

Sistemas de Representação Digital em Design

FA.Ulisboa

2013/2014

2º semestre

Licenciatura em Design

Luís Mateus (lmmateus@fa.ulisboa.pt)

SRDD – Aula 2

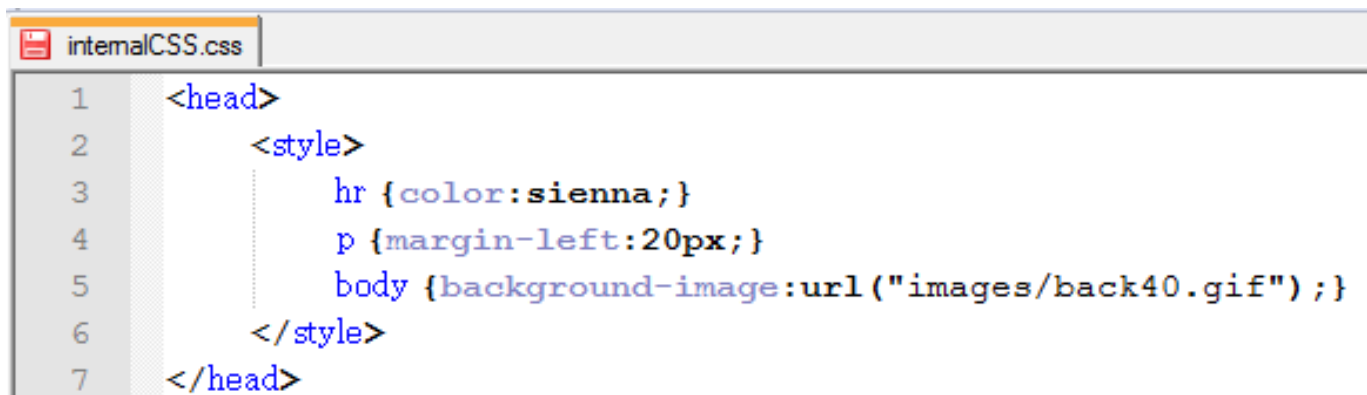
Introduction to CSS

CSS stands for Cascading Style Sheets

Styles define how to display HTML elements

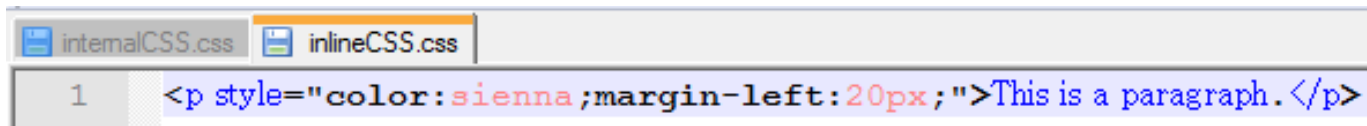
There are three ways of inserting a style sheet:

>> Internal style sheet

A screenshot of a code editor window titled 'internalCSS.css'. The editor shows a code snippet for an internal CSS style sheet. The code is as follows:

```
1 <head>
2     <style>
3         hr {color:sienna;}
4         p {margin-left:20px;}
5         body {background-image:url("images/back40.gif");}
6     </style>
7 </head>
```

>>Inline style

A screenshot of a code editor window showing two tabs: 'internalCSS.css' and 'inlineCSS.css'. The 'inlineCSS.css' tab is active and shows a single line of code for an inline style:

```
1 <p style="color:sienna;margin-left:20px;">This is a paragraph.</p>
```

(http://www.w3schools.com/css/css_intro.asp)

SRDD – Aula 2

Introduction to CSS

>> External style sheet (the external CSS file has to be declared in the header)

```
<head>
<!--Esta é a zona do cabeçalho. O que for aqui colocado não aparece no browser.-->
  <link rel="stylesheet" type="text/css" href="4a.css" />
  <title>Página WEB de teste SRDD</title>
</head>
```

Comment

Selector

Opening bracket

Property

Property

Value

Value

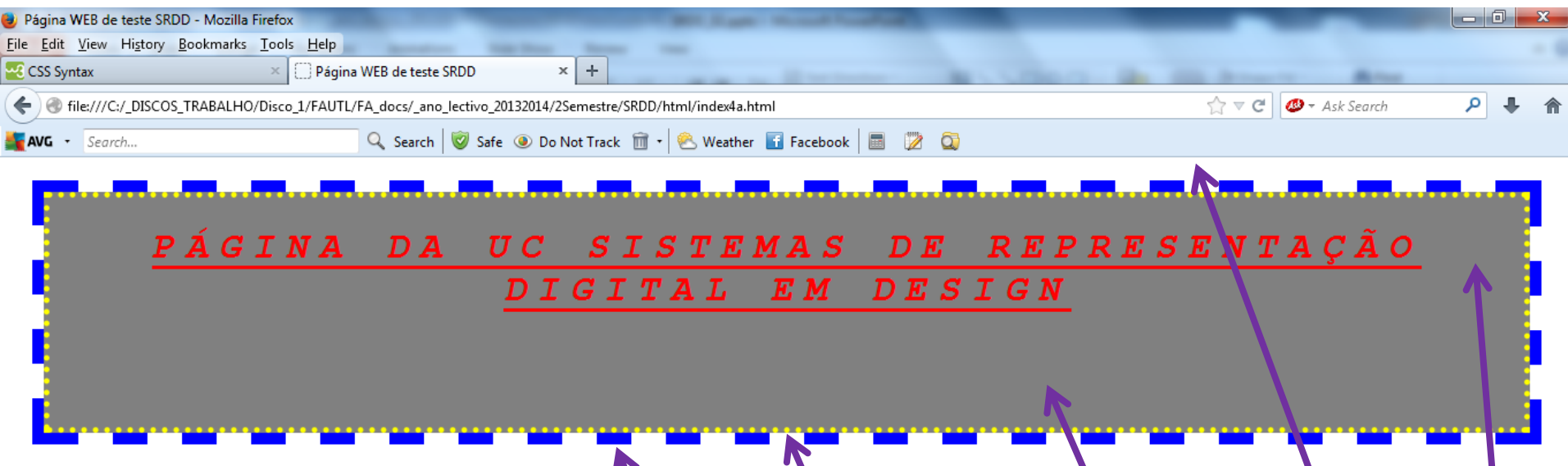
Closing bracket

```
estilo_3.css index4a.html 4a.css tumas_aulas.html
1  /* o texto colocado entre estas marcas é um comentário */
2  h1
3  {
4      /* propriedades do texto */
5      text-align:center;
6      text-decoration:underline;
7      text-transform:uppercase;
8      letter-spacing:10px;
9      /* propriedades do tipo de fonte */
10     font-family:"Courier";
11     font-style:oblique;
12     font-size:2em; /* 1em = 16px */
13     font-weight:bold;
14     /* box model */
15     padding-top:25px;
16     padding-bottom:100px;
17     padding-right:50px;
18     padding-left:50px;
19     /* padding:25px 50px 100px 50px; */
20     /* as propriedades acima podiam ter sido declaradas desta forma */
21     /* a ordem é top, right, bottom, left -> sentido dos ponteiros do relógio */
22     border-style: dotted;
23     /* o estilo pode ser decomposto por lados como explicado
24         border-top-style:dotted;
25         border-right-style:solid;
26         border-bottom-style:dotted;
27         border-left-style:solid; */
28     border-width:5px;
29     /* a espessura pode ser decomposta por lados como explicado acima*/
30     border-color:rgb(255,255,0);
31     /* a border pode ser decomposta por lados como explicado acima*/
32     margin: 30px;
33     /* a margem pode ser decomposta por lados como explicado acima*/
34     outline: blue dashed 10px;
35     /* outras propriedades gerais associadas ao heading */
36     color:rgb(255,0,0);
37     background: gray;
38 }
```

SRDD – Aula 2

Introduction to CSS.

Visualizing the *html* file with *heading1* (h1) formatted with an external CSS file.



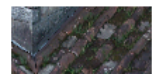
Exercícios

Neste espaço serão colocados os exercícios da UC.

Outras informações

Neste espaço serão colocadas outras informações de interesse para a UC.

[Site do docente da UC.](#)



The CSS Box Model

All HTML elements can be considered as boxes. In CSS, the term "box model" is used when talking about design and layout.

The CSS box model is essentially a box that wraps around HTML elements, and it consists of: margins, borders, padding, and the actual content.

The box model allows us to place a border around elements and space elements in relation to other elements.

The image below illustrates the box model:

Explanation of the different parts:

- **Margin** - Clears an area around the border. The margin does not have a background color, it is completely transparent
- **Border** - A border that goes around the padding and content. The border is inherited from the color property of the box
- **Padding** - Clears an area around the content. The padding is affected by the background color of the box
- **Content** - The content of the box, where text and images appear

In order to set the width and height of an element correctly in all browsers, you need to know how the box model works.

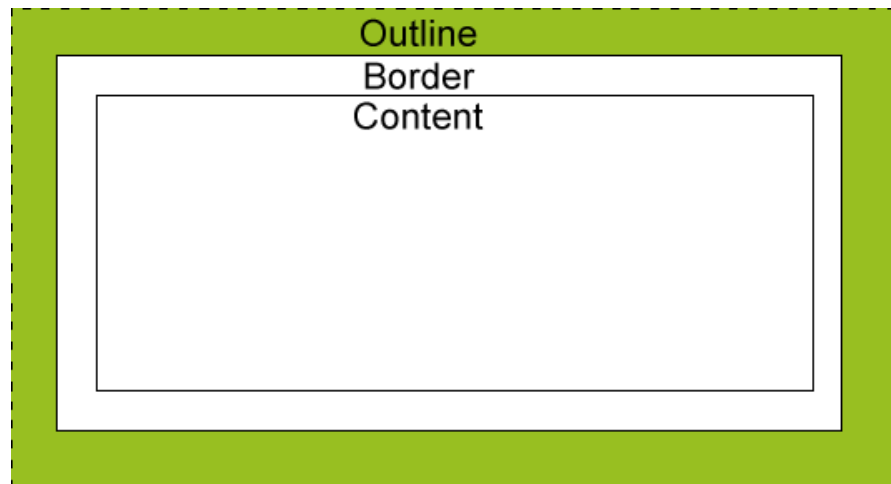


CSS Outline

An outline is a line that is drawn around elements (outside the borders) to make the element "stand out".

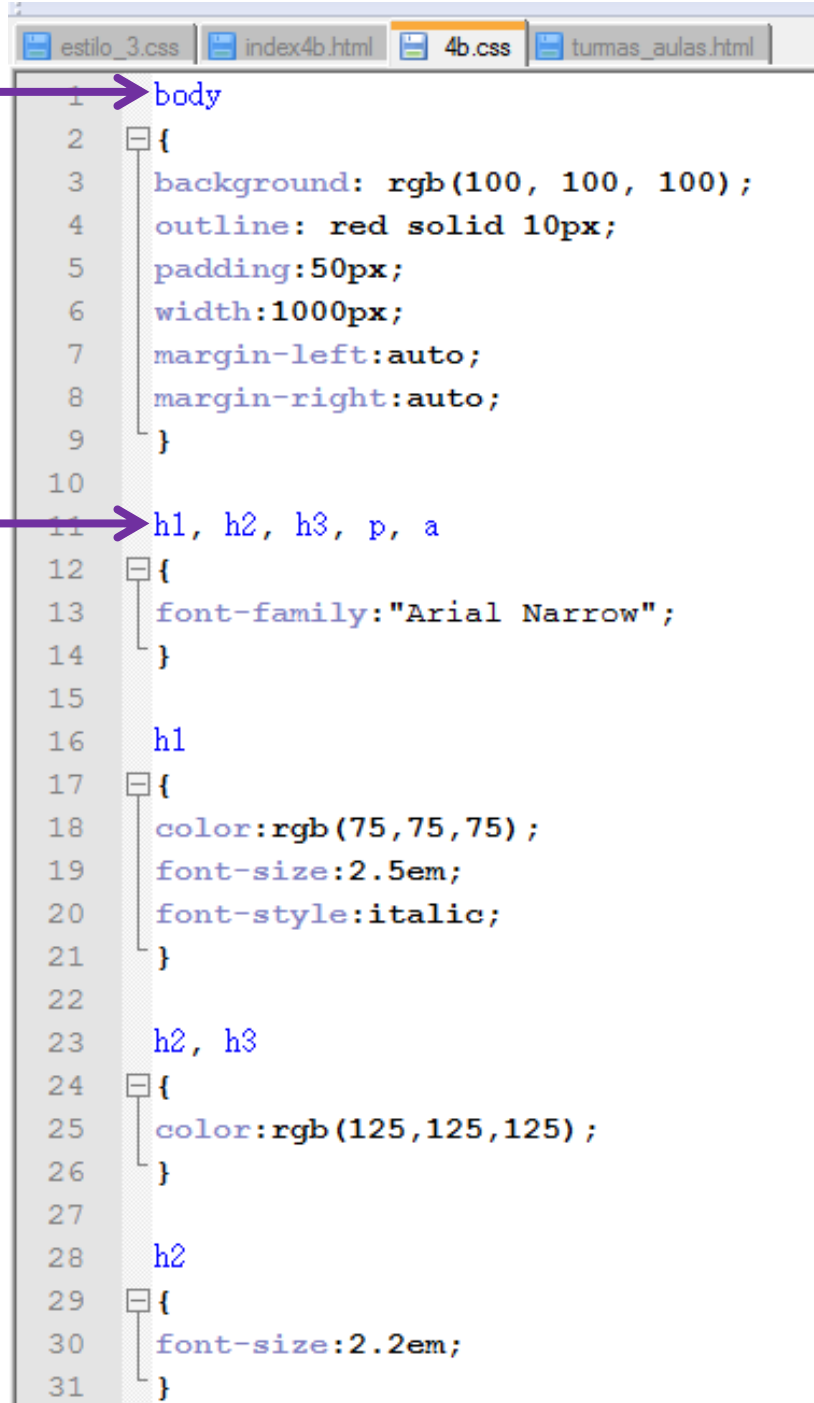
However, the outline property is different from the border property.

The outline is not a part of an element's dimensions; the element's total width and height is not affected by the width of the outline.



Body selector

Properties that are common to several selectors can be defined only once



```
1 body
2 {
3   background: rgb(100, 100, 100);
4   outline: red solid 10px;
5   padding: 50px;
6   width: 1000px;
7   margin-left: auto;
8   margin-right: auto;
9 }
10
11 h1, h2, h3, p, a
12 {
13   font-family: "Arial Narrow";
14 }
15
16 h1
17 {
18   color: rgb(75, 75, 75);
19   font-size: 2.5em;
20   font-style: italic;
21 }
22
23 h2, h3
24 {
25   color: rgb(125, 125, 125);
26 }
27
28 h2
29 {
30   font-size: 2.2em;
31 }
```



```
32
33 h3
34 {
35   font-size:1.8em;
36 }
37
38 p
39 {
40   color:white;
41   font-size:0.8em;
42 }
43
44 a
45 {
46   font-size:0.8em;
47   text-decoration:none;
48   color:red;
49   target-new:tab;
50 }
51
52 a:hover
53 {
54   color:cyan;
55   font-weight:bold;
56 }
57
58 hr
59 {
60   height:10px;
61   border:0px;
62   background:orange;
63 }
```

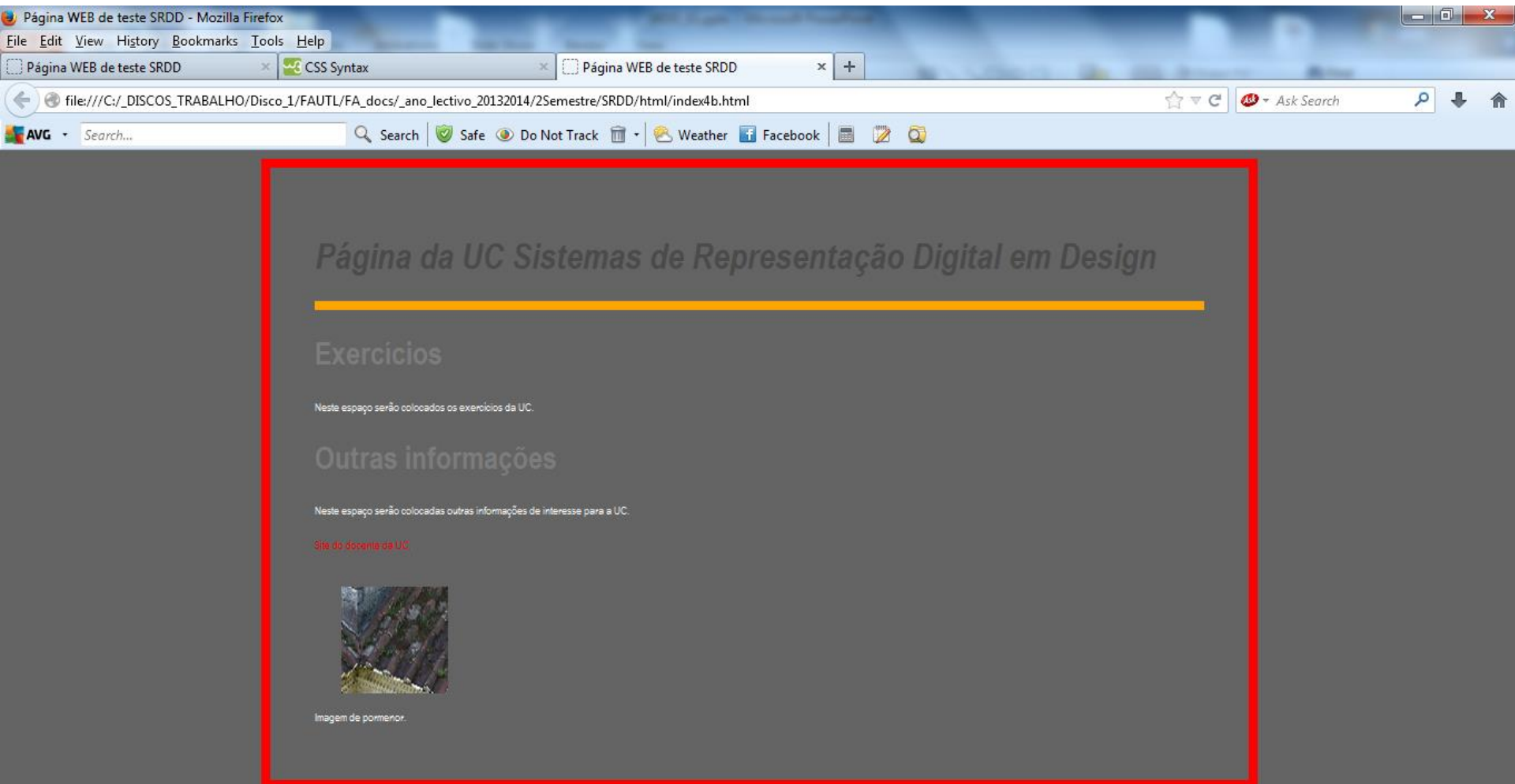
link selector when the mouse is over the link (pseudo class)

```
64  
65  br  
66  {  
67    line-height:2;  
68  }  
69  
70  img  
71  {  
72    width:120px;  
73    height:120px;  
74    margin-left:30px;  
75  }
```

Any html element can be formatted with CSS.

This allows that the visualization of an entire web portal can be changed by editing a single CSS file.

Visualizing the *html* file formatted with an external CSS file. In this example all the html elements were formatted.




```
15 #cabecalho
16 {
17     background-image:url('corpo.jpg');
18     background-repeat:repeat-x;
19     width: 1000px;
20     height: 75px;
21     font-family:"Courier";
22     background-color:rgb(230,230,230);
23     text-align:center;
24     margin-left:auto;
25     margin-right:auto;
26     font-size:85%;
27 }
28
29 #fundo
30 {
31     width: 1000px;
32     background-image:url('fundo.jpg');
33     background-repeat:repeat-y;
34     padding-bottom:5px;
35     padding-top:5px;
36 }
37
38 #ligacoes
39 {
40     width: 190px;
41     float:right;
42     text-align:right;
43     padding-top:30px;
44 }
45
```

This forces a repetition of the image in X

This value will affect the children of this division

Link

This can also be set in % of the available space

This makes the division to float right

Element inside a
division

```
46 #ligacoes a
47 {
48   color:blue;
49   padding-right:10px;
50 }
51
52 #ligacoes a:hover
53 {
54   color:orange;
55 }
56
57 #conteudo
58 {
59   width: 800px;
60   background-color:gray;
61   float:left;
62   text-align:left;
63 }
64
65 h1, h2, h3, p, a
66 {
67   font-family:inherit;
68 }
69
70 h2, h3, p, a, img
71 {
72   padding-left:10px;
73 }
74
```

← This value forces the font
family to be inherited from
the parent element

```
75 h1
76 {
77   color:rgb(50,50,50);
78   font-size:2.5em;
79   font-style:italic;
80 }
81
82 h2, h3
83 {
84   padding-top:10px;
85   color:rgb(125,125,125);
86 }
87
88 h2
89 {
90   font-size:2em;
91 }
92
93 h3
94 {
95   font-size:1.6em;
96 }
97
98 p
99 {
100   color:rgb(150,150,150);
101   font-size:0.8em;
102 }
103
```

Class selector

```
104 .rodape
105 {
106     color:rgb(100,100,100);
107     font-size:0.6em;
108     text-align:center;
109 }
110
111 a
112 {
113     font-size:0.8em;
114     text-decoration:none;
115     color:red;
116     target-new:tab;
117 }
118
119 a:hover
120 {
121     color:cyan;
122     font-weight:bold;
123 }
124
125 hr
126 {
127     height:10px;
128     border:0px;
129     background:orange;
130 }
131
```

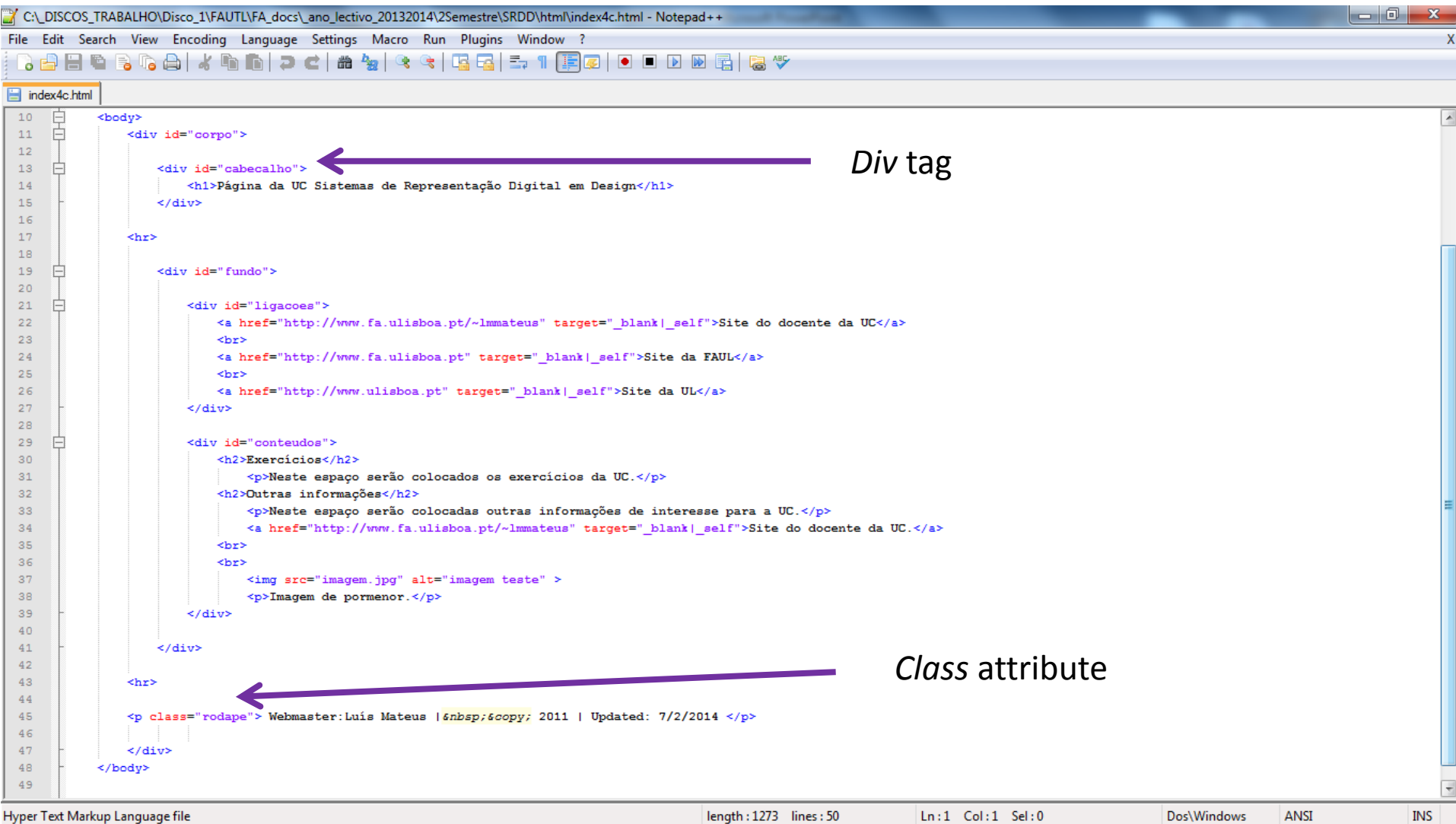


```
132     br
133     {
134         line-height:2;
135     }
136
137     img
138     {
139         width:120px;
140         height:120px;
141     }
```

SRDD – Aula 2

Introduction to CSS

But this implies minor changes in the html code.



```
10 <body>
11 <div id="corpo">
12
13 <div id="cabecalho">
14 <h1>Página da UC Sistemas de Representação Digital em Design</h1>
15 </div>
16
17 <hr>
18
19 <div id="fundo">
20
21 <div id="ligacoes">
22 <a href="http://www.fa.ulisboa.pt/~lmmateus" target="_blank|_self">Site do docente da UC</a>
23 <br>
24 <a href="http://www.fa.ulisboa.pt" target="_blank|_self">Site da FAUL</a>
25 <br>
26 <a href="http://www.ulisboa.pt" target="_blank|_self">Site da UL</a>
27 </div>
28
29 <div id="conteudos">
30 <h2>Exercícios</h2>
31 <p>Neste espaço serão colocados os exercicios da UC.</p>
32 <h2>Outras informações</h2>
33 <p>Neste espaço serão colocadas outras informações de interesse para a UC.</p>
34 <a href="http://www.fa.ulisboa.pt/~lmmateus" target="_blank|_self">Site do docente da UC.</a>
35 <br>
36 <br>
37 
38 <p>Imagem de pormenor.</p>
39 </div>
40
41 </div>
42
43 <hr>
44 <p class="rodape"> Webmaster:Luis Mateus | &nbsp;&copy; 2011 | Updated: 7/2/2014 </p>
45
46 </div>
47 </body>
48
49
```

Div tag

Class attribute

Hyper Text Markup Language file length: 1273 lines: 50 Ln: 1 Col: 1 Sel: 0 Dos\Windows ANSI INS

Visualizing the *html* file formatted with an external CSS file. In this example all the html elements were formatted.

