

COMP2203: Application Scripting

Session DA4

Designing with CSS(3)

David Argles

Session DA4 Outline:

- From last time...
- Separation of Concerns
- Using a CSS
- Prettifying Our Page
- Coping With Wide Screens
- Adding Comments
- Checking Our Code

Basic HTML5 Page

```
<!DOCTYPE html>
<html>
  <head>
    <title>David's Website</title>
  </head>

  <body>
    <header>
      <h3>My Website</h3>
      <p>Subtitle</p>
    </header>

    <nav>
      <a href="">Option 1</a>
      <a href="">Option 2</a>
    </nav>

    <section>
      <h3>Welcome!</h3>
      <p>Welcome to my Site!</p>
    </section>

    <footer>
      <p>&copy;2013 David</p>
    </footer>
  </body>
</html>
```



But That Looks Rubbish!

- **Hold on a moment...**
 - Separation of Concerns!
 - The *content* is fine
 - The *presentation* is what we don't like
 - But the presentation should **all** be handled by the CSS...
- **...which we're now going to look at**

Separation of Concerns

It's really important to only put content and mark-up in the HTML document

- **All** the style information goes in the CSS
- Occasionally that's hard in practice
- But it's much easier than you might think
- And a hugely powerful way to do things

CSS Versions

- CSS is widely used in web design
- CSS3 is talked about and partially implemented
- What happened to CSS2?
- It's not like HTML versions:
 - _ new CSS standards add functionality
 - _ some old CSS definitions are “deprecated”
 - _ but in general the changes are “seamless”
 - _ and we don't have to declare which version we're using
- So we basically just use a (CSS) stylesheet and make sure we're using definitions that will work as widely as possible

How Do I Use a CSS?

- Go back to the page HTML
- In the <head> section, include a “link” line that says where we can find the CSS file:
 - `<link rel="stylesheet" type="text/css" href="library/normal.css">`
 - Note: I've called my stylesheet “normal.css”
 - And put it in a subdirectory called “library”
- Create a library subdirectory
- Ceate a textfile in the library subdirectory and call it normal.css
- Now we can edit normal.css and start making the page look decent

Prettifying our Page

- Let's create a third page for our site:
- There's one or two tweaks
- But it's still ugly
 - we've linked to the CSS
 - But the CSS is empty!
- So let's tell the CSS to prettify the header

```
<!DOCTYPE html>
<html>
  <head>
    <meta charset="UTF-8">
    <link rel="stylesheet" type="text/css"
href="library/normal.css">
    <title>Page 3</title>
  </head>

  <body>
    <header>
      <h3>David's Website</h3>
      <p>A Little Test Site</p>
    </header>

    <nav>
      <a href="index.html">Option 1</a>
      <a href="page2.html">Option 2</a>
      <a href="page3.html">Option 3</a>
      <a href="page4.html">Option 4</a>
    </nav>

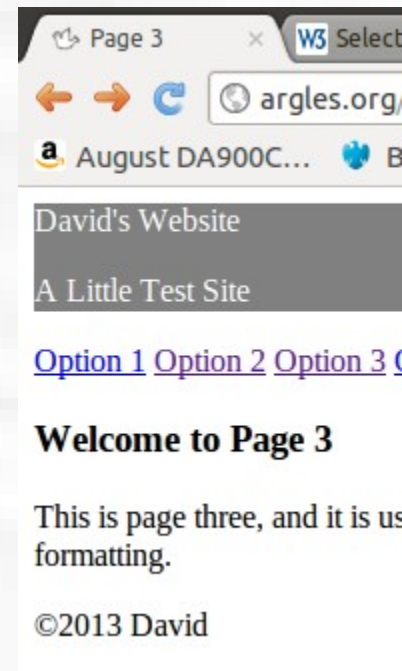
    <section>
      <h3>Welcome to Page 3</h3>
      <p>This is page three, and it is using
a CSS to get a bit of formatting.</p>
    </section>

    <footer>
      <p>&copy;2013 David</p>
    </footer>
  </body>
</html>
```


Formatting the Header

- **Let's give it**
 - a grey background
 - white text
- **So our CSS looks like this**
- **And our webpage now looks like this**

```
header
{
    background-color:gray;
    color:white;
}
```



And the Rest...

- **So let's now:**
 - make the navigation bar light grey
 - add vertical bars either side of the menu selectors
 - make the footer text grey and in italic

And the Rest...

```
header
{
    background-color:gray;
    color:white;
}
nav{background-color:#ccc;}
nav a
{
    border-left:solid;
    border-right:solid;
    border-width:0.1em;
}
footer
{
    font-style:italic;
    color:gray;
}
```



Making the Boxes Fit Together

- The boxes need “puffing up” so they look like they belong together
- And let's tidy the text up

Making the Boxes Fit Together

```
body{font-family:verdana,arial,sans-serif;}
header{
  background-color:gray;
  color:white;
  padding:1em;
  text-align:center;}
header h{font-size:2em;padding:5px;}
nav{
  background-color:#ccc;
  padding:0.3em;}
nav a{
  border-left:solid;
  border-right:solid;
  border-width:0.1em;}
section{padding:0.3em;}
section h3{padding-left:5px;}
section p{padding-left:1em;}
footer{
  font-style:italic;
  color:gray;}
```

David's Website

A Little Test Site

[|Option 1|](#) [|Option 2|](#) [|Option 3|](#) [|Option 4|](#)

Welcome to Page 3

This is page three, and it is using a CSS to get a bit of formatting.

©2013 David

Coping With Wide Screens

- It now looks OK on a narrow display, but horrid on wide screen
- We can restrict the width of elements, but we've got four separate ones
- So let's put them all in one big “container” section
- There is no “container” element
- But this is CSS3... let's define one :-) !

Coping With Wide Screens

- First we need to modify the HTML (because we're changing the structure)
- We'll invent a “container” element and insert it around all the active elements

```
<body>
  <container>
    <header>
      <h>David's Website</h>

      ...etc...

      <p>&copy;2013 David</p>
    </footer>
  </container>
</body>
```

Coping With Wide Screens

- Now we need to define “container” in the CSS
- It must be declared as a “block” element
- We can now declare that it has a maximum width
- Let's add some background colour to the page to make the container stand out
- And finally let's round the edges so it looks nice

Coping With Wide Screens

```
body{font-family:verdana,arial,sans-serif;background-color:#cc9;}
```

```
container{  
  display:block;  
  max-width:850px;  
  margin:0 auto;  
  background-color:white;  
  border-radius:10px 10px 10px 10px;}
```

```
header{  
  ...etc...  
  text-align:center;  
  border-radius:10px 10px 0px 0px;}  
header h{font-size:2em;padding:5px;}
```

```
...etc...
```

```
footer{  
  ...etc...  
  border-radius:0px 0px 10px 10px;}
```

Success!

David's Website

A Little Test Site

[|Option 1|](#) [|Option 2|](#) [|Option 3|](#) [|Option 4|](#)

Welcome to Page 3

This is page three, and it is using a CSS to get a bit of formatting.

©2013 *David*

The Power of CSS

David's Website

A Little Test Site

[Option 1](#) [Option 2](#) [Option 3](#) [Option 4](#)

Welcome!

Welcome to my Site!

©2013 David

David's Website

A Little Test Site

[Option 1](#) [Option 2](#) [Option 3](#) [Option 4](#)

Welcome to Page 3

This is page three, and it is using a CSS to get a bit of formatting.

©2013 David

- Very plain to acceptable – for all pages – with a single CSS

Success!

- I can live with that as a reasonable (simple) design
- it works well on wide screens and narrow screens - the beginnings of “responsive” design!
- But...

The CSS Code

- **Argh! There's nothing to say what the code is about**
- **It's short, so let's not get too distracted at the moment**
- **But let's at least top and tail it**

Adding Comments

```
/**
 * normal.css provides a basic website layout
 *
 * It uses the CSS3 idea of defined sections, and additionally defines
 * its own section, "container"
 *
 * @author David Argles <d.argles@gmx.com>
 * @version 01-08-2013, 22:58h
 * @copyright 2013 Haven Consulting
 */
```

```
body{font-family:verdana,arial,sans-serif;background-color:#cc9;}
...etc...
```

```
footer{
...etc...
border-radius:0px 0px 10px 10px;}
```

```
/**-----
 *
 * End of Code
 *-----
 */
```

Checking It Out

- Before we finish, we should check our handiwork
- W3C CSS checker: <http://jigsaw.w3.org/css-validator/>
- Woohoo! - it validates
- So we have achieved a basic design
- With the content and semantics entirely in the HTML file
- And the aesthetic stuff entirely in the CSS
- Next up: Object PHP

Break

What sort of page designs do you most like?

How do your ideas change if you're using a phone? A tablet? A laptop?