

Lab – Introduction to Cascading Style Sheets

For this laboratory you will need a basic text editor and a browser. In the labs, *winEDT* or *Notepad++* is recommended along with *Firefox/Chrome*

For this activity, you will need to download the lab materials from

<http://www.barryavery.com>

Task 1 Downloading resources for this lab

From the URL above, download the *CSStask1.zip* file and **extract** all three files into the same location.

You should have three files:

<i>flashdrives.html</i>	XHTML text for the flash drives page
<i>memoryusb.jpg</i>	Image file required for <i>flashdrives.html</i>
<i>style.css</i>	Style file

Open *flashdrives.html* in a text editor and read it through so you can see the semantic markup. You should be able to see a main heading (h1), two sub headings (h2), two paragraphs (p) and an image.

Open the file in a browser and ensure that it looks like the screenshot – if the image is missing check that you have downloaded and extracted all three files into the same location.

Flash drives

Flash drive capacities

Here is a picture of a 128MB flash drive which was popular at one time. Note the USB connector. 128MB is regarded as being rather small now.



Current capacities

Current standards are measured in Gigabytes (1GB, 2GB) with increasingly larger sized devices scheduled to appear soon.

Task 2 Adding a link to the style file

Use a text editor to add a link to the style file into *flashdrives.html* – to do this add the link line into the head:-

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

Reload the file in a browser to see an immediate change.

Task 3 Change the background and font color for the whole page

Open the file *style.css* in text editor – you should have 4 selectors, for the body, h1, h2 and paragraph elements.

Change the file to set the background color to *teal*, and the font color to *white* (remember the American spelling). Reload the file in a browser to ensure the changes work.

```
body {  
background-color: teal;  
color: white;  
}
```

Task 4 Change the h1 and h2 headings

Edit the style file to add properties to the *h1* and *h2* selector as follows:

- *h1* should have a background-color of *silver*, with a font color of *navy*
- *h1* font family is *impact* (hint - use `font-family: impact;`)
- *h2* should have background-color of *navy*

Reload the file in a browser to ensure the changes work.

Task 5 A completely new style

Edit the style file to try to emulate the design shown (you can see this in colour on the ITB lab 3 web page).

Hints:

- the body background is teal, with the Arial font
- *h1* uses navy and silver with a font-size of 200% and a text-align setting of center
- *h2* uses a background colour of #255780 with a white font aligned
- *p* uses “Lucida Grande” (put it in double quotes because of the space in the font name)

Reload the file in a browser to ensure the changes work.

Task 6 Retro style

Edit the style file to try to emulate the design shown.

Hints:

- the body background is black, with the Arial font
- *h1* uses “Courier New” with a font-size of 200% and aligned text

Reload the file in a browser to ensure the changes work.

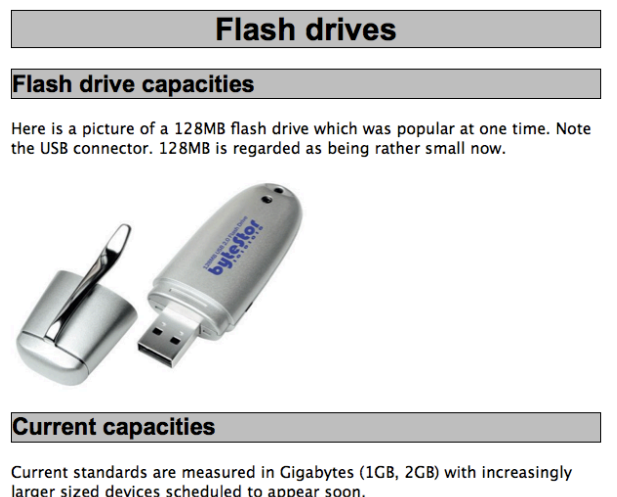
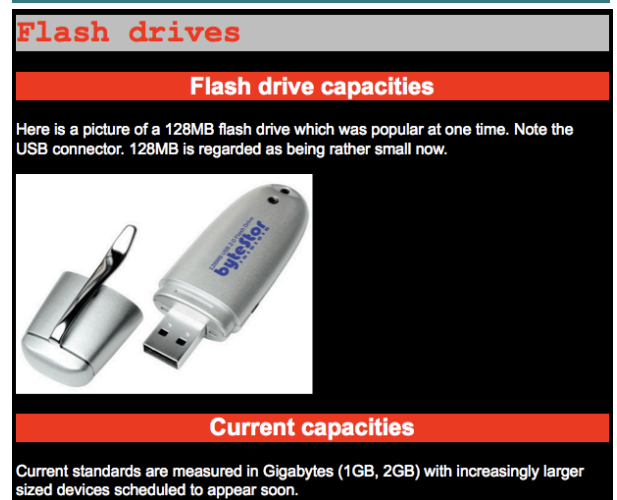
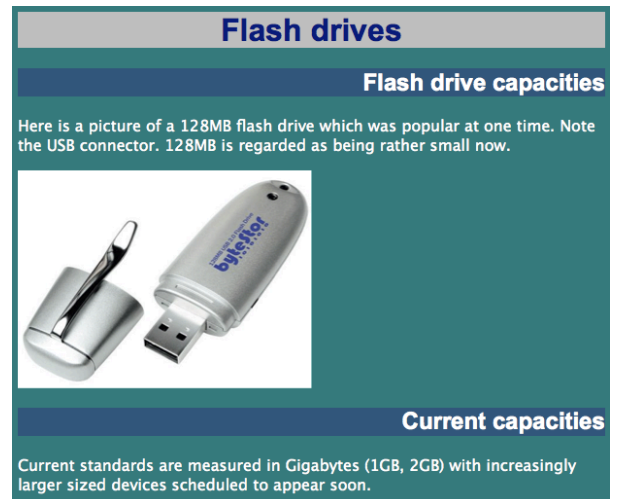
Task 7 Black and white for printing

Edit the style file to try to emulate the design shown.

Hints:

- the body uses an Arial font
- *h1* uses a font-size of 200% and
`border: 1px solid black`
- *h2* uses a silver background and
`border: 1px solid black`
- *p* uses “Lucida Grande”

Reload the file in a browser to ensure the changes work.



blocks, borders and margins

Task 8 Downloading resources for this lab

From the URL, download the *CSStask8.zip* file and **extract** all the files into the same location.

Tasks 9 to 16 require two files and use tag style selectors

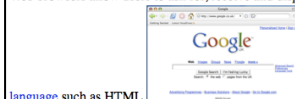
browsers.html XHTML text for the browsers page
firefox.png Image file required for *browsers.html*

Open *browsers.html* in a text editor and read it through so you can see the semantic markup. You should be able to see a main heading (h1), two sub headings (h2), two paragraphs (p) and an image.

Web browsers

What they do

Web browsers allow users to ask for, receive and display pages that have been formatted (typically) in a [markup](#)



language such as HTML. HTTP is the protocol that enables the request and transmission of web pages between browser to server and is currently at version 1.1.

Common browsers

There are a number of browsers in use (from a variety of different sources). IE is currently at version 7 after many years of very little development. Both Firefox and Safari are open source projects, which means that both the source and executable code are widely available. Firefox and Safari have best support for web standards, supporting more of CSS 2 than IE.

- Microsofts Internet Explorer 7
- Mozillas Firefox
- Apples Safari

There are other browsers as well (Opera, Konquerer).

Open the file in a browser and ensure that it looks like the screenshot – if the image is missing check that you have downloaded and extracted the files into the same location.

Task 9 Adding a link to a style file

Use a text editor to add a link to a style file into *browsers.html* – to do this add a link line into the head:-

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

Task 10 Changing the h1 elements block level layout and box model

Add a tag style selector for the h1 element to the style file and use it to make the h1 element *block* and floated to the *right*

```
h1 {  
  display: block;  
  float: right;  
}
```

Check *browsers.html* in a browser window to ensure the block/float effect.

Edit the style file to change the box model for the h1 element (use the lecture notes for the selectors and properties required):-

- Make the border-style solid
- Add padding and a margin of 10pt
- Add a border-width of 1pt

Reload the file in a browser to ensure the changes work.

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Web browsers

Task 11 Styling the body

Add a tag style entry for the body tag. This can be styled in the same way as any other block - as documents only have one body we don't need to use *id* or *class* styling here:

- Make the border-style solid
- Add a border-width of 1pt
- Add a border-color of black
- Add a margin of 15pt
- Add a padding of 5pt
- Make the font-family: Arial, Sans-serif

Reload the file in a browser to ensure the changes work.

Task 12 Styling the h2 elements

Add a tag style entry for the h2 elements. Style the h2 elements as follows:

- Make the border-bottom solid
- Make the width 40%
- Make the border-width 1pt

Reload the file in a browser to ensure the changes work.

Task 13 Styling the image

Add a style to the style file to turn the image into a block style element - then float it to the right and add a solid black border (with width 1pt). You may need to add a margin (suggested value 3pt)

Reload the file in a browser to ensure the changes work.

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Web browsers



Task 14 Styling the list

Add a style to the style file to turn the list items into an inline style element. Then add padding and a margin to the left and right of each item (of 5pts). Finally add a black solid border of 1pt width.

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Task 15 A completely new style

Create a new style sheet for the design shown on the right.

Here are some hints: Draw solid black borders around the h2 and paragraph elements - the h1 element needs a border on the top and bottom. Invert the colours of the h2 element, and alter the body typeface to match one shown in the picture. Finally, float the image and shrink the margin and padding between the h2 and p elements.

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Task 16 A completely new style

Create a new style sheet for the design shown on the right.

Here are some hints: The trick here is to add left padding to the body tag, then to add negative margins to the h1 and h2 elements (for example -6em). You will need to add padding and style to the other elements (a sans-serif font to h1 and h2, with serif for the rest).

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Task 17 Styling a table

Tasks 17-19 use the file *browserstats.html*. Open the file in an editor and browser so you understand the markup.

Create a new style sheet for the design shown on the right / add an appropriate link line to *browserstats.html*

Hints: Add a font-family to the body (arial) and place a border round the table, 1px in width, solid colour #797979

Browser Statistics

These statistics are from the [W3C site](#) and the numbers should be treated with caution as different sites have different values.

	IE7	IE6	IE8	Firefox	Chrome	Safari	Opera
September	15.3%	12.1%	12.2%	46.6%	7.1%	3.6%	2.2%
August	15.1%	13.6%	10.6%	47.4%	7.0%	3.3%	2.1%
July	15.9%	14.4%	9.1%	47.9%	6.5%	3.3%	2.1%
June	18.7%	14.9%	7.1%	47.3%	6.0%	3.1%	2.1%
May	21.3%	14.5%	5.2%	47.7%	5.5%	3.0%	2.2%
April	23.2%	15.4%	3.5%	47.1%	4.9%	3.0%	2.2%
March	24.9%	17.0%	1.4%	46.5%	4.2%	3.1%	2.3%
February	25.4%	17.4%	0.8%	46.4%	4.0%	3.0%	2.2%
January	25.7%	18.5%	0.6%	45.5%	3.9%	3.0%	2.3%

Task 18 Styling the cells

Add tag style selectors to the CSS file to style the *th* and *td* elements:-

Hints: Both *th* and *td* elements require padding on the right (5px), the text to be aligned in the centre and a solid bottom border (1px). *th* uses a border colour #000, whilst *td* uses a border colour #DDD, (remember the American spelling).

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	IE7	IE6	IE8	Firefox	Chrome	Safari	Opera
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July	15.9%	14.4%	9.1%	47.9%	6.5%	3.3%	2.1%
June	18.7%	14.9%	7.1%	47.3%	6.0%	3.1%	2.1%
May	21.3%	14.5%	5.2%	47.7%	5.5%	3.0%	2.2%
April	23.2%	15.4%	3.5%	47.1%	4.9%	3.0%	2.2%
March	24.9%	17.0%	1.4%	46.5%	4.2%	3.1%	2.3%
February	25.4%	17.4%	0.8%	46.4%	4.0%	3.0%	2.2%
January	25.7%	18.5%	0.6%	45.5%	3.9%	3.0%	2.3%

Task 19 Styling the rows using class selectors

If we want the rows to be different colours, we have to add some differentiating markup to the HTML file (we cannot style the rows differently as they are all *tr* elements)

Edit *browserstats.html* so that alternate rows have the classnames 'odd' and 'even', by using the *class* attributes for *tr*

```
<table cellpadding="0">
  <tr>
    <th width="16%"></th><th width="12"
    <th width="12%">Firefox</th><th wi
  </tr>

  <tr class="odd"><td>September</td>
  <tr class="even"><td>August</td><t
  <tr class="odd"><td>July</td><td>1
  <tr class="even"><td>June</td><td>
  <tr class="odd"><td>May</td><td>21
  <tr class="even"><td>April</td><td>
  <tr class="odd"><td>March</td><td>
  <tr class="even"><td>February</td><
  <tr class="odd"><td>January</td><t

</table>
```

Now edit the style file to make the background colour of the *odd* rows be #9cd7a7 and the *even* rows be #c9ffd4. Remember that class selectors are added to a style file using the *.name* notation

```
.odd {
}

.even {
}
```

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June	18.7%	14.9%	7.1%	47.3%	6.0%	3.1%	2.1%
May	21.3%	14.5%	5.2%	47.7%	5.5%	3.0%	2.2%
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January	25.7%	18.5%	0.6%	45.5%	3.9%	3.0%	2.3%