Fundamentals of Web Design and Development

Assignment 1

This assignment covers the information and techniques contained in Lessons 1 – 10.

Website
Create a website **with a minimum of four pages** which profiles yourself, or a topic that you are interested such as your favorite music band, celebrity, sport's club etc.

Progressive Enhancement
When building the website, try to follow the progressive enhancement method. So first make the website work well with just HTML and your content (text, images, multimedia) – so that the layout looks good and everything is functional. Then apply CSS to style the website and get that working well and then add any CSS3 to further enhance the design (see lesson 8 for more info).

Website Files
Your home page should be called `index.html` which is what browsers will expect when they come to your website.

The website should be stored in a folder and then within this follow this sort of structure:

index.html
page2.html
page3.html
page4.html
/css
    stylesheet.css
/images
    myimage.jpg
/js
    html5shiv.js
/fonts
    myfont.eot
    myfont.svg
    myfont.ttf
    myfont.woff

(you can name the files and folders as you like, apart from the home page which needs to be index.html – the items in bold are folders)
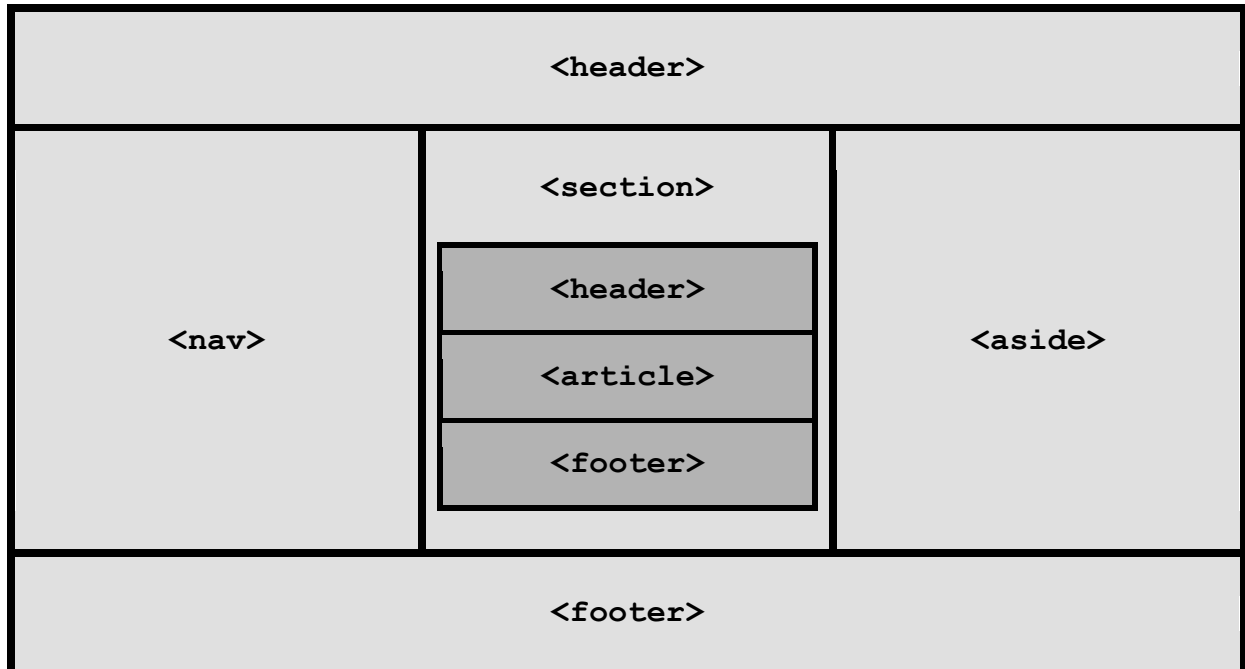
Code
Use a simple text editor (like notepad) to write your code so that it is clean and simple – if you use software such as Dreamweaver then the code needs to be written by hand – code generated automatically by dream weaver will not be accepted.
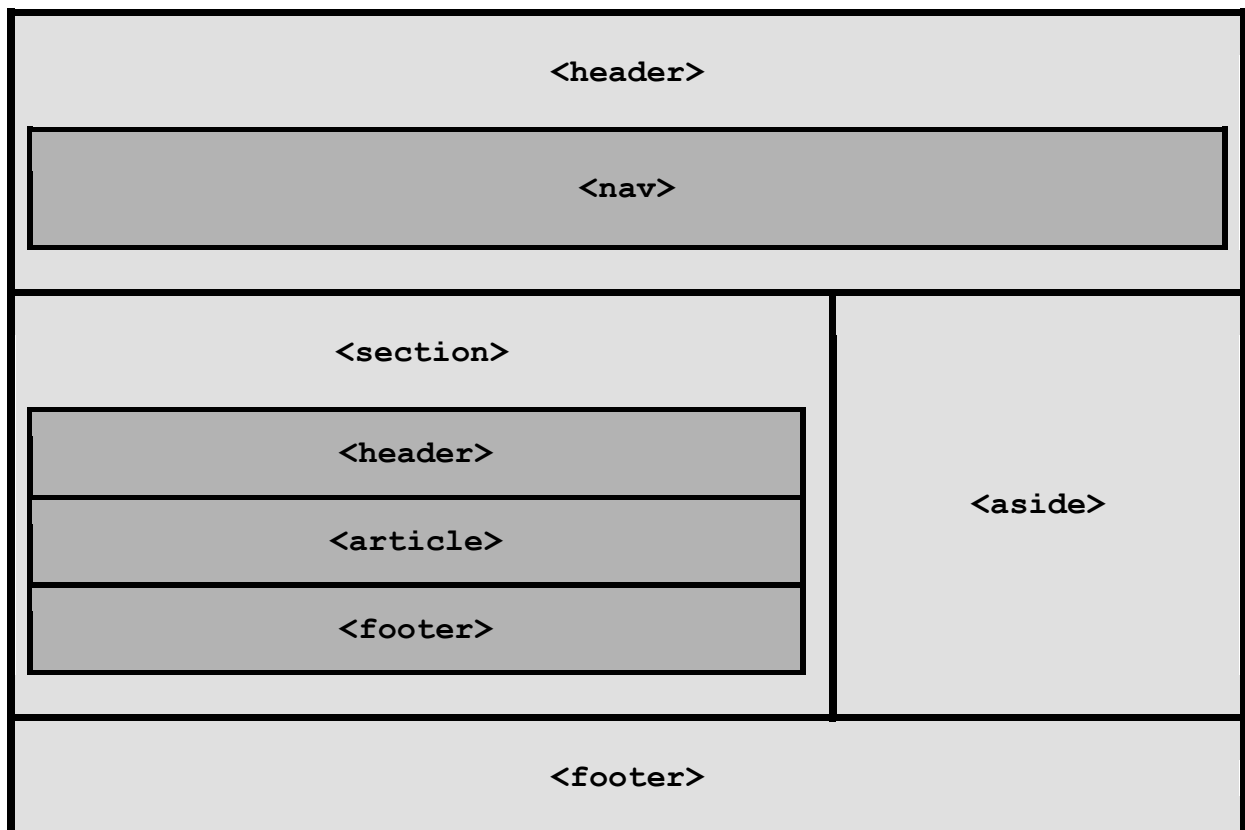
Layout

Design your website using HTML5 structural elements (see lesson 9) so that all pages follow one of these two layouts:

Option 1: Left menu with menu items positioned vertically

```
┌─────────────────────────────────────────────────────┐
│                      <header>                        │
├────────────┬─────────────────────────┬──────────────┤
│            │        <section>        │              │
│            │   ┌─────────────────┐   │              │
│            │   │    <header>     │   │              │
│   <nav>    │   ├─────────────────┤   │   <aside>    │
│            │   │    <article>    │   │              │
│            │   ├─────────────────┤   │              │
│            │   │    <footer>     │   │              │
│            │   └─────────────────┘   │              │
├────────────┴─────────────────────────┴──────────────┤
│                      <footer>                        │
└─────────────────────────────────────────────────────┘
```

Option 2: Top menu within the header, with menu items positioned horizontally.

```
┌─────────────────────────────────────────────────────┐
│                      <header>                        │
│   ┌─────────────────────────────────────────────┐   │
│   │                   <nav>                     │   │
│   └─────────────────────────────────────────────┘   │
├─────────────────────────────────┬───────────────────┤
│          <section>              │                   │
│   ┌─────────────────────────┐   │                   │
│   │        <header>         │   │                   │
│   ├─────────────────────────┤   │     <aside>       │
│   │        <article>        │   │                   │
│   ├─────────────────────────┤   │                   │
│   │        <footer>         │   │                   │
│   └─────────────────────────┘   │                   │
├─────────────────────────────────┴───────────────────┤
│                      <footer>                        │
└─────────────────────────────────────────────────────┘
```

Include the HTML5 Shiv script (see lesson 9) in the header of your pages in order to make these HTML5 tags work for older browsers.

Text

For each page include some useful text for information. Try to write original text yourself rather than copying from another website. When people read websites, they often have a short attention span and can be put off by lots of text on one page. So when writing text for a website, it is best to keep the sentences short, simple and direct. Make good use of headers (<h1> <h2> etc) to create an impact and a visual hierachy. Use CSS to keep the styles of your text headers the same for all pages.

Each page should have one <h1> tag at the top of your main content as this is good practice and search engines will look for these for your keywords.

Navigation

Include a menu that links to all pages on your website and that is in the same location on each page with the same links.

CSS

CSS – use CSS and CSS3 to style your website in a way that looks good for the person viewing it – store your css in a css file so that it can be used by all of your web pages using the external css file script. Make good use of the different CSS properties taught in this course (see lesson 3 for more info).

Website Form

One of your pages needs to be a contact page – so if it is a website about you, you can say 'Contact Me' or if it is about something you are interested in then make the page be for making contact to get further information (see lesson 6).

Include on the contact page an HTML form which sends an email to yourself (you can use info@example.com for the email if you prefer not to use your own).

The form should include at least these fields:

- Name
- Email address
- Message (using a textarea field)

You can use either `DIV`s or a `TABLE` to structure the form elements to give a good layout.

Multi Media

Include one page on your website that is for media – and include examples of audio and video that are relevant to your website.

Include both embedded audio and video from a third party website like YouTube or SoundCloud, as well as using HTML5 audio and video. You can make your own media files for this or use the ones from lesson 7. Extra credit will be given if you use your own files and make different versions for each browser type using the Miro

convertor.

Lists and Tables

Show examples of ordered lists, unordered lists and tables and apply styling to them using CSS.

Images

Include one or more images on your site. All images must adhere to copyright laws and include an `alt` attribute within the image tag describing what the image to enhance accessibility.

Tip

Design your home page first and getting it working well. Then use the home page as a template for all your other pages by copying this page and then modifying the content to suit the needs of each page.

For extra credits!

Style the form on the contact page with CSS (see lesson 6).

Use JavaScript to validate the form (see lesson 6) so that the name, message and email address are all validated so that none of them are allowed to be empty and also the email address is checked to make sure it is valid (use google to help find the JavaScript validation code for emails).

Make use of a web font either from google fonts or via the font squirrel website (see lesson 10).

Make your website responsive using media queries so that for a screen size of 480px or less (smart phone size) you provide an alternative design where all the page elements (header, menu, aside, articles and footer) are in one column (see lesson 9).

Make your website responsive so that the page layout adjusts automatically as the screen size changes – this requires the use of percentages for the widths of your page elements (see html5.html demo in lesson 9).

Good luck and enjoy!