

CSS 3

This is a quick reference cheat sheet for CSS goodness, listing selector syntax, properties, units and other useful bits of information.

Getting Started

Introduction

CSS is rich in capabilities and is more than simply laying out pages.

External stylesheet

```
<link href="./path/to/stylesheet/style.css" rel="stylesheet" type="text/css" />
```

Internal stylesheet

```
<style>
  body {
    background-color: linen;
  }
</style>
```

Inline styles

```
<h2 style="text-align: center;">Centered text</h2>
```

```
<p style="color: blue; font-size: 18px;">Blue, 18-point text</p>
```

Add class

```
<div class="classname"></div>
<div class="class1 ... classn"></div>
```

Support multiple classes on one element.

!important

```
.post-title {
  color: blue !important;
}
```

Overrides all previous styling rules.

Selector

```
h1 { }
#job-title { }
div.hero { }
div > p { }
```

See: [Selectors](#)

Text color

```
color: #2a2aff;
color: green;
color: rgb(34, 12, 64, 0.6);
color: hsla(30 100% 50% / 0.6);
```

See: [Colors](#)

Background

```
background-color: blue;
background-image: url("nyan-cat.gif");
background-image: url("../image.png");
```

See: [Backgrounds](#)

Font

```
.page-title {  
  font-weight: bold;  
  font-size: 30px;  
  font-family: "Courier New";  
}
```

See: [Fonts](#)

Position

```
.box {  
  position: relative;  
  top: 20px;  
  left: 20px;  
}
```

See also: [Position](#)

Animation

```
animation: 300ms linear 0s infinite;  
  
animation: bounce 300ms linear infinite;
```

See: [Animation](#)

Comment

```
/* This is a single line comment */  
  
/* This is a  
   multi-line comment */
```

Flex layout

```
div {  
  display: flex;  
  justify-content: center;  
}  
div {  
  display: flex;  
  justify-content: flex-start;  
}
```

See: [Flexbox](#) | [Flex Tricks](#)

Grid layout

```
#container {  
  display: grid;  
  grid: repeat(2, 60px) / auto-flow 80px;  
}  
  
#container > div {  
  background-color: #8ca0ff;  
  width: 50px;  
  height: 50px;  
}
```

See: [Grid Layout](#)

Variable & Counter

```
counter-set: subsection;  
counter-increment: subsection;  
counter-reset: subsection 0;  
  
:root {  
  --bg-color: brown;  
}  
element {  
  background-color: var(--bg-color);  
}
```

See: [Dynamic content](#)

CSS Selectors

Examples

Groups Selector

```
h1,  
h2 {  
  color: red;  
}
```

Chaining Selector

```
h3.section-heading {  
  color: blue;  
}
```

Attribute Selector

```
div[attribute="SomeValue"] {  
  background-color: red;  
}
```

First Child Selector

```
p:first-child {  
  font-weight: bold;  
}
```

No Children Selector

```
.box:empty {  
  background: lime;  
  height: 80px;  
  width: 80px;  
}
```

Basic

<code>*</code>	All elements
<code>div</code>	All div tags
<code>.classname</code>	All elements with class
<code>#idname</code>	Element with ID
<code>div, p</code>	All divs and paragraphs
<code>#idname *</code>	All elements inside #idname
See also: Type / Class / ID / Universal selectors	

Combinators

<code>div.classname</code>	Div with certain classname
<code>div#idname</code>	Div with certain ID
<code>div p</code>	Paragraphs inside divs
<code>div > p</code>	All p tags one level deep in div
<code>div + p</code>	P tags immediately after div
<code>div ~ p</code>	P tags preceded by div
See also: Adjacent / Sibling / Child selectors	

Attribute selectors

<code>a[target]</code>	With a target attribute
<code>a[target="_blank"]</code>	Open in new tab
<code>a[href^="/index"]</code>	Starts with /index
<code>[class ="chair"]</code>	Starts with chair
<code>[class*="chair"]</code>	containing chair
<code>[title~="chair"]</code>	Contains the word chair
<code>a[href\$=".doc"]</code>	Ends with .doc
<code>[type="button"]</code>	Specified type
See also: Attribute selectors	

User action pseudo classes

<code>a:link</code>	Link in normal state
<code>a:active</code>	Link in clicked state
<code>a:hover</code>	Link with mouse over it
<code>a:visited</code>	Visited link

<code>p::after</code>	Add content after p
<code>p::before</code>	Add content before p
<code>p::first-letter</code>	First letter in p
<code>p::first-line</code>	First line in p
<code>::selection</code>	Selected by user
<code>::placeholder</code>	Placeholder attribute
<code>:root</code>	Documents root element
<code>:target</code>	Highlight active anchor
<code>div:empty</code>	Element with no children
<code>p:lang(en)</code>	P with en language attribute
<code>:not(span)</code>	Element that's not a span

Input pseudo classes

<code>input:checked</code>	Checked inputs
<code>input:disabled</code>	Disabled inputs
<code>input:enabled</code>	Enabled inputs
<code>input:focus</code>	Input has focus
<code>input:in-range</code>	Value in range
<code>input:out-of-range</code>	Input value out of range
<code>input:valid</code>	Input with valid value
<code>input:invalid</code>	Input with invalid value
<code>input:optional</code>	No required attribute
<code>input:required</code>	Input with required attribute
<code>input:read-only</code>	With readonly attribute
<code>input:read-write</code>	No readonly attribute
<code>input:indeterminate</code>	With indeterminate state

<code>p:first-child</code>	First child
<code>p:last-child</code>	Last child
<code>p:first-of-type</code>	First of some type
<code>p:last-of-type</code>	Last of some type
<code>p:nth-child(2)</code>	Second child of its parent
<code>p:nth-child(3n+2)</code>	Nth-child ($an + b$) formula
<code>p:nth-last-child(2)</code>	Second child from behind
<code>p:nth-of-type(2)</code>	Second p of its parent
<code>p:nth-last-of-type(2)</code>	...from behind
<code>p:only-of-type</code>	Unique of its parent
<code>p:only-child</code>	Only child of its parent

CSS Fonts

Properties

font-family:	
font-size:	<size>
letter-spacing:	<size>
line-height:	<number>
font-weight:	<number> / bold / normal
font-style:	italic / normal
text-decoration:	underline / none
text-align:	left / right center / justify
text-transform:	capitalize / uppercase / lowercase
See also: Font	

Shorthand

font:	italic	400	14px	/	1.5	sans-serif
	style	weight	size (required)		line-height	family (required)

Example

```
font-family: Arial, sans-serif;
font-size: 12pt;
letter-spacing: 0.02em;
```

Case

```
/* Hello */
text-transform: capitalize;

/* HELLO */
text-transform: uppercase;

/* hello */
text-transform: lowercase;
```

@font-face

```
@font-face {  
  font-family: "Glegoo";  
  src: url("../Glegoo.woff");  
}
```

CSS Colors

Named color

```
color: red;  
color: orange;  
color: tan;  
color: rebeccapurple;
```

Hexadecimal color

```
color: #090;  
color: #009900;  
color: #090a;  
color: #009900aa;
```

rgb() Colors

```
color: rgb(34, 12, 64, 0.6);  
color: rgba(34, 12, 64, 0.6);  
color: rgb(34 12 64 / 0.6);  
color: rgba(34 12 64 / 0.3);  
color: rgb(34 12 64 / 60%);  
color: rgba(34.6 12 64 / 30%);
```

HSL Colors

```
color: hsl(30, 100%, 50%, 0.6);  
color: hsla(30, 100%, 50%, 0.6);  
color: hsl(30 100% 50% / 0.6);  
color: hsla(30 100% 50% / 0.6);  
color: hsl(30 100% 50% / 60%);  
color: hsla(30.2 100% 50% / 60%);
```

```

color: inherit;
color: initial;
color: unset;
color: transparent;

color: currentcolor; /* keyword */

```

CSS Backgrounds

Properties

background:	(Shorthand)
background-color:	See: Colors
background-image:	url(...)
background-position:	left/center/right top/center/bottom
background-size:	cover X Y
background-clip:	border-box padding-box content-box
background-repeat:	no-repeat repeat-x repeat-y
background-attachment:	scroll/fixed/local

Shorthand

background:	#ff0	url(a.jpg)	left	top	/	100px auto	no-repeat
background:	#abc	url(b.png)	center	center	/	cover	repeat-x
	color	image	posX	posY		size	repeat

```
background: url(img_man.jpg) no-repeat center;

background: url(img_flwr.gif) right bottom no-repeat, url(paper.gif)
left top
    repeat;

background: rgb(2, 0, 36);
background: linear-gradient(
    90deg,
    rgba(2, 0, 36, 1) 0%,
    rgba(13, 232, 230, 1) 35%,
    rgba(0, 212, 255, 1) 100%
);
```

CSS The Box Model

Maximums/Minimums

```
.column {
    max-width: 200px;
    width: 500px;
}
```

See also: [max-width](#) / [min-width](#) / [max-height](#) / [min-height](#)

Margin / Padding

```
.block-one {
    margin: 20px;
    padding: 10px;
}
```

See also: [Margin](#) / [Padding](#)

Box-sizing

```
.container {  
  box-sizing: border-box;  
}
```

See also: [Box-sizing](#)

Visibility

```
.invisible-elements {  
  visibility: hidden;  
}
```

See also: [Visibility](#)

Auto keyword

```
div {  
  margin: auto;  
}
```

See also: [Margin](#)

Overflow

```
.small-block {  
  overflow: scroll;  
}
```

See also: [Overflow](#)

CSS Animation

Shorthand

animation:	bounce	300ms	linear	100ms	infinite	alternate-reverse
	name	duration	timing-function	delay	count	direction

Properties

<code>animation:</code>	(shorthand)
<code>animation-name:</code>	<name>
<code>animation-duration:</code>	<time>ms
<code>animation-timing-function:</code>	ease / linear / ease-in / ease-out / ease-in-out
<code>animation-delay:</code>	<time>ms
<code>animation-iteration-count:</code>	infinite / <number>
<code>animation-direction:</code>	normal / reverse / alternate / alternate-reverse
<code>animation-fill-mode:</code>	none / forwards / backwards / both / initial / inherit
<code>animation-play-state:</code>	normal / reverse / alternate / alternate-reverse

See also: [Animation](#)

Example

```
/* @keyframes duration | timing-function | delay |
   iteration-count | direction | fill-mode | play-state | name */
animation: 3s ease-in 1s 2 reverse both paused slidein;

/* @keyframes duration | timing-function | delay | name */
animation: 3s linear 1s slidein;

/* @keyframes duration | name */
animation: 3s slidein;

animation: 4s linear 0s infinite alternate move_eye;
animation: bounce 300ms linear 0s infinite normal;
animation: bounce 300ms linear infinite;
animation: bounce 300ms linear infinite alternate-reverse;
animation: bounce 300ms linear 2s infinite alternate-reverse forwards noi
```

Javascript Event

```
.one('webkitAnimationEnd oanimationend msAnimationEnd animationend')
```


CSS Flexbox

Simple example

```
.container {  
  display: flex;  
}  
  
.container > div {  
  flex: 1 1 auto;  
}
```

Container

```
.container {  
  
  display: flex;  
  display: inline-flex;  
  
  flex-direction: row; /* ltr - default */  
  flex-direction: row-reverse; /* rtl */  
  flex-direction: column; /* top-bottom */  
  flex-direction: column-reverse; /* bottom-top */  
  
  flex-wrap: nowrap; /* one-line */  
  flex-wrap: wrap; /* multi-line */  
  
  align-items: flex-start; /* vertical-align to top */  
  align-items: flex-end; /* vertical-align to bottom */  
  align-items: center; /* vertical-align to center */  
  align-items: stretch; /* same height on all (default) */  
  
  justify-content: flex-start; /* [xxx      ] */  
  justify-content: center; /* [   xxx   ] */  
  justify-content: flex-end; /* [      xxx] */  
  justify-content: space-between; /* [x    x    x] */  
  justify-content: space-around; /* [ x  x  x ] */  
  justify-content: space-evenly; /* [  x  x  x ] */  
  
}
```

```
.container > div {  
  
  /* This: */  
  flex: 1 0 auto;  
  
  /* Is equivalent to this: */  
  flex-grow: 1;  
  flex-shrink: 0;  
  flex-basis: auto;  
  
  order: 1;  
  
  align-self: flex-start; /* left */  
  margin-left: auto; /* right */  
  
}
```

CSS Flexbox Tricks

```
.container {  
  display: flex;  
}  
  
.container > div {  
  width: 100px;  
  height: 100px;  
  margin: auto;  
}
```

Vertical center (2)

```
.container {  
  display: flex;  
  
  /* vertical */  
  align-items: center;  
  
  /* horizontal */  
  justify-content: center;  
}
```

Reordering

```
.container > .top {  
  order: 1;  
}  
  
.container > .bottom {  
  order: 2;  
}
```

Mobile layout

```
.container {  
  display: flex;  
  flex-direction: column;  
}  
  
.container > .top {  
  flex: 0 0 100px;  
}  
  
.container > .content {  
  flex: 1 0 auto;  
}
```

A fixed-height top bar and a dynamic-height content area.

```
.container {  
  display: flex;  
}  
  
/* the 'px' values here are just suggested percentages */  
.container > .checkbox {  
  flex: 1 0 20px;  
}  
.container > .subject {  
  flex: 1 0 400px;  
}  
.container > .date {  
  flex: 1 0 120px;  
}
```

This creates columns that have different widths, but size accordingly according to the circumstances.

```
.container {  
  align-items: center;  
}
```

Vertically-center all items.

```
.menu > .left {  
  align-self: flex-start;  
}  
.menu > .right {  
  align-self: flex-end;  
}
```

CSS Grid Layout

Grid Template Columns

```
#grid-container {  
  display: grid;  
  width: 100px;  
  grid-template-columns: 20px 20% 60%;  
}
```

fr Relative Unit

```
.grid {  
  display: grid;  
  width: 100px;  
  grid-template-columns: 1fr 60px 1fr;  
}
```

Grid Gap

```
/*The distance between rows is 20px*/  
/*The distance between columns is 10px*/  
#grid-container {  
  display: grid;  
  grid-gap: 20px 10px;  
}
```

CSS Block Level Grid

```
#grid-container {  
  display: block;  
}
```

CSS grid-row

CSS syntax:

grid-row: grid-row-start / grid-row-end;

Example

```
.item {  
  grid-row: 1 / span 2;  
}
```

```
#grid-container {  
  display: inline-grid;  
}
```

```
.grid {  
  display: grid;  
  grid-template-columns: 100px minmax(100px, 500px) 100px;  
}
```

CSS syntax:

grid-row-start: auto | row-line;

grid-row-end: auto | row-line | span n;

Example

```
grid-row-start: 2;  
grid-row-end: span 2;
```

grid-row-gap: length;

Any legal length value, like px or %. 0 is the default value

```
.item1 {  
  grid-area: 2 / 1 / span 2 / span 3;  
}
```

Justify Items

```
#container {  
  display: grid;  
  justify-items: center;  
  grid-template-columns: 1fr;  
  grid-template-rows: 1fr 1fr 1fr;  
  grid-gap: 10px;  
}
```

CSS grid-template-areas

```
.item {  
  grid-area: nav;  
}  
.grid-container {  
  display: grid;  
  grid-template-areas:  
    "nav nav . ."  
    "nav nav . .";  
}
```

Justify Self

```
#grid-container {  
  display: grid;  
  justify-items: start;  
}  
.grid-items {  
  justify-self: end;  
}
```

The grid items are positioned to the right (end) of the row.

Align Items

```
#container {  
  display: grid;  
  align-items: start;  
  grid-template-columns: 1fr;  
  grid-template-rows: 1fr 1fr 1fr;  
  grid-gap: 10px;  
}
```

CSS Dynamic Content

Variable

Define CSS Variable

```
:root {  
  --first-color: #16f;  
  --second-color: #ff7;  
}
```

Variable Usage

```
#firstParagraph {  
  background-color: var(--first-color);  
  color: var(--second-color);  
}
```

See also: [CSS Variable](#)

Counter

```
/* Set "my-counter" to 0 */  
counter-set: my-counter;  
  
/* Increment "my-counter" by 1 */  
counter-increment: my-counter;  
  
/* Decrement "my-counter" by 1 */  
counter-increment: my-counter -1;  
  
/* Reset "my-counter" to 0 */  
counter-reset: my-counter;
```

See also: [Counter set](#)


```
body {  
  counter-reset: section;  
}  
  
h3::before {  
  counter-increment: section;  
  content: "Section." counter(section);  
}  
  
ol {  
  counter-reset: section;  
  list-marker-type: none;  
}  
  
li::before {  
  counter-increment: section;  
  content: counters(section, ".") " ";  
}
```

Css 3 tricks

```
html {  
  scroll-behavior: smooth;  
}
```

[Click me](#), the page will scroll smoothly to Getting started

Modern CSS

```

.element-wrap {
  container: element / inline-size;
}
@container element (min-inline-size: 300px) {
  .element {
    display: flex;
    gap: 1rem;
  }
}

```

```

.container {
  --variant: 1;

  &.variant2 {
    --variant: 2;
  }
}

@container style(--variant: 1) {
  button {
  } /* You can't style .container, but can select inside it */
  .other-things {
  }
}

@container style(--variant: 2) {
  button {
  }
  .whatever {
  }
}

```

The units are cqw ("container query width"),

cqh ("container query height"),

cqi ("container query inline"),

cqb ("container query block"),

cqmin (smaller of cqi and cqb),

and cqmax (larger of cqi and cqb)

```
.card {
  padding: 5cqi;
  font-size: 4cqi;
  border: 1cqi solid brown;
  height: 100%;
}

h2 {
  font-size: 10cqi;
  margin-block: 0 3cqi;
}
```

```
figure:has(figcaption) {
  border: 1px solid black;
  padding: 0.5rem;
}
```

```
.cards {
  .card {
    & .card-description {
      color: blue;
    }
    & .card-title {
      color: red;
    }
  }
}
```

scoping

```
@scope {
  :scope {
    display: grid;
    grid-template-columns: 1fr 1fr;
    gap: 1rem;
    padding: 1rem;
    border: 1px solid black;
  }
  .card {
    padding: 1rem;
    border: 1px solid black;
    background: lightgray;
    h2 {
      margin: 0 0 1rem 0;
    }
  }
}
```

cascade layers

```
/* Specify the order to apply styles in cascade */
@layer legacyCard, newCard;

/* Imagine you have a lot of styles */
@layer newCard {
  .card {
    background-color: red;
  }
}
@layer legacyCard {
  .card {
    background-color: green;
  }
}
```

```
button {  
  background-color: #4caf50;  
  border: none;  
  color: white;  
  padding: 0.5rem 1.5rem;  
  text-decoration: none;  
  font: inherit;  
  border-radius: 4px;  
  .icon {  
    position: relative;  
    top: 0.125em;  
    fill: white;  
    width: 1em;  
    aspect-ratio: 1;  
    margin-inline-end: 0.25rem;  
  }  
}
```

```

<div class="container">
  <div class="swatch">
    <style contenteditable>
      @scope {
        :scope {
          background-color: color(display-p3 1 0.5 0);
        }
      }
    </style>
  </div>
  <div class="swatch">
    <style contenteditable>
      @scope {
        :scope {
          background-color: oklch(61.88% 0.286 342.4);
        }
      }
    </style>
  </div>
  <div class="swatch">
    <style contenteditable>
      @scope {
        :scope {
          background-color: oklab(0.73 0.15 0.16);
        }
      }
    </style>
  </div>

  <div class="swatch">
    <style contenteditable>
      @scope {
        :scope {
          background-image: linear-gradient(to right in oklch, red, blue);
        }
      }
    </style>
  </div>

  <div class="swatch">
    <style contenteditable>
      @scope {
        :scope {
          background-image: linear-gradient(to right in oklab, red, blue);
        }
      }
    </style>
  </div>

```

```

    }
  }
</style>
</div>

<div class="swatch">
  <style contenteditable>
    @scope {
      :scope {
        background-image: linear-gradient(to right in srgb, red, blue),
      }
    }
  </style>
</div>
</div>

```

color mixing

```

.swatch {
  color: white;
  width: 100px;
  aspect-ratio: 1;
  display: grid;
  place-items: center;
  text-align: center;

  &:nth-child(1) {
    background-color: var(--bg);
  }
  &:nth-child(2) {
    background-color: color-mix(in oklch, var(--bg), black 30%);
  }
  &:nth-child(3) {
    background-color: color-mix(in oklch, var(--bg), white 30%);
  }
}

```

```
.container {  
  /* prevent "extra" margin at the end of the element */  
  margin-trim: block-end;  
  
  /* an element like this might be the culprit, but it could be anything  
  > p {  
    margin-block-end: 1rem;  
  }  
}
```

```
.balance {  
  text-wrap: balance;  
}  
.pretty {  
  text-wrap: pretty;  
}  
  
html {  
  font-family: system-ui, sans-serif;  
}  
  
main {  
  max-inline-size: 60ch;  
  margin-inline: auto;  
}
```



```
.grid {  
  display: grid;  
  grid-template-columns: repeat(9, 1fr);  
  grid-template-rows: repeat(4, minmax(100px, auto));  
}  
  
.item {  
  display: grid;  
  grid-column: 2 / 7;  
  grid-row: 2 / 4;  
  grid-template-columns: subgrid;  
  grid-template-rows: repeat(3, 80px);  
}  
  
.subitem {  
  grid-column: 3 / 6;  
  grid-row: 1 / 3;  
}
```

Also see

frontendmasters.com

[CSS selectors cheatsheet](#) (frontend30.com)

[MDN: Using CSS flexbox](#)

[Ultimate flexbox cheatsheet](#)

[GRID: A simple visual cheatsheet](#)

[CSS Tricks: A Complete Guide to Grid](#)

[Browser support](#)

Related Cheatsheet

HTML Canvas Cheatsheet

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