

# Sistemas de Rep. Digital em Arquitectura

**FA.Ulisboa**

2014/2015

1º semestre

Licenciatura em Arquitectura

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

```
internalCSS.css
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

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

([http://www.w3schools.com/css/css\\_intro.asp](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

Closing bracket

```

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 }

```

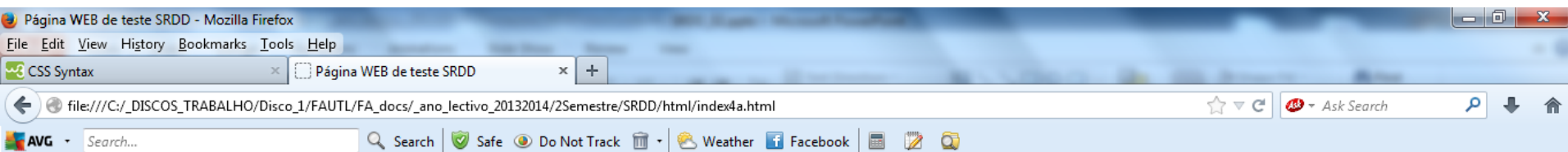
Value

Value

# 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.](#)

outline

border

background

top margin

Right padding

(<http://www.w3schools.com/css/>)

## 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.

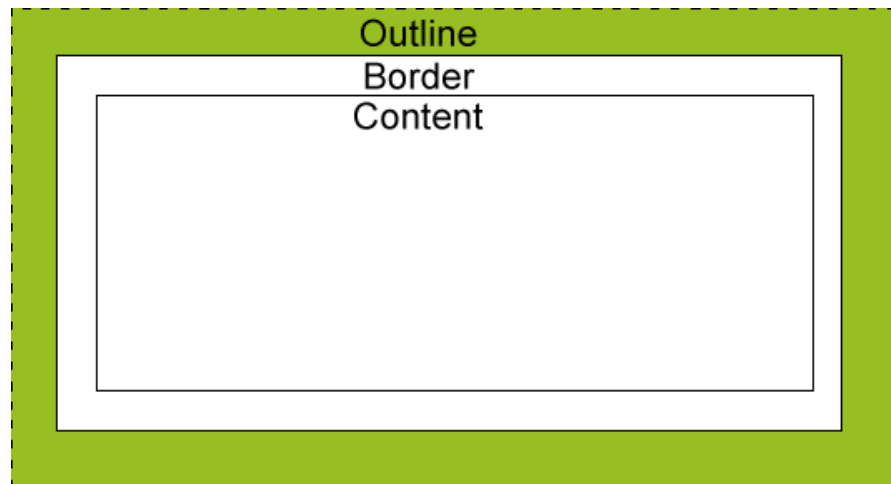


## CSS Outline

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

```
estilo_3.css | index4b.html | 4b.css | tumas_aulas.html
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)

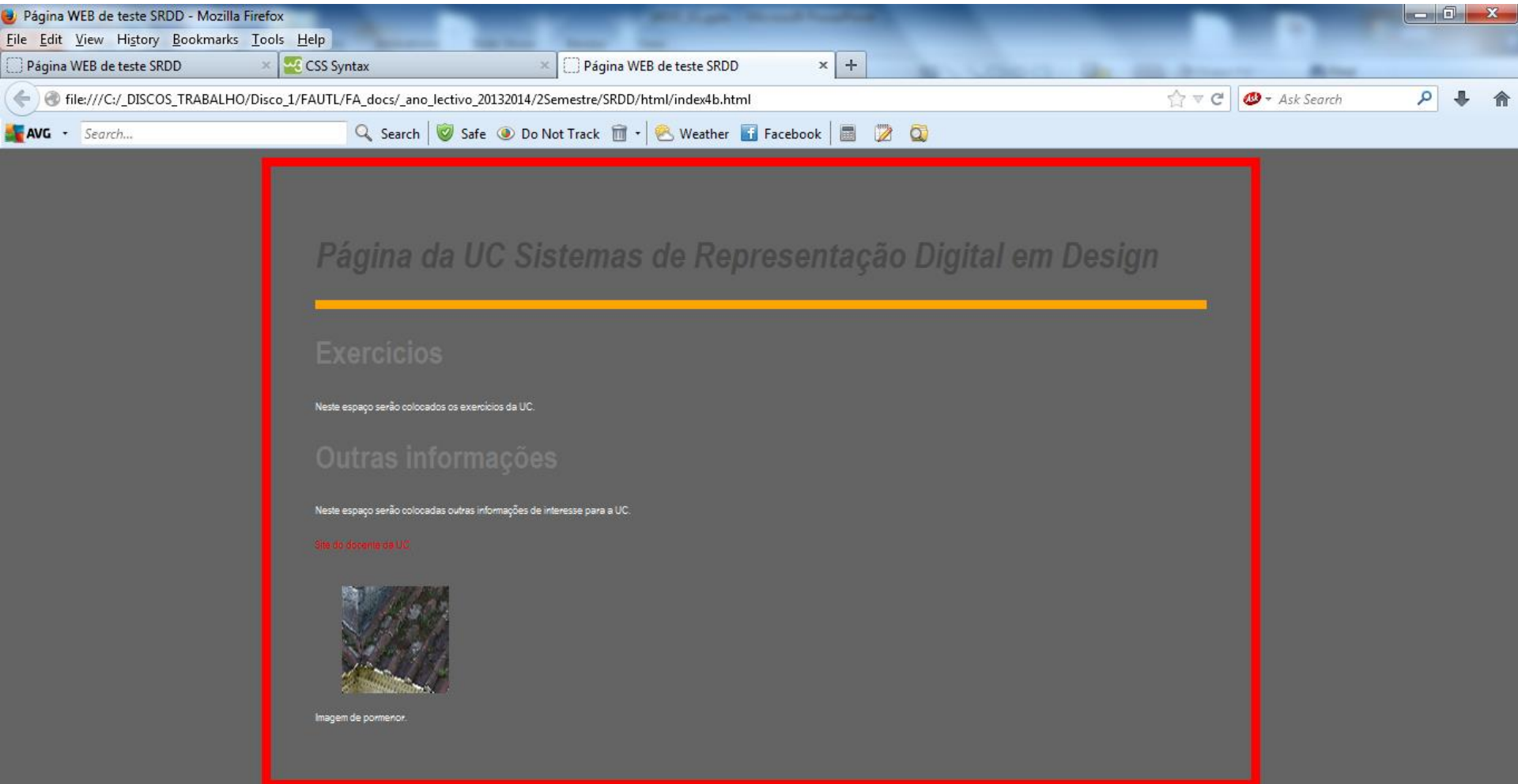


```
64  
65 br  
66 {  
67   line-height:2;  
68 }  
69  
70 img  
71 {  
72   width:120px;  
73   height:120px;  
74   margin-left:30px;  
75 }
```

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.

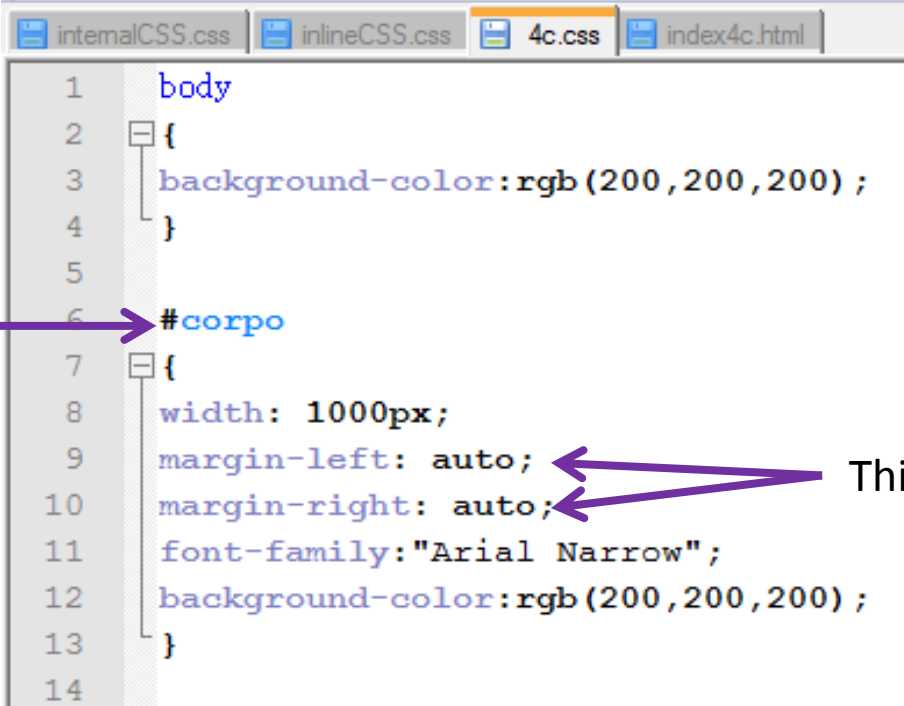
Visualizing the *html* file formatted with an external CSS file. In this example all the html elements were formatted.



# SRDD – Aula 2

## Introduction to CSS

Another interesting way of formatting and organizing the html file is through divisions. To do that we will use the tag *div*. A division corresponds to an area in the document that can be properly formatted.



```
1 body
2 {
3   background-color: rgb(200,200,200);
4 }
5
6 #corpo
7 {
8   width: 1000px;
9   margin-left: auto;
10  margin-right: auto;
11  font-family: "Arial Narrow";
12  background-color: rgb(200,200,200);
13 }
14
```

ID selector

This centers the division

```
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.

The screenshot shows a Mozilla Firefox browser window with the following details:

- Browser Title:** Página WEB de teste SRDD - Mozilla Firefox
- Address Bar:** file:///C:/\_DISCOS\_TRABALHO/Disco\_1/FAUTL/FA\_docs/\_ano\_lectivo\_20132014/2Semestre/SRDD/html/index4c.html
- Page Content:**
  - Header:** *Página da UC Sistemas de Representação Digital em Design* (textured background)
  - Section 1:** **Exercícios**  
Neste espaço serão colocados os exercicios da UC.
  - Section 2:** **Outras informações**  
Neste espaço serão colocadas outras informações de interesse para a UC.  
[Site do docente da UC.](#)
  - Image:**   
Imagem de pormenor.
- Right Sidebar:**
  - [Site do docente da UC](#)
  - [Site da FAUL](#)
  - [Site da UL](#)