

ICT-Start – Session 01

Module 2: Creating static web pages using HTML5 and CSS3

H) CSS: Semantic structuring

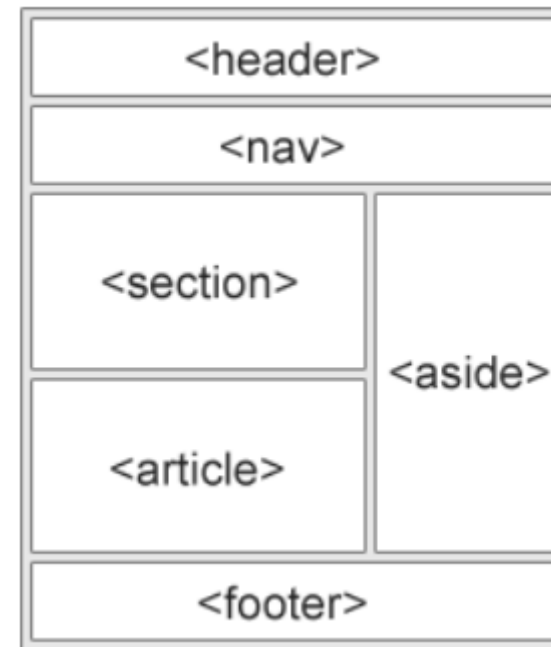
December 2022

Semantic structuring

- A web page usually consists of several parts with different meanings:
 - Header (logo, headline, banner, ...)
 - Navigation bar (links to other pages)
 - The main content
 - Footer (legal and contact information)
- In order to structure an HTML document **semantically**, i.e. to group the content according to related elements and to give these groups their **meaning**, special HTML5- elements are applied.
- Not directly to CSS related but with CSS we can visualize the different parts of the website!

Semantic structuring

- `<header> ... </header>`
 - Container for introductory content (`<h1>-<h6>`, logo/icon, etc.)
- `<nav> ... </nav>`
 - Place to put set of navigation links
- `<main> ... </main>`
 - Specifies the main content of the document
- `<section> ... </section>`
 - "A section is a thematic grouping of content, typically with a heading."
 - From the W3C's HTML documentation
- `<article> ... </article>`
 - Place to put independent contents in
 - (form posts, user comments, newspaper articles)
- `<aside> ... </aside>`
 - Place to put sidebars
- `<footer> ... </footer>`
 - Place to put sitemap, authorship, copyright and contact information
- `<div> ... </div>`
 - Non-semantic division: any sort of content



CSS Examples

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- Link1
- Link2
- Link3

Main content

First section

Some introduction.

First article

Some aside information...

Second section

Some other introduction.

Second article

Some aside information...

Coded by DLH.

CSS Examples

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Coded by DLH.

Exercise

- `<header> ... </header>`
- `<nav> ... </nav>`
- `<main> ... </main>`
- `<section> ... </section>`
- `<article> ... </article>`
- `<aside> ... </aside>`
- `<footer> ... </footer>`
- `<div> ... </div>`

CSS Examples

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Coded by DLH.

```

7  <body>
8      <header>
9          <h1>CSS Examples</h1>
10         <p>Lorem ipsum dolor sit amet, consectetur
11     </header>
12     <nav>
13         <ul>
14             <li>Link1</li>
15             <li>Link2</li>
16             <li>Link3</li>
17         </ul>
18     </nav>
19     <main>
20         <h2>Main content</h2>
21         <section>
22             <h3>First section</h3>
23             <p>Some introduction.</p>
24             <article>
25                 <h4>First article</h4>
26             </article>
27             <aside>
28                 <p> Some aside information...</p>
29             </aside>
30         </section>
31         <section>
32             <h3>Second section</h3>
33             <p>Some other introduction.</p>
34             <article>
35                 <h4>Second article</h4>
36             </article>
37             <aside>
38                 <p> Some aside information...</p>
39             </aside>
40         </section>
41     </main>
42     <footer>Coded by DLH.</footer>
43 </body>

```



Exercise

- Try to apply the necessary CSS styles to achieve the same output as shown in the screenshot.

CSS Examples

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Massa sapien faucibus et molestie. Consequat nisl vel pretium lectus quam id leo in. Venenatis lectus magna fringilla urna. Morbi quis commodo odio aenean sed adipiscing diam.

- Link1
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Coded by DLH.

Solution

CSS Examples

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Massa sapien faucibus et molestie. Consequat nisl vel pretium lectus quam id leo in. Venenatis lectus magna fringilla urna. Morbi quis commodo odio aenean sed adipiscing diam.

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Some aside information...

Second section

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Second article

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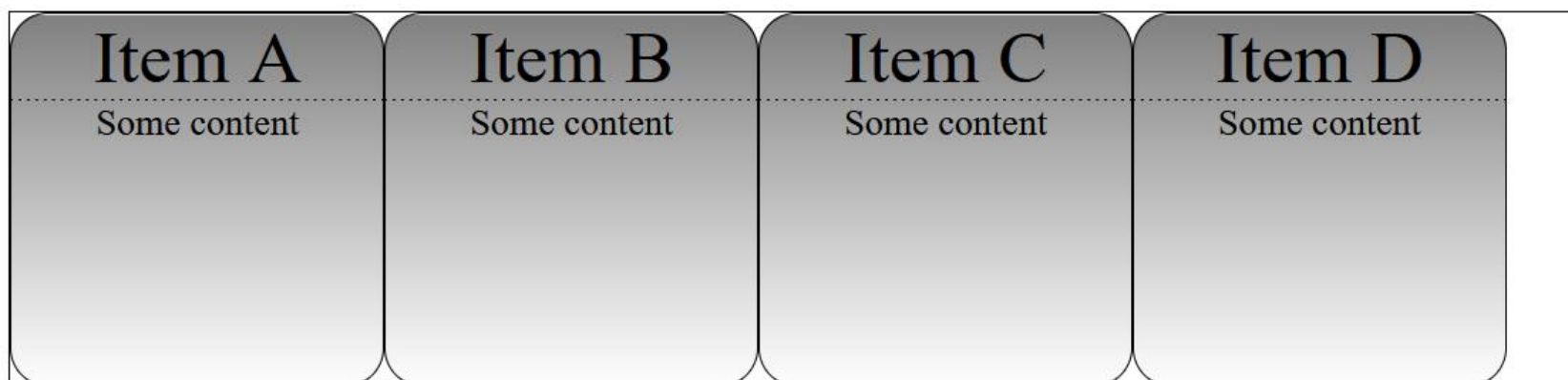
Coded by DLH.

```
1 header, nav, main, footer, article, aside, section{
2   border: 2px solid;
3 }
4 header{
5   border-color: green;
6 }
7 nav{
8   border-color: yellow;
9 }
10 main{
11   border-color: red;
12 }
13 footer{
14   border-color: pink;
15 }
16 section{
17   border-color: orange;
18 }
19 article{
20   border-color: blue;
21 }
22 aside{
23   border-color: gray;
24 }
```

Non-semantic structuring using <div>

- Sometimes we want to group elements within a container such that we can apply effects on the whole group
- We can achieve this by using the <div> element
- The <div> element is an invisible container occupying the whole width of the window
- The <div> is also used to apply some CSS effects on an element that has no predefined style

- A first example:



```
<meta charset="utf-8">
<title></title>
<style>
  .wrapper{
    border: 1px solid black;
    text-align: center;
    height: 200px;
  }
  .roundedRect {
    background: linear-gradient(gray, white);
    width: 200px;
    height: 200px;
    border-radius: 20px;
    border: 1px solid black;
    float:left;
  }
  .roundedRect-header{
    font-size: 40px;
    border-bottom: 1px dashed black;
  }
  .roundedRect-content{
    font-size: 20px;
  }
</style>
</head>
<body>
  <div class="wrapper">
    <div class="roundedRect">
      <div class="roundedRect-header">
        Item A
      </div>
      <div class="roundedRect-content">
        Some content
      </div>
    </div>
    <div class="roundedRect">
      <div class="roundedRect-header">
        Item B
      </div>
```

- A second example:



```
<style>
  .wrapper{
    width: 50%;
    height: 300px;
  }
  .flag-part{
    width:100%;
    height: 33%;
  }
  .black{background-color: black}
  .red{background-color: red}
  .yellow{background-color: yellow}
</style>
</head>
<body>
  <div class="wrapper">
    <div class="flag-part black"></div>
    <div class="flag-part red"></div>
    <div class="flag-part yellow"></div>
  </div>
</body>
```

Non-semantic element

- `div` comes with the side-effect that it occupies the whole width since it's a **block element**
- Sometimes we want to apply some CSS effects on **inline elements**, such as part of a text
- That's where `` comes in place

Non-semantic element

The Source Code

The Digital Learning Hub (**DLH**) was created in the context of continuous vocational training within the *Ministry of National Education, Children and Youth*. The **DLH** is a learning structure that offers short and hands-on training courses in the fields of computer science for professionals to further educate themselves, improve their skills or switch careers.

```
<style>
  .dlh{
    font-weight: bold;
    color: greenyellow;
  }
  .italic{
    font-style: italic;
  }
  .underline{
    text-decoration: underline;
  }
</style>
</head>
<body>
  <h1>The Source Code</h1>
  <p>The Digital Learning Hub (<span class="dlh">DLH</span>) was created in the context of continuous vocational training within the <span class="italic">Ministry of National Education, Children and Youth</span>.
  The <span class="dlh">DLH</span> is a learning structure that offers short and hands-on training courses in the fields of <span class="italic underline">computer science</span> for professionals to further educate themselves, improve their skills or switch careers.</p>
</body>
```

Exercices