HTML & CSS - Classes

As covered in an earlier session, the best choice for CSS is an external style sheet. If there is a specific part of the page that you want to style it can be tempting to include an inline style, but this is not considered good practice in modern web design. We can section parts of the page using the following HTML tags:

- **<div>**
- **<span>**

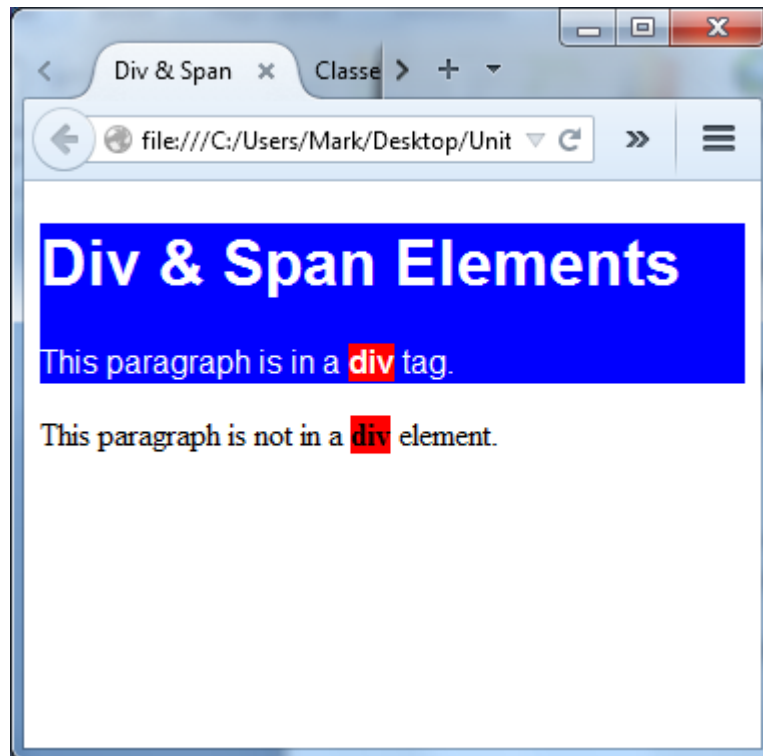1. Open Notepad++, create a new HTML file and save it as **div-and-span.html** then copy out the following code:

```
1   <!DOCTYPE html>
2   <html>
3       <head>
4           <title>Div & Span</title>
5
6           <style type="text/css">
7               div {
8                   font-family:        arial;
9                   color :             white;
10                  background-color:    blue;
11              }
12
13              span {
14                  font-weight:        bold;
15                  background-color:    red;
16              }
17          </style>
18
19      </head>
20
21      <body>
22
23      <div>
24          <h1>Div & Span Elements</h1>
25          <p>This paragraph is in a <span>div</span> tag.</p>
26      </div>
27
28      <p>This paragraph is not in a <span>div</span> element.</p>
29
30      </body>
31  </html>
```

This example uses an internal style sheet for ease of use.

Save and preview the page and it should look like:

The **`<div>`** element allows you to group together sections of a page and style them separately to the rest of the page. A **`<span>`** tag is the perfect choice if you want to style certain parts of a line in HTML.

Classes

At the moment, styling **`<div>`** and **`<span>`** tags is a one-size-fits all approach, but there is a way to applying different styles to different **`<div>`** and **`<span>`** elements, you include the **`class`** attribute.
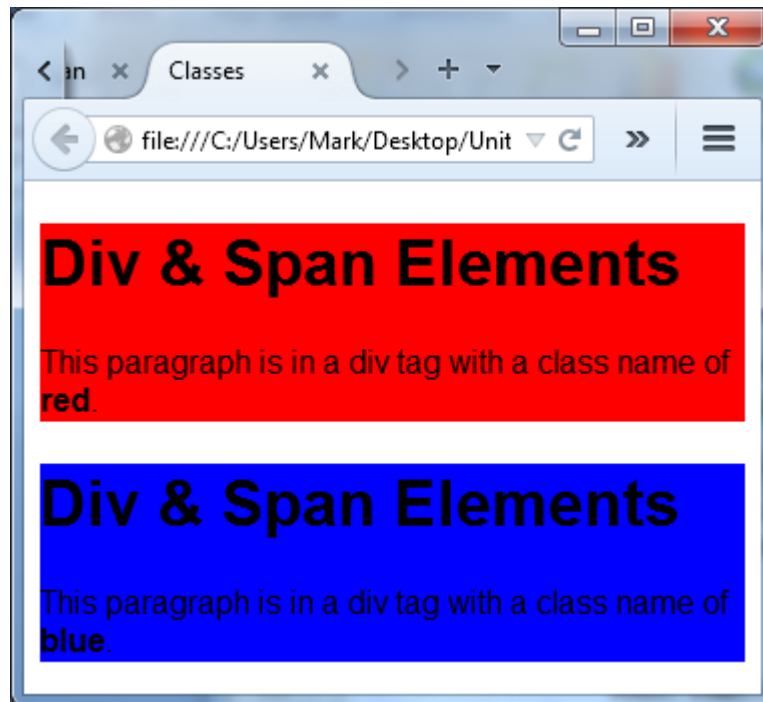
2. Open Notepad++, create a new HTML file and save it as **`classes.html`** then copy out the following code:

```html
1    <!DOCTYPE html>
2    <html>
3        <head>
4            <title>Classes</title>
5
6            <style type="text/css">
7                .blue {
8                    font-family:        arial;
9                    background-color:    blue;
10               }
11
12               .red {
13                   font-family:        arial;
14                   background-color:    red;
15               }
16
17               .bold {
18                   font-weight:        bold;
19               }
20           </style>
21       </head>
22
23       <body>
24
25           <div class="red">
26               <h1>Div & Span Elements</h1>
27               <p>
28                   This paragraph is in a div tag with a
29                   class name of <span class="bold">blue</span>.
30               </p>
31           </div>
32
33           <div class="blue">
34               <h1>Div & Span Elements</h1>
35               <p>
36                   This paragraph is in a div tag with a
37                   class name of <span class="bold">red</span>.
38               </p>
39           </div>
40
41       </body>
42   </html>
```
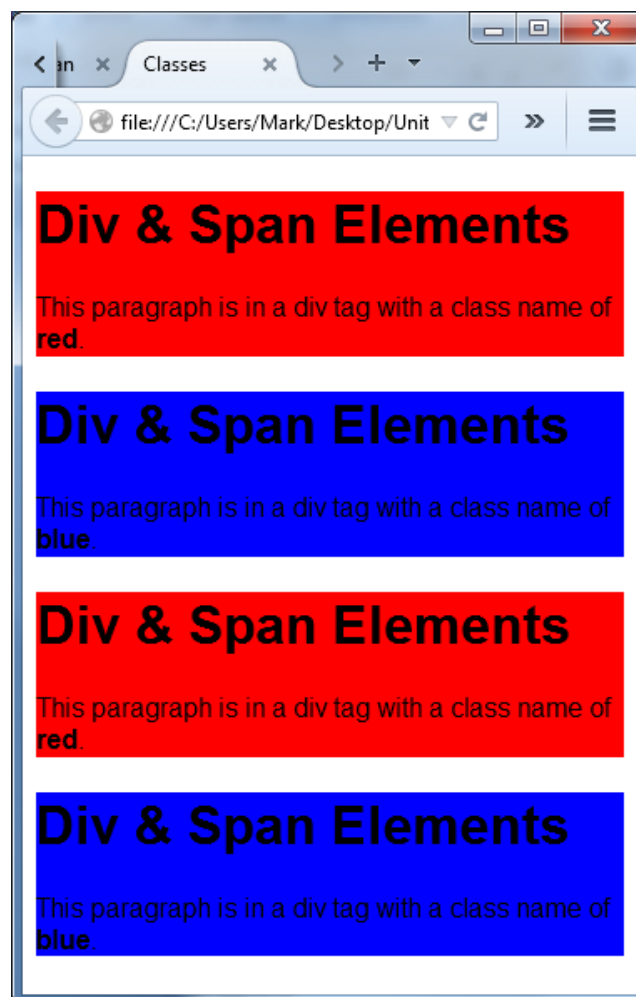
When you view the page it should now look like:

You can re-use classes on as many elements as possible, for example the following shows 4 divs – 2 with the red class and 2 with the blue class – and 4 spans all using the bold class:

The <div> and <span> elements are used with the class attributes regularly to change the presentation of web pages.

Styling with ID's

Although not recommended by modern web design practices it is possible to style sections of a page by using the **ID** attribute (you will see this method used a lot in older HTML 4 code).

If you think back to the lesson where we covered using links to specific parts of a page by using anchors, each link (or anchor point) had an id attribute. It is possible to use an **ID** to add a specific CSS rule in much the same way as a class is **used**, for example:

```
1    <!DOCTYPE html>
2    <html>
3        <head>
4            <title>CSS Layout</title>
5            <style type="text/css">
6                #top {
7                    background-color:    gray;
8                    color:               white;
9
10               }
11
12           </style>
13       </head>
14
15       <body>
16
17       <div id="top" >
18           <h1>Div 1</h1>
19           <p>This div has an ID of top.</p>
20       </div>
21
22       <div id="middle">
23           <h1>Div 2</h1>
24           <p>This div has an ID of middle.</p>
25       </div>
26
27       <div id="bottom">
28           <h1>Div 3</h1>
29           <p>This div has an ID of bottom.</p>
30       </div>
31
32
33       </body>
34   </html>
```

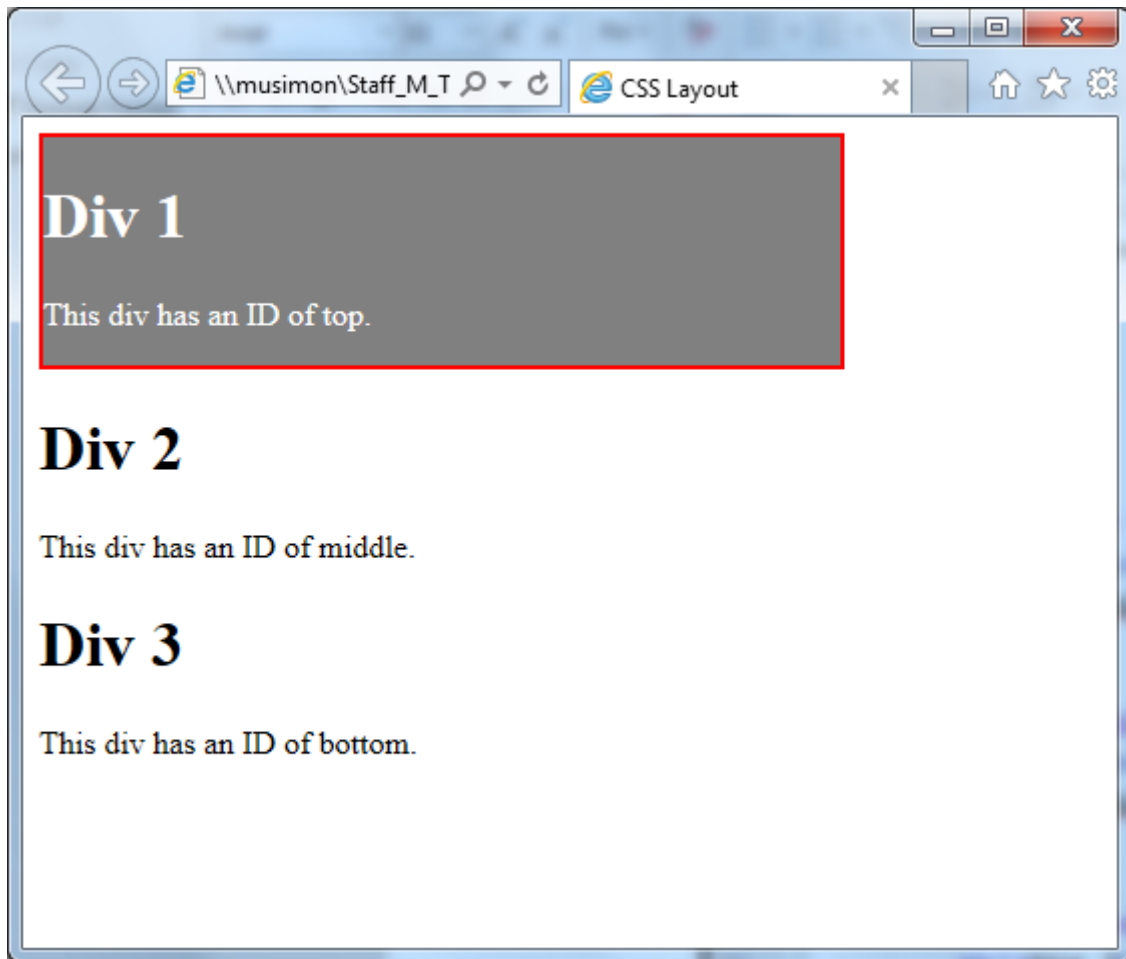When opened in a web browser, your page should look like:

When referring to an ID in CSS you use a hash symbol (#) before its name.

Classes and ID's

It is possible to apply an ID and classes to the same element on a page, you will see this regularly in modern web pages:

```
1    <!DOCTYPE html>
2    <html>
3        <head>
4            <title>CSS Layout</title>
5            <style type="text/css">
6                #top {
7                    background-color:    gray;
8                    color:               white;
9
10               }
11               .size {
12                   width:        75%;
13                   border:       solid 2px red;
14               }
15           </style>
16       </head>
17
18       <body>
19
20       <div id="top" class="size">
21           <h1>Div 1</h1>
22           <p>This div has an ID of top.</p>
23       </div>
24
25       <div id="middle">
26           <h1>Div 2</h1>
27           <p>This div has an ID of middle.</p>
28       </div>
29
30       <div id="bottom">
31           <h1>Div 3</h1>
32           <p>This div has an ID of bottom.</p>
33       </div>
34
35
36       </body>
37   </html>
```

The page should now look like:

Modern web designers use the class attribute to style web pages and ID's for use with scripting languages (such as JavaScript) – in other words try to avoid using ID's to add styles to a web page.

Activity

The best way to learn how CSS impacts a web page is to create rules and test them. When you consider how many HTML elements are available you soon realise that the amount of CSS rules you could make are vast.

One of the best online learning resources for CSS (and HTML elements) can be found at w3 Schools website - http://www.w3schools.com/css/default.asp . Load site and choose an option from the left-hand side of the page for a tutorial covering a particular topic.

Between now and next lesson you will find it helpful to look through the tutorials from **CSS Home** through to **CSS Tables**:

Assignment Alert!

For your assignments you will be expected to be able to do the following with CSS

- **Use** external, internal and inline CSS – all 3 **not** just one method.
- **Discuss** the strengths and weaknesses of **all** 3 methods of implementing CSS.
- **Create** CSS rules for text, links, backgrounds, lists and tables.
- **Understand** and **discuss** the difference between an ID and Class attribute.

Points to remember

- There are three ways to apply CSS:
    - External Style Sheet
    - Internal Style Sheet
    - Inline style
- External style sheet are the preferred method as you only have to make one style sheet regardless of how many pages are in a web site.
- Avoid using inline CSS at all costs – it is inefficient and creates bloated code. If you want to style an individual element use a class (covered in next worksheet).
- External CSS is much more efficient – web pages load faster and changing a rule in the external sheet has an impact upon every page that links to it.
- Modern web designers avoid using ID's for styling web pages as they can only be used once on a page.
- Classes are used to style parts of a page. Classes can be used several times on a page.
- HTML `<div>` elements are used to group a page into sections.
- HTML `<span>` elements are used to select parts of lines of text.