

Sveučilište u Zagrebu
PMF – Matematički odsjek



Mreže računala

Vježbe 09

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CSS

- CSS - Cascading Style Sheets
- Stilske kartice (engl. style sheets) opisuju kako (X)HTML dokument treba prikazati, tj. njegov izgled.
 - sastoje se od niza pravila koje se primjenjuju na elemente stranice
 - kontroliraju razmještaj elemenata na stranici, njihov stil i prikaz

Važna napomena:

Sve stilske aspekte (X)HTML dokumenta treba zapisati korištenjem CSS-a!

Na taj način stil je moguće u potpunosti odvojiti od sadržaja.

Demonstracija mogućnosti CSS-a

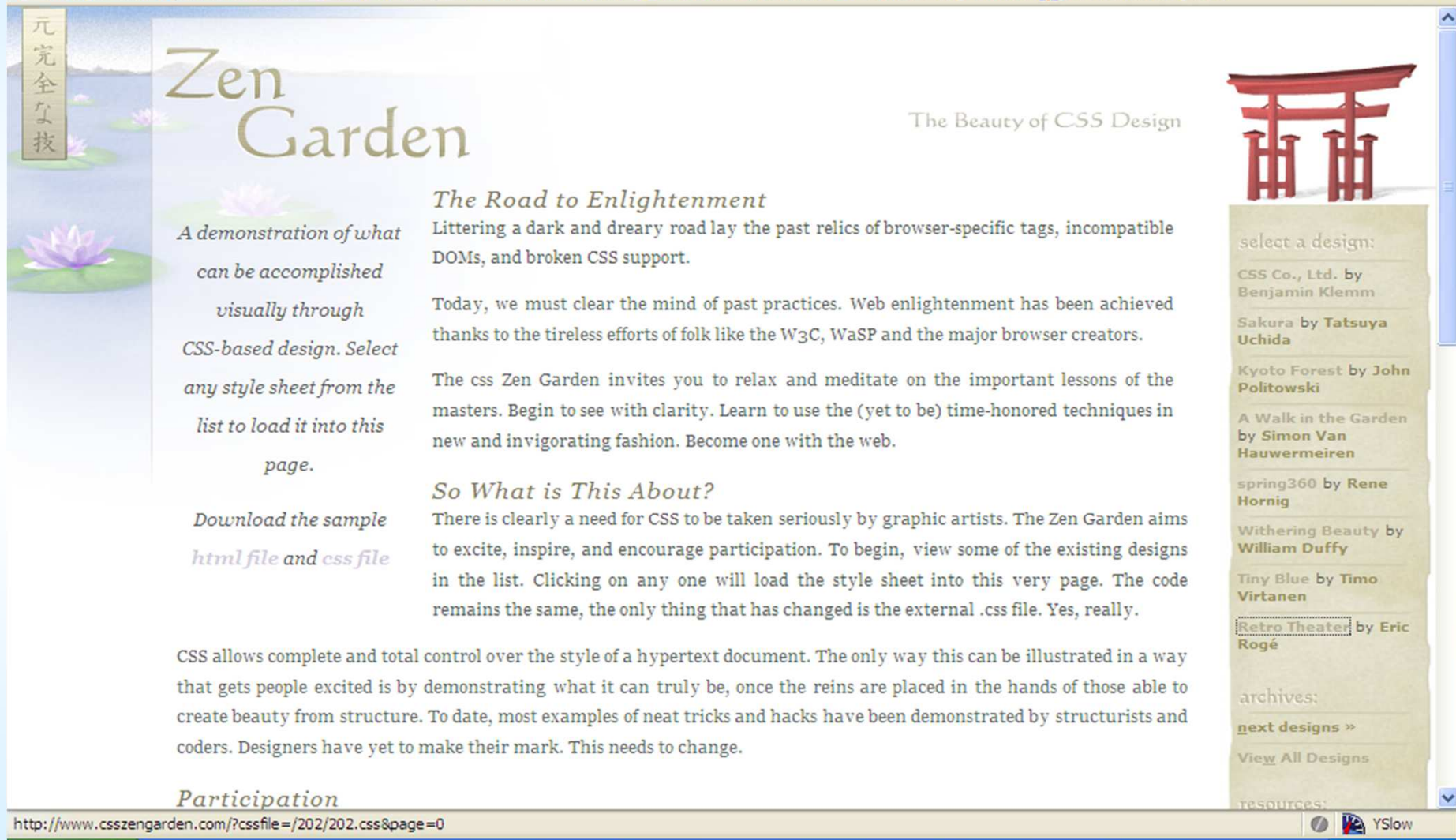
- CSS Zen Garden
 - <http://www.csszengarden.com/>

css Zen Garden: The Beauty in CSS Design - Mozilla Firefox

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Zen Garden

The Beauty of CSS Design

The Road to Enlightenment

Littering a dark and dreary road lay the past relics of browser-specific tags, incompatible DOMs, and broken CSS support.

Today, we must clear the mind of past practices. Web enlightenment has been achieved thanks to the tireless efforts of folk like the W3C, WaSP and the major browser creators.

The css Zen Garden invites you to relax and meditate on the important lessons of the masters. Begin to see with clarity. Learn to use the (yet to be) time-honored techniques in new and invigorating fashion. Become one with the web.

So What is This About?

There is clearly a need for CSS to be taken seriously by graphic artists. The Zen Garden aims to excite, inspire, and encourage participation. To begin, view some of the existing designs in the list. Clicking on any one will load the style sheet into this very page. The code remains the same, the only thing that has changed is the external .css file. Yes, really.

CSS allows complete and total control over the style of a hypertext document. The only way this can be illustrated in a way that gets people excited is by demonstrating what it can truly be, once the reins are placed in the hands of those able to create beauty from structure. To date, most examples of neat tricks and hacks have been demonstrated by structurists and coders. Designers have yet to make their mark. This needs to change.

Participation

select a design:

- CSS Co., Ltd. by Benjamin Klemm
- Sakura by Tatsuya Uchida
- Kyoto Forest by John Politowski
- A Walk in the Garden by Simon Van Hauwermeiren
- spring360 by Rene Hornig
- Withering Beauty by William Duffy
- Tiny Blue by Timo Virtanen
- Retro Theater by Eric Rogé

archives:

[next designs »](#)

[View All Designs](#)

resources:

http://www.csszengarden.com/?cssfile=/202/202.css&page=0

YSlow

css Zen Garden: The Beauty in CSS Design - Mozilla Firefox

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http://www.csszengarden.com/?cssfile=/209/209.css&page=0

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Download the sample [html file](#) and [css file](#)

CSS Zen Garden

A demonstration of what can be accomplished visually through CSS-based design. Select any stylesheet from the list to load it into this page.



Select a Design

- [CSS Co., Ltd.](#)
by [Benjamin Klemm](#)
- [Sakura](#)
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by [John Politowski](#)
- [A Walk in the Garden](#)
by [Simon Van Hauwermeiren](#)
- [spring360](#)
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by [Timo Virtanen](#)

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So What is This About

Participation



```
font-family: serif;
font-size: 1em;
h2 {
  color: #666666;
  font-weight: bold;
  font-size: 1.2em;
}
```



Done

YSlow

css Zen Garden: The Beauty in CSS Design - Mozilla Firefox

File Edit View History Bookmarks Tools Help

http://www.csszengarden.com/?cssfile=/208/208.css&page=0

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Done

YSlow

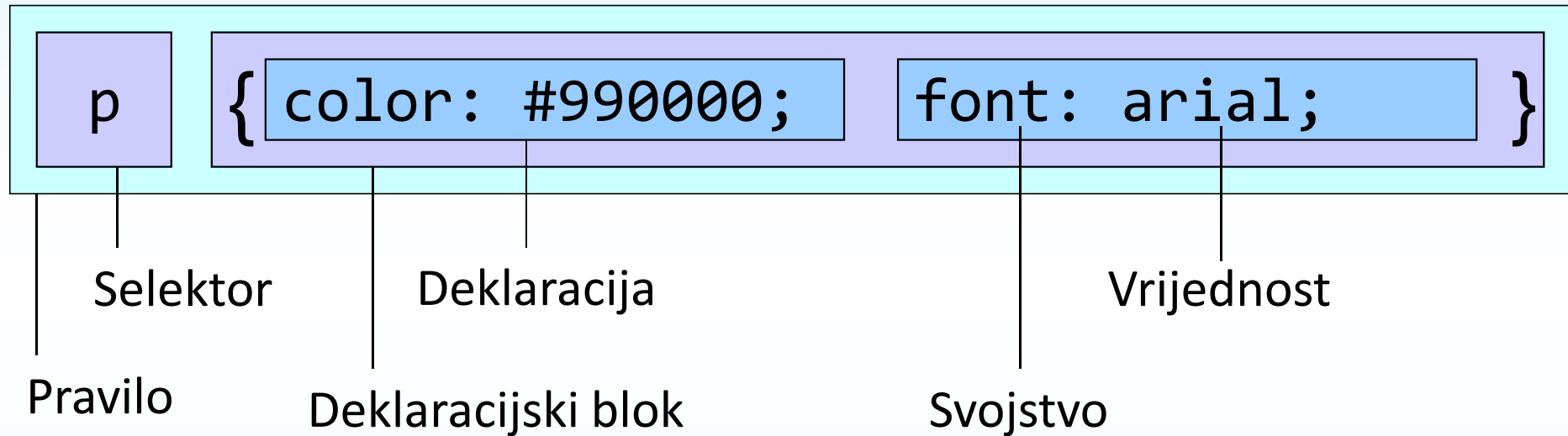
Status CSS-a u 2014.

- Standardizirana verzija (od 2011.): CSS 2.1
- CSS 3
 - podijeljen u module;
 - pojedini moduli imaju razne stupnjeve standardiziranosti;
 - podrška u browserima brzo napreduje.
- Podrška web preglednika:
 - možemo reći da suvremeni browseri u potpunosti podržavaju CSS 2.1 (IE8+, Firefox 3+, Chrome, Safari).
 - podrška za pojedina svojstva CSS 3 se može vidjeti na:
 - www.caniuse.com

Gdje se sve mogu nalaziti CSS pravila

- Unutar elemenata, korištenjem atributa `style` na (X)HTML tagu:
 - `<p style="color: #990000;"> ... </p>`
- Umetnuti u vlastitom `style` elementu:
 - `<style> p {color: #990000;} </style>`
- U vanjskoj datoteci povezanoj s (X)HTML dokumentom:
`<link rel="stylesheet" href="stil.css" type="text/css" />`
- Najčešće koristimo posljednju metodu.

Struktura CSS pravila



Osnovni tipovi CSS selektora

Tag

```
<p>Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.</p>  
<p>Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat.</p>
```

```
p {  
  color: #990000;  
}
```

Class

```
<p class="latin">Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.</p>  
<p class="latin">Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat.</p>
```

```
p.latin {  
  color: #990000;  
}
```

Id

```
<p id="latin1">Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.</p>  
<p id="latin2">Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat.</p>
```

```
p#latin1, #latin2  
{  
  color: #990000;  
}
```

Još o CSS selektorima

```
P { color: black; } /* Tag */
P, H1, H2 { color: black; } /* Grupiranje */
* { color: black; } /* Univerzalni selektor */
P.urgent, .Error { color: black; } /* Selektor klase */
#Menu { color: black; } /* Selektor id-a */
*[title], A[href][title] { color: black; } /* Selektor atributa */
A[title="home page"] { color: black; } /* Selektor atributa - egzaktni */
A[title~="foo"] { color: black; } /* Selektor atributa - parcijalni */
*[lang]="en" { color: black; } /* Selektor atributa - partikularni */
UL LI UL { color: black; } /* Selektor potomka */
P > STRONG { color: black; } /* Selektor djeteta */
A:hover { color: black; } /* Selektor pseudoklase */
P:first-letter { font-size: 200%; } /* Selektor pseudoelementa */
```

Česta svojstva u deklaracijama

background
background-repeat
color
float
font-size
height
line-height
list-style-type
padding
text-align
text-transform
visibility
word-spacing

background-attachment
border
cursor
font
font-style
left
list-style-image
margin
position
text-decoration
top
white-space
word-wrap

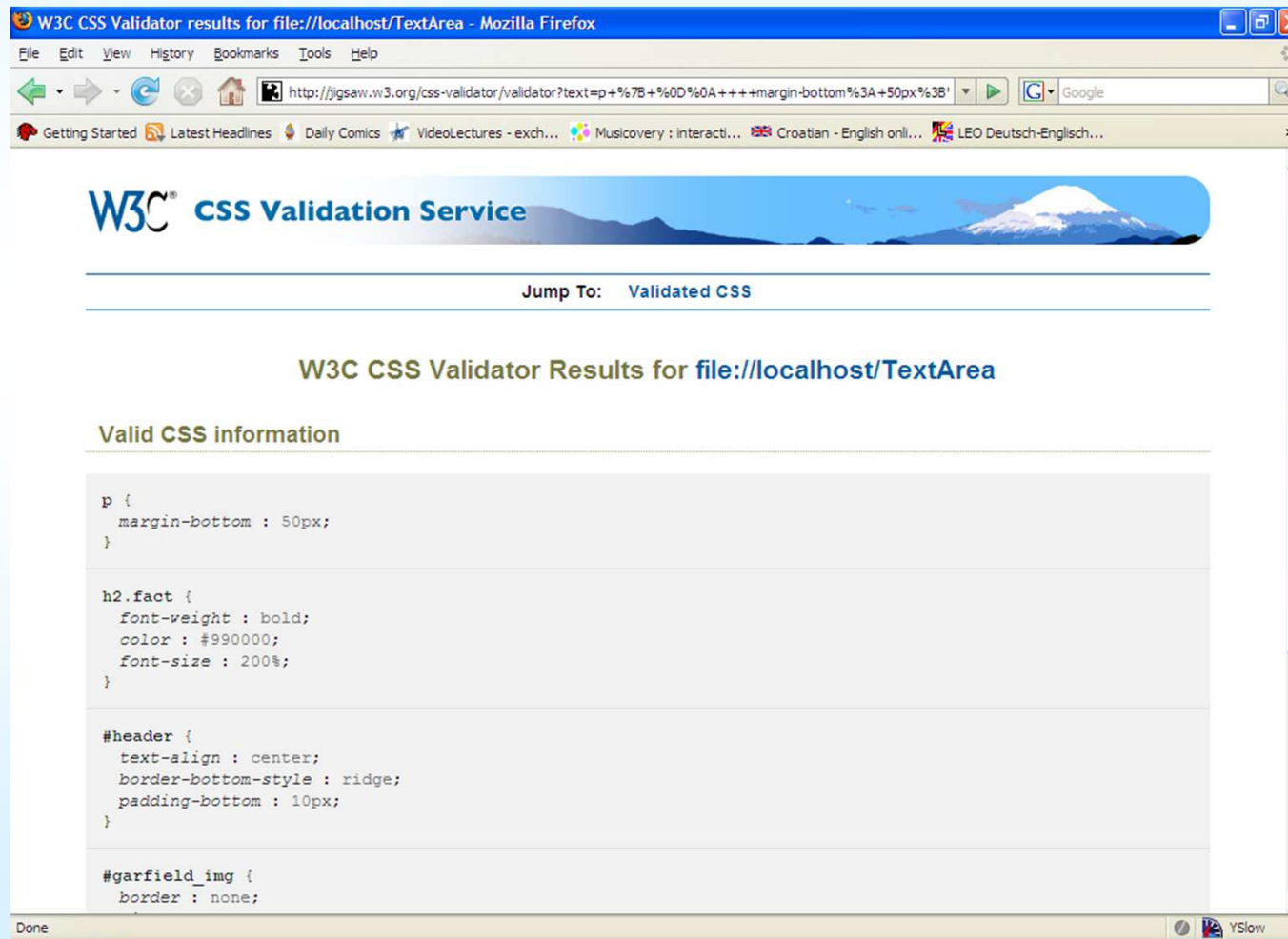
background-color
bottom
display
font-family
font-weight
letter-spacing
list-style-position
overflow
right
text-indent
vertical-align
width
z-index

Što označava "cascading" u CSS-u?

- Pravila se nasljeđuju od roditeljskih elemenata (dakle, propadaju prema "dolje").
- Što je CSS pravilo specifičnije, ima veći proritet
 - Pogledajte npr.
<http://web.math.hr/~veky/rp1/vjezbe4/vjezbe43.html>
za točnu formulu kojom se određuju prioriteti.
- Ukoliko pravila imaju isti prioritet, primjenjuje se ono koje je posljednje specificirano.

CSS Validator

- <http://jigsaw.w3.org/css-validator/>



W3C® CSS Validation Service

Jump To: [Validated CSS](#)

W3C CSS Validator Results for file://localhost/TextArea

Valid CSS information

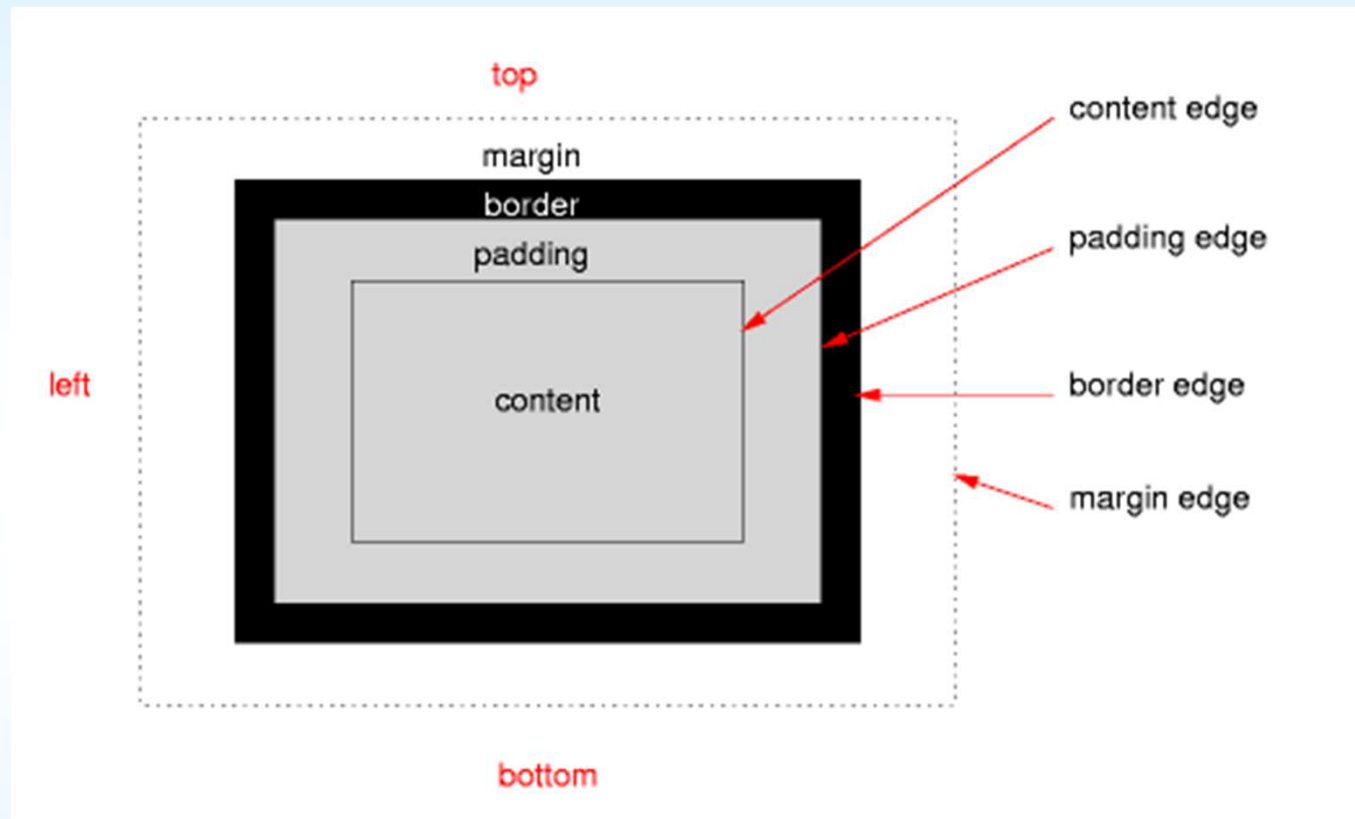
```
p {
  margin-bottom : 50px;
}

h2.fact {
  font-weight : bold;
  color : #990000;
  font-size : 200%;
}

#header {
  text-align : center;
  border-bottom-style : ridge;
  padding-bottom : 10px;
}

#garfield_img {
  border : none;
}
```

CSS box model



Objašnjenje ovih pojmova:

<http://web.math.hr/~veky/rp1/vjezbe4/vjezbe45.html>

Strukturiranje izgleda stranice

- Rasporedite dizajn stranice u sekcije.
- Koristite div elemente kako biste definirali sekcije unutar (X)HTML dokumenta.
- Stilizirajte sekcije pomoću CSS-a.
- Koristite float svojstva kako biste pozicionirali sekcije.
- Važna napomena:
(X)HTML tablice treba koristiti samo za tabelarni prikaz podataka, ne i za strukturiranje izgleda web stranice.

Literatura za CSS

- CSS materijali (autor: Vedran Čačić)
 - <http://web.math.hr/~veky/rp1/vjezbe4/>
- W3Schools CSS Tutorial
 - <http://www.w3schools.com/css/>
- HTML Dog CSS tutorials
 - <http://htmldog.com/guides/css/>
 - <http://htmldog.com/reference/cssproperties/>
- W3C Cascading Style Sheets home page
 - <http://www.w3.org/TR/CSS2/>