

Today's Agenda

- HTML5
- Midterm solutions – Review #2
- ~~If time permits:~~
 - ~~– Assignment 2 – marking scheme~~

CMPT 165

Special Topics - HTML5

July 13th, 2015

HTML5... Why bother?

HTML is constantly evolving... HTML5 is latest version

- New markup tags:

`<nav>`

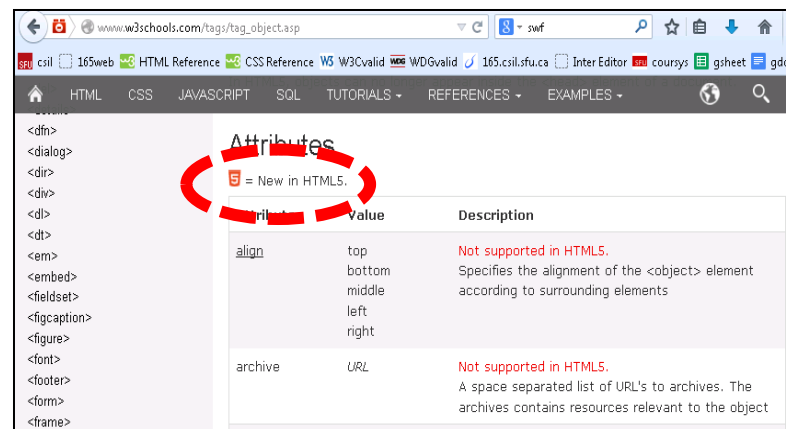
`<aside>`

...

- Old (vs. new) tags:

- New tags are introduced
- Some XHTML tags become **deprecated*** in HTML5
 - should not use any more, but browsers “should” support them
- Some XHTML tags become **obsolete*** in HTML5
 - should avoid as these are tags which browsers are not required to support

- More convenience...**



*Details here <http://www.w3.org/TR/html401/conform.html#h-4.1>

Question: which 3 parts are required on *every* markup page?

1. Document declaration type (DTD)
2. Header
3. Body

```
<!-- XHTML 1.0 strict -->

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

<html xmlns="http://www.w3.org/1999/xhtml" >
<head>
    <title>Page Title</title>
</head>

<body>
    <h1>Page Heading</h1>
</body>
</html>
```

DTD in HTML5

```
<!-- HTML5 -->

<!DOCTYPE html>
<html>
  <head>
    <title>HTML5: A demo</title>
  </head>
  <body>
  </body>
</html>
```

Note: For remainder of course,
HTML5 code will be shown on
light blue background.

XHTML 1.0 Strict in light purple
CSS in light plum

HTML5... Why bother?

HTML is constantly evolving... HTML5 is latest version

- New (more semantically meaningful) markup tags:

`<nav>`

`<aside>`

...

- Old (vs. new) tags:
 - New tags are introduced
 - Some XHTML tags become **deprecated*** in HTML5
 - i.e. should not use any more, but browsers “should” keep supporting them
 - Some XHTML tags become **obsolete*** in HTML5
 - i.e. should avoid as these are tags which browsers are not required to support
- More convenience...

*Details here <http://www.w3.org/TR/html401/conform.html#h-4.1>

More semantic markup tags

```
<nav>
  <a href="/html/">HTML</a>
  <a href="/css/">CSS</a>
  <a href="/js/">JavaScript</a>
  <a href="/jquery/">jQuery</a>
</nav>
```

```
<aside>
  <blockquote>
    <p>All the world's a stage.</p>
  </blockquote>
  <p>William Shakespeare</p>
</aside>
```

```
/*Default style of
most browsers */
```

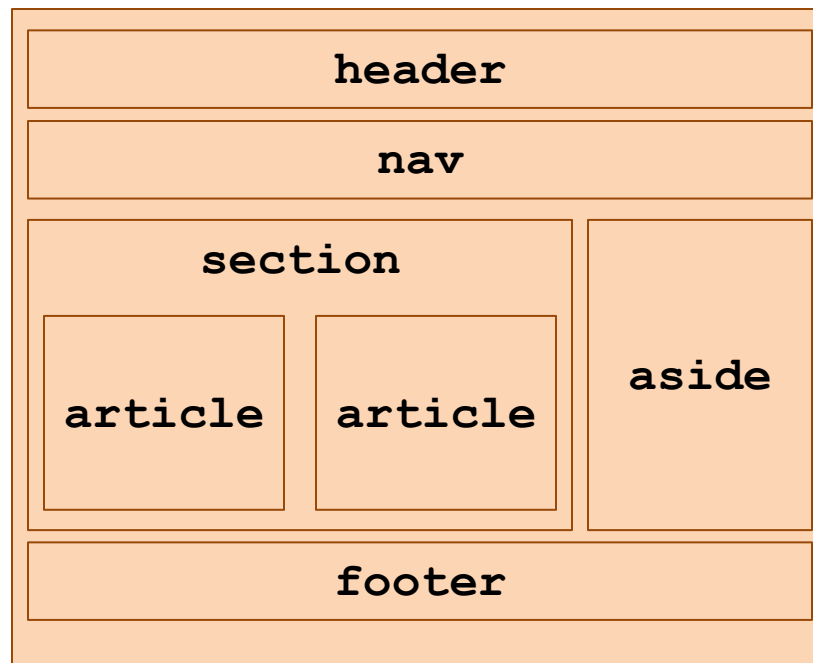
```
nav {
display: block;
}
```

Note the debate on using list or not for the menu items:

<https://css-tricks.com/navigation-in-lists-to-be-or-not-to-be/>

HTML4 to HTML5 “Migration”

Typical HTML4	Typical HTML5
<code><div id="header"></code>	<code><header></code>
<code><div id="menu"></code>	<code><nav></code>
<code><div id="content"></code>	<code><section></code>
<code><div id="post"></code>	<code><article></code>
<code><div id="footer"></code>	<code><footer></code>



Figures and captions made easy

<figure> + <figcaption>

Efficient way to mark up a figure in a document.

Easier way to cite images.

```
<figure>
```

```

```

```
<figcaption>One early morning. By <a href="#me">LT</a>.</figcaption>
```

```
</figure>
```



One early morning. By [LT](#).

<time>

```
<time datetime="2015-07-13"> July 13, 2015 </time>
```

- Encode dates and times in a **machine-readable** way
- **User agents*** can offer these options to users:
 - add reminders to birthday, scheduled events to user's calendar
- Search engines can produce smarter search results

*the browsers that your users use

Some tags worthy to know about

Semantic:

nav

aside

figure

figcaption

time

Frames:

iframe, object

<iframe>

To display a web page within a web page. Examples:

```
<iframe src="http://www.youtube.com/embed/W7qWa52k-nE"  
width="560" height="315" allowfullscreen></iframe>
```

Embedding Google documents (e.g. spreadsheet):

```
<iframe width="100%" height="750px" scrolling="no"  
  
src="https://docs.google.com/spreadsheets/d/1bZXNV453jfysdqL2XdMsDICEXzdUOR4WWVAY  
lmFNRxE/pubhtml?gid=0&amp;single=true&amp;widget=true&amp;headers=false"  
  
alt="Calendar with links to assignments and exercises">  
  
</iframe>
```

Try out the Google drive here <https://www.google.ca/docs/about/>

<object>

```
<object  
  width="400"  
  height="400"  
  data="http://www.w3schools.com/tags/helloworld.swf">  
  
  Your browser does not support Flash.  
  
</object>
```

Some tags worthy to know about

Semantic:

nav

aside

figure

figcaption

time

Multi-media:

svg

audio

video

Frames:

iframe, object

```
<figure>
  <svg xmlns="http://www.w3.org/2000/svg" xmlns:xlink="http://www.w3.org/1999/xlink" >
    <g>
      <rect      x="10" y="10"
                height="80" width="110"
                style="stroke:#ff0000; fill: #0000ff">
      </rect>
      <text      fill="#ffffff"
                font-size="25"
                font-family="arial" x="30" y="86">HTML5</text>
      <animateTransform
                attributeName="transform"
                begin="0s"
                dur="20s"
                type="rotate"
                from="0 60 60"
                to="360 60 60"
                repeatCount="indefinite"
      />
    </g>
  </svg>
  <figcaption>My first animated SVG.</figcaption>
</figure>
```

Some tags worthy to know about

Semantic:

nav

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figure

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time

Frames:

iframe, object

Multi-media:

svg

audio

video

<audio>

```
<a href="monochrome.mp3"
  type="audio/mp3">Narration</a>
```



<audio controls>

```
<source src="monochrome.mp3"
type="audio/mp3">
```

Your browser does not support the audio element.

</audio>

<video> | <audio>

- **controls** attribute gives control buttons for:
 - play
 - pause
 - volume
- It is a good idea to always include **width** and **height** attributes
- Multiple **<source>** elements can link to different files
 - browser will use the first recognized format

<video>

```
<video width="320" height="240" autoplay>
```

```
  <source src="movie.mp4" type="video/mp4">
```

```
  <source src="movie.ogg" type="video/ogg">
```

Your browser does not support the video tag.

```
</video>
```

<audio>

Browser	MP3	Wav	Ogg
Internet Explorer	YES	NO	NO
Chrome	YES	YES	YES
Firefox	YES	YES	YES
Safari	YES	YES	NO
Opera	YES	YES	YES

Format	MIME-type
MP3	audio/mpeg
Ogg	audio/ogg
Wav	audio/wav

<video>

Browser	MP4	WebM	Ogg
Internet Explorer	YES	NO	NO
Chrome	YES	YES	YES
Firefox	YES	YES	YES
Safari	YES	NO	NO
Opera	YES (from Opera 25)	YES	YES

Format	MIME-type
MP4	video/mp4
WebM	video/webm
Ogg	video/ogg

License-free audio/visual files

Video

<https://us.fotolia.com>

<http://www.shutterstock.com/>

<http://www.pond5.com/free>

Music

<https://www.youtube.com/audiolibrary/music>

Text-to-speech audio files:

<http://www.fromtexttospeech.com/>

Demos

<http://www2.cs.sfu.ca/CourseCentral/165/lisat/demos/html5/>

Questions?