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# CSS Selectors



**CSS** selectors target and select the HTML elements you want to style.

## 1- Simple Selectors :

- Universal Selectors
- Type Selectors
- Class Selectors
- ID Selectors

## 2- Attribute Selectors :

- [attribute]
- element[attribute]
- [attribute = "value"]
- [attribute ^= "value"]
- [attribute \$= "value"]
- [attribute \*= "value"]
- [attribute ~= "value"]



## **3- Grouping Selectors**

## **4- Combinator Selectors:**

- Descendant combinator
- Direct Child Combinator
- General Sibling Combinator
- Adjacent Sibling Combinator

## **5- Pseudo Element Selectors**

## **6- Pseudo Class Selectors**



- **Universal selectors:** selects everything

```
1
2  * {
3    margin: 0;
4    padding: 0;
5    box-sizing: border-box;
6  }
7
```

- **Type selectors:**

selects all html elements of a specific type.

```
1  p {
2    color: blue;
3  }
```

- **Class selectors:**

(.class\_name) selects all elements with the specified class, allowing for efficient and reusable styling of multiple elements.

```
1  p {
2    color: blue;
3  }
4
```



- **ID selectors:**

(#id\_name) selects a single element with the specified unique ID.

```
1  #my-id {  
2    font-size: 20px;  
3  }  
4
```

- **[attribute] selector:**

select all the elements that have the specified attribute

```
1  
2  <div title="one">One</div>  
3  <div title="two">Two</div>  
4  <div title="three">Three</div>  
5  <div>Four</div>  
6
```

```
1  [title] {  
2    color: blue;  
3  }  
4
```

One  
Two  
Three  
Four



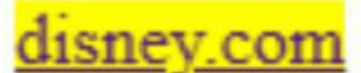


- **element[attribute] Selector:**

select elements with a specified attribute.

```
1
2   <a href="http://www.disney.com" target="_blank">
3     disney.com
4   </a>
5
```

```
1
2   a[target] {
3     background-color: yellow;
4   }
```



- **[attribute = "value"] Selector:**

select elements with a specified attribute & value.

```
1
2   <a href="http://www.disney.com" target="_blank">
3     disney.com
4   </a>
5   <a href="http://www.wikipedia.org" target="_top">
6     wikipedia.org
7   </a>
8
```

```
1   a[target="_blank"] {
2     background-color: yellow;
3   }
4
```



- **[attribute ^= "value"] Selector:**

select elements that start with a specific value.

```

1
2 <a href="https://example.com">
3   Example Link
4 </a>
5 <a href="tel:+123456789">
6   Phone Link
7 </a>
8

```



Example Link  
Phone Link

```

2  /* Select links that start with "https" */
3  a[href^="https"] {
4    color: blue;
5  }
6
7  /* Select links that start with "mailto" */
8  a[href^="tel"] {
9    color: green;
10 }
11

```

- **[attribute \$= "value"] Selector:**

select elements whose specified attribute value ends with a certain string.

```

1
2 
3 
4 
3   Example
4 </a>
5 <a href="https://store.example.com">
6   Store
7 </a>
8 <a href="https://another.com">
9   Another
10 </a>
11

```

Example Store Another

```

1  /* Select links that contain
2  "example" in their href */
3  a[href*="example"] {
4    color: red;
5  }

```

- **[attribute ~= "value"] Selector:**

select elements whose specified attribute contains a whole word. The words must be separated by spaces

```

1
2 <div class="btn primary">Primary Button</div>
3 <div class="btn-primary">Button-Primary</div>
4 <div class="btn primary large">Large Primary Button</div>
5 <div class="btn"> Button</div>
6

```

```

1  /* Select elements with the class attribute
2  containing the exact word "primary" */
3  [class~="primary"] {
4    background-color: blue;
5    color: white;
6  }

```

Primary Button  
Button-Primary  
Large Primary Button  
Button





- **Grouping Selector:**

is used to apply the same styles to multiple selectors

```
1
2 <h1>Heading 1</h1>
3 <h2>Heading 2</h2>
4 <p>This is a paragraph.</p>
5
```

```
1 h1, h2, p {
2   color: blue;
3 }
```

- **Descendant combinator:**

selects elements that are descendants of a specified ancestor. Descendants include both direct children and nested elements at any level within the ancestor.

```
1
2 <div class="container">
3   <p>This is a paragraph inside the container.</p>
4   <div class="nested">
5     <p>This is a nested paragraph inside another div.</p>
6   </div>
7 </div>
8 <p>This paragraph is outside the container.</p>
9
```

```
1 /* Select all <p> elements that
2    are descendants of .container */
3 .container p {
4   color: blue;
5 }
6
```

This is a paragraph inside the container.

This is a nested paragraph inside another div.

This paragraph is outside the container.



- **Direct Child combinator (>):**

Selects elements that are direct children of a specified parent.

```
1
2 <div class="container">
3   <p>This is a paragraph inside the container.</p>
4   <div class="nested">
5     <p>This is a nested paragraph inside another div.</p>
6   </div>
7 </div>
8 <p>This paragraph is outside the container.</p>
9
```

```
1 .container > p {
2   color: blue;
3 }
4
```

This is a paragraph inside the container.

This is a nested paragraph inside another div.

This paragraph is outside the container.

- **General Sibling combinator (~):**

Selects elements that are siblings of a specified element and appear after it in the DOM, regardless of how many elements are in between.

```
1
2 <div class="container">
3   <h1>Heading</h1>
4   <p>First paragraph (sibling of h1)</p>
5   <p>Second paragraph (sibling of h1)</p>
6 </div>
7
```



```
1  h1 ~ p {  
2    color: green;  
3  }  
4
```

## Heading

First paragraph (sibling of h1)

Second paragraph (sibling of h1)

- **Adjacent Sibling combinator (+):**

Selects the immediate sibling of a specified element that appears directly after it in the DOM.

```
1  
2  <div class="container">  
3    <h1>Heading</h1>  
4    <p>First paragraph (immediate sibling of h1)</p>  
5    <p>Second paragraph (not immediate sibling of h1)</p>  
6  </div>  
7
```

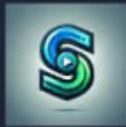
```
1  h1 + p {  
2    color: red;  
3  }  
4  
5
```

## Heading

First paragraph (immediate sibling of h1)

Second paragraph (not immediate sibling of h1)





## ➤ Pseudo Element Selectors :

used to style specific parts of an element or create effects by targeting virtual elements that are not part of the actual DOM.

- **::before**

```
1
2 <p class="example">
3   This is a paragraph.
4 </p>
```

Note: This is a paragraph.

```
1 .example::before {
2   content: "Note: ";
3   color: blue;
4 }
5
```

- **::after**

```
1
2 <p class="example">
3   This is a paragraph.
4 </p>
```

This is a paragraph. [End]

```
1 .example::after {
2   content: " [End]";
3   color: red;
4 }
5
```





- **::first-letter**

```
1
2 <p class="example">
3   This is a paragraph.
4 </p>
5
6     1 .example::first-letter {
7       2   font-size: 2em;
8       3   color: purple;
9     4 }
10    5
```

This is a paragraph.

- **::first-line**

```
1
2 <p class="example">
3   This is a paragraph.
4 </p>
5
6     1 .example::first-line {
7       2   color: green;
8     3 }
9    4
```

This is a paragraph.

- **::selection**

```
1
2 <p>Highlight this text to see the effect.</p>
3
```

```
1 p::selection {
2   background-color: yellow;
3   color: black;
4 }
5
```

Highlight this text to see the effect

Copy



## ➤ Pseudo Classes Selectors :

### • :first-child

- First item
- Second item
- Third item

```
1
2 <ul>
3   <li>First item</li>
4   <li>Second item</li>
5   <li>Third item</li>
6 </ul>
7
```

```
1  li:first-child {
2    color: red;
3  }
4
```

### • :last-child

```
1  li:last-child {
2    color: green;
3  }
4
```

```
1
2 <ul>
3   <li>First item</li>
4   <li>Second item</li>
5   <li>Third item</li>
6 </ul>
7
8
```

- First item
- Second item
- Third item



- **:nth-child(n)**

- Item 1
- **Item 2**
- Item 3
- Item 4

```
1
2 <ul>
3   <li>Item 1</li>
4   <li>Item 2</li>
5   <li>Item 3</li>
6   <li>Item 4</li>
7 </ul>
8
```

```
1 li:nth-child(2) {
2   color: blue;
3 }
4
```

- **:nth-last-child(n)**

```
1
2 <ul>
3   <li>Item 1</li>
4   <li>Item 2</li>
5   <li>Item 3</li>
6   <li>Item 4</li>
7 </ul>
8
```

- Item 1
- Item 2
- **Item 3**
- Item 4

```
1 li:nth-last-child(2) {
2   color: orange;
3 }
4
```

- **:only-child**

```
1 p:only-child {
2   color: purple;
3 }
4
```

This paragraph is the only child.

This paragraph is not the only child.

Another child.

```
1
2 <div>
3   <p>This paragraph is the only child.</p>
4 </div>
5 <div>
6   <p>This paragraph is not the only child.</p>
7   <span>Another child.</span>
8 </div>
9
```



## • :first-of-type

```
1
2 <div>
3   <p>This is a paragraph.</p>
4   <h2>This is a heading.</h2>
5   <p>This is another paragraph.</p>
6 </div>
7
```

```
1 p:first-of-type {
2   color: red;
3 }
4
```

This is a paragraph.

**This is a heading.**

This is another paragraph.

## • :last-of-type

```
1
2 <div>
3   <p>This is a paragraph.</p>
4   <h2>This is a heading.</h2>
5   <p>This is another paragraph.</p>
6 </div>
7
```

This is a paragraph.

**This is a heading.**

This is another paragraph.

```
1 p:last-of-type {
2   color: violet;
3 }
```

## • :nth-of-type(n)

```
1
2 <ul>
3   <li>Item 1</li>
4   <li>Item 2</li>
5   <li>Item 3</li>
6   <li>Item 4</li>
7 </ul>
```

```
1 li:nth-of-type(odd) {
2   background-color: lightblue;
3 }
4
```

- Item 1
- Item 2
- Item 3
- Item 4





- **:only-of-type**

```
1
2 <div>
3   <p>This is the only paragraph.</p>
4   <span>This is a span.</span>
5 </div>
6
7 <div>
8   <p>This is the first paragraph.</p>
9   <p>This is the second paragraph.</p>
10 </div>
11
```

```
1 p:only-of-type {
2   color: red;
3   font-weight: bold;
4 }
5
```

**This is the only paragraph.**

This is a span.

This is the first paragraph.

This is the second paragraph.

- **:hover** Applies styles when the user hovers over an element.

```
1 a:hover { color: green; }
```

- **:focus** Applies styles when an element gains focus

```
1 input:focus { border-color: blue; }
```



- **:visited** Applies styles to links that have been visited.

```
1 a:visited { color: purple; }
```

- **:link** Targets links that have not yet been visited.

```
1 a:link { color: blue; }
```

- **:active** Applies styles when an element is actively clicked.

```
1 button:active { background-color: red; }
```

- **:empty** Selects elements that have no children

```
1 div:empty { display: none; }
```

- **:root** Selects the root element of the document ( <html>).

```
1 :root { font-size: 18px; }
```



- **:checked** Selects checkboxes or radio buttons that are checked.

```
1 input:checked { background-color: green; }
```

- **:disabled** Selects form elements that are disabled.

```
1 input:disabled { background-color: gray; }
```

- **:required** Selects form elements with the required attribute.

```
1 input:required { border: 2px solid red; }
```

- **:placeholder-shown**

Selects inputs that are showing their placeholder text.

```
1 input:placeholder-shown { color: gray; }
```

- **:not(selector)** Excludes elements that match the selector.

```
1
2 <p>This paragraph will be styled.</p>
3 <p class="exclude">
4   This paragraph will not be styled.
5 </p>
6
```

This paragraph will be styled.

This paragraph will not be styled.

```
1 p:not(.exclude) {
2   color: blue;
3   font-weight: bold;
4 }
```