

# More HTML

## Images and links

## Tables and lists

### Recap

```
<h1>Running in the family</h1>
```

```
<h2>Tonight 9pm BBC One</h2>
```

```
<p>Hurdles legend Colin Jackson  
traces his family tree to Jamaica in  
Who Do You Think You Are?</p>
```

Running in the family

Tonight 9pm BBC One

Hurdles legend Colin Jackson traces his family tree to Jamaica in Who Do You Think You Are?

### Images and links to other pages



## Tools required to create Images

### An image editor

- Simple free software - Paint, Image editor
- Professional expensive packages - Coral Draw, Fireworks
- Lots of other choices

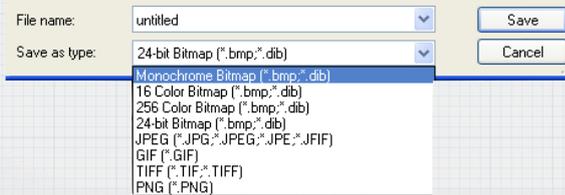
## Paint

- Available on almost all Windows PCs

Example – creating a simple image with text

## Saving and file formats

- Choices about how to save the file
- Various file formats or types



Microsoft Word produces 'Word' format files



Microsoft Excel produces 'Excel' format files



Microsoft Access produces 'Access' format files



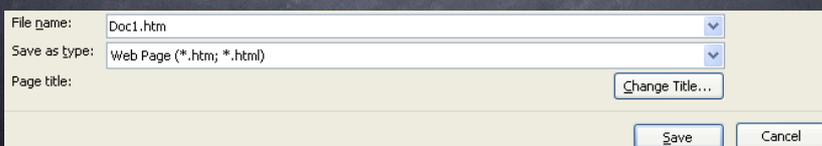
Microsoft Paint produces

'GIF' format files  
'JPG' format files  
'BMP' format files



Microsoft Word produces 'Word' format files

- Word files have hidden content that indicate special formatting and characters
- Not very good at producing plain text files
- Do NOT produce text/HTML files in Word



## Filenames

- When saving a file, choose a sensible name

myfile.doc

- 'extension' (after the .) indicates the type of the file
- Added by the software (but may be hidden)
- For the moment - do not put spaces in filenames (why?)

## Saving and file formats

- Choices about how to save the file
- Various image file formats
- What distinguishes them?

## image file characteristics

### Compression



### Animation



### Transparency



- Lossy (lose information)
  - Lossless (keep everything)
- Cost** - do patents apply?
- Is it possible that we may have to pay to use it

## Saving and file formats

	BMP	GIF	JPEG	PNG
Compression	✗	✓	✓	✓
Patents apply	✗	✗	✓*	✗
Animation	✗	✓	✗	✓
Transparency	✗	✓	✗	✓
Works in Internet Explorer 7+	✓	✓	✓	✓

\* rejected by United States Patent and Trademark Office May 26, 2006

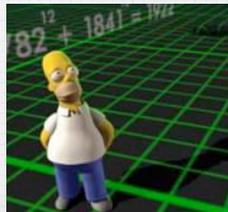
## Most popular formats - GIF, JPEG, PNG

- GIF (graphics interchange format)
- Good at compressing limited ranges of colours
- Best used for cartoons, logos



### JPEG

- JPEG (Joint Photographic Experts Group)
- Good at compressing fuller ranges of colours
- Best used for photos/ images with lots of colours



## PNG - Portable Network Graphics

- Offers many of the features of GIF and JPEG



- Developed to ensure a free graphics format
- Problem - poor support in IE versions prior to IE7

## Example

- Creating and saving a simple image in three formats
- Examining the file name and size

How do we measure sizes in computing?

## KB Kilobytes

- One byte can be interpreted as one letter or character in size

Hello there

- Would be 11 bytes in size (why not 10?)
- In computing kilo is 1024 (rather than 1000)

## Exercise



- How many KBs would be required to store an average paperback book?

## Bytes - a standard measure

- In fact all sizes in computing use Bytes
- Used to measure all filesizes
- Megabytes (roughly a million bytes)
- Gigabytes (roughly a thousand million bytes)
- Examples - 2MB, 5MB, 20GB

Word, Excel	
Images	
Web pages	
Music	
Video	

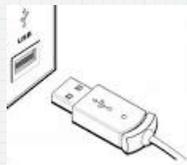
## Example - Flash Pen drives



- How many paperback books would fit on here?

## Flash Pen drives

- Universal Serial Bus now a common slot on PCs
- Plugs into a slot called a USB port



- Plug in cameras, printers, memory, MP3 players

## Flash Pen drives

- Completely replaced floppy disks (can only fit 1.44MB on these)



- Various sizes and prices

	2006	2007	2009	2010	2011
128MB	£3.00	-			
256MB	£4.00	-			
512MB	£5.00	-			
1GB	£10	£7			
2GB	£15	£11			
4GB	£56	£22	£6	£6	£4
8GB	-	£41	£10	£10	£6
16GB	-	£88	£18	£17	£10
32GB	-	-	£46	£42	£15
64GB	-	-	£120	£90	£59
128GB	-	-	£280	£140	£140
256GB	-	-	-	-	£199

## Using images in web pages

- Keep the image and the HTML page in the same location (save to the same place) for the moment

Use the `<img>` tag to point to the image

To change the way a tag behaves when displayed, we need to set the **attributes** of the tag

## Example

- Including a banner called banner.gif

```

```

- This will include (and display) the image where the `<img>` tag is placed
- the `<img>` tag is an example of an element that doesn't require a separate end tag - called an empty element
- Close the tag with `</>`

## Example - imageexample.html

```
<html>
<head>
<title>Text with an image</title>
</head>
<body>
Here is an added image

With some text here

</body>
</html>
```

## Attributes

- Are always added in this style

```
<tag attribute="value" ..>
```

- Some tags need many attributes separated by at least 1 space

```
<tag attribute="value" attribute="value" ..>
```

- The attributes used by a tag vary

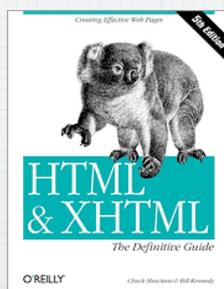
## Attributes

- To find them out, use a reference

### On-line

[http://www.w3schools.com/tags/tag\\_img.asp](http://www.w3schools.com/tags/tag_img.asp)

### Book



## Some of the other <img> tag attributes

- alt = "text"

**Text displayed if the image cannot be displayed**

- border = "value"

**Width of the image around the border**

- align = "value"

**How the image is aligned in the page next to surrounding text - top, bottom, middle, left or right**

## Imageexample2.html with extra attributes

```
<html>
<head>
<title>128MB flash drive</title>
</head>
<body>
Here is a picture of a flash drive

</body>
</html>
```

- **Note the effect of changing the border number (to 0, 1, 2) and removing the image from the folder**

## Links

- **A key part of Hypertext documents**
- **Links to other documents**
- **Could be links to our own pages or links to other peoples documents**
- **Normally text, which when clicked, redirects the user to another page**

## Using links in web pages

- **Decide on text that will be the link**

You may wish to look at the next page for further information.

- **Use the anchor tag <a> to wrap the link**

You may wish to look at the `<a>next page</a>` for further information.

## ...but how do we indicate where to link to?

- **Use the href attribute inside the <a> tag**

You may wish to look at the `<a href="page2.html">next page</a>` for further information.

- **Will appear on the page like this**

You may wish to look at the next page for further information.

## Notes

- **We can link to "our" pages i.e. pages in the same location just by specifying the name of the file**
- **To link to "outside" files use http:// before the web address**

You may wish to look at the `<a href="page2.html">next</a>` page for further information. Alternatively you can check the `<a href="http://www.bbc.co.uk">BBC web site</a>`

## Often Web addresses are called URLs

- **Uniform Resource Locators**

As with the `img` tag, other attributes are available.

## Tables Recap

```
<table>
<tr> <th> Assessment</th> <th> Weighting </th> <th> Date </th> </tr>
<tr> <td> Test 1 </td> <td>15%</td> <td> Week 3 </td> </tr>
<tr> <td> Test 2 </td> <td>15%</td> <td> Week 10/11 </td> </tr>
<tr> <td> Coursework </td> <td>70%</td> <td> Final 5 weeks </td> </tr>
</table>
```

### Table example

My example table showing assignment weightings for this course

Assessment	Weighting	Date
Test 1	15%	Week 3
Test 2	15%	Week 10/11
Coursework	70%	Final 5 weeks

Tables <... width = "percentage">

To change a table or column width

To change the width of the whole table

```
<table width = "65%">
<tr> <th> Assessment</th> <th> Weighting </th> <th> Date </th> </tr>
<tr> <td> Test 1 </td> <td>15%</td> <td> Week 3 </td> </tr>
<tr> <td> Test 2 </td> <td>15%</td> <td> Week 10/11 </td> </tr>
<tr> <td> Coursework </td> <td>70%</td> <td> Final 5 weeks </td> </tr>
</table>
```

## Tables

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← 65% of browser width →

## Tables

### To change the width of individual columns

```
<table width = "65%">
<tr> <th width = "50%"> Assessment</th> <th width = "20%" > Weighting </th> ...
<tr> <td> Test 1 </td> <td>15%</td> <td> Week 3 </td> </tr>
<tr> <td> Test 2 </td> <td>15%</td> <td> Week 10/11 </td> </tr>
<tr> <td> Coursework </td> <td>70%</td> <td> Final 5 weeks </td> </tr>
</table>
```

## Tables

### To add a border

```
<table width = "65%" border = "1pt">
<tr> <th width = "50%"> Assessment</th> <th width = "20%" > Weighting </th>
<tr> <td> Test 1 </td> <td>15%</td> <td> Week 3 </td> </tr>
<tr> <td> Test 2 </td> <td>15%</td> <td> Week 10/11 </td> </tr>
<tr> <td> Coursework </td> <td>70%</td> <td> Final 5 weeks </td> </tr>
</table>
```

#### Table example

My example table showing assignment weightings for this course

Assessment	Weighting	Date
Test 1	15%	Week 3
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## Bullet point lists

### Unordered list (no order or number)

- Here is an example of two points
- Bullet points on the left

### Ordered list (with number)

1. Here is an example of two points
2. Bullet points on the left

## Bullet point lists

### Ordered list (with letters)

- A. Here is an example of two points
- B. Bullet points on the left

### Ordered list (with alternatives)

- i. Here is an example of two points
- ii. Bullet points on the left

## Unordered lists

Mark up the whole **unordered list**

- use `<ul>` and `</ul>`

`<ul>`

Homer Simpson

Bart Simpson

Lisa Simpson

`</ul>`

Now mark up each **list item**

- use `<li>` and `</li>`

`<ul>`

`<li>`Homer Simpson`</li>`

`<li>`Bart Simpson`</li>`

`<li>`Lisa Simpson`</li>`

`</ul>`

- Homer Simpson
- Bart Simpson
- Lisa Simpson

## Ordered lists

Change the `<ul>` elements for ordered list elements  
`<ol>` and `</ol>`

`<ol>`

`<li>`Homer Simpson`</li>`

`<li>`Bart Simpson`</li>`

`<li>`Lisa Simpson`</li>`

`</ol>`

Will give:

1. Homer Simpson
2. Bart Simpson
3. Lisa Simpson

## Lots of options with Ordered lists

- Can change the starting number or the type of numbering used
- Use the **start** and **type** attributes in the `<ol>` tag

## Ordered lists with attributes

```
<ol start = "3">  
<li>Homer Simpson</li>  
<li>Bart Simpson</li>  
<li>Lisa Simpson</li>  
</ol>
```

3. Homer Simpson  
4. Bart Simpson  
5. Lisa Simpson

## Ordered lists with attributes

```
<ol type = "A">  
<li>Homer Simpson</li>  
<li>Bart Simpson</li>  
<li>Lisa Simpson</li>  
</ol>
```

A. Homer Simpson  
B. Bart Simpson  
C. Lisa Simpson

## Ordered lists type values

- `type=" "` can be any of the following

type values as follows:

- A Capital Letters
- a Lower case letters
- I Capital Roman Numerals
- i Lowercase Roman Numerals
- 1 Arabic Numerals (default)

## Ordered lists with attributes

```
<ol type = "i">  
<li>Homer Simpson</li>  
<li>Bart Simpson</li>  
<li>Lisa Simpson</li>  
</ol>
```

i. Homer Simpson  
ii. Bart Simpson  
iii. Lisa Simpson

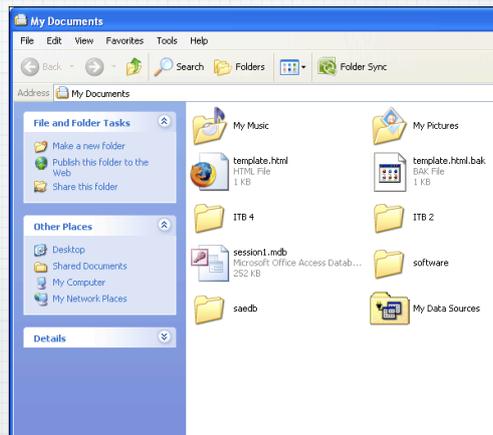
## Ordered lists with attributes

```
<ol type = "a" start="5">  
<li>Homer Simpson</li>  
<li>Bart Simpson</li>  
<li>Lisa Simpson</li>  
</ol>
```

e. Homer Simpson  
f. Bart Simpson  
g. Lisa Simpson

## Organising files

- To see locations where you can access files use Explorer



## Drive letters

- Microsoft uses Drive letters to indicate the different storage devices

Drive letter	Device
A:	floppy drive
C:	hard drive
D: E:	CD/DVD drives
Other letters	removable storage / network drive

- Different machines can have different letters

A: is normally the floppy drive

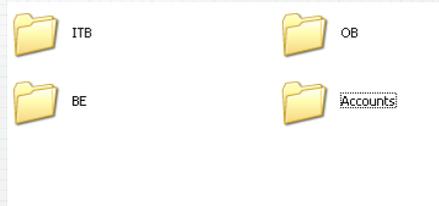
C: is normally the hard disk

## Directories and Folders

- Rather than saving all files in the same location, use Folders (originally called directories)
- Folders allow us to create names for collections of files
- Example – creating a folder called **MYWORK** and then saving a word file inside

## Structure your files

- You should think about structuring your saved work into appropriate named folders
- Perhaps have one folder per subject area
  - Can have folders within folders for assignments etc.



## BEWARE !!!

- Floppy disks, Hard disks, Zip disks, Flash memory can ALL lose data
- Make sure you backup your work (i.e. keep it in two places)
- Teachers don't accept 'my hard disk crashed' as an excuse for a late assignment!