

Text Technology SS 17: CSS - Part 1

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- 3 How to write CSS rules ?
 - Selectors
 - Properties and Values

Effect of CSS

Benutzerkontoverwaltung


Hier kannst du Informationen zu Deinem Profil abrufen sowie Dein Passwort ändern.

Name: **bjoern**
Rolle: **Schüler**
Lehrkraft: **ramon**

Aktuelles Passwort:

Neues Passwort:

Neues Passwort wiederholen:

 Änderungen speichern


 Avatar ändern

Figure: A web page with CSS

Effect of CSS

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Figure: Web page from previous slides without custom CSS, only browser default style sheet

Introduction

- CSS = *Cascading Style Sheets*
- *Cascading*: the order in which rules are applied
- a language for defining the style (presentation) of markup languages
- e.g. web pages are styled via CSS
- every browser has a default style sheet

Introduction



source: created with imgflip.com

Historical Perspective

- early HTML standards (1990s): structural/semantic markup
- following: HTML 3.2/4.0: adding many presentational tags
- HTML 5 (2014): new semantic elements, remove presentational markup

→ HTML5 encourages the split into structure (HTML) and presentation (CSS)

Division of Labour

- style (CSS) separated from structure (XML, mostly also HTML)
- style and structure can be changed individually
- e.g. applying a new style to a webpage without changing the content

however: CSS allows you also to entwine style and structure

Where to write CSS rules ?

different ways with different scope of rules:

- 1 in `style` attribute of HTML elements (“inline”)
- 2 in `style` element in HTML head element (“internal stylesheet”)
- 3 in standalone file referenced via link in head element (“external stylesheet”)

These methods can (and are often) combined.

Where to write CSS rules ?

1. Style Attribute at element

```
<div>the <span style="font-size:2em;">funding</span>  
was granted ...</div>
```

Where to write CSS rules ?

2. Style Element in head

```
<html>
<head>
<style>
span{
    font-size:2em;
}
</style>
</head>
<body>
<div>the <span>funding</span> was granted ...</div>
</body>
</html>
```

only one style element with all declarations allowed

Where to write CSS rules ?

3. Separate linked file

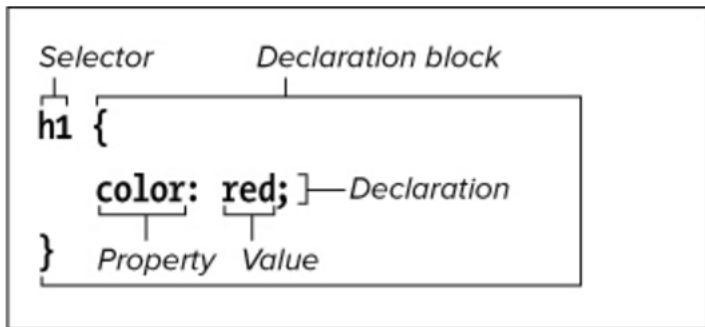
```
<html>
<head>
<link rel="stylesheet" href="styles/mystyle.css">
</style>
</head>
<body>
<div>the <span>funding</span> was granted ...</div>
</body>
</html>
```

Where to write CSS rules ?

Considerations:

- styles defined in external/internal style sheets: ability to apply rules for **sets** of elements
- inline style: ability to override general rules for specific instances

How to write CSS rules ?



source: Elizabeth Castro and Bruce Hyslop. HTML and CSS: Visual Quickstart Guide. Pearson Education, 2013. (Chapter 7)

Selectors

- selectors locate elements to apply rules to
- different selection elements:
 - 1 select by element
 - 2 select by id
 - 3 select by class
 - 4 select by other attributes

These methods can (and are often) combined.

Properties and Values

- declarations enclosed by curly brackets
- these brackets form the declaration block
- each key-value statement is followed by a semicolon
- indentation not necessary, but recommended for readability¹
- in case of multiple values for one property: space-separated

¹but: minified CSS for browsers

Selectors

Select by element

```
p {  
    font-size: 1.3em;  
}
```

- select all elements of this type

Selectors

Select by id

```
#table1 {  
    background-color: blue;  
}
```

- select a specific element via id with prefix #
- ids are unique

Selectors

Select by class

```
.code {  
    font-family: monospace;  
}  
  
.code.red {  
    font-family: monospace;  
    color: red;  
}
```

- apply styles to all elements with this class → element-independent selector
- useful when styles are shared systematically
- elements can have multiple values in the class attributes

Selectors

Select by attribute

```
a[title]{  
    color: blue;  
}  
div[type="warning"]{  
    background-color: red;  
}
```

- select all anchors with a title attribute
- select all divs with an attribute type with value warning

Selectors

Select by attribute

```
div[lang ^= "en"]{  
    color: green;  
}
```

- select all divs with a lang attribute equals to or beginning with “en”
- e.g. select “en”, “en-us”, “en-gb”

Combined selectors

```
p.code {  
    font-family: monospace;  
}  
p, span {  
    color: grey;  
}
```

- apply styles to all elements with this class
- useful when styles are shared systematically

Combined selectors

Wildcard

* {color: blue;}

- apply the rule to all elements
- * as a wildcard

Combined selectors

Descendants

```
p span {color: blue;}
```

- selects only spans that are descendants of p

Combined selectors

Children

```
p > span {color: blue;}  
p.text > span {color: green;}
```

- selects only spans that are children of p
- selects only spans that are children of a p with class text

Combined selectors

Sibling

```
img + span {  
    font-style: italic;  
}
```

- selects the immediate span siblings of a img element (“adjacent-sibling”)

Further Reading

Good step-by-step tutorial for learning CSS:

<https://www.w3schools.com/css/default.asp>

parts of the slides are inspired by this tutorial (in addition to the references listed below)

CSS Reference: <https://www.w3schools.com/cssref/default.asp>

Elizabeth Castro and Bruce Hyslop. *HTML and CSS: Visual Quickstart Guide*. Pearson Education, 2013.

Eric A Meyer. *Cascading style sheets: The definitive guide*. " O'Reilly Media, Inc." , 2004.