

Tutorial 5

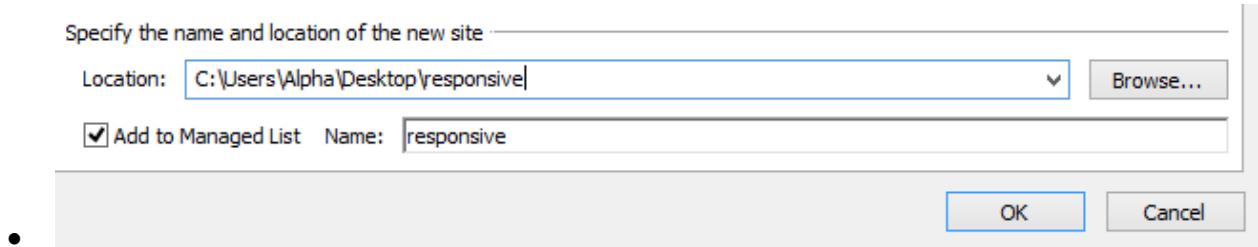
Activities

- Code
 - Editor: Expression Web
 - Focus : Base Layout, navigation with folders, external stylesheets, responsive web, movies

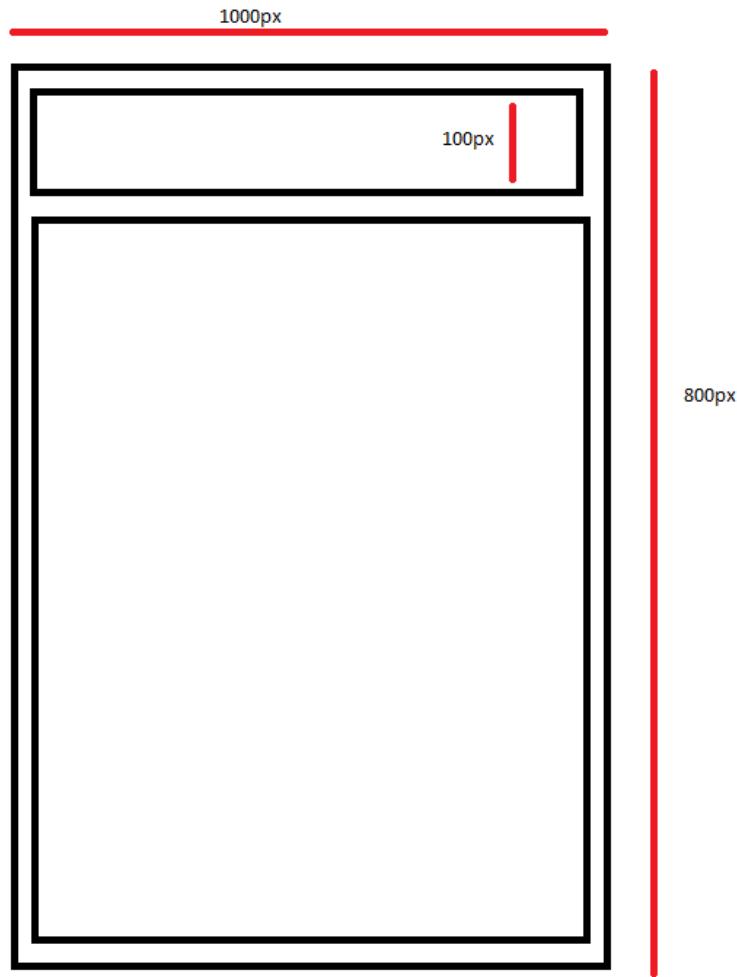
Responsive Web

Responsive web pages are pages that adapt to the screen resolution, so one page being written that can be viewed in differing devices with differing resolutions.

So start a new web site



-
- Rename to index.html
- And build the following structure



-
- So, let's build the skeleton first
- Start with dPage, then create a dHeader and dContent
-
- From here, assign styles and centre the web page

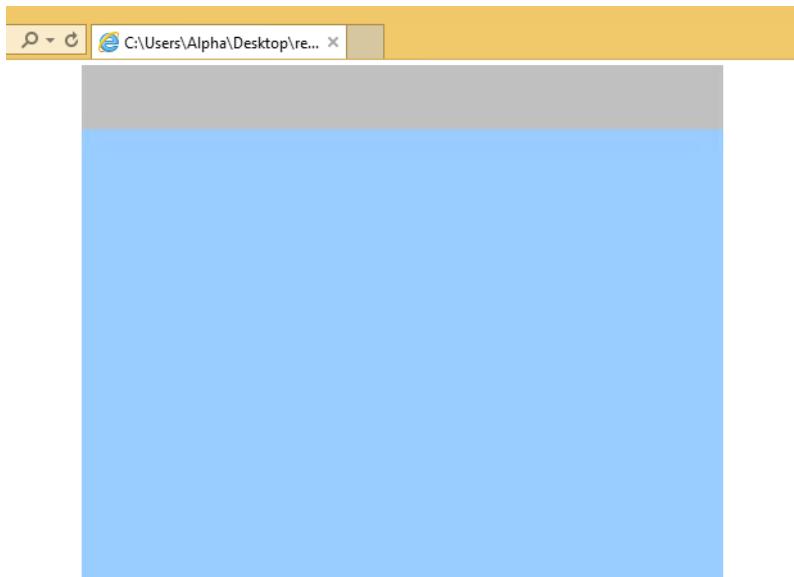
```

<body>
  <div id="dPage">
    <div id="dHeader"></div><!-- eo dHeader -->
    <div id="dContent"></div><!-- eo dContent -->
  </div><!-- eo dPage -->
</body>
  
```

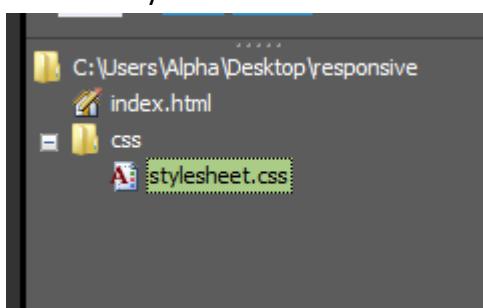
-
- From here, assign styles and centre the web page


```

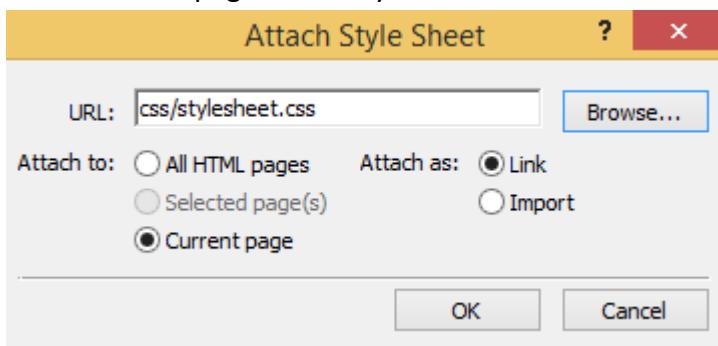
4 <head>
5   <style type="text/css">
6     #dPage {width:1000px; height:800px; background-color:lime; margin:0 auto;}
7     #dHeader {width:1000px; height:100px; background-color:silver;}
8     #dContent { width:1000px; height:700px; background-color:#99CCFF; }
9   </style>
10 </head>
      
```



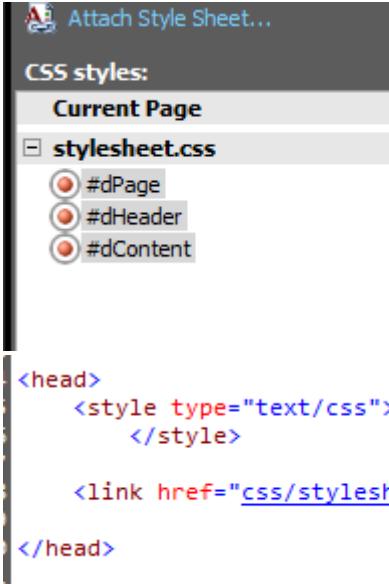
- Now move our styles into an external style sheet.
- Create a `stylesheet.css` in a folder called `css`



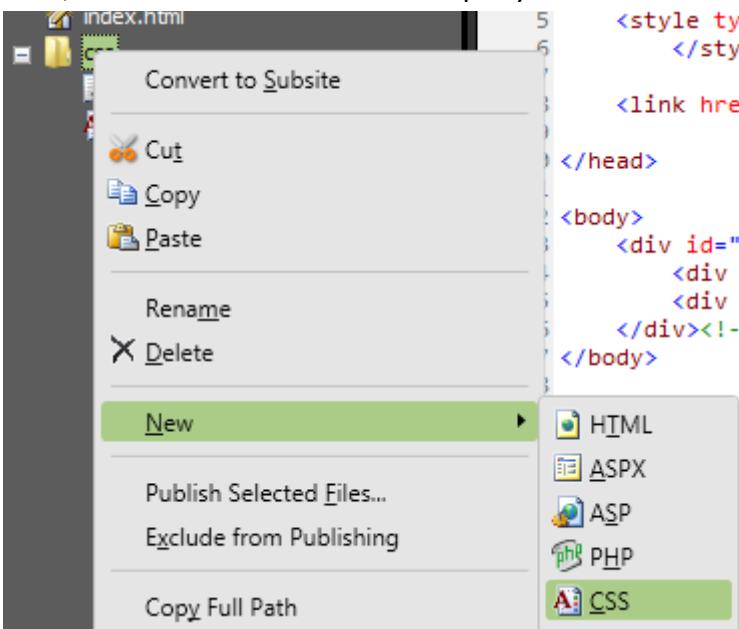
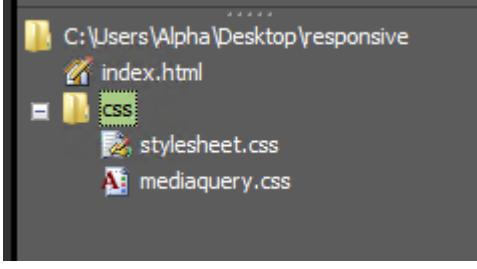
- Link the index page to the stylesheet

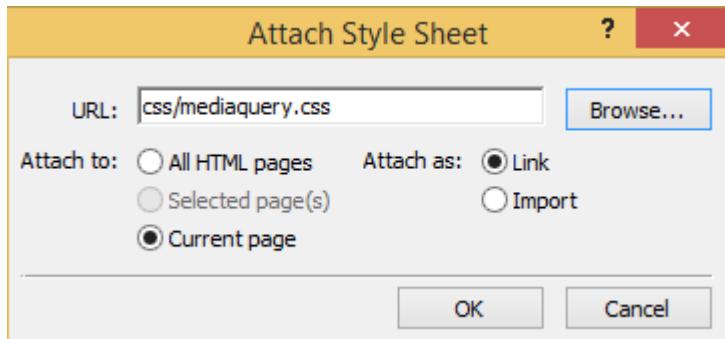


- ```
<head>
 <style type="text/css">
 #dPage {width:1000px; height:800px; background-color:lime; margin:0 auto;}
 #dHeader {width:1000px; height:100px; background-color:silver;}
 #dContent { width:1000px; height:700px; background-color:#99CCFF;}
 </style>
 |
 <link href="css/stylesheet.css" rel="stylesheet" type="text/css">
```
- Move the styles

- 
- ```
<head>
  <style type="text/css">
  </style>

  <link href="css/stylesheet.css" rel="stylesheet" type="text/css">

</head>
```
- Now, make a new css called mediaquery.css in the css folder
 - 
 - 
- Attach this new css file to your index page



- You should have the following

```

<head>
  <style type="text/css">
    </style>

    <link href="css/stylesheet.css" rel="stylesheet" type="text/css">
    <link href="css/mediaquery.css" rel="stylesheet" type="text/css">

</head>

```

- You can have as many stylesheets linked into a page that you want, but remember that there is a precedence of order that the styles are applied. In this case, if there is anything in the mediaquery.css that matches anything in the stylesheet.css, the mediaquery styles will be the ones that appear on the website.
- So, now we are going to write into the mediaquery stylesheet. We are going to make the pages notify us when we resize the screen to
 - Less than 320px
 - Between 320 and 480px
 - Between 480 and 768px
 - Between 768 and 1024px
 - Greater than 1024px
- This way the page can adapt to pretty much any devices screen width.
- So, let's create a style that occurs after a change

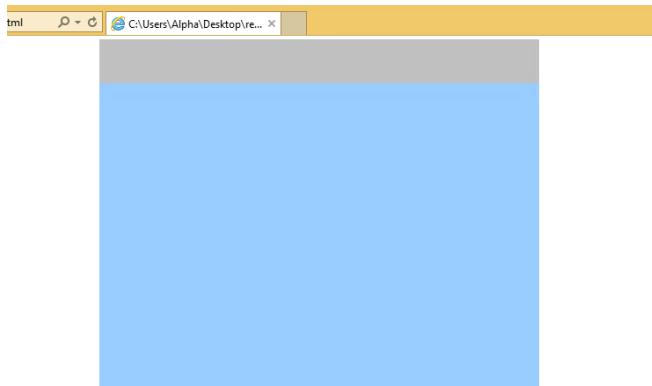
```

1 body:after {
2   content: "less than 320px";
3   font-size: 300%;
4   font-weight: bold;
5   position: fixed;
6   bottom: 60px;
7   width: 100%;
8   text-align: center;
9   background-color: hsla(1,60%,40%,0.7);
10  color: #fff;
11 }
12

```

- This style will create a coloured bar at the bottom of the page that we will have change after resizing the screen. If you run it up now, no matter the size of your screen, you will be told it is less than 320px. This is because we haven't written the remainder conditions yet.

- Notice how we are now using hsla for the colour, this is the hue/saturation and luminesce with alpha; in this manner we can make the bar transparent so we can view our content underneath it. The code should produce:



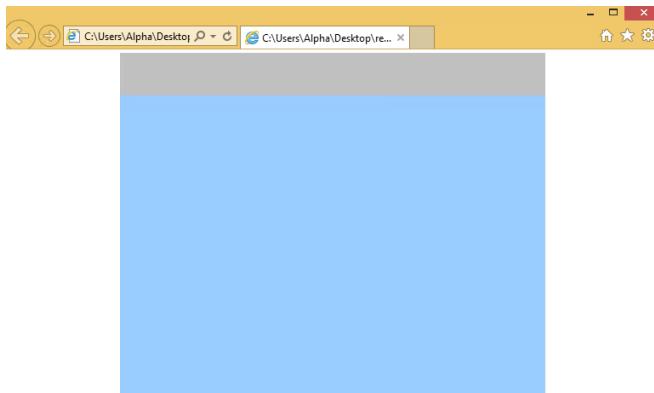
- less than 320px
- We know that is displays wrong, so let's add some more to the style sheet

```

1 body:after {
2   content: "less than 320px";
3   font-size: 300%;
4   font-weight: bold;
5   position: fixed;
6   bottom: 60px;
7   width: 100%;
8   text-align: center;
9   background-color: hsla(1,60%,40%,0.7);
10  color: #fff;
11 }
12 @media only screen and (min-width: 320px) {
13   body:after {
14     content: "320 to 480px";
15     background-color: hsla(90,60%,40%,0.7);
16   }
17 }

```

- Load the page and note that the bar is now different



- **320 to 480px**
- Time to add the rest of the media queries

A screenshot of a code editor showing a CSS file named 'mediaquery.css'. The file contains the following code:

```
1 body:after {  
2     content: "less than 320px";  
3     font-size: 300%;  
4     font-weight: bold;  
5     position: fixed;  
6     bottom: 60px;  
7     width: 100%;  
8     text-align: center;  
9     background-color: hsla(1,60%,40%,0.7);  
10    color: #ffff;  
11 }  
12 @media only screen and (min-width: 320px) {  
13     body:after {  
14         content: "320 to 480px";  
15         background-color: hsla(90,60%,40%,0.7);  
16     }  
17 }  
18 @media only screen and (min-width: 480px) {  
19     body:after {  
20         content: "480 to 768px";  
21         background-color: hsla(180,60%,40%,0.7);  
22     }  
23 }  
24 @media only screen and (min-width: 768px) {  
25     body:after {  
26         content: "768 to 1024px";  
27         background-color: hsla(270,60%,40%,0.7);  
28     }  
29 }  
30 @media only screen and (min-width: 1024px) {  
31     body:after {  
32         content: "1024 and up";  
33         background-color: hsla(360,60%,40%,0.7);  
34     }  
35 }
```

- Save the page, reload your web page and then re-size it manually. The bar will change its details informing you of which screen resolution you are at.

- Now keep this css file and use it when you are building responsive web pages, then once the design is done and the pages are done you can just remove the link from your pages and your site is completed with the bar.
- As a side note, even though we normally keep content away from our css and just keep styles there, we did use the content: ""; command. Do not use this if you can help it.
- So, we have a notification method, let's play with some content, go grab some text.
- I went and got some from here: <http://batman-ipsum.com/>

```

13 <body>
14   <div id="dPage">
15     <div id="dHeader">
16       <h1>Batman Quotes</h1>
17     </div><!-- eo dHeader -->
18     <div id="dContent">
19 Don't kill him. I want him to feel the heat. Feel the fire of 12 million souls.
20 <p>
21 My anger outweighs my guilt.
22 </p><p>
23 Gotham's been good to our family, but the city's been suffering. People less fortunate than us have been enduring very
hard times. So we built a new, cheap, public transportation system to unite the city. And at the center, Wayne tower.
24 </p><p>
25 Innocence is a strong word to throw around Gotham, Bruce.
26 </p><p>
27 Once you've done what you had to, they never let you do what you want to.
28 </p><p>
29 You see, I'm a guy of simple taste. I enjoy dynamite and gunpowder and gasoline.
30 </p><p>
31 Yes. The fire rises.
32 </p><p>
33 You know how to fight six men. We can teach you how to engage 600.
34 </p>
35   </div><!-- eo dContent -->
36 </div><!-- eo dPage -->
37 </body>
38

```

- From here is you run it up everything stays the same and nothing changes, so now we start to add media queries to our normal style sheet. Let's start big



```

Site View index.html stylesheet.css mediaquery.css
1 #dPage {width:1000px; height:800px; background-color:lime; margin:0 auto;}
2 #dHeader {width:1000px; height:100px; background-color:silver;}
3 #dContent { width:1000px; height:700px; background-color:#99CCFF;}
4
5 @media only screen and (min-width: 1024px) {
6   body{font-size:30px;}
7   #dContent{background-color:black;color:white;}
8 }
9
10

```

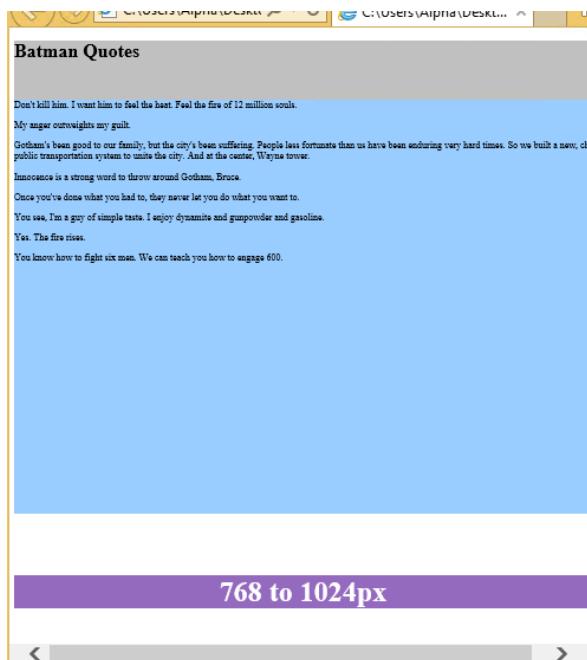
- This produces the following
- At >1024

Batman Quotes

Don't kill him. I want him to feel the heat. Feel the fire of 12 million souls.
My anger outweighs my guilt.
Gotham's been good to our family, but the city's been suffering. People less fortunate than us have been enduring very hard times. So we built a new, cheap, public transportation system to unite the city. And at the center, Wayne tower.
Innocence is a strong word to throw around Gotham, Bruce.
Once you've done what you had to, they never let you do what you want to.
You see, I'm a guy of simple taste. I enjoy dynamite and gunpowder and gasoline.
Yes. The fire rises.
You know how to fight six men. We can teach you how to engage 600.

1024 and up

- At <1024



- So already we can see the effects of media queries at work.
- Now let's set some text rules up, we are going to swap from px to em for text controls. I'll set this up on the body tag of the page. But first we set a base line on text.

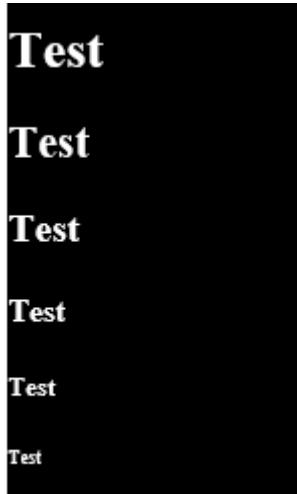
```
<redu>
<style type="text/css">
  body{font-size:20px;}</style>
```

- From here I start to modify things like my Hx tags
- And we test

```
<style type="text/css">
  body{font-size:20px;}
  h1{ font-size:2em;}
  h2{ font-size:1.7em;}
  h3{ font-size:1.5em;}
  h4{ font-size:1.2em;}
  h5{ font-size:1em;}
  h6{ font-size:.7em; }

</style>

25  </ul></div> -- to uncheck --
26  <div id="dContent">
27  <br>
28  <h1>Test</h1>
29  <h2>Test</h2>
30  <h3>Test</h3>
31  <h4>Test</h4>
32  <h5>Test</h5>
33  <h6>Test</h6>
34 Don't kill him. I want him to fi
```



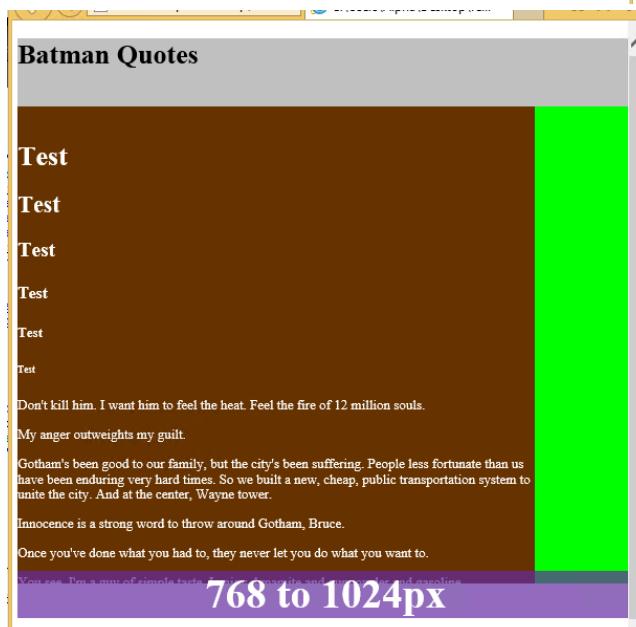
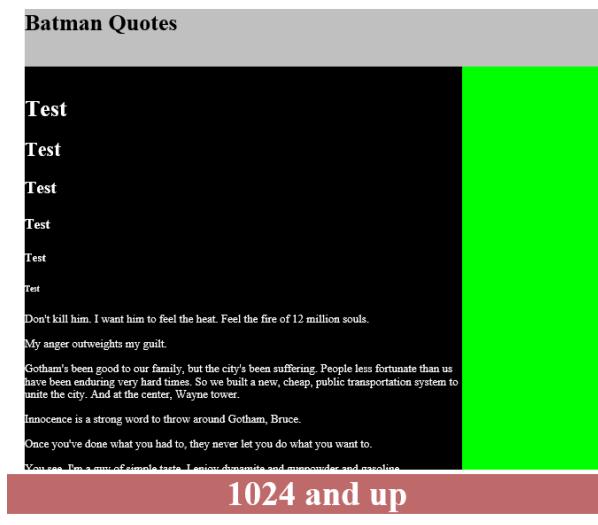
- Don't kill him. I want him to
- Ems can give you the ability to scale above and below your base font size very simply.
- Now, as you can tell from the testing, the content doesn't change, so let's apply a change to the #dContent for each size

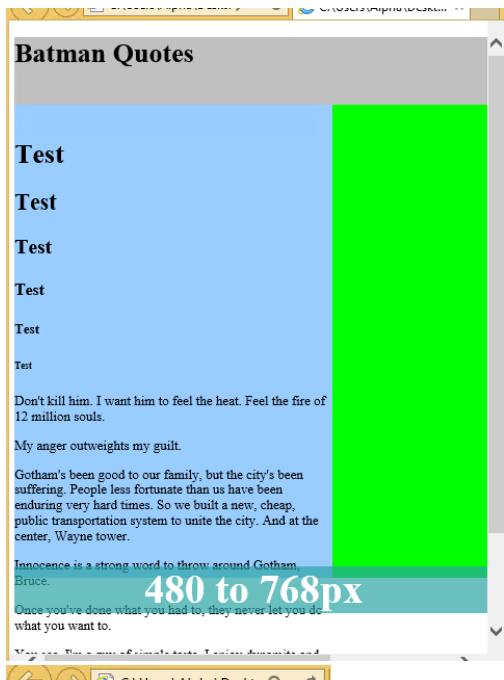
```

File View index.html stylesheet.css mediaquery.css
1 #dPage {width:1000px; height:800px; background-color:lime; margin:0 auto;}
2 #dHeader {width:1000px; height:100px; background-color:silver;}
3 #dContent { width:1000px; height:700px; background-color:#99CCFF;}
4
5 @media only screen and (min-width: 320px) {
6     #dContent{background-color:coral; color:black; width:300px;}
7 }
8 @media only screen and (min-width: 480px) {
9     #dContent{background-color:#99CCFF; color:black; width:470px;}
10 }
11 @media only screen and (min-width: 768px) {
12     #dContent{background-color:#663300; color:white; width:760px;}
13 }
14
15 @media only screen and (min-width: 1024px) {
16     #dContent{background-color:black; color:white;}
17 }
18

```

- So from here, each time the screen resizes we shrink the dContent limit from 1000px width to a smaller number, this produces:



- 
- 
- So all of our text is now visible no matter the screen resolution. The header is still out and now we can see the green background, but we are getting there. Let's shrink down the header and add an image to the page.
- Also, remove the Hx code and move the styles from the index page to the external stylesheet.
- So here's the text part re-written to work

```

Site View index.html stylesheet.css mediaquery.css
1 body{font-size:20px;}
2 h1{ font-size:2em;}
3 h2{ font-size:1.7em;}
4 h3{ font-size:1.5em;}
5 h4{ font-size:1.2em;}
6 h5{ font-size:1em;}
7 h6{ font-size:.7em;}
8
9 @media only screen and (min-width: 320px) {
10   #dPage {width:300px; height:800px; background-color:lime; margin:0 auto;}
11   #dHeader {width:300px; height:100px; background-color:#666666;}
12   #dContent{background-color:coral; color:black; width:300px; height:700px;}
13 }
14 @media only screen and (min-width: 480px) {
15   #dPage {width:470px; height:800px; background-color:lime; margin:0 auto;}
16   #dHeader {width:470px; height:100px; background-color:silver;}
17   #dContent{background-color:#99CCFF;color:black; width:470px; height:700px;}
18 }
19 @media only screen and (min-width: 768px) {
20   #dPage {width:760px; height:800px; background-color:lime; margin:0 auto;}
21   #dHeader {width:760px; height:100px; background-color:#666666;}
22   #dContent{background-color:#663300;color:white; width:760px; height:700px;}
23 }
24
25 @media only screen and (min-width: 1024px) {
26   #dPage {width:1000px; height:800px; background-color:lime; margin:0 auto;}
27   #dHeader {width:1000px; height:100px; background-color:silver;}
28   #dContent{width:1000px; height:700px; background-color:black;color:white;}
29 }
30
31

```

- Now for the image


```

21 my anger outweighs my guilt.
22 </p>
23 
24 <p>
25 Gotham's been good to our family, but the city's been suffering.

```
- Now the image I am using is 995x534, because I like using a large image, I am now going to modify the height of my page, swapping from a set height command to the min-height command.
- This command will let the page adjust to handle all of my content

```

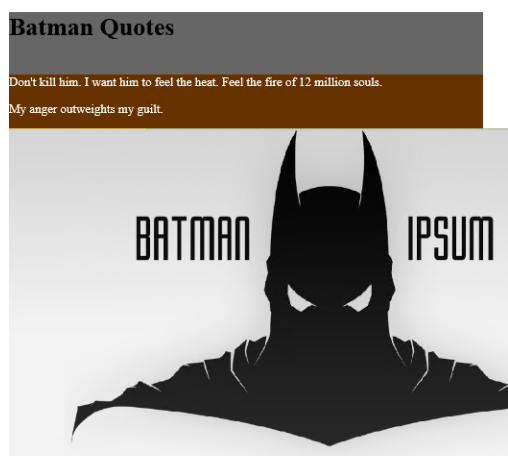
file view index.html stylesheets.css mediaquery.css
1 body{font-size:20px;}
2 h1{ font-size:2em;}
3 h2{ font-size:1.7em;}
4 h3{ font-size:1.5em;}
5 h4{ font-size:1.2em;}
6 h5{ font-size:1em;}
7 h6{ font-size:.7em;}
8
9 @media only screen and (min-width: 320px) {
10    #dPage {width:300px; min-height:800px; background-color:lime; margin:0 auto;}
11    #dHeader {width:300px; height:100px; background-color:#666666;}
12    #dContent{background-color:coral; color:black; width:300px; min-height:700px;}
13 }
14 @media only screen and (min-width: 480px) {
15    #dPage {width:470px; min-height:800px; background-color:lime; margin:0 auto;}
16    #dHeader {width:470px; height:100px; background-color:silver;}
17    #dContent{background-color:#99CCFF; color:black; width:470px; min-height:700px;}
18 }
19 @media only screen and (min-width: 768px) {
20    #dPage {width:760px; min-height:800px; background-color:lime; margin:0 auto;}
21    #dHeader {width:760px; height:100px; background-color:#666666;}
22    #dContent{background-color:#663300; color:white; width:760px; min-height:700px;}
23 }
24
25 @media only screen and (min-width: 1024px) {
26    #dPage {width:1000px; min-height:800px; background-color:lime; margin:0 auto;}
27    #dHeader {width:1000px; height:100px; background-color:silver;}
28    #dContent{width:1000px; min-height:700px; background-color:black; color:white;}
29 }
30

```

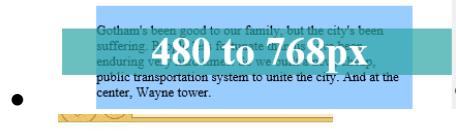
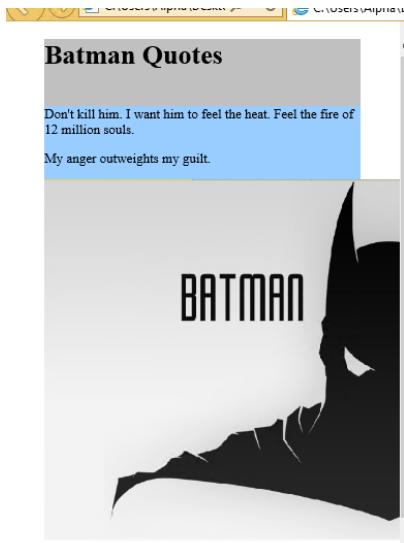
- This produces:



-



-



- **320 to 480px**
less fortunate than us have been
enduring very hard times. So we
built a new, cheap, public
- As you can see the image disappears the smaller the resolution width gets, why?
Because we haven't coded in the width of the image. I did write that I was going to
use a class on the image, now is a good time to set its properties

```

8
9 @media only screen and (min-width: 320px) {
10    #dPage {width:300px; min-height:800px; background-color:lime; margin:0 auto;}
11    #dHeader {width:300px; height:100px; background-color:#666666;}
12    #dContent{background-color:coral; color:black; width:300px; min-height:700px;}
13    .logoSize {width:300px;}
14 }
15 @media only screen and (min-width: 480px) {
16    #dPage {width:470px; min-height:800px; background-color:lime; margin:0 auto;}
17    #dHeader {width:470px; height:100px; background-color:silver;}
18    #dContent{background-color:#99CCFF;color:black; width:470px; min-height:700px;}
19    .logoSize {width:470px;}
20 }
21 @media only screen and (min-width: 768px) {
22    #dPage {width:760px; min-height:800px; background-color:lime; margin:0 auto;}
23    #dHeader {width:760px; height:100px; background-color:#666666;}
24    #dContent{background-color:#663300;color:white; width:760px; min-height:700px;}
25    .logoSize {width:760px;}
26 }
27
28 @media only screen and (min-width: 1024px) {
29    #dPage {width:1000px; min-height:800px; background-color:lime; margin:0 auto;}
30    #dHeader {width:1000px; height:100px; background-color:silver;}
31    #dContent{width:1000px; min-height:700px; background-color:black;color:white;}
32    .logoSize {width:1000px;}
33 }
34

```

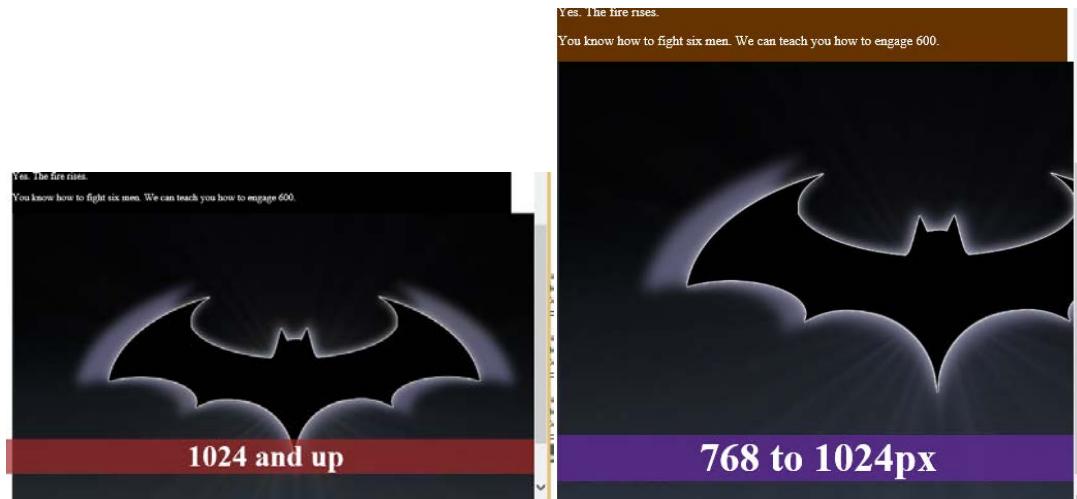
- So, this sets up our image fit within the re-sized section. I like it but I think we should add one more image, a small one in which we want centred

```

36 </p>
37 
38     </div><!-- eo dContent -->
39     </div><!-- eo dPage -->
40 </body>

```

- This produces

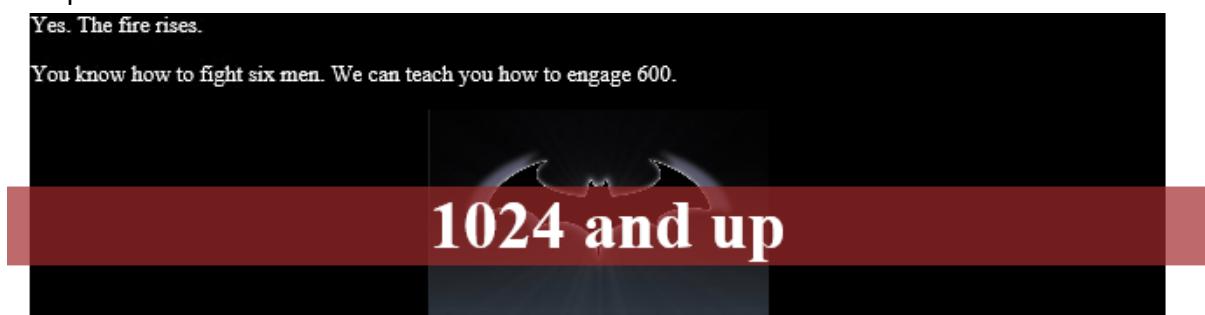




- The same issue we had with the original picture, so let's apply a class to it

```
6 </p>
7 
8     </div><!-- eo dContent -->
9     </div><!-- eo dPage -->
10 .logoSmallCentre{.7em;
11     font-size:.7em;
12 .logoSmallCentre{width:300px; display:block; margin-left:auto; margin-right:auto;
13 }
```

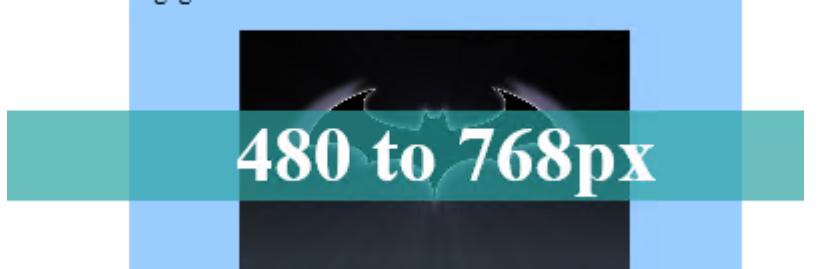
- This produces



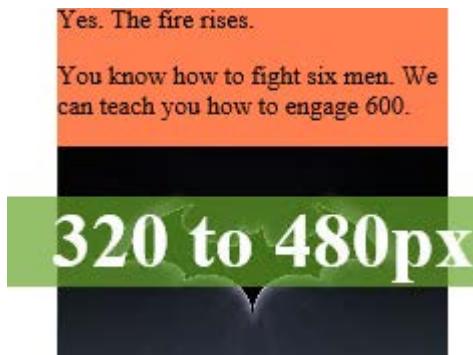
-



-



-



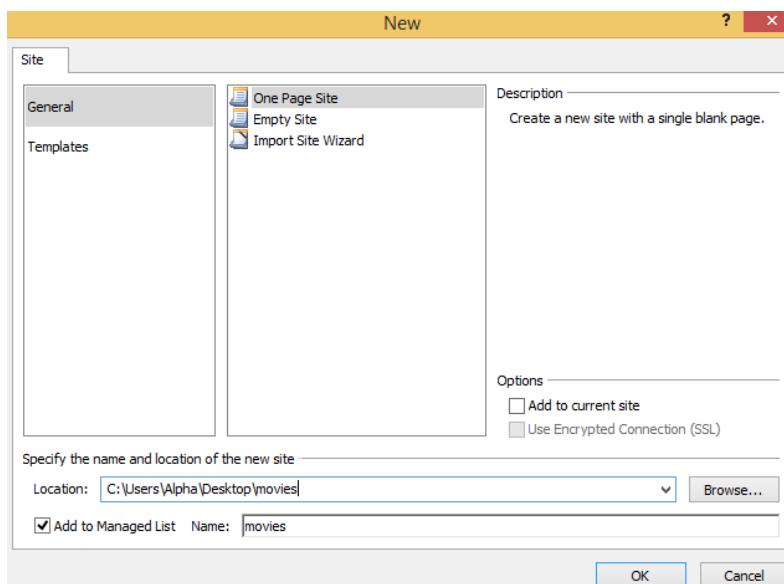
- Now that the image works on all and is centred, I will remove the link to the mediaquery css file and the page is done. In all of its multi-coloured glory.

```
3
4 <head>
5   <style type="text/css">
6     </style>
7   <link href="css/stylesheet.css" rel="stylesheet" type="text/css">
8 </head>
9
```

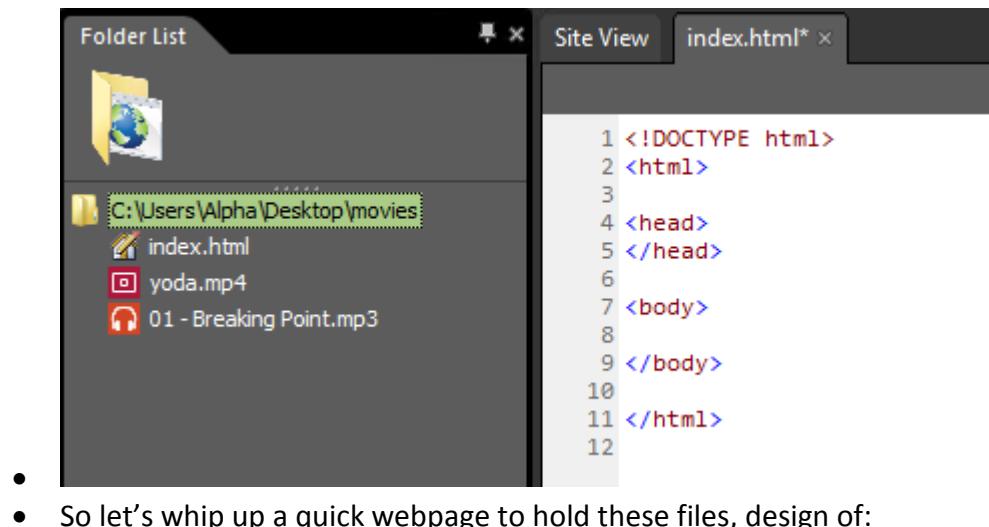
Movies and Audio

Download the movie clip and audio file from L@G

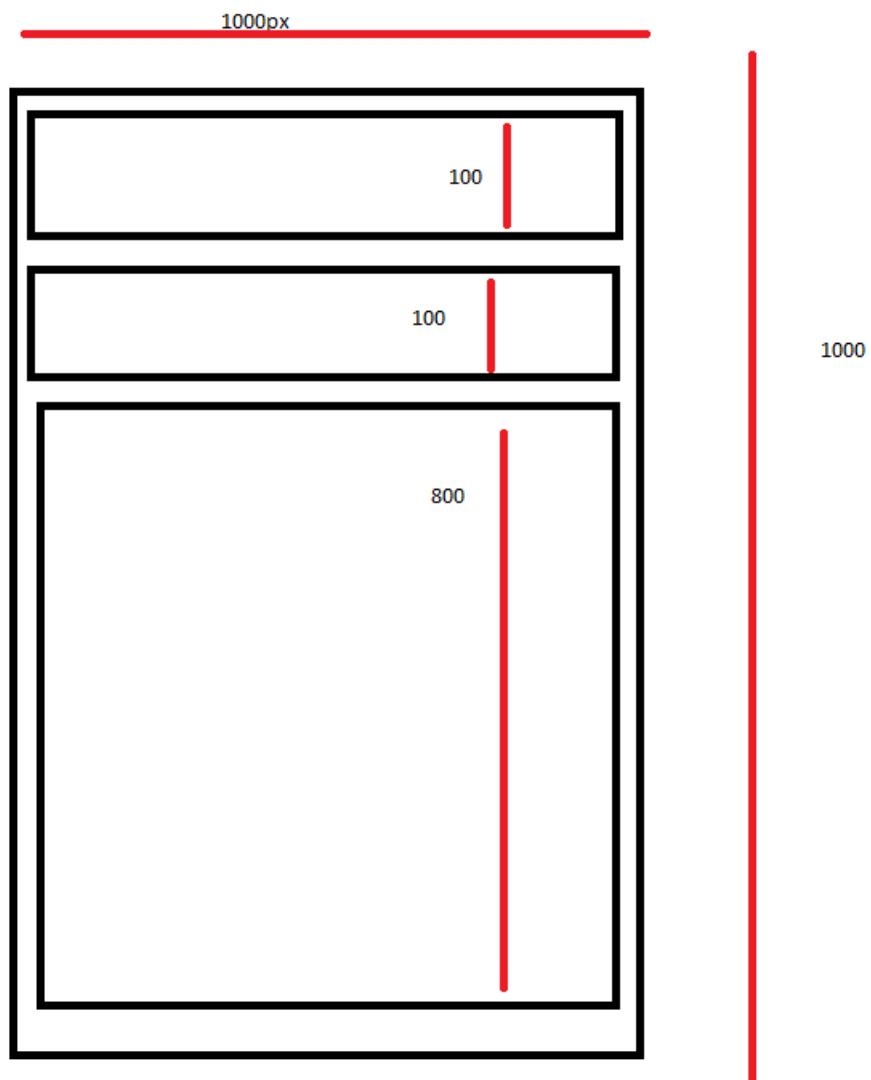
Start a new website.



- Rename default to index, make the code html5 and then copy the media content into the directory for use.



- So let's whip up a quick webpage to hold these files, design of:

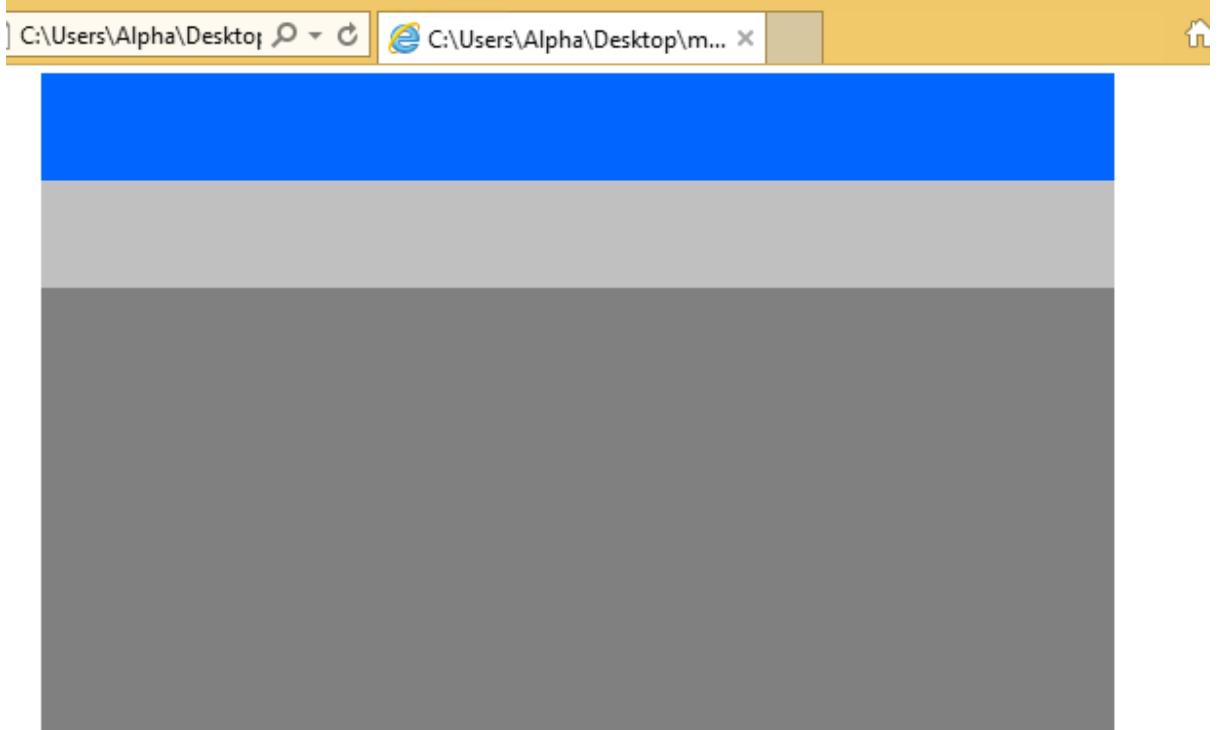


- Code that up like so:

- ```

6|<body>
7 <div id="dPage">
8 <div id="dHeader"></div><!-- eo dHeader -->
9 <div id="dAudio"></div><!-- eo dAudio -->
10 <div id="dVideo"></div><!-- eo dVideo -->
11 </div><!-- eo dPage -->
12
13</body>
14</html>
15
16
17
3<head>
4 <style type="text/css">
5 #dPage{ width:1000px; height:1000px; background-color:lime; margin:0 auto;}
6 #dHeader{width:1000px; height:100px; background-color:#0066FF; color:white;}
7 #dAudio{width:1000px; height:100px; background-color:silver;}
8 #dVideo{width:1000px; height:800px; background-color:#808080;}
9
10 </style>
11</head>
12

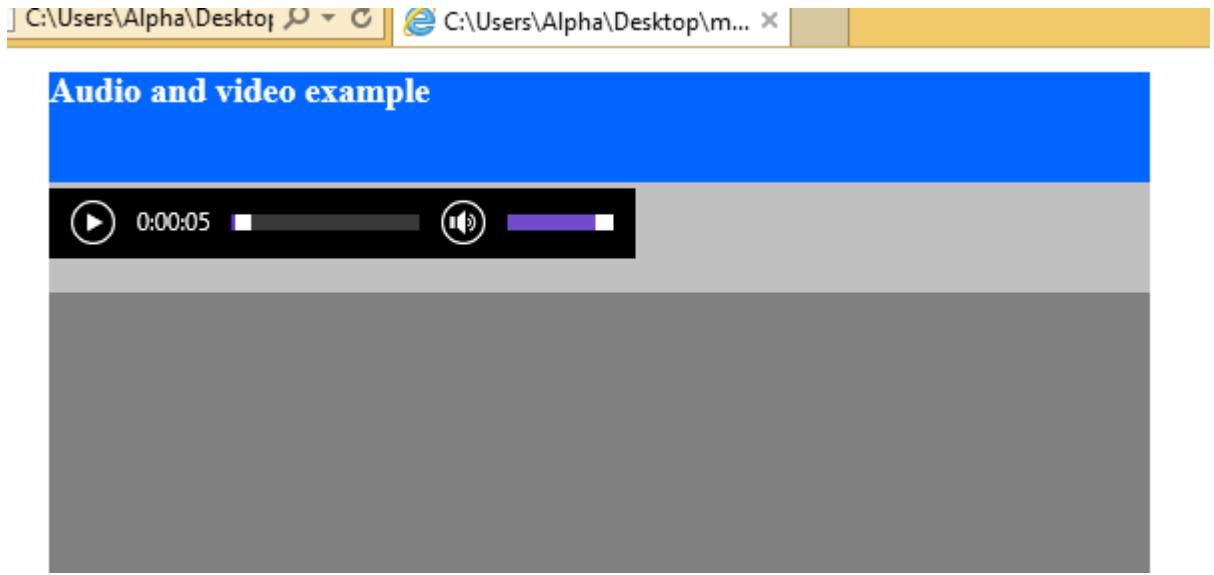
```


- Add in a simple h1 for the header and let's code up the audio

```

12<body>
13 <div id="dPage">
14 <div id="dHeader">
15 <h1>Audio and video example</h1>
16 </div><!-- eo dHeader -->
17 <div id="dAudio">
18 <audio src="01 - Breaking Point.mp3" controls="controls"></audio>
19 </div><!-- eo dAudio -->
20 <div id="dVideo"></div><!-- eo dVideo -->
21 </div><!-- eo dPage -->
22
23</body>
24
25

```

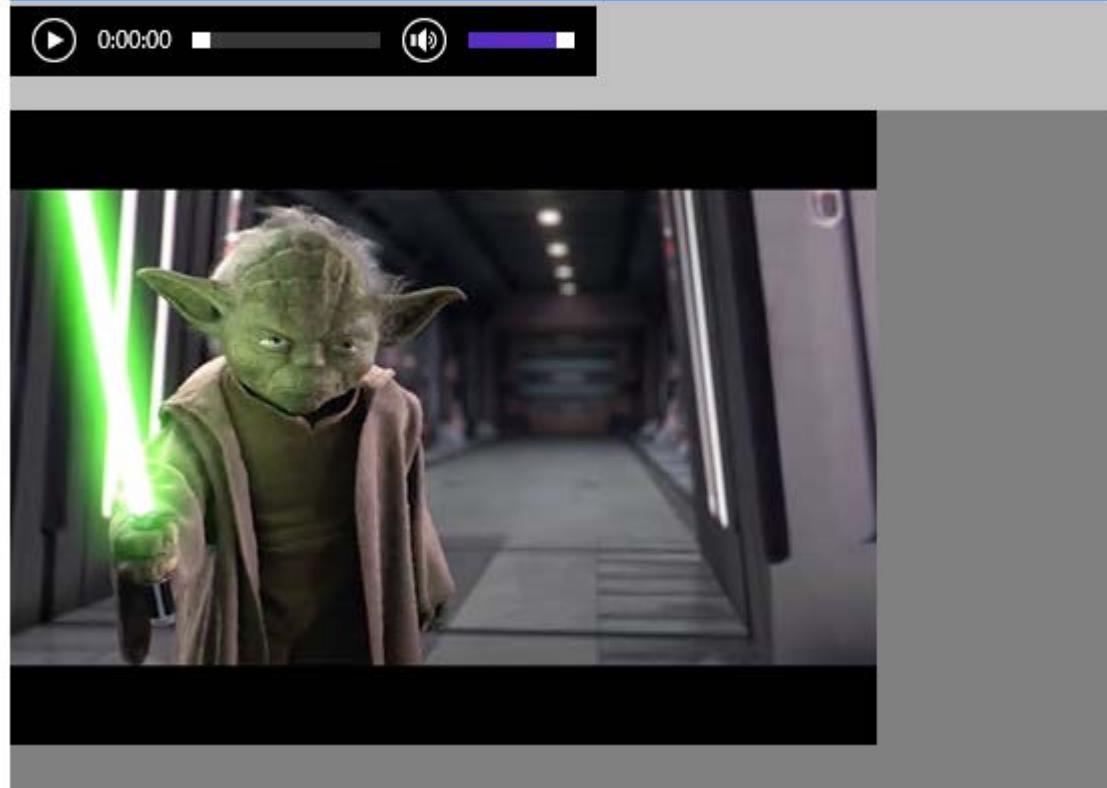


- 
- When it is local, see if the browser automatically blocks the code, if it does allow it. Now it is possible to have backup audio files in your code, so if the end user doesn't support file formats like mp3, they can use ogg instead, the only browser that didn't was firefox, but as of firefox version 21 mp3 is now supported.
- My advice, just use mp3 formats.
- Now, onto video, code like this

```
<div id="dPage">
 <div id="dHeader">
 <h1>Audio and video example</h1>
 </div><!-- eo dHeader -->
 <div id="dAudio">
 <audio src="01 - Breaking Point.mp3" controls="controls"></audio>
 </div><!-- eo dAudio -->
 <div id="dVideo">
 <video src="yoda.mp4" controls="controls"></video>
 </div><!-- eo dVideo -->
</div><!-- eo dPage -->
```

-

## Audio and video example



- As you can see, with html5 the existence of audio and video commands built in make showing them on the web extremely easy. Always make sure that you add the controls="controls" to your code, otherwise the controls will not be present for the end user and you can also set up autoplay options

```
<audio><!-- eo uncauc -->
<div id="dAudio">
 <audio src="01 - Breaking Point.mp3" autoplay="autoplay"></audio>
</div><!-- eo dAudio -->
<!-- --></pre>
```

- Produces

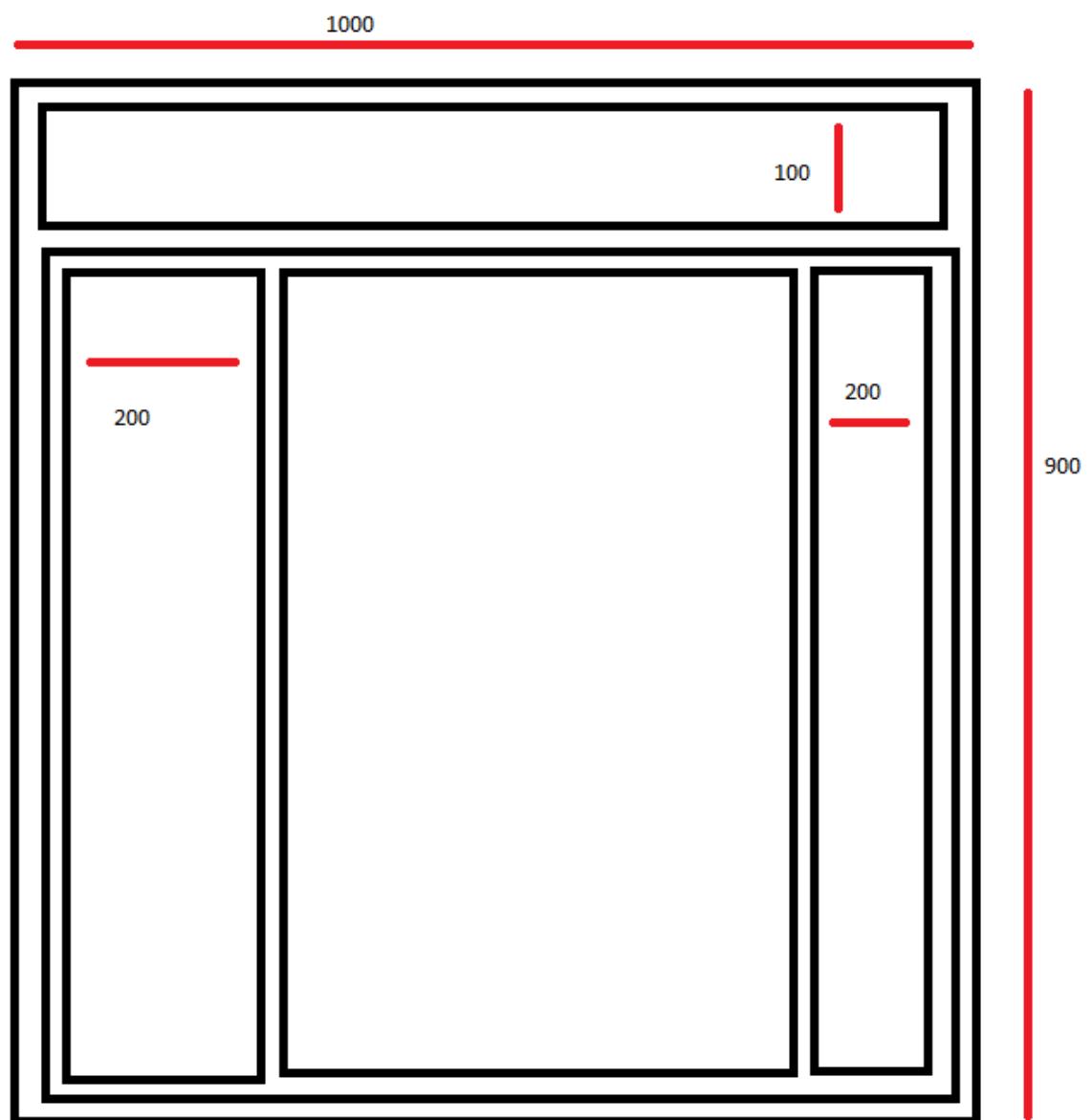
## Audio and video example

- The audio is playing but the end user has no control over it. This is bad design, don't do it, if you do want it to autoplay, make sure the code has the controls present.

# Tables

Start a new website

- Set up the following design

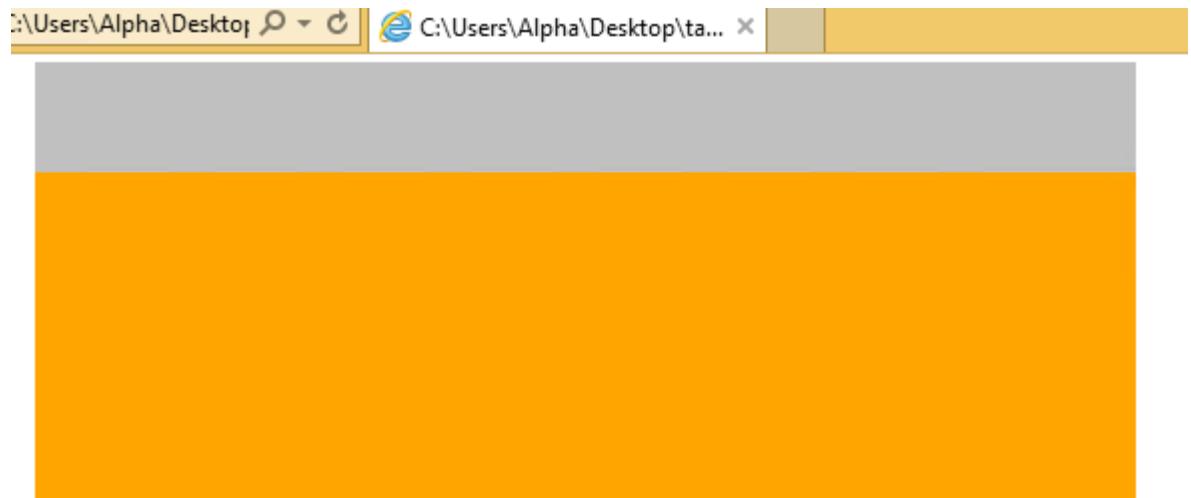


- Create the skeleton and then styles

- ```

6
7 <body>
8     <div id="dPage">
9         <div id="dHeader"></div><!-- eo dHeader -->
10        <div id="dContent">
11            <div id="dCLeft"></div><!-- eo dCLeft -->
12            <div id="DCMid"></div><!-- eo DCMid -->
13            <div id="dCRight"></div><!-- eo dCRight -->
14        </div><!-- eo dContent -->
15    </div><!-- eo dPage -->
16 </body>
17

```



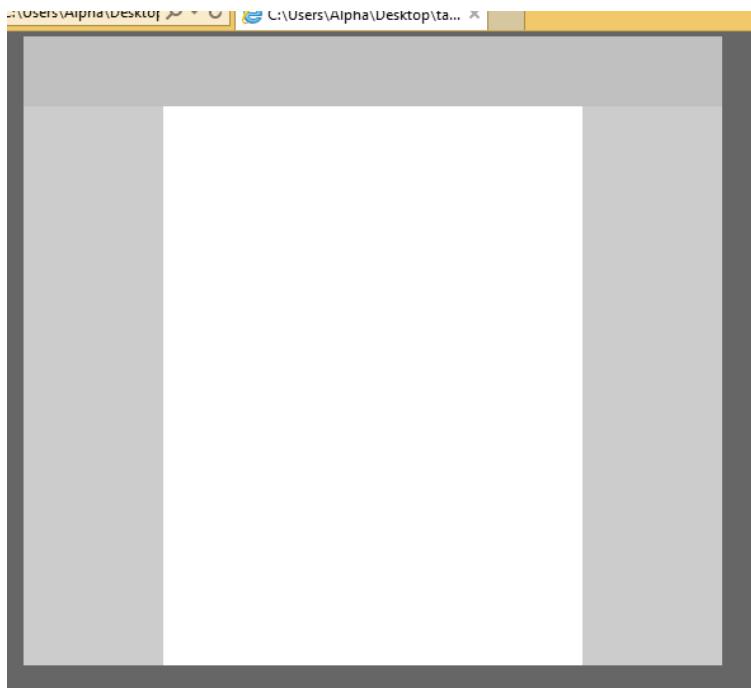
- Always check after you put in your styles, so your mistakes are limited to the last line you typed in.

```

-----  

<style type="text/css">
    body{background-color:#666666;}
    #dPage {width:1000px; height:900px; background-color:lime; margin:0 auto;}
    #dHeader{width:1000px; height:100px; background-color:silver;}
    #dContent{width:1000px; height:800px; background-color:orange;}
    #dCLeft{width:200px; height:800px; background-color:#CCCCCC; float:left;}
    #DCMid{width:600px; height:800px; background-color:white; float:left;}
    #dCRight{width:200px; height:800px; background-color:#CCCCCC; float:right;}
</style>

```



-
- Okay, from here, add a h1 header in the header section and then we start putting table information into the dCMid section

```
<div id="dPage">
  <div id="dHeader">
    <h1>Tables 101</h1>
  </div><!-- eo dHeader -->
  <div id="dContent">
    <div id="dLeft"></div><!-- eo dLeft -->
    <div id="dMid">
      <table style="border:2px black solid; width:500px; margin-left:50px;">
        <tr>
          <td></td>
        </tr>
      </table>
    </div><!-- eo dCMid -->
    <div id="dRight"></div><!-- eo dRight -->
  </div><!-- eo dContent -->
</div><!-- eo dPage -->
```

-
-
- What we have made is a single cell table, the easiest way to remember what the tags are is <tr> is table row, td is table data (columns).
- As you can see we can style tables up with css
- Now we are going to make a table with 5 rows and 3 columns, put some data into each of the tds, I'm just going to put numbers there

- ```

<div id="dCMid">
 <table style="border:2px black solid; width:500px; margin-left:50px;">
 <tr>
 <td>1</td>
 <td>2</td>
 <td>3</td>
 </tr>
 <tr>
 <td>4</td>
 <td>5</td>
 <td>6</td>
 </tr>
 <tr>
 <td>7</td>
 <td>8</td>
 <td>9</td>
 </tr>
 <tr>
 <td>10</td>
 <td>11</td>
 <td>12</td>
 </tr>
 <tr>
 <td>13</td>
 <td>14</td>
 <td>15</td>
 </tr>
 </table>

```

|    |    |    |
|----|----|----|
| 1  | 2  | 3  |
| 4  | 5  | 6  |
| 7  | 8  | 9  |
| 10 | 11 | 12 |
| 13 | 14 | 15 |

- So let's add some style to the td tag so we can see the cells clearer.

```

<style type="text/css">
 body{background-color:#666666;}
 #dPage {width:1000px; height:900px; background-color:lime; margin:0 auto;}
 #dHeader{width:1000px; height:100px; background-color:silver;}
 #dContent{width:1000px; height:800px; background-color:orange;}
 #dCLeft{width:200px; height:800px; background-color:#CCCCCC; float:left;}
 #dCMid{width:600px; height:800px; background-color:white; float:left;}
 #dCRight{width:200px; height:800px; background-color:#CCCCCC; float:right; }

 td{ border:2px #FF3300 double;}
</style>

```

|    |    |    |
|----|----|----|
| 1  | 2  | 3  |
| 4  | 5  | 6  |
| 7  | 8  | 9  |
| 10 | 11 | 12 |
| 13 | 14 | 15 |

- So to layout inside a table we can eliminate some tds and apply spans on them, so we will merge cells 8,11 and 14, I'll also center the text

```


1	2	3
4	5	6
7		9
10	8	12
13		15


```

- `td{ border:2px #FF3300 double; text-align:center;}`
- `</style>`

|    |   |    |
|----|---|----|
| 1  | 2 | 3  |
| 4  | 5 | 6  |
| 7  |   | 9  |
| 10 | 8 | 12 |
| 13 |   | 15 |

- Now, what's next is to merge the columns 1,2 and 3

- ```

<div style="border:2px solid black; width:500px; margin-left:50px; >
  <table style="border:2px black solid; width:500px; margin-left:50px;">
    <tr>
      <td colspan="3">1</td>
    </tr>
    <tr>
      <td>4</td>
      <td>5</td>
      <td>6</td>
    </tr>
    <tr>
      <td>7</td>
      <td rowspan="3">8</td>
      <td>9</td>
    </tr>
    <tr>
      <td>10</td>
      <td>12</td>
    </tr>
    <tr>
      <td>13</td>
      <td>15</td>
    </tr>
  </table>
</div>!-- END DIV -->

```

1		
4	5	6
7	8	9
10	8	12
13	8	15

- Now, I'll reset the table for a new design

```





```

1	2	3
4	5	6
7	8	9
10	11	12
13	14	15

-
- The cells can contain images or text, and tables will grow in width if you set it to % values instead of px values.
- Tables have uses but nowdays, try and move beyond them.
-