

Web Authoring

- 21.1 Web Development Layers
- 21.2 Create a Web Page
- 21.3 Use Stylesheets
- 21.4 Test and Publish a Website

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Web Authoring

Web Development Layers

Presentation Layer

To format whole web page(s) or individual elements. Stylesheet could include page layouts using Div Tags and text/table formatting properties.

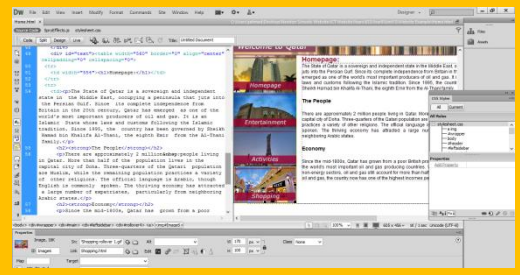
The presentation layer is in the **CSS**.

```
9 #wrapper {
10   margin: 0px;
11   width: 100%;
12 }
13 body {
14   margin: 0px;
15   background-color: #FFF;
16 }
17 #header {
18   height: 80px;
19   width: 90px;
20   background-color: #999;
21   margin-right: auto;
22   margin-left: auto;
23 }
24 #leftcolumn {
25   height: 400px;
26   width: 170px;
27   background-color: #EEE;
28 }
29 #maincontent {
30   height: 170px;
31 }
32 h1 {
33   font-family: Arial, Helvetica, sans-serif;
34   font-size: 18px;
35   font-weight: bold;
36   color: #8C1031;
37 }
38 h2 {
39   font-family: Arial, Helvetica, sans-serif;
40   font-size: 14px;
41   font-weight: bold;
42   color: #000;
43 }
44 p {
45   font-family: Arial, Helvetica, sans-serif;
46   font-size: 12px;
47   color: #000;
48   text-align: justify;
49 }
```

Content layer:

To enter the content (Text, images, audio, video etc) into a web page and to create suitable hyperlinks.

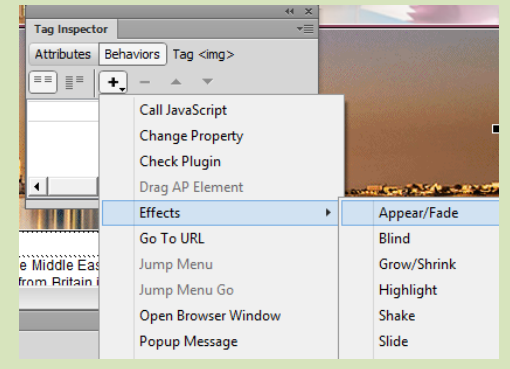
The Content layer is in the **HTML**.



Behaviour layer

To enter scripting language to a web page or an individual element.

- Image Effects
- Pop up message



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HTML (Hyper Text Markup Language) – Content Layer

- HTML is used to **develop the content layer** of the website.
- The HTML file extension is **.HTM** or **HTML**
- HTML can be written in web authoring or text editing software

```
5 <title>Test Page</title>
6 </head>
7
8 <body>
9
10 </body>
11
12 </html>
```

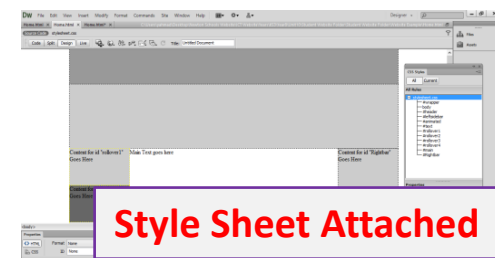
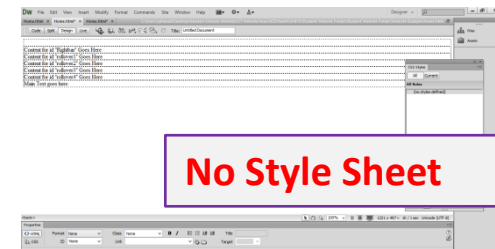
```
3 <head>
4 <meta http-equiv="Content-Type" content="text/html; charset=utf-8" />
5 <title>Test Page</title>
6 </head>
7
8 <body>
9 <table width="400" height="200" border="1">
10 <tr>
11 <td><p><a href="https://uk.yahoo.com/" target="_blank">Yahoo
12 </p>Top Searches</p>
13 <ol>
14 <li>Manchester United</li>
15 <li>I Phone</li>
16 <li>Doha</li>
17 </ol> </td>
18 </tr>
19 <tr>
20 <td><a href="https://www.google.com/" target="_blank">Google
21 </td>
22 </tr>
23 </table>
24 </body>
25 </html>
```

Content is between the Body Tags

CSS (Cascading Style Sheet) – Presentation Layer

- Styles can be created **separately** or **embedded** into **HTML**.
- The CSS file extension is **.CSS**
- Style Sheets could be **attached** to a number of webpages to give a **consistent layout and appearance**.

```
82 h1 {
83   font-family: Arial, Helvetica, sans-serif;
84   font-size: 18px;
85   font-weight: bold;
86   color: #8C1031;
87 }
88 h2 {
89   font-family: Arial, Helvetica, sans-serif;
90   font-size: 14px;
91   font-weight: bold;
92   color: #000;
93 }
94 p {
95   font-family: Arial, Helvetica, sans-serif;
96   font-size: 12px;
97   color: #000;
98   text-align: justify;
99 }
```



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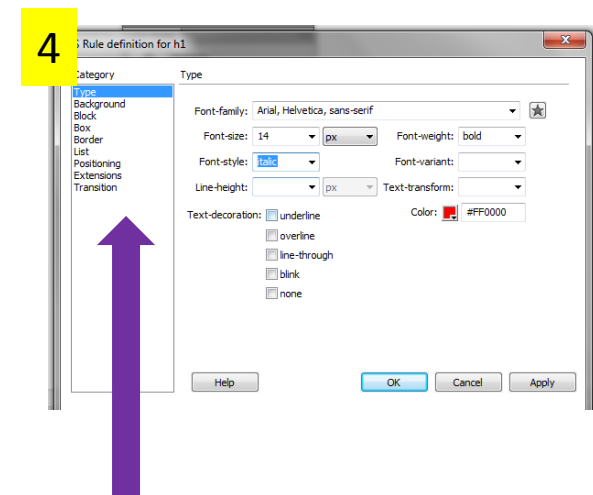
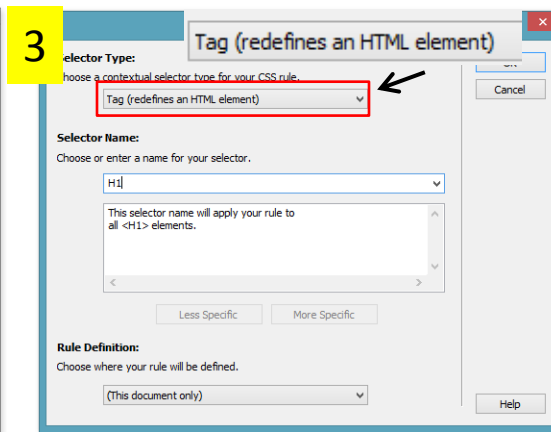
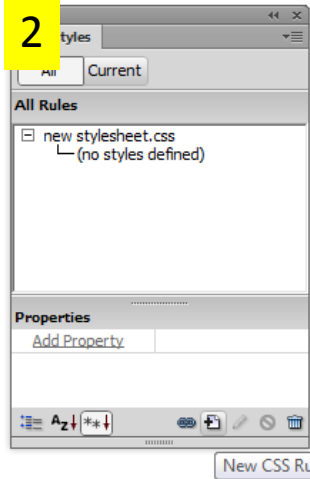
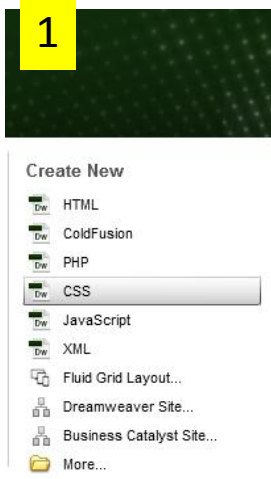
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Creating CSS for Text Styles

Tip: If you have been giving the task of creating a CSS then make sure you use the **CSS Window**.

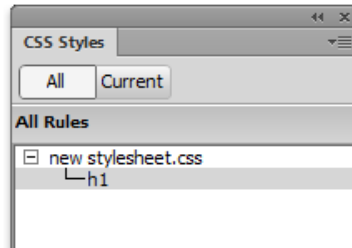
- 1) Create New CSS and then **Save**
- 2) Open the **CSS Window** – using this will eliminate mistakes
- 3) Select **Tag** and then **write the name of the tag (H1, H2 etc.)**
- 4) Select the properties for Tag (Size, colour etc.)

Tip: Write all colours in 6 hexadecimal digits e.g.
#000000



Code – For Heading1

```
/* CSS Do
h1 {
    font-family: Arial, Helvetica, sans-serif;
    font-size: 14px;
    font-style: italic;
    font-weight: bold;
    color: #FF0000;
}
```



Tip: You can Align the style in Block
If you are writing the code the
center alignment is spelt at **center**.

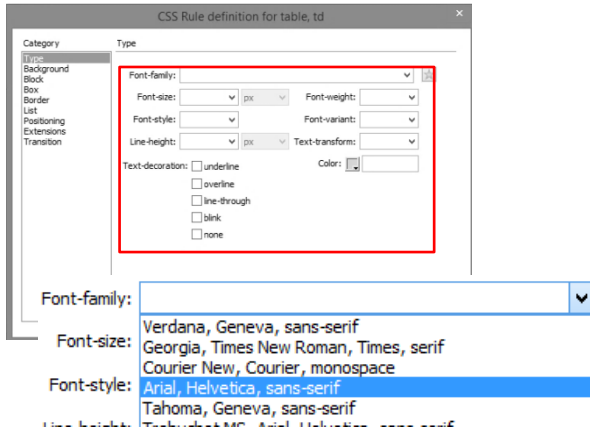
Writing Centre will not work.

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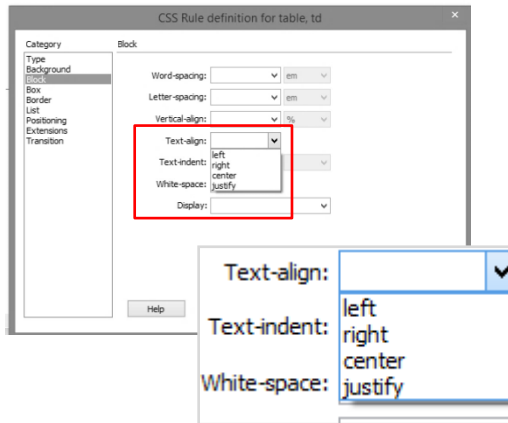
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CSS (Commonly Used Windows)

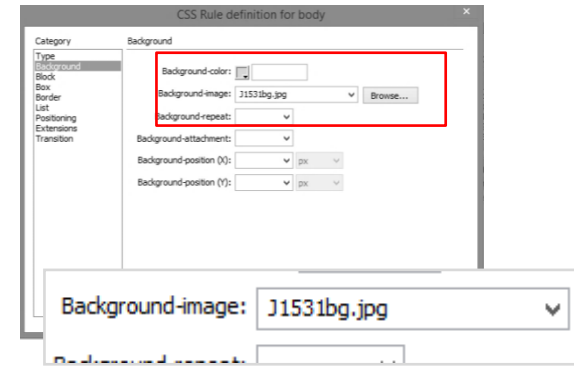
Type: Format Text



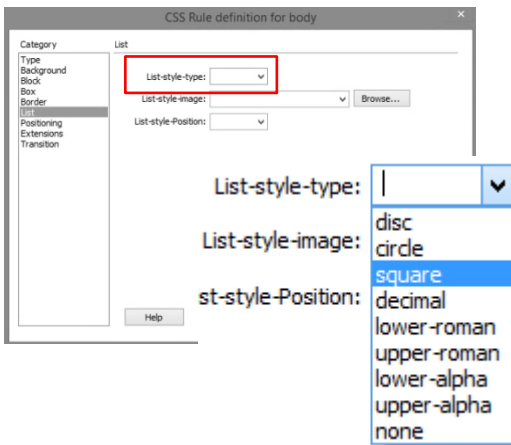
Block: Alignment



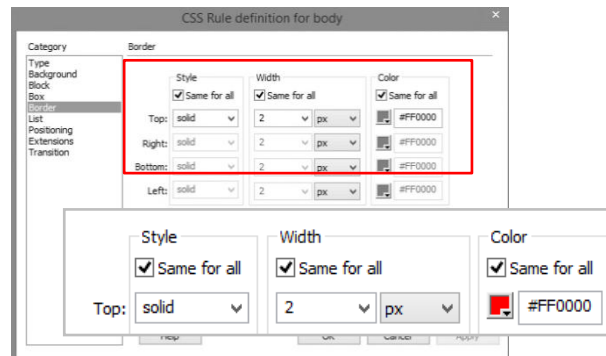
Background



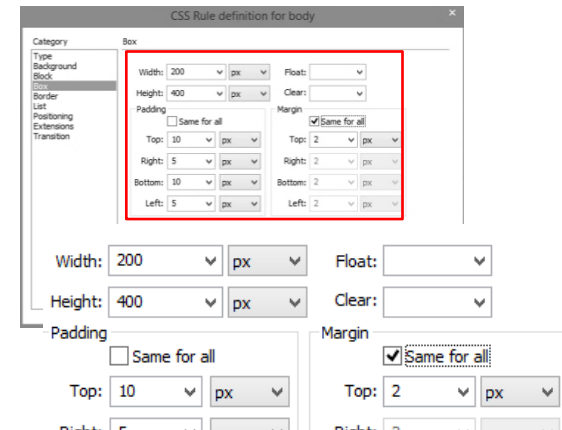
List: Bullet Style



Border: Internal/External Border



Box: Format Table

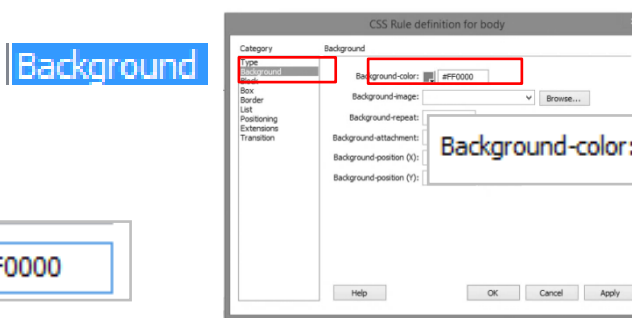
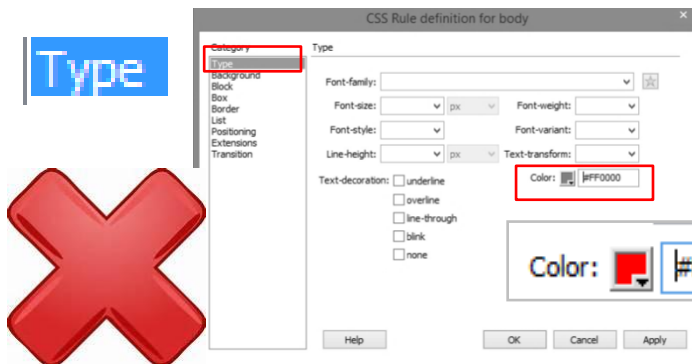
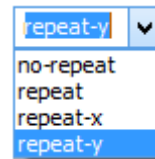
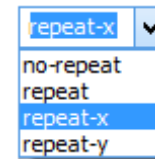
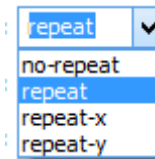
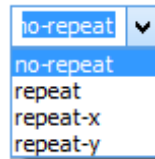
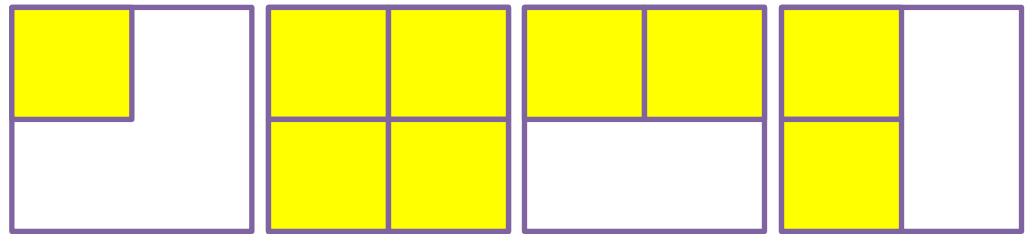
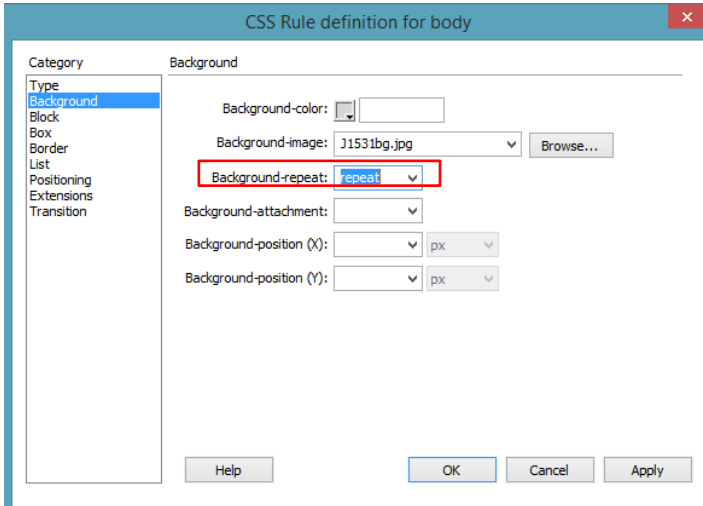


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Body Tag

Body Tag: Is used to set **properties for the webpage background**. You can either browse and **select an image for the background** or choose a **colour**. The **background repeat option** will allow you to choose how the background image will be laid out.



Tip: Make sure the **background colour** is not placed in the **type window**.

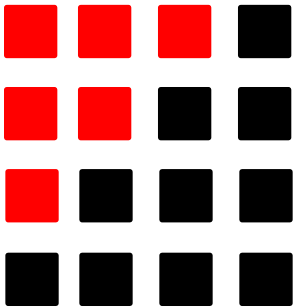
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Hexadecimal Colours



The closer the number gets to **00** then the colour will become a **darker shade**.



	Red	Green	Blue	RGB
#	FF	FF	FF	White
#	FF	00	00	Full Red
#	00	FF	00	Full Green
#	00	00	FF	Full Blue
#	C0	00	00	$\frac{3}{4}$ ON (75%) Red
#	80	00	00	$\frac{1}{2}$ On (50%) Red
#	40	00	00	$\frac{1}{4}$ on (25%) (Darker Shade)
#	00	00	00	OFF (Black)

Make sure all colour settings are in 6 digits Hexadecimal e.g. #000000

#000060 – (60 has been used in previous mark schemes when requested to set a colour as a dark shade)

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Correcting CSS for Text Styles

Incorrect CSS

```
h1 {  
  font-family: arial, Times New Roman, sans-serif;  
  font-size: 24px;  
  font-style: italic;  
  fontweight: bold;  
  color: redcolour;  
  text-align: centre;  
}  
li {
```

Correct CSS

```
h1 {  
  font-family: Arial, Helvetica, sans-serif;  
  font-size: 24px;  
  font-style: italic;  
  font-weight: bold;  
  color: #FF0000;  
  text-align: center;  
}  
li {
```

Tip: If you are asked to **correct a CSS** then you could either **re-write it completely** or **edit the existing CSS** and **correct the errors**

Stylesheet1

- **Font:** Arial, Helvetica or default sans-serif font
- **Font Size:** 24px
- Italic, Bold, Red
- Center Aligned.

Corrected Mistakes

- Times New Roman removed
- Semi Colons (;) in correct place at the end of each part of the code.
- Font-Weight (missing dash)
- Colour now in correct format.
- } To close the CSS Tag

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Correcting CSS for Text Styles

Open the file j1531style2.css

This stylesheet contains errors. It should define the following styles:

(All colour codes are in hexadecimal).

body	background image	j1531bg.jpg	#8B0000
h1	Colour: Font:	Red 8B, Green 0, Blue 0 Helvetica, or if not available Arial, or if not available the browser's default sans-serif font Italicised 30 pixels high Aligned centre	#191970
h2	Colour: Font:	Blue 70, Red 19, Green 19 Helvetica, or if not available Arial, or if not available the browser's default sans-serif font 20 pixels high Aligned centre	#000080
h3	Colour: Font:	Green 0, Blue 80, Red 0 The browser's default serif font 16 pixels high Aligned left	
table	No visible table border or gridlines.		

Correct and complete this stylesheet. All colour codes must be in 6 digit hexadecimal form. The stylesheet must contain no html tags.

Mistakes:

- No brackets to open and close CSS Tags
- No semi-colons to separate parts of the CSS
- Colours in wrong order
- Spelling mistakes
- Unnecessary Text

```
body {background-image: url(J1531bg.jpg);
}

h1 {
  font-family: Helvetica, Arial, sans-serif;
  font-size: 30px;
  font-style: italic;
  color: #8b0000;
  text-align: center;
}

h2 {font-family: Helvetica, Arial, sans-serif;
  font-size: 20px;
  color: #191970;
  text-align: center;
}

h3 {
  font-family: serif;
  font-size: 16px;
  color: #000080;
  text-align: left;
}

table, td {border:0;
}
```

If you are editing the CSS then put the brackets {Start & End } in the correct place for each tag.

Then use the CSS window to enter correct CSS and delete the old (useless) code.

```
body    background image    J1531bg.JPG
h1 Colour:    Red 8B, Green 0, Blue 0
  Font:    Helvetica, or if not available Arial, if not available any sans-serif font
  Italicised
  30 pixels high
  Aligned centre
h2 Colour:    Blue 70, Red 19, Green 19
  Font:    Helvetica, or if not available Arial, if not available any sans-serif font
  20 pixels high
  Aligned centre
h3 Colour:    Green 0, Blue 80, Red 0
  Font:    The browser's default serif font
  16 pixels high
  Aligned left

table    No visible table border or gridlines.
```

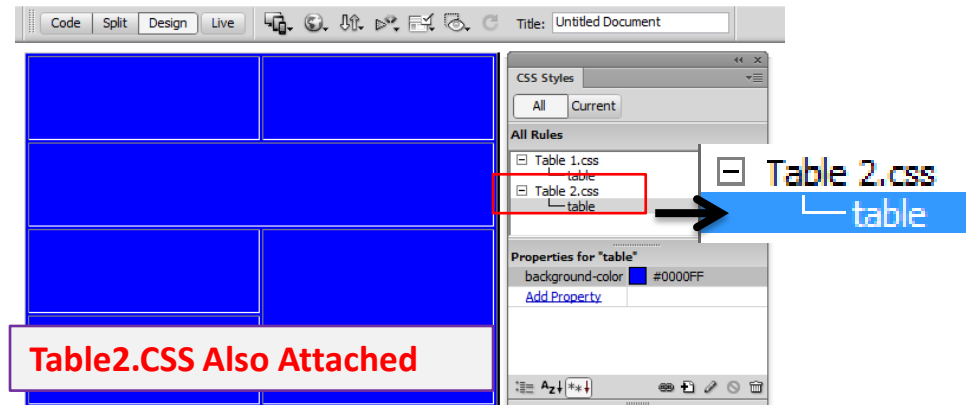
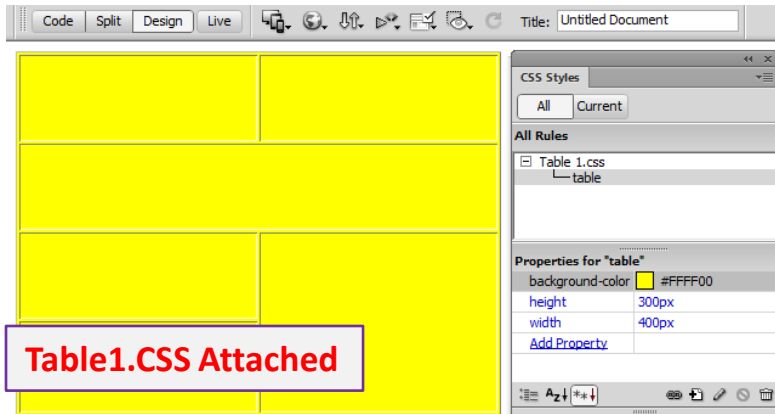
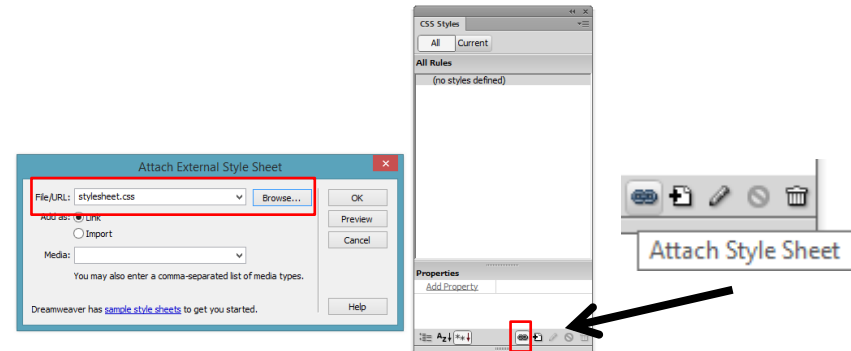
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Attaching Style Sheet

Attaching Style Sheet

1. Open the **CSS Window**
2. Click on the **Attach Style Sheet Icon**
3. Click on the **browse** button and select stylesheet.
4. Click **Ok** to **Attach Style Sheet**.



Hierarchy of multiple attached stylesheets

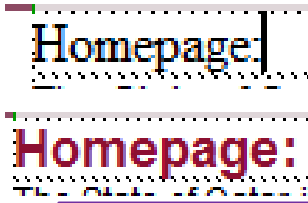
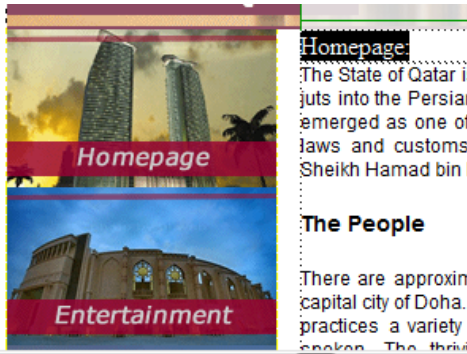
Adding **additional stylesheets** will **over rule elements from previously attached stylesheets**. In the example show above once the **Table2.CSS is attached** then the **colour** of the table has changed from **Yellow (from the Table1.CSS)** to **Blue (Table2.CSS)** however the other **elements have stayed the same**.

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Applying CSS Text Styles

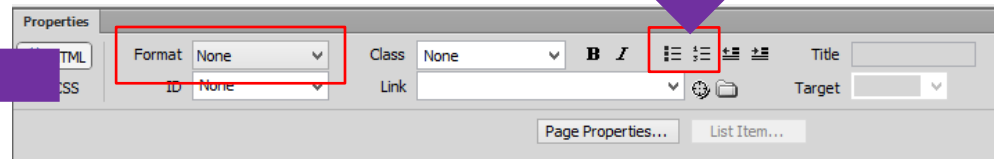
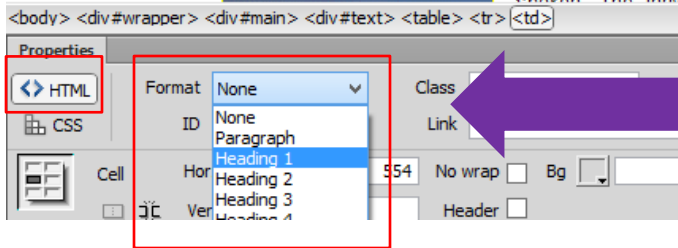
CSS text styles for **heading**, **paragraphs** and **list styles** can be **applied to text in a HTML webpage** (in the content layer). The **properties panel** at the bottom of the page can be used to **apply particular text styles**. You can also use the **code view** to apply styles.



Heading 1 Style Applied

- 1) Highlight the text.
- 2) Go to the properties panel
- 3) Select a specific format.

List Styles (OL/UL)



Code View: Remember to **open** `<h1>` and **close** `</h1>` the tags

```
<h1>Sony to sell PC unit and cut jobs</h1>
```

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CSS for Tables

TD: Internal Border (Style, Size, Colour)

Table: External Border (Style, Size, Colour)
Table Colour, Padding, Text Alignment,
Table size, Collapse Border etc

Tip: If you have set internal borders for a table then create the additional TD Tag.

Set the stylesheet so that each table has:

- a yellow background colour
- a width of 80% of the window
- navy blue solid borders
- collapsed borders
- external borders of 4 pixels
- internal gridlines of 2 pixels
- cell padding to the top and bottom of 10 pixels
- cell padding to the left and right of 20 pixels
- text centre aligned in all cells.

Both TD/Table

TD: Internal Border

- Solid, 2 Px, Navy Blue (80)

Table: External Border

- Solid, 4 Pixels, Navy Blue (80)
- Yellow Background Colour
- 80% Width of the window
- Cell Padding (Top & Bottom 10Px), (Left & Right 20Px)
- Text Align Centre
- Collapse Border

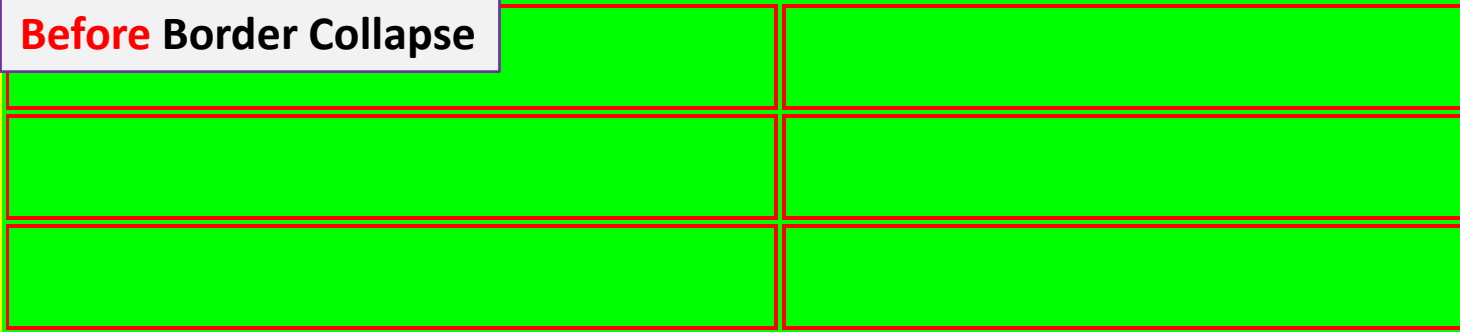
Some tags from **table** would also work in **TD** like **text alignment** or **cell padding**.

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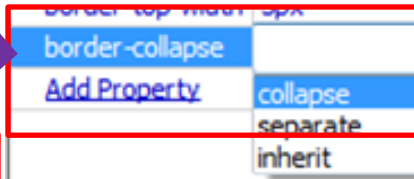
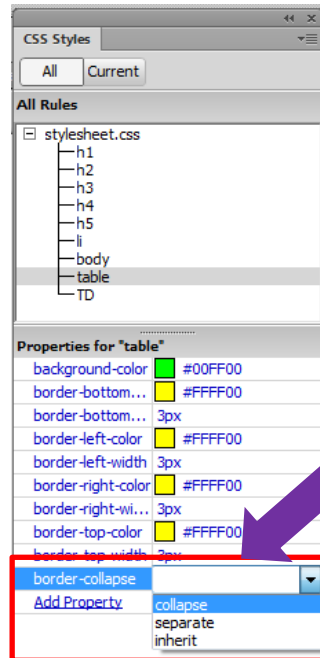
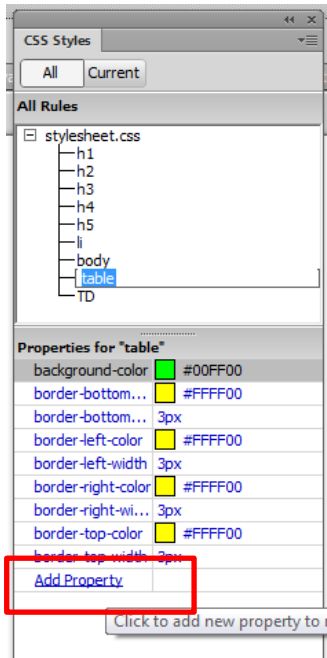
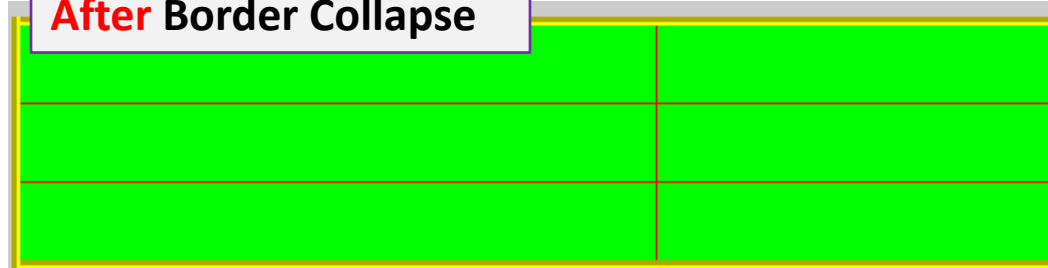
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Border Collapse

Before Border Collapse



After Border Collapse



Tip: Border Collapse will make the border into one as you can see in the example.

You can preview the difference in the browser or live view.

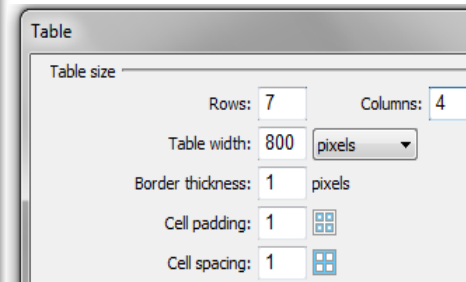
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Creating a Table

This webpage must open in any browser and contain a single table to look like this:

A		M
B	H	N
C	I	
D	J	
E	K	
F	L	
G		

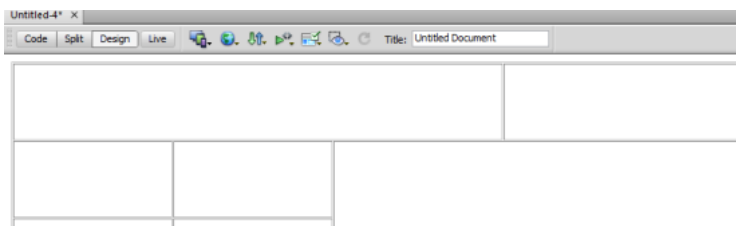
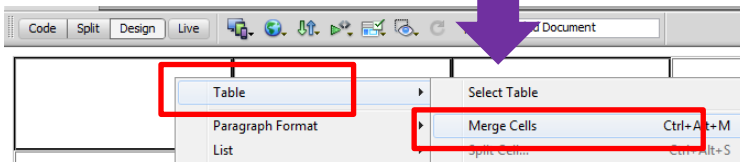
Set the width of the table to 800 pixels and the height to 600 pixels.



Creating Tables

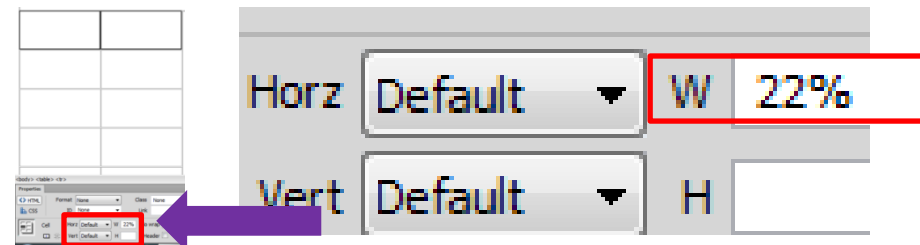
- 1) Insert >> Table
- 2) Work out the number of rows and columns.
- 3) Set border, padding and spacing if necessary.

Merging Cells: Highlight cells to merge.
Right click >> Table >> Merge Cells.



For all cells in rows 2 to 6 in the table, set the width of the:

- first (left) column to 22% of the width of the table
- second column to 22% of the width of the table.



Column Width: You can change a column width to the a percentage in the properties panel.

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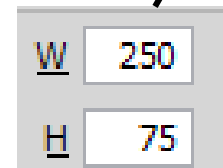
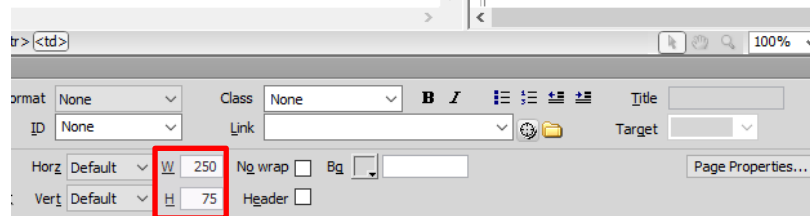
Setting Table Size

```
<td width="250" height="75">
```

```

<td width="250" height="75">&nbsp;</td>
<td>&nbsp;</td>
</tr>
<td>&nbsp;</td>
<td>&nbsp;</td>
</tr>
<td>&nbsp;</td>
<td>&nbsp;</td>
</tr>
<td height="200" colspan="2">&nbsp;</td>
</tr>
</tbody>
</table>

```

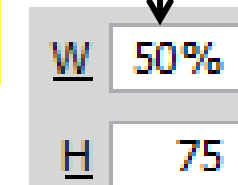
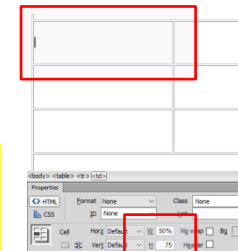
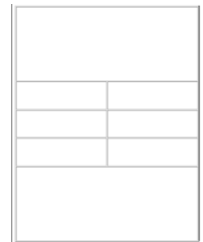


- You can either **resize** a table element in the **properties panel** or in the **Code**.
- In the exam you may have to **highlight** the code which shows the **table/TD sizes**.

```

<body>
<table width="500" height="600" border="1">
<tr>
<td height="200" colspan="2">&nbsp;</td>
</tr>
<tr>
<td width="250" height="75">&nbsp;</td>
<td width="250" height="75">&nbsp;</td>
</tr>
<tr>
<td width="250" height="75">&nbsp;</td>
<td width="250" height="75">&nbsp;</td>
</tr>
<tr>
<td width="250" height="75">&nbsp;</td>
<td width="250" height="75">&nbsp;</td>
</tr>
<tr>
<td height="200" colspan="2">&nbsp;</td>
</tr>
</table>
</body>
</html>

```



Width (W) and Height (H) can also be set as a %

Web Authoring

Creating a Table

TR Table Row

<tr>

</tr>

```
<table width="500" border="1">
```

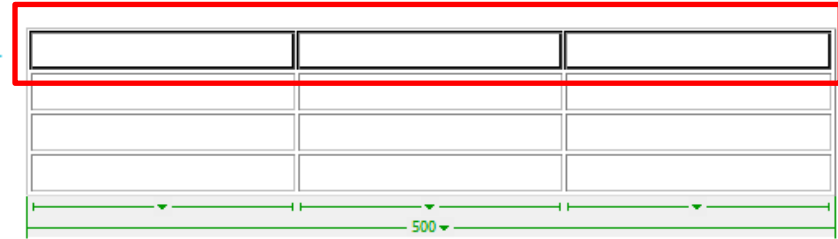
```
<tr>
```

```
<td>&nbsp;</td>
```

```
<td>&nbsp;</td>
```

```
<td>&nbsp;</td>
```

```
</tr>
```



TD Table Data

<td>&nbsp;</td>

```
<table width="500" border="1">
```

```
<thead>
```

```
<tr>
```

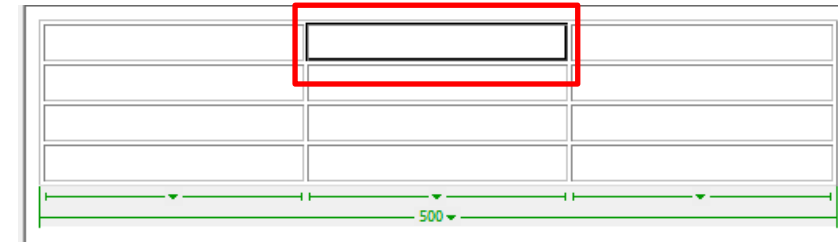
```
<td>&nbsp;</td>
```

```
<td>&nbsp;</td>
```

```
<td>&nbsp;</td>
```

```
</tr>
```

```
</thead>
```



```
<body>
<table width="800" height border="1" cellspacing="1" cellpadding="1" bordercolor="lightblue" border="1" style="border-collapse: collapse;">
<tr>
<td>&nbsp;</td>
<td>&nbsp;</td>
```

```
<body>
<table width="800" height="600" border="1" cellspacing="1" cellpadding="1">
<tr>
```

Tip:

To set the **height** of the table you must go into the **code view**.

You would have to click **after** the **table width** and then **enter Height**. You can then set the **height**.

Web Authoring

Tables are used to **structure (layout) the content on a webpage**. HTML tags are used to format the table. The **table header (Thead)**, **footer (Tfoot)** and **body (Tbody)** needs to be inserted in this order.

Table HTML Tags:
Table:v
TD: Table Data
THEAD & TH: Header
Ttfoot: Footer
Ttbody: Body

Heading 1	Heading 2	Heading 3
Footer 1	Footer 2	Footer 3

Table Body

Table Header

```
<body>
<table width="500" border="1">
  <thead>
    <tr>
      <th>Heading 1</th>
      <th>Heading 2</th>
      <th>Heading 3</th>
    </tr>
  </thead>
```

Table Footer

```
<ttfoot>
  <tr>
    <td>Footer 1</td>
    <td>Footer 2</td>
    <td>Footer 3</td>
  </tr>
</tfoot>
```

```
<tbody>
  <tr>
    <td>&nbsp;</td>
    <td>&nbsp;</td>
    <td>&nbsp;</td>
  </tr>
  <tr>
    <td>&nbsp;</td>
    <td>&nbsp;</td>
    <td>&nbsp;</td>
  </tr>
  <tr>
    <td>&nbsp;</td>
    <td>&nbsp;</td>
    <td>&nbsp;</td>
  </tr>
</tbody>
```

Web Authoring

Creating Table Style Sheet

Source Code style1.css*

Code Split Design Live Live Code Inspect

```

1 @charset "utf-8";
2 table {
3     background-color: #FF0000;
4     border: 2px solid #0000FF;
5     border-collapse: collapse;
6 }
7 td {
8     border: 1px solid #000000;
9 }
10 thead {
11     background-color: #FFFF00;
12     text-align: right;
13 }
14 tfoot {
15     background-color: #00FFFF;
16     text-align: center;
17 }
18 tbody {
19     background-color: #00FF00;
20 }

```

Heading 1	Heading 2	Heading 3
footer 1	footer 2	footer 3

Table: Used for general settings for the table
Table Colour, Padding , Text Alignment, Table size, Collapse Border etc

TD (Table Data): Used to format the TD.

Category	Border		
Type	Style	Width	Color
Background	<input checked="" type="checkbox"/> Same for all	<input checked="" type="checkbox"/> Same for all	<input checked="" type="checkbox"/> Same for all
Block	Top: solid	1 px	#000000
Box			
Border			
List			
Positioning			

Tables can be used to layout content in a webpage.

Thead (TH): Used to format the **header** of the table.
Tfoot: Used to format the **footer** of the table.
Tbody: Used to format the **body** of the table.

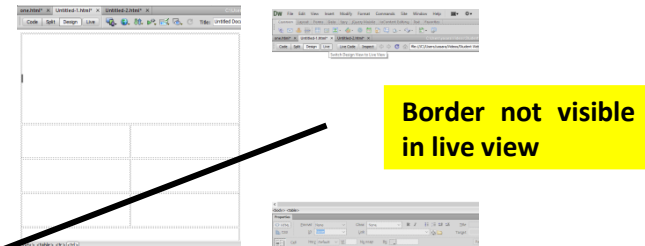
Web Authoring

Table HTML Tags and Embedded CSS

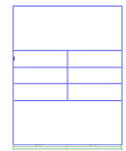
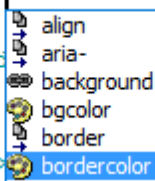
HTML Tags could be used or edited to apply additional formatting. For example you may want to change the background colour of a table row.

Increase this number for border thickness.

```
<table width="500" height="600" border="0" bordercolor="#0000FF">
```

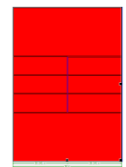


```
<table width="500" height="600" border="1" >
  <tr>
    <td height="200" colspan="2">&nbsp;</td>
  </tr>
  <tr>
    <td width="250" height="75">&nbsp;</td>
```

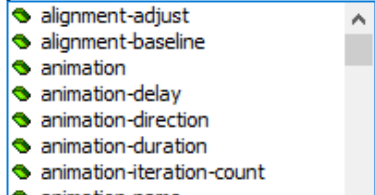


```
bgcolor="#FF0000">
```

```
<table width="500" height="600" border="1" bordercolor="#0000FF" bg>
  <tr>
```



```
<table width="500" height="600" border="1" style="
  <tr>
    <td height="200" colspan="2">&nbsp;</td>
  </tr>
  <tr>
    <td width="50%" height="75">&nbsp;</td>
    <td width="250" height="75">&nbsp;</td>
```



You can also create CSS Style tag to format elements of your table.
For Example: **Border Collapse**

```
style="border-collapse: collapse">
```

Web Authoring

Use of Embedded CSS in HTML

Nov 2015

The table will be centre aligned within the browser.

Create a web page called `n15_3_sponsor.htm`

This web page must work in all browsers and will have a table structure as shown below.
Table borders and gridlines must be visible.

The table will be centre aligned within the browser.

Each table cell is identified with a letter and all dimensions are in pixels.

A 620 × 190	
B 310 × 235	C 310 × 235
D 310 × 80	E 310 × 80
F 310 × 235	G 310 × 235
H 310 × 80	J 310 × 80
K 620 × 160	

The letters shown in the table must **not** appear on your final web page.

```
<body>
<table width="600" border="1" >
  <tr>
    <td bgcolor="#FFFF00">&nbsp;
    <td bgcolor="#FFFF00">&nbsp;
    <td bgcolor="#FFFF00">&nbsp;
  </tr>
  <tr>
    <td bgcolor="#FFFF00">&nbsp;
    <td bgcolor="#FFFF00">&nbsp;
    <td bgcolor="#FFFF00">&nbsp;
  </td>
```

```
style="margin-left:">
```

```
sp;</td>
```

```
sp;</td>
```

```
sp;</td>
```

```
sp;</td>
```

```
sp;</td>
```

```
sp;</td>
```

```
= "margin-left: ">
```

```
i>
```

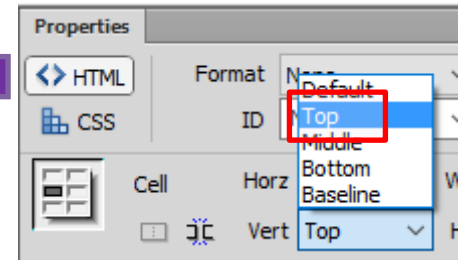
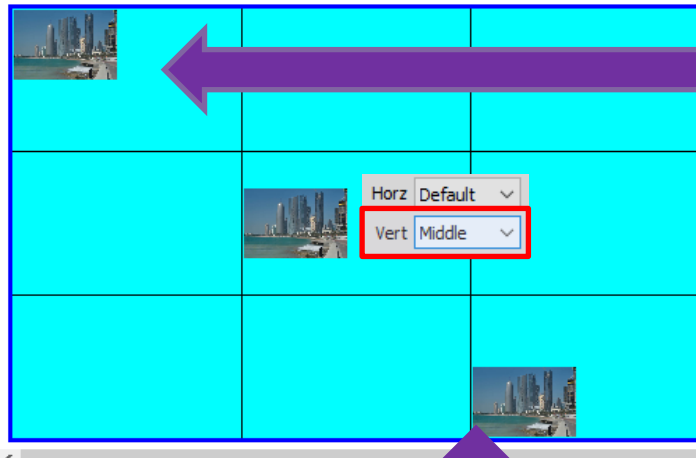
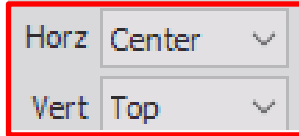
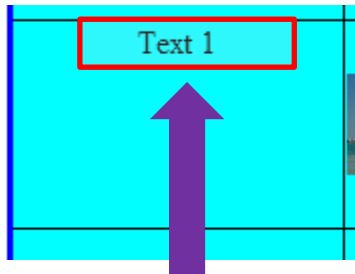
```
i>
```

```
style="margin-left:auto; margin-right:auto">
```

Web Authoring

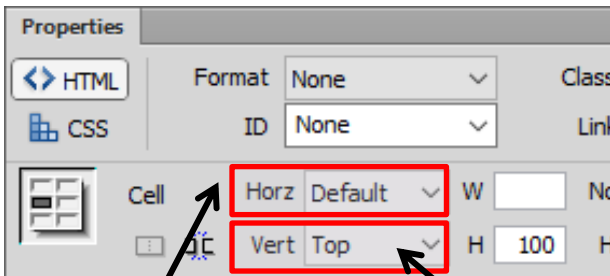
Table Alignment

The properties panel can be used to align content (V or H) in a Table Cell (TD).



```
<td height="100" valign="top">
```

HTML Tag



Horizontal Alignment

Vertical Alignment

You can also use embedded CSS in HTML for formatting either vertical or Horizontal alignment in a cell (TD)

```
style="vertical-align:top">&nbsp;  </td>
```