

CSS

Designing of Webpage

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Introduction

CSS describes how HTML elements are to be displayed on screen, paper, or in other media

CSS saves a lot of work. It can control the layout of multiple web pages all at once.

Ways to add CSS in HTML file

* External stylesheet

<link rel="stylesheet" href="mystyle.css">

* Internal stylesheet

<head>

<style>

body {

  background-color: linen;

}

h1 {

  color: maroon;

  margin-left: 40px;

}

</style>

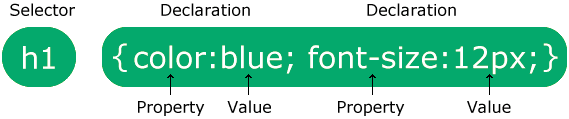
</head>

* Inline stylesheet

<h1 style="color:blue;text-align:center;">This is a heading</h1>

<p style="color:red;">This is a paragraph.</p>

CSS Syntax

******

The selector points to the HTML element you want to style, and multiple declarations are allowed by using a semicolon.

if one single basic selector is invalid, like when using an unknown pseudo-element or pseudo-class, the whole selector is invalid and therefore the entire rule is ignored (as invalid too).

CSS Selectors

: pseudo class

:: pseudo-element

|  |  |  |
| --- | --- | --- |
| **Selector** | **Example** | **Example description** |
| [.*class*](https://www.w3schools.com/cssref/sel_class.php) | .intro | Selects all elements with class="intro" |
| *.class1.class2* | .name1.name2 | Selects all elements with both *name1* and *name2* set within its class attribute |
| *.class1 .class2* | .name1 .name2 | Selects all elements with *name2* that is a descendant of an element with *name1* |
| [#*id*](https://www.w3schools.com/cssref/sel_id.php) | #firstname | Selects the element with id="firstname" |
| [\*](https://www.w3schools.com/cssref/sel_all.php) | \* | Selects all elements |
| [*element*](https://www.w3schools.com/cssref/sel_element.php) | p | Selects all <p> elements |
| [*element.class*](https://www.w3schools.com/cssref/sel_element_class.php) | p.intro | Selects all <p> elements with class="intro" |
| [*element,element*](https://www.w3schools.com/cssref/sel_element_comma.php) | div, p | Selects all <div> elements and all <p> elements |
| [*element* *element*](https://www.w3schools.com/cssref/sel_element_element.php) | div p | Selects all <p> elements inside <div> elements |
| [*element*>*element*](https://www.w3schools.com/cssref/sel_element_gt.php) | div > p | Selects all <p> elements where the parent is a <div> element |
| [*element*+*element*](https://www.w3schools.com/cssref/sel_element_pluss.php) | div + p | Selects the first <p> element that is placed immediately after <div> elements |
| [*element1*~*element2*](https://www.w3schools.com/cssref/sel_gen_sibling.php) | p ~ ul | Selects every <ul> element that is preceded by a <p> element |
| [[*attribute*]](https://www.w3schools.com/cssref/sel_attribute.php) | [target] | Selects all elements with a target attribute |
| [[*attribute*=*value*]](https://www.w3schools.com/cssref/sel_attribute_value.php) | [target="\_blank"] | Selects all elements with target="\_blank" |
| [[*attribute*~=*value*]](https://www.w3schools.com/cssref/sel_attribute_value_contains.php) | [title~="flower"] | Selects all elements with a title attribute containing the word "flower" |
| [[*attribute*|=*value*]](https://www.w3schools.com/cssref/sel_attribute_value_lang.php) | [lang|="en"] | Selects all elements with a lang attribute value equal to "en" or starting with "en-" |
| [[*attribute*^=*value*]](https://www.w3schools.com/cssref/sel_attr_begin.php) | a[href^="https"] | Selects every <a> element whose href attribute value begins with "https" |
| [[*attribute*$=*value*]](https://www.w3schools.com/cssref/sel_attr_end.php) | a[href$=".pdf"] | Selects every <a> element whose href attribute value ends with ".pdf" |
| [[*attribute*\*=*value*]](https://www.w3schools.com/cssref/sel_attr_contain.php) | a[href\*="w3schools"] | Selects every <a> element whose href attribute value contains the substring "w3schools" |
| [:active](https://www.w3schools.com/cssref/sel_active.php) | a:active | Selects the active link |
| [::after](https://www.w3schools.com/cssref/sel_after.php) | p::after | Insert something after the content of each <p> element |
| [::before](https://www.w3schools.com/cssref/sel_before.php) | p::before | Insert something before the content of each <p> element |
| [:checked](https://www.w3schools.com/cssref/sel_checked.php) | input:checked | Selects every checked <input> element |
| [:default](https://www.w3schools.com/cssref/sel_default.php) | input:default | Selects the default <input> element |
| [:disabled](https://www.w3schools.com/cssref/sel_disabled.php) | input:disabled | Selects every disabled <input> element |
| [:empty](https://www.w3schools.com/cssref/sel_empty.php) | p:empty | Selects every <p> element that has no children (including text nodes) |
| [:enabled](https://www.w3schools.com/cssref/sel_enabled.php) | input:enabled | Selects every enabled <input> element |
| [:first-child](https://www.w3schools.com/cssref/sel_firstchild.php) | p:first-child | Selects every <p> element that is the first child of its parent |
| [::first-letter](https://www.w3schools.com/cssref/sel_firstletter.php) | p::first-letter | Selects the first letter of every <p> element |
| [::first-line](https://www.w3schools.com/cssref/sel_firstline.php) | p::first-line | Selects the first line of every <p> element |
| [:first-of-type](https://www.w3schools.com/cssref/sel_first-of-type.php) | p:first-of-type | Selects every <p> element that is the first <p> element of its parent |
| [:focus](https://www.w3schools.com/cssref/sel_focus.php) | input:focus | Selects the input element which has focus |
| [:fullscreen](https://www.w3schools.com/cssref/sel_fullscreen.php) | :fullscreen | Selects the element that is in full-screen mode |
| [:hover](https://www.w3schools.com/cssref/sel_hover.php) | a:hover | Selects links on mouse over |
| [:in-range](https://www.w3schools.com/cssref/sel_in-range.php) | input:in-range | Selects input elements with a value within a specified range |
| [:invalid](https://www.w3schools.com/cssref/sel_invalid.php) | input:invalid | Selects all input elements with an invalid value |
| [:lang(*language*)](https://www.w3schools.com/cssref/sel_lang.php) | p:lang(it) | Selects every <p> element with a lang attribute equal to "it" (Italian) |
| [:last-child](https://www.w3schools.com/cssref/sel_last-child.php) | p:last-child | Selects every <p> element that is the last child of its parent |
| [:last-of-type](https://www.w3schools.com/cssref/sel_last-of-type.php) | p:last-of-type | Selects every <p> element that is the last <p> element of its parent |
| [:link](https://www.w3schools.com/cssref/sel_link.php) | a:link | Selects all unvisited links |
| [::marker](https://www.w3schools.com/cssref/sel_marker.php) | ::marker | Selects the markers of list items |
| [:not(*selector*)](https://www.w3schools.com/cssref/sel_not.php) | :not(p) | Selects every element that is not a <p> element |
| [:nth-child(*n*)](https://www.w3schools.com/cssref/sel_nth-child.php) | p:nth-child(2) | Selects every <p> element that is the second child of its parent |
| [:nth-last-child(*n*)](https://www.w3schools.com/cssref/sel_nth-last-child.php) | p:nth-last-child(2) | Selects every <p> element that is the second child of its parent, counting from the last child |
| [:nth-last-of-type(*n*)](https://www.w3schools.com/cssref/sel_nth-last-of-type.php) | p:nth-last-of-type(2) | Selects every <p> element that is the second <p> element of its parent, counting from the last child |
| [:nth-of-type(*n*)](https://www.w3schools.com/cssref/sel_nth-of-type.php) | p:nth-of-type(2) | Selects every <p> element that is the second <p> element of its parent |
| [:only-of-type](https://www.w3schools.com/cssref/sel_only-of-type.php) | p:only-of-type | Selects every <p> element that is the only <p> element of its parent |
| [:only-child](https://www.w3schools.com/cssref/sel_only-child.php) | p:only-child | Selects every <p> element that is the only child of its parent |
| [:optional](https://www.w3schools.com/cssref/sel_optional.php) | input:optional | Selects input elements with no "required" attribute |
| [:out-of-range](https://www.w3schools.com/cssref/sel_out-of-range.php) | input:out-of-range | Selects input elements with a value outside a specified range |
| [::placeholder](https://www.w3schools.com/cssref/sel_placeholder.php) | input::placeholder | Selects input elements with the "placeholder" attribute specified |
| [:read-only](https://www.w3schools.com/cssref/sel_read-only.php) | input:read-only | Selects input elements with the "readonly" attribute specified |
| [:read-write](https://www.w3schools.com/cssref/sel_read-write.php) | input:read-write | Selects input elements with the "readonly" attribute NOT specified |
| [:required](https://www.w3schools.com/cssref/sel_required.php) | input:required | Selects input elements with the "required" attribute specified |
| [:root](https://www.w3schools.com/cssref/sel_root.php) | :root | Selects the document's root element |
| [::selection](https://www.w3schools.com/cssref/sel_selection.php) | ::selection | Selects the portion of an element that is selected by a user |
| [:target](https://www.w3schools.com/cssref/sel_target.php) | #news:target | Selects the current active #news element (clicked on a URL containing that anchor name) |
| [:valid](https://www.w3schools.com/cssref/sel_valid.php) | input:valid | Selects all input elements with a valid value |
| [:visited](https://www.w3schools.com/cssref/sel_visited.php) | a:visited | Selects all visited links |

CSS Basic Properties

@keyframes rule

div {

animation: animationName 10s infinite;

}

@keyframes animationName {

0% {

top: 0px;

width: 00px;

}

25% {

top: 50px;

background: LawnGreen;

width: 50px;

}

50% {

top: 100px;

background: LightGreen;

width: 100px;

}

75% {

top: 150px;

background: MediumSeaGreen;

width: 150px;

}

100% {

top: 200px;

color: white;

background: Green;

width: 200px;

} }

**@media rule**

It is used to make website more responsive by ensuring animation and styling by width of the screen.

 @media screen and (max-width: 600px) {

            h1,

            h2 {

                color: green;

                font-size: 25px;

            }

            p {

                background-color: green;

                color: white;

            }

        }

Box Sizing **:** Content-box & border-box

Grid :

.main {

            display: grid;

            grid-template-columns: 156px 156px 156px 156px;

            grid-template-rows: 100px 200px;

            grid-gap: 5px;

        }

There are more properties in css which is used to make page more responsive and attractive. Mostly implimentation of all properties is demonstrated in prepared demo.