



HTML – part 1

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Introduction to HTML

- What is HTML?
 - **H**yper**T**ext **M**ark-up **L**anguage
 - All web sites use HTML to display content
- Why learn HTML rather than use a program?
 - No special software required
 - Allows full control over pages
 - Code is often 'cleaner'
 - It's fun!

Viewing a web page

- ‘Browser’, e.g. Internet Explorer, makes a request to view a web page.
- ‘Server’, the computer with the web site on it, returns a text document with instructions that tell the browser how to display the page.
- We will learn how to write these instructions
- Use a text editor to write the file, for example, ‘Microsoft Notepad’.

Our First Web Page

- `<html>`
 - `<head>`
 - `<title>My first page</title>`
 - `</head>`
 - `<body>`
 - Hello World!
 - `</body>`
- `</html>`
- ‘Whitespace’ (tabs, spaces and carriage returns) ignored.
- Save file as ‘mypage.html’
- Double-click file to load it – your first web page is complete!

Tags – an explanation

- HTML is based on the concept of ‘tags’
- Each tag applies an instruction to whatever is contained within it
- Start tag is denoted: ‘<tag>’
- End tag is denoted: ‘</tag>’
- <instruction>This text is affected</instruction>

Recurring Tags

- These tags appear in every page
- `<html>...</html>`
 - The very first, and last, tags – instructs browser that everything in between is HTML
- `<head>...</head>`
 - Special instructions placed in head. The only one we use currently is ‘title’
- `<title>...</title>`
 - Text in between the tags is displayed at the top of the window
- `<body>...</body>`
 - Most of the tags and text we will look at later will be placed between these tags – the ‘body’ of the document

Some simple tags

- `<i>`This text will be displayed italic`</i>`
- ``This text will be displayed bold``
- `<u>`This text will be displayed underlined`</u>`
- `<center>`This text is centred`</center>`
 - Notice American spelling
- `^{`This text is superscript`}`
- `_{`This text is subscript`}`
- `<s>` ~~This is strike through text~~ `</s>`

```
<html>
  <head>
    <title>Text effects</title>
  </head>
  <body>
    <center>
      <b>Bold</b> text <i>or <b>both</b></i>
    </center>
  </body>
</html>
```

- Tags can be ‘nested’ within each other

More tags

- `<hr>` - single tag, doesn't have an end tag
 - Causes a **horizontal rule** to be drawn across page
- `
` - causes a **break** in the flow of text
- `Joe Bloggs
`
15 NoWhere Street

London

<hr>

Page colours

- Modify the `<body>` tag with **attributes**
 - Attributes specify additional properties of a tag
- `<body bgcolor='colour' text='colour'>`
 - 'bgcolor' and 'text' are examples of attributes
- 'bgcolor' specifies the colour of the background
- 'text' specifies the colour of the text
- Possible colours: {black, blue, cyan, fuchsia, gray, green, lime, maroon, navy, olive, purple, red, silver, teal, white, yellow}
- End tag is still just '`</body>`'

```
<html>
  <head>
    <title>A real page</title>
  </head>
  <body bgcolor='black' text='white'>
    <b>Joe Bloggs</b><br>
    <hr>
    Welcome to the home page of Joe Bloggs!
  </body>
</html>
```

Images

- ``
 - 'jpg', 'jpeg', 'gif', 'png'
- The file specified in the **source** attributed must be in the same directory as the HTML file referencing it.
- Causes a complete break in text. We can specify an attribute to cause text to flow around it.
 - ``
 - 'left' value above can be replaced by 'right'
 - 'left' means picture will be on left with text wrapped on right
 - 'right' means picture will be on right with text wrapped on left
- Attribute 'bgcolor' in body can be replaced by 'background'
 - `<body background='pic.gif' text='red'>`

HyperLinks

- Allow you to link your HTML to other web pages
- **Click here**
 - a='anchor' href='hypertext reference'
 - Text in tag can be clicked by user to go to page
 - Page must be in same directory as HTML file referencing it
- Link colours can be set as attributes in body tag
 - **<body text='red' link='yellow' vlink='blue' alink='black'>**
 - 'link' is colour of normal link (default 'blue')
 - 'vlink' is colour of link after being clicked (default 'purple')
 - 'alink' is colour of link while being clicked (default 'red')

Hyperlinks continued

- E-Mail links can be specified – when clicked they will load the default e-mail client on the user’s machine (often Outlook Express)
- `E-Mail me`
- Instead of text in between ‘a’ tags, it is possible to use an image
 - ``
 - `border='0'` is optional, when an image is used as a link a border is automatically added, the attribute ‘ `border='0'` ’ removes it.
 - The attribute `border` is a value in pixels for thickness of border

```
<html>
```

```
  <head>
```

```
    <title>A complete page</title>
```

```
  </head>
```

```
  <body bgcolor='black' text='white' link='red' vlink='blue'>
```

```
    <img src='joe.gif' align='left'>
```

```
    <b>Joe Bloggs</b><br>
```

```
    <hr>
```

```
    Welcome to the home page of Joe Bloggs!<br>
```

```
    E-Mail me at:<br>
```

```
    <a href='mailto:j.bloggs@web.com'>j.bloggs@web.com</a>
```

```
  </body>
```

```
</html>
```

Font control

- `Affected text`
- Attribute:
 - ‘color’ works like ‘bgcolor’
 - ‘size’ controls size of text, ‘1’ is smallest, ‘7’ is largest
 - ‘face’ controls which font is used. Specified font must be on user’s computer, so don’t use non-standard fonts.
 - ‘face’ value must be written **exactly**; ‘comic sans’ will not work, it has to be ‘comic sans ms’
 - Safe Windows fonts – ‘arial’, ‘times new roman’, ‘comic sans ms’, ‘impact’, ‘tahoma’ and ‘verdana’.

Better Paragraph Layouts

- Rather than using '`
`' in-between paragraphs we use paragraph tag:
- `<p>This is a paragraph of text.</p>`
- Can align this paragraph easily:
 - `<p align='left'>Default alignment</p>`
 - `<p align='center'>Centred paragraph</p>`
 - `<p align='right'>Right-aligned paragraph</p>`

```
<html>
  <head>
    <title>John Smith</title>
  </head>
  <body>
    <font color='red' face='arial' size='3'>
      <p>John Smith was born in Blackburn on the 23rd of December. He
      completed 9 GCSE's, and went on to do A-Levels in art, music and dance
      He is currently working on his degree, in fine art, at UCLAN.</p>
      <p align='right'>This text is just to fill up the space and show how the align
      attribute works for paragraphs of text. Please ignore the actual words
      used.</p>
      <a href='moreinfo.html'>Click for more information.</a>
    </font>
  </body>
</html>
```

Lists

- Efficient method of displaying data.
- Two different types, ordered and un-ordered.
- Ordered act like automatically numbered lists.
- Un-ordered act like bullet points.

Un-Ordered Lists

- ``
 - `List Item`
 - `List Item```
- Different bullet-points can be used:
 - `<ul type='square'>`
 - `<ul type='disc'>`
 - o `<ul type='circle'>`

Ordered Lists

- ``
 `List Item`
 `List Item`
 ``
- Different numbering systems can be used:
 - i. `<ol type='i'>`
 - II. `<ol type='I'>` (capital i)
 - c. `<ol type='a'>`
 - D. `<ol type='A'>`
 5. `<ol type='1'>`

```
<html>
  <head>
    <title>Final Page</title>
  </head>
  <body>
    We have learnt:
    <ul type='square'>
      <li>That HTML is easy</li>
      <li>That we have to remember tags</li>
      <li>That everything uses American language!</li>
    </ul>
  </body>
</html>
```

Coursework

- Try to re-create the following pages:
 - <http://www.cgcu.net/internet/coursework/lecture1/part1.html>
 - <http://www.cgcu.net/internet/coursework/lecture1/part2.html>
 - <http://www.cgcu.net/internet/coursework/lecture1/part3.html>
- Click 'View Source' to see the code
 - Try to do them without looking at the source!