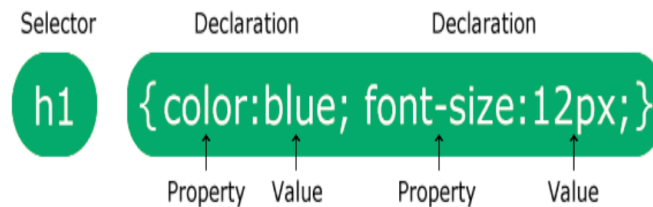


CSS - Cascading Style Sheet

CSS used for describing the presentation of a document written in a markup language such as HTML.

CSS Syntax



The selector points to the HTML element you want to style.

The declaration block contains one or more declarations separated by semicolons.

Each declaration includes a CSS property name and a value, separated by a colon.

Multiple CSS declarations are separated with semicolons, and declaration blocks are surrounded by curly braces.

Example:

<pre>p { color: red; text-align: center; }</pre>	<p>p is a selector in CSS color is a property, and red is the property value text-align is a property, and center is the property value</p>
--	---

Simple selectors (select elements based on name, id, class)

Combinator selectors (select elements based on a specific relationship between them)

Pseudo-class selectors (select elements based on a certain state)

Pseudo-elements selectors (select and style a part of an element)

Attribute selectors (select elements based on an attribute or attribute value)

Element Selector	<pre>p { text-align: center; color: red; }</pre>
Id Selector	<pre>#para1 { text-align: center; color: red; }</pre> <p>An id name cannot start with a number!</p>
Class Selector	<pre>.center { text-align: center; }</pre>

	color: red; } A class name cannot start with a number!
Universal Selector	* { text-align: center; color: blue; }
Grouping Selector	h1, h2, p { text-align: center; color: red; }

Combinator selectors

<p><u>Descendant Selector</u></p> <pre> <!DOCTYPE html> <html> <head> <style> div p { background-color: yellow; } </style> </head> <body> <h2>Descendant Selector</h2> <p>The descendant selector matches all elements that are descendants of a specified element.</p> <div> <p>Paragraph 1 in the div.</p> <p>Paragraph 2 in the div.</p> <section><p>Paragraph 3 in the div.</p></section> </div> <p>Paragraph 4. Not in a div.</p> <p>Paragraph 5. Not in a div.</p> </body> </html> </pre>	<p>Paragraph 1 in the div.</p> <p>Paragraph 2 in the div.</p> <p>Paragraph 3 in the div.</p> <p>Paragraph 4. Not in a div.</p> <p>Paragraph 5. Not in a div.</p>
--	--

Child Selector

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
<style>
```

```
div > p {  
  background-color: yellow;  
}
```

```
</style>
```

```
</head>
```

```
<body>
```

```
<h2>Child Selector</h2>
```

<p>The child selector (>) selects all elements that are the children of a specified element.</p>

```
<div>
```

```
<p>Paragraph 1 in the div.</p>
```

```
<p>Paragraph 2 in the div.</p>
```

```
<section>
```

```
<!-- not Child but Descendant -->
```

```
<p>Paragraph 3 in the div (inside a section element).</p>
```

```
</section>
```

```
<p>Paragraph 4 in the div.</p>
```

```
</div>
```

```
<p>Paragraph 5. Not in a div.</p>
```

```
<p>Paragraph 6. Not in a div.</p>
```

```
</body>
```

```
</html>
```

Paragraph 1 in the div.

Paragraph 2 in the div.

Paragraph 3 in the div (inside a section element).

Paragraph 4 in the div.

Paragraph 5. Not in a div.

Paragraph 6. Not in a div.

<p><u>General Sibling Selector</u></p> <pre> <!DOCTYPE html> <html> <head> <style> div ~ p { background-color: yellow; } </style> </head> <body> <h2>General Sibling Selector</h2> <p>The general sibling selector (~) selects all elements that are next siblings of a specified element.</p> <p>Paragraph 1.</p> <div> <p>Paragraph 2.</p> </div> <p>Paragraph 3.</p> <code>Some code.</code> <p>Paragraph 4.</p> </body> </html> </pre>	<p>The general sibling selector (~) selects all elements that are next siblings of a specified element.</p> <p>Paragraph 1.</p> <p>Paragraph 2.</p> <p>Paragraph 3.</p> <p>Some code.</p> <p>Paragraph 4.</p>
---	---

<p><u>Adjacent Sibling Selector</u></p> <pre> <!DOCTYPE html> <html> <head> <style> div + p { background-color: yellow; } </style> </head> <body> <h2>Adjacent Sibling Selector</h2> <p>The + selector is used to select an element that is directly after another specific element.</p> <p>The following example selects the first p element that are placed immediately after div elements:</p> <div> <p>Paragraph 1 in the div.</p> <p>Paragraph 2 in the div.</p> </div> </pre>	<p>The + selector is used to select an element that is directly after another specific element.</p> <p>The following example selects the first p element that are placed immediately after div elements:</p> <p>Paragraph 1 in the div.</p> <p>Paragraph 2 in the div.</p> <p>Paragraph 3. After a div.</p> <p>Paragraph 4. After a div.</p> <p>Paragraph 5 in the div.</p> <p>Paragraph 6 in the div.</p> <p>Paragraph 7. After a div.</p> <p>Paragraph 8. After a div.</p>
--	--

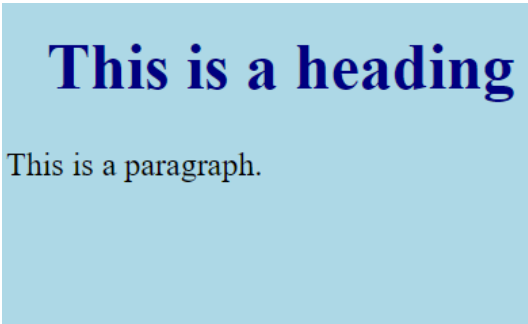
<pre> <p>Paragraph 3. After a div.</p> <p>Paragraph 4. After a div.</p> <div> <p>Paragraph 5 in the div.</p> <p>Paragraph 6 in the div.</p> </div> <p>Paragraph 7. After a div.</p> <p>Paragraph 8. After a div.</p> </body> </html> </pre>	
--	--

Inserting Style sheet

Inline CSS

Internal CSS

External CSS

<p><u>External CSS</u></p> <p>Change the look of an entire website by changing just one file!</p> <pre> <!DOCTYPE html> <html> <head> <link rel="stylesheet" href="mystyle.css"> </head> <body> <h1>This is a heading</h1> <p>This is a paragraph.</p> </body> </html> </pre>	
<p><u>Inline CSS</u></p> <p>Defined within the "style" attribute of the relevant element</p> <pre> <!DOCTYPE html> <html> <body> <h1 style="color:blue;text-align:center;">This is a heading</h1> <p style="color:red;">This is a paragraph.</p> </body> </html> </pre>	<p>This is a heading</p> <p>This is a paragraph.</p>

Internal CSS

Defined inside the <style> element, inside the head section.

```
<!DOCTYPE html>
<html>
<head>
<style>
body {
  background-color: linen;
}

h1 {
  color: maroon;
  margin-left: 40px;
}
</style>
</head>
<body>

<h1>This is a heading</h1>
<p>This is a paragraph.</p>

</body>
</html>
```

This is a heading

This is a paragraph.

CSS Comments

A CSS comment is placed inside the <style> element, and starts with /* and ends with */

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

p {
  color: red;
}
```

Backgrounds

- # background-color
- # background-image
- # background-repeat
- # background-attachment
- # background-position

Background-color

```
div {
  background-color: green;
  opacity: 0.3;
}
Opacity max == 1.0
```

opacity 0.3

Background-image

```
body {
  background-image: url("bgdesert.jpg");
}
```



Background-repeat

```
<!DOCTYPE html>
<html>
<head>
<style>
body {
  background-image: url("img_tree.png");
  background-repeat: no-repeat;
  background-position: right top;
  margin-right: 200px;
}
</style>
</head>
<body>

<h1>Hello World!</h1>
<p>Here, the background image is only shown once. In
addition it is positioned away from the text.</p>
<p>In this example we have also added a margin on the right
side, so that the background image will not disturb the
text.</p>

</body>
</html>
```

Hello World!

Here, the background image is only shown once. In addition it is positioned away from the text.
In this example we have also added a margin on the right side, so that the background image will not disturb the text.



Background-attachment

```
body {
  background-image: url("img_tree.png");
  background-repeat: no-repeat;
  background-position: right top;
  background-attachment: scroll;
}
Scroll: background image should scroll with the rest of the page

body {
  background-image: url("img_tree.png");
  background-repeat: no-repeat;
  background-position: right top;
  background-attachment: fixed;
}
fixed: background image should be fixed:
```

Hello World!

Here, the background image is only shown once. In addition it is positioned away from the text.
In this example we have also added a margin on the right side, so that the background image will not disturb the text.



CSS background - Shorthand property





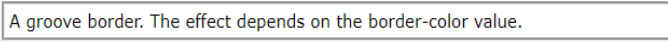

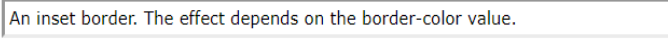
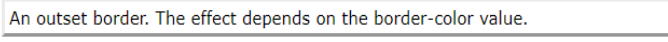


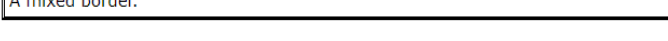
Instead of writing:

```
body {
  background-color: #ffffff;
  background-image: url("img_tree.png");
  background-repeat: no-repeat;
  background-position: right top;
}
```

Use the shorthand property,
body {

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

Borders

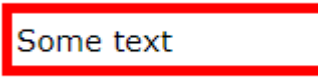
<pre>p.dotted {border-style: dotted;} p.dashed {border-style: dashed;} p.solid {border-style: solid;} p.double {border-style: double;} p.groove {border-style: groove;} p.ridge {border-style: ridge;} p.inset {border-style: inset;} p.outset {border-style: outset;} p.none {border-style: none;} p.hidden {border-style: hidden;} p.mix {border-style: dotted dashed solid double;}</pre>	          
--	---

Border ShortHand

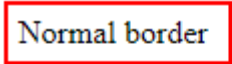
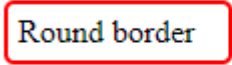
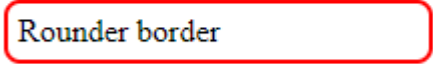
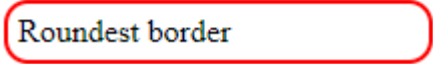
border-width

border-style (required)

border-color

<pre>p { border: 5px solid red; }</pre>	
---	--

Border-radius

<pre><!DOCTYPE html> <html> <head> <style> p.normal { border: 2px solid red; padding: 5px; } p.round1 { border: 2px solid red;</pre>	   
---	---

<pre> border-radius: 5px; padding: 5px; } p.round2 { border: 2px solid red; border-radius: 8px; padding: 5px; } p.round3 { border: 2px solid red; border-radius: 12px; padding: 5px; } </style> </head> <body> <h2>The border-radius Property</h2> <p>This property is used to add rounded borders to an element:</p> <p class="normal">Normal border</p> <p class="round1">Round border</p> <p class="round2">Rounder border</p> <p class="round3">Roundest border</p> </body> </html> </pre>	
---	--

Margins

The margin properties are used to create space around elements, outside of any defined borders.

auto - the browser calculates the margin

length - specifies a margin in px, pt, cm, etc.

% - specifies a margin in % of the width of the containing element

inherit - specifies that the margin should be inherited from the parent element

Note: Negative values are allowed.

<pre> <!DOCTYPE html> <html> <head> <style> div { border: 1px solid black; margin-top: 100px; margin-bottom: 100px; margin-right: 150px; margin-left: 80px; background-color: lightblue; } </style> </head> <body> <h2>Using individual margin properties</h2> <div>This div element has a top margin of 100px, a right margin of 150px, a bottom margin of 100px, and a left margin of 80px.</div> </body> </html> </pre>	<p>Using individual margin properties</p> <div data-bbox="1011 351 1396 409" data-label="Text"> <p>This div element has a top margin of 100px, a right margin of 150px, a bottom margin of 100px, and a left margin of 80px.</p> </div>
<p><u>ShotHand Property</u></p> <p>Series:</p> <ul style="list-style-type: none"> # margin-top # margin-right # margin-bottom # margin-left <pre> p { margin: 25px 50px 75px 100px; } </pre>	<div data-bbox="943 1193 1434 1272" data-label="Text"> <p>This div element has a top margin of 25px, a right margin of 50px, a bottom margin of 75px, and a left margin of 100px.</p> </div>

Padding

Padding is used to create space around an element's content, inside of any defined borders.

length - specifies a padding in px, pt, cm, etc.

% - specifies a padding in % of the width of the containing element

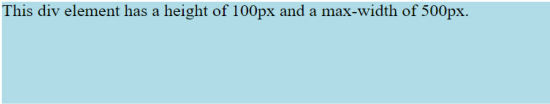
inherit - specifies that the padding should be inherited from the parent element

Note: Negative values are allowed.

<pre> <!DOCTYPE html> <html> <head> <style> div { border: 1px solid black; background-color: lightblue; padding-top: 50px; padding-right: 30px; padding-bottom: 50px; padding-left: 80px; } </style> </head> <body> <h2>Using individual padding properties</h2> <div>This div element has a top padding of 100px, a right padding of 150px, a bottom padding of 100px, and a left padding of 80px.</div> </body> </html> </pre>	<p>Using individual padding properties</p> <div data-bbox="932 320 1458 439"> <p>This div element has a top padding of 50px, a right padding of 30px, a bottom padding of 50px, and a left padding of 80px.</p> </div>
<p><u>ShotHand Property</u></p> <p>Series:</p> <ul style="list-style-type: none"> # padding -top # padding -right # padding -bottom # padding -left <pre> p { padding : 25px 50px 75px 100px; } </pre>	<div data-bbox="927 1236 1458 1355"> <p>This div element has a top padding of 25px, a right padding of 50px, a bottom padding of 75px, and a left padding of 100px.</p> </div>

Height, Width and Max-width

<pre> <!DOCTYPE html> <html> <head> <style> div { height: 100px; width: 500px; } </pre>	<p>Set the height and width of an element</p> <div data-bbox="813 1816 1375 1928"> <p>This div element has a height of 100px and a width of 500px.</p> </div>
---	--

<pre> background-color: powderblue; } </style> </head> <body> <h2>Set the height and width of an element</h2> <div>This div element has a height of 100px and a width of 500px.</div> </body> </html> </pre>	
<pre> <!DOCTYPE html> <html> <head> <style> div { max-width: 500px; height: 100px; background-color: powderblue; } </style> </head> <body> <h2>Set the max-width of an element</h2> <div>This div element has a height of 100px and a max-width of 500px.</div> <p>Resize the browser window to see the effect.</p> </body> </html> </pre> <p>Note: If you for some reason use both the width property and the max-width property on the same element, and the value of the width property is larger than the max-width property; the max-width property will be used (and the width property will be ignored).</p>	<p>Set the max-width of an element</p> 

Outline

- dotted** - Defines a dotted outline
- dashed** - Defines a dashed outline
- solid** - Defines a solid outline
- double** - Defines a double outline
- groove** - Defines a 3D grooved outline
- ridge** - Defines a 3D ridged outline
- inset** - Defines a 3D inset outline
- outset** - Defines a 3D outset outline
- none** - Defines no outline
- hidden** - Defines a hidden outline

```
<!DOCTYPE html>
<html>
<head>
<style>
p.ex1 {outline: dashed;}
p.ex2 {outline: dotted red;}
p.ex3 {outline: 5px solid yellow;}
p.ex4 {outline: thick ridge pink;}
</style>
</head>
<body>

<h2>The outline Property</h2>

<p class="ex1">A dashed outline.</p>
<p class="ex2">A dotted red outline.</p>
<p class="ex3">A 5px solid yellow outline.</p>
<p class="ex4">A thick ridge pink outline.</p>

</body>
</html>
```

The outline Property

A dashed outline.

A dotted red outline.

A 5px solid yellow outline.

A thick ridge pink outline.

Outline Offset

The outline-offset property adds space between an outline and the edge/border of an element. The space between an element and its outline is transparent.

```
<!DOCTYPE html>
<html>
```

<pre><head> <style> p { margin: 30px; border: 1px solid black; outline: 1px solid red; outline-offset: 15px; } </style> </head> <body> <h2>The outline-offset Property</h2> <p>This paragraph has an outline 15px outside the border edge.</p> </body> </html></pre>	<p>The outline-offset Property</p> <div><p>This paragraph has an outline 15px outside the border edge.</p></div>
---	---

Text

<pre><!DOCTYPE html> <html> <head> <style> h1 { text-align: center; } h2 { text-align: left; } h3 { text-align: right; } </style> </head> <body> <h1>Heading 1 (center)</h1> <h2>Heading 2 (left)</h2> <h3>Heading 3 (right)</h3> <p>The three headings above are aligned center, left and right.</p></pre>	<p>Heading 1 (center)</p> <p>Heading 2 (left)</p> <p>Heading 3 (right)</p> <p>The three headings above are aligned center, left and right.</p>
---	---

<pre></body> </html></pre>	
<pre><!DOCTYPE html> <html> <head> <style> div { border: 1px solid black; padding: 10px; width: 200px; height: 200px; text-align: justify; } </style> </head> <body> <h1>Example text-align: justify</h1> <p>The text-align: justify; value stretches the lines so that each line has equal width (like in newspapers and magazines).</p> <div> In my younger and more vulnerable years my father gave me some advice that I've been turning over in my mind ever since. 'Whenever you feel like criticizing anyone,' he told me, 'just remember that all the people in this world haven't had the advantages that you've had.' </div> </body> </html></pre>	<p>Example text-align: justify</p> <p>The text-align: justify; value stretches the lines so that each line has equal width (like in newspapers and magazines).</p> <div data-bbox="818 468 1040 689"><p>In my younger and more vulnerable years my father gave me some advice that I've been turning over in my mind ever since. 'Whenever you feel like criticizing anyone,' he told me, 'just remember that all the people in this world haven't had the advantages that you've had.'</p></div>
<pre><!DOCTYPE html> <html> <head> <style> p.ex1 { direction: rtl; } </style> </head> <body></pre>	<p>This is the default text direction.</p> <p>.This is right-to-left text direction</p>

<pre> <p>This is the default text direction.</p> <p class="ex1">This is right-to-left text direction.</p> </body> </html> </pre>	
<pre> <!DOCTYPE html> <html> <head> <style> p.ex1 { direction: rtl; unicode-bidi: bidi-override; } </style> </head> <body> <p>This is the default text direction.</p> <p class="ex1">This is right-to-left text direction.</p> </body> </html> </pre>	<div> This is the default text direction. <div>.noitcerid txet tfel-ot-thgir si sihT</div> </div>

Property

Description

direction

Specifies the text direction/writing direction

text-align

Specifies the horizontal alignment of text

text-align-last

Specifies how to align the last line of a text

unicode-bidi

Used together with the direction property to set or return whether the text should be overridden to support multiple languages in the same document

vertical-align

Sets the vertical alignment of an element

Text-Decoration


```

<!DOCTYPE html>
<html>
<head>
<style>
h1 {
  text-decoration-line: overline;
  text-decoration-color: red;
}

h2 {
  text-decoration-line: line-through;
  text-decoration-color: blue;
}

h3 {
  text-decoration-line: underline;
  text-decoration-color: green;
}

p {
  text-decoration-line: overline underline;
  text-decoration-color: purple;
}
</style>
</head>
<body>

<h1>Overline text decoration</h1>
<h2>Line-through text decoration</h2>
<h3>Underline text decoration</h3>
<p>Overline and underline text decoration.</p>

</body>
</html>

```

Overline text decoration


~~Line-through text decoration~~

Underline text decoration

Overline and underline text decoration.

Shorthand Property

- **text-decoration-line** (required)
- **text-decoration-color** (optional)
- **text-decoration-style** (optional)
- **text-decoration-thickness** (optional)

<pre> <!DOCTYPE html> <html> <head> <style> h1 { text-decoration: underline; } h2 { text-decoration: underline red; } h3 { text-decoration: underline red double; } p { text-decoration: underline red double 5px; } </style> </head> <body> <h1>Heading 1</h1> <h2>Heading 2</h2> <h3>Heading 3</h3> <p>A paragraph.</p> </body> </html> </pre>	<h1><u>Heading 1</u></h1> <h2><u>Heading 2</u></h2> <h3><u>Heading 3</u></h3> <p>A paragraph.</p> 
---	--

Text-transform

<pre> <!DOCTYPE html> <html> <head> <style> p.uppercase { text-transform: uppercase; } p.lowercase { text-transform: lowercase; } p.capitalize { text-transform: capitalize; } </pre>	<h2>Using the text-transform property</h2> <p>THIS TEXT IS TRANSFORMED TO UPPERCASE.</p> <p>this text is transformed to lowercase.</p> <p>This Text Is Capitalized.</p>
---	---

```

}
</style>
</head>
<body>

<h1>Using the text-transform property</h1>

<p class="uppercase">This text is transformed to
uppercase.</p>
<p class="lowercase">This text is transformed to
lowercase.</p>
<p class="capitalize">This text is capitalized.</p>

</body>
</html>

```

Property

Description

letter-spacing

Specifies the space between characters in a text

line-height

Specifies the line height

text-indent

Specifies the indentation of the first line in a text-block

white-space

Specifies how to handle white-space inside an element

word-spacing

Specifies the space between words in a text

Text-shadow

```

<!DOCTYPE html>
<html>
<head>
<style>
h1 {
  color: white;
  text-shadow: 1px 1px 2px black, 0 0 25px blue, 0
0 5px darkblue;
}
</style>
</head>
<body>

<h1>Text-shadow effect!</h1>

</body>
</html>

```

Text-shadow effect!

Fonts

Choosing the right font has a huge impact on how the readers experience a website.

Generic Font Families

In CSS there are five generic font families:

1. **Serif** fonts have a small stroke at the edges of each letter. They create a sense of formality and elegance.
2. **Sans-serif** fonts have clean lines (no small strokes attached). They create a modern and minimalistic look.
3. **Monospace** fonts - here all the letters have the same fixed width. They create a mechanical look.
4. **Cursive** fonts imitate human handwriting.
5. **Fantasy** fonts are decorative/playful fonts.

Difference Between Serif and Sans-serif Fonts



Generic Font Family	Examples of Font Names
Serif	Times New Roman Georgia Garamond
Sans-serif	Arial Verdana Helvetica
Monospace	Courier New Lucida Console Monaco
Cursive	Brush Script MT Lucida Handwriting
Fantasy	Copperplate Papyrus

Example:

```
.p1 {  
  font-family: "Times New Roman", Times, serif;
```

```
}
```

Web Safe Fonts: fonts that are universally installed across all browsers and devices

Fallback Fonts:

This means that you should add a list of similar "backup fonts" in the font-family property. If the first font does not work, the browser will try the next one, and the next one, and so on. Always end the list with a generic font family name.

Example:

```
p {
```

```
font-family: Tahoma, Verdana, sans-serif;
```

```
}
```

How To Use Google Fonts

```
<head>
```

```
<link rel="stylesheet" href="https://fonts.googleapis.com/css?family=Sofia">
```

```
<style>
```

```
body {
```

```
font-family: "Sofia", sans-serif;
```

```
}
```

```
</style>
```

```
</head>
```

Use Multiple Google Fonts

```
<head>
```

```
<link rel="stylesheet"
```

```
href="https://fonts.googleapis.com/css?family=Audiowide|Sofia|Trirong">
```

```
<style>
```

```
h1.a {font-family: "Audiowide", sans-serif;}
```

```
h1.b {font-family: "Sofia", sans-serif;}
```

```
h1.c {font-family: "Trirong", serif;}
```

```
</style>
```

```
</head>
```

Shorthand:

The font property is a shorthand property for:

- font-style
- font-variant
- font-weight
- font-size/line-height
- font-family

Note: The font-size and font-family values are required. If one of the other values is missing, their default value are used.

Example:

```
p.b {  
  
    font: italic small-caps bold 12px/30px Georgia, serif;  
  
}
```

CSS @font-face Rule(custom font importing):

The CSS @font-face rule allows us to load custom fonts on a webpage. The custom font can be loaded from a remote server or a locally-installed font from the user's computer.

```
@font-face {  
    font-family: "My Custom Font";  
    src: url("path/my-custom-font.woff") format("woff"),  
         url("path/my-custom-font.woff") format("woff");  
}
```

Lists:

Unordered Lists:

- Coffee
- Tea
- Coca Cola

- Coffee
- Tea
- Coca Cola

Ordered Lists:

1. Coffee
2. Tea
3. Coca Cola

- I. Coffee
- II. Tea
- III. Coca Cola

```

ul.a {
    list-style-type: circle;
}

ul.b {
    list-style-type: square;
}

ol.c {
    list-style-type: upper-roman;
}

ol.d {
    list-style-type: lower-alpha;
}

```

Using image for bulletins

```

ul {
    list-style-image: url('sqpurple.gif');
}

```

Position The List Item Markers:

<pre> <!DOCTYPE html> <html> <head> <style> ul.a { list-style-position: outside; } ul.b { list-style-position: inside; } </style> </head> <body> <h1>The list-style-position Property</h1> <h2>list-style-position: outside (default):</h2> <ul class="a"> Coffee - A brewed drink prepared from roasted coffee beans, which are the seeds of berries from the Coffea plant Tea - An aromatic beverage commonly prepared by pouring hot or boiling water over cured leaves of the Camellia sinensis, an evergreen shrub (bush) native to Asia Coca Cola - A carbonated soft drink </pre>	<h2>The list-style-position Property</h2> <h3>list-style-position: outside (default):</h3> <ul style="list-style-type: none"> • Coffee - A brewed drink prepared from roasted coffee beans • Tea - An aromatic beverage commonly prepared by pouring hot or boiling water over cured leaves of the Camellia sinensis, an evergreen shrub (bush) native to Asia • Coca Cola - A carbonated soft drink produced by The Coca-Cola Company, which were kola nuts (a source of caffeine) and coca leaves <h3>list-style-position: inside:</h3> <ul style="list-style-type: none"> • Coffee - A brewed drink prepared from roasted coffee beans • Tea - An aromatic beverage commonly prepared by pouring hot or boiling water over cured leaves of the Camellia sinensis, an evergreen shrub (bush) native to Asia • Coca Cola - A carbonated soft drink produced by The Coca-Cola Company, which were kola nuts (a source of caffeine) and coca leaves
---	--

<pre> produced by The Coca-Cola Company. The drink's name refers to two of its original ingredients, which were kola nuts (a source of caffeine) and coca leaves <h2>list-style-position: inside:</h2> <ul class="b"> Coffee - A brewed drink prepared from roasted coffee beans, which are the seeds of berries from the Coffea plant Tea - An aromatic beverage commonly prepared by pouring hot or boiling water over cured leaves of the Camellia sinensis, an evergreen shrub (bush) native to Asia Coca Cola - A carbonated soft drink produced by The Coca-Cola Company. The drink's name refers to two of its original ingredients, which were kola nuts (a source of caffeine) and coca leaves </body> </html> </pre>	
--	--

Shorthand

```

ul {
  list-style: square inside url("sqpurple.gif");
}
List-style-type list-style-position list-style-image

```

Icons

The simplest way to add an icon to your HTML page, is with an icon library, such as Font Awesome.

1. To use the Font Awesome icons add in the <head> section of your HTML page:

```

<script src="https://kit.fontawesome.com/yourcode.js"
crossorigin="anonymous"></script>


```


2. To use the Bootstrap icons add in the <head> section of your HTML page:


```
<link rel="stylesheet"
href="https://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/css/bootstrap.min.css">
```

3. To use the Google icons add in the <head> section of your HTML page:

```
<link rel="stylesheet"
href="https://fonts.googleapis.com/icon?family=Material+Icons">
```

<p>FontAwesome Icons</p> <pre><!DOCTYPE html> <html> <head> <script src="https://kit.fontawesome.com/a076d05399.js" crossorigin="anonymous"></script> </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> </body> </html></pre>	
<p>Bootstrap Icons</p> <pre><!DOCTYPE html> <html> <head> <link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/css /bootstrap.min.css"> </head> <body> <i class="glyphicon glyphicon-cloud"></i> <i class="glyphicon glyphicon-remove"></i> <i class="glyphicon glyphicon-user"></i> <i class="glyphicon glyphicon-envelope"></i> <i class="glyphicon glyphicon-thumbs-up"></i> </body> </html></pre>	

Google Icons <pre> <!DOCTYPE html> <html> <head> <link rel="stylesheet" href="https://fonts.googleapis.com/icon?family=Material+Icons"> </head> <body> <i class="material-icons">cloud</i> <i class="material-icons">favorite</i> <i class="material-icons">attachment</i> <i class="material-icons">computer</i> <i class="material-icons">traffic</i> </body> </html> </pre>	
--	--

Hide an Element - display:none or visibility:hidden?

visibility:hidden; also hides an element.

It hides elements only. Space for elements is remaining shows.

display:none: also hides an element.

It hides elements & space also.

Position

There are five different position values:

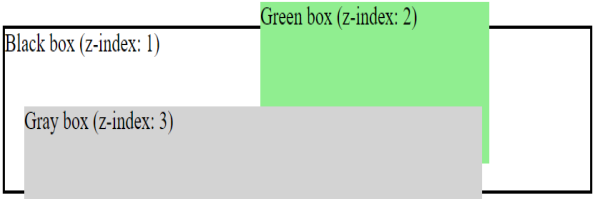
- static
- relative
- fixed
- absolute
- sticky

position: relative;	it is always positioned according to the normal flow of the page
position: relative;	positioned relative to its normal position
position: fixed;	it always stays in the same place even if the page is scrolled.
position: absolute;	is positioned relative to the nearest positioned

	ancestor
position: sticky;	is positioned based on the user's scroll position.

Z-index

When elements are positioned, they can overlap other elements.

<pre> <!DOCTYPE html> <html> <head> <style> .container { position: relative; } .black-box { position: relative; z-index: 1; border: 2px solid black; height: 100px; margin: 30px; } .gray-box { position: absolute; z-index: 3; /* gray box will be above both green and black box */ background: lightgray; height: 60px; width: 70%; left: 50px; top: 50px; } .green-box { position: absolute; z-index: 2; /* green box will be above black box */ background: lightgreen; width: 35%; left: 270px; top: -15px; height: 100px; } </style> </head> <body> </pre>	 <p>The diagram illustrates the Z-index property. It shows a large black box labeled 'Black box (z-index: 1)'. Overlapping its bottom-right corner is a gray box labeled 'Gray box (z-index: 3)'. Overlapping the top-right corner of the gray box is a green box labeled 'Green box (z-index: 2)'. This visualizes how higher z-index values place elements in front of lower ones.</p>
--	--

<pre> <h1>Z-index Example</h1> <p>An element with greater stack order is always above an element with a lower stack order.</p> <div class="container"> <div class="black-box">Black box (z-index: 1)</div> <div class="gray-box">Gray box (z-index: 3)</div> <div class="green-box">Green box (z-index: 2)</div> </div> </body> </html> </pre>	
---	--

Overflow

The CSS overflow property controls what happens to content that is too big to fit into an area.

The overflow property has the following values:

- visible - Default. The overflow is not clipped. The content renders outside the element's box
- hidden - The overflow is clipped, and the rest of the content will be invisible
- scroll - The overflow is clipped, and a scrollbar is added to see the rest of the content
- auto - Similar to scroll, but it adds scrollbars only when necessary

<pre> <!DOCTYPE html> <html> <head> <style> div { background-color: coral; width: 200px; height: 65px; border: 1px solid; overflow: visible; } </style> </head> <body> <h2>Overflow: visible</h2> </pre>	<h3>Overflow: visible</h3> <p>By default, the overflow is visible, meaning that it is not clipped and it renders element's box:</p> <div style="background-color: #f08080; padding: 5px; border: 1px solid #f08080;"> <p>You can use the overflow property when you want to have better control of the layout. The overflow property specifies what happens if content overflows an element's box.</p> </div>
---	---


```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
<style>
```

```
div {
```

```
  background-color: coral;
```

```
  width: 200px;
```

```
  height: 65px;
```

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

```
  overflow-x: hidden;
```

```
  overflow-y: scroll;
```

```
}
```

```
</style>
```

```
</head>
```

```
<body>
```

```
<h2>Overflow-x and overflow-y</h2>
```

```
<p>You can also change the overflow of content horizontally or vertically.</p>
```

```
<p>overflow-x specifies what to do with the left/right edges of the content.</p>
```

```
<p>overflow-y specifies what to do with the top/bottom edges of the content.</p>
```

```
<div>You can use the overflow property when you want to have better control of the layout. The overflow property specifies what happens if content overflows an element's box.</div>
```

```
</body>
```

```
</html>
```

Overflow-x and overflow-y

You can also change the overflow of content horizontally or vertically.

overflow-x specifies what to do with the left/right edges of the content.

overflow-y specifies what to do with the top/bottom edges of the content.

You can use the overflow property when you want to have better control of the layout. The overflow

Combinators

There are four different combinators in CSS:

- descendant selector (space)
- child selector (>)
- adjacent sibling selector (+)
- general sibling selector (~)

Descendant selector

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
<style>
```

```
div p {
```

```
  background-color: yellow;
```

```
}
```

Descendant Selector

The descendant selector matches all elements that are descendants of a specified element.

Paragraph 1 in the div.

Paragraph 2 in the div.

Paragraph 3 in the div.

Paragraph 4. Not in a div.

Paragraph 5. Not in a div.

<pre></style> </head> <body> <h2>Descendant Selector</h2> <p>The descendant selector matches all elements that are descendants of a specified element.</p> <div> <p>Paragraph 1 in the div.</p> <p>Paragraph 2 in the div.</p> <section><p>Paragraph 3 in the div.</p></section> </div> <p>Paragraph 4. Not in a div.</p> <p>Paragraph 5. Not in a div.</p> </body> </html></pre>	
<p>Child Selector</p> <pre><!DOCTYPE html> <html> <head> <style> div > p { background-color: yellow; } </style> </head> <body> <h2>Child Selector</h2> <p>The child selector (>) selects all elements that are the children of a specified element.</p> <div> <p>Paragraph 1 in the div.</p> <p>Paragraph 2 in the div.</p> <section> <!-- not Child but Descendant --> <p>Paragraph 3 in the div (inside a section element).</p> </section> <p>Paragraph 4 in the div.</p> </div></pre>	<p>Child Selector</p> <p>The child selector (>) selects all elements that are the children of a spe</p> <p>Paragraph 1 in the div.</p> <p>Paragraph 2 in the div.</p> <p>Paragraph 3 in the div (inside a section element).</p> <p>Paragraph 4 in the div.</p> <p>Paragraph 5. Not in a div.</p> <p>Paragraph 6. Not in a div.</p>

<pre><p>Paragraph 5. Not in a div.</p> <p>Paragraph 6. Not in a div.</p> </body> </html></pre>	
<p>Adjacent Sibling Selector</p> <pre><!DOCTYPE html> <html> <head> <style> div + p { background-color: yellow; } </style> </head> <body></pre> <p><h2>Adjacent Sibling Selector</h2></p> <p><p>The + selector is used to select an element that is directly after another specific element.</p></p> <p><p>The following example selects the first p element that are placed immediately after div elements:</p></p> <pre><div> <p>Paragraph 1 in the div.</p> <p>Paragraph 2 in the div.</p> </div></pre> <p><p>Paragraph 3. After a div.</p></p> <p><p>Paragraph 4. After a div.</p></p> <pre><div> <p>Paragraph 5 in the div.</p> <p>Paragraph 6 in the div.</p> </div></pre> <p><p>Paragraph 7. After a div.</p></p> <p><p>Paragraph 8. After a div.</p></p> <pre></body> </html></pre>	<p>Adjacent Sibling Selector</p> <p>The + selector is used to select an element that is</p> <p>The following example selects the first p element</p> <p>Paragraph 1 in the div.</p> <p>Paragraph 2 in the div.</p> <p>Paragraph 3. After a div.</p> <p>Paragraph 4. After a div.</p> <p>Paragraph 5 in the div.</p> <p>Paragraph 6 in the div.</p> <p>Paragraph 7. After a div.</p> <p>Paragraph 8. After a div.</p>

General Sibling Selector

```
<!DOCTYPE html>
<html>
<head>
<style>
div ~ p {
  background-color: yellow;
}
</style>
</head>
<body>

<h2>General Sibling Selector</h2>

<p>The general sibling selector (~) selects all
elements that are next siblings of a specified
element.</p>

<p>Paragraph 1.</p>

<div>
  <p>Paragraph 2.</p>
</div>

<p>Paragraph 3.</p>
<code>Some code.</code>
<p>Paragraph 4.</p>

</body>
</html>
```

General Sibling Selector

The general sibling selector (~) selects all elem

Paragraph 1.

Paragraph 2.

Paragraph 3.

Some code.

Paragraph 4.

Gradient colors

```
<!DOCTYPE html>
<html>
<head>
<style>
#grad1 {
  height: 100px;
  background-color: red; /* For browsers that do
not support gradients */
  background-image:
linear-gradient(violet,indigo,blue,green,yellow,or
ange,red);
}
</style>
</head>
<body>
```

Linear Gradient - Top to Bottom

This linear gradient starts red at the top, transitioning to yellow at the bottom:



<pre> <h1>Linear Gradient - Top to Bottom</h1> <p>This linear gradient starts red at the top, transitioning to yellow at the bottom:</p> <div id="grad1"></div> </body> </html> </pre>	
--	--

```
background: radial-gradient(100% 100% at 0% 100%, rgb(166, 68, 226) 5.93%,
rgba(101, 68, 226, 0.3) 59.9%, rgba(101, 68, 226, 0) 100%), rgb(5, 2, 36);
```

Width and Height of an Element with Box Model:

Actual width: border-left + padding-left + width + padding-right + border-right

Actual height: border-top + padding-top + height + padding-bottom + border-bottom

For example,

```
div {
  width: 400px;
  height: 80px;
  border: 10px solid black;
  padding: 15px;
}
```

Actual width = 10px + 15px + 400px + 15px + 10px = 450px

Actual height= 10px + 15px + 80px + 15px + 10px = 130px

Position:relative

-When you set an element's position to relative, it stays in the normal document flow, but you can use the top, right, bottom, and left properties to move it relative to its normal position.

- Other elements on the page will not be affected by the element's new position.

```
.relative { position: relative; top: 20px; left: 30px; }
```

Position:absolute

- When you set an element's position to absolute, it is removed from the normal document flow, and its position is calculated relative to its closest positioned ancestor (an ancestor that is not static).

- If there is no positioned ancestor, it is calculated relative to the initial containing block (usually the viewport). Absolute positioned elements can overlap with other elements.

```
.absolute {  
  position: absolute;  
  top: 50%;  
  left: 50%;  
  transform: translate(-50%, -50%); }
```