

Cascading Style Sheets™ (CSS)

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Garis Besar

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- Inline Styles
- Embedded Style Sheets
- W3C CSS Validation Service
- Positioning Elements
- Backgrounds
- Element Dimensions
- Text Flow dan Box Model
- User Style Sheets
- Contoh-contoh



Tujuan

- Pada kuliah ini anda akan mempelajari :
 - Mengontrol tampilan website dengan menggunakan CSS
 - Penggunaan style sheet untuk standarisasi semua halaman web
 - Menggunakan class attribute
 - Menentukan font, size, color dan property yang lain pada text
 - Menentukan element background dan colors
 - Bagaimana mengerti box model dan bagaimana mengontrol margin, border, dan padding
 - Menggunakan style sheet untuk memisahkan tampilan dari isi



Pengantar

- Cascading Style Sheet (CSS)
- Struktur yang terpisah dari tampilan



Cascading Style Sheet (CSS)

- Dalam pemakaian HTML murni kita pasti menggunakan tag `` dan tag lain untuk mengontrol bagaimana format dan layout dari halaman anda.
- Hal ini mengikat presentasi halaman anda dengan isinya, dan terasa menyulitkan dalam perancangan dan pengembangannya.



Cascading Style Sheet (CSS)

- Jika anda memiliki sekian halaman yang memiliki format yang seragam, dan kemudian ingin merubah format dasarnya, tentu yang anda lakukan adalah mengubah tiap halaman tersebut.
- Style Sheet menyediakan pemecahan terhadap masalah ini.
- Dengan Style Sheet dapat mengontrol seluruh layout dari site anda, dan jika anda mengubah tampilan dari web site anda cukup dengan memodifikasi style sheet.



Versi CSS

- CSS pertama dikembangkan berpusat pada formatting dokumen HTML, yaitu dengan spesifikasi CSS1.
- Browser Netscape 4x keatas dan IE 4x ke atas sudah mendukung CSS1.
- CSS2 juga mendukung penentuan posisi content, downloadable, font, table layout, internationalization, dsb
- CSS Level 1 (<http://www.w3.org/TR/REC-CSS1>)
- CSS Level 2 (<http://www.w3.org/TR/REC-CSS2>)



Spesifikasi Style Sheet

- Style Sheet terbentuk dari struktur penulisan selector {property: value}

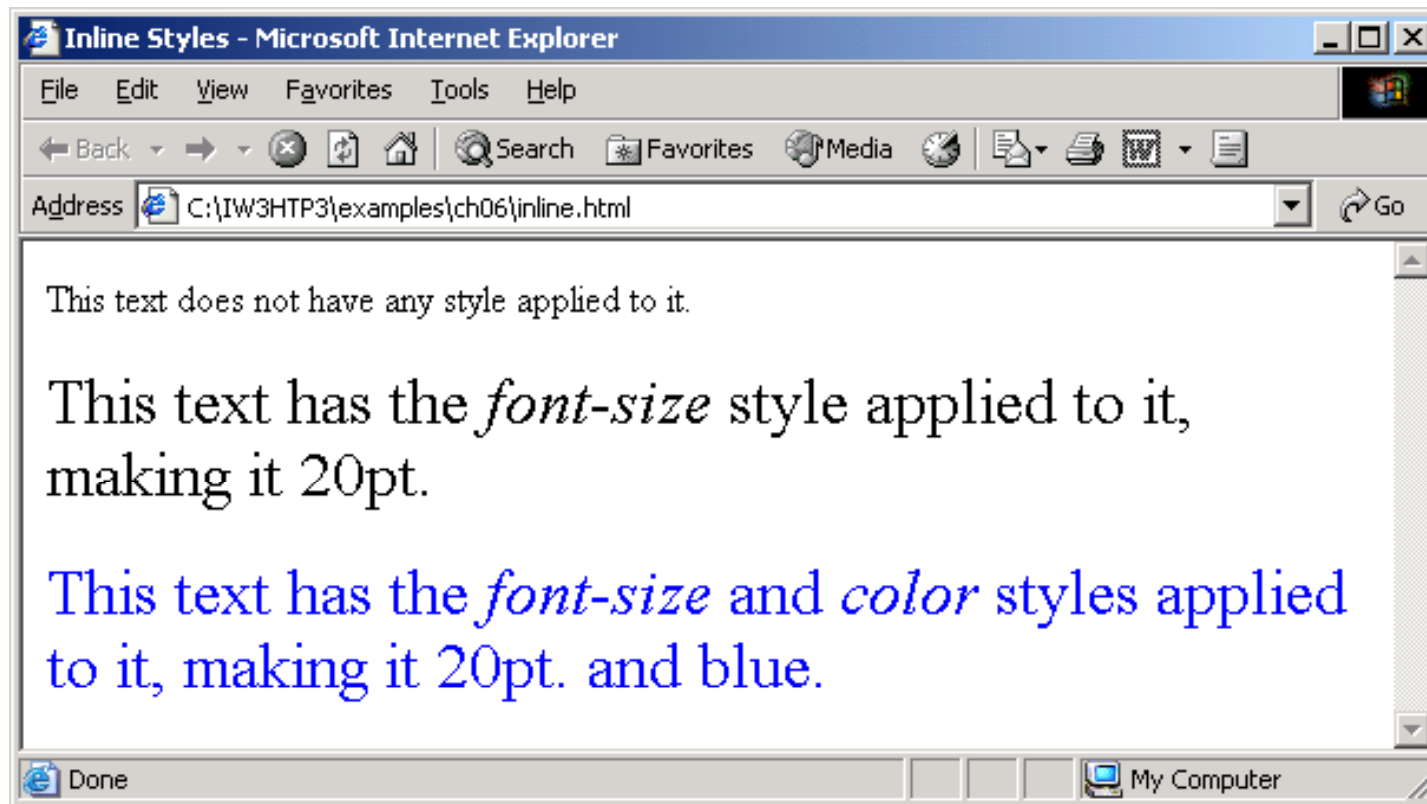


Inline Styles

- Mendeklarasikan individual element's format
 - Attribute style
 - CSS property

```
1 <?xml version = "1.0"?>
2 <!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.1//EN"
3   "http://www.w3.org/TR/xhtml11/DTD/xhtml11.dtd">
4
5 <!-- Fig. 6.1: inline.html -->
6 <!-- Using inline styles -->
7
8 <html xmlns = "http://www.w3.org/1999/xhtml" >
9   <head>
10     <title>Inline Styles</title>
11   </head>
12
13   <body>
14
15     <p>This text does not have any style applied to it.</p>
16
17     <!-- The style attribute allows you to declare -->
18     <!-- inline styles. Separate multiple styles -->
19     <!-- with a semi colon. -->
20     <p style = "font-size: 20pt">This text has the
21     <em>font-size</em> style applied to it, making it 20pt.
22     </p>
23
```

```
24 <p style = "font-size: 20pt; color: #0000ff">
25 This text has the <em>font-size</em> and
26 <em>color</em> styles applied to it, making it
27 20pt. and blue. </p>
28
29 </body>
30 </html >
```

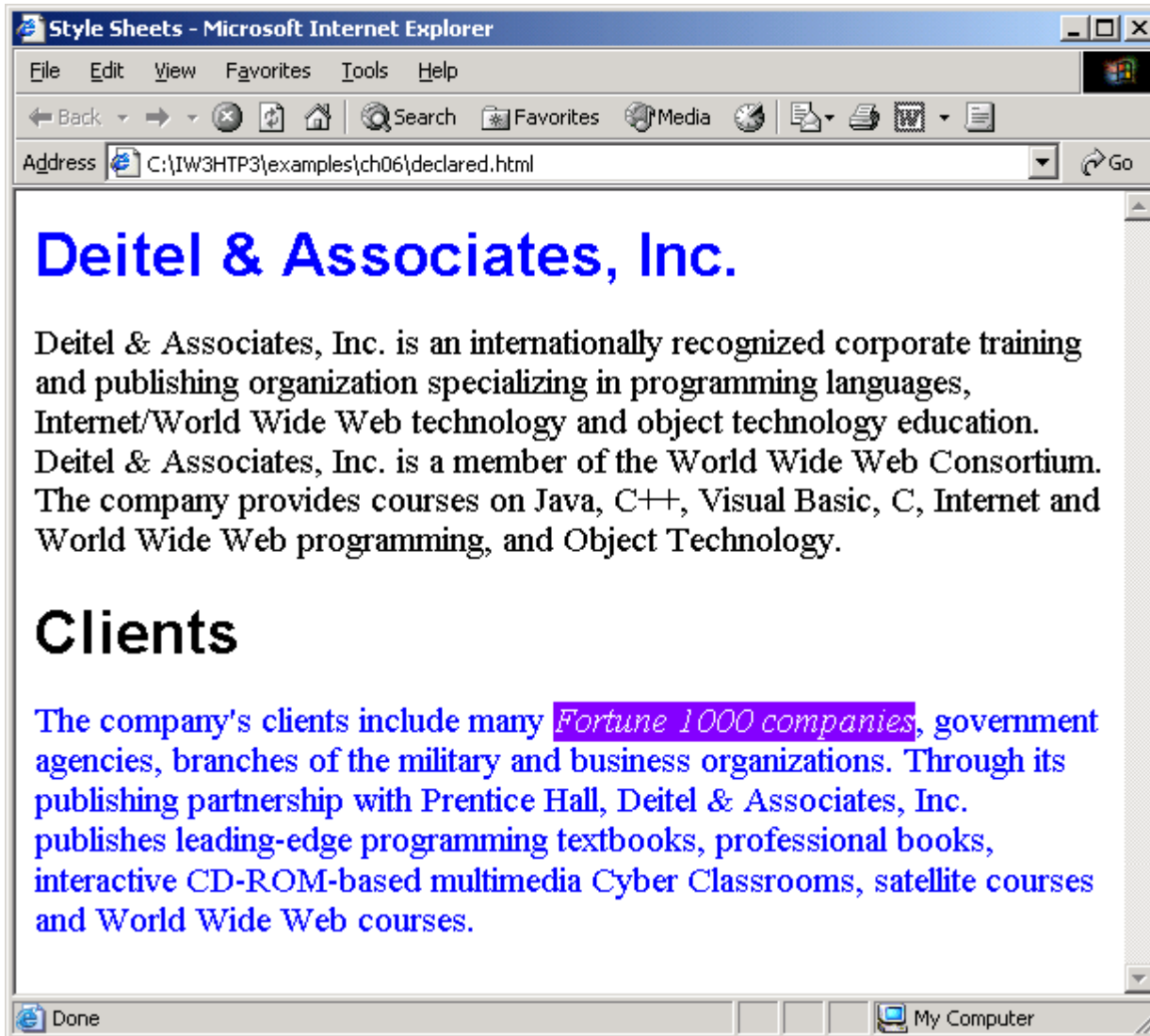




Embedded Style Sheets

- CSS didefinisikan di dalam dokumen pada tag head
 - Property background-color
 - Menentukan background color
 - Property font-family
 - Menentukan jenis dari font yang digunakan
 - Property font-size
 - Menentukan ukuran font

```
1 <?xml version = "1.0"?>
2 <!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.1//EN"
3   "http://www.w3.org/TR/xhtml11/DTD/xhtml11.dtd">
4
5 <!-- Fig. 6.2: declared.html -->
6 <!-- Declaring a style sheet in the header section. -->
7
8 <html xmlns = "http://www.w3.org/1999/xhtml">
9   <head>
10     <title>Style Sheets</title>
11
12     <!-- this begins the style sheet section -->
13     <style type = "text/css">
14
15         em      { background-color: #8000ff;
16                  color: white }
17
18         h1      { font-family: arial, sans-serif }
19
20         p      { font-size: 14pt }
21
22         .special { color: blue }
23
24     </style>
25 </head>
```





Conflicting Styles

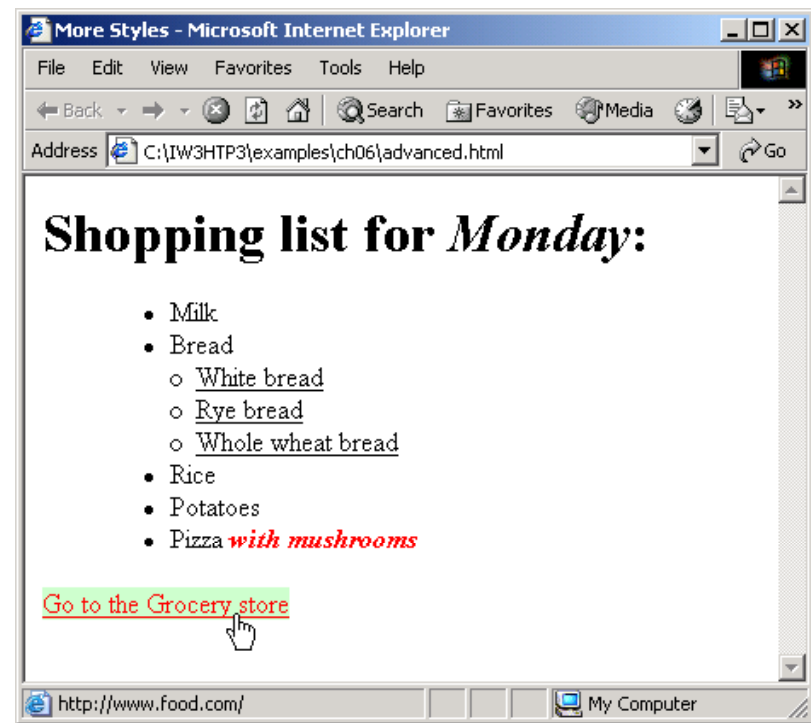
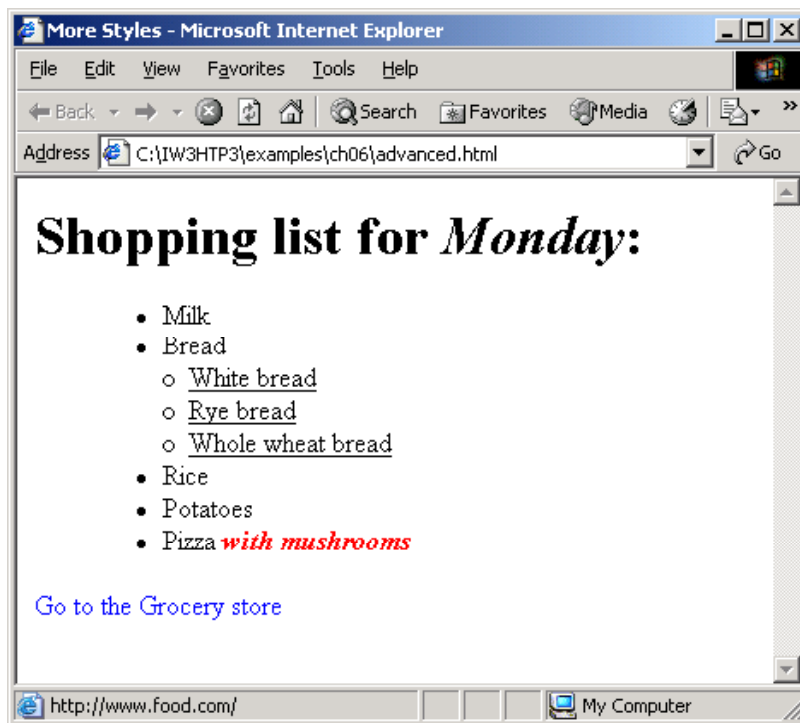
- Inheritance

- Descendant's properties mempunyai prioritas lebih tinggi dari ancestor's properties

```
1 <?xml version = "1.0"?>
2 <!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.1//EN"
3   "http://www.w3.org/TR/xhtml11/DTD/xhtml11.dtd">
4
5 <!-- Fig 6.3: advanced.html -->
6 <!-- More advanced style sheets -->
7
8 <html xmlns = "http://www.w3.org/1999/xhtml">
9   <head>
10     <title>More Styles</title>
11
12     <style type = "text/css">
13
14         a.nodect { text-decoration: none }
15
16         a:hover { text-decoration: underline;
17                 color: red;
18                 background-color: #ccffcc }
19
20         li em { color: red;
21                font-weight: bold }
22
23         ul      { margin-left: 75px }
24
```

```
25         ul ul { text-decoration: underline;
26                 margin-left: 15px }
27
28     </style>
29 </head>
30
31 <body>
32
33     <h1>Shopping list for <em>Monday</em>:</h1>
34
35     <ul >
36         <li>Milk</li>
37         <li>Bread
38             <ul >
39                 <li>White bread</li>
40                 <li>Rye bread</li>
41                 <li>Whole wheat bread</li>
42             </ul >
43         </li >
44         <li>Rice</li>
45         <li>Potatoes</li>
46         <li>Pizza <em>with mushrooms</em></li >
47     </ul >
48
```

```
49     <p><a class = "nodec" href = "http://www.food.com">
50     Go to the Grocery store</a></p>
51
52     </body>
53 </html >
```





Linking External Style Sheets

- External style sheets
 - File css terpisah dengan dokumen html-nya

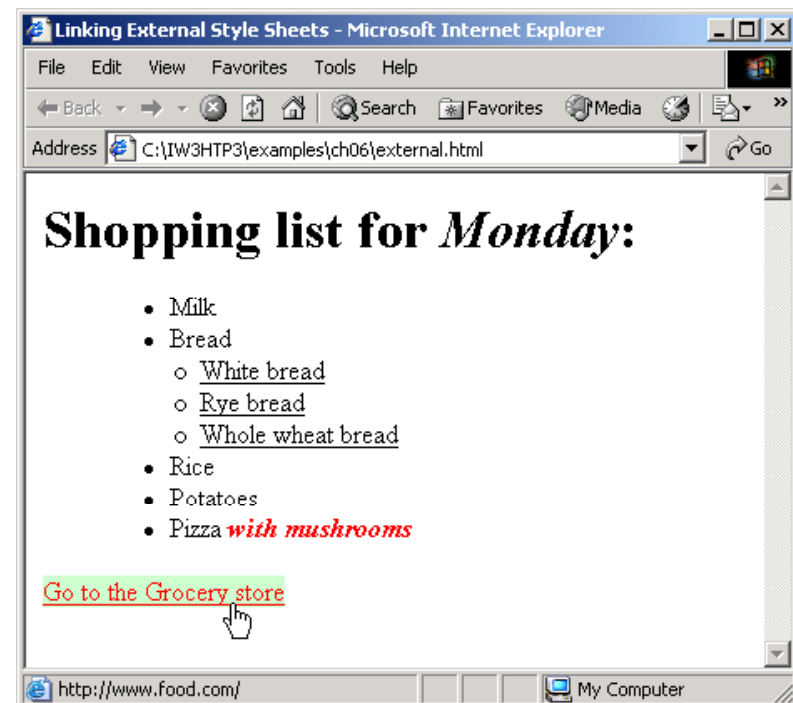
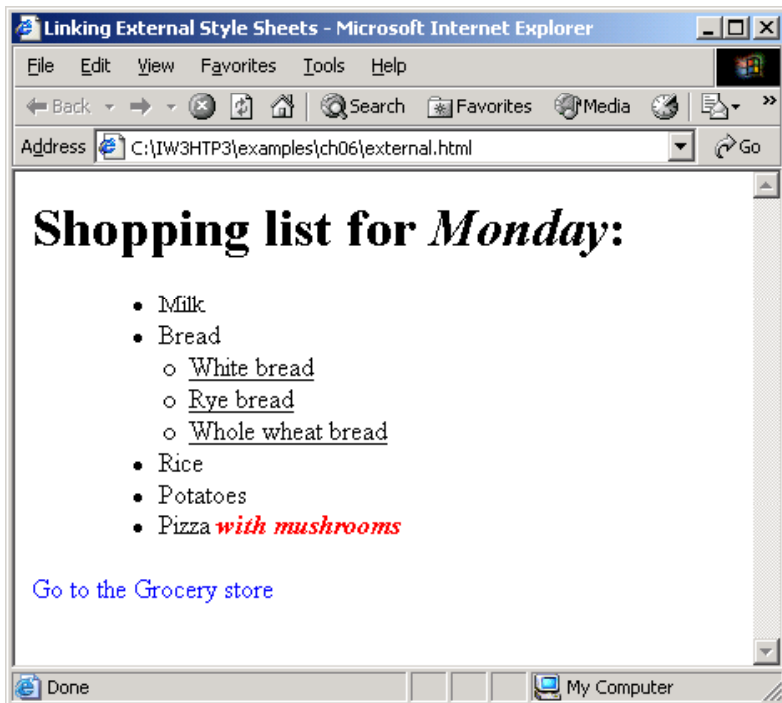
```
1  /* Fig. 6.4: styles.css */
2  /* An external stylesheet */
3
4  a      { text-decoration: none }
5
6  a:hover { text-decoration: underline;
7            color: red;
8            background-color: #ccffcc }
9
10 li em  { color: red;
11          font-weight: bold;
12          background-color: #ffffff }
13
14 ul     { margin-left: 2cm }
15
16 ul ul  { text-decoration: underline;
17          margin-left: .5cm }
```

```
1 <?xml version = "1.0"?>
2 <!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.1//EN"
3   "http://www.w3.org/TR/xhtml11/DTD/xhtml11.dtd">
4
5 <!-- Fig. 6.5: external.html -->
6 <!-- Linking external style sheets -->
7
8 <html xmlns = "http://www.w3.org/1999/xhtml">
9   <head>
10     <title>Linking External Style Sheets</title>
11     <link rel = "stylesheet" type = "text/css"
12       href = "styles.css" />
13   </head>
14
15   <body>
16
17     <h1>Shopping list for <em>Monday</em>: </h1>
18     <ul >
19       <li>Milk</li >
20       <li>Bread
21         <ul >
22           <li>White bread</li >
23           <li>Rye bread</li >
24           <li>Whole wheat bread</li >
25         </ul >
```

```

26     </li >
27     <li >Ri ce</li >
28     <li >Potatoes</li >
29     <li >Pi zza <em>wi th mushrooms</em></li >
30 </ul >
31
32 <p >
33 <a href = "http://www.food.com">Go to the Grocery store</a >
34 </p >
35
36 </body >
37 </html >

```

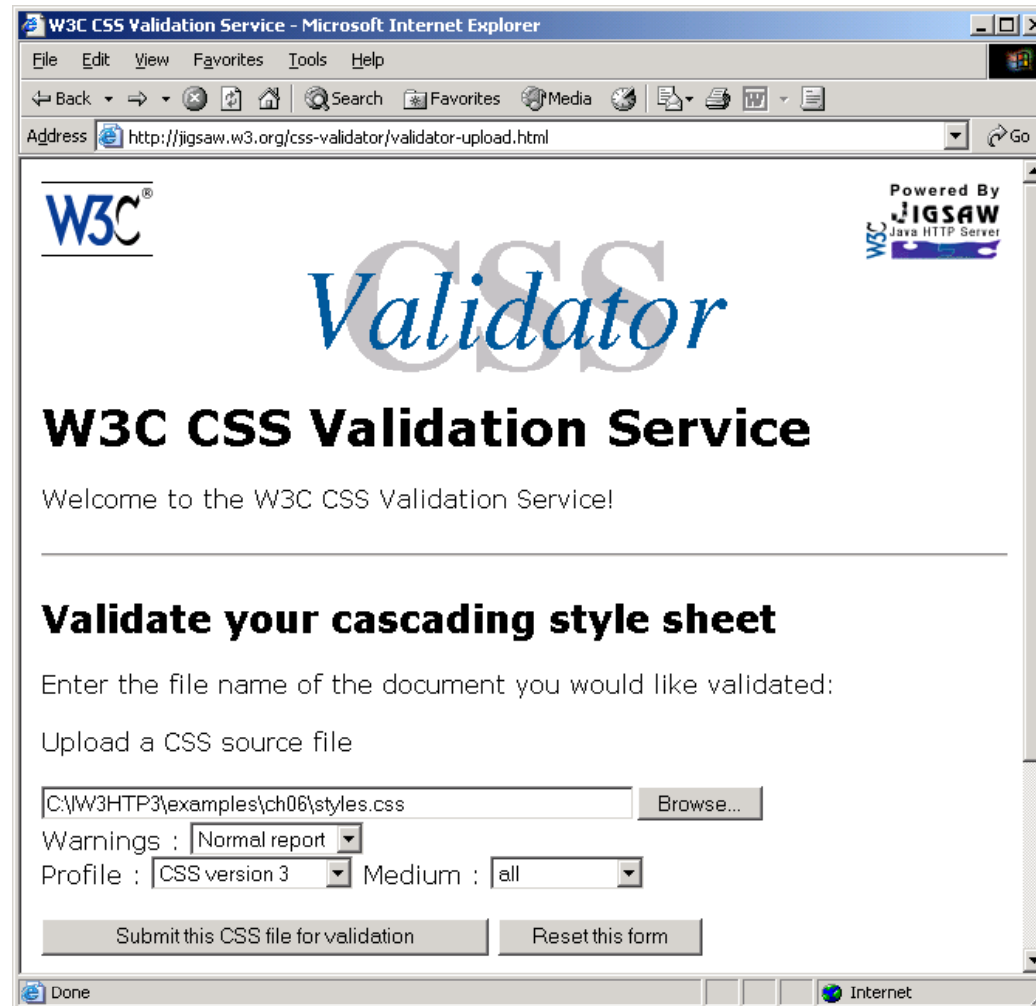




W3C CSS Validation Service

- Validates external CSS documents
- Memastikan bahwa CSS yang kita buat benar

W3C CSS Validation Service



The image shows a screenshot of the W3C CSS Validation Service web page as viewed in Microsoft Internet Explorer. The browser's address bar shows the URL: `http://jigsaw.w3.org/css-validator/validator-upload.html`. The page features the W3C logo in the top left and a "Powered By JIGSAW Java HTTP Server" logo in the top right. The main heading is "Validator" in a large, blue, serif font, with "W3C CSS Validation Service" in a bold, black, sans-serif font below it. A welcome message reads: "Welcome to the W3C CSS Validation Service!". The primary instruction is "Validate your cascading style sheet". Below this, a form prompts the user to "Enter the file name of the document you would like validated:" and "Upload a CSS source file". The file input field contains the path `C:\W3HTP3\examples\ch06\styles.css` and has a "Browse..." button. The "Warnings" dropdown is set to "Normal report". The "Profile" dropdown is set to "CSS version 3", and the "Medium" dropdown is set to "all". At the bottom of the form, there are two buttons: "Submit this CSS file for validation" and "Reset this form". The browser's status bar at the bottom shows "Done" and "Internet".

W3C CSS Validation Service - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Media

Address `http://jigsaw.w3.org/css-validator/validator-upload.html` Go

W3C[®] Powered By JIGSAW Java HTTP Server

Validator

W3C CSS Validation Service

Welcome to the W3C CSS Validation Service!

Validate your cascading style sheet

Enter the file name of the document you would like validated:

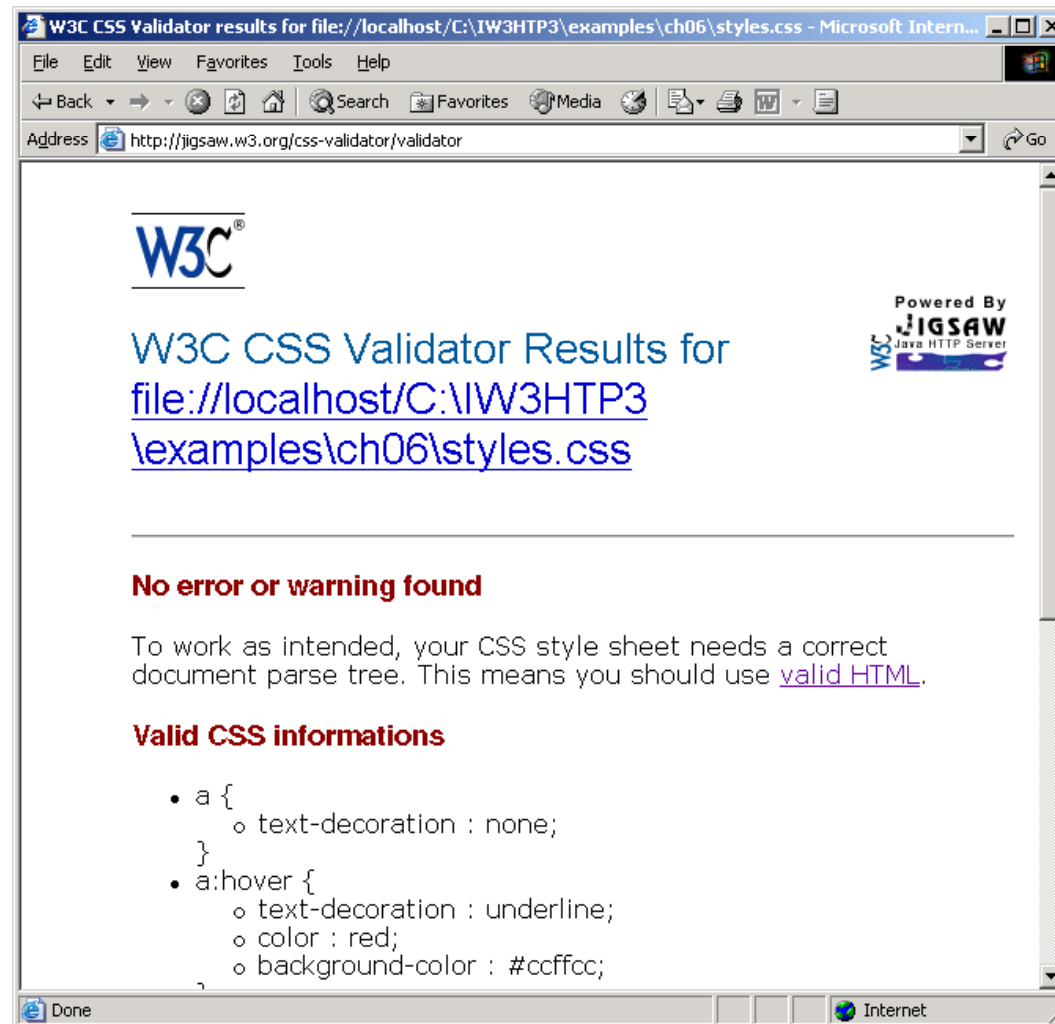
Upload a CSS source file

Warnings :

Profile : Medium :

Done Internet

W3C CSS Validation Service





W3C CSS Validator results for file://localhost/C:/IW3HTP3/examples/ch06/styles.css - Microsoft Intern...

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Media Print

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

 W3C

Powered By
 JIGSAW
Java HTTP Server

W3C CSS Validator Results for
[file://localhost/C:/IW3HTP3
examples/ch06/styles.css](file://localhost/C:/IW3HTP3/examples/ch06/styles.css)

No error or warning found

To work as intended, your CSS style sheet needs a correct document parse tree. This means you should use [valid HTML](#).

Valid CSS informations

- a {
 - text-decoration : none;}
- a:hover {
 - text-decoration : underline;
 - color : red;
 - background-color : #ccffcc;}

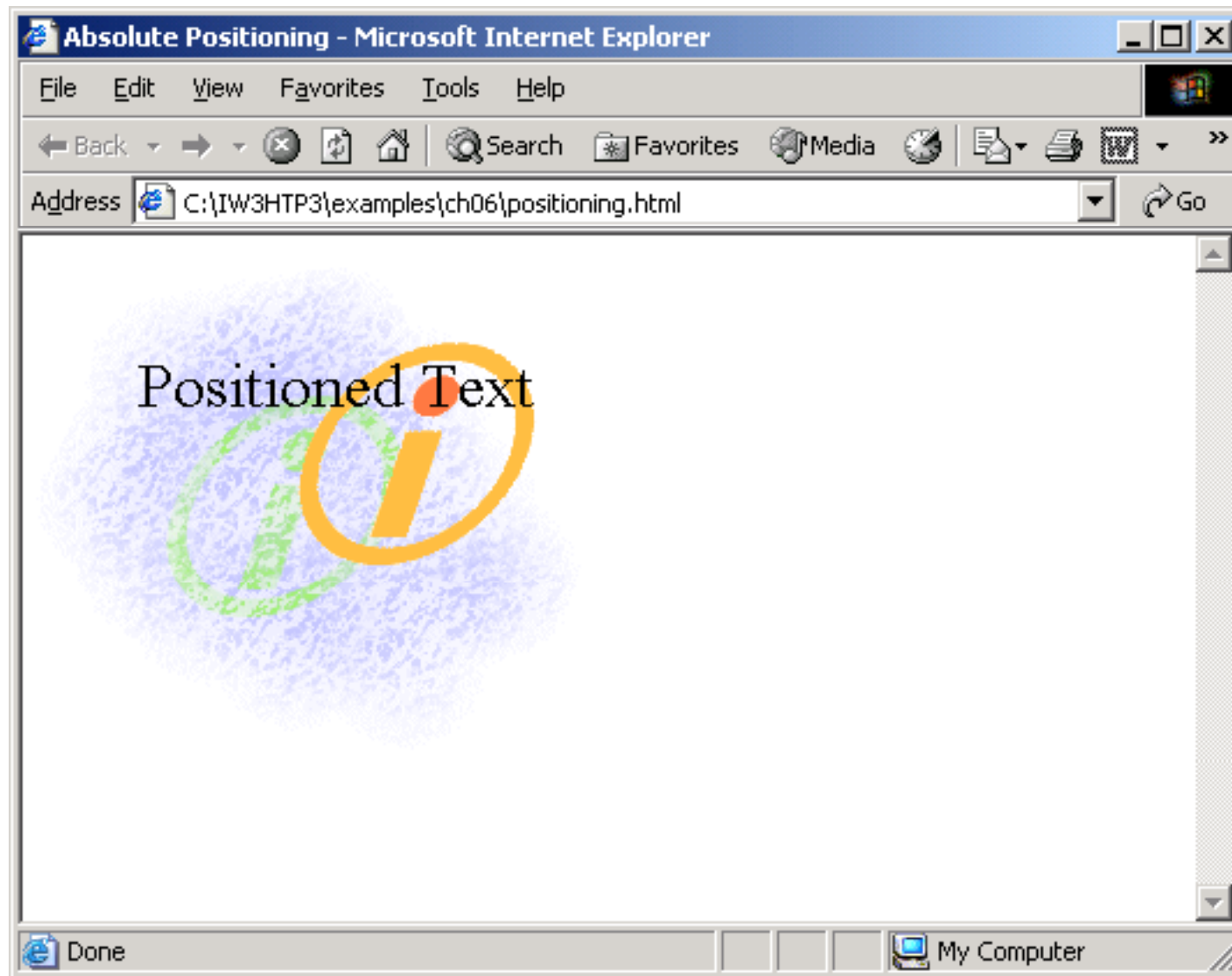
Done Internet



Positioning Elements

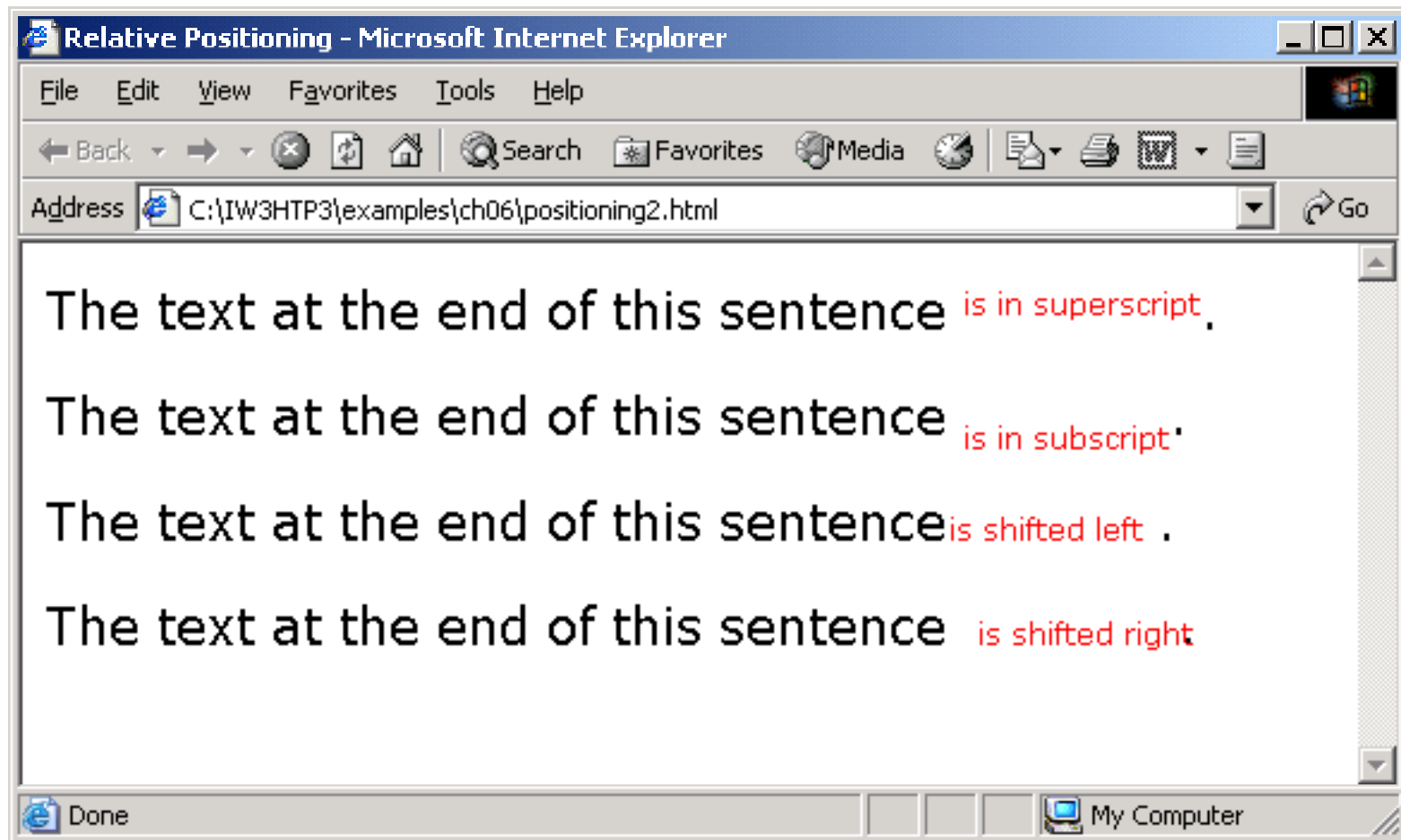
- Absolute positioning
 - z-index attribute
 - Layer overlapping elements
- Relative positioning
 - Posisi relatif dari element

```
1 <?xml version = "1.0"?>
2 <!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.1//EN"
3   "http://www.w3.org/TR/xhtml11/DTD/xhtml11.dtd">
4
5 <!-- Fig 6.8: positioning.html -->
6 <!-- Absolute positioning of elements -->
7
8 <html xmlns = "http://www.w3.org/1999/xhtml">
9   <head>
10     <title>Absolute Positioning</title>
11   </head>
12
13   <body>
14
15     <p><img src = "i.gif" style = "position: absolute;
16       top: 0px; left: 0px; z-index: 1"
17       alt = "First positioned image" /></p>
18     <p style = "position: absolute; top: 50px; left: 50px;
19       z-index: 3; font-size: 20pt">Positioned Text</p>
20     <p><img src = "circle.gif" style = "position: absolute;
21       top: 25px; left: 100px; z-index: 2" alt =
22       "Second positioned image" /></p>
23
24   </body>
25 </html >
```



```
1 <?xml version = "1.0"?>
2 <!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.1//EN"
3   "http://www.w3.org/TR/xhtml11/DTD/xhtml11.dtd">
4
5 <!-- Fig. 6.9: positioning2.html -->
6 <!-- Relative positioning of elements -->
7
8 <html xmlns = "http://www.w3.org/1999/xhtml ">
9   <head>
10     <title>Relative Positioning</title>
11
12     <style type = "text/css">
13
14         p          { font-size: 1.3em;
15                     font-family: verdana, arial, sans-serif }
16
17         span       { color: red;
18                     font-size: .6em;
19                     height: 1em }
20
21         .super     { position: relative;
22                     top: -1ex }
23
24         .sub       { position: relative;
25                     bottom: -1ex }
26
```

```
27     .shiftright { position: relative;
28                 left: -1ex }
29
30     .shiftright { position: relative;
31                 right: -1ex }
32
33     </style>
34 </head>
35
36 <body>
37
38     <p>The text at the end of this sentence
39     <span class = "super">is in superscript</span>. </p>
40
41     <p>The text at the end of this sentence
42     <span class = "sub">is in subscript</span>. </p>
43
44     <p>The text at the end of this sentence
45     <span class = "shiftright">is shifted left</span>. </p>
46
47     <p>The text at the end of this sentence
48     <span class = "shiftright">is shifted right</span>. </p>
49
50 </body>
51 </html >
```





Element Dimensions

- CSS rules dapat menentukan dimensi aktual dari setiap page element

```
1 <?xml version = "1.0"?>
2 <!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.1//EN"
3   "http://www.w3.org/TR/xhtml11/DTD/xhtml11.dtd">
4
5 <!-- Fig. 6.11: width.html -->
6 <!-- Setting box dimensions and aligning text -->
7
8 <html xmlns = "http://www.w3.org/1999/xhtml">
9   <head>
10     <title>Box Dimensions</title>
11
12     <style type = "text/css">
13
14         div { background-color: #ffccff;
15               margin-bottom: .5em }
16     </style>
17
18 </head>
19
20 <body>
21
22     <div style = "width: 20%">Here is some
23     text that goes in a box which is
24     set to stretch across twenty percent
25     of the width of the screen.</div>
```

26

```
27 <div style = "width: 80%; text-align: center">
```

```
28 Here is some CENTERED text that goes in a box  
29 which is set to stretch across eighty percent of  
30 the width of the screen.</div>
```

31

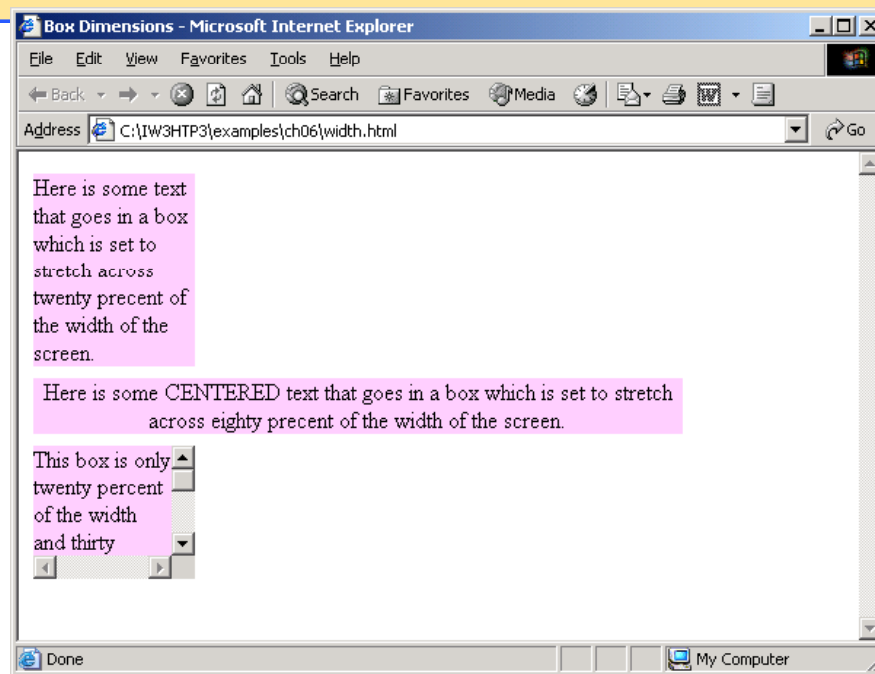
```
32 <div style = "width: 20%; height: 30%; overflow: scroll">
```

```
33 This box is only twenty percent of  
34 the width and thirty percent of the height.  
35 What do we do if it overflows? Set the  
36 overflow property to scroll!!</div>
```

37

```
38 </body>
```

```
39 </html >
```





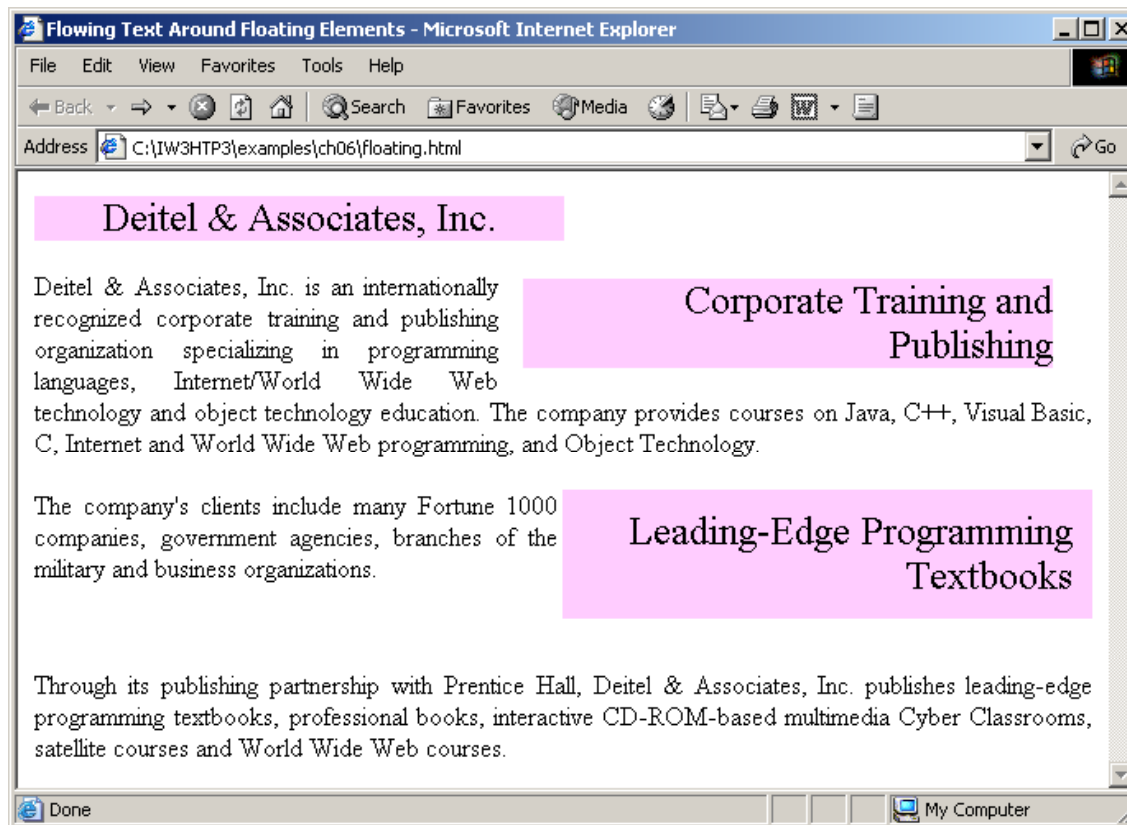
Text Flow and the Box Model

- Floating
 - Menggeser element ke sisi layar
- Box model
 - Margins
 - margin-top, margin-right, margin-left, margin-bottom
 - Padding
 - padding-top, padding-right, padding-left, and padding-bottom
 - Border
 - border-width
 - thin, medium, thick
 - border-color
 - Sets the color
 - border-style
 - none, hidden, dotted, dashed, solid, double, groove, ridge, inset and outset

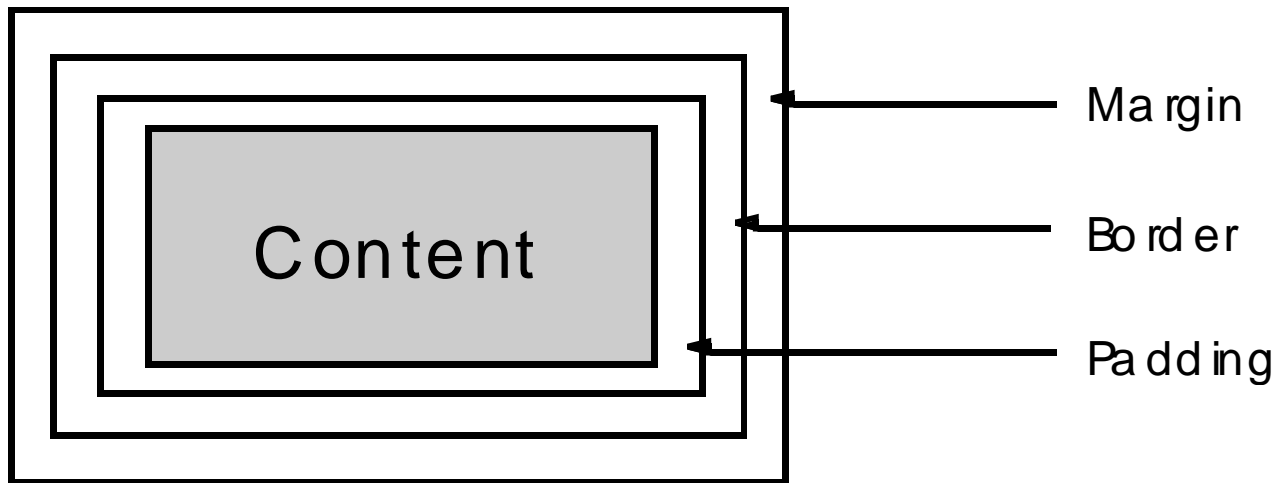
```
1 <?xml version = "1.0"?>
2 <!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.1//EN"
3   "http://www.w3.org/TR/xhtml11/DTD/xhtml11.dtd">
4
5 <!-- Fig. 6.12: floating.html -->
6 <!-- Floating elements and element boxes -->
7
8 <html xmlns = "http://www.w3.org/1999/xhtml">
9   <head>
10     <title>Flowing Text Around Floating Elements</title>
11
12     <style type = "text/css">
13
14         div { background-color: #ffccff;
15             margin-bottom: .5em;
16             font-size: 1.5em;
17             width: 50% }
18
19         p { text-align: justify }
20
21     </style>
22
23 </head>
24
```

```
25 <body>
26
27 <div style = "text-align: center">
28     Deitel & Associates, Inc. </div>
29
30 <div style = "float: right; margin: .5em;
31     text-align: right">
32     Corporate Training and Publishing</div>
33
34 <p>Deitel & Associates, Inc. is an internationally
35 recognized corporate training and publishing organization
36 specializing in programming languages, Internet/World
37 Wide Web technology and object technology education.
38 The company provides courses on Java, C++, Visual Basic, C,
39 Internet and World Wide Web programming, and Object Technology. </p>
40
41 <div style = "float: right; padding: .5em;
42     text-align: right">
43     Leading-Edge Programming Textbooks</div>
44
45 <p>The company's clients include many Fortune 1000
46 companies, government agencies, branches of the military
47 and business organizations. </p>
48
```

```
49     <p style = "clear: right">Through its publishing
50     partnership with Prentice Hall, Deitel & Associates,
51     Inc. publishes leading-edge programming textbooks,
52     professional books, interactive CD-ROM-based multimedia
53     Cyber Classrooms, satellite courses and World Wide Web
54     courses. </p>
55
56 </body>
57 </html >
```

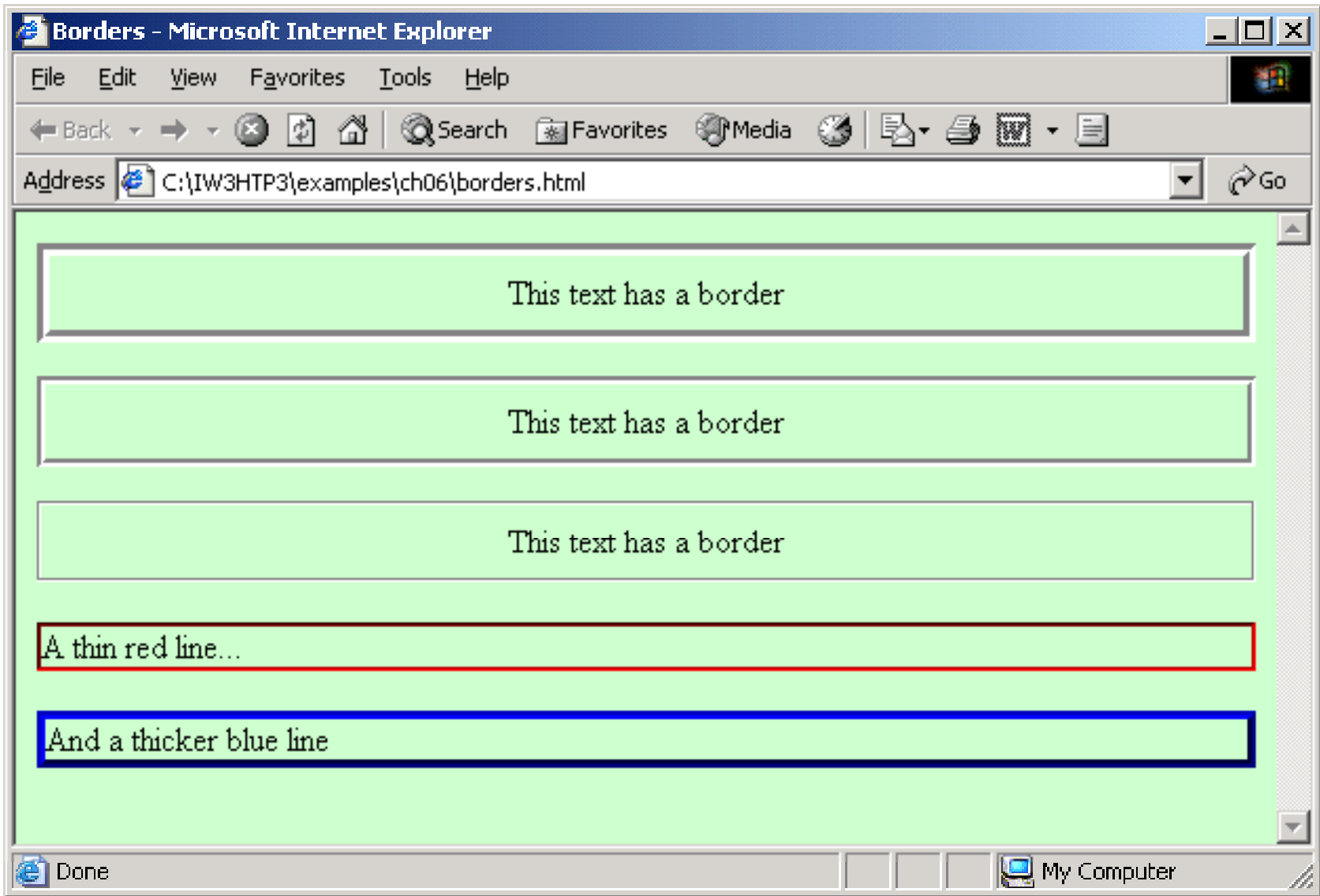


Text Flow and the Box Model



```
1 <?xml version = "1.0"?>
2 <!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.1//EN"
3   "http://www.w3.org/TR/xhtml11/DTD/xhtml11.dtd">
4
5 <!-- Fig. 6.14: borders.html      -->
6 <!-- Setting borders of an element -->
7
8 <html xmlns = "http://www.w3.org/1999/xhtml">
9   <head>
10     <title>Borders</title>
11
12     <style type = "text/css">
13
14         body    { background-color: #ccffcc }
15
16         div     { text-align: center;
17                 margin-bottom: 1em;
18                 padding: .5em }
19
20         .thick  { border-width: thick }
21
22         .medium { border-width: medium }
23
24         .thin   { border-width: thin }
25
```

```
26     .groove { border-style: groove }
27
28     .inset  { border-style: inset  }
29
30     .outset { border-style: outset }
31
32     .red    { border-color: red   }
33
34     .blue   { border-color: blue  }
35
36     </style>
37 </head>
38
39 <body>
40
41     <div class = "thick groove">This text has a border</div>
42     <div class = "medium groove">This text has a border</div>
43     <div class = "thin groove">This text has a border</div>
44
45     <p class = "thin red inset">A thin red line...</p>
46     <p class = "medium blue outset">
47         And a thicker blue line</p>
48
49 </body>
50 </html >
```



```
1 <?xml version = "1.0"?>
2 <!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.1//EN"
3   "http://www.w3.org/TR/xhtml11/DTD/xhtml11.dtd">
4
5 <!-- Fig. 6.15: borders2.html -->
6 <!-- Various border-styles -->
7
8 <html xmlns = "http://www.w3.org/1999/xhtml">
9   <head>
10     <title>Borders</title>
11
12     <style type = "text/css">
13
14         body    { background-color: #ccffcc }
15
16         div     { text-align: center;
17                 margin-bottom: .3em;
18                 width: 50%;
19                 position: relative;
20                 left: 25%;
21                 padding: .3em }
22     </style>
23 </head>
24
25 <body>
```

26

27 `<div style = "border-style: solid">Solid border</div>`

28 `<div style = "border-style: double">Double border</div>`

29 `<div style = "border-style: groove">Groove border</div>`

30 `<div style = "border-style: ridge">Ridge border</div>`

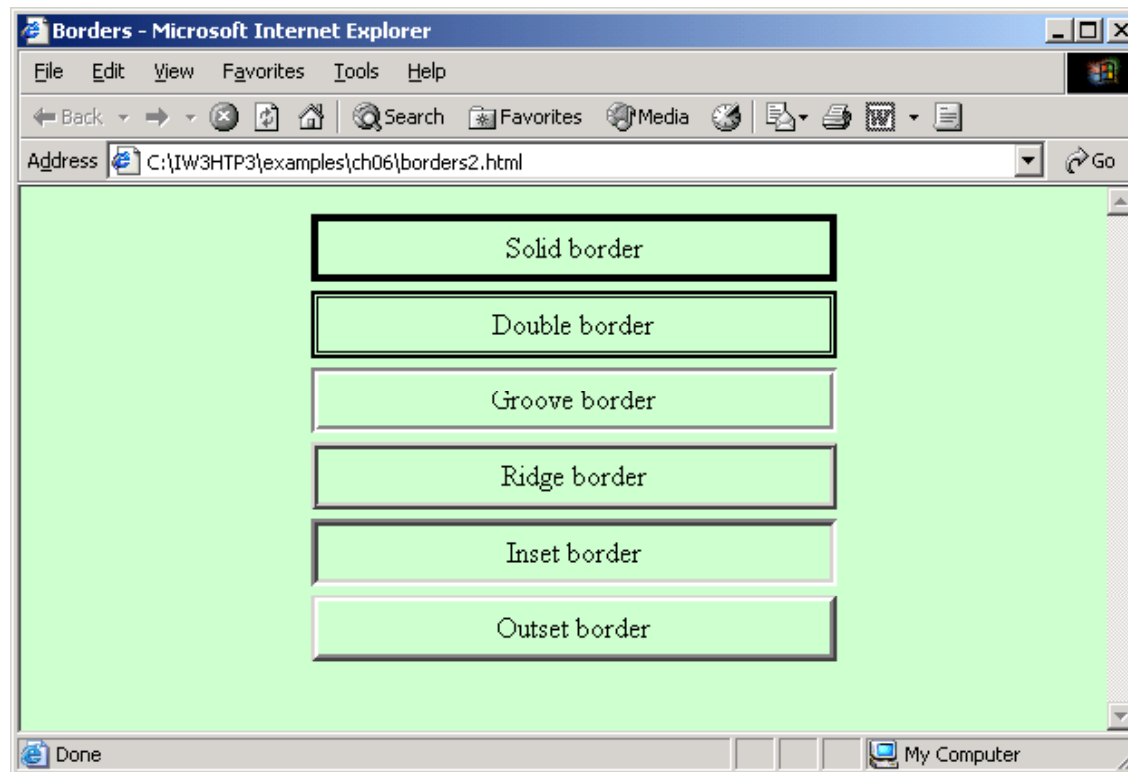
31 `<div style = "border-style: inset">Inset border</div>`

32 `<div style = "border-style: outset">Outset border</div>`

33

34 `</body>`

35 `</html >`





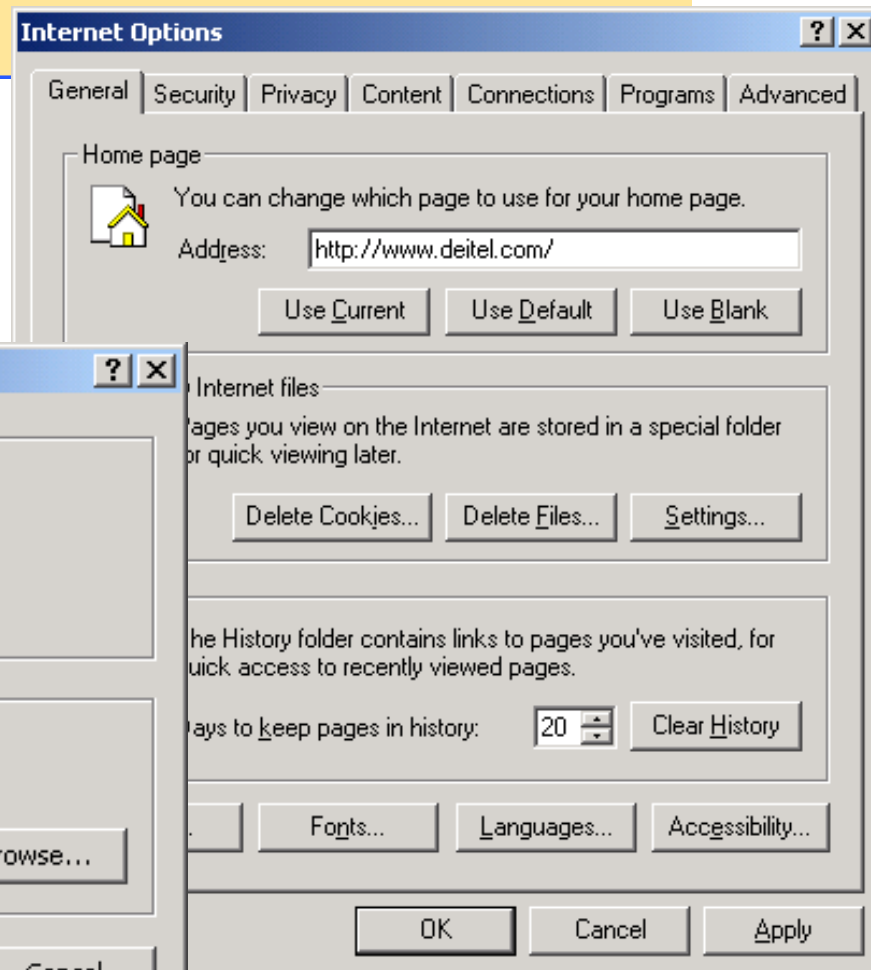
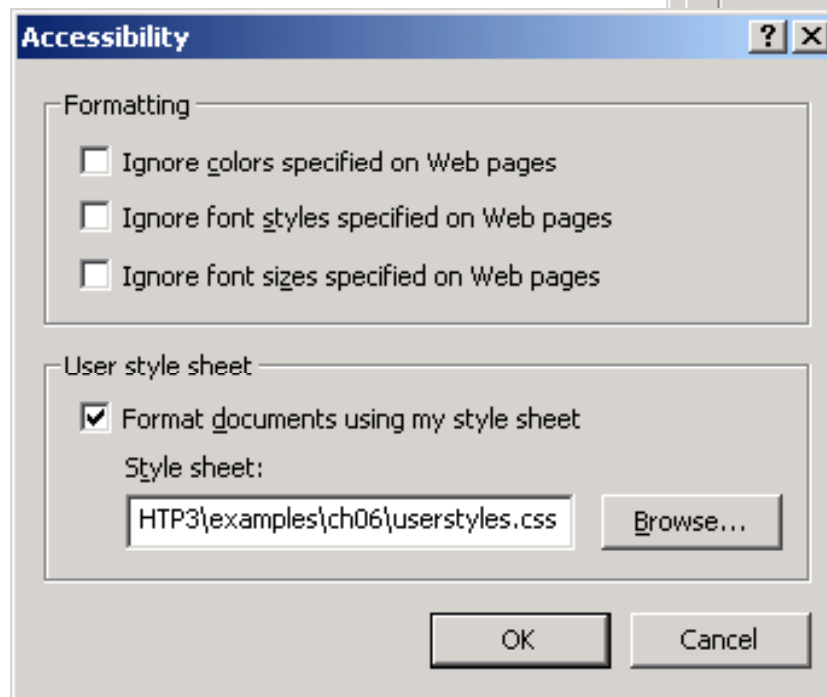
User Style Sheets

- Mengatur page sesuai keinginan user

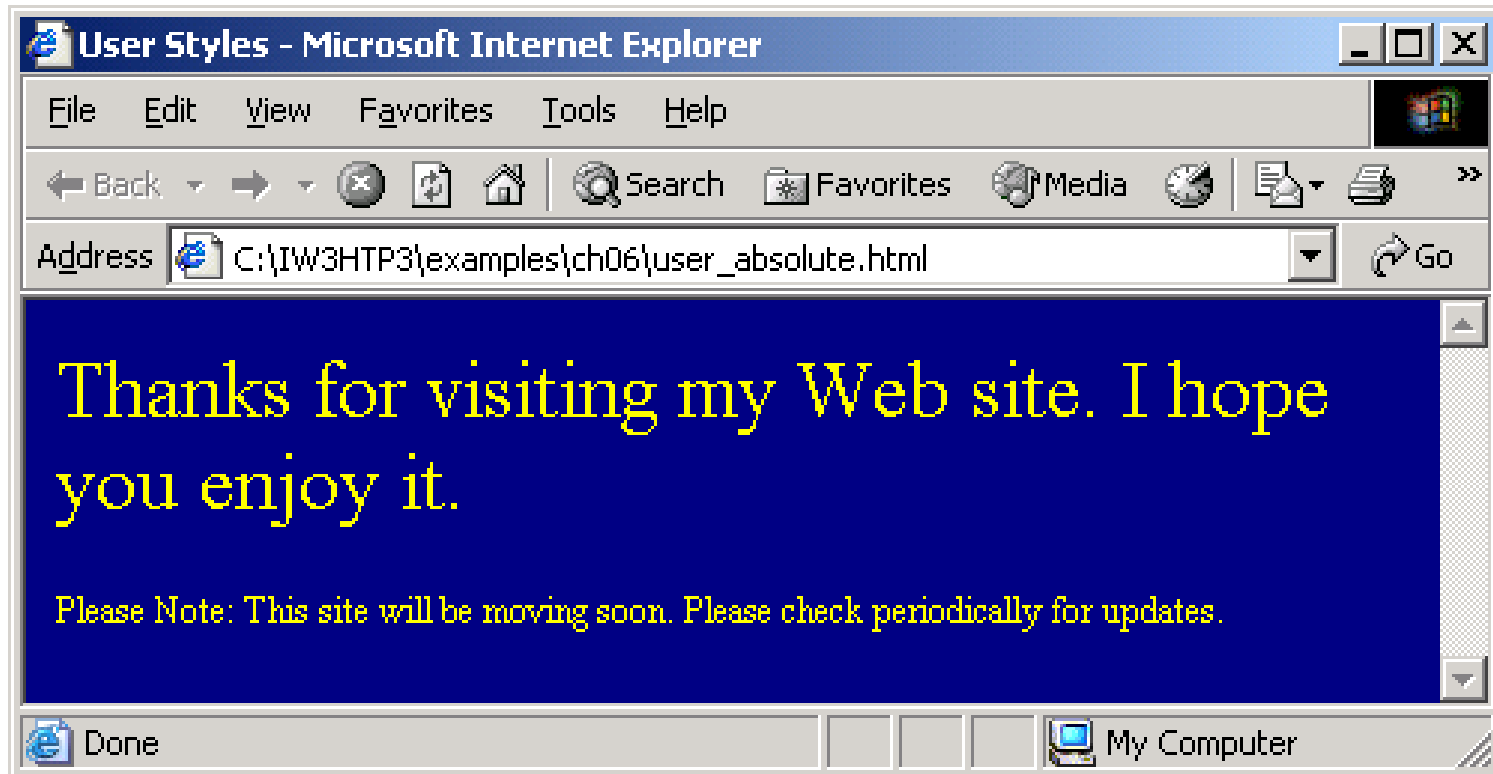
```
1 <?xml version = "1.0"?>
2 <!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.1//EN"
3   "http://www.w3.org/TR/xhtml11/DTD/xhtml11.dtd">
4
5 <!-- Fig. 6.16: user_absolute.html -->
6 <!-- User styles -->
7
8 <html xmlns = "http://www.w3.org/1999/xhtml" >
9   <head>
10     <title>User Styles</title>
11
12     <style type = "text/css">
13
14       .note { font-size: 9pt }
15
16     </style>
17   </head>
18
19   <body>
20
21     <p>Thanks for visiting my Web site. I hope you enjoy it.
22     </p><p class = "note">Please Note: This site will be
23     moving soon. Please check periodically for updates.</p>
24
25   </body>
26 </html >
```



```
1 /* Fig. 6.17: userstyles.css */
2 /* A user stylesheet */
3
4 body { font-size: 20pt;
5        color: yellow;
6        background-color: #000080 }
```

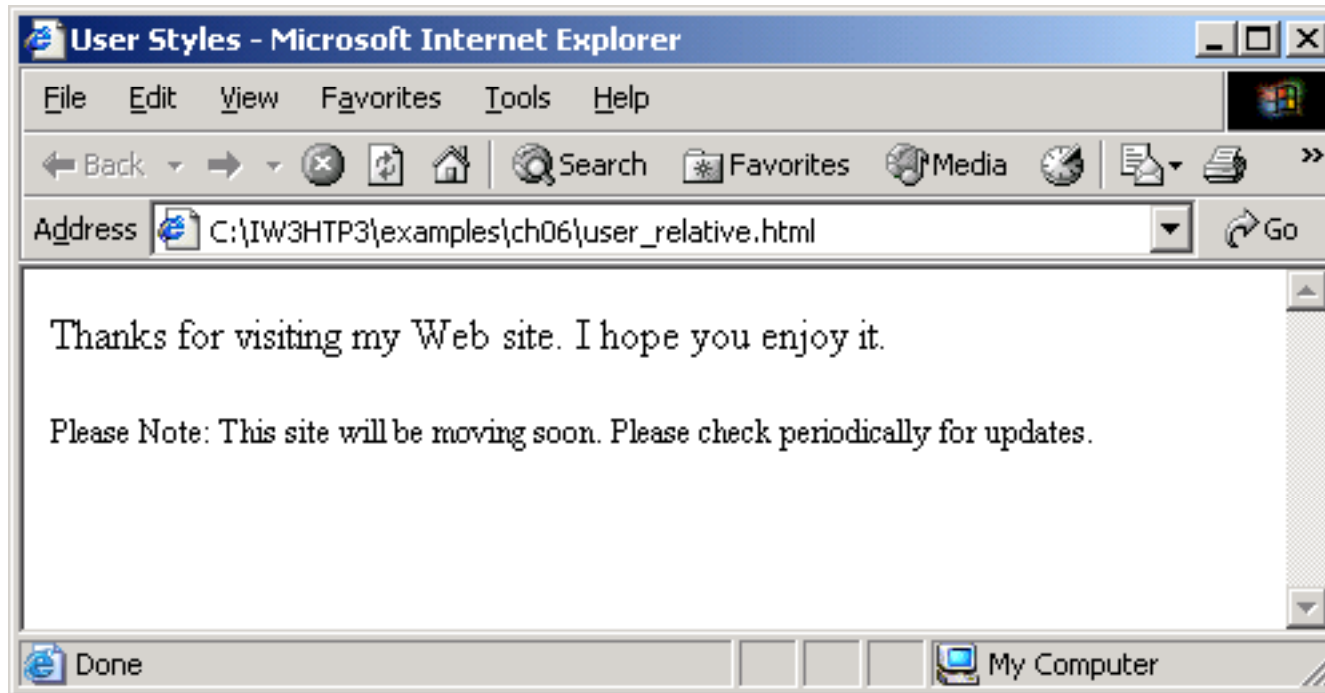


User Style Sheets



```
1 <?xml version = "1.0"?>
2 <!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.1//EN"
3   "http://www.w3.org/TR/xhtml11/DTD/xhtml11.dtd">
4
5 <!-- Fig. 6.20: user_relative.html -->
6 <!-- User styles -->
7
8 <html xmlns = "http://www.w3.org/1999/xhtml">
9   <head>
10     <title>User Styles</title>
11
12     <style type = "text/css">
13
14       .note { font-size: .75em }
15
16     </style>
17   </head>
18
19   <body>
20
21     <p>Thanks for visiting my Web site. I hope you enjoy it.
22     </p><p class = "note">Please Note: This site will be
23     moving soon. Please check periodically for updates.</p>
24
25   </body>
26 </html >
```

User Style Sheets



User Style Sheets

