

INLS 672

Web Development 2

HTML Refresher



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SCHOOL OF INFORMATION
AND LIBRARY SCIENCE

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HTML Basics: Document Structure

- HTML defines the structure of a web document and describes the content.
- HTML does not define presentation or layout

Minimal structure of an HTML document

```
<!DOCTYPE html>
<html>
  <head>
    <meta charset="utf-8">
    <title>Title goes here</title>
  </head>
  <body>
    Page content goes here
  </body>
</html>
```

HTML Basics: Document Content

Text elements

- Paragraphs `<p>`
- Headings `<h1>` `<h2>` `<h3>` `<h4>` `<h5>` `<h6>`
- Lists `` `` `<dl>`

Images (jpg, png, gif)

```

```

Links

```
<a href="https://sils.unc.edu">SILS</a>
```

HTML Basics: Organizing Content with Generic Elements

<div>

- Block element that specifies a division of content in a document
- Can have an **id** or **class** attribute that describes the content, and can be associated with a style sheet or script

```
<div>  
  <h2>Appalachian Trail</h2>  
  <p>Stretching from Georgia to Maine, the National ...</p>  
  ...  
</div>
```


- Similar to **<div>** but is an inline element often used for phrases, and can also be associated with an **id** or **class** attribute for styling purposes

```
<p>... maintains <span>95.5 miles</span> of the 2,185 mile ...</p>
```

Simple Web Page

Click image to
view in browser



North Carolina National Parks

Appalachian Trail

Stretching from Georgia to Maine, the National Park Service (along with the US Forest Service, North Carolina officials and private groups) maintains **95.5 miles** of the 2,185 mile long Appalachian Trail in North Carolina.

Blue Ridge Parkway

Tracing the Blue Ridge Mountains of Virginia and North Carolina for 469 miles, the National Park Service helps to maintain the **253 mile** North Carolina portion. Among the highlights in North Carolina, access to Grandfather Mountain and to Mt. Mitchell, the highest peak east of the Mississippi River.

Cape Hatteras National Seashore

Established in 1937, the Cape Hatteras National Seashore is the nation's first national seashore and stretches more than **70 miles** along the Outer Banks from Bodie Island to Ocracoke Island. The world famous Cape Hatteras Lighthouse, the tallest lighthouse on the East Coast, is part of the Cape Hatteras National Seashore.

Cape Lookout National Seashore

Located three miles off the coast of North Carolina on Harkers Island, Cape Lookout National Seashore is only reachable by ferry. Cape Lookout protects a **56-mile** long section of the southern Outer Banks known as the Crystal Coast running from Ocracoke Inlet to Beaufort Inlet.

HTML Basics: Links

Anchor element `<a>...`

```
<a href="https://sils.unc.edu">SILS</a>
```

Destination link (URL) address

Visible text

Absolute vs. relative URLs

- Absolute URLs specify the full URL for a document, including the protocol, domain name, and path name; used for referencing external resources (outside of your website or server)

```
<a href="https://digitalaccessibility.unc.edu/resources/all-resources/">  
  Digital Accessibility</a>
```

- Relative URLs specify the path name relative to the current document (“internal link”)

```
<a href="/courses/2021/spring">Spring semester classes begin</a>
```

HTML5.3: Current Specification

- [W3C Working Draft](#) as of October 2018
 - HTML5 was approved in October 2014
- Not really a new version, rather the “latest work on HTML”
- Guidelines and design principles
 - New features should be based on the core technologies: HTML, CSS, DOM, and JavaScript
 - Reduce the need for external plugins (Flash, Silverlight)
 - Better error handling
 - More markup to replace scripting
 - Support existing content
 - Don't “reinvent the wheel”, and “pave the cow paths”

HTML5: Simpler Markup

`<!DOCTYPE html>` instead of

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"  
  "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
```

`<html>` instead of

```
<html xmlns="http://www.w3.org/1999/xhtml" lang="en" xml:lang="en">
```

`<link rel="stylesheet" href="styles.css">`

instead of

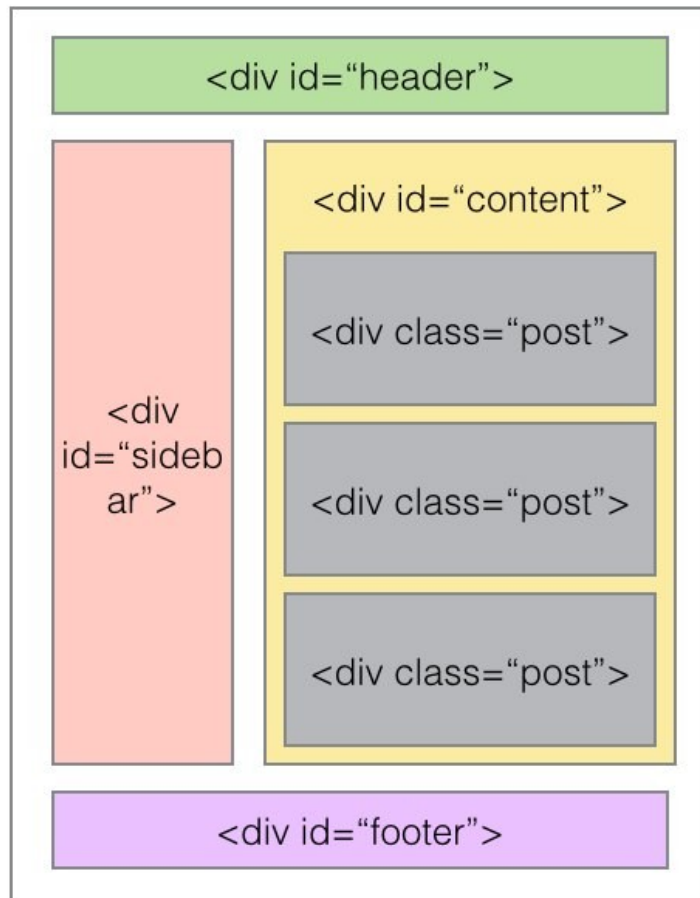
```
<link rel="stylesheet" href="styles.css" type="text/css">
```

`<script>` instead of `<script type="text/javascript">`

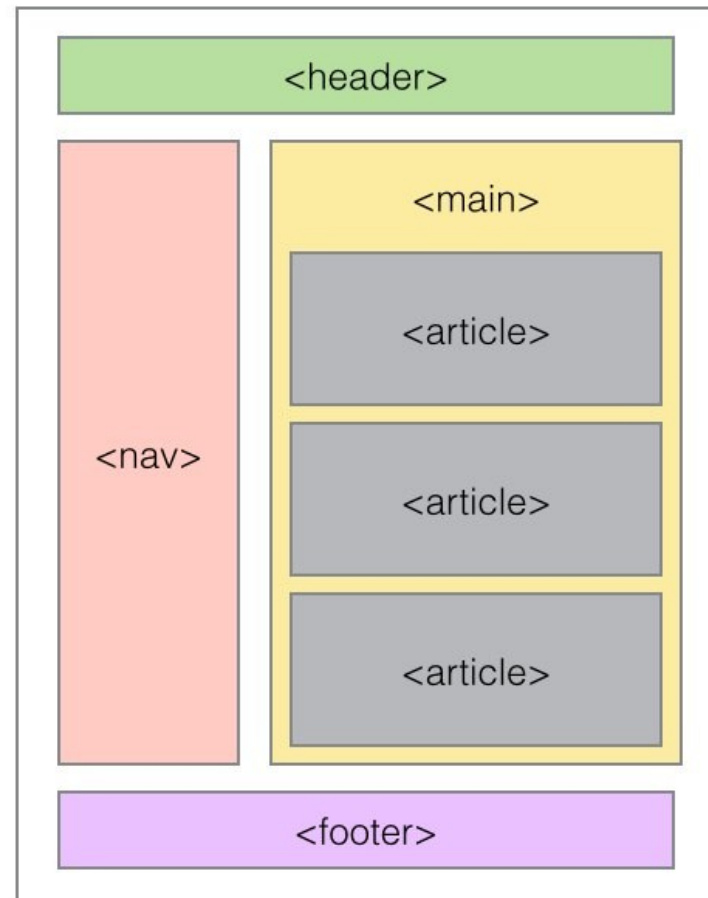
Using Semantic Elements

HTML4 vs HTML5 Page Structure on a Blog

HTML4: Lots of Classes/IDs



HTML5: Semantic Tags/Sections



HTML + CSS

Early HTML included elements to define

- Structure of the content (headings, paragraphs, lists), *and*
- Presentation or typography (fonts, italics, underlining, margins, alignment) to format the content

Today, use Cascading Style Sheets (CSS) to

- Separate presentation from content (and structure)
 - Example: [CSS Zen Garden: The Beauty of CSS Design](#)
- HTML5 does not support presentation elements
 - List of [deprecated HTML tags and attributes](#)

Benefits of HTML + CSS

HTML

- Clarity, readability, maintainability
- Accessible – no formatting “clutter”
- Better analysis by other programs, tools, search engines
- Web pages load faster – less HTML, style sheet caching

CSS

- More formatting options than HTML
- Maintainability (embedded HTML formatting is annoying)
- Reuse (within and across websites)
- Responsive web design

HTML + CSS: Separate Content and Presentation with External Style Sheets

External style sheets (recommended!)

```
<head>  
  <title>Title goes here</title>  
  <link rel="stylesheet" href="style.css">  
</head>
```

Embedded style sheets (ok for small style sheets)

```
<head>  
  <title>Title goes here</title>  
  <style>  
    ...  
  </style>  
</head>
```

Inline styles (don't do this!)

```
<h2 style="color:blue">The sky is blue</h1>
```