



Table of Contents

- ◆ Hypertext Markup Language
- ◆ HTML Concepts
- ◆ HTML Document Structure
- ◆ HTML Common Elements
- ◆ Section Elements
- ◆ Semantic Structural Tags



Hypertext Markup Language

```
<!DOCTYPE html>
<html>
  <head>
    <title>Welcome</title>
    <meta http-equiv="Content-Type" content="text/html; charset=UTF-8" />
    <meta name="viewport" content="width=device-width, initial-scale=1.0" />
    <link rel="stylesheet" href="style.css" />
  </head>
  <body>
    <h1>Hello World!</h1>
    <p>This is my first web page.</p>
  </body>
</html>
```

Hypertext Markup Language

- ◆ HTML – Hyper Text Markup Language
 - ◆ A notation for describing
 - ◆ document structure (semantic markup)
 - ◆ formatting (presentation markup)
 - ◆ Looks (looked?) like:
 - ◆ A Microsoft Word document
- ◆ The markup tags provide information about the page content structure
- ◆ A HTML document consists of many tags

Creating HTML Pages

- ◆ An HTML document must have an `.htm` or `.html` file extension
- ◆ HTML files can be created with text editors:
 - ◆ Notepad, Notepad++, Sublime Text
- ◆ Or HTML editors (WYSIWYG Editors):
 - ◆ Microsoft WebMatrix
 - ◆ Microsoft Expression Web
 - ◆ Microsoft Visual Studio
 - ◆ Adobe Dreamweaver

HTML – Past, Present, Future

- ◆ 1991 – HTML first mentioned – Tim Berners-Lee – HTML tags
- ◆ 1993 – HTML (first public version, published at IETF)
- ◆ 1993 – HTML 2 draft
- ◆ 1995 – HTML 2 – W3C
- ◆ 1995 – HTML 3 draft
- ◆ 1997 – HTML 3.2 – “Wilbur”
- ◆ 1997 – HTML 4 – “Cougar” – CSS
- ◆ 1999 – HTML 4.01 (final)
- ◆ 2000 – XHTML draft
- ◆ 2001 – XHTML (final)
- ◆ 2008 – HTML5 / XHTML5 draft
- ◆ 2011 – feature complete HTML5
- ◆ http://en.wikipedia.org/wiki/HTML5#Plan_2014



HTML Terminology

Tags, Attributes and Elements



- ◆ Concepts in HTML

- ◆ Tags

- ◆ Opening tag and closing tag
 - ◆ The smallest piece in HTML

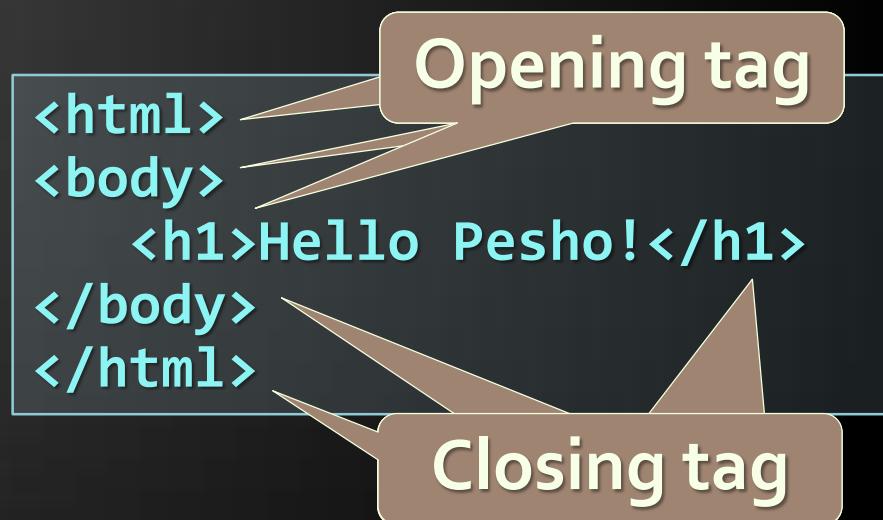
- ◆ Attributes

- ◆ Properties of the tag
 - ◆ Size, color, etc...

- ◆ Elements

- ◆ Combination of opening, closing tag and attributes

- ◆ Tags are the smallest piece in HTML Document
 - ◆ Start with "<" and end with ">"
- ◆ Two kinds of tags
 - ◆ Opening
 - ◆ Mark the start of an HTML element
 - ◆ Closing
 - ◆ Mark the end of an HTML element
 - ◆ Start in "</"



- ◆ Attributes are properties of HTML Elements
 - ◆ Used to set size, color, border, etc...
 - ◆ Put directly in the tags
 - ◆ Has value surrounded by " " or ''
 - ◆ The value is always a string

```
<!-- makes a hyperlink to Google -->
<a href="http://google.com"> go to Google</a>

<!-- makes a horizontal line -->
<hr width="95%" size="3px"/>

<!-- adds an image in the web page -->

```

Some tags don't have closing tag

Most Common Attributes

- ◆ There are some attributes that are common for every HTML element
 - ◆ Id, class, name, style
- ◆ And some attributes are specific
 - ◆ For example the attribute src of the img element
 - ◆ Shows the path to the image to be shown

- ◆ HTML Elements are combination of tags and attributes
 - ◆ Opening tag with some or none attributes and a closing tag

```
<a href="http://google.com"> go to Google</a>
```

```
<html>...</html>
```

HTML Terminology

Live Demo



HTML Document Structure

HTML Document, Doctype, Head, Body



HTML Document Structure

- ◆ Some elements are essential to each HTML Document:
 - ◆ **html, head, body, doctype**
- ◆ The **html** element
 - ◆ Used to mark the beginning and ending of a HTML document
 - ◆ All the content of the web page is inside this tag

```
<html>  
  ...  
</html>
```

Head Element

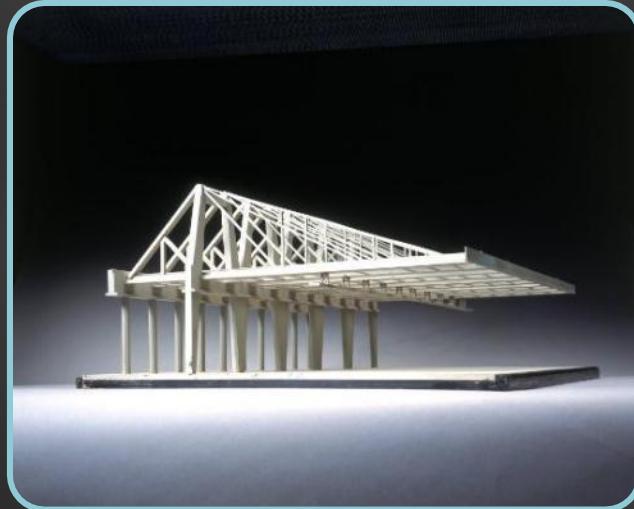
- ◆ The head tag contains markup that is not visible to the user (i.e. the person using the browser)
 - ◆ But helps the browser to render correctly the HTML document
- ◆ What is in there?
 - ◆ Styles, scripts
 - ◆ Declare encodings
 - ◆ Etc..
 - ◆ The title tag - the text in the tab of a browser



Body Element and Doctype

- ◆ **body element contains all the visible to the user markup**
 - ◆ **Headings, text, hyperlinks, images, etc...**
 - ◆ **Textboxes, sliders, buttons...**
- ◆ **Doctype is kind of the validator of the page**
 - ◆ **Tells the browser in which version of HTML the page is written**
 - ◆ **HTML 5 Doctype**

```
<!DOCTYPE html>
```



HTML Document Structure

Live Demo

HTML Common Elements

Used in 90% of all the sites

Text Formatting

- ◆ Text formatting tags modify the text between the opening tag and the closing tag
 - ♦ Ex. **Hello** makes "Hello" bold

	bold
<i></i>	<i>italicized</i>
<u></u>	<u>underlined</u>
<sup></sup>	Sample ^{superscript}
<sub></sub>	Sample _{subscript}
	strong
	<i>emphasized</i>
<pre></pre>	Preformatted text

- ♦ Many of the formatting tags are deprecated
 - ♦ Use CSS instead

Some Simple Tags

- ◆ **Hyperlink Tags**

```
<a href="http://www.telerik.com/"  
    title="Telerik">Link to Telerik Web site</a>
```

- ◆ **Image Tags**

```

```

- ◆ **Text formatting tags**

```
This text is <em>emphasized.</em>  
<br />new line<br />  
This one is <strong>more emphasized.</strong>
```

Headings and Paragraphs

- ◆ Heading Tags (h1 – h6)

```
<h1>Heading 1</h1>
<h2>Sub heading 2</h2>
<h3>Sub heading 3</h3>
```

- ◆ Paragraph Tags

```
<p>This is my first paragraph</p>
<p>This is my second paragraph</p>
```

- ◆ Sections: div and span

```
<div style="background: skyblue;">
    This is a div</div>
```

Ordered Lists: Tag

- ◆ Create an Ordered List using :

```
<ol type="1">
  <li>Apple</li>
  <li>Orange</li>
  <li>Grapefruit</li>
</ol>
```

- ◆ Attribute values for type are 1, A, a, I, or i

1. Apple
2. Orange
3. Grapefruit

A. Apple
B. Orange
C. Grapefruit

a. Apple
b. Orange
c. Grapefruit

I. Apple
II. Orange
III. Grapefruit

i. Apple
ii. Orange
iii. Grapefruit

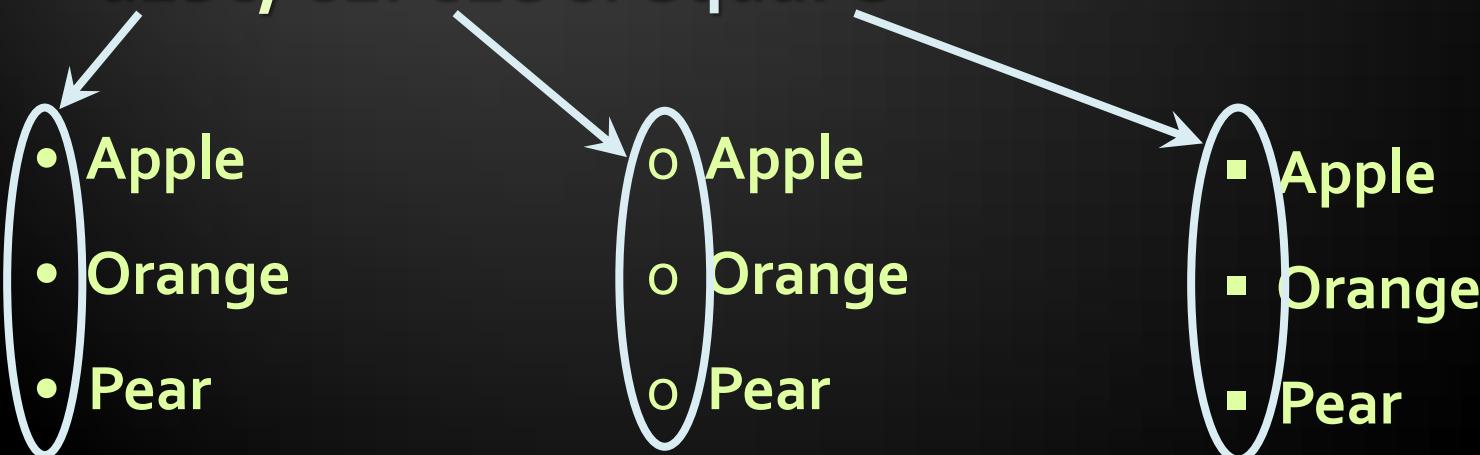
Unordered Lists: Tag

- ◆ Create an Unordered List using :

```
<ul type="disc">
  <li>Apple</li>
  <li>Orange</li>
  <li>Grapefruit</li>
</ul>
```

- ◆ Attribute values for type are:

- disc, circle or square



Definition lists: <dl> tag

- ◆ Create definition lists using <dl>
 - ◆ Pairs of text and associated definition; text is in <dt> tag, definition in <dd> tag

```
<dl>
  <dt>HTML</dt>
  <dd>A markup language ...</dd>
  <dt>CSS</dt>
  <dd>Language used to ...</dd>
</dl>
```

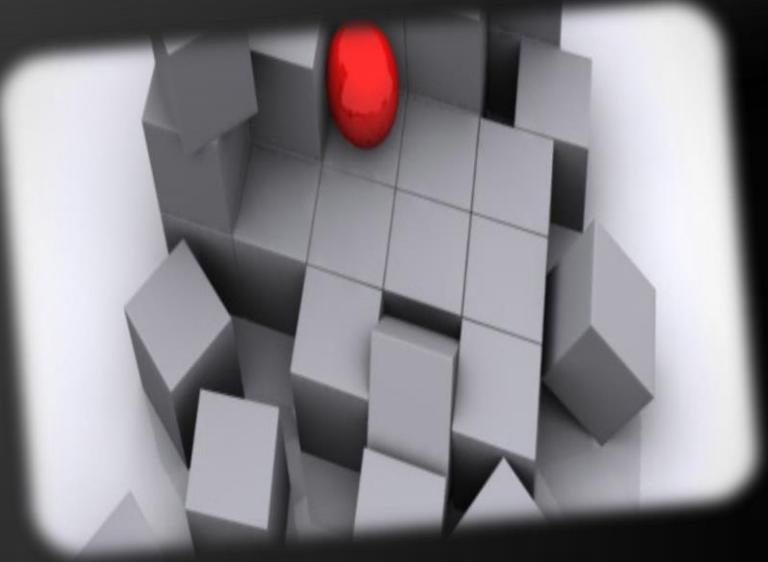
- ◆ Renders without bullets
- ◆ Definition is indented

HTML Common Elements

Live Demo

```
4 <head>
5 <meta http-equiv="Content-Type"
6 <title>Home</title>
7 <link rel="stylesheet" href="sty
8 <style type="text/css">
9 .style1 {
10   color: #FF0000;
11 }
12 </style>
13 </head>
```

You will have to purchase a separate license to use the OpenCube me



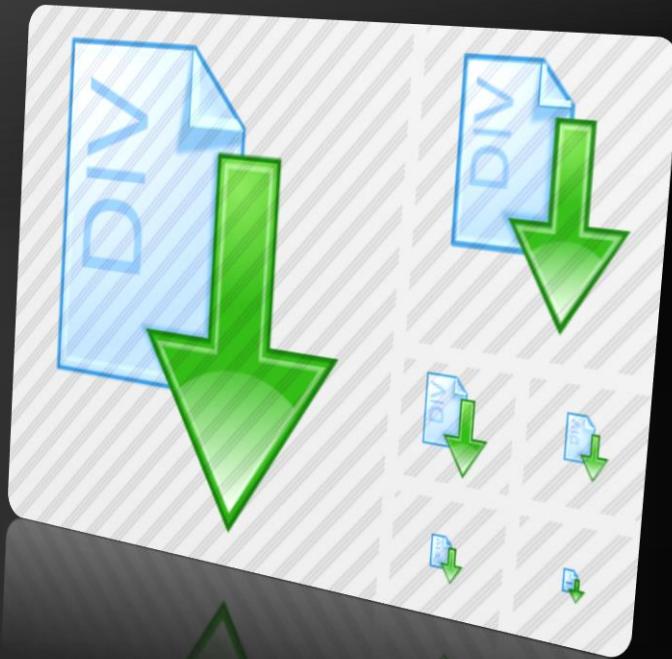
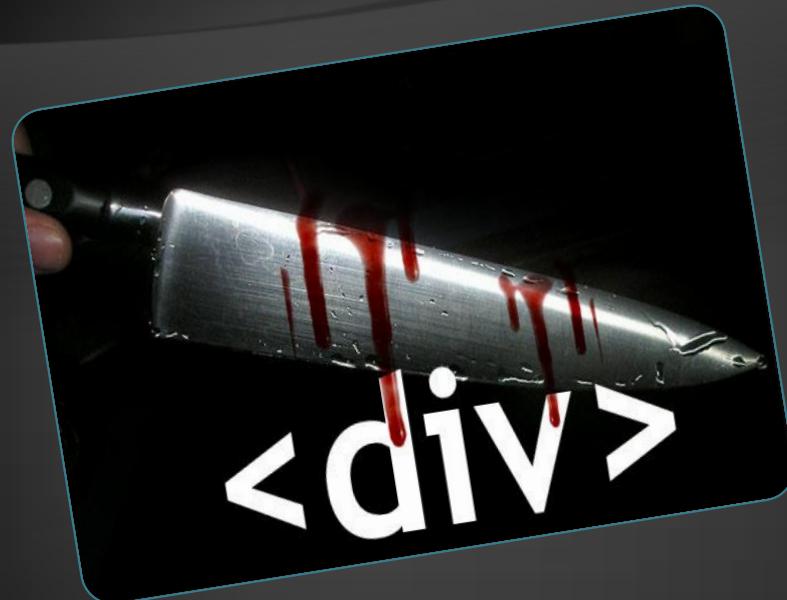
Section Elements

The <div> and The

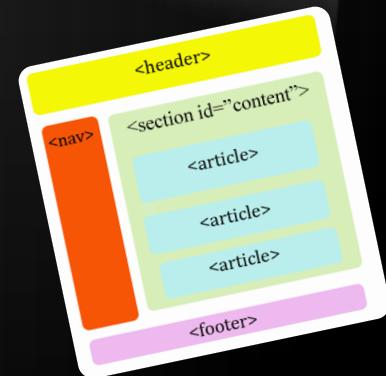
- ◆ <div> creates logical divisions within a page
 - ◆ Block element
 - ◆ Used with CSS
- ◆ Example:



```
<div style="font-size:24px; color:red">DIV  
example</div>  
  
<p>This one is <span style="color:red; font-  
weight:bold">only a test</span>.</p>
```

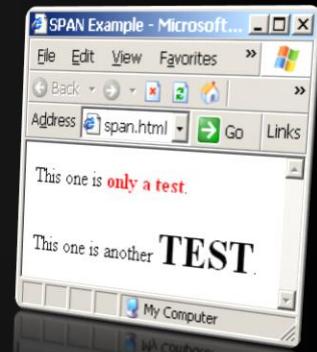


<div> <DIV>
Live Demo



The Tag

- ◆ Inline style element
- ◆ Useful for modifying a specific portion of text
 - ◆ Don't create a separate area (paragraph) in the document
- ◆ Mainly used to style parts of a text



```
<p>This one is <span style="color:red; font-weight:bold">only a test</span>.</p>

<p>This one is another <span style="font-size:32px; font-weight:bold">TEST</span>.</p>
```



Live Demo

some text

Semantic Structural Tags

The Structure of a Web Page

- ◆ A sample layout structure of a Web Page



- ◆ Using divs with IDs
 - ◆ The IDs are needed for styling

```
<html>
<head> ... </head>
<body>
  <div id="header"> ... </div>
  <div id="navigation"> ... </div>
  <div id="sidebar"> ... </div>
  <div id="content"> ... </div>
  <div id="footer"> ... </div>
</body>
</html>
```

The HTML 4 Way

Live Demo

- ◆ In HTML 5 there are semantic tags for layout
 - ◆ <nav>, <header>, <footer>, <section>

```
<html>
<head> ... </head>
<body>
    <header> ... </header>
    <nav> ... </nav>
    <aside> ... </aside>
    <section> ... </section>
    <footer> ... </footer>
</body>
</html>
```

- ◆ Work only on newer browsers

Semantic Structural Tags

Live Demo



HTML5
Unleashed

- ◆ It is important to have the correct vision and attitude towards HTML
 - HTML is only about structure, not appearance
 - Browsers tolerate invalid HTML code and parse errors – you should not
 - Always think about semantics
- ◆ The W3C HTML Validator is a way to validate your HTML
 - <http://validator.w3.org/>

Questions?

Free Trainings @ Telerik Academy

- ◆ "Web Design with HTML5, CSS3 and JavaScript" course @ Telerik Academy



- ◆ html5course.telerik.com

- ◆ Telerik Software Academy

- ◆ academy.telerik.com

Telerik Academy

A large green rectangular button with the 'Telerik Academy' text and a graduation cap icon.

- ◆ Telerik Academy @ Facebook

- ◆ facebook.com/TelerikAcademy



- ◆ Telerik Software Academy Forums

- ◆ forums.academy.telerik.com

