

# CSS: Cascades and selectors

In the program...

- **Cascade**
- **Selectors**
- **Priorities**
- **Pseudo**

## In the program...

- **Cascade**
- **Selectors**
- **Priorities**
- **Pseudo**

## conflicts

- the same document can use several stylesheets
- there can be conflicting rules

## conflicts

- the same document can use several stylesheets
- there can be conflicting rules
  1. selectors select common elements
  2. related to the same property
  3. assign different values

## conflicts

- the same document can use several style sheets
- there can be conflicting rules
  1. selectors select common elements
  2. related to the same property
  3. assign different values

*How to resolve these conflicts?*

*Which rule is applied?*

## Cascades

The mechanism of **cascade** determines the applied rules.

3 filters stages:

1. by media
2. by origin
3. by selector specificity

## Media

possibility to specify the media in which the rules defined in the stylesheet are applied

Attribute **media** of the tag <link>

ex: media="screen"--media="print"

## Origin of styles

3 possible origins for style sheets

**Author** defined by the author of the page

**User** defined by the person viewing the page

**Navigator** defined by the browser

in general :*author>user>Navigator*

More details :[http://openweb.had.org/articles/cascade\\_css](http://openweb.had.org/articles/cascade_css)

## In the program...

- **Cascade**
- **Selectors**
- **Priorities**
- **Pseudo**

## In the program...

- Cascade
- **Selectors**
- Priorities
- Pseudo

## Selectors

The **selector** determines the elements on which the rule is applied.  
need to know how

- set appropriate selectors
- priorities between conflicting rules are managed

### Simple selectors:

**E** any element whose tag is <E>  
\* any element

## Selectors and attributes

**E[att]** any element **E** whose attribute **att** is defined

*ex:* p[lang], img[alt], \*[title]

**E[att=val]** any element **E** whose attribute **att** is *val*

*ex:* p[lang=en]

**E[att~=val]** any element **E** whose attribute **att** is a list of words separated by spaces, one of these words is exactly *val*

## Selectors and attributes

**E[att^="prefix"]** any element **E** whose attribute value **att** starts exactly with *prefix*

*ex*: a[href^="<http://ft.univ-tlemcen.dz>"]

**E[att\$="suffix"]** any element **E** whose attribute value **att** ends exactly with *suffix*

*ex*: img[src\$=".png"], a[href\$=".pdf"]

**E[att\*="val"]** any element **E** whose attribute value **att** contains the substring *val*

*ex*: figure[alt\*="diagram"], \*[title\*="timo"]

## Class and id selector

Special cases of attributes **class** And **id**:

**E.c** any element **E** belonging to the **c-class**  
equivalent to **E[class~=c]**

*ex:* div.exercise, \*.solution,  
div.rmq[title^="NB"]

**E#ident** any element **E** including the **id** worth **identity**  
equivalent to **E[id=ident]**

*ex:* img#joconde, \*#joconde, #unique

## Pseudo-Class and Pseudo-element selectors

**E:pseudoC** any element **E** belonging to the **pseudo-class** *pseudoC*

**ex:**a:visited, a.file:hover

**E::pseudoE** All **pseudo-element** *pseudoE* of the element **E**

**ex:**h1::first-letter, p[lang=en]::first-line

## Combination of selectors

Builds on the structure of **tree** of the document

Whether **Sel1** And **Sel2** are selectors:

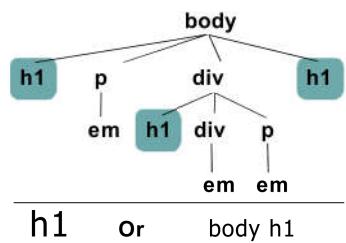
**Sel1 Sel2** any item selected by **Sel2 descendant**(nested in) of an element selected by **Sel1**

**Sel1>Sel2** any item selected by **Sel2** who is **a son** of one item selected by **Sel1**

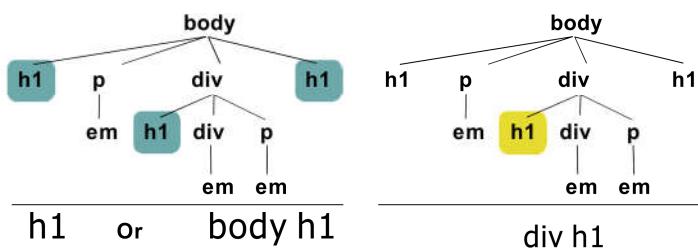
**Sel1 + Sel2** any item selected by **Sel2** Who **follows immediately** an item selected by **Sel1** (first following **brother**)

**Sel1~Sel2** any item selected by **Sel2** Who **follows** an element selected by **Sel1** (A following **brother**)

## Examples

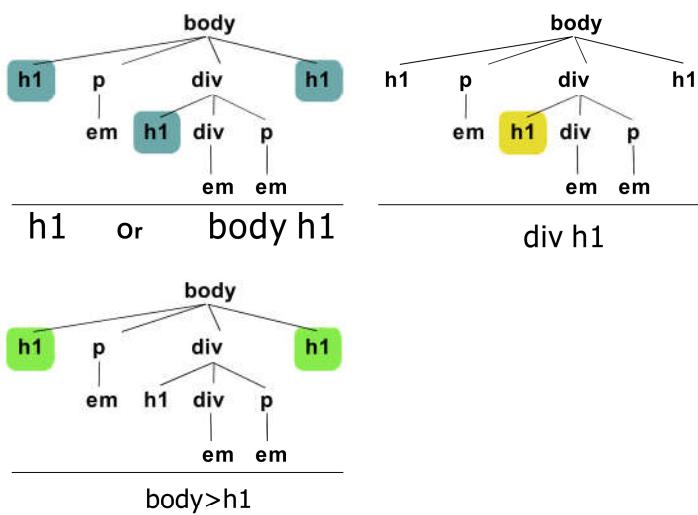


## Examples

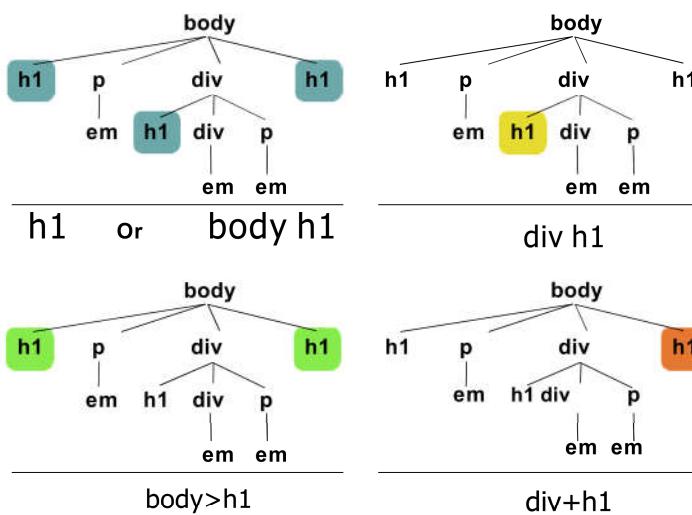


div+h1

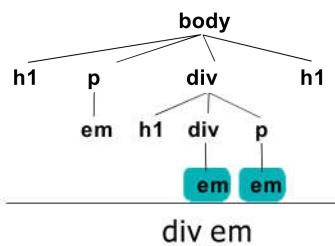
## Examples



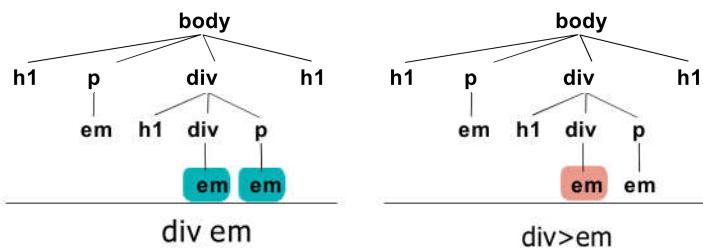
## Examples



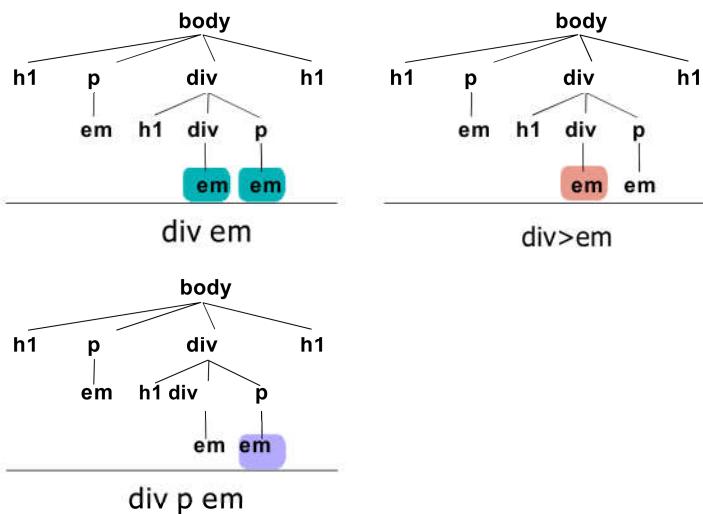
## Examples



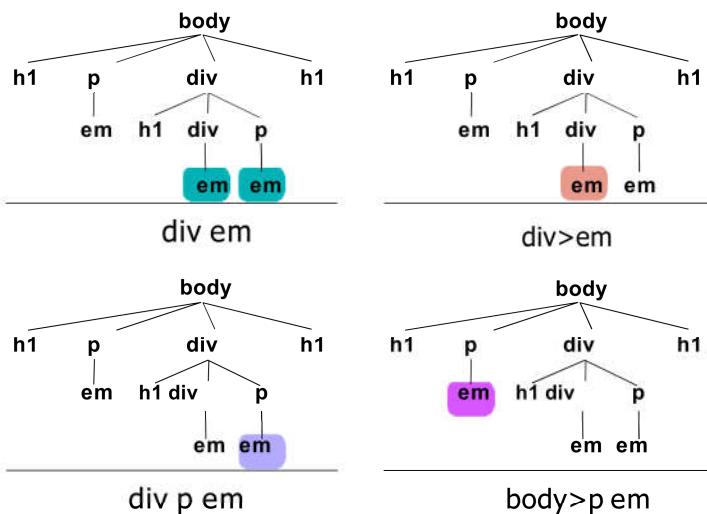
## Examples



## Examples



## Examples



Web and medical ontologies

Mme KAZI TANI LF. UABB-Tlemcen-

## In the program...

- Cascade
- **Selectors**
- Priorities
- Pseudo

## In the program...

- Cascade
- Selectors
- **Priorities**
- Pseudo

# Conflicts between rules

## Priority calculation

We count for each selector:

- **a** number of id selectors (=number of #)
- **b** number of classes, pseudo-classes or attributes
- **c** number of elements or pseudo-elements

The selector receives priority **ABC**.

The selector with the highest priority wins.

In case of an equality, the last declaration wins.

## Examples

selector	a b c
<b>* { }</b> <b>h1{...}</b> <b>div.answer{...}</b> <b># joconde{...}</b> <b>div a{...}</b> <b>div a:visited{...}</b> <b>p span.file{...}</b> <b>p a[href\$=".pdf"]{...}</b> <b>p.statement a[href\$=".pdf"]{...}</b> <b>ol.exercise li.question{...}</b> <b>div#slide img.left{...}</b> <b>article p::first-letter{...}</b> <b>article#special p::first-letter{...}</b>	

## Examples

selector	a b c
* {} h1{...} div.answer{...} # joconde{...} div a{...} div a:visited{...} p span.file{...} p a[href\$=".pdf"]{...} p.statement a[href\$=".pdf"]{...} ol.exercise li.question{...} div#slide img.left{...} article p::first-letter{...} article#special p::first-letter{...}	0 0 0

## Examples

selector	a	b	c
* { }	0	0	0
h1{...}	0	0	1
div.answer{...}			
# joconde{...}			
div a{...}			
div a:visited{...}			
p span.file{...}			
p a[href\$=".pdf"]{...}			
p.statement a[href\$=".pdf"]{...}			
ol.exercise li.question{...}			
div#slide img.left{...}			
article p::first-letter{...}			
article#special p::first-letter{...}			

## Examples

selector	a	b	c
*{...}	0	0	0
h1{...}	0	0	1
div.answer{...}	0	1	1
#joconde{...}			
div a{...}			
div a:visited{...}			
p span.file{...}			
p a[href\$=".pdf"]{...}			
p.statement a[href\$=".pdf"]{...}			
ol.exercise li.question{...}			
div#slide img.left{...}			
article p::first-letter{...}			
article#special p::first-letter{...}			

## Examples

selector	a	b	c
*{...}	0	0	0
h1{...}	0	0	1
div.answer{...}	0	1	1
#joconde{...}	1	0	0
div a{...}			
div a:visited{...}			
p span.file{...}			
p a[href\$=".pdf"]{...}			
p.statement a[href\$=".pdf"]{...}			
ol.exercise li.question{...}			
div#slide img.left{...}			
article p::first-letter{...}			
article#special p::first-letter{...}			

## Examples

selector	a	b	c
* { }	0	0	0
h1{...}	0	0	1
div.answer{...}	0	1	1
# joconde{...}	1	0	0
div a{...}	0	0	2
div a:visited{...}			
p span.file{...}			
p a[href\$=".pdf"]{...}			
p.statement a[href\$=".pdf"]{...}			
ol.exercise li.question{...}			
div#slide img.left{...}			
article p::first-letter{...}			
article#special p::first-letter{...}			

## Examples

selector	a	b	c
* { }	0	0	0
h1{...}	0	0	1
div.answer{...}	0	1	1
# joconde{...}	1	0	0
div a{...}	0	0	2
div a:visited{...}	0	1	2
p span.file{...}			
p a[href\$=".pdf"]{...}			
p.statement a[href\$=".pdf"]{...}			
ol.exercise li.question{...}			
div#slide img.left{...}			
article p::first-letter{...}			
article#special p::first-letter{...}			

## Examples

selector	a	b	c
* { }	0	0	0
h1{...}	0	0	1
div.answer{...}	0	1	1
# joconde{...}	1	0	0
div a{...}	0	0	2
div a:visited{...}	0	1	2
p span.file{...}	0	1	2
p a[href\$=".pdf"]{...}			
p.statement a[href\$=".pdf"]{...}			
ol.exercise li.question{...}			
div#slide img.left{...}			
article p::first-letter{...}			
article#special p::first-letter{...}			

## Examples

selector	a	b	c
* { }	0	0	0
h1{...}	0	0	1
div.answer{...}	0	1	1
# joconde{...}	1	0	0
div a{...}	0	0	2
div a:visited{...}	0	1	2
p span.file{...}	0	1	2
p a[href\$=".pdf"]{...}	0	1	2
p.statement a[href\$=".pdf"]{...}			
ol.exercise li.question{...}			
div#slide img.left{...}			
article p::first-letter{...}			
article#special p::first-letter{...}			

## Examples

selector	a	b	c
* { }	0	0	0
h1{...}	0	0	1
div.answer{...}	0	1	1
# joconde{...}	1	0	0
div a{...}	0	0	2
div a:visited{...}	0	1	2
p span.file{...}	0	1	2
p a[href\$=".pdf"]{...}	0	1	2
p.statement a[href\$=".pdf"]{...}	0	2	2
ol.exercise li.question{...}			
div#slide img.left{...}			
article p::first-letter{...}			
article#special p::first-letter{...}			

## Examples

selector	a	b	c
* { }	0	0	0
h1{...}	0	0	1
div.answer{...}	0	1	1
# joconde{...}	1	0	0
div a{...}	0	0	2
div a:visited{...}	0	1	2
p span.file{...}	0	1	2
p a[href\$=".pdf"]{...}	0	1	2
p.statement a[href\$=".pdf"]{...}	0	2	2
ol.exercise li.question{...}	0	2	2
div#slide img.left{...}			
article p::first-letter{...}			
article#special p::first-letter{...}			

## Examples

selector	a	b	c
* { }	0	0	0
h1{...}	0	0	1
div.answer{...}	0	1	1
# joconde{...}	1	0	0
div a{...}	0	0	2
div a:visited{...}	0	1	2
p span.file{...}	0	1	2
p a[href\$=".pdf"]{...}	0	1	2
p.statement a[href\$=".pdf"]{...}	0	2	2
ol.exercise li.question{...}	0	2	2
div#slide img.left{...}	1	1	2
article p::first-letter{...}			
article#special p::first-letter{...}			

## Examples

selector	a	b	c
* { }	0	0	0
h1{...}	0	0	1
div.answer{...}	0	1	1
# joconde{...}	1	0	0
div a{...}	0	0	2
div a:visited{...}	0	1	2
p span.file{...}	0	1	2
p a[href\$=".pdf"]{...}	0	1	2
p.statement a[href\$=".pdf"]{...}	0	2	2
ol.exercise li.question{...}	0	2	2
div#slide img.left{...}	1	1	2
article p::first-letter{...}	0	0	3
article#special p::first-letter{...}			

## Examples

selector	a	b	c
* { }	0	0	0
h1{...}	0	0	1
div.answer{...}	0	1	1
# joconde{...}	1	0	0
div a{...}	0	0	2
div a:visited{...}	0	1	2
p span.file{...}	0	1	2
p a[href\$=".pdf"]{...}	0	1	2
p.statement a[href\$=".pdf"]{...}	0	2	2
ol.exercise li.question{...}	0	2	2
div#slide img.left{...}	1	1	2
article p::first-letter{...}	0	0	3
article#special p::first-letter{...}	1	0	3

*bg=background-color*

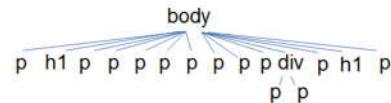
```
<p>zero</p>
<h1>Title</h1>
<p>first</p>
<p>second</p>
<p>third</p>
<p lang="en">fourth </p> <p
class="blue">fifth</p> <p
class="blue">sixth</p>
<p class="blue" id="special">7th</p>
<p>eighth</p>
<div>
    <p>ninth</p>
    <p lang="en">tenth</p>
</div>
<p>eleventh      </p>
<h1>Second title </h1>
<p>twelfth</p>
```

- |   |                        |
|---|------------------------|
| 1 | p{bg :pink}            |
| 2 | h1+p{bg:red;}          |
| 3 | div>p{bg:yellow;}      |
| 4 | p#special{bg: gold;}   |
| 5 | p[lang=en]{bg: green;} |
| 6 | p.blue{bg:lightblue;}  |
| 7 | p+p{ bg:lightgreen;}   |

*bg=background-color*

```
<p>zero</p>
<h1>Title</h1>
<p>first</p>
<p>second</p>
<p>third</p>
<p lang="en">fourth </p> <p
class="blue">fifth</p> <p
class="blue">sixth</p>
<p class="blue" id="special">7th</p>
<p>eighth</p>
<div>
    <p>ninth</p>
    <p lang="en">tenth</p>
</div>
<p>eleventh      </p>
<h1>Second title </h1>
<p>twelfth</p>
```

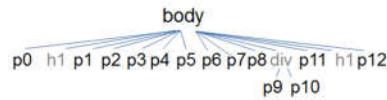
- |   |                        |
|---|------------------------|
| 1 | p{bg :pink}            |
| 2 | h1+p{bg:red;}          |
| 3 | div>p{bg:yellow;}      |
| 4 | p#special{bg: gold;}   |
| 5 | p[lang=en]{bg: green;} |
| 6 | p.blue{bg:lightblue;}  |
| 7 | p+p{ bg:lightgreen;}   |



*bg=background-color*

```
<p>zero</p>
<h1>Title</h1>
<p>first</p>
<p>second</p>
<p>third</p>
<p lang="en">fourth </p> <p
class="blue">fifth</p> <p
class="blue">sixth</p>
<p class="blue" id="special">7th</p>
<p>eighth</p>
<div>
    <p>ninth</p>
    <p lang="en">tenth</p>
</div>
<p>eleventh      </p>
<h1>Second title </h1>
<p>twelfth</p>
```

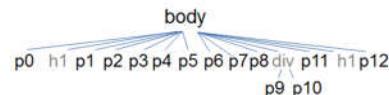
- |   |                        |
|---|------------------------|
| 1 | p{bg :pink}            |
| 2 | h1+p{bg:red;}          |
| 3 | div>p{bg:yellow;}      |
| 4 | p#special{bg: gold;}   |
| 5 | p[lang=en]{bg: green;} |
| 6 | p.blue{bg:lightblue;}  |
| 7 | p+p{ bg:lightgreen;}   |



*bg=background-color*

```
<p>zero</p> 1
<h1>Title</h1>
<p>first</p> 1
<p>second</p> 1
<p>third</p> 1
<p lang="en">fourth </p> <p 1
class="blue">fifth</p>
<p class="blue">sixth</p> 1
<p class="blue" id="special">7th</p>
<p>eighth</p> 1
<div>
    <p>ninth</p> 1
    <p lang="en">tenth</p> 1
</div>
<p>eleventh 1 </p>
<h1>Second title </h1>
<p>twelfth</p> 1
```

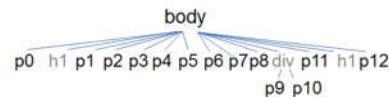
- 1 p{bg :pink;}
- 2 h1+p{bg:red;}
- 3 div>p{bg:yellow;}
- 4 p#special{bg: gold;}
- 5 p[lang=en]{bg: green;}
- 6 p.blue{bg:lightblue;}
- 7 p+p{ bg:lightgreen;}



*bg=background-color*

```
<p>zero</p> 1
<h1>Title</h1>
<p>first</p> 1 2
<p>second</p> 1
<p>third</p> 1
<p lang="en">fourth </p> <p 1
class="blue">fifth</p>
<p class="blue">sixth</p> 1
<p class="blue" id="special">7th</p>
<p>eighth</p> 1
<div>
    <p>ninth</p> 1
    <p lang="en">tenth</p> 1
</div>
<p>eleventh 1 </p>
<h1>Second title </h1>
<p>twelfth</p> 1 2
```

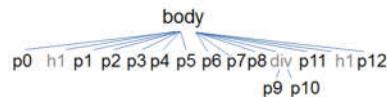
- 1 p{bg :pink;}
- 2 h1+p{bg:red;}
- 3 div>p{bg:yellow;}
- 4 p#special{bg: gold;}
- 5 p[lang=en]{bg: green;}
- 6 p.blue{bg:lightblue;}
- 7 p+p{ bg:lightgreen;}



*bg=background-color*

```
<p>zero</p> 1
<h1>Title</h1>
<p>first</p> 1 2
<p>second</p> 1
<p>third</p> 1
<p lang="en">fourth </p> <p 1
class="blue">fifth</p>
<p class="blue">sixth</p> 1
<p class="blue" id="special">7th</p>
<p>eighth</p> 1
<div>
    <p>ninth</p> 1 3
    <p lang="en">tenth</p> 1 3
</div>
<p>eleventh 1 </p>
<h1>Second title </h1>
<p>twelfth</p> 1 2
```

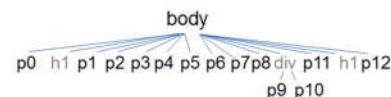
- 1 p{bg :pink;}
- 2 h1+p{bg:red;}
- 3 div>p{bg:yellow;}
- 4 p#special{bg: gold;}
- 5 p[lang=en]{bg: green;}
- 6 p.blue{bg:lightblue;}
- 7 p+p{ bg:lightgreen;}



*bg=background-color*

```
<p>zero</p> 1
<h1>Title</h1>
<p>first</p> 1 2
<p>second</p> 1
<p>third</p> 1
<p lang="en">fourth </p> <p 1
class="blue">fifth</p>
<p class="blue">sixth</p> 1
<p class="blue" id="special">7th</p>
<p>eighth</p> 1
<div>
    <p>ninth</p> 1 3
    <p lang="en">tenth</p> 1 3
</div>
<p>eleventh 1 </p>
<h1>Second title </h1>
<p>twelfth</p> 1 2
```

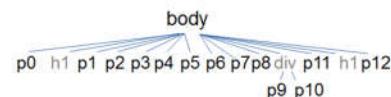
- 1 p{bg :pink;}
- 2 h1+p{bg:red;}
- 3 div>p{bg:yellow;}
- 4 p#special{bg: gold;}
- 5 p[lang=en]{bg: green;}
- 6 p.blue{bg:lightblue;}
- 7 p+p{ bg:lightgreen;}



*bg=background-color*

```
<p>zero</p> 1
<h1>Title</h1>
<p>first</p> 1 2
<p>second</p> 1
<p>third</p> 1
<p lang="en">fourth </p> <p 1 5
class="blue">fifth</p>
<p class="blue">sixth</p> 1
<p class="blue" id="special">7th</p> 1 4
<p>eighth</p> 1
<div>
    <p>ninth</p> 1 3
    <p lang="en">tenth</p> 1 3 5
</div>
<p>eleventh 1 </p>
<h1>Second title </h1>
<p>twelfth</p> 1 2
```

- 1 p{bg :pink;}
- 2 h1+p{bg:red;}
- 3 div>p{bg:yellow;}
- 4 p#special{bg: gold;}
- 5 p[lang=en]{bg: green;}
- 6 p.blue{bg:lightblue;}
- 7 p+p{ bg:lightgreen;}



*bg=background-color*

```

<p>zero</p> 1
<h1>Title</h1>
<p>first</p> 1 2
<p>second</p> 1
<p>third</p> 1
<p lang="en">fourth </p> <p 1 5
class="blue">fifth</p>
<p class="blue">sixth</p> 1 6
<p class="blue" id="special">7th</p> 1 4 6
<p>eighth</p> 1
<div>
    <p>ninth</p> 1 3
    <p lang="en">tenth</p> 1 3 5
</div>
<p>eleventh 1 </p>
<h1>Second title </h1>
<p>twelfth</p> 1 2

```

- 1 p{bg :pink}
- 2 h1+p{bg:red;}
- 3 div>p{bg:yellow;}
- 4 p#special{bg: gold;}
- 5 p[lang=en]{bg: green;}
- 6 p.blue{bg:lightblue;}
- 7 p+p{bg:lightgreen;}

*bg=background-color*

```

<p>zero</p> 1
<h1>Title</h1>
<p>first</p> 1 2
<p>second</p> 1 7
<p>third</p> 1 7
<p lang="en">fourth </p> <p 1 5 7
class="blue">fifth</p>
<p class="blue">sixth</p> 1 6 7
<p class="blue" id="special">7th</p> 1 4 6 7
<p>eighth</p> 1 7
<div>
    <p>ninth</p> 1 3
    <p lang="en">tenth</p> 1 3 5 7
</div>
<p>eleventh 1 </p>
<h1>Second title </h1>
<p>twelfth</p> 1 2

```

- 1 p{bg :pink}
- 2 h1+p{bg:red;}
- 3 div>p{bg:yellow;}
- 4 p#special{bg: gold;}
- 5 p[lang=en]{bg: green;}
- 6 p.blue{bg:lightblue;}
- 7 p+p{ bg:lightgreen;}

*bg=background-color*

```
<p>zero</p> 1
<h1>Title</h1>
<p>first</p> 1 2
<p>second</p> 1 7
<p>third</p> 1 7
<p lang="en">fourth </p> <p 1 5 7
class="blue">fifth</p>
<p class="blue">sixth</p> 1 6 7
<p class="blue" id="special">7th</p> 1 4 6 7
<p>eighth</p> 1 7
<div>
    <p>ninth</p> 1 3
    <p lang="en">tenth</p> 1 3 5 7
</div>
<p>eleventh 1 </p>
<h1>Second title </h1>
<p>twelfth</p> 1 2
```

1	p{bg :pink}
2	h1+p{bg:red;}
3	div>p{bg:yellow;}
4	p#special{bg: gold;}
5	p[lang=en]{bg: green;}
6	p.blue{bg:lightblue;}
7	p+p{ bg:lightgreen;}

	a	b	c
1	0	0	1
2	0	0	2
3	0	0	2
4	1	0	1
5	0	1	1
6	0	1	1
7	0	0	2

*bg=background-color*

```
<p>zero</p> 1
<h1>Title</h1>
<p>first</p> 1 2
<p>second</p> 1 7
<p>third</p> 1 7
<p lang="en">fourth </p> <p> 1 5 7
class="blue">fifth</p> 1 6 7
<p class="blue">sixth</p> 1 6 7
<p class="blue" id="special">7th</p> 1 4 6 7
<p>eighth</p> 1 7
<div>
    <p>ninth</p> 1 3
    <p lang="en">tenth</p> 1 3 5 7
</div>
<p>eleventh 1 </p>
<h1>Second title </h1>
<p>twelfth</p> 1 2
```

1 p{bg :pink}
2 h1+p{bg:red;}
3 div>p{bg:yellow;}
4 p#special{bg: gold;}
5 p[lang=en]{bg: green;}
6 p.blue{bg:lightblue;}
7 p+p{bg:lightgreen;}

	a	b	c
1	0	0	1
2	0	0	2
3	0	0	2
4	1	0	1
5	0	1	1
6	0	1	1
7	0	0	2

4 >> 6 5 >> 7 3 > 2 1

*bg=background-color*

```
<p>zero</p> 1
<h1>Title</h1>
<p>first</p>
<p>second</p> 1 7
<p>third</p> 1 7
<p lang="en">fourth </p> <p> 1 5 7
class="blue">fifth</p> 1 6 7
<p class="blue">sixth</p> 1 6 7
<p class="blue" id="special">7th</p> 1 4 6 7
<p>eighth</p> 1 7
<div>
    <p>ninth</p> 1 3
    <p lang="en">tenth</p> 1 3 5 7
</div>
<p>eleventh 1 </p>
<h1>Second title </h1>
<p>twelfth</p> 1 2
```

1	p{bg :pink}
2	h1+p{bg:red;}
3	div>p{bg:yellow;}
4	p#special{bg: gold;}
5	p[lang=en]{bg: green;}
6	p.blue{bg:lightblue;}
7	p+p{ bg:lightgreen;}

	a	b	c
1	0	0	1
2	0	0	2
3	0	0	2
4	1	0	1
5	0	1	1
6	0	1	1
7	0	0	2

4 >> 6    5 >> 7    3 > 2    1

*bg=background-color*

```
<p>zero</p> 1
<h1>Title</h1>
<p>first</p>
<p>second</p>
<p>third</p>
<p lang="en">fourth </p> <p> 1 5 7
class="blue">fifth</p>
<p class="blue">sixth</p> 1 6 7
<p class="blue" id="special">7th</p> 1 4 6 7
<p>eighth</p> 1 7
<div>
    <p>ninth</p> 1 3
    <p lang="en">tenth</p> 1 3 5 7
</div>
<p>eleventh 1 </p>
<h1>Second title </h1>
<p>twelfth</p> 1 2
```

1	p{bg :pink}
2	h1+p{bg:red;}
3	div>p{bg:yellow;}
4	p#special{bg: gold;}
5	p[lang=en]{bg: green;}
6	p.blue{bg:lightblue;}
7	p+p{ bg:lightgreen;}

	a	b	c
1	0	0	1
2	0	0	2
3	0	0	2
4	1	0	1
5	0	1	1
6	0	1	1
7	0	0	2

4 >> 6    5 >> 7    3 > 2    1

*bg=background-color*

```
<p>zero</p> 1
<h1>Title</h1>
<p>first</p>
<p>second</p>
<p>third</p>
<p lang="en">fourth </p> <p> 1 3 7
class="blue">fifth</p>
<p class="blue">sixth</p> 1 6 7
<p class="blue" id="special">7th</p> 1 4 6 7
<p>eighth</p> 1 7
<div>
    <p>ninth</p> 1 3
    <p lang="en">tenth</p> 1 3 5 7
</div>
<p>eleventh 1 </p>
<h1>Second title </h1>
<p>twelfth</p> 1 2
```

1	p{bg :pink}
2	h1+p{bg:red;}
3	div>p{bg:yellow;}
4	p#special{bg: gold;}
5	p[lang=en]{bg: green;}
6	p.blue{bg:lightblue;}
7	p+p{bg:lightgreen;}

	a	b	c
1	0	0	1
2	0	0	2
3	0	0	2
4	1	0	1
5	0	1	1
6	0	1	1
7	0	0	2

4 >> 6 2 >> 7 3 > \* 1

*bg=background-color*

```
<p>zero</p> 1
<h1>Title</h1>
<p>first</p>
<p>second</p>
<p>third</p>
<p lang="en">fourth </p> <p
class="blue">fifth</p>
<p class="blue">sixth</p>
<p class="blue" id="special">7th</p>
<p>eighth</p> 1 7
<div>
    <p>ninth</p> 1 3
    <p lang="en">tenth</p> 1 3 5 7
</div>
<p>eleventh 1 </p>
<h1>Second title </h1>
<p>twelfth</p> 1 2
```

1	p{bg :pink}
2	h1+p{bg:red;}
3	div>p{bg:yellow;}
4	p#special{bg: gold;}
5	p[lang=en]{bg: green;}
6	p.blue{bg:lightblue;}
7	p+p{ bg:lightgreen;}

	a	b	c
1	0	0	1
2	0	0	2
3	0	0	2
4	1	0	1
5	0	1	1
6	0	1	1
7	0	0	2

4 >> 6 5 >> 7 3 > \* 1

*bg=background-color*

```
<p>zero</p> 1
<h1>Title</h1>
<p>first</p>
<p>second</p>
<p>third</p>
<p lang="en">fourth </p> <p class="blue">fifth</p>
<p class="blue">sixth</p>
<p class="blue" id="special">7th</p>
<p>eighth</p> 1 7
<div>
    <p>ninth</p> 1 3
    <p lang="en">tenth</p> 1 3 5 7
</div>
<p>eleventh 1 </p>
<h1>Second title </h1>
<p>twelfth</p> 1 2
```

1	p{bg :pink}
2	h1+p{bg:red;}
3	div>p{bg:yellow;}
4	p#special{bg: gold;}
5	p[lang=en]{bg: green;}
6	p.blue{bg:lightblue;}
7	p+p{bg:lightgreen;}

	a	b	c
1	0	0	1
2	0	0	2
3	0	0	2
4	1	0	1
5	0	1	1
6	0	1	1
7	0	0	2

4 >> 6   5 >> 7   3 > 2   1

*bg=background-color*

```
<p>zero</p> 1
<h1>Title</h1>
<p>first</p> 2
<p>second</p>
<p>third</p>
<p lang="en">fourth </p> <p
class="blue">fifth</p> <p
class="blue">sixth</p>
<p class="blue" id="special">7th</p>
<p>eighth</p> 1 7
<div>
    <p>ninth</p> 1 3
    <p lang="en">tenth</p> 1 3 5 7
</div>
<p>eleventh 1 </p>
<h1>Second title </h1>
<p>twelfth</p> 1 2
```

1	p{bg :pink}
2	h1+p{bg:red;}
3	div>p{bg:yellow;}
4	p#special{bg: gold;}
5	p[lang=en]{bg: green;}
6	p.blue{bg:lightblue;}
7	p+p{bg:lightgreen;}

	a	b	c
1	0	0	1
2	0	0	2
3	0	0	2
4	1	0	1
5	0	1	1
6	0	1	1
7	0	0	2

4 >> 6 5 >> 7 3 > \* 1

```

<p>zero</p> 1
<h1>Title</h1>
<p>first</p> 2
<p>second</p>
<p>third</p>
<p lang="en">fourth </p> <p
class="blue">fifth</p> <p
class="blue">sixth</p>
<p class="blue" id="special">7th</p>
<p>eighth</p> 1 7
<div>
    <p>ninth</p> 1 3
    <p lang="en">tenth</p> 1 3 5 7
</div>
<p>eleventh 1 </p>
<h1>Second title </h1>
<p>twelfth</p> 1 2

```

*bg=background-color*

- |   |                        |
|---|------------------------|
| 1 | p{bg :pink}            |
| 2 | h1+p{bg:red;}          |
| 3 | div>p{bg:yellow;}      |
| 4 | p#special{bg: gold;}   |
| 5 | p[lang=en]{bg: green;} |
| 6 | p.blue{bg:lightblue;}  |
| 7 | p+p{ bg:lightgreen;}   |

	a	b	c
1	0	0	1
2	0	0	2
3	0	0	2
4	1	0	1
5	0	1	1
6	0	1	1
7	0	0	2

4 >> 6    5 >> 7    3 > 2    1

*bg=background-color*

```

<p>zero</p> 1
<h1>Title</h1>
<p>first</p> 2
<p>second</p>
<p>third</p>
<p lang="en">fourth </p> <p
class="blue">fifth</p> <p
class="blue">sixth</p>
<p class="blue" id="special">7th</p>
<p>eighth</p> 7
<div>
    <p>ninth</p> 1 3
    <p lang="en">tenth</p> 1 3 5 7
</div>
<p>eleventh 1 </p>
<h1>Second title </h1>
<p>twelfth</p> 1 2

```

1	p{bg :pink}
2	h1+p{bg:red;}
3	div>p{bg:yellow;}
4	p#special{bg: gold;}
5	p[lang=en]{bg: green;}
6	p.blue{bg:lightblue;}
7	p+p{bg:lightgreen;}

	a	b	c
1	0	0	1
2	0	0	2
3	0	0	2
4	1	0	1
5	0	1	1
6	0	1	1
7	0	0	2

4 >> 6    5 >> 7    3 > 2    1

```

<p>zero</p> 1
<h1>Title</h1>
<p>first</p> 2
<p>second</p>
<p>third</p>
<p lang="en">fourth </p> <p
class="blue">fifth</p> <p
class="blue">sixth</p>
<p class="blue" id="special">7th</p>
<p>eighth</p> 7
<div>
    <p>ninth</p> 3
    <p lang="en">tenth</p> 1 3 5 7
</div>
<p>eleventh 1 </p>
<h1>Second title </h1>
<p>twelfth</p> 1 2

```

*bg=background-color*

- |   |                        |
|---|------------------------|
| 1 | p{bg :pink}            |
| 2 | h1+p{bg:red;}          |
| 3 | div>p{bg:yellow;}      |
| 4 | p#special{bg: gold;}   |
| 5 | p[lang=en]{bg: green;} |
| 6 | p.blue{bg:lightblue;}  |
| 7 | p+p{ bg:lightgreen;}   |

	a	b	c
1	0	0	1
2	0	0	2
3	0	0	2
4	1	0	1
5	0	1	1
6	0	1	1
7	0	0	2

4 >> 6 5 >> 7 3 > 2 1

```

<p>zero</p> 1
<h1>Title</h1>
<p>first</p> 2
<p>second</p>
<p>third</p>
<p lang="en">fourth </p> <p
class="blue">fifth</p> <p
class="blue">sixth</p>
<p class="blue" id="special">7th</p>
<p>eighth</p> 7
<div>
    <p>ninth</p> 3
    <p lang="en">tenth</p>
</div>
<p>eleventh 1 </p>
<h1>Second title </h1>
<p>twelfth</p> 1 2

```

*bg=background-color*

- |   |                        |
|---|------------------------|
| 1 | p{bg :pink}            |
| 2 | h1+p{bg:red;}          |
| 3 | div>p{bg:yellow;}      |
| 4 | p#special{bg: gold;}   |
| 5 | p[lang=en]{bg: green;} |
| 6 | p.blue{bg:lightblue;}  |
| 7 | p+p{ bg:lightgreen;}   |

	a	b	c
1	0	0	1
2	0	0	2
3	0	0	2
4	1	0	1
5	0	1	1
6	0	1	1
7	0	0	2

4 >> 6    5 >> 7    3 > 2    1

```

<p>zero</p> 1
<h1>Title</h1>
<p>first</p> 2
<p>second</p>
<p>third</p>
<p lang="en">fourth </p> <p
class="blue">fifth</p> <p
class="blue">sixth</p>
<p class="blue" id="special">7th</p>
<p>eighth</p> 7
<div>
    <p>ninth</p> 3
    <p lang="en">tenth</p>
</div>
<p>eleventh 1 </p>
<h1>Second title </h1>
<p>twelfth</p> 2

```

*bg=background-color*

1	p{bg :pink}
2	h1+p{bg:red;}
3	div>p{bg:yellow;}
4	p#special{bg: gold;}
5	p[lang=en]{bg: green;}
6	p.blue{bg:lightblue;}
7	p+p{ bg:lightgreen;}

	a	b	c
1	0	0	1
2	0	0	2
3	0	0	2
4	1	0	1
5	0	1	1
6	0	1	1
7	0	0	2

4 >> 6    5 >> 7    3 > 2    1

*ex-selector.html*

# Inheritance

- When for an element no rule defines a value for a property, it is the value of this property for its parent that is applied
- Not all properties are inheritable  
*ex:margin,padding, etc*
- The property `inherit` allows you to act on inheritance

*example*

## In the program...

- Cascade
- Selectors
- **Priorities**
- Pseudo

## In the program...

- Cascade
- Selectors
- Priorities
- **Pseudo**

# pseudo-classes

## Structural

**:empty** an element **E** without descendant (including text node)

**:first-child** an element which is the first child of another element

*Ex : div.exercise:first-child*

**:last-child** element that is last child of another element

**:nth-child ( $an+b$ )** element  $(an+b)$ -th child of another element

Ex : div:nth-child(3), div:nth-child(2n), div:nth-child(even),  
div[idx]:nth-child(3n+1)

**:nth-last-child ( $an+b$ )**  $(an+b)$ -th child from the end

**:nth-of-type ( $an+b$ )**  $(an+b)$  nth element of the selected type and who have  
the same father

# pseudo-classes / pseudo-elements

## Dynamics

**:hover** is "under" the mouse pointer

**:visited** (<To>only) previously visited link

**:link** (<To>only) link not yet visited

## Pseudo-elements

**::first-line** the first "formatted" line of an element

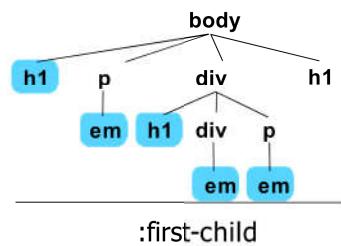
**::first-letter** the first "formatted" letter of an element

**::before** insert content before element

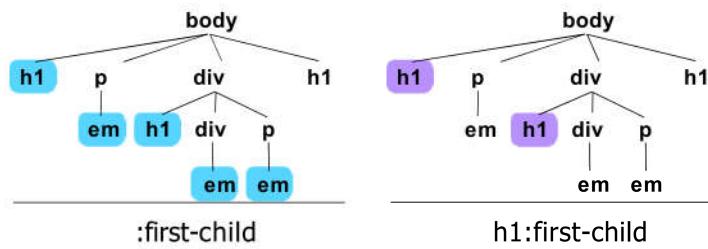
**::after** insert content after element

## example

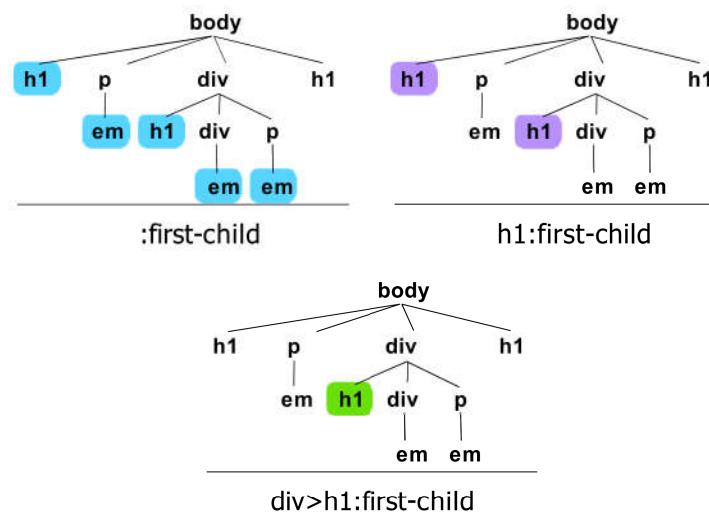
## examples



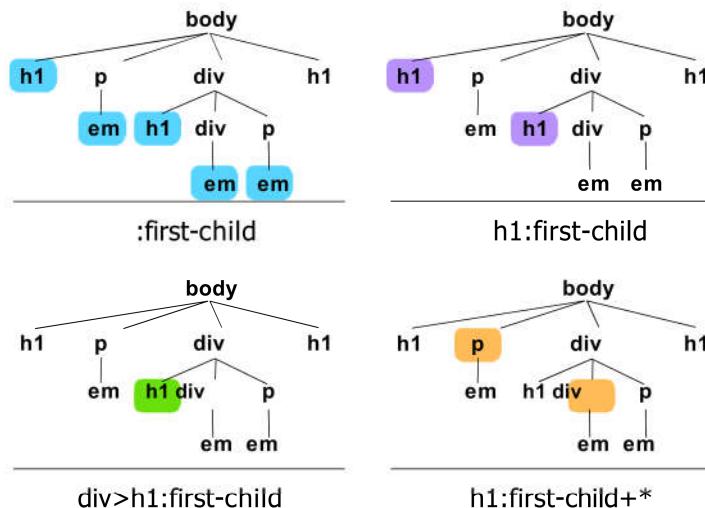
## examples



## examples



## examples



Web and medical ontologies

Ms. KAZI TANI LF. UABB-Tlemcen-

### example

