Web Technologies (ICDT6004) – Lecture 3

Templates and layout tags

Aims of lecture

- At the end of today's lecture students should be able to
  - Using nav, div, header, footer, address tags
  - Use templates to build websites

The <div> tag

- Websites have content that are placed either in columns or on different parts of the page.

- This can be achieved by using div, nav, header, footer, article etc

- The div element is a block level element used for grouping HTML elements.

The <div> Tag (2)

- The <div> tag is nothing more than a container unit that encapsulates other page elements and divides the HTML document into sections.

- Web developers use <div> elements to group together HTML elements and apply the same formatting to many elements at once.

The <div> Tag (3)

<div id="myDiv" name="myDiv" title="Example Div Element"> <h5>Subtitle</h5>

<p>This paragraph would be your content paragraph...</p>

<p>Here's another content article right here.</p> </div>

Subtitle

This paragraph would be your content paragraph...

Here's another content article right here.

The <div> Tag (4)

- Different Layouts can be achieved using div as shown below:

- <div> will be discussed in more details in Lecture on Interface design and Layouts

Semantic/Structural Elements

- HTML5 provides a new set of semantically-meaningful elements for describing a typical web page layout.

- Using elements that are "meaningful" (i.e. describe the content they contain) makes it easier for you to read and organize your code, and makes it easier for search engines and screen readers to read and organize your content.

The new tags

- The HTML 5 elements we'll be using are:
  - header
  - footer
  - nav
  - article
  - hgroup

The <header> tag

- It is used as header of one or more sections or as a header of the document.
- HTML5 header tag should be used as a container of introductory contents like <h1> – <h6> tags, table of contents, search form, logo etc. with or without navigational links.
- Important points need to be remembered:
- <header> and <head> tags are completely different.
- A <header> tag cannot be placed within <footer> or <address> tag. Also header element cannot be placed within another header element.

The <header> tag (2)

- HTML5 header element is supported by latest versions of all web browsers. Internet Explorer 8 or earlier versions of Internet Explorer do not support header element.

The <footer> tag

- It is used as footer of one or more sections or as a footer of the document just like header tag.

- HTML5 footer tag usually contains information about the author of the document, copyright information, terms of use, privacy policy, contact information etc.

- Important points need to be remembered:
  - HTML5 footer element is supported by latest versions of all web browsers. Internet Explorer 8 or earlier versions of Internet Explorer do not support footer element.
  - Contact information should not be placed directly within footer element, it should be placed within address tag.

The <footer> tag – code example

- Below the footer tag is used as document footer

```
<footer> <ul> <li>Copyright</li>
<li>Sitemap</li> <li>Terms of Use</li>
<li>Privacy Policy</li> <li>Contact</li> </ul>
</footer>
```

The <nav> tag

- HTML5 nav tag defines the section for navigation links in a document.

- It is not mandatory to place all the links of a document in nav element, but the major navigational links should be placed under it.

- This element can be used more than one place within a document.

- But nav element should be placed in such places in a document so that visitors can easily access the navigational links.

- Important point need to be remembered:
  - HTML5 nav element is supported by latest versions of all web browsers. Internet Explorer 8 or earlier versions of Internet Explorer do not support nav element.

The <nav> tag – code example

- <nav>   Home | Web Design Blog | Sitemap | Contact Us</nav>
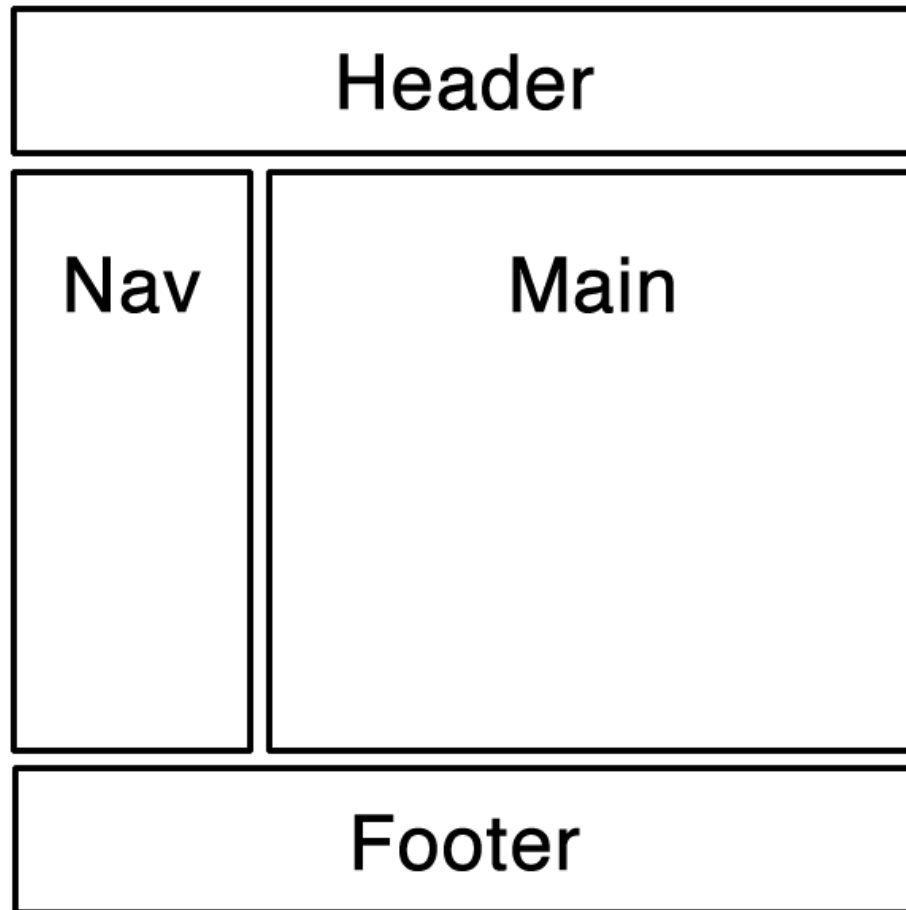
The <article> tag

- The article tag (<article>) represents an independent component of a document, page or website which is distributable and reusable.

- Sources of HTML5 article element could be blog post, forum post, news story, user submitted comment etc.

- The article element generally contains a heading (usually within header element), the paragraph tag (<p>) and sometimes footer tag.

- HTML5 article element is supported by latest versions of all web browsers. Internet Explorer 8 or earlier versions of Internet Explorer do not support article element.

The <article> tag – code example

- Structured example of article tag
- <article> <header> <h1>This is the heading of the article</h1> <p>Written By: S Ghosh</p> </header> <p>More content ....</p> <footer> <p><small>On 10th September 2015</small></p> </footer> </article>
- <article> <header> <h1>This is the heading of the article</h1> <p>Written By: Z. M.</p> </header> <p>More content ....</p> <footer> <p><small>On 10th September 2015</small></p> </footer> </article>

The Layout

Header

Nav

Main

Footer

The code

```
<!DOCTYPE html>
<html>
  <head>
    <title><!-- Your Title --></title>
  </head>

  <body>
    <header>  <!-- ... -->  </header>
    <nav>  <!-- ... -->  </nav>
    <div id="main">   <!-- ... -->   </div>
    <footer>   <!-- ... -->  </footer>
  </body>
</html>
```

The code (2)

```
 <div id="main">
<article>
   <hgroup>
      <h2>Title</h2>
      <h3>Subtitle</h3>
   </hgroup>

   <p>
      <!-- --->
   </p>
</article>
</div>
```

The code (3)

- In the above example, since there is no css attached to the html file, the different sections will appear one after the other.
- CSS should be used to format the webpage and place the content at the desired position.

HTML Layout

- As we will see soon the biggest advantage of using CSS is that, if the CSS code is placed in an external style sheet, the website becomes MUCH EASIER to maintain. The layout of all the pages can be changed by editing one file.

- Because advanced layouts take time to create, a quicker option is to use a template.

Templates

- A web design template is a set of professionally created design files for building a web site.

- A number of templates exist on the internet, some are free to download and some are fee-paying.

- Free templates can be downloaded from http://www.quackit.com/html/templates/

- Web templates are an excellent choice for anyone on a small or medium sized budget who does not need to have a 100% unique design.

Templates (2)

- When someone buys a template, it is possible that others have purchased the same design, and might continue to do so in the future. So that user might not be the only one with that design. But practically speaking, the web has tens of millions of sites on it.

- Also when a user purchases a web design template, they normally alter it to some degree to fit their own content.

- Not every person who purchased the same web design template will actually end up launching a website with it (sometimes plans fall through).

- So the chances of having a unique design or having other sites with the same design are slim.

Templates(3)

- The template files are intended to be modified to meet the user's needs.
  - All the categories and page names need to be re -labelled,
  - The photos need to be replaced with images that are appropriate to the user's website
  - and all the text will need to be rewritten to fit the user's need.
  - The background color and image can be changed.

Demo of using a template in class

Steps to use a template

- The steps that follow are based on the template that has been downloaded from the quackit website.

- Investigation of the unzipped file shows the following files: index.html, style.css and the images folder (containing all the images)

- There is only a single page, the index.html page, that will be modified and a new version of the template will be created for the web site.

Modifying the template

- The index.html is amended as per user's requirements.
- The new page is now ready and this can be used to create the other 8 web pages.
- The new version of index.html can now be saved as **template.html**
- This will leave the **index.html** page intact and each time **template.html** can be opened in the editor and saved as a new page with a new name each time.
- The code at the top (the banner), on the right side of the page (the menu) and the bottom (copyright info) can be left unchanged and the main content replaced with new information for each new page.

References

- http://www.w3schools.com
- http://www.quackit.com/html/templates/

Questions?