

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

[1 Styling with CSS](#)

- [1.1 CSS - Cascading Style Sheets](#)
- [1.2 CSS inside an HTML page](#)
- [1.3 CSS in a separate stylesheet](#)
- [1.4 anatomy of a CSS rule](#)
- [1.5 Example of a CSS rule](#)
- [1.6 CSS Properties](#)

[2 Inspecting a page](#)

[3 CSS selectors](#)

- [3.1 Select a specific element](#)
- [3.2 Select all \(using star\)](#)
- [3.3 id](#)
- [3.4 class](#)
- [3.5 descendents](#)
- [3.6 direct descendents](#)
- [3.7 pseudo classes](#)

[4 Positioning](#)

- [4.1 position:static;](#)
- [4.2 position: relative;](#)
- [4.3 position: absolute;](#)

[4.4 position: fixed;](#)

[5 Display](#)

- [5.1 inline](#)
- [5.2 block](#)
- [5.3 inline-block](#)
- [5.4 none](#)

[6 CSS for typography](#)

- [6.1 Common typographic properties](#)
- [6.2 Using fonts](#)
- [6.3 system fonts](#)
 - [6.3.1 system fonts example](#)
- [6.4 custom fonts](#)
 - [6.4.1 Web fonts formats](#)
 - [6.4.2 use a custom font](#)
- [6.5 fonts and licenses](#)
 - [6.5.1 SIL license](#)
 - [6.5.2 Apache license](#)
 - [6.5.3 open fonts libraries](#)
- [6.6 remote custom fonts](#)
 - [6.6.1 remote custom font example](#)

Styling with CSS

Documentation + tutorials:

- <https://developer.mozilla.org/en-US/docs/Web/CSS>
- <https://www.w3schools.com/Css/>

Works and projects making heavy use of CSS:

- Dina Kelberman, Untitled Game <https://dinakelberman.com/untitledgame/>
- Olia Lialina [My boyfriend came back from the war](#)

CSS - Cascading Style Sheets

HTML is not meant to style (inline styling eg: `<h1 style="color:red;background:black;">` is discouraged, however still sometimes useful to use).

CSS is the preferred way to style.

- HTML tell the browser what content it should display
- CSS tells the browser **how to display** that content.

CSS inside an HTML page

You can do this in two ways:

- CSS code goes **inside the style tag** `<style> ... </style>`
- `<style> ... </style>` tags are **placed inside the head** of the HTML page

```
<!DOCTYPE html>
<html>
  <head>
    <style>

      body{
        background: #FF19DC;
        color: black;
        font-family: monospace;
      }

    </style>
  </head>
</html>
<body></body>
</html>
```

CSS in a separate stylesheet

The CSS for a HTML page (or several pages) can be stored outside the page, in a **CSS file**.

To do that we need to link the HTML file to the CSS file, using the `<link>` inside the `<head>`.

```
<link href="style.css" rel="stylesheet" />

<!DOCTYPE html>
<html>
  <head>
    <link href="stylesheet.css" rel="stylesheet" />
  </head>
  <body>
    ....
```

anatomy of a CSS rule

Each CSS style sheet (all the styles of a page) is made of several rules.

Each **rule** follows the syntax:

Apache license

<http://www.fontsquirrel.com/fonts/sinkin-sans>

open fonts libraries

- <https://fontlibrary.org>
- <http://fontsquirrel.com/>
- <https://www.design-research.be/by-womxn/>
- <https://velvetyne.fr/maintenance.html>
- <https://usemodify.com/>

remote custom fonts

It is possible to use custom fonts, that are not stored locally, and instead "live" in a service like Google Fonts or Open Font Library.

This method is:

- convenient
- easier

but, on the down-side:

- it takes more time to load the page
- the font can be removed at any point by the service

remote custom font example

Using the font <https://fontlibrary.org/en/font/barrio> and following the "Use this font" instructions:

```
<html>
<head>
<link rel="stylesheet" media="screen" href="https://fontlibrary.org/face/barrio"
type="text/css"/>

  <style type="text/css">

    h1 { font-family: 'BarrioRegular';
        font-weight: normal;
        font-style: normal;
        font-size: 3em;
    }

  </style>

</head>
<body>
  <h1>This is a remote custom font.</h1>
```

use a custom font

To use a custom font, the font file has to be stored somewhere, either **locally** (same folder as your site).

Try changing the following example with other custom font:

```
<html>
<head>
  <style type="text/css">

    @font-face {
      font-family: "Pacifico";
      src: url("fonts/Pacifico.ttf");
    }

    h1 { font-family: "Pacifico", serif;
        font-weight: normal;
        }
  </style>
</head>
<body>
  <h1>This is a custom font.</h1>
</body>
</html>
```

fonts and licenses

We can use this fonts and even make a commercial (for which we receive money) website, using that font, without paying for the font.

It is not because the font is free (of charge), but because they are **open**.

They are released under a **SIL Open Font License** (OPF).

SIL license

http://scripts.sil.org/cms/scripts/page.php?site_id=nrsi&id=OFL_web

License:

- allows fonts to be **used, studied, modified and redistributed freely**.
- fonts, including any derivative works, can be bundled, embedded,

redistributed and/or **sold with any software**.

- fonts and derivatives, however, **cannot be released under any other type of license**.
- requirement for fonts to remain under this license does not apply

to any document created using the fonts or their derivatives.

Basic Anatomy of a CSS Rule



Source: <http://dabrook.org/resources/posters/>

Example of a CSS rule

- **element**: what element(s) is being styled e.g. *div*
- **property**: what property of that element is being styled e.g. *color*
- **value**: how the property is styled e.g. *white*

```
div {
  background: blue;
  color: white;
  width: 500px;
  height: 250px;
  font-size: 30pt;
}
```

Here we are styling all the div elements in the html page.

CSS Properties

CSS Property documentation: <https://developer.mozilla.org/en-US/docs/Web/CSS/Reference>

Some properties:

- color, background-color, width, height
- border, box-shadow, list-style
- margin, padding
- [transform](#), gradient, border-radius

Inspecting a page

The browser offers the possibility of inspecting a page with the option **Inspect Element** or just **Inspect**.

This possibility allows for prototyping (changing and seeing immediately the result) a page's CSS and HTML.

Keep in mind that this changes WILL NOT be saved. To do so you need to copy them to the editor and save them.

CSS selectors

Documentation: https://developer.mozilla.org/en/docs/Web/Guide/CSS/Getting_started>Selectors

CSS selectors allow the selection of html elements to be styled.

Their scope can be very broad, such as all the elements (*), or all the elements that share a given tag.

To more fine grained selectors, like descendents and id.

To pseudo class selectors, that are triggered by a certain action.

Select a specific element

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

Select all (using star)

```
* {
  font-weight: bold;
}
```

Star targets all the elements in a page.

id

```
#
```

- id targets the (only 1) element with the given id

- monospace

system fonts example

```
<!DOCTYPE html>
<html>
  <head>
    <meta charset="UTF-8" />
    <style>
body {
  font-size: 10pt;
}

p {font-family: cursive;
  font-size: 3em;
}

p.other {font-family: sansserif}

span.yetanother {font-family: monospace}
</style>
</head>
<body>
  <p>Cursive generic font</p>
  <p class="other">Testig another generic font.
    <span class="yetanother">And yet another one</span>
  </p>
</body>
</html>
```

custom fonts

The @font-face CSS at-rule allows authors to specify online fonts to display text on their web pages.

<https://developer.mozilla.org/en/docs/Web/CSS/@font-face>

Web fonts formats

Different font formats exist:

- Web Open Font Format (.woff)
- TrueType/OpenType (.ttf/.otf)
- Scalable Vector Graphics Fonts (.svg)

Currently, most browsers support these font formats, with the exception of .svg, that is only supported by Firefox. See [Wikipedia article](#) on Web fonts.

inline-block

display the element in a line, like inline, but allows more formatting possibilities: width, height, margin to the right and left of the box.

none

Turns off the display of the element

The default value is inline.

CSS for typography

Common typographic properties

- font-size: *body in pt, rest of elements in em*
- font-height: regular or bold
- font-style
- font-family
- color
- text-align
- line-height
- letter-spacing: increases or decreases the space between characters(negative values are allowed)
- text-shadow

Using fonts

system fonts

ready to use

limited set

change slightly in each user's computer

too familiar

custom fonts

need to load or upload

broad range

remain the same to all users

fresh

system fonts

Documentation: <https://developer.mozilla.org/en-US/docs/Web/CSS/font-family>

System fonts are generic fonts.

- sans-serif
- serif

- it help *distinguish* elements with the same tag.
- the same id cannot be repeated in the same file. Use only once.

```
h1#title {
  color: pink;
}
```

class

- classes target several elements that share the same class
- classes can be used INFINITE TIMES in a file
- it help *uniforming* different types of elements, or multiple elements that need to be styled in the same way

```
div.article {
  margin-top: 10mm;
}
```

descendents

Descendents are elements that are descendents another element, like the anchors within a list item, and not other anchors

```
li a{
  color: green;
}
```

direct descendents

Direct descendents are elements that **direct children** of another element.

```
li > a{
  color: blue;
}
```

pseudo classes

For example:

- All links that have been visited
- when hovering a link

```
a:visited {
  transform: rotate(0.5turn);
}
a:hover{
```

```
background: red;
}
```

More on pseudo classes: <https://developer.mozilla.org/en/docs/Web/CSS/Pseudo-classes>

Positioning

Documentation: https://developer.mozilla.org/en-US/docs/Learn/CSS/CSS_layout/Positioning

position:static;

- the default position
- dont offset possibilities
- are positioned according to their default behavior

position: relative;

- very similar to that of the static value
- Main difference: relative value accepts box offset properties top, right, bottom left.
- Box offset properties allow precise positioning

position: absolute;

- elements accept box offset properties (left,right, top, bottom)
- elements are removed from the normal flow of the document
- and positioned in relation to the body element
- off-set property are set in relation to the body and not containing element. E.g. top: 10px; will place the element 10px offset from the top of the browser window.

Nice art work using absolute position and Google books image: <http://www.julienlevesque.net/books-scapes/>

position: fixed;

- similar to absolute: off-set set in relation to the body
- but the **positioning is relative to the browser viewport**
- not scrolling with the page.
- always present, as if fixed to the screen

Display

Documentation: <https://developer.mozilla.org/en-US/docs/Web/CSS/display>

Every element on a web page is a rectangular box.

The CSS display property determines how that rectangular is displayed next to its sibling elements.

inline

elements are displayed in a line.



block

Each element is standalone, occupying the entire width of its parent box and line breaks before and after it.

