

Web Page



The Elements of a Web Page

♦ A Web page consists of:

- ♦ HTML markup
- ♦ CSS rules
- ♦ JavaScript code
 - ♦ JS libraries
- ♦ Images
- ♦ Other resources
 - ♦ Fonts, audio, video, etc...



The Elements of a Web Page: HTML Markup

- ♦ The HTML is used to define the content of a Web page
 - ♦ Not the layout
 - ♦ Not the decorations
- ♦ HTML's role is to present the information in a meaningful manner
 - ♦ Like a paper document
 - ♦ Define headers, paragraphs, textboxes, etc...
 - ♦ Not define size, color and/or positioning



The Elements of a Web Page: CSS Rules

- ♦ Cascading Style Sheets (CSS) is the way to make a Web page look pretty
 - ♦ Define styling rules
 - ♦ Fonts, colors, positioning, etc.
 - ♦ Define the layout of the elements
 - ♦ Define the presentation
- ♦ The CSS files are attached to a web page and the browser applies these styles to elements



The Elements of a Web Page: JavaScript Code

- ♦ JavaScript is the programming language for the Web
- ♦ Makes the Web pages dynamic
- ♦ Dynamically adding / removing HTML elements, applying styles, etc.
- ♦ Modern JavaScript UI libraries provide UI components like dialog boxes, grids, tabs, etc.
- ♦ Like CSS the JavaScript files are attached to a web page

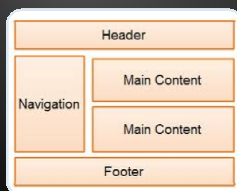


The Elements of a Web Page: Other Resources

- ♦ Other resources are needed for a Web page to run properly
- ♦ Images, audio files, video files
- ♦ Flash / Silverlight / ActiveX objects



The Semantic HTML



```

<address> <div>
<ul> </fieldset> <
</em> <h1>
orm>
<a> </ol> <head>
<p> <table> <abl
    
```

Semantic HTML

- ♦ Semantic HTML is:
 - ♦ The use of HTML markup to reinforce the semantics of the information in Web pages
 - ♦ Rather than merely to define its presentation
 - ♦ A kind of metadata about the HTML content
- ♦ Semantic HTML is processed by regular Web browsers and other user agents
 - ♦ CSS is used to suggest its presentation to human users



Why Use Semantic HTML?

- ♦ Semantic HTML is:
 - ♦ Easier to read by developers
 - ♦ Easier to render by browsers
 - ♦ A way to show the search engines the correct content



How To Write Semantic HTML

- ♦ Just follow some guidelines when creating a Web site
 - ♦ Use HTML5 semantic tags
 - ♦ `<header>`, `<nav>`, `<section>`, `<article>`, `<aside>`, `<footer>`
 - ♦ Use Headings when you need to structure the content into sub-headings
 - ♦ In increasing order, starting with `<h1>`
 - ♦ Do not use empty tags
 - ♦ Like a clearing `<div>`

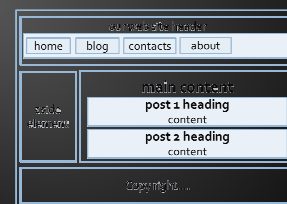


HTML5 Semantic Tags



HTML5 Semantic Tags

- ♦ HTML5 introduces semantic structure tags
 - ♦ Imagine the following site:



- ♦ This is a common Web page structure
 - ♦ Used in 90% of the web sites

HTML5 Semantic Tags (2)

- ◆ This can be created using all kind of HTML elements
 - ◆ `<div>`, `<span>`, even `<p>`
 - ◆ Browsers will render invalid / wrong / pseudo valid HTML
- ◆ The correct way: use the HTML 5 semantic tags:

```
<header> ... </header>
<section> ... </section>
<aside> ... </aside>
<footer> ... </footer>
```

- ◆ More about semantic tags:
<http://pavelkolev.com/html5-snippets/>



HTML5 Semantic Tags (3)

- ◆ `<header>`
 - ◆ Site header or section header or article header
- ◆ `<footer>`
 - ◆ Site footer (sometime can be a section footer)
- ◆ `<nav>`
 - ◆ Site navigation (usually in the header)
- ◆ `<section>`
 - ◆ Site section (e.g. news, comments, links, ...)
- ◆ `<article>`
 - ◆ Article in a section (e.g. news item)

HTML5 Semantic Tags (4)

- ◆ `<aside>`
 - ◆ Sidebar (usually on the left or on the right)
- ◆ `<figure>`
 - ◆ Figure (a figure, e.g. inside an article)
- ◆ `<figcaption>`
 - ◆ A caption of a figure (inside the `<figure>` tag)
- ◆ `<audio>` / `<video>`
 - ◆ Audio / video element (uses the built-in player)

HTML5 Semantic Tags (5)

- ◆ `<details>` + `<summary>`
 - ◆ Accordion-like widget (can be open / closed)
- ◆ `<hgroup>`
 - ◆ Group article header + subheader (`<h1>` + `<h2>`)
- ◆ `<time>`
 - ◆ Specifies date / time (for a post / article / news)

Other Semantics

Headings, ems, strongs



Other Semantics

♦ Headings

- ♦ Always use headings (<h1> – <h6>) when you need a heading or title
 - ♦ Like in a MS Word document
 - ♦ Google uses it to mark important content

♦ Strong vs. Bold

- ♦ does not mean anything
 - ♦ It just makes the text bolder
- ♦ marks the text is "stronger" than the other, surrounding text

Other Semantics (2)

- ♦ Emphasis vs. Italic <i>
 - ♦ Emphasis does not always mean, that the code should be *italic*
 - ♦ It could be bolder, italic and underlined
 - ♦ The styles for the emphasis text should be given with CSS
 - ♦ Not by HTML
- ♦ Old browsers (like IE6)?
 - ♦ Use [Modernizr](#) or [HTML5shiv](#)

HTML5

Questions?