

Attributes

- Most HTML tags have attributes (arguments), used to control behaviour
- Attributes appear after tag name, before closing >
- Attribute consists of
 - Name
 - Value – value placed in quotes
 - `href="index.html"`
 - `rows="4"`
- Attribute names are case sensitive

Some Tag Attributes and Values

<i>HTML Element</i>	<i>Attributes</i>	<i>Attribute Values</i>	<i>What attribute does</i>
<h1> </h1>(heading) through <h6> </h6>	align=	Left, center, right	Justifies or centers heading. Default = left
<p></p>	align=	Left, center, right	Justifies or centers text
 	clear =	Right, left	Break. Used with images etc.
<hr>	align=	Left, center, right	Justifies or centers horizontal rule. Default=centered
	noshade=	[no value]	Eliminates 3D effect
	size=	n (integer)	Sets thickness of line in pixels. Default=2
	width=	n(integer) or n%	Sets width of line. % signifies % of window. Default=100%

Some Tag Attributes and Values

<i>HTML Element</i>	<i>Attributes</i>	<i>Attribute Values</i>	<i>What attribute does</i>
<code><basefont></basefont></code> OR <code></code>	face=	[Name of preinstalled font type]	Changes typeface
	color=	[color name or hexadecimal color code]	Changes text color
	size =	n (integer 1 to 7) or = n or -n	Changes text size

Basefont and font example

```
Testfontsize - Notepad
File Edit Format View Help
<html>
  <head>
    <title> basefont tag</title>
  </head>
  <body>
<h1>Changing font size</h1>
<basefont size = "2">
<p> here is some text size 2</p>
<p> and here is some <font size="7">larger</font></p>
<p><font size = "+3"> t</font>
<font size = "+2"> e</font>
<font size = "+1"> x</font>
<font size = "-1"> t</font>
</p>
<h1>finishing basefont</h1>
</basefont>
this is my normal text
  </body>
</html>
```

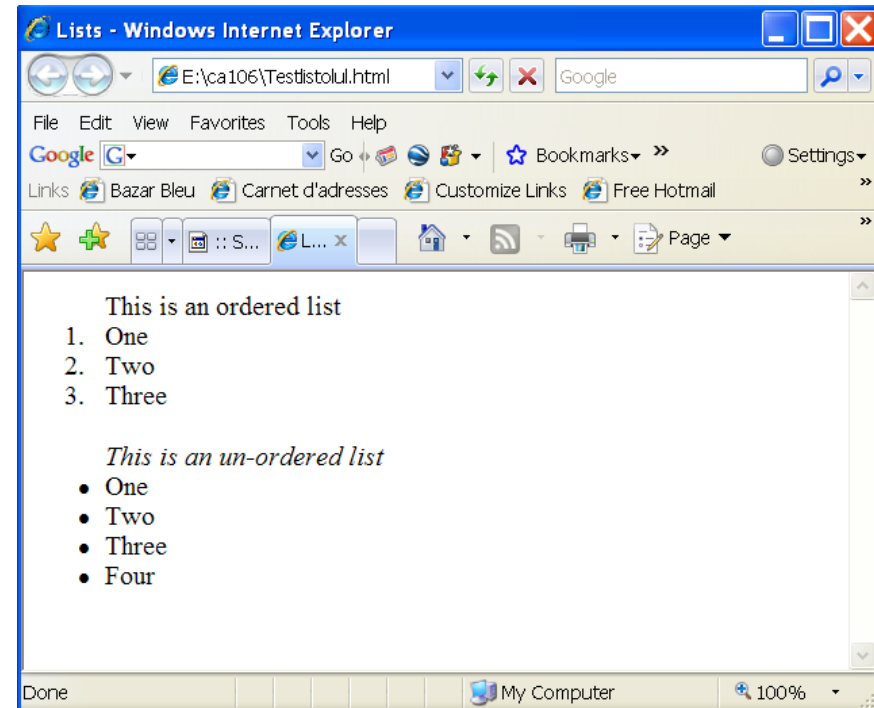


Lists

- List tags:
 - `...` used to make **ordered** (numbered) lists
 - `...` used to make **unordered** (bullet) lists
- Within a list:
 - `<lh>` used for the **header** of the list
 - `` used for list items

Lists

```
Testlistolul - Notepad
File Edit Format View Help
<html>
  <head>
    <title> Lists</title>
  </head>
  <body>
    <ol>
      <lh> This is an ordered list
        <li> One
        <li> Two
        <li> Three
    </ol>
    <ul>
      <lh><EM> This is an un-ordered list</EM>
        <li> One
        <li> Two
        <li> Three
        <li> Four
    </ul>
  </body>
</html>
```

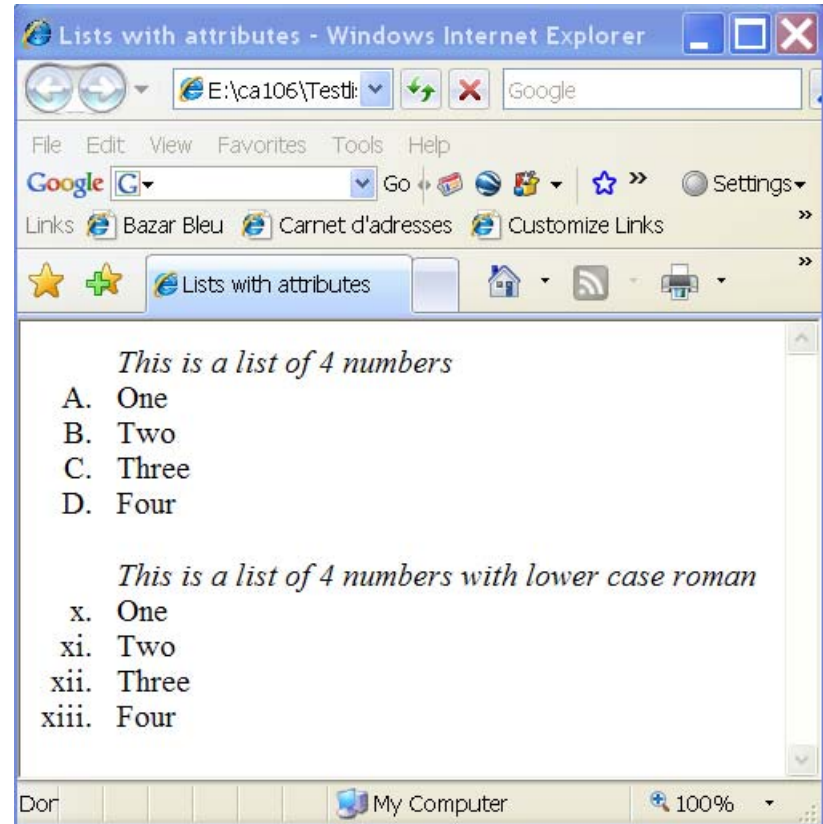


Ordered List Types – for setting markers

- `Type="A"` uppercase letters
 - `Type="a"` lowercase letters
 - `Type="I"` uppercase Roman numerals
 - `Type="i"` lowercase roman numerals
 - `Type="1"` default value
-
- `START="n"` = value of first marker

```
Testlisttypes - Notepad
File Edit Format View Help

<head>
<title> Lists with attributes</title>
</head>
<body>
  <ol type="A">
    <lh><EM> This is a list of 4 numbers</EM>
      <li> One
      <li> Two
      <li> Three
      <li> Four
    </ol>
    <ol type="i" start="10">
      <lh><EM> This is a list of 4 numbers with lower case roman</EM>
        <li> One
        <li> Two
        <li> Three
        <li> Four
      </ol>
  </body>
```



Unordered Lists

- Bullet shapes – disc, circle or square

```
<ul type=square>
```

```
<li>... .
```

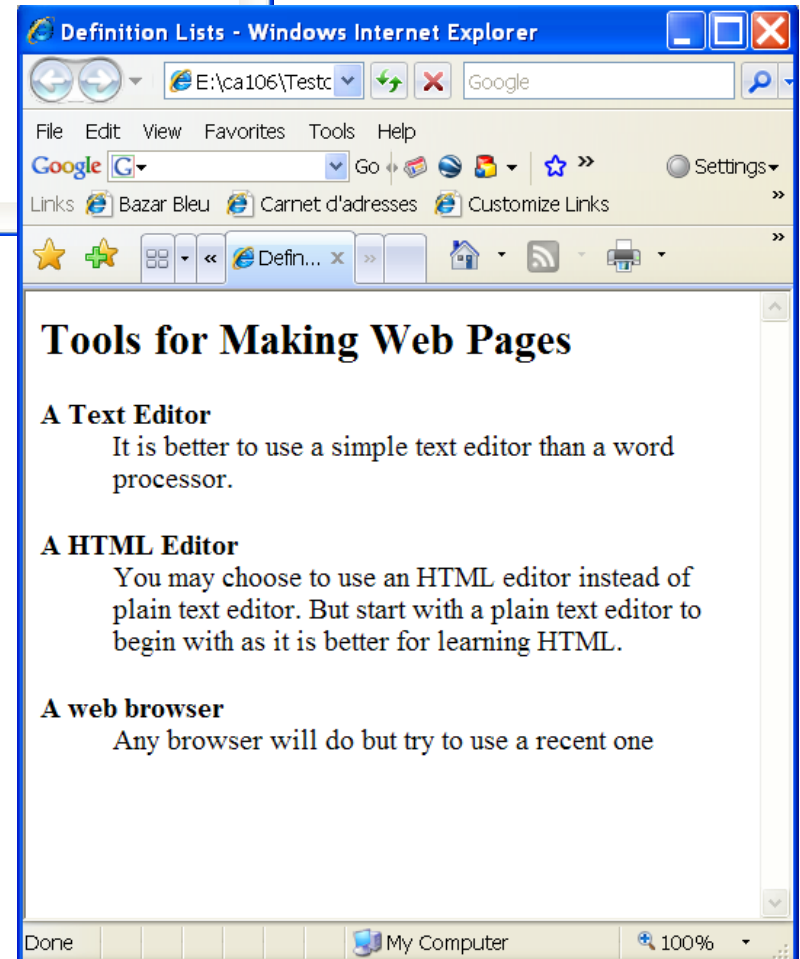
```
</ul>
```

Default is disc

Definition Lists

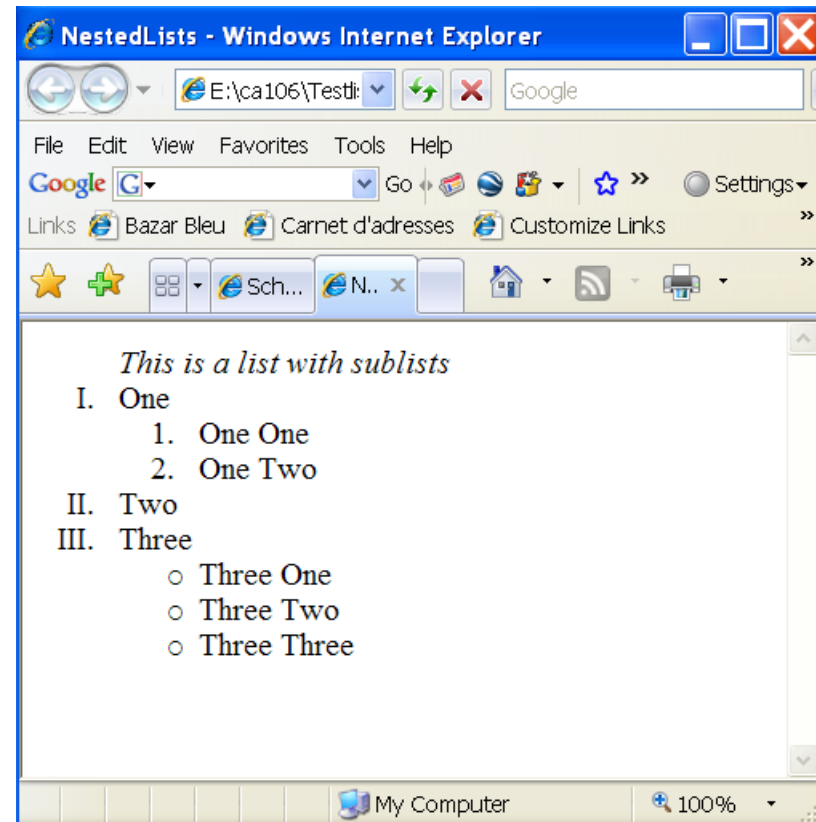
- Tags `<dl>``</dl>`
- Inside the definition list, deflist-term elements are marked with tag `<dt>`
- Deflist-definitions marked with tag `<dd>`
- `<dt>` and `<dd>` work within the `<dl>` pairs

```
Testdefinitionlist - Notepad
File Edit Format View Help
<html>
  <head>
    <title> Definition Lists</title>
  </head>
  <body>
    <h2> Tools for Making Web Pages</h2>
    <dl>
      <dt><b> A Text Editor</b></dt>
      <dd> It is better to use a simple text editor than a word processor. <p></dd>
      <dt><b> A HTML Editor</b></dt>
      <dd> You may choose to use an HTML editor instead of plain text editor.
      But start with a plain text editor to begin with as it is better for
      learning HTML. <p></dd>
      <dt><b> A web browser</b></dt>
      <dd> Any browser will do but try to use a recent one</dd>
    </dl>
  </body>
</html>
```



Lists can be nested

```
Testlistnest1 - Notepad
File Edit Format Help
<html>
  <head>
    <title> NestedLists</title>
  </head>
  <body>
    <ol TYPE=I>
      <lh> This is a list with sublists
        <li> One
          <ol>
            <li>one one
            <li>one Two
          </ol>
        <li> Two
        <li> Three
          <ul>
            <li> Three One
            <li> Three Two
            <li> Three Three
          </ul>
        </li>
      </ol>
    </body>
</html>
```



White space

- Browsers ignore white space and blank lines. To insert white space:
 - Single white space ** **
 - Single line break **
**
 - Block quote **<blockquote>** **</blockquote>**
 - Preformat **<pre>** **</pre>**

Special Characters

The Most Common Character Entities:

Result	Description	Entity Name	Entity Number
	non-breaking space	 	
<	less than	<	<
>	greater than	>	>
&	ampersand	&	&
"	quotation mark	"	"
'	apostrophe	' (does not work in IE)	'

Some Other Commonly Used Character Entities:

Result	Description	Entity Name	Entity Number
¢	cent	¢	¢
£	pound	£	£
¥	yen	¥	¥
€	euro	€	€
§	section	§	§
©	copyright	©	©
®	registered trademark	®	®
×	multiplication	×	×
÷	division	÷	÷

Colour

- Page elements whose colour you can change:
 - Background
 - Text for whole page
 - Link colours
 - Visited link colours
 - Active link colours

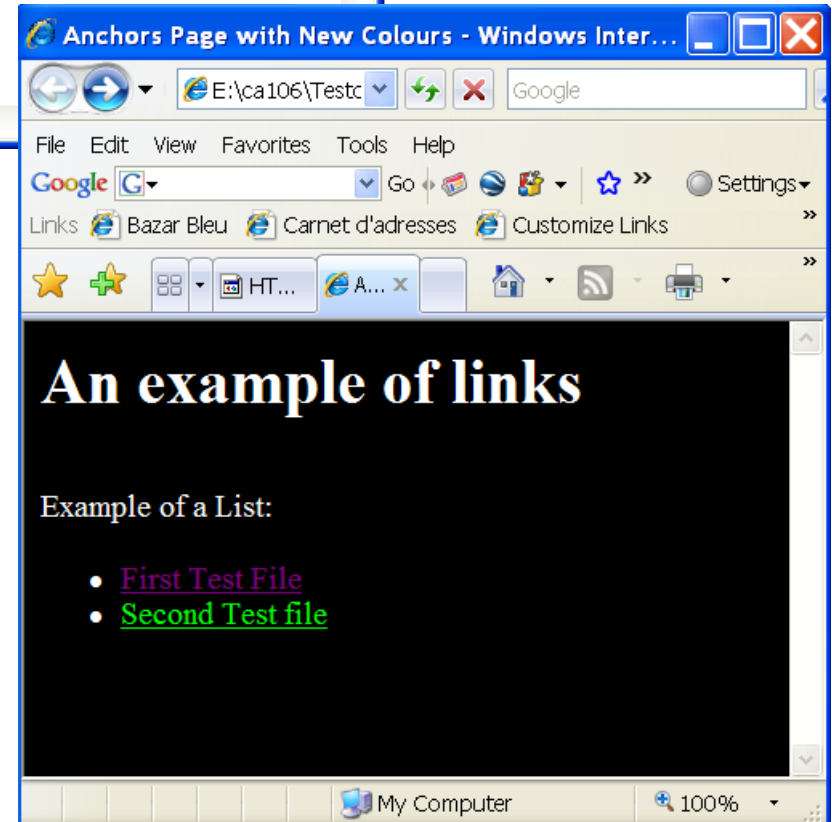
Changing Colours

- Background colour should be chosen carefully!
- These change background colour to black
 - `<body bgcolor="#000000">`
 - `<body bgcolor="rgb(0,0,0)">`
 - `<body bgcolor="black">`
- Colour can be expressed as hex, rgb(red green blue) or name – get to know the ones you like
 - See full list on w3schools.com

Changing colours

- To change text colour for whole page to red
 - `<body text="#FF0000">...</body>`
- To change link colour to red
 - `<body link="#FF0000">...</body>`
- To change visited link color to orange
 - `<body vlink="#FF6600">...</body>`
- To change active link colour to yellow
 - `<body alink="#FFFF00">...</body>`
- **Note: you would make all changes at once within BODY tab**

```
Testcolour - Notepad
File Edit Format View Help
<html>
  <head>
<!--This is a comment--
--continuing--
--here-->
    <title> Anchors Page with New Colours</title>
  </head>
  <body bgcolor="#000000" text="#FFFFFF" link="#FF0000" vlink="#00FF00">
    <h1> An example of links </h1><br>
    Example of a List:
    <ul>
    <li><a href="TEST1.html"> First Test File</a>
    <li><a href="Test2.html"> Second Test file</a>
    </ul>
  </body>
</html>
```



Images as Background

- Be careful – background must not interfere with text!
- Use GIF, JPEG or PNG files but not BMP, TIFF or PICT
- Images should be 30 – 40 KB in size

```
bluehillsbackground - Notepad
File Edit Format View Help
<html>
<body background="bluehills.jpg">

<h3>Image Background</h3>

<p>Both gif and jpg files can be used as HTML backgrounds.</p>

<p>If the image is smaller than the page, the image will repeat itself.</p>

</body>
</html>
```

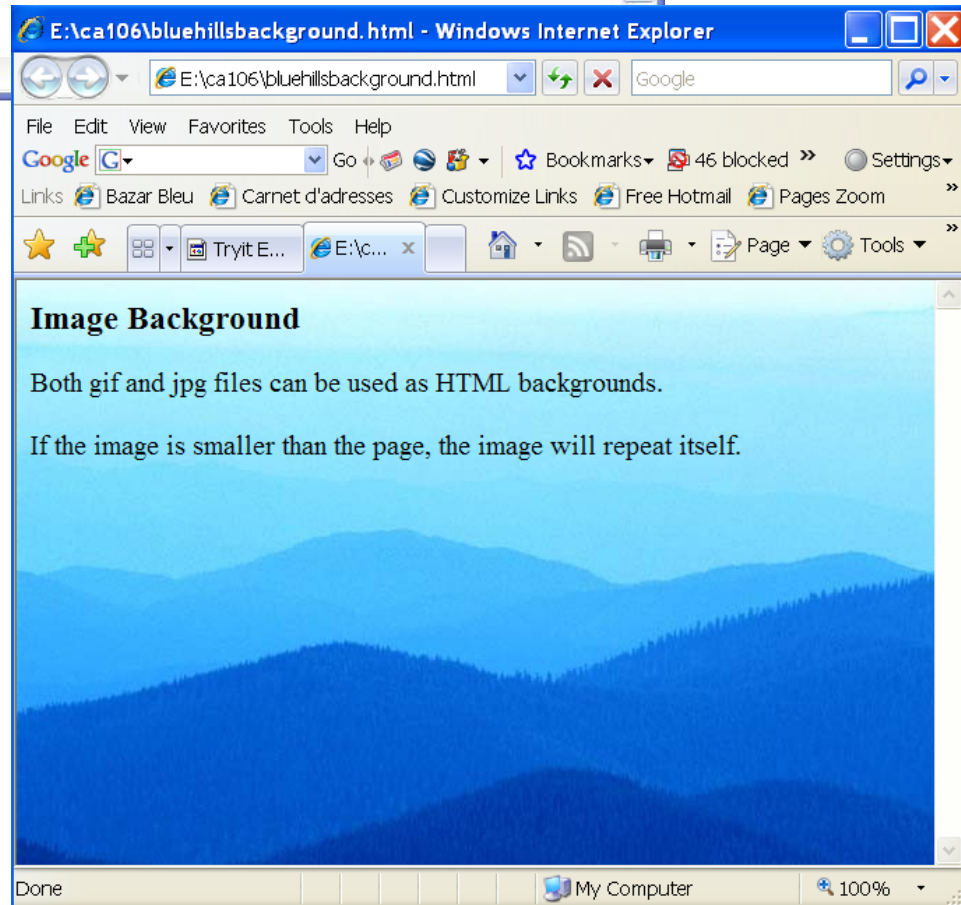


Image attributes

- Aligning images
 - Use **ALIGN** attribute inside IMG tag
 - Any text near image automatically flows around the image
 - **ALIGN** values **LEFT, RIGHT, CENTER**
 - Vertical **ALIGN** values **TOP, MIDDLE, BOTTOM**

Scaling Attributes

- **HEIGHT** and **WIDTH** attributes change size on screen
- Use high resolution large images
- Scaling small image can reduce quality, but does not reduce bandwidth
 - Must compress image to reduce download time

ALT Attribute

- Text displayed when image not displayed by browser
- Used by visually impaired using voice synthesis

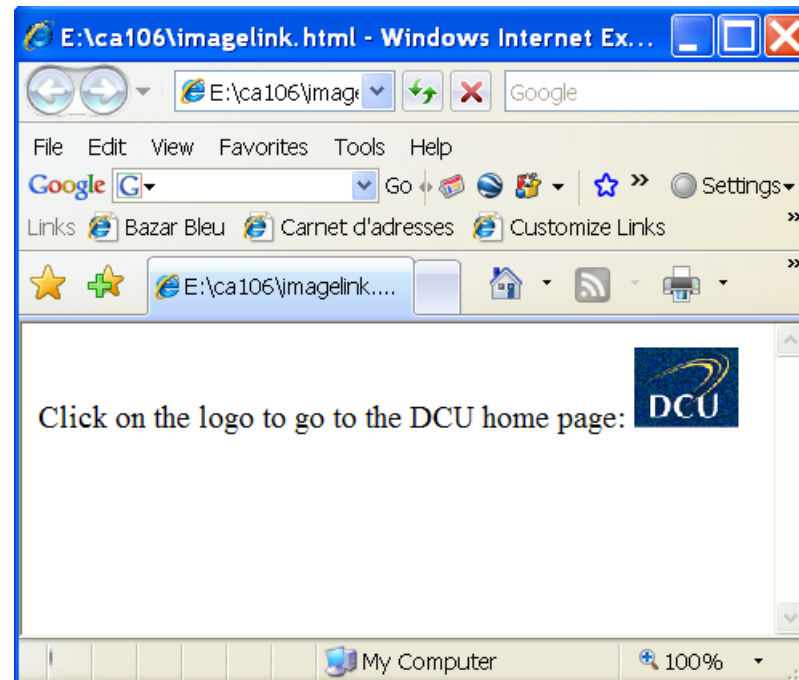
Images as links

- Include `` tag within `<a>...` tags.
- Then click on image to open link

```
imagelink - Notepad
File Edit Format View Help
<body>
<p>
Click on the logo to go to the DCU home page:
<a href="http://www.dcu.ie">

</a>
</p>

</body>
</html>
```



Clicking on thumbnail to get full image

```
thumbnail2 - Notepad
File Edit Format View Help
<html>
<body>
<p>
Click on the thumbnail to enlarge:
<a href="dcuca1.jpg">

</a>
</p>
</body>
</html>
```

dcuca1.jpg is the full size image
thumbdcuca.jpg is same image saved
in smaller format using an image editor
(e.g. PSP)
If **border="0"** is omitted, thumbnail will
have a border

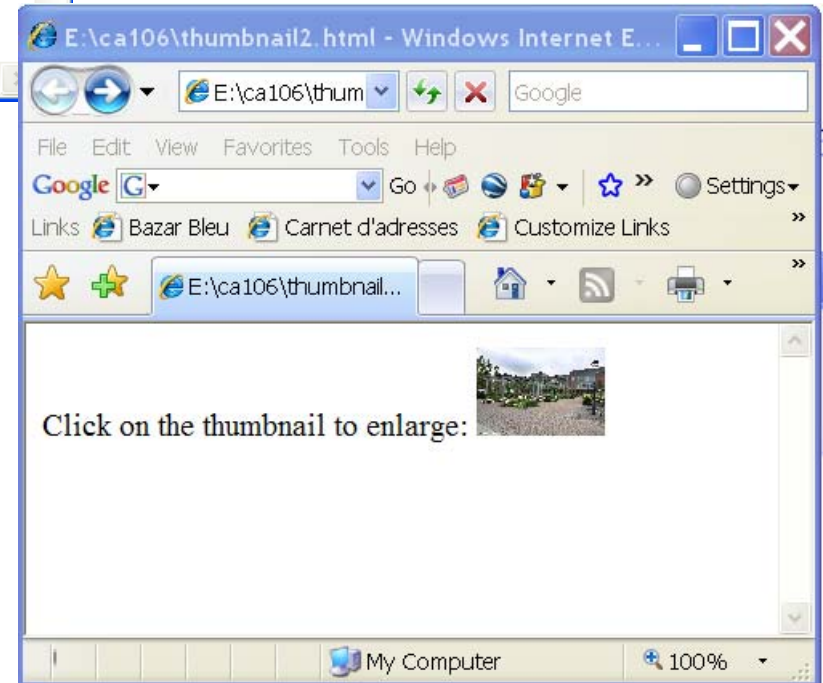


Image Maps

- Image divided into regions – **hotzones**
- Hotzone – clickable region associated with link
- To create a hotzone, each region marked using x – y coordinates
- Region shapes:
 - Rect
 - Circle
 - Poly

To Create an Image Map

- Start with an image file (.gif or jpeg)
- View image in browser or image viewer (e.g. Paint Shop Pro)
 - Place cursor on image. Status bar shows coordinates. Record coordinates of chosen hotzones

To Create an Image Map

- Create `<map>` tag inside `<body>`
- Create `<area>` tag for each hotzone, inside `<map>` tag
- Add `usemap` attribute to the `img` tag for the image just mapped

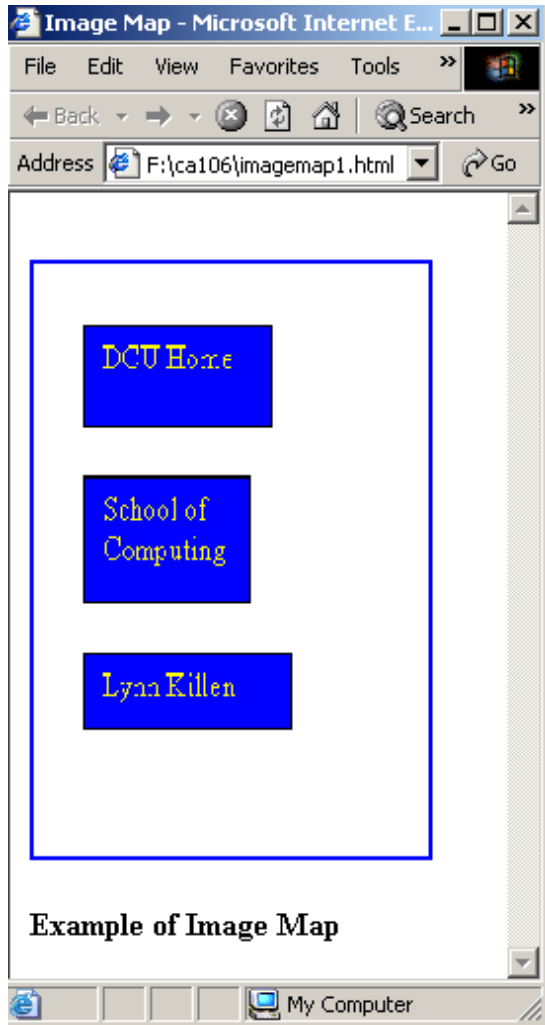
Image Map File

```
imagemap1 - Notepad
File Edit Format Help
<html>
<head>
<title> Image Map</title>
</head>

<body>
<map name="imagemap">
<area shape=rect coords="29,29,138,77" href="http://www.dcu.ie" title="DCU Home">
<area shape=rect coords="29,101,124,161" href="http://www.computing.dcu.ie" title="Computing Home">
<area shape=rect coords="29,184,149,222" href="http://www.computing.dcu.ie/~lkillen" title="Lynn's Home">
</map>
<br>

<br>
<br>
<b> Example of Image Map</b>
</body>
</html>
```

Image Map



- **shape** defines shape of area
- Type of coordinates depends on shape

Hotzone Shapes

- `shape=rect` - Series of comma-separated numbers, first two=top left, last two bottom right coordinates.
- `shape=circle` - First two numbers define centre point, third number defines radius
- `shape=poly` - Defined by three or more pairs of x – y coordinates, the line connecting those coordinates creates the area