

INTRODUCTION TO HTML – PART 2

Introduction

These workshop notes describe how to create simple HTML documents for use on the World Wide Web. They are intended for people who have never created a Web page before. Familiarity with using the World Wide Web and a working knowledge of Windows are assumed. The material is designed for use on ITS managed workstations.

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I. Creating a Template Page

Objectives To create a reusable web page template that can be used as the starting point for all new pages when constructing a web site.

Method You will use Notepad to create a simple web page, which will be used to create other pages.

Comments Template files help to save time when creating a web site, and to maintain a consistent look and feel across the whole site. A simple template may contain the colour scheme for links, text and background, the layout for the page using table tags, and common header and footer elements you want to appear on every page, such as the 'last modified date', author's email address, graphic logos and site-navigation links. If you are designing a new web site, deciding on the design and creating the templates is always the first step. It is worth spending time to get this right early on.

Getting Started Login to the PC, then start **Notepad**, **Internet Explorer** and **Windows Explorer**.

In Windows Explorer, go to your N:\ drive and create a new folder called html2
(If you find there is already a folder by this name, delete it.)

I.1 In **Notepad**, type the text shown below in bold:

```
<HTML>
<HEAD>
<TITLE>Document Title</TITLE>
</HEAD>
<BODY>
<!-- add content below -->

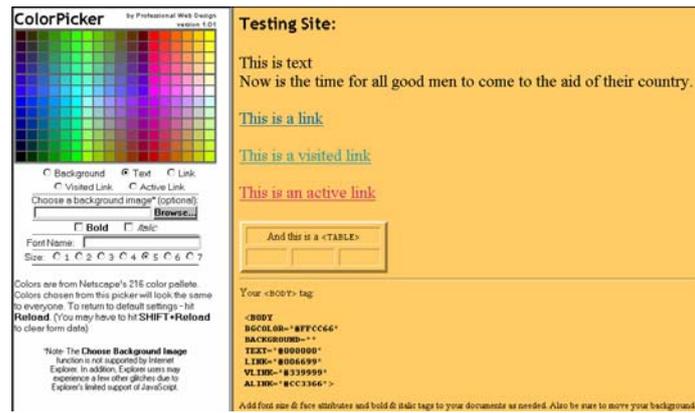
<!-- end of content -->
</BODY>
</HTML>
```

Save the page into your html2 folder and name it template.html.

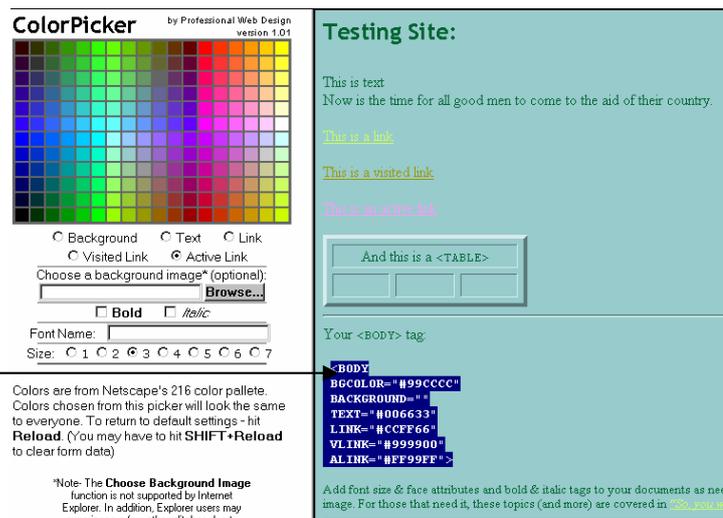
You will recognise this as the basic HTML document 'container' tags which form the skeleton of all web pages.

The line `<!-- add content below -->` is an HTML comment. Any text enclosed between the `<!--` and the `-->` characters will **not** appear in the web browser. You can put comments anywhere inside the `<BODY>` tag; they are useful for annotating pages and temporarily hiding things.

I.2 You will now choose a colour scheme for your site. In **Internet Explorer**, go to the following web page:
<http://populus.ITS.bbk.ac.uk/picker/>



Copy the body tag
from here
(Internet
Explorer's **Edit**
menu, **Copy** or
press **CTRL+C**)



ColorPicker is a tool for trying out different colour combinations. By clicking on the coloured squares of the palette on the left, you can change the colours displayed in the preview frame on the right. Below the colour palette you select which attribute you want to change - Background, Text, Link, Visited Link or Active Link. (For now we'll ignore the 'Choose a background image' option.) The right hand frame also displays the <BODY> tag for the current colour scheme, which can be copied and pasted into your own page when you are happy with it.

- Experiment with the ColorPicker to choose a colour scheme for your web site, and copy the resulting tag, displayed in the lower half of the preview frame, into your template.html document in Notepad, replacing the existing <BODY> tag. It will look similar to the example shown below, but obviously your colour codes will be different:

```
<BODY
BGCOLOR="#99CCCC"
BACKGROUND=""
TEXT="#006633"
LINK="#CCFF66"
VLINK="#999900"
ALINK="#FF99FF">
```

Note that it is quite difficult to choose web colour schemes that work well, with easily readable text and links that stand out well. Garish combinations can be distracting, and the colours need to make sense to the colour blind.

Below are some example body tags with colour schemes that work well - you can copy one of these into your template instead of using the ColorPicker if you prefer:

```
<!-- buff background -->
<BODY bgcolor="#CCCC99" text="#663300" link="#FFFFFF"
alink="#996666" vlink="#669966">

<!-- orange background -->
<BODY bgcolor="#FF9933" text="#003300" link="#006666"
alink="#FFFF00" vlink="#336633">

<!-- lilac background -->
<BODY bgcolor="#CCCCFF" text="#006666" link="#666633"
alink="#666699" vlink="#009933">

<!-- white background -->
<BODY bgcolor="#FFFFFF" text="#996699" link="#3333FF"
alink="#0000CC" vlink="#333366">
```

In **Notepad**, your template.html document should now look something like this if you used ColorPicker:

```
<HTML>
<HEAD>
<TITLE>Document Title</TITLE>
</HEAD>
<BODY
BGCOLOR="#99CCCC"
BACKGROUND=""
TEXT="#006633"
LINK="#CCFF66"
VLINK="#999900"
ALINK="#FF99FF">

<!-- add content below -->

<!-- end of content -->
</BODY>
</HTML>
```

or like this if you used one of the alternative examples from the previous page:

```
<HTML>
```

```

<HEAD>
<TITLE>Document Title</TITLE>
</HEAD>
<BODY bgcolor="#CCCC99" text="#663300" link="#FFFFFF" alink="#996666"
vlink="#669966">
<!-- add content below -->

<!-- end of content -->
</BODY>
</HTML>

```

- 1.3** We are now going to add some **TABLE** tags. Tables are very useful for controlling the layout of the whole page. In **Notepad**, add **ONLY** the text shown in bold:

```

<BODY bgcolor="#CCCC99" text="#663300" link="#FFFFFF" alink="#996666"
vlink="#669966">
<TABLE width="580" cellspacing="0" align="center" border="0">
<TR><TD>
<!-- main heading -->
</TD></TR>
<TR><TD>
<!-- add content below -->

<!-- end of content -->
</TD></TR>
<TR><TD>
<!-- footer -->
</TD></TR>
</TABLE>
</BODY>

```

This is a three-row table. Each table row is defined by a `<TR> ... </TR>` container tag. Within each row, the `<TD> .. </TD>` tags define the table data cells (that is, the columns), which will enclose the actual content - you can put any kind of text, links or graphics inside table cells. The idea here is that all the page content will go into the middle row, with a main heading in the top row, and a standard footer in the bottom row, as indicated by the comments.

- 1.4** Add a main heading tag to the top row of the table as shown below in bold:

```

<TR><TD>
<!-- main heading -->
<H1>Main Heading</H1>
</TD></TR>

```

Save the page.

In **Internet Explorer**, open the page (File menu, Open) to see the heading.

- 1.5** Next, add a subheading to your middle table row as shown below.

```
<TR><TD>
<!-- add content below -->
<H3>Subheading</H3>
```

1.6 Also add a couple of empty paragraph tags below each heading:

```
<P>&nbsp;</P>
<P>&nbsp;</P>
```

The ` ` code inserts a 'non-breaking space' character, and you need to insert one into any empty paragraph (or table data cell) tag where you want the spacing to show. Otherwise empty tags like `<P></P>` or `<TD></TD>` are ignored by the web browser.

1.7 Lastly, we need to add a document footer. It is good practice to include a 'last modified' date, and a contact name for each document - usually the page or site maintainer. Other possibilities include copyright and data-protection statements, and addresses and phone numbers. Usually you want the text of these to be small. (Later we'll be adding a menu bar of navigation links)

Add the text shown below in bold to the bottom row of your table:

```
<TR><TD>
<!-- footer -->
<FONT FACE="Arial, Helvetica, sans-serif" SIZE="-2">
last modified: 26th November 2001<BR>
</FONT>
</TD></TR>
</TABLE>
```

Note the `SIZE="-2"` attribute - this is known as *relative* sizing, and means the font will display 2 sizes smaller than the current display size. This means if the user has increased the default font size in their browser from 12pt to 18pt, then `SIZE="-2"` will display at 14pt. Whereas, if you specify an *absolute* size with `SIZE="2"`, the text always display at about 6pt no matter what, and may be unreadable for someone with poor eyesight. You can also use a plus sign to make text relatively larger as in `SIZE="+2"`. Using relative text sizing instead of absolute is always a good idea.

To add a clickable email-address link, copy the example below, substituting your own address:

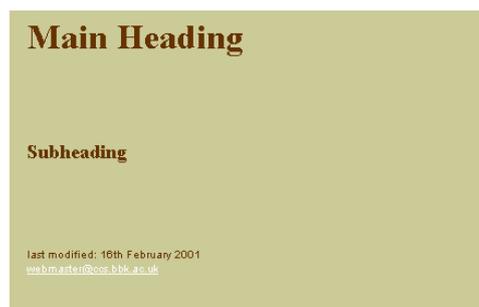
```
<A HREF="mailto:webmaster@ITS.bbk.ac.uk">webmaster@ITS.bbk.ac.uk</A>
```

Save the `template.html` page, switch to **Internet Explorer** and reload to see the footer.

Your `template.html` page will now look similar to the example on the right:

The footer will then look like this:

```
<TR><TD>  
<!-- footer -->  
<FONT FACE="Arial, Helvetica, sans-  
serif" SIZE="-2">  
last modified: 16th February 2001<BR>  
<A
```



```
href="mailto:webmaster@ITS.bbk.ac.uk">webmaster@ITS.bbk.ac.uk</A>  
</FONT>  
</TD></TR>  
</TABLE>
```

2. Creating Pages from a Template

Objectives To create four new web pages from a template file.

Method You will use Notepad's Save As option to create four new web pages from the template.

Comments Templates save time and help maintain consistency. Our example is very simple. In real life you might create several templates for different parts of the site and for different types of document.

2.1 In **Notepad**, where your `template.html` document should still be open...

1) Open the **File** menu, click on **Save As...**

Save in: your **html2** folder and use

File name: **index.html**

Then click on the **Save** button.

Repeat as below:

2) Open the **File** menu, click on **Save As...**

File name: **docs.html**

3) Open the **File** menu, click on **Save As...**

File name: **staff.html**

4) Open the **File** menu, click on **Save As...**

File name: **research.html**

2.2 Still in Notepad, open the `index.html` document.

This is the home page for our new site. Change the text of the main heading to 'School of Cyberstudies' as shown below:

```
<!-- main heading -->
<H1>School of Cyberstudies</H1>
```

Optionally, add a paragraph of introductory text below it, or put in an empty paragraph for spacing with `<P> </P>`

2.3 In the middle row of the table, remove the subheading and add three links to the other pages you just created, as shown below in bold:

```
<TR><TD>
<!-- add content below -->

<FONT FACE="Arial, Helvetica, sans-serif" SIZE="4">
<A HREF="docs.html">Documents</A><BR>
<A HREF="staff.html">Staff</A><BR>
<A HREF="research.html">Research</A><BR>
</FONT>
<P>&nbsp;</P>
```

```
<P>&nbsp;</P>
```

```
<!-- end of content -->  
</TD></TR>
```

Save the document.

- 2.4** Still in Notepad, open each of the following pages in turn, edit the Main Heading text to match the links we just created in index.html, then Save each one.

staff.html	Main Heading text:	Staff
research.html	Main Heading text:	Research
docs.html	Main Heading text:	Documents

- 2.5** Switch to **Internet Explorer**, open your **index.html** document, and test the links to make sure they all work. Notice that you have to use the browser Back button to return to the index.html page each time.

3. Adding Navigation Links

Objectives To link pages together by adding a horizontal menu bar of navigation links which enables people to hop between them easily.

Method You will create the navigation links in the `template.html` document, then use windows clipboard Copy and Paste to add them to other pages.

Comments Providing good navigation links between your pages is essential. Remember that people may not always enter the site at the top level (home page), they may have bookmarked a single page of interest and returned to it later. In that situation, the browser 'back' button will only take them to the unrelated page they were viewing before. As a bare minimum you should provide a link to your home page in every document. A menu bar containing a link to each section of the site and to the home page enables people to navigate your site conveniently from any starting point.

3.1 We will now create a menu bar of links that will enable us to hop between pages without using the browser back button. We'll add it to our template file first and then paste it into the other pages.

In **Notepad**, open `template.html`.

In the bottom table row, add only the text shown in bold below:

```
<TR><TD>
<!-- footer -->
<FONT FACE="Arial, Helvetica, sans-serif" SIZE="-2">
last modified: 16th February 2001<BR>
<A HREF="mailto:webmaster@ITS.bbk.ac.uk">webmaster@ITS.bbk.ac.uk</A>
</FONT>
<!-- menu bar -->
<P ALIGN="center">
<FONT FACE="Arial, Helvetica, sans-serif" SIZE="-1">
<A HREF="http://www.bbk.ac.uk/">BBK Home</A> |
<A HREF="index.html">Cyberstudies Home</A> |
<A HREF="docs.html">Documents</A> |
<A HREF="research.html">Research</A> |
<A HREF="staff.html">Staff</A>
</FONT>
</P>
</TD></TR>
</TABLE>
```

Note that the | character at the end of each line needs a space on both sides. If you are not familiar with this character, you will usually find it on the keyboard as SHIFT+backslash key.

Save the template file.

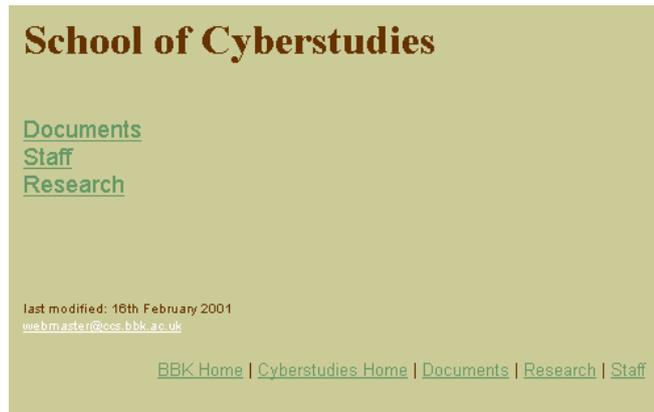
Select the menu bar text (everything shown above in bold) and copy it to the clipboard (**Edit** menu, **Copy** - or press **CTRL+C**)

3.2 Still in Notepad, open each page in turn (index.html, staff.html, docs.html and research.html) and position the cursor in front of the last closing table cell tag (</TABLE>) near the bottom of the page;

Paste the menu-bar code from the clipboard (Edit menu, Paste - or press CTRL+V)

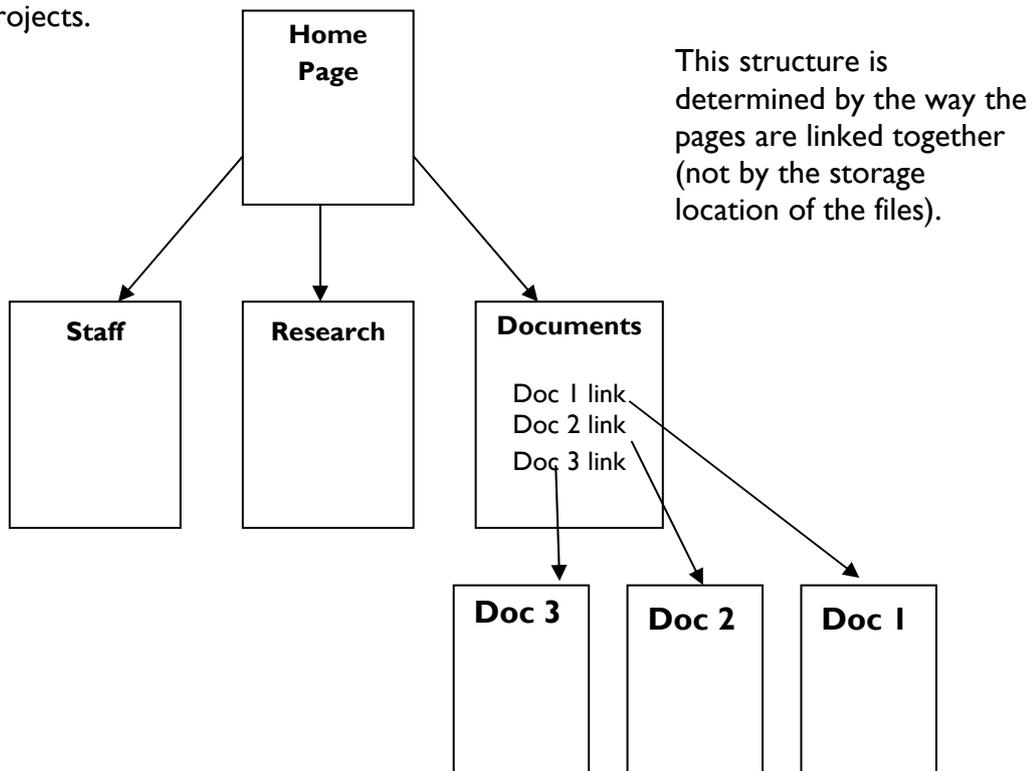
Save the document.

3.3 Switch to Internet Explorer. Open the index.html page. It should look similar to the example below, with a menu-bar of links at the bottom.



Test the links and make sure the menu bar is displayed correctly on each of the other pages.

3.4 We have now created the main structure for a simple web site, with three sections. The Documents, Staff and Research pages we've created are the top-level index pages for each section. The Documents page will probably consist of a long list of links to other documents. The Staff and Research sections may start life as single pages of text, but could be expanded later to include links to individual staff CV's and personal home pages, or links to several research projects.



4. Creating a Vertical Menu Bar

Objectives To create a menu of navigation links to be displayed down the left side of the document, in a separate column.

Method You will add a new column down the left side of the table using the TD tag with the ROWSPAN attribute. You will then add the links as a vertical list.

Comments This method of adding navigation links is used very frequently and is a very useful layout technique. It can be used to simulate frames-based layouts in which the screen is divided into separate boxes.

4.1 In **Notepad**, open your index.html page, and save a copy as index2.html (**File** menu, **Save As...**)

At the top of the page, locate the opening <TABLE> tag, and position the cursor just after the first <TR> tag. Press ENTER a couple of times, then insert the text shown below in bold just after the first <TR> tag:

```
<BODY bgcolor="#CCCC99" text="#663300" link="#FFFFFF" alink="#996666"
vlink="#669966">
<TABLE width="580" cellspacing="0" align="center" border="0">
<TR>
<TD ROWSPAN="3" VALIGN="top" NOWRAP>
&nbsp;
<!-- vertical menu -->
</TD>
<TD>
<!-- main heading -->
```

Next, change the border setting of the table to 1 (just so you can see what is going on) as shown below:

```
<TABLE width="580" cellspacing="0" align="center" border="1">
```

You have inserted a new column down the left-hand side to give the layout shown below:

4.2 Scroll down to the bottom of the page and locate the <!-- menu bar --> comment. **Copy** the menu-bar links to the clipboard, scroll to the top of the

page, and **Paste** them into the new table cell, as shown below in bold:

```
<TABLE width="580" cellspacing="0" align="center" border="1">
<TR>
<TD ROWSPAN="3" VALIGN="top" NOWRAP>
<!-- vertical menu -->
<FONT FACE="Arial, Helvetica, sans-serif" SIZE="-1">
<A HREF="http://www.bbk.ac.uk/">BBK Home</A> |
<A HREF="index.html">Cyberstudies Home</A> |
<A HREF="docs.html">Documents</A> |
<A HREF="research.html">Research</A> |
<A HREF="staff.html">Staff</A>
</FONT>
</TD>
<TD>
<!-- main heading -->
```

- 4.3** Next (important not to miss this out), remove the | characters to the right of each link, and replace them with line break `
` tags. Also remove the ` ` character, as shown below:

```
<TABLE width="580" cellspacing="0" align="center" border="0">
<TR>
<TD ROWSPAN="3" VALIGN="top" NOWRAP>
<!-- vertical menu -->
<FONT FACE="Arial, Helvetica, sans-serif" SIZE="-1">
<A HREF="http://www.bbk.ac.uk/">BBK Home</A><BR>
<A HREF="index.html">Cyberstudies Home</A><BR>
<A HREF="docs.html">Documents</A><BR>
<A HREF="research.html">Research</A><BR>
<A HREF="staff.html">Staff</A>
</FONT>
</TD>
<TD>
<!-- main heading -->
```

Save the document.

- 4.4** Switch to **Internet Explorer** and view the result (**File** menu, **Open Page - index2.html**)

You should see a list of links down the left side, alongside the heading as shown below:



- 4.5** In fact, this is not quite right yet – the vertical menu of links will look much

better if they are displayed lower down the page, below the main heading. To complete the layout, we need to add an extra table row above the current heading so it can be moved up.

In **Notepad**, add the text shown below in bold to the top of your table:

```
<TABLE width="580" cellspacing="0" align="center" border="1">
<TR>
<TD>&nbsp;</TD>
<TD>&nbsp;</TD>
</TR>
<TR>
<TD ROWSPAN="3" VALIGN="top" NOWRAP>
<!-- vertical menu -->
```

This adds an extra row with two empty cells.

```
</TD>
<TD>
<!-- main heading -->
<FONT SIZE="6" FACE="Arial, Helvetica, sans-serif"><B>School of Cyberstudies</B></FONT>
<P>&nbsp;</P>
</TD></TR>
```

Next, locate the main heading and select it

Cut it to the clipboard (**Edit** menu, **Cut** - or press **CTRL+X**)

Now position the cursor inside the new table cell as shown below, first deleting the ` ` character it contains:

Paste the heading from the clipboard (**Edit** menu, **Paste** - or press **CTRL+V**)

Save the document.

4.6 Switch to **Internet Explorer** and **Reload** index2.html to see the result.

- You may want to tidy up the page by removing the horizontal menu-bar from the bottom of the page.
- You could also try adding a few paragraphs of introductory text below the main heading, in the empty cell next to the vertical menu:

```
<TR>
<TD ROWSPAN="3" VALIGN="top" NOWRAP>
```

```

<!-- vertical menu -->
<FONT FACE="Arial, Helvetica, sans-serif" SIZE="-1">
<A HREF="http://www.bbk.ac.uk/">BBK Home</A><BR>
<A HREF="index.html">Cyberstudies Home</A><BR>
<A HREF="docs.html">Documents</A><BR>
<A HREF="research.html">Research</A><BR>
<A HREF="staff.html">Staff</A>
</FONT>
</TD>
<TD> add paragraph text here

```

- Another good tip for a home page is to add descriptions of each section heading so people know what they will find there.

An amended version of index2.html is shown below, with the additions in bold:

```

<TD><P>Introductory welcome text to explain what this page is all about. Aim to
include the most important keywords as near to the top of the page as
possible.</P>
<P>This is another paragraph of welcome text - keep it short because a home
page should never be longer than one screenful of information with no scrolling
required.</P>
</TD></TR>

<TR><TD>
<!-- add content below -->
<FONT FACE="Arial, Helvetica, sans-serif" SIZE="4">
<A HREF="docs.html">Documents</A> - including staff & student
handbooks, reports & minutes of committee meetings.<BR>
<A HREF="staff.html">Staff</A> - contact details & bibliographies of faculty
members.<BR>
<A HREF="research.html">Research</A> - current research within the
department, & details of new projects.<BR>
</FONT>
<!-- end of content -->
</TD></TR>

```

Save the document.

- 4.7** One last finishing touch is to add some extra spacing between the table cells, and set the border back to zero.

Locate the opening TABLE tag near the top of the page and insert a CELLPADDING attribute as shown below in bold (this example specifies 5 pixels, you can experiment with different values):

```

<TABLE width="580" cellpadding="5" cellspacing="0" align="center"
border="0">

```

Save the document.

- 4.8** Switch to **Internet Explorer** and **Reload** index2.html to view the results. Your page should look similar to the example below:

School of Cyberstudies

[BBK Home](#)
[Cyberstudies Home](#)
[Documents](#)
[Research](#)
[Staff](#)

Introductory welcome text to explain what this page is all about. Aim to include the most important keywords as near to the top of the page as possible.

This is another paragraph of welcome text - keep it short because a home page should never be longer than one screenful of information with no scrolling required.

[Documents](#) - including staff & student handbooks, reports & minutes of committee meetings.

[Staff](#) - contact details & bibliographies of faculty members.

[Research](#) - current research within the department, & details of new projects.

last modified: 16th February 2001
webmaster@ccs.bbk.ac.uk

For reference, the complete markup for the page index2.html is shown below, with the table tags in bold. If you suspect your table has errors, try setting the border back to 1 to see what is going on. The non-breaking space character has been inserted into empty table cells, as in <TD> </TD>

```

<HEAD>
<TITLE>Cyberstudies Home</TITLE>
</HEAD>
<BODY bgcolor="#CCCC99" text="#663300" link="#FFFFFF" alink="#996666"
vlink="#669966">
  <TABLE width="580" cellpadding="5" cellspacing="0" align="center"
border="0">
    Row 1
    <TR>
    <TD>&nbsp;</TD>
    <TD>
    <!-- main heading -->
    <H1>School of Cyberstudies</H1>
    </TD></TR>

    Row 2
    <TR><TD ROWSPAN="3" VALIGN="top" NOWRAP>
    <!-- vertical menu -->
    <FONT FACE="Arial, Helvetica, sans-serif" SIZE="-1">
    <A HREF="http://www.bbk.ac.uk/">BBK Home</A><BR>
    <A HREF="index.html">Cyberstudies Home</A><BR>
    <A HREF="docs.html">Documents</A><BR>
    <A HREF="research.html">Research</A><BR>
    <A HREF="staff.html">Staff</A>
    </FONT>
    </TD>
    <TD><P>Introductory welcome text to explain what this page is all about. Aim
to include the most important keywords as near to the top of the page as
possible.</P>
    <P>This is another paragraph of welcome text - keep it short because a home
page should never be longer than one screenful of information with no
scrolling required.</P></TD>
    </TR>

    Row 3
    <TR><TD>
    <!-- add content below -->
    <FONT FACE="Arial, Helvetica, sans-serif" SIZE="4">
    <A HREF="docs.html">Documents</A> - including Staff and student
handbooks, reports and minutes of committee meetings.<BR>
    <A HREF="staff.html">Staff</A> - contact details and bibliographies of faculty
members.<BR>
    <A HREF="research.html">Research</A> - current research within the
department, and news of new projects.<BR>
    </FONT>
    </TD></TR>

    Row 4
    <TR><TD>
    <!-- end of content -->
    </TD></TR>
    <TR><TD>
    <!-- footer -->
    <FONT FACE="Arial, Helvetica, sans-serif" SIZE="-2">
    last modified: 16th February 2001<BR>
  
```

```
<A HREF="mailto:webmaster@ITS.bbk.ac.uk">webmaster@ITS.bbk.ac.uk</A>  
</FONT>  
</TD></TR>  
</TABLE>  
</BODY>  
</HTML>
```

5. Using Simple Style Sheets

Objectives To format the text and headings in a web page using Cascading Style Sheets (CSS)

Method You will embed some simple style definitions into the HEAD section of a web page which will set the font face for the entire document, and set the colour and size of the headings in the same way.

Comments Cascading Style Sheets are a fairly recent companion to HTML, and their purpose is to allow the separation of the page content from its formatting. CSS has its own syntax and you use it to define general style rules or definitions which can be applied to HTML elements on the page. You will see in this simple example that they can save a lot of time, and they enable you to make changes to the look of your site very easily.

5.1 In **Notepad**, open the file N:\html2\index.html

In **Internet Explorer**, open the same file (**File** menu, **Open Page...**) so you can see what it looks like.

5.2 In **Notepad**, position your cursor inside the opening HEAD tag at the top of the page.

Add the text shown below in bold:

```
<HEAD>  
<STYLE TYPE="text/css">  
<!--  
BODY {font-family: Arial, Helvetica, sans-serif}  
-->  
</STYLE>
```

Save the document, switch to **Internet Explorer** and **Reload** the page to see the change.

You should see that the font face throughout the page changes to Arial. Consider how much easier this is than adding tags to every paragraph!

Note that the comment tag surrounding the contents of the STYLE tag is necessary to hide it from old browsers that cannot translate it. In that case (generally with pre version 4 browsers) the page will be displayed as if the STYLE code does not exist.

Notice that three font faces have been specified in the STYLE definition above. The reason is that not all computers will have the same set of fonts, and equivalent fonts may have different names on other platforms. So PC's usually will have Arial, but on Macintoshes the equivalent is called Helvetica, and the last option, sans-serif, is added as a generic catch-all for machines that don't have either of the first two, and means 'display this in any sans-serif font you

have available'. You could specify more than three if you wanted.

Try substituting one of the following sets of fonts to see the difference:

```
BODY {font-family: "Courier New", Courier, monospace}
```

```
BODY {font-family: Impact, Verdana, sans-serif}
```

Note the above use of quotes in "Courier New" - use them when a font name includes a space.

5.3 In **Notepad**, add the following text to the **STYLE** tag, shown below in bold:

```
<STYLE TYPE="text/css">
<!--
BODY {font-family: Arial, Helvetica, sans-serif}
H1, H3 {color: #000066}
-->
</STYLE>
```

Save, switch to **Internet Explorer** and **Reload** to see the change. The headings should now be blue - it looks very dark on some monitors, so to make sure the change has occurred you can also try using `color: #990033`, which is maroon.

You apply the same style to several HTML elements by separating the list with commas. As in:

```
BODY, TABLE, TH, TR, TD {font-family: Arial, Helvetica, sans-serif}
H1, H3 {color: #000066}
```

Specifying the font-face for the **BODY** tag means this effect will *cascade* down to all the elements contained inside it. This is called *inheritance*. We could instead specify the font properties for all the individual elements, in the same way as we've specified the color for the H1 and H2 heading tags. For example:

```
TD {font-size: 10pt}
P {font-size: 12pt; color: #000066}
```

Note that tables are a special exception to the inheritance rules - although contained within the BODY tag they do not automatically inherit all the BODY styles (not in Netscape at any rate) and table styles will need to be defined separately, as illustrated in the examples above.

5.4 You can also use **STYLE** tags to set margins and text indents. To set a left and right margin for the whole document, add the bold text below to the **BODY** style. Multiple properties within a style rule definition are separated with a semi-colon. A colon is used to separate each property name from its value. Each style rule is enclosed within curly braces e.g. **BODY { ... }**

```
<STYLE TYPE="text/css">
```

```
<!--
BODY {font-family: Arial, Helvetica, sans-serif;
margin-left: 2cm;
margin-right: 2cm}
H1, H3 {color: #000066}
-->
</STYLE>
```

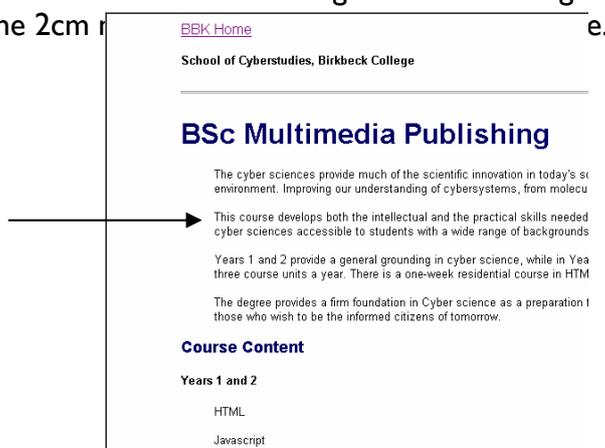
Save, switch to **Netscape** and **Reload** to see the change.

- 5.5** We've now added 2cm left and right margins to the whole document. To see the cascade effect in operation, we'll define a P paragraph style with a margin setting. Add the bold text below to your STYLE tag:

```
<STYLE TYPE="text/css">
<!--
BODY {font-family: Arial, Helvetica, sans-serif;
margin-left: 2cm;
margin-right: 2cm}
H1, H3 {color: #000066}
P {margin-left: 1cm; font-size: 10pt}
-->
</STYLE>
```

Save, switch to **Internet Explorer** and **Reload**. You will see that the paragraphs are now indented further than the headings. The 1cm margin in the P style has been added to the 2cm margin.

Notice the extra indent of the paragraph text -



- 5.6** So far, we have defined styles attached to specific tags: BODY, P and H1, H3

You can also create your own named styles, known as *classes*, which can be applied to the contents of any tag, as and where you need them. More importantly, you can also use named styles to format just a part of the text within a tag, even single words.

An example of a named style called *footer* is defined as below, by using a dot in front of the class name:

```
.footer {font-size: 60%}
```

and is then added to the document by inserting `class="footer"`, for example here added to a paragraph tag:

```
<P CLASS="footer">text goes here</P>
```

If you want to apply a named class style to just a single word within a tag instead of to the whole content of the tag, you can use the SPAN tag to do it, for example:

```
<P>This word is in <SPAN CLASS="footer">footer-style</SPAN>
normal text.</P>
```

In **Notepad**, add only the text shown below in bold to your STYLE tag:

```
<STYLE TYPE="text/css">
<!--
BODY {font-family: Arial, Helvetica, sans-serif;
margin-left: 2cm;
margin-right: 2cm}
H1, H3 {color: #000066}
P {margin-left: 1cm; font-size: 10pt}
.footer {font-size: 60%}
.maroon {color: #990033}
-->
</STYLE>
```

Save the document.

Notice the font size in the `.footer` style is specified as a percentage. This is a relative measurement and when you use it text will appear at 60% of whatever size it happens to be at that point in the page. You can also use point sizes, which gives much more flexibility than the 1 to 7 font sizes available within HTML.

- 5.7** Locate the `<H5>` tag near the top of the document and insert the bold text shown below:

```
<H5 CLASS="maroon">School of Cyberstudies, Birkbeck College</H5>
```

Scroll to the bottom of the page and insert the bold text below into the last paragraph tag:

```
<P CLASS="footer">Last modified 3rd February 1999<BR>
```

Save, switch to **Internet Explorer** and Reload to see the change.

There should now be a small maroon heading along the top, and the Last modified line will now be very small.

6. Linking to an External Style Sheet.

Objectives To create a separate style sheet file, and link to it from a web page.

Method You will transfer the STYLE definitions from the previous task into a separate file, which is saved with a .css extension. Then you will add links to it in the HEAD section of the index.html page.

Comments So far we have looked at styles defined within the document, in the HEAD section using a STYLE tag. It is also possible to define the styles in a separate file and link to it. This method enables easy site maintenance - if all the pages in the site link to the same style file, you can easily change the appearance of the entire site by updating the single file. In practice, people often use an external style sheet to set major properties such as background colour, font face, heading colour and margins, and include some embedded styles within particular documents that need customisation or extra styles. Local styles defined within the page will override those inherited from an external style sheet.

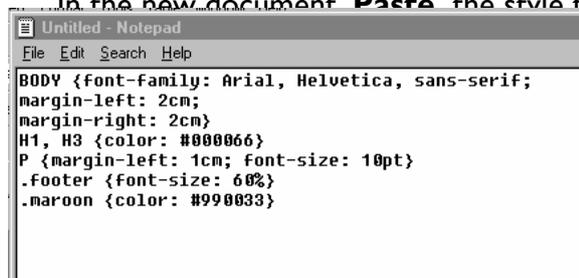
6.1 In **Notepad** you should still have the **index.html** document open.

Copy the contents of the <STYLE> tag to the clipboard (**CTRL+C**). You don't need the comment tag or the STYLE tag itself, just its contents, shown below in bold:

```
<STYLE TYPE="text/css">  
<!--  
BODY {font-family: Arial, Helvetica, sans-serif;  
margin-left: 2cm;  
margin-right: 2cm}  
H1, H3 {color: #000066}  
P {margin-left: 1cm; font-size: 10pt}  
.footer {font-size: 60%}  
.maroon {color: #990033}  
-->  
</STYLE>
```

6.2 Still in Notepad, open a new document (**File** menu, **New**)

In the new document **Paste** the style tags (**CTRL+V**) so it looks as

A screenshot of a Notepad window titled 'Untitled - Notepad'. The window has a menu bar with 'File', 'Edit', 'Search', and 'Help'. The main text area contains the following CSS code:

```
BODY {font-family: Arial, Helvetica, sans-serif;  
margin-left: 2cm;  
margin-right: 2cm}  
H1, H3 {color: #000066}  
P {margin-left: 1cm; font-size: 10pt}  
.footer {font-size: 60%}  
.maroon {color: #990033}
```

Open the **File** menu, click on **Save As** and name the file styles.css

The file name could be anything you like (no spaces), but the .css

extension is required.

6.3 In **Notepad**, open the document **index.html** again.

Delete the `<STYLE> .. </STYLE>` tag and its contents from the **HEAD** section, and add only text shown below in bold in its place:

```
<HEAD>
<LINK REL="stylesheet" HREF="styles.css" TYPE="text/css">
<TITLE>Cyberstudies Home </TITLE>
</HEAD>
```

Save the file, switch to **Internet Explorer** and **Reload** the page. It should remain the same.

6.4 To test that the external style sheet is working, switch to **Notepad** and open the file **styles.css**

Add the text shown below in bold to change the background colour:

```
BODY {font-family: Arial, Helvetica, sans-serif;
background: #EEEEEE;
margin-left: 2cm;
margin-right: 2cm}
H1, H3 {color: #000066}
P {margin-left: 1cm; font-size: 10pt}
TD {font-family: Arial, Helvetica, sans-serif}
.footer {font-size: 60%}
.maroon {color: #990033}
```

Save the file, switch to **Internet Explorer** and **Reload** the **index.html** page.

The background colour should change from white to pale grey.

6.5 Visit the web page <http://www.microsoft.com/typography/css/gallery/extract1.htm> to see a short demo of the way page appearance can be changed using Cascading Style Sheets (click on next at the top right to see the same page with a different stylesheet applied).

You will find some more examples at <http://www.w3.org/Style/CSS/msie/>

Use Internet Explorer's **View** menu, **Page Source** option to look at the style definitions within the demo web pages.

6.6 **To find out more about Cascading Style Sheets:**

There is an excellent tutorial at <http://hotwired.lycos.com/webmonkey/authoring/stylesheetstutorials/tutorial1.html>

This is a reference sites for looking up all available style properties (CSS Level 1)

<http://htmlhelp.com/reference/css/all-properties.html>

The official specification for CSS Level 1 is at

<http://www.w3.org/TR/REC-CSS1-961217.html>

The official specification for CSS Level 2 is at

<http://www.w3.org/TR/REC-CSS2/>

And finally there is loads more information at

<http://www.w3.org/Style/CSS/>

7. Links Within a Document

Objectives To add a 'Back to Top' link to a long document. To add 'Table of Contents' links to the top of a long document, allowing people to hop directly to subheadings.

Method You will use a different type of link called a 'named anchor' - Reference points in the document (such as each subheading, and the top) are marked with an anchor tag and given a unique name label, e.g. `` - these NAME anchors do not show on the page. You can create HREF links to the NAME anchors from elsewhere in the document, or from other pages, by using a # hash mark in front of the anchor name e.g. `top` within the same document, or `http://www.bbk.ac.uk/html2/asime70/index.html#topdoc` from another page.

Comments This is a useful technique for making long pages easy to navigate.

7.1 In **Notepad**, open **index.html** if it is not open already.

We are first going to label the top of the page with a named anchor called 'topdoc' - this will enable us to create a 'Back to top' link at the bottom of the page.

Locate the opening **BODY** tag and add only the text that is shown in bold below:

```
<BODY BGCOLOR="#FFFFFF" TEXT="#000000" LINK="#0000FF" VLINK="#800080"
ALINK="#FF0000">
<A NAME="topdoc"></A>
```

7.2 Now scroll to the bottom of the page and add the following HREF link just above the footer, shown below in bold:

```
<P ALIGN="right">
<A HREF="#topdoc">back to top</A>
</P>
<HR>
```

Save the page, switch to **Internet Explorer** and **Reload**. You should have a 'back to top' link at the bottom of the page, which when clicked will take you back to the start of the document.



7.3 We will now create Table of Contents links at the top of the page, linking to each subheading.

Scroll through the document and add a named anchor in front of each subheading. You can name them as you like, as long as the names are all unique within the page, do not contain spaces and begin with a letter not a number. The names are case sensitive.

The first subheading is Course Content, so the named anchor will look like the example below:

```
<A NAME="content"></A>
<H3>Course Content</H3>
```

Also add a named anchor to the headings: <H3>Admission</H3> and <H3>Further information</H3>

- 7.4** Now we can create the Table of Contents HREF links. Locate the main heading BSc Multimedia Publishing, and add the text shown below in bold underneath it:

```
<H1>BSc Multimedia Publishing</H1>
<P>[ contents: <A HREF="#content">Course Content</A> ]</P>
```

Save the page, **Reload** in Internet Explorer and try out the link, which should jump you to the Course Content heading, and will look as below:

BSc Multimedia Publishing

[contents: [Course Content](#)]

- 7.5** Finally, having allowed people to jump directly to the Course Content section, we need to provide a link to take them back to the contents links at the top of the page, in case they want to jump to a different section. We can re-use the 'back to top' link.

In **Notepad**, scroll to the bottom of the page and **Copy** the text shown below in bold to the clipboard (**CTRL+C**):

```
<P ALIGN="right">
<A HREF="#topdoc">back to top</A>
</P>
<HR>
```

Now locate the end of the Course Content section (just above the <H3>Duration</H3> subheading), position the cursor below the last paragraph tag, and **Paste** in the 'back to top' link (**CTRL+V**), as shown below:

```
<P ALIGN="right">
<A HREF="#topdoc">back to top</A>
</P>
<H3>Duration</H3>
```

Save the page, switch to **Internet Explorer** and **Reload** to test the links.

- 7.6** Add HREF links to the 'contents' list for the other subheadings, so it looks similar to the example below (you will have different anchor names):

```
<H1>BSc Multimedia Publishing</H1>
<P>[ contents: <A HREF="#content">Course Content</A> | <A
HREF="#admissions">Admission</A> | <A HREF="#info">Further
information</A>]</P>
```

The example above looks as follows in Internet Explorer:



For a longer listing you would probably want to format the links as a list, using `` and `` tags, or in a paragraph with `
` line breaks between.

Add a 'back to top' link to the end of each section, then **Save** the document and view the results in Netscape.