

#### Workshop topics

You will learn how to

- Apply internal and external style sheets
- Apply the CSS box model
- Use the float property

**When completing this worksheet you should work in Notepad++ or other plain text editor.**

You can find a list of CSS properties at <http://reference.sitepoint.com/css/demos> (and other websites if you search online).

### Create an inline style

As discussed in the lecture, there are three types of cascading style sheet (css); inline, internal (or embedded) and external. Inline styles are not generally recommended for use. We will focus mainly on external style sheets since they are the most commonly used, but will also consider internal styles.

**Inline** styles appear within the tags of the element that they are styling.

e.g. `<h1 style="color:red; font-family: Arial">`

**Internal** styles appear within the `<head>` tags of the page that they are styling.

e.g. `<style>  
ol {list-style-type: lower-alpha}  
</style>`

This would style a numbered list on this page so that the numbers are replaced with lower case letters.

**External** style sheets are placed in a separate CSS document, which is linked to the html page(s) it is styling.

In the lecture you learned that the common structure for a css style is that you declare a **selector** (the object to be styled), a **property** (the attribute to which you want to apply the style), and a **value** (how you want the attribute to look). So, if you wanted to change the style of a numbered list to replace the default numbering with a, b, c, etc you would use the following code

```
ol {list-style-type: lower-alpha}
```

where

**ol** is the selector (i.e. an ordered list)

**list-style-type** is the property (the type of list e.g. numbers, letters, roman numerals)

**lower alpha** is the specific style we want to apply (in this case lower-case letters)

The numbered list (i.e. the `<ol>` list) you created in the last workshop should look like the example below, in terms of its code, and its display in a browser, which currently uses the browser's default values as no styling has been applied:

<pre>11 &lt;ol&gt; 12   &lt;li&gt;First item&lt;/li&gt; 13   &lt;li&gt;Second item 14     &lt;ol&gt; 15       &lt;li&gt;Sub item&lt;/li&gt; 16       &lt;li&gt;Sub item &lt;/li&gt; 17     &lt;/ol&gt; 18   &lt;/li&gt; 19   &lt;li&gt;Third item 20     &lt;ol&gt; 21       &lt;li&gt;Sub item&lt;/li&gt; 22       &lt;li&gt;Sub item&lt;/li&gt; 23     &lt;/ol&gt; 24   &lt;/li&gt; 25 &lt;/ol&gt;</pre>	<ul style="list-style-type: none"><li>1. First item</li><li>2. Second item<ul style="list-style-type: none"><li>1. Sub item</li><li>2. Sub item</li></ul></li><li>3. Third item<ul style="list-style-type: none"><li>1. Sub item</li><li>2. Sub item</li></ul></li></ul>
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## Create an Internal style

You will now add an **internal** style to target the **numbered** list you created in last week's workshop.

1. Open the html page from last week in which you coded your lists.
2. Inside the `<head>` `</head>` tags, add the following code:

```
<style>
ol {list-style-type: lower-alpha}
</style>
```

3. Save your document and view it in a browser. Note the effect of the styling on the numbering system for your ordered list items?

Often, when we have a list with sub-list items we would use a different 'numbering' style for the different list levels, with sub-lists being indicated by indenting and different 'numbering e.g. 1.1, 1.3 etc or a, b, c, etc.

```
5 <head>
6   <title>Numbered List</title>
7
8   <style>
9     ol{list-style-type: lower-alpha}
10  </style>
11
12 </head>
```

1. First item
2. Second item
  - a. Sub item
  - b. Sub item
3. Third item
  - a. Sub item
  - b. Sub item

4. Think about how you might target **only the sub-list items** in your **numbered** list and try to implement it by making a simple change to the code you have just added. Bear in mind that a sub-list is nested inside the main list item with which it is associated.
5. Add styling to your **unordered** list so that the main list items display a **square** bullet icon (■), and the sub-list items display an unfilled **circle** (○). An example is shown below.

- Bullet item 1
- Bullet item 2
  - Sub item 2.1
  - Sub item 2.2
  - Sub item 2.3
- Bullet item 3

HINT: Unordered list items can take the **values** 'disc', 'circle' or 'square'

You can see other list-style-type options for both ordered and unordered lists, and some example code at [HTML Dog](#).

6. Make your **mixed list** look like the example below:

1. Bullet item 1
2. Bullet item 2
  - Sub item 2.1
  - Sub item 2.2
  - Sub item 2.3
3. Bullet item 3

**NOTE:** If you want list items to display without a number or bullet icon, you can use the value "none" with the "list-style-type" property.

## Apply an External Style Sheet

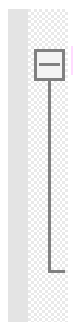
You will create a simple page styled using an external style sheet. You will use the float property to position some content.

1. In Moodle, click on the link to "Worksheet 2 files", to download the zip file. Extract the contents to your working folder for this unit. You should have a root folder containing an html file and a sub-folder containing an images folder, in which there is a logo.
2. Open the html file in a browser. There is no style sheet attached yet, so it is just using the browser's default settings.
3. Open the html file in Notepad++ (TextWrangler for Mac) and **before** the closing `</head>` tag add the line of code shown below, to link to a stylesheet.

```
<link rel="stylesheet" href="mystyle.css">
```

4. In your text editor create a new file and save it as "mystyle.css" in the root folder with the html document. As you add your styling to this document, save it, and your styles will be applied when you refresh the html page in a browser.

Styles in an external style sheet follow the same syntax as the internal style you created previously, using **selector**, **property** and **value**. So, if you wanted to style the `<h1>` elements in a page to add a new font size and font colour, you could use the following code:



```
h1 {  
    font-size: 1.6em;  
    color: #005d90;  
}
```

`h1` is the **selector**

`font-size` and `color` are **properties**

`1.6em` and `#005d90` are **values**

5. Add the code above to your style-sheet, save it, and refresh your html page in a browser.
6. In the CSS document, add a style for h2 headings to set the text size to `1.3em` and change the text colour to `#666` (note the use of the American spelling of color in the code example).
7. Save your CSS document and refresh the html in the browser to check that the new style works.
8. Set a new font for all the text on the page (headings, paragraphs and lists). You can do this by targeting the html's **body** tag as the selector, and the **font-family** property. Try **arial** as a value. Put this style at the top of your document.
9. Save and refresh your browser to check your styling works.
10. Add `<nav>` `</nav>` tags to your html document, so that they enclose the navigation list.

11. Add a style to space the **hyperlinks** out a little. The **property** you should use is **line-height**, and you can use **em** as the unit of measure as you did with heading text size. You will need to decide what **selector** to target. The spacing of your bulleted list at the bottom of the page should **not** be affected.
12. See the note at the bottom of page three and add a style to remove the bullet icons from the list of links, but in a way which keeps the bullet icons in the list which is lower down the page. HINT: Think about the nesting.

## CSS Reset

Browsers have their own default styling, which can include default margins and padding. It is common practice to reset default settings within the css document so that when you add your own margins and padding, you maintain consistency of appearance across different browsers.

Read the following web source for more information

<http://www.webmonkey.com/2011/01/popular-css-reset-stylesheet-gets-an-html5-makeover/>

1. At the **top** of your css document, add a reset style which includes the following selectors and set the **margin** and **padding** properties to **0**: body h1, h2, nav, ul, header, footer.

Note the layout for the list at the bottom of the page. By default, the text aligns with other text on the page, and the bullet icons sit in the margin area.

2. Save your css and refresh your browser. As you refresh watch to see what changes are made.

## Add an outer container using the <div> tag

So that the page content can be centred within the browser window, and contained within a box with a border, everything will now be placed inside an outer container.

1. In your html document, just after the opening **<body>** tag add the following code:

```
<div id="container">
```

2. Add the closing **</div>** tag just before the closing **</body>** tag, and add a comment to say which div it closes, as shown below

```
<!-- closes container -->
```

3. In your CSS document create a style for the new container div as follows:

```
#container {  
    height: auto;  
    width: 85%;  
    border: solid 3px #999;  
    margin: 0 auto;  
}
```

By setting the height to auto, the container will adjust to fit the content.

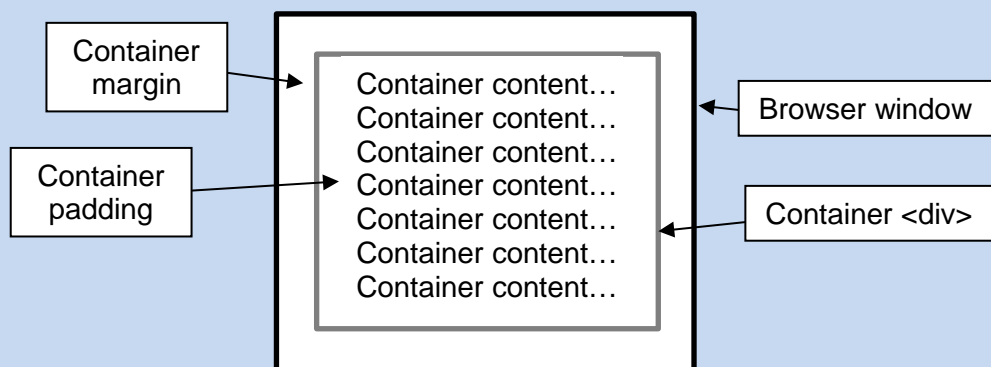
4. Save both files and refresh your browser. The content should be centred, and should be contained in a box with a border.

You can now use the **margin** and **padding** properties of the container to improve the layout. Margins and padding help to space content out, for example moving text away from border edges. They can be set for all four sides at once, all sides individually, top/bottom and left/right.

The examples use pixels as the unit of measure but you could use em instead.

5. Watch the following tutorial to find out more about units of measure which can be used <http://www.lynda.com/CSS-tutorials/Common-units-measurement/80435/93988-4.html>
6. Refer to the image below, and the following w3schools page (also click through to the next couple of w3schools pages), to understand how margin properties work. Exactly the same principles apply to padding.

[http://www.w3schools.com/cssref/pr\\_margin.asp](http://www.w3schools.com/cssref/pr_margin.asp)



See more about the box model [http://www.w3schools.com/css/css\\_boxmodel.asp](http://www.w3schools.com/css/css_boxmodel.asp)

7. Add new styles to the **container** to create some white space above it, moving it away from the top of the browser window, and to move the text away from the border edges.

## Add some structure to your page

Last week we looked at using structural tags within html documents. You have already added the <nav> tags.

1. Consider the content on your page and think about how you might apply the <article>, <section> and <footer> structural tags. Add them to your document.
2. Compare your structure to the pdf document on Moodle. If you have used them slightly differently, especially <article> and <section>, you are not necessarily wrong. The most important thing is that you have been consistent, and can justify your decisions. You can use the following video tutorial for guidance, and to find out more about the use of these tags.

<http://www.lynda.com/HTML-tutorials/HTML5-Structure-Syntax-Semantics/182177-2.html>

## Exercise 6 – Use the Float Property

Now you will use the float property to make the navigation menu sit next to the main content area.

1. In your CSS document add a new style for the navigation menu as follows:

```
nav {float: left;}
```

2. Make sure both your html and css are saved and view the html in a browser. The main text of the page will now wrap around the navigation menu.
3. Just after the closing </nav> tag add the following code to open a div containing the main page content:

```
<div class="content">
```

4. Add the closing </div> just before the footer, adding an appropriate comment.
5. Give “content” a left margin of 220px (use **.content** as the selector because it is a class).

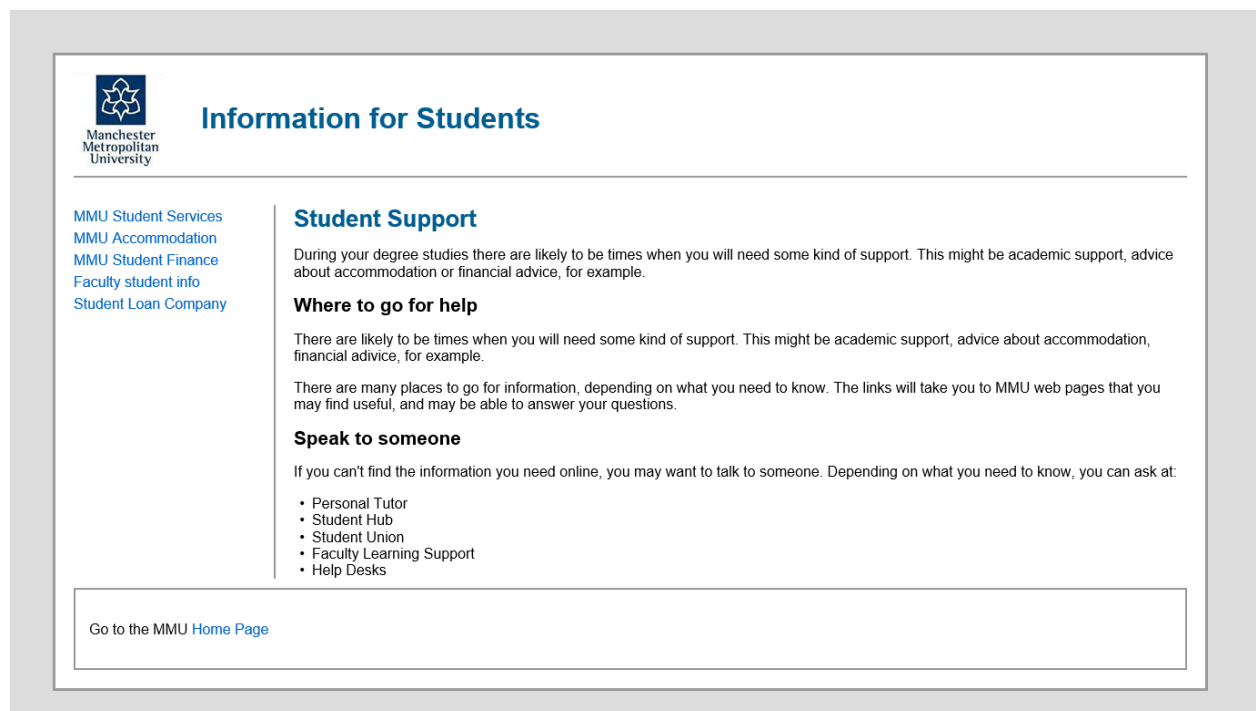
## Add some more structure and styling

You should be able to apply what you have done so far to complete the following steps.

1. After reading the notes below, add `<header>` `</header>` tags and a logo to your html, then add styling to make the page to look like the screenshot on the following page. You may want to save a copy of your files first. Remember that if you change the name of your CSS document you will also need to change the reference to it in the associated html document.

### NOTES:

- The header contains a logo and heading. You can find the logo in the images folder.
  - You will need to use floats.
  - As discussed in the lecture, you will need to clear your floats to make the navigation menu sit in the right place.
  - You can remove the underline from links by setting a “text-decoration” property to “none”.
2. Refer to last week’s lecture notes and add the width and height of the image. You can find the image size using the following steps.
    - Open the image in Photoshop.
    - Choose Image > Image Size and note the width and height in pixels.



If you are new to CSS you will find the following Lynda.com tutorial helpful  
[CSS Fundamentals](#)




# Apply your learning

## Task 1

Create another copy of your files and amend the code to create the layout shown below.

HINT: You can make the menu go horizontally across the page by using the float property.



### Information for Students

<a href="#">MMU Student Services</a>	<a href="#">MMU Accommodation</a>	<a href="#">MMU Student Finance</a>	<a href="#">Faculty Student Information</a>	<a href="#">Student Loan Company</a>
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#### Student Support

During your degree studies there are likely to be times when you will need some kind of support. This might be academic support, advice about accommodation or financial advice, for example.

#### Where to go for help

There are likely to be times when you will need some kind of support. This might be academic support, advice about accommodation, financial advice, for example.

There are many places to go for information, depending on what you need to know. The links will take you to MMU web pages that you may find useful, and may be able to answer your questions.

#### Speak to someone

If you can't find the information you need online, you may want to talk to someone. Depending on what you need to know, you can ask at:

- Personal Tutor
- Student Hub
- Student Union
- Faculty Learning Support
- Help Desks

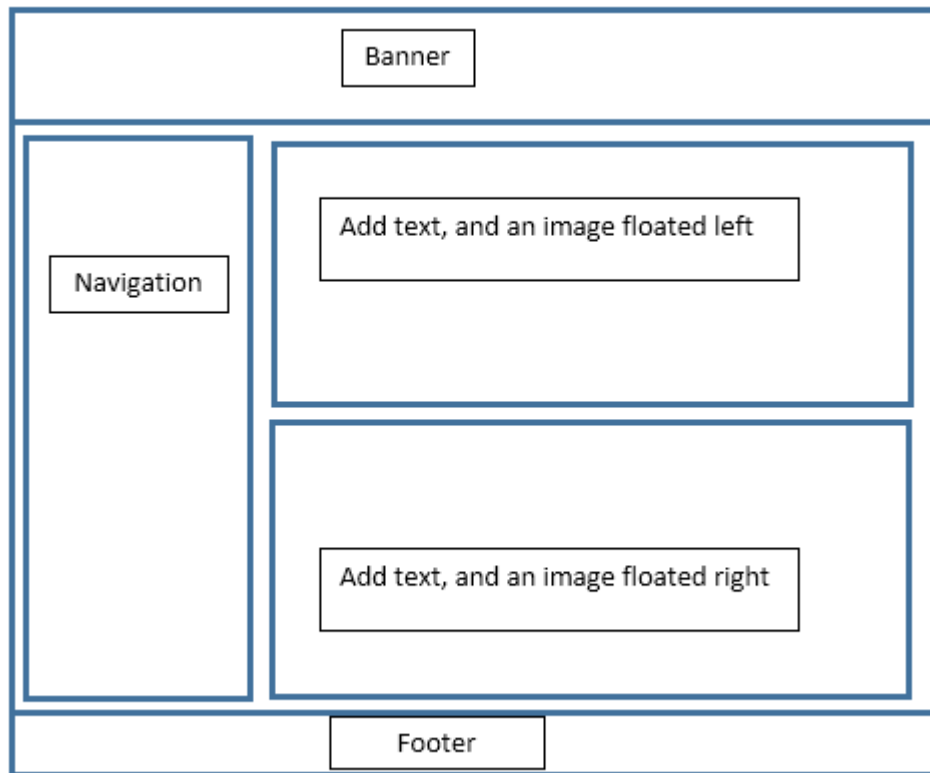
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Go to the MMU [Home Page](#)

For more about styling navigation menus see the following on Lynda.com  
[Styling navigation menus](#)

## Task 2

Create a new html and css document and try to achieve the layout shown below, or create your own layout. If you want to generate some dummy text to fill the text boxes you can use <http://lipsum.com/> but make sure you tag it up properly as headings and paragraphs. You can use your logo for the images, or find your own.



### Task 3

Create a more complex layout where more nesting is involved. Try the layout below, or come up with your own.

Also experiment with applying other styles such as different fonts, font colours, background colours, border colours, etc.

