arabic names
3. Don't make any space in file/folder name
4. Open your project in Visual Studio Code
5. Create a file called index.html
6. Enable auto-save



# Index.html content

```
1 <!DOCTYPE html> <!-- to tell browser what version of html you use -->
2 <html>
3   <head>
4   </head>
5   <body>
6   </body>
7 </html>
```

# Comment

```
4  <html>
5  ....<!-- this is head -->
6  ....<head>
7  ....</head>
8
9  ....<!-- this is body -->
10 ....<body>
11 ....
12 ....<!-- this is comment-->
13
14 ....</body>
15 </html>
```

# Head

```
3 <head>
4     <meta charset="UTF-8" />
5     <meta name="description" content="Online Book store">
6     <title>Online Store</title>
7 </head>
```

# Heading

```
10 <body>
11     <h1>Online store</h1>
12     <h2>Book title</h2>
13     <h3>Chapter title</h3>
14     <h4>story title</h4>
15     <h5>paragraph title</h5>
16     <h6>title but not important</h6>
17 </body>
```

**Online Store (h1)**

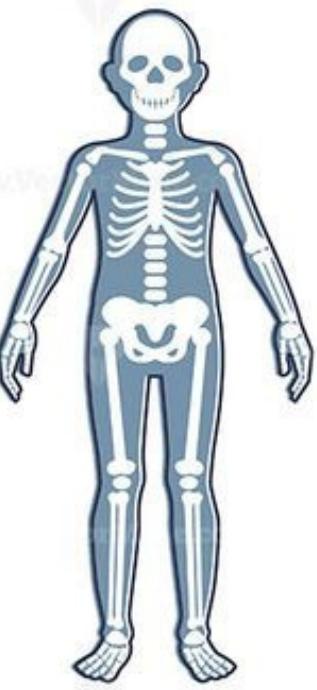
**Book title (h2)**

**Chapter title (h3)**

**story title (h4)**

**paragraph title (h5)**

**title but not important (h6)**



**HTML**



**HTML + CSS**



**HTML + CSS + JavaScript**

# Paragraph

```
10 <body>
11     <p>Lorem ipsum dolor sit amet consectetur adipisicing elit. Provident beatae velit alias cumque quidem mollitia
12         delectus commodi veniam. Quod, preferendis repellat! Quas nulla ullam eligendi quo natus quasi, delectus
13         consectetur?</p>
14 </body>
```

Quod, preferendis repellat! Quas nulla ullam eligendi quo natus quasi, delectus consectetur?

# Global attributes

```
10  <body>
11    .<h1 class="title">This is title</h1>
12    .<p class="title">This is paragraph</p>
13    .<span hidden>this is span</span>
14  </body>
```

# Element attributes

```
<body>
  .<img src="" alt="">
  .<a href=""></a>
</body>
```

# Formatting Elements

```
10  <!--
11  ... b => Bold
12  ... strong => Bold Important Text
13  ... i => Italic
14  ... em => Emphasized
15  ... mark => Marked Text -Or- Highlighted Text
16  ... u => Underline
17  ... small=> Smaller text
18  ... del => Deleted Text
19  ... sub => subscript
20  ... sup => superscript
21  -->
22
23 <body>
24  <p><b>welcome</b> to my website</p>
25  <p>welcome to my <strong>website</strong></p>
26  <p>welcome <i>to my</i> website</p>
27  <p>welcome <em>to my</em> website</p>
28  <p>welcome to my <mark>website</mark></p>
29  <p>welcome to my <u>website</u></p>
30  <p>welcome to my <small>website</small></p>
31  <p> <del>150$</del> 100$</p>
32  <p>CO<sub>2</sub></p>
33  <p>y = x <sup>2</sup> + 2</p>
34 </body>
```

welcome to my website

welcome to my website

welcome *to my* website

welcome *to my* website

welcome to my website

welcome to my website

welcome to my website

150\$ 100\$

CO<sub>2</sub>

y = x<sup>2</sup> + 2

# Links

```
<body>
    <!-- inline Elements -->
    <a href="https://www.google.com" target="_blank">Google</a>
    <a href="https://www.facebook.com">Facebook</a>
    <a href="#paragraph">click here</a>
    <a href="mailto:alaayasser2018@gmail.com">Email</a>
</body>
```

[Google](https://www.google.com) [Facebook](https://www.facebook.com) [click here](#paragraph) [Email](mailto:alaayasser2018@gmail.com)

# Image

```
<body>
    <!-- inline Elements -->
    
</body>
```



# Ordered List

```
10 <body>
11   <!-- ordered List -->
12   <ol type="1">
13     <li>go to supermarket</li>
14     <li>buy milk</li>
15     <li>buy flour</li>
16     <li>go to Perfume Shop
17       <ol type="A">
18         <li>buy men's perfume</li>
19         <li>buy alcohol</li>
20       </ol>
21     </li>
22   </ol>
23 </body>
```

- 1. go to supermarket
- 2. buy milk
- 3. buy flour
- 4. go to Perfume Shop
  - A. buy men's perfume
  - B. buy alcohol

# Unordered List

```
10 <body>
11   <!-- unordered List -->
12   <ul>
13     <li>HTML</li>
14     <li>CSS</li>
15     <li>Js</li>
16     <li>
17       Framework
18       <ul>
19         <li>react</li>
20         <li>angular</li>
21         <li>vue</li>
22       </ul>
23     </li>
24   </ul>
25 </body>
```

- HTML
- CSS
- Js
- Framework
  - react
  - angular
  - vue

# Tables

```
10  ✓ <body>
11
12  ✓ ... <table>
13
14  ... </table>
15    </body>
```

# thead, tbody

```
10  <body>
11    ...
12      <table>
13        ...
14          <thead>
15            ...
16          </thead>
17          <tbody>
18            ...
19          </tbody>
20      </table>
21  </body>
```

border

```
<table border="1">
```

# thead

```
15 <thead>
16   <tr>
17     <th>Name</th>
18     <th>Age</th>
19     <th>Number</th>
20   </tr>
21 </thead>
```

Name	Age	Number
------	-----	--------

# tbody

```
--  
23 <tbody>  
24   <tr>  
25     <td>Alaa</td>  
26     <td>20</td>  
27     <td>01902029320</td>  
28   </tr>  
29   <tr>  
30     <td rowspan="2">ahmed</td>  
31     <td rowspan="2">25</td>  
32     <td>02382231334</td>  
33   </tr>  
34   <tr>  
35     <td>  
36       010238387484  
37     </td>  
38   </tr>  
39   <tr>  
40     <td>Nada</td>  
41     <td colspan="2">20</td>  
42   </tr>  
43 </tbody>
```

Alaa	20	01902029320
ahmed	25	02382231334
		010238387484
Nada	20	

# tfoot

```
45 <tfoot>  
46   <tr>  
47     <td colspan="3">Footer</td>  
48   </tr>  
49 </tfoot>
```

Footer

# Span

```
12      ...<!-- Inline Element (No style by default) -->
13      ...<p>welcome to my <span>website</span></p>
```

welcome to my website

**br**

```
12      ...<!--Break-->
13      ...<p> this is <br> paragraph</p>
```

this is  
paragraph

**hr**

```
12      <!--horizontal--->
13      <p>this is paragraph</p>
14      <hr>
15      <p>this is second paragraph</p>
```

this is paragraph

---

this is second paragraph

# Div

```
10  <body>
11      <div class="Romantic">
12          <h2>Romantic Book</h2>
13          <span>50$ </span>
14          <a href="#">Buy Now</a>
15      </div>
16      <hr>
17      <div class="Fantasy">
18          <h2>Fantasy Book</h2>
19          <span>80$ </span>
20          <a href="#">Buy Now</a>
21      </div>
22      <hr>
23      <div class="Action">
24          <h2>Action Book</h2>
25          <span>30$ </span>
26          <a href="#">Buy Now</a>
27      </div>
28  </body>
```

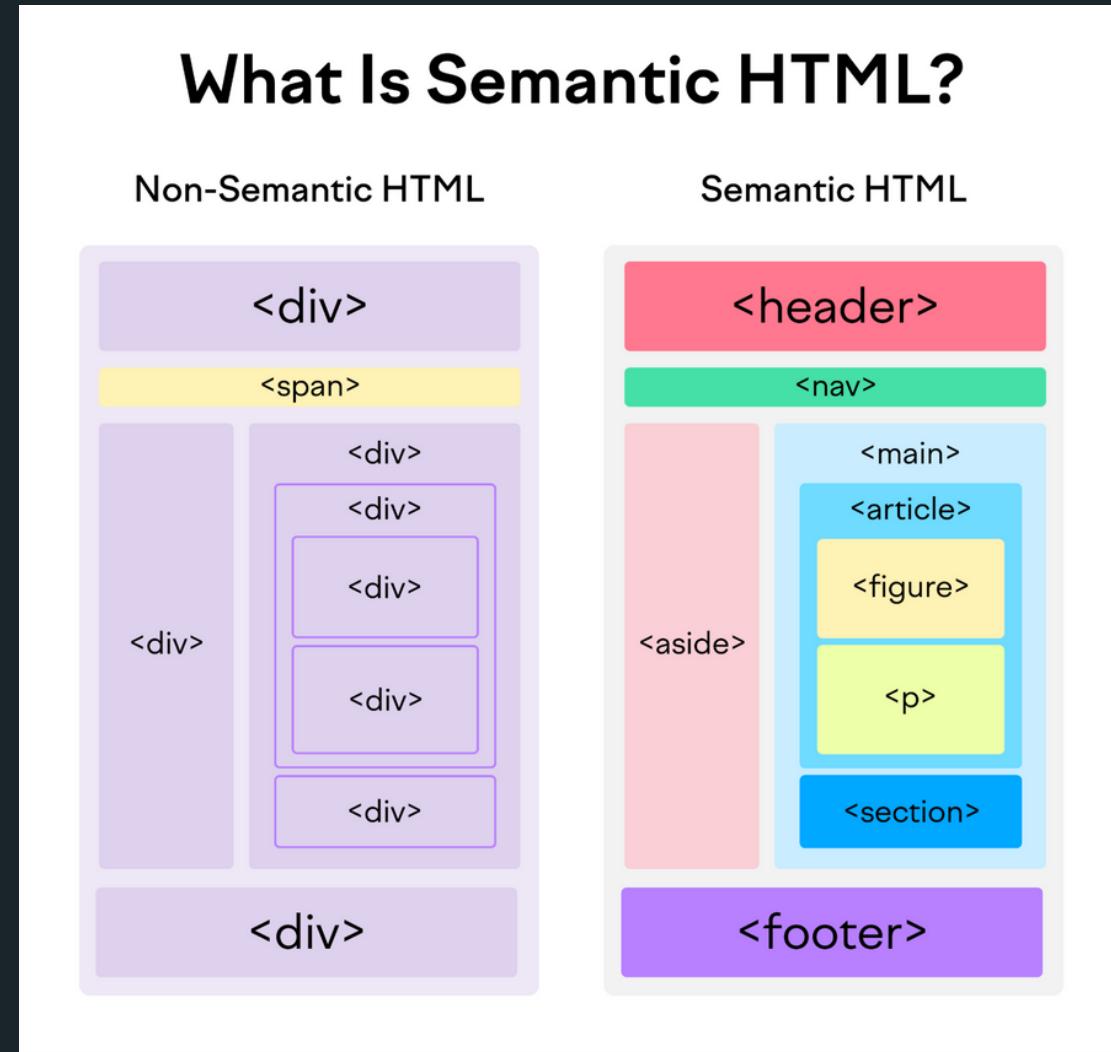


# HTML Entities

```
<div>
  <p>this is <&lt;p&gt;</p>
</div>
```

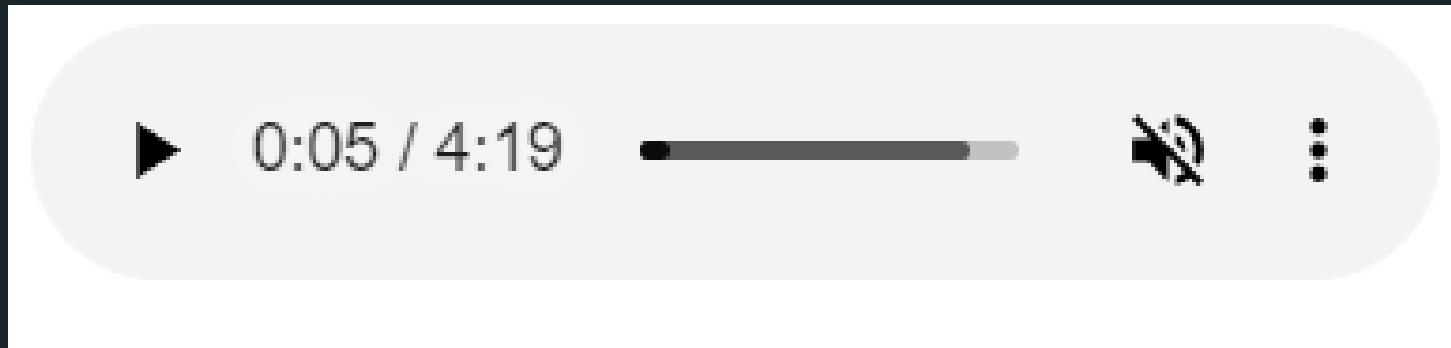
A low-resolution, pixelated image of the text "this is <p>". The letters are colored in a rainbow gradient. The opening and closing tags are also pixelated.

# Semantic Elements



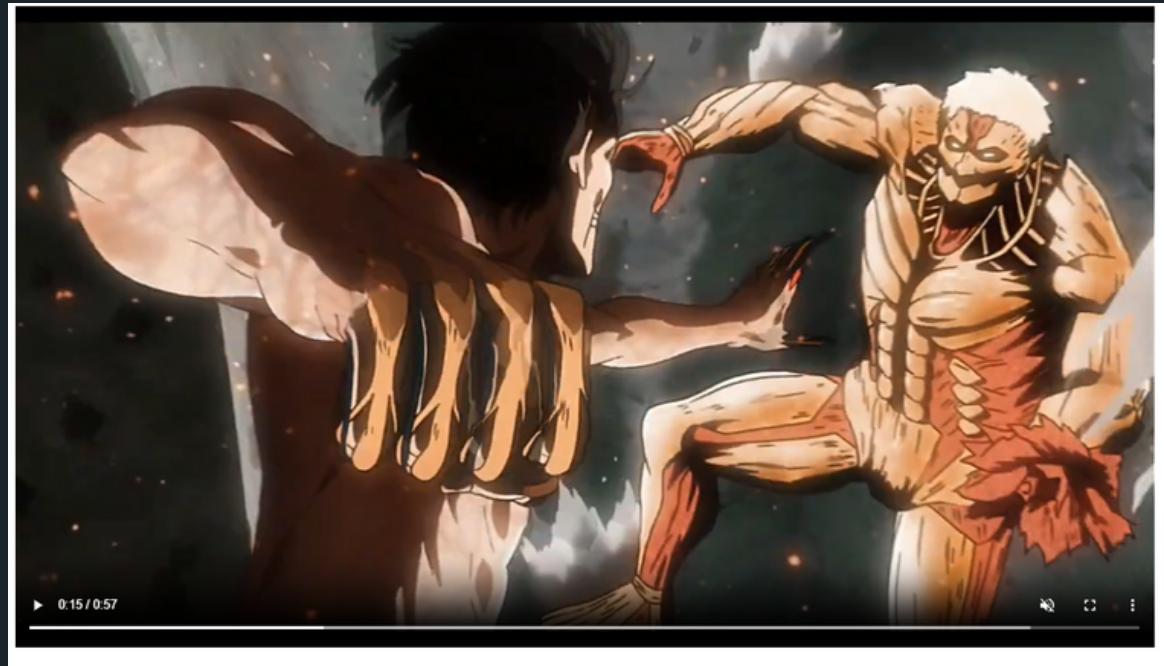
# Audio

```
11 <div>
12   <audio controls autoplay loop muted>
13     <source src="media/audio.mp3" type="audio/mpeg">
14     your browser doesn't support audio tag
15   </audio>
16 </div>
```



# Video

```
1  <div>
2    <video controls autoplay loop muted>
3      <source src="media/Aot.mp4" type="video/mp4">
4      your browser doesn't support video tag
5    </video>
6  </div>
```



# From

## Sign Up

Please fill in this form to create an account!

First Name

Last Name

Email

Password

Confirm Password

I accept the [Terms of Use](#) & [Privacy Policy](#).

**Sign Up**

Already have an account? [Login here.](#)

# From

## Html Input Types

dd/mm/yyyy  date and time  email  password

Choose file No file chosen  Week --, ----  button  checkbox

url  ...  text  phone number type  submit

search  reset   Radio  number type

-----   Blue  text-area  For color

# From

TEXT

```
<label>username</label>
<input type="text" >
```

username

# From

## TEXT

```
<label>username</label>  
<input type="text" >
```

username alaa

## PASSWORD

```
<label>password</label>  
<input type="password" >
```

password ..... ⚒

# From

## TEXT

```
<label>username</label>  
<input type="text" >
```

username alaa

## PASSWORD

```
<label>password</label>  
<input type="password" >
```

password ..... ☺

## SUBMIT

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

Send

# From

## TEXT

```
<label>username</label>  
<input type="text" >
```

username alaa

## PASSWORD

```
<label>password</label>  
<input type="password" >
```

password ..... ☺

## SUBMIT

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

Send

## Attribute

- Required
- Placeholder
- Value
- Disabled
- Readonly
- Autofocus
- minlength
- maxlength

# From

## TEXT

```
<label>username</label>  
<input type="text" >
```

username alaa

## PASSWORD

```
<label>password</label>  
<input type="password" >
```

password ..... ☰

## SUBMIT

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

Send

## EMAIL

```
<label>email</label>  
<input type="email" placeholder="email">
```

email email

# From

## TEXT

```
<label>username</label>  
<input type="text" >
```

username alaa

## PASSWORD

```
<label>password</label>  
<input type="password" >
```

password ..... ☰

## SUBMIT

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

Send

## EMAIL

```
<label>email</label>  
<input type="email" placeholder="email">
```

email email

## COLOR

```
<label>color</label>  
<input type="color" name="color">
```

color

# From

## TEXT

```
<label>username</label>
<input type="text" >
```

username

## PASSWORD

```
<label>password</label>
<input type="password" >
```

password  

## SUBMIT

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

 Send

## EMAIL

```
<label>email</label>
<input type="email" placeholder="email">
```

email

## COLOR

```
<label>color</label>
<input type="color" name="color">
```

color 

## RANGE

```
<label>Range</label>
<input type="range" name="range" min="0"
max="100" step="20" value="0">
```

Range 

# From

## NUMBER

```
<label>Number</label>
<input type="number" name="range" min="0"
max="100" step="20" value="10">
```

Number  

# From

## NUMBER

```
<label>Number</label>
<input type="number" name="range" min="0"
max="100" step="20" value="10">
```

Number  

## RADIO

```
<label>Choose your country</label>
<br>
<input type="radio" id="USA" name="country" >
<label for="USA">USA</label>
<br>
<input type="radio" id="Egypt" name="country" checked>
<label for="Egypt">Egypt</label>
<br>
<input type="radio" id="Germany" name="country">
<label for="Germany">Germany</label>
```

Choose your country  
 USA  
 Egypt  
 Germany

# From

## NUMBER

```
<label>Number</label>
<input type="number" name="range" min="0"
max="100" step="20" value="10">
```

Number  

## RADIO

```
<label>Choose your country</label>
<br>
<input type="radio" id="USA" name="country" >
<label for="USA">USA</label>
<br>
<input type="radio" id="Egypt" name="country" checked>
<label for="Egypt">Egypt</label>
<br>
<input type="radio" id="Germany" name="country">
<label for="Germany">Germany</label>
```

- Choose your country
- USA
  - Egypt
  - Germany

## CHECKBOX

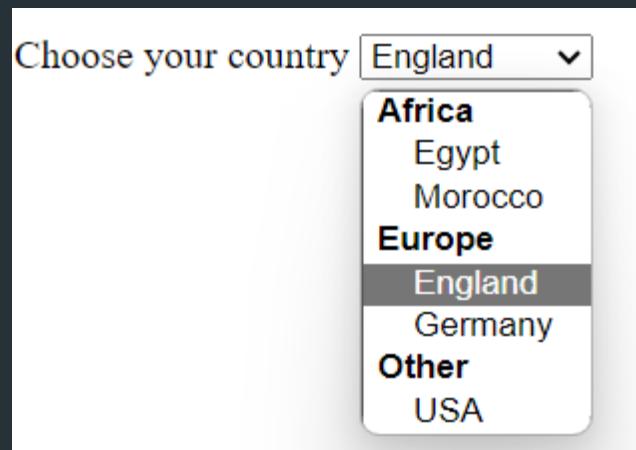
```
<label>Choose your country</label>
<br>
<input type="checkbox" id="USA" name="country" >
<label for="USA">USA</label>
<br>
<input type="checkbox" id="Egypt" name="country" checked>
<label for="Egypt">Egypt</label>
<br>
<input type="checkbox" id="Germany" name="country">
<label for="Germany">Germany</label>
```

- Choose your country
- USA
  - Egypt
  - Germany

# From

## SELECT

```
<label for="country">Choose your country</label>
<select name="country" id="country">
  <optgroup label="Africa">
    <option value="Egypt">Egypt</option>
    <option value="Egypt">Morocco</option>
  </optgroup>
  <optgroup label="Europe">
    <option value="England" selected>England</option>
    <option value="Germany">Germany</option>
  </optgroup>
  <optgroup label="Other">
    <option value="USA">USA</option>
  </optgroup>
</select>
```



# From

## SELECT

```
<label for="country">Choose your country</label>
<select name="country" id="country">
  <optgroup label="Africa">
    <option value="Egypt">Egypt</option>
    <option value="Egypt">Morocco</option>
  </optgroup>
  <optgroup label="Europe">
    <option value="England" selected>England</option>
    <option value="Germany">Germany</option>
  </optgroup>
  <optgroup label="Other">
    <option value="USA">USA</option>
  </optgroup>
</select>
```

Choose your country

England

- Africa**
  - Egypt
  - Morocco
- Europe**
  - England**
  - Germany
- Other**
  - USA

## TEXTAREA

```
<label for="country">Write your message</label>
<textarea cols="30" rows="10"></textarea>
```

Write your message

# From

## FILE

```
<label>upload your photo</label>
<input type="file" >
```

upload your photo  No file chosen

# From

## FILE

```
<label>upload your photo</label>  
<input type="file" >
```

upload your photo  No file chosen

## FILE

```
<label>upload your photo</label>  
<input type="file" >
```

upload your photo  No file chosen

# From

## FILE

```
<label>upload your photo</label>
<input type="file" >
```

upload your photo  No file chosen

## FILE

```
<label>upload your photo</label>
<input type="file" >
```

upload your photo  No file chosen

## DATE, TIME

```
<label>Date</label>
<input type="date" >
<input type="time" >
```

Date

# Pre

```
<p>
  welcome
  to
  my
  website
</p>
<pre>
  welcome
  to
  my
  website
</pre>
```

welcome to my website  $\Rightarrow$  P

welcome  
to  
my  
website  $\Rightarrow$  Pre

# Iframe

```
<iframe width="560" height="315" src="https://www.youtube.com/embed/NlHwOzwbYpE"
    title="YouTube video player" frameborder="0"
    allow="accelerometer; autoplay; clipboard-write; encrypted-media; gyroscope; picture-in-picture; web-share"
    allowfullscreen></iframe>
```



# let's practice



PERFUME

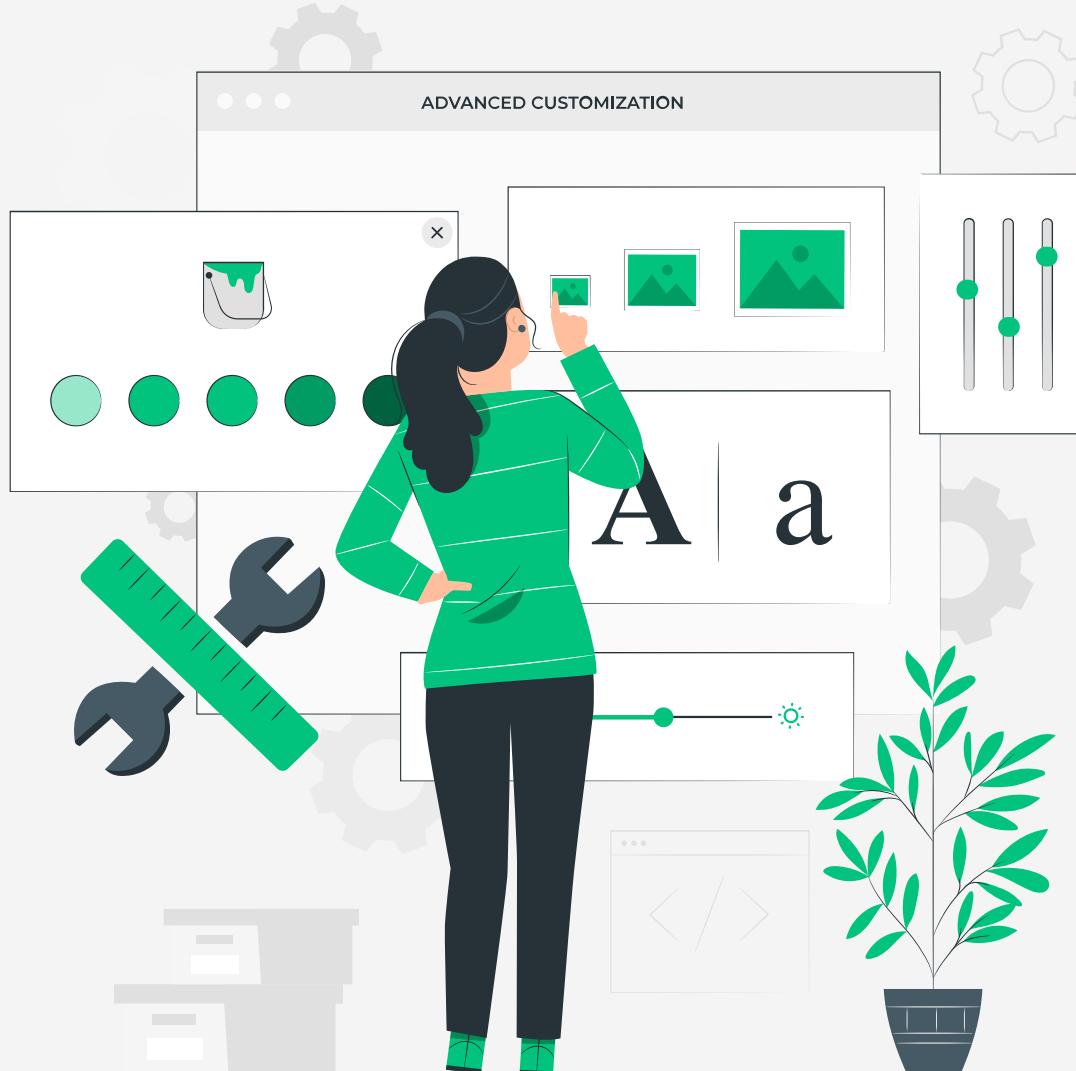
**Gabrielle  
Essence Eau  
De Parfum**

A floral, solar and voluptuous interpretation composed by Olivier Polge, Perfumer-Creator for the House of CHANEL.

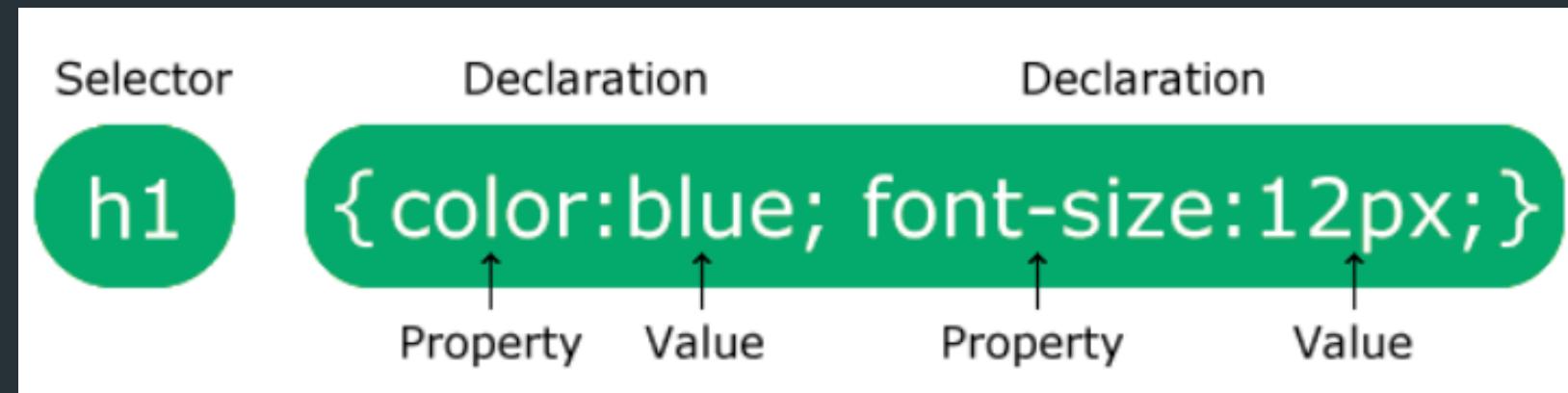
**\$149.99** \$169.99

 Add to Cart

# What is CSS ?



# Syntax



# Selectors



## \* : Universal Selector

- Selects all elements of any type on HTML document.



```
* {  
  color: blue;  
}
```

This rule will change every HTML element on the page to have blue text.



## type : type Selector

- Selects elements by node name, selects all elements of the given type within a given document. Ex: `div, span`



```
/* All <a> elements. */  
a {  
  color: red;  
}
```

This rule will change every anchor element on the page to have red color text.



## .class-name : Class Selector

- Selects elements based on the content of `class="xxx"` attribute



```
/* All elements with class="spacious" */  
.spacious {  
  margin: 2em;  
}
```

This rule will change add margin of 2em to every element with class attribute of spacious

# Selectors

 **#id-name : Id Selector**

- Selects an element based on the value of its **id=""** attribute.

```
/* The element with id="demo" */  
#demo {  
    padding: 2em;  
}
```

This rule will change add padding of 2em to the element with id attribute of demo

 **[attr] : Attribute Selector**

- matches elements based on the presence or value of a **given attribute**.

```
/* Select <a> element with a title attribute */  
a [title] {  
    color: blue;  
}
```

This rule will change the color of **<a>** element with title attribute to blue.

 **Grouping Selectors**

- Grouping selector **( , )** can select multiple selector at once.

```
/* Selects the div & span and change their color to red */  
div,  
span {  
    color: red;  
}
```

This rule will change the color of **<div>** & **<span>** element to red.

 **Compound Selectors**

- We can combine selectors to increase specificity & readability.

```
/* Only select the <a> element which also has a class of spacious. */  
a.spacious {  
    color: red;  
}
```

This rule will change the color of only **a** element which also has a class of spacious.

# Selectors



## Descendant Combinator

- A Descendant Combinator allows us to target a child element.

Select all child & grandchilds of a parent.



```
/* Selects all <strong> elements that  
are child of p */  
  
p strong {  
    color: red;  
}
```



This rule will change the color of **elements that are child of `<p>` to blue.**



## Child Combinator

- Child Combinator helps us to **select direct child of the parent.**

Selects only direct children & not the grandchildren of a parent.



```
/* Selects all <strong> elements that  
are direct child of p */  
  
p > strong {  
    color: blue;  
}
```



This rule will change the color of **elements that are direct child of `<p>` to blue.**



## General sibling Combinator

- A general sibling works in a way that even if the **sibling before the child doesn't the same it will still select it.**



```
/* Selects <strong> elements even if there is  
something different before last <strong> of <p>  
it will still select it */  
  
p ~ strong {  
    color: red;  
}
```



This rule will change all the **elements even if the element before the child is not same.**

# Selectors

## Adjacent Sibling Combinator

- Adjacent sibling works in a way that it will **only select a child matches the first element before it**.

```
/* Selects <strong> elements only if it matches the first element before it */
p + strong {
    color: blue;
}
```

This rule will change the color of **<strong>** elements only if matches the first element before it of **<p>**

## Pseudo Classes & Elements Selector:-

### : Pseudo Classes

- The **:** pseudo allow the selection of elements based on **state information** that not contained in the **document tree**.

Ex: **a:visited**

### :: Pseudo Elements

- The **::** pseudo represent entities that are not included in HTML

Ex: **p::first-line**

### button:hover

```
/* Any button over which the user's pointer is hovering will change its background to blue */
button:hover {
    color: blue;
}
```

This rule will change the color of **<button>** element to blue when user pointer is hovered

### p::first-line

```
/* The first line of every <p> element. */
p::first-line {
    color: blue;
}
```

This rule will change the color of every first line of **p** element to blue

# Properties

COLOR

BACKGROUND

- background-color
- background-image
- background-repeat
- background-position

FONT

- font-family
- font-style
- font-size

TEXT

- text-align
- text-transform

# Properties

HEIGHT - WIDTH

BORDER

- border-width
- border-color
- border-style
- border-radius

DISPLAY

- inline
- block
- inline-block
- flex
- grid

# Properties

MARGIN - PADDING

