

Content sectioning of HTML document

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Lecture content

- Basic sectioning of text content
- Lists, multiple-level lists
- Tables, table formatting
- Abstract elements (div, span)
- Semantic element (section, article, header, footer, nav, aside, figure, figcaption)

Basic sectioning of text content

- Headings .. h1, .., h6
- Paragraphs .. p
- Semantically different parts:
 - Citations .. quote, blockquote
 - Abbreviations .. abbr
 - Code examples .. code
 - PC program listing examples .. samp
 - Highlighted text .. mark

List

- A set of items making a whole
- Can be:
 - Ordered .. ` `
 - ordered list
 - Unordered .. ` .. `
 - unordered list
- List items are marked by ` .. ` element
 - list item

List (example)

`<p>Labour days of week are:</p>`

``

`Monday`

`Tuesday`

`Wednesday`

`Thursday`

`Friday`

``

Multiple-level lists

- ol and ul elements cannot be embed:

```
<ol>  
  <li>item</li>  
  <ul>  
    <li></li>  
    <li></li>  
  </ul>  
</ol> NO!
```

- Solution:

```
<ol>  
  <item<ul>  
    <li></li>  
    <li></li>  
  </ul> </li>  
</ol> YES!
```

Ol element (and ul element)

- Properties can be use for list modification
- Ol element attributes:
 - Reversed .. Reversed order of elements
 - Start .. The initial value of the first list item
 - Type .. Type of numbering (number, letter, roman number, ...)
- Example: Will be rendered as:
 - `<ol start="3" type="A">`
 - `coffee`
 - `lemonade`
 - `tea`
 - ``
- Ul element has no own attributes

C. coffee
D. lemonade
E. tea

Table

- Arrangement of two dimensional data
- Not acceptable for page layout
- Table block elements :
 - `<table>` .. table
 - `<caption>` .. caption
 - `<thead>` .. head
 - `<tbody>` .. body
 - `<tfoot>` .. foot
- Row and cell elements:
 - `<tr>`, `<th>`, `<td>`

Example

```
<table>
  <thead>
    ...
  </thead>
  <tbody>
    ...
  </tbody>
  <tfoot>
    ...
  </tfoot>
</table>
```

Name	Equatorial diameter
Mercury	4878
Venus	12103
Explanation: measures are in km.	

Example

```
<table>
  <thead>
    <tr>
      <th scope="col">Example</th>
      <th scope="col">Equatorial diameter</th>
    </tr>
  </thead>
  <tbody> .. </tbody>
  <tfoot> .. </tfoot>
</table>
```

Name	Equatorial diameter
Mercury	4878
Venus	12103
Explanation: measures are in km.	

Example

```
<table>
<thead> .. </thead>
<tbody>
  <tr> ..</tr>
  <tr>
    <th scope="row">Venus </th>
    <td>12103 </td>
  </tr>
</tbody>
<tfoot> .. </tfoot>
</table>
```

Name	Equatorial diameter
Mercury	4878
Venus	12103
Explanation: measures are in km.	

Example

```
<table>
<thead> .. </thead>
<tbody> .. </tbody>
<tfoot>
  <tr>
    <td colspan=„2">Explanation: measures are in km.</td>
  </tr>
</tfoot>
</table>
```

Name	Equatorial diameter
Mercury	4878
Venus	12103
Explanation: measures are in km.	

Table formatting

- Table element displays data in two dimensional grid
- Displayed data are not separated by lines
- Table formatting by table attributes is not valid and according to HTML5 standard is obsolete (browsers may render table incorrectly)
- Table formatting is achieved by cascading styles (CSS3 language)

Abstract elements

- `<div>` and `` elements
- They define document parts
- Usually used as container for other parts or elements of HTML document

<div> element

- Defines part of document in a block
- Usually container for other HTML elements
- May contain other div and span elements
- Has no required attributes
- The most common attributes:
 - style .. for formatting of block part content in CSS
 - class .. for naming of marked part and its further processing

<div> element - example

Example:

```
<div style="background-color:red;color:white;">
```

```
  <h2>Sun</h2>
```

```
  <p>It is the star of our solar system.</p>
```

```
  <p>It contains 99% of all mass of the system.</p>
```

```
</div>
```

Sun

It is the star of our solar system.

It contains 99% of all mass of the system.

 element

- It defines a document part in a line
- Usually container for a part of text (e.g. Part of a paragraph)
- No required attributes
- The most common attributes:
 - style .. for formatting of block part content in CSS
 - class .. for naming of marked part and its further processing

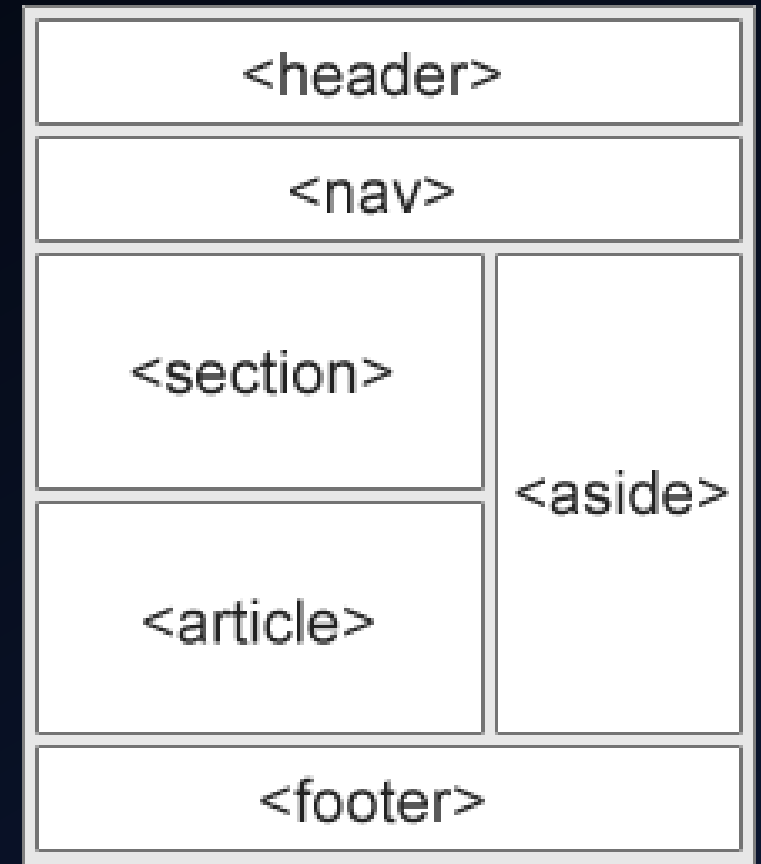
- Example:

```
<h2>Košice (<span lang="hu" style="background-color:red; color:white;"> Kassa </span>  
in Hungarian) </h2>
```

Košice (**Kassa** in Hungarian)

Semantic elements

- Clearly define meaning of the element for browser and for developer
- Elements without semantics
 - Tells nothing about the content
 - Example: span, div
- Element with semantics
 - Clearly define the content
 - Example: h1, table, article
- HTML5 standard contains new semantic elements (definition of web page parts)



Semantic HTML5 marks and their description

<code><article></code>	Defines article
<code><aside></code>	Defines content aside of the content where it is located
<code><details></code>	Defines more details which can be displayed/hidden by user
<code><figcaption></code>	Defines caption for <code><figure></code> element
<code><figure></code>	Denotes content as figures, graphs, photographs, code listings, ...
<code><footer></code>	Defines footer of document or section
<code><header></code>	Denotes header of document or section
<code><main></code>	Denotes the main content of document
<code><mark></code>	Defines marked/highlighted text
<code><nav></code>	Defines navigation links
<code><section></code>	Defines section in document
<code><summary></code>	Defines visible heading for <code><details></code> element
<code><time></code>	Defines date/time

<section> element

- Defines a section in document (app. subchapter)
- Topic based grouping of content, usually with heading (according to W3C documentation of HTML5 standard)
- Example:
 - Homepage can be divided in sections introduction, content and contact information

<article> element

- Denotes a complete part of content
- Is meaningful when standing alone
- The meaning of the article is independent from the rest of the web site
- Usage examples:
 - Discussion posts
 - Blog posts
 - Newspaper articles

<header> element

- Denotes heading of document or section
- Should be used as container for introductory content
- One document may contain several <header> elements

Example of <header> element

```
<article>
```

```
  <header>
```

```
    <h1>What Does WWF Do?</h1>
```

```
    <p>WWF's mission:</p>
```

```
  </header>
```

```
  <p>WWF's mission is to stop the degradation of our planet's natural  
environment, and build a future in which humans live in harmony  
with nature.</p>
```

```
</article>
```

<main> element

- Denotes the main content of document
- Content of the element should be unique for the document
- It should not contain parts of content that appears more than once on the site, e.g. aside panels, navigation links, site logo, search forms, copyright information
- Document may contain at most one <main> element
 - (if more than one exist, one exactly can be visible, all the others have to be hidden)
- Must not be part of <article>, <aside>, <footer>, <header> or <nav> elements.

<footer> element

- Defines footer of document or section
- It has to contain information about the element it is part of
- Usually contains:
 - information about document's author
 - information about copyright
 - links to Conditions of usage
 - information about contact
- One document may contain several <footer> elements

Example of <footer> element

<footer>

<p>Published by: Joe Doe</p>

<p>Contact :
joe.doe@yahoo.com .</p>

</footer>

<nav> element

- Defines a set of navigation links
- It is intended for the main block of navigation links
- Does not need contain all links in the document
- Example:
- ```
<nav>
 HTML |
 CSS |
 JavaScript |
 Angular
</nav>
```

## <aside> element

- Defines content along the content it is located in
- The content of the <aside> element should be related to the content it is surrounded by

- Example :

<p>This year we have spent our vacations at Zvičina hill.</p>

<aside>

    <h4>Zvičina Hill hotel</h4>

    <p> Zvičina Hill Hotel is a small hotel run as a family business.</p>

</aside>

# Figure and figcaption elements

- The purpose of the figcaption element (figure caption) is to include explanation of the figure content into the document
- The figure element can be used for grouping together figure and its caption
- Example:
- `<figure>`  
    ``  
    `<figcaption>`Fig. 1. – Sněžka, the highest mountain in the Czech Republic.`</figcaption>`  
`</figure>`