



Front-end development

Front-end development – les 3

HERHALING - HTML

- HTML: HyperText Markup Language
- Gebruiken van de juiste HTML tag voor de juiste inhoud
- Semantische HTML: elementen met een betekenis
- `<!DOCTYPE html>`
`<html lang="en">`
 `<head>`
 `<body>`

HERHALING - HTML-TAG

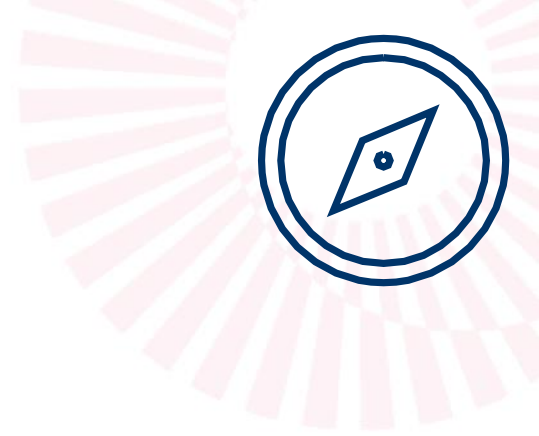
```
<p>Mijn inhoud</p>
```

```
<a href="https://www.google.be">Google</a>
```

```

```

HERHALING - TOOLS



- Emmet
- Live Server
- HTML Validator: <https://html5.validator.nu>
- SFTP

INLINE VS BLOCK

- block: start op nieuwe regel
- inline: start eender waar op de huidige lijn
- Overzicht all block-elementen:
https://developer.mozilla.org/en-US/docs/Web/HTML/Block-level_elements

INLINE VS BLOCK

```
<p>
  Een &lt;p&gt;-tag is een block element.
</p>

<p>
  Dit betekent dat een nieuwe &lt;p&gt;-tag op een nieuwe lijn start.
</p>

<p>
  Er zijn ook inline elementen, zoals de <a href="#"&gt;&lt;a&gt;-tag</a>,
  die gewoon eender waar in de lijn geplaatst kunnen worden.
</p>

</body>
</html>
```

Een `<p>`-tag is een block element.

Dit betekent dat een nieuwe `<p>`-tag op een nieuwe lijn start.

Er zijn ook inline elementen, zoals de `<a>`-tag, die gewoon eender waar in de lijn geplaatst kunnen worden.

STYLING - CSS

- Cascading Stylesheets
- Selector
- Declaration
- Property
- Value

```
body {  
  font-size: 14px;  
}
```

STYLING - CSS


- Inhoud: HTML
- Stijlen: CSS
- Voorbeeld: <http://www.csszengarden.com/>

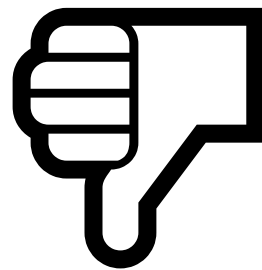
STYLING – CSS OP PAGINA ZETTEN

- 3 manieren:
 - Inline
 - Embedded
 - External stylesheet

INLINE

- style attribuut in HTML tag

```
<p style="color:  red">Deze tekst is rood.</p>
```



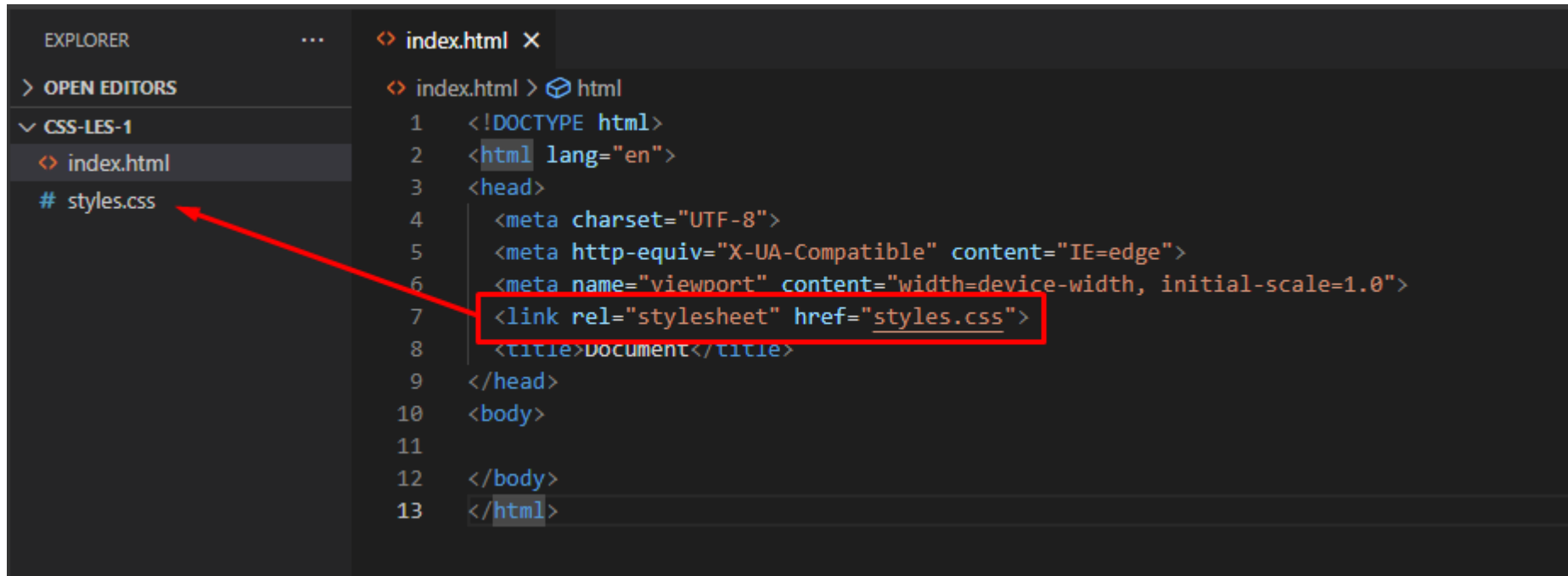
EMBEDDED

- `<style>` tag in `<head>`

```
<head>
  <style>
    p {
      color: ■ red;
    }
  </style>
</head>
```

EXTERNAL

- `<link>` tag in `<head>` die verwijst naar extern stijlblad



The screenshot shows the Visual Studio Code interface. On the left, the Explorer sidebar shows a project named 'CSS-LES-1' with two files: 'index.html' and 'styles.css'. The 'index.html' file is selected. The main editor area displays the content of 'index.html'. The code is as follows:

```
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4   <meta charset="UTF-8">
5   <meta http-equiv="X-UA-Compatible" content="IE=edge">
6   <meta name="viewport" content="width=device-width, initial-scale=1.0">
7   <link rel="stylesheet" href="styles.css">
8   <title>Document</title>
9 </head>
10 <body>
11
12 </body>
13 </html>
```

A red rectangle highlights the `<link rel="stylesheet" href="styles.css">` tag on line 7. A red arrow points from this tag to the 'styles.css' file in the Explorer sidebar.



SELECTORS

- Selecteren van HTML tags
 - html tag
 - class
 - id
- Oefenen op selectors: <https://flukeout.github.io/>

SELECTORS – HTML TAG

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Document</title>

  <style>
    h1 {
      color: ■ green;
    }

    p {
      color: ■ red;
    }
  </style>
</head>
<body>

  <h1>Deze titel is groen.</h1>
  <h2>Op deze titel is geen specifieke stijl toegepast.</h2>
  <p>Deze tekst is rood.</p>

</body>
</html>
```

Deze titel is groen.

Op deze titel is geen specifieke stijl toegepast.

Deze tekst is rood.

SELECTORS - CLASS

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Document</title>

  <style>
    .title {
      color: green;
    }

    .text {
      color: red;
    }
  </style>
</head>
<body>

  <h1 class="title">Deze titel is groen.</h1>
  <h2 class="title">Deze titel is ook groen.</h2>
  <p class="text">Deze tekst is rood.</p>

</body>
</html>
```

Deze titel is groen.

Deze titel is ook groen.

Deze tekst is rood.

SELECTORS - ID

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Document</title>

  <style>
    #title-1 {
      color: green;
    }

    p {
      color: red;
    }
  </style>
</head>
<body>

  <h1 id="title-1">Deze titel is groen.</h1>
  <h2>Op deze titel is geen specifieke stijl toegepast.</h2>
  <p>Deze tekst is rood.</p>

</body>
</html>
```

Deze titel is groen.

Op deze titel is geen specifieke stijl toegepast.

Deze tekst is rood.

SELECTORS - ATTRIBUTE

```
<style>
  [lang="en"] {
    color: green;
  }

  [lang="nl"] {
    color: blue;
  }
</style>
</head>
<body>

  <p lang="en">English text is green.</p>
  <p lang="nl">Nederlandstalige tekst is blauw.</p>

</body>
</html>
```

English text is green.

Nederlandstalige tekst is blauw.

Presentatie lastet ongeveer 2 m. geleden

PSEUDO-CLASSES

- :hover
- :first-of-type
- :last-of-type
- ...

```
<style>
  p {
    color: ■ green;
    cursor: pointer;
  }

  p:hover {
    color: ■ red;
  }
</style>
</head>
<body>

  <p>Not hovering with cursor.</p>
  <p>Hovering with cursor.</p>

</body>
</html>
```

Not hovering with cursor.

Hovering with cursor.



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

DESCENDANTS

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Document</title>

  <style>
    h2 {
      color: ■ green;
    }

    header h2 {
      color: ■ red;
    }
  </style>
</head>
<body>

  <header>
    <h2>Deze titel is rood.</h2>
  </header>

  <main>
    <h2>Deze titel is groen.</h2>
  </main>

</body>
</html>
```

Deze titel is rood.

Deze titel is groen.

OVERERVING

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Document</title>

  <style>
    main {
      color: ■ green;
    }
  </style>
</head>
<body>

  <header>
    <h2>Deze titel is gewoon zwart.</h2>
  </header>

  <main>
    <h2>Deze titel is groen.</h2>
  </main>

</body>
</html>
```

Deze titel is gewoon zwart.

Deze titel is groen.

OVERERVING

```
<style>
  main {
    color: ■green;
  }
</style>
</head>
<body>

  <header>
    <h2>Deze titel is gewoon zwart.</h2>
  </header>

  <main>
    <article>
      <section>
        <figure>
          <figcaption>
            <p>Deze tekst is nog steeds groen.</p>
          </figcaption>
        </figure>
      </section>
    </article>
  </main>

</body>
</html>
```

Deze titel is gewoon zwart.

Deze tekst is nog steeds groen.

SPECIFICITY

- ID, Class, Type: x,x,x
- ID: Only element Ids (#example)
- Class: classes, attribute selectors and pseudo classes
- Type: Tag names
- Add 1 to column for each selector

SPECIFICITY

- Rule 1: p a => 0,0,2
- Rule 2: #ipsum => 1,0,0

```
<style>
  p a {
    color: ■ red;
  }

  #ipsum {
    color: ■ blue;
  }
</style>
```

SPECIFICITY

dex.html >  html

```
<style>
  p a {
    color:  red;
  }

  #ipsum {
    color:  blue;
  }
</style>
</head>
<body>

  <p>
    Lorem <a>ipsum dolor</a>, sit amet consectetur adi
  </p>
  <p>
    Lorem <a id="ipsum">ipsum dolor</a>, sit amet cons
  </p>

</body>
</html>
```

Lorem ipsum dolor, sit amet consectetur adipisicing elit. Vitae, inventore!

Lorem ipsum dolor, sit amet consectetur adipisicing elit. Quam, itaque?

SPECIFICITY

- Specificiteit?

```
<!-- document -->
<style>
  body p #ipsum {
    color: green;
  }

  p #ipsum {
    color: blue;
  }

  #ipsum {
    color: red;
  }
</style>
</head>
<body>
  <p>
    Lorem <a id="ipsum">ipsum dolor</a>, sit amet cons
  </p>
</body>
</html>
```

Formal definition

<u>Initial value</u>	canvastext
Applies to	all elements and text. It also applies to <code>::first-letter</code> and <code>::first-line</code> .
<u>Inherited</u>	yes
<u>Computed value</u>	computed color
Animation type	by computed value type

KLEUREN

- color: tekst
- background-color: achtergrond

```
<style>
  header {
    background-color: firebrick;
  }

  header a {
    color: white;
  }
</style>
</head>
<body>

  <header>
    <a>Home</a>
    <a>Services</a>
    <a>About</a>
  </header>

</body>
</html>
```

NORMAL -- Ln 29, Col 7 Spaces

127.0.0.1:5500/index.html

Home Services About

SOORTEN KLEUREN

- naam: red, blue, firebrick:
https://www.w3schools.com/cssref/css_colors.asp
- hex: hexadecimal:
<https://www.google.com/search?q=hex+color+picker>
- rgb: Red, Green, Blue:
https://www.w3schools.com/colors/colors_picker.asp

SOORTEN KLEUREN

- HSL: Hue, Saturation, Lightness: https://www.w3schools.com/colors/colors_hsl.asp
- HWB: Hue, Whiteness, Blackness: https://www.w3schools.com/colors/colors_hwb.asp
- LCH: Lightness, Chroma, Hue: <https://css.land/lch/>

CONTRAST

- <https://webaim.org/resources/contrastchecker/>
- <https://www.tpgi.com/color-contrast-checker/>

Normal Text

WCAG AA: **Fail**

WCAG AAA: **Fail**

The five boxing wizards jump quickly.

Large Text

WCAG AA: **Fail**

WCAG AAA: **Fail**

The five boxing wizards jump quickly.

Graphical Objects and User Interface Components

WCAG AA: **Fail**

Text Input

BACKGROUND-IMAGES

- Image
- Repeat
- Position
- Size

```
body {  
    background-image: url('img/bg.jpg');  
    background-repeat: no-repeat;  
    background-position: center;  
    background-size: cover;  
}
```

TEKST FORMATTEREN

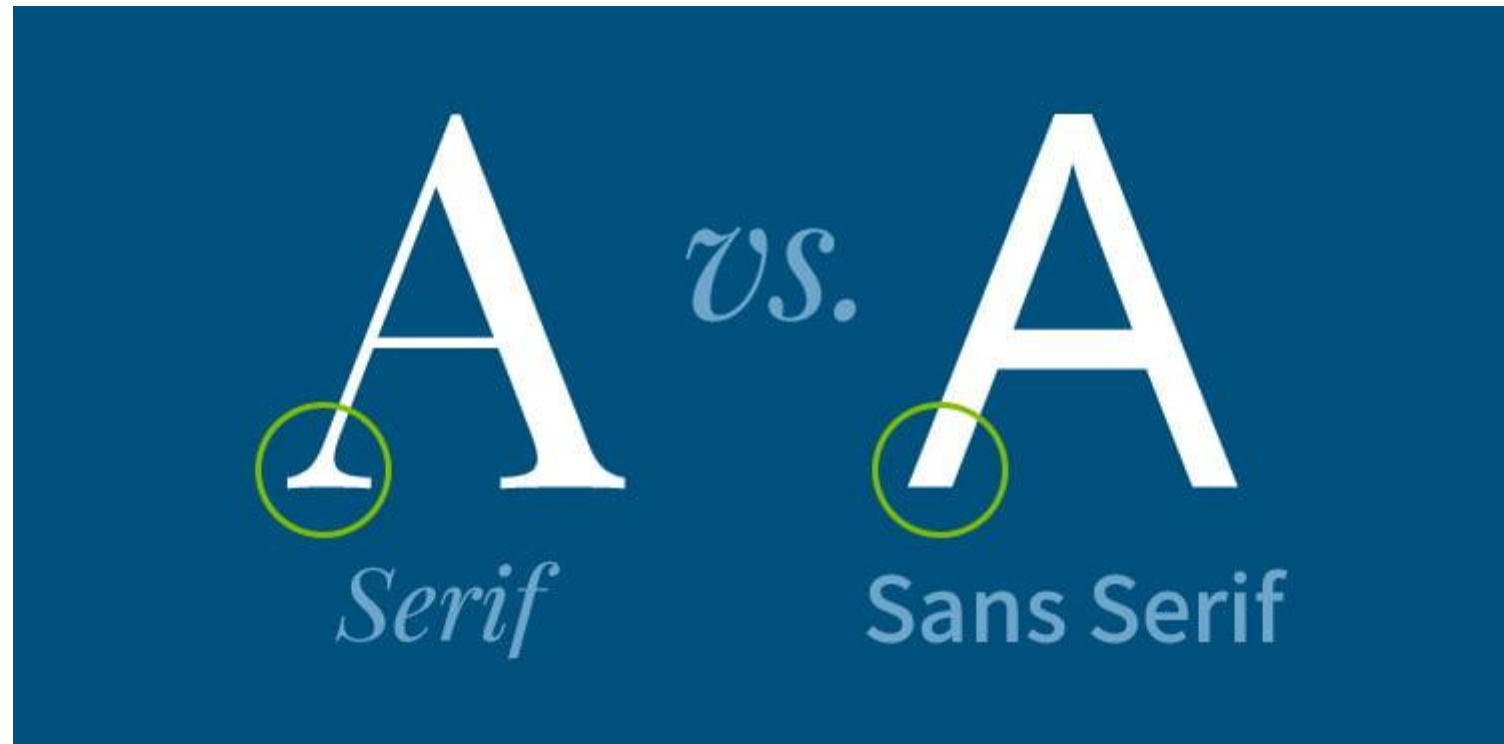
- font-family
- alternative font-family
- line-height
- font-size

FONT-FAMILY



```
font-family: "Gill Sans Extrabold", sans-serif;  
font-family: "Goudy Bookletter 1911", sans-serif;
```

SERIF VS SANS-SERIF



FONT-FAMILY - ALTERNATIVES

```
.serif {  
    font-family: Times, "Times New Roman", Georgia, serif;  
}  
  
.sansserif {  
    font-family: Verdana, Arial, Helvetica, sans-serif;  
}
```

WEBFONTS

- <https://fonts.google.com>
- @import of <link>

LINE-HEIGHT



```
<style>
  p {
    line-height: 1.5;
  }
</style>
</head>
<body>

  <p>Lorem ipsum dolor sit amet conse

</body>
</html>
```

Lorem ipsum dolor sit amet consectetur adipisicing elit. Distinctio, voluptate. Harum architecto consequuntur id, repudiandae eligendi sunt dignissimos earum voluptate.

```
<style>
  p {
    line-height: 3;
  }
</style>
</head>
<body>

  <p>Lorem ipsum dolor sit amet conse

</body>
</html>
```

Lorem ipsum dolor sit amet consectetur adipisicing elit. Distinctio, voluptate. Harum architecto consequuntur id, repudiandae eligendi sunt dignissimos earum voluptate.

UNITS - ABSOLUTE

Unit	Name	Equivalent to
cm	Centimeters	1cm = 37.8px = 25.2/64in
mm	Millimeters	1mm = 1/10th of 1cm
Q	Quarter-millimeters	1Q = 1/40th of 1cm
in	Inches	1in = 2.54cm = 96px
pc	Picas	1pc = 1/6th of 1in
pt	Points	1pt = 1/72nd of 1in
px	Pixels	1px = 1/96th of 1in

https://developer.mozilla.org/en-US/docs/Learn/CSS/Building_blocks/Values_and_units#numbers_lengths_and_percentages

UNITS - RELATIVE

Unit	Relative to
em	Font size of the parent, in the case of typographical properties like <code>font-size</code> , and font size of the element itself, in the case of other properties like <code>width</code> .
ex	x-height of the element's font.
ch	The advance measure (width) of the glyph "0" of the element's font.
rem	Font size of the root element.
lh	Line height of the element.
rlh	Line height of the root element. When used on the <code>font-size</code> or <code>line-height</code> properties of the root element, it refers to the properties' initial value.
vw	1% of the viewport's width.
vh	1% of the viewport's height.
vmin	1% of the viewport's smaller dimension

FONT-SIZE – UNIT

- absolute: px
- relative: em, rem, %

```
<style>
  p:first-of-type {
    font-size: 18px;
  }

  p:last-of-type {
    font-size: 200%;
  }
</style>
</head>
<body>

  <p>Tekst in pixel.</p>
  <p>Tekst in percentage.</p>

</body>
</html>
```

Tekst in pixel.

Tekst in percentage.

FONT-SIZE – EM & REM

```
9      <style>
10      |   h1 {
11      |       font-size: 1.6em;
12      |   }
13      |
14      |   p {
15      |       font-size: 1.2em;
16      |   }
17      |
18      |   p:last-of-type {
19      |       font-size: 1em;
20      |   }
21      </style>
22  </head>
23  <body>
24      <h1>Lorem ipsum dolor sit amet consectetur, adipisicing
25      <p>
26      |   Lorem ipsum dolor sit amet consectetur adipisicing
27      </p>
28      <p>
29      |   Lorem ipsum dolor sit amet consectetur adipisicing
30      </p>
31  </body>
32  </html>
```

Lorem ipsum dolor sit amet consectetur, adipisicing elit. Nobis, dolor?

Lorem ipsum dolor sit amet consectetur adipisicing elit. Obcaecati ipsa accusamus aliquid dolor, modi beatae! Inventore eum optio cumque dolor ducimus eos omnis necessitatibus odit iure porro maxime, error quas eaque rem consectetur obcaecati voluptas et minus illum provident nostrum repellendus veniam nihil! Velit, repellendus odio vitae deserunt quis enim nobis nisi, aut sunt incidunt obcaecati sapiente recusandae, facilis fuga atque. Eligendi laudantium architecto, beatae qui soluta tenetur, inventore nemo alias fugiat officia ea dignissimos nesciunt placeat voluptas aliquid! Commodi alias excepturi reiciendis nostrum, libero maxime, neque nam eos consectetur molestias ex nemo tempora similique exercitationem facere? Reiciendis, reprehenderit maxime?

Lorem ipsum dolor sit amet consectetur adipisicing elit. Dolorum, dolore.

EM & REM - COMPOUND

```
html {  
  font-size: 100%;  
}  
  
span {  
  font-size: 1.6em;  
}
```

```
<div>  
  <span>Outer <span>inner</span> outer</span>  
</div>
```

The result is:

Outer **inner** outer