HTML Basics

What is HTML
- it is the language of the web
- HyperText Markup Language
- it is a plain text file, with "tags" added for formatting
- browsers interpret the text file, converting the tags into format

The principle of Tags
- old word processors used to use these to format text
- they mark the start and end of an action – they sandwich bits of text
- if you type something that the browser doesn't understand, it simply ignores it

Some basic Tags

		Bold
<u>	</u>	<u>Underlined</u>
<i>	</i>	*Italics*
<h1>	</h1>	Heading 1 (headings can range from 1 to 6
<center>	</center>	Center
<p>	</p>	Paragraph
<hr>		Horizontal Rule
	 Changes font properties

Proper HTML protocol

Even though most newer browsers can interpet any old text file as webpage, some older browsers still need you to "declare" that a page is HTML in order to understand it. So, you must use proper HTML protocol when writing your webpages.

Start every HTML page with the <html> tag, and finish it with the </html> tag
Split your webpage into two sections – a <head> and a <body>. The main thing that goes in the <head> is the page's <title>. Everything else goes in the <body>

So, a master template for an HTML file is

    <html>
        <head> <title> The Name Of The Page </title> </head

        <body> The Main Content Of Your Webpage </body>
    </html>

Linking to other files
- There are two ways of referring to other files on the web – relative and absolu

  relative : referring to the file's location in relation to the that of the current pa
  eg: "images/jpegs/mypicture.jpg"
  (usually used when linking to another of your own files

  absolute : quoting the entire URL of the fil
  eg. "http://www.bournemouth.ac.uk/images/jpegs/mypicture.jpg
  (usually used when linking to one of someone else's pages

Hyperlinks to other webpages

- To create a hypertext link, use the Anchor ta

  <a href="filename.html"> Click Me </a

Placing Images
- you don't actually "place" the image, like in a Word Processor, you call
- you must keep your pictures in a safe plac
- don't move them around, remember where they ar
- images have to be JPG or GIF format

  <img src="imagename.jpg' border="X" width="xx" height="xx" alt="Some Text">

Lists
Two types of list – Ordered (numbered) and Unordered (bulleted

List Tags –   ordered list <ol>
                  unordered list <ul>
List Item Tag -

HTML CODE	WHAT IT LOOKS LIKE
        This is the first item on the lis This is the second item on the lis This is the third item on the lis 	– This is the first item on the lis – This is the second item on the lis – This is the third item on the lis
        This is the first item on the lis This is the second item on the lis This is the third item on the lis 	• This is the first item on the lis • This is the second item on the lis • This is the third item on the lis

Tables

Table basics – the principles of rows, cells and headings (define terms

How to start a table – the <table> tag

width="X" height="X" border="X" cellpadding="X" cellspacing="X"

How to do a row - <tr> </tr>

How to do a cell - <td>   </td>

A basic table

```
<table border="1" width="100%" align="center">
    <tr>
        <td align="center">Cell 1</td>
        <td align="center">Cell 2</td>
        <td align="center">Cell 3</td>
        <td align="center">Cell 4</td>
    </tr>
    <tr>
        <td align="center">Cell 5</td>
        <td align="center">Cell 6</td>
        <td align="center">Cell 7</td>
        <td align="center">Cell 8</td>
    </tr>
</table>
```

Cell 1	Cell 2	Cell 3	Cell 4
Cell 5	Cell 6	Cell 7	Cell 8

Colspan and Rowspan – "breaking down the barriers between cells"

colspan increases the number of columns that a cell spans across eg. Cell A

rowspan increases the number of rows that a cell spans down eg. Cell C

```
<table border="1" width="100%" align="center">
    <tr>
        <td align="center" colspan="2' bgcolor="#cccccc"> Cell A</td>
        <td align="center">Cell b</td>
        <td align="center" rowspan="2' bgcolor="#cccccc' >Cell C</td>
    </tr>
    <tr>
        <td align="center">Cell d</td>
        <td align="center">Cell e</td>
        <td align="center">Cell f</td>
    </tr>
</table>
```

Cell A		Cell b	Cell C
Cell d	Cell e	Cell f	

Colours

In HTML, you can write some of the most basic colours as words (red, green, yellow orange etc.) But sometimes, you have to write the full colour code. All colours are ma up of Red, Green and Blue light. In HTML, a colour is defined as quantities of R, G and ranging from 0 to 255. But, instead of writing thi: quanitities in nice human-friendly decimal numbers, they are written i Hexidecimal

In the Decimal system, we work in Hundreds, Tens and Units (remember your primar maths!). So the number 255 is represented as

Hundreds	Tens	Units
2	5	5

2 hundreds, 5 tens, and 5 units
(2 x 100) + (5 x 10) + (5 x 1) = 255

In the Hexidecimal system, computers work i Sixteens and Units, because sixteen is a easier number for computers to understand, and you can write numbers down wit less characters

Sixteens	Units
15	15

15 sixteens, 15 units
(15 x 16) + (15 x 1) = 255

But, instead of writing the characters 10, 11, 12, 13, 14 and 15 Hexidecimal uses alphabetical letters A, B, C, D, E and F. So 255 is written as FF

An Example
- Pure Red is 255 'bits' of Red, and 0 'bits' of Green and Blu
- In Decimal, this is written a: 255 , 0 , 0
- In Hexidecimal, this is written a: ff , 0 , 0
- In HTML, this is written as color="#ff0000" (don't forget the # symbol

Basic Colours

Colour	Decimal RGB Code			Hexidecimal HTML Code
White	2 5 5	2 5 5	2 5 5	# f f f f f f
Black	0	0	0	# 0 0 0 0 0 0
Red	2 5 5	0	0	# f f 0 0 0 0
Green	0	2 5 5	0	# 0 0 f f 0 0
Blue	0	0	2 5 5	# 0 0 0 0 f f
Cyan	0	2 5 5	2 5 5	# 0 0 f f f f
Magenta	2 5 5	0	2 5 5	# f f 0 0 f f
Yellow	2 5 5	2 5 5	0	# f f f f 0 0
Light Grey	1 9 2	1 9 2	1 9 2	# c c c c c c
Dark Grey	5 1	5 1	5 1	# 3 3 3 3 3 3

(for shades of grey, keep the R, G and B all the same!

Embedding Sound and Video

– placing Quicktime clips on a webpage is called Embedding, and uses the <embed> tag.

<embed src="myvideo.mov" width="192" height="160" volume=128 controller=TRUE autoplay=FALSE>

– **width** and **height** can be obtained from Quicktime Player
– **controller** toggles the standard Quicktime control bar under the movie
– **autoplay** toggles whether the movie automatically starts when the page loads up
– **volume** ranges from 0 to 255, and sets the volume of the video clip (not the master system volume)

Publishing your pages
- To send your pages to a web server, you use an FTP client.
- File Transfer Protocol is like File Sharing across the BAMP computer room.
- Good FTP clients include Fetch for the Mac and CuteFTP and AtlantisFTP for Windows.
    - Browsers can also access FTP sites, but have only basic capabilities.

Useful sites for reference
- **NCSA HTML Primer** -
  http://www.ncsa.uiuc.edu/General/Internet/WWW/HTMLPrimer.html
  Good basic guide to HTML, from the National Computational Science Alliance in USA
- **HTML Primer** - http://htmlprimer.com
  Organised into "lessons" starting with a browser session much like todays!
- **Anabella's HTML Guide** - http://www.geocities.com/~annabella/html.html
  Very nicely laid out, and very graphical
- **Calkid's University** - http://www.geocities.com/Athens/Acropolis/5969/index.html
  HTML 101 (followed by 102, 103 etc.!)
- **Webmonkey** – http://www.hotwired.com/webmonkey
  Web designers news, discussion and learning site
- **The HTML Station** – http://www.december.com/html
  Another useful guide

A Brief Glossary of World Wide Web Terms

Internet

The Internet is hardware consisting of computers and communication equipment, and can be described as a network of networks. It has its origins in an American military project that set out to design a system of communication between computers that would continue to function even if parts of the infrastructure were damaged. Today, there are uncountable millions of machines all interconnected and exchanging data. The Internet is not owned by anyone - it is the result of anarchic cooperation and survival of the fittest technology.

Information Superhighway

This phrase was coined by American vice president Quayle and used at an after dinner speech delivered to businessmen. He was trying to persuade businesses that they must embrace the new technologies to make progress. There were media representatives present during the speech so the phrase reached a wider audience. Hype and imprecision has been added in large measure so that now the phrase is used to mean almost anything! Probably the closest synonym is **Internet**.

World Wide Web

Relatively recently (started 1989, first public release 1991) software was devised that makes it particularly easy for a user to read information that has been mounted on the Internet. This software allows a document to be "linked" to another regardless of its physical location, and the different methods that computers can use to talk to each other are automatically invoked and hidden from the user's view. The software was originally devised for use by workers at the nuclear physics laboratory in Cern, Switzerland by Tim Berners-Lee. He is now chairman of the international world wide web committee, which continues the work that he started. It is the software of the World Wide Web that has brought about the recent explosion of popularity of the Internet.

ISP

This stands for Internet Service Provider. These are the organisations that can offer you a connection to the internet. Examples include America On Line (AOL), Compuserve and Freeserve. For users in departments on campus, IT Services provide the internet connection and are effectively the ISP for the university.

URL

Uniform Resource Locator - The location of any document that has been placed on the World Wide Web is described by its URL. A typical form for a URL is
`http://www.server.com/folder/directory/filename.html`

HTML

Hypertext Markup Language - documents that are placed on the Web have to be written in this language. It is a mixture of plain text, and instructions.

Server

Anything that is to be published using World Wide Web techniques has to be mounted on a computer that is configured as a source of data and is running the appropriate programmes. Such a computer then becomes a server.

Browser

Software that runs in your personal workstation and allows you to read World Wide Web material is called a Browser. The best known browsers are **Netscape Navigator**, (commonly known as just Netscape) and **Internet Explorer**.

Java or Javascript

Some advanced features can be added to web documents by writing programmes in this language. Only the newest browsers can interpret Java; others may produce an error message or perhaps cause the workstation to seize up.