CSS Avançado

Resumo do CSS

Alguns tópicos não serão abordados, estão listados apenas par constar.

color
Nomes em inglês: red, black, blue, etc
RGB(x,y,z). Ex: red = rgb(255,0,0)
rgba(x,y,z, alpha), com opção para transparência – alpha

```
img {
  opacity: 0.5;
  filter: alpha(opacity=50); /* For IE8 and earlier */
}

div {
  background: rgba(76, 175, 80, 0.3) /* Green background with 30% opacity */
}
```

background: #ffffff url("img_tree.png") no-repeat right top;

background-image
background-image: url("img_tree.png");

background-position: right top
background-size
background-repeat: no-repeat, repeat-x, repeat-y;
background-attachment: fixed
background-color: blue;
background-attachment: scroll, fixed;

font-family: "Times New Roman", serif; font-style: italic;font-weight: bold;
font-size: 30px;

text-indent: 30px;
text-align: right ou left, center, justify
text-decoration: overline; none, line-through

letter-spacing: 6px;

line-height: 80%; 1.6, normal, 200%;

text-transform: uppercase; capitalize

border-width: 1px;
border-style: dotted, solid, dashed;
border-color: gold;
border: 1px solid black;

border: bottom, left, right, top
margin: bottom, left, right, top
padding: bottom, left, right, top

height/width - The height and width properties are used to set the height and width of an element.
max-width - Using max-width instead, in this situation, will improve the browser's handling of small windows. This is important when making a site usable on small devices

box model - All HTML elements can be considered as boxes. In CSS, the term "box model" is used when talking about design and layout.

The CSS box model is essentially a box that wraps around every HTML element. It consists of: margins, borders, padding, and the actual content. The image below illustrates the box model

```
div {
  width: 300px;
  border: 15px solid green;
  padding: 50px;
  margin: 20px;
}
```

text
text-align: center, left, right, justify
text-decoration: none;
fonts

```
p {
  font-family: "Times New Roman", Times, serif;
}
```

icons

```
<link rel="stylesheet" href="https://use.fontawesome.com/releases/v5.7.0/css/all.css"
integrity="sha384-
lZN37f5QGtY3VHgisS14W3ExzMWZxybE1SJSEsQp9S+oqd12jhcu+A56Ebc1zFSJ"
crossorigin="anonymous">
</head>
<body>

<i class="fas fa-cloud"></i>
<i class="fas fa-heart"></i>
<i class="fas fa-car"></i>
<i class="fas fa-file"></i>
<i class="fas fa-bars"></i>
```

links

a:link - a normal, unvisited link
a:visited - a link the user has visited
a:hover - a link when the user mouses over it
a:active - a link the moment it is clicked

lists

```
ul.a {
  list-style-type: circle,square,upper-roman,lower-alpha;
}
```

tables

```
table, th, td {
```

```
  border: 1px solid black;
}
```

display

```
li {
  display: inline, block,none, ;
}
```

visibility: hidden;

position: static, relative, fixed, absolute, sticky

Um elemento com posição static é o valor padrão de todos os elementos HTML. Um elemento com position: static; não se posiciona de maneira especial, seria o mesmo que dizer que o elemento não tem posição definida ou então que um elemento com o atributo position definido seria posicionado.
Um elemento com posição relative se comporta igualmente ao static, a menos que se adicione propriedades extras no estilo do elemento.
Um elemento com posição fixed - é posicionado relativamente ao "viewport", isso significa que ele sempre ficará no mesmo lugar mesmo que haja rolagem na página. Assim como o relative, as propriedades top, right, bottom e left também são utilizadas.
Um elemento com posição absolute - é posicionado em relação ao seu elemento pai.

float

```
img {
  float: right, left, none;
}
.clearfix {
  overflow: auto;
}
.clearfix::after {
  content: "";
  clear: both;
  display: table;
}
```

align

text-align: center;
vertical-align: middle;
conbinators: child, descendant, adjacent sibling, general sibiling

pseudo-class

```
p {
  display: none;
  background-color: yellow;
  padding: 20px;
}
img.a {
  vertical-align: baseline;
}

img.b {
  vertical-align: text-top;
}
```

```
img.c {
  vertical-align: text-bottom;
}

img.d {
  vertical-align: sub;
}

img.e {
  vertical-align: super;
}
```
https://vanseodesign.com/css/vertical-centering/
https://www.w3schools.com/cssref/pr_pos_vertical-align.asp

```
div:hover p {
  display: block;
}
```
a:link - a normal, unvisited link
a:visited - a link the user has visited
a:hover - a link when the user mouses over it
a:active - a link the moment it is clicked

:active an activated element
:focus an element while the element has focus
:visited a visited link
:hover an element when you mouse over it
:link an unvisited link
:disabled an element while the element is disabled
:enabled an element while the element is enabled
:checked an element (form element control) that is checked
:selection an element that is currently selected of highlighted by the user
:lang Allows the author to specify a language to use in a specified element
:nth-child(n) an element that is the n-th sibling
:nth-last-child(n) an element that is the n-th sibling counting from the last sibling
:first-child an element that is the first sibling
:last-child an element that is the last sibling
:only-child an element that is the only child
:nth-of-type(n) an element that is the n-th sibling of its type.
:nth-last-of-type(n) an element that is the n-th sibling of its type counting from the last sibling
:last-of-type an element that is the first sibling of its type
:first-of-type an element that is the last sibling of its type
:only-of-type an element that is the only child of that type
:empty an element that has no children
:root root element within the document
:not(x) an element not represented by the argument ‘x’
:target a target element as specified by a target in a URI

pseudo-element: p::first-line {, p::first-letter {, h1::before {, h1::after {, ::selection {
::first-letter Adds special style to the first letter of a text
::first-line Adds special style to the first line of a text
::before - Inserts some content before an element
::after - Inserts some content after an element

```
<style>
::-moz-selection { /* Code for Firefox */
  color: red;
  background: yellow;
}

::selection {
  color: red;
  background: yellow;
}
</style>
```

opacity

```
div {
  opacity: 0.5;
}
div.first {
  background: rgba(76, 175, 80, 0.1);
}
```

navigation bar

```
<style>
ul {
  list-style-type: none;
  margin: 0;
  padding: 0;
  overflow: hidden;
  background-color: #333;
}

li {
  float: left;
}

li a {
  display: block;
  color: white;
  text-align: center;
  padding: 14px 16px;
  text-decoration: none;
}

li a:hover {
  background-color: #111;
}
```

dropdown

```
<!DOCTYPE html>
<html>
<head>
<style>
.dropbtn {
  background-color: #4CAF50;
  color: white;
  padding: 16px;
  font-size: 16px;
  border: none;
  cursor: pointer;
}

.dropdown {
  position: relative;
  display: inline-block;
}

.dropdown-content {
  display: none;
  position: absolute;
  background-color: #f9f9f9;
  min-width: 160px;
  box-shadow: 0px 8px 16px 0px rgba(0,0,0,0.2);
  z-index: 1;
}

.dropdown-content a {
  color: black;
  padding: 12px 16px;
  text-decoration: none;
  display: block;
}

.dropdown-content a:hover {background-color: #f1f1f1}

.dropdown:hover .dropdown-content {
  display: block;
}

.dropdown:hover .dropbtn {
  background-color: #3e8e41;
}
</style>
</head>
<body>

<h2>Dropdown Menu</h2>
<p>Move the mouse over the button to open the dropdown menu.</p>
```

```
<div class="dropdown">
  <button class="dropbtn">Dropdown</button>
  <div class="dropdown-content">
  <a href="#">Link 1</a>
  <a href="#">Link 2</a>
  <a href="#">Link 3</a>
  </div>
</div>

<p><strong>Note:</strong> We use href="#" for test links. In a real web site this would be URLs.</p>

</body>
</html>
```

image sprites

```
#home {
  width: 46px;
  height: 44px;
  background: url(img_navsprites.gif) 0 0;
}

<!DOCTYPE html>
<html>
<head>
<style>
#navlist {
  position: relative;
}

#navlist li {
  margin: 0;
  padding: 0;
  list-style: none;
  position: absolute;
  top: 0;
}

#navlist li, #navlist a {
  height: 44px;
  display: block;
}

#home {
  left: 0px;
  width: 46px;
  background: url('img_navsprites.gif') 0 0;
}

#prev {
  left: 63px;
  width: 43px;
```

```
  background: url('img_navsprites.gif') -47px 0;
}

#next {
  left: 129px;
  width: 43px;
  background: url('img_navsprites.gif') -91px 0;
}
</style>
</head>
<body>

<ul id="navlist">
  <li id="home"><a href="default.asp"></a></li>
  <li id="prev"><a href="css_intro.asp"></a></li>
  <li id="next"><a href="css_syntax.asp"></a></li>
</ul>

</body>
</html>
```

attr selectors: a[target] {,

```
a[target="_blank"] {
  background-color: yellow;
}
[title~="flower"] {
  border: 5px solid yellow;
}
[class|="top"] {
  background: yellow;
}
[class^="top"] {
  background: yellow;
}
<style>
[class^="top"] {
  background: yellow;
}
</style>
</head>
<body>

<h1 class="top-header">Welcome</h1>
<p class="top-text">Hello world!</p>
<p class="topcontent">Are you learning CSS?</p>

<p><b>Note:</b> For [<i>attribute</i>^=<i>value</i>] to work in IE8 and earlier, a DOCTYPE must be declared.</p>
```

Marcará em amarelo h1 e os 2 p logo abaixo, mas não o último,

The [attribute$="value"] selector is used to select elements whose attribute value ends with a specified value.

```
[class$="test"] {
  background: yellow;
}
```

The [attribute*="value"] selector is used to select elements whose attribute value contains a specified value.

```
[class*="te"] {
  background: yellow;
}
```

Estilizando forms sem classes ou ids, com os próprios elementos/inputs do form

```
input[type="text"] {
  width: 150px;
  display: block;
  margin-bottom: 10px;
  background-color: yellow;
}

input[type="button"] {
  width: 120px;
  margin-left: 35px;
  display: block;
}
```

forms

input[type=text] - will only select text fields
input[type=password] - will only select password fields
input[type=number] - will only select number fields
etc..

```
input[type=text] {
  width: 100%;
  padding: 12px 20px;
  margin: 8px 0;
  box-sizing: border-box;
}

input[type=text] {
  border: 2px solid red;
  border-radius: 4px;
}

input[type=text]:focus {
  background-color: lightblue;
}

textarea {
  width: 100%;
  height: 150px;
  padding: 12px 20px;
  box-sizing: border-box;
```

```
  border: 2px solid #ccc;
  border-radius: 4px;
  background-color: #f8f8f8;
  resize: none;
}

select {
  width: 100%;
  padding: 16px 20px;
  border: none;
  border-radius: 4px;
  background-color: #f1f1f1;
}

input[type=button], input[type=submit], input[type=reset] {
  background-color: #4CAF50;
  border: none;
  color: white;
  padding: 16px 32px;
  text-decoration: none;
  margin: 4px 2px;
  cursor: pointer;
}

/* Tip: use width: 100% for full-width buttons */
```

units:

Absolutos: cm, mm, in, px, pt, pc

Relativos:
em Relative to the font-size of the element (2em means 2 times the size of the current font)
ex Relative to the x-height of the current font (rarely used)
ch Relative to width of the "0" (zero)
rem Relative to font-size of the root element
vw Relative to 1% of the width of the viewport*
vh Relative to 1% of the height of the viewport*
vmin Relative to 1% of viewport's* smaller dimension
vmax Relative to 1% of viewport's* larger dimension
% Relative to the parent element

Solução de conflitos, quando encotnrar dois seletores com mesmo nome
h1 {background-color: yellow;}
h1 {background-color: red;}
Prevalecerá o vermelho, pois é o mais recente/último

Avançado

rounded corners

```
#rcorners1 {
  border-radius: 25px;
  background: #73AD21;
  padding: 20px;
  width: 200px;
  height: 150px;
}
```

border-images

```
<!DOCTYPE html>
<html>
<head>
<style>
#borderimg {
  border: 10px solid transparent;
  padding: 15px;
  border-image: url(border.png) 30 round;
}
</style>
</head>
<body>

<h1>The border-image Property</h1>

<p>Here, the middle sections of the image are repeated to create the border:</p>
<p id="borderimg">border-image: url(border.png) 30 round;</p>

<p>Here is the original image:</p><img src="border.png">
<p><strong>Note:</strong> Internet Explorer 10, and earlier versions, do not support the border-image property.</p>
```

Baixar - https://www.w3schools.com/css/border.png

```
</body>
</html>
```

Backgrounds

```
#example1 {
  background-image: url(img_flwr.gif), url(paper.gif);
  background-position: right bottom, left top;
  background-repeat: no-repeat, repeat;
}
#example1 {
  background: url(img_flwr.gif) right bottom no-repeat, url(paper.gif) left top repeat;
}
```

colors

```
#p1 {background-color: hsla(120, 100%, 50%, 0.3);}  /* green with opacity */
#p2 {background-color: hsla(120, 100%, 75%, 0.3);}  /* light green with opacity */
#p3 {background-color: hsla(120, 100%, 25%, 0.3);}  /* dark green with opacity */
```

```
#p4 {background-color: hsla(120, 60%, 70%, 0.3);}   /* pastel green with opacity */

#p1 {background-color:rgb(255,0,0);opacity:0.6;}  /* red with opacity */
#p2 {background-color:rgb(0,255,0);opacity:0.6;}  /* green with opacity */
#p3 {background-color:rgb(0,0,255);opacity:0.6;}  /* blue with opacity */
```

gradients

```
#grad {
  background-image: linear-gradient(red, yellow);
}
#grad {
  background-image: linear-gradient(red, yellow, green);
}
#grad1 {
  height: 55px;
  background-color: red; /* For browsers that do not support gradients */
  background-image: linear-gradient(to right, red, orange, yellow, green, blue, indigo, violet); /*
Standard syntax (must be last) */
}
</style>
</head>
<body>

<div id="grad1" style="text-align:center;margin:auto;color:#888888;font-size:40px;font-
weight:bold">
Gradient Background
</div>

#grad {
  background-image: repeating-radial-gradient(red, yellow 10%, green 15%);
}
```

shadows/sombras

```
h1 {
  text-shadow: 2px 2px;
}
h1 {
  text-shadow: 2px 2px 5px red;
}

text effects
p.test1 {
  writing-mode: horizontal-tb;
}

span.test2 {
  writing-mode: vertical-rl;
}

p.test2 {
  writing-mode: vertical-rl;
}
```

web fonts

```
@font-face {
  font-family: myFirstFont;
  src: url(sansation_light.woff);
}

div {
  font-family: myFirstFont;
}
@font-face {
  font-family: myFirstFont;
  src: url(sansation_bold.woff);
  font-weight: bold;
}
```

2D Transforms

- translate()
- rotate()
- scale()
- skewX()
- skewY()
- matrix()

https://www.w3schools.com/css/css3_2dtransforms.asp

3D Transforms

https://www.w3schools.com/css/css3_3dtransforms.asp

```
div {
  width: 100px;
  height: 100px;
  background: red;
  -webkit-transition: width 2s; /* Safari */
  transition: width 2s;
}
div:hover {
  width: 300px;
}
```

Animations

```
 /* The animation code */
@keyframes example {
  from {background-color: red;}
  to {background-color: yellow;}
}

/* The element to apply the animation to */
div {
  width: 100px;
  height: 100px;
  background-color: red;
```

```
  animation-name: example;
  animation-duration: 4s;
}

/* The animation code */
@keyframes example {
  0%   {background-color: red;}
  25%  {background-color: yellow;}
  50%  {background-color: blue;}
  100% {background-color: green;}
}

/* The element to apply the animation to */
div {
  width: 100px;
  height: 100px;
  background-color: red;
  animation-name: example;
  animation-duration: 4s;
}
```

https://www.w3schools.com/css/css3_animations.asp

Tooltips

```
<!DOCTYPE html>
<html>
<style>
.tooltip {
  position: relative;
  display: inline-block;
  border-bottom: 1px dotted black;
}

.tooltip .tooltiptext {
  visibility: hidden;
  width: 120px;
  background-color: black;
  color: #fff;
  text-align: center;
  border-radius: 6px;
  padding: 5px 0;

  /* Position the tooltip */
  position: absolute;
  z-index: 1;
}

.tooltip:hover .tooltiptext {
  visibility: visible;
}
</style>
<body style="text-align:center;">
```

```
<p>Move the mouse over the text below:</p>

<div class="tooltip">Hover over me
  <span class="tooltiptext">Tooltip text</span>
</div>

<p>Note that the position of the tooltip text isn't very good. Go back to the tutorial and continue reading on how to position the tooltip in a desirable way.</p>

</body>
</html>

.tooltip .tooltiptext {
  top: -5px;
  left: 105%;
}

.tooltip .tooltiptext {
  width: 120px;
  bottom: 100%;
  left: 50%;
  margin-left: -60px; /* Use half of the width (120/2 = 60), to center the tooltip */
}
top arrow
.tooltip .tooltiptext::after {
  content: " ";
  position: absolute;
  bottom: 100%;  /* At the top of the tooltip */
  left: 50%;
  margin-left: -5px;
  border-width: 5px;
  border-style: solid;
  border-color: transparent transparent black transparent;
}
```

https://www.w3schools.com/css/css3_images.asp
The CSS object-fit property is used to specify how an <img> or <video> should be resized to fit its container.

Buttons

```
<style>
.button {
  background-color: #4CAF50; /* Green */
  border: none;
  color: white;
  padding: 15px 32px;
  text-align: center;
  text-decoration: none;
  display: inline-block;
  font-size: 16px;
```

```
  margin: 4px 2px;
  cursor: pointer;
}

.but_blue {background-color: #008CBA;} /* Blue */
.but_red {background-color: #f44336;} /* Red */
.but_gray {background-color: #e7e7e7; color: black;} /* Gray */
.but_black {background-color: #555555;} /* Black */
</style>
</head>
<body>

<h2>Button Colors</h2>
<p>Change the background color of a button with the background-color property:</p>

<button class="button">Green</button>
<button class="button button2">Blue</button>
<button class="button button3">Red</button>
<button class="button button4">Gray</button>
<button class="button button5">Black</button>

Outro
.button1 {border-radius: 2px;}
.button2 {border-radius: 4px;}
.button3 {border-radius: 8px;}
.button4 {border-radius: 12px;}
.button5 {border-radius: 50%;}

.button1 {width: 250px;}
.button2 {width: 50%;}
.button3 {width: 100%;}
```

Multiple coluns

- column-count
- column-gap
- column-rule-style
- column-rule-width
- column-rule-color
- column-rule
- column-span
- column-width

```
<style>
.tres_col {
  -webkit-column-count: 3; /* Chrome, Safari, Opera */
  -moz-column-count: 3; /* Firefox */
  column-count: 3;
}
</style>
</head>
<body>
```

Note: Internet Explorer 9, and earlier versions, does not support the column-count property.

Lorem ipsum dolor sit amet, consectetuer adipiscing elit, sed diam nonummy nibh euismod tincidunt ut laoreet dolore magna aliquam erat volutpat. Ut wisi enim ad minim veniam, quis nostrud exerci tation ullamcorper suscipit lobortis nisl ut aliquip ex ea commodo consequat. Duis autem vel eum iriure dolor in hendrerit in vulputate velit esse molestie consequat, vel illum dolore eu feugiat nulla facilisis at vero eros et accumsan et iusto odio dignissim qui blandit praesent luptatum zzril delenit augue duis dolore te feugait nulla facilisi. Nam liber tempor cum soluta nobis eleifend option congue nihil imperdiet doming id quod mazim placerat facer possim assum.

Box sizing
The box-sizing property allows us to include the padding and border in an element's total width and height.

Se você configurar box-sizing: border-box; no padding de um elemento as border são incluidas no width e height

flexbox

- flex-direction
- flex-wrap
- flex-flow
- justify-content
- align-items
- align-content

https://www.w3schools.com/css/css3_flexbox.asp

Media Queries
Examples: You could have one set of style rules for computer screens, one for printers, one for handheld devices, one for television-type devices, and so on.

```
 <link rel="stylesheet" media="mediatype and|not|only (expressions)" href="print.css">
<style>

body {
  background-color: pink;
}

@media screen and (min-width: 480px) {
  body {
    background-color: lightgreen;
  }
}
</style>
</head>
<body>

<h1>Resize the browser window to see the effect!</h1>
```

The media query will only apply if the media type is screen and the viewport is 480px wide or wider.

CSS Responsive
Responsive web design makes your web page look good on all devices.

Responsive web design uses only HTML and CSS.

Viewport - O viewport é a área visível do user de uma web page.
O viewport vara com o device e será smaller em um mobile phone do que em um computer screen.

Usar este:
<meta name="viewport" content="width=device-width, initial-scale=1.0">

Exemplos diversos de CSS
https://www.w3schools.com/css/css_examples.asp

Referência
https://www.w3schools.com/cssref/default.asp

Seletores

Universal - * . Ex: * { font: 10px Arial; }
Elementos - h1
Agrupamento - h1, h2, h3 { font-family: Verdana; }
Descendente - #gallery h1 { textdecoration: underline; }
Filho/Child - #title > p { font-weight: bold; }

https://www.w3schools.com/cssref/css_selectors.asp

Fontes seguras para a web
https://www.w3schools.com/cssref/css_websafe_fonts.asp

Cores
https://www.w3schools.com/cssref/css_colors.asp

Valores default dos seletores
https://www.w3schools.com/cssref/css_default_values.asp

Entities
https://www.w3schools.com/cssref/css_entities.asp

Exemplo:
```
 <style>
h2:after {
  content: ' \00A7';
}
</style>
```
I will display §

https://www.w3schools.com/css/default.asp
https://pt-br.learnlayout.com/toc.html