

Tutorial 4

Activities

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

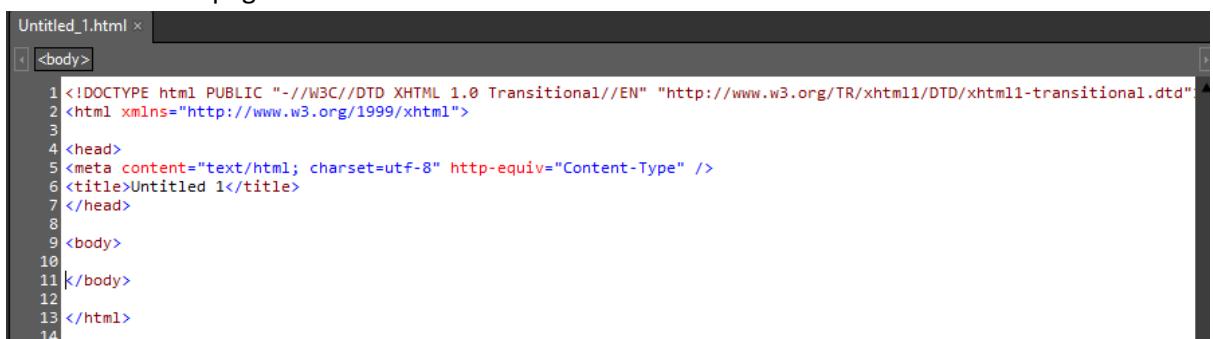
- Open up Expression Web



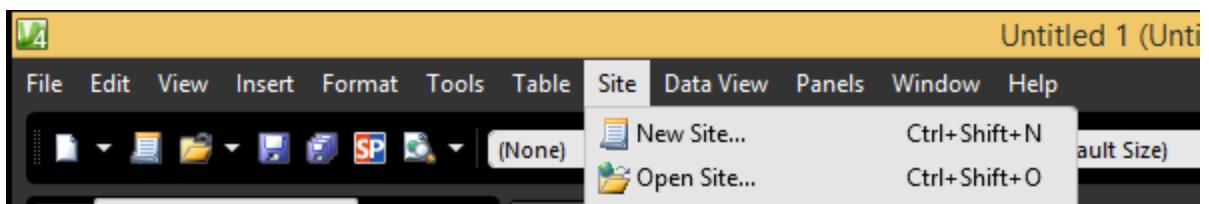
- Ensure that the editor is in code mode, down the bottom of the main page, click on the code button



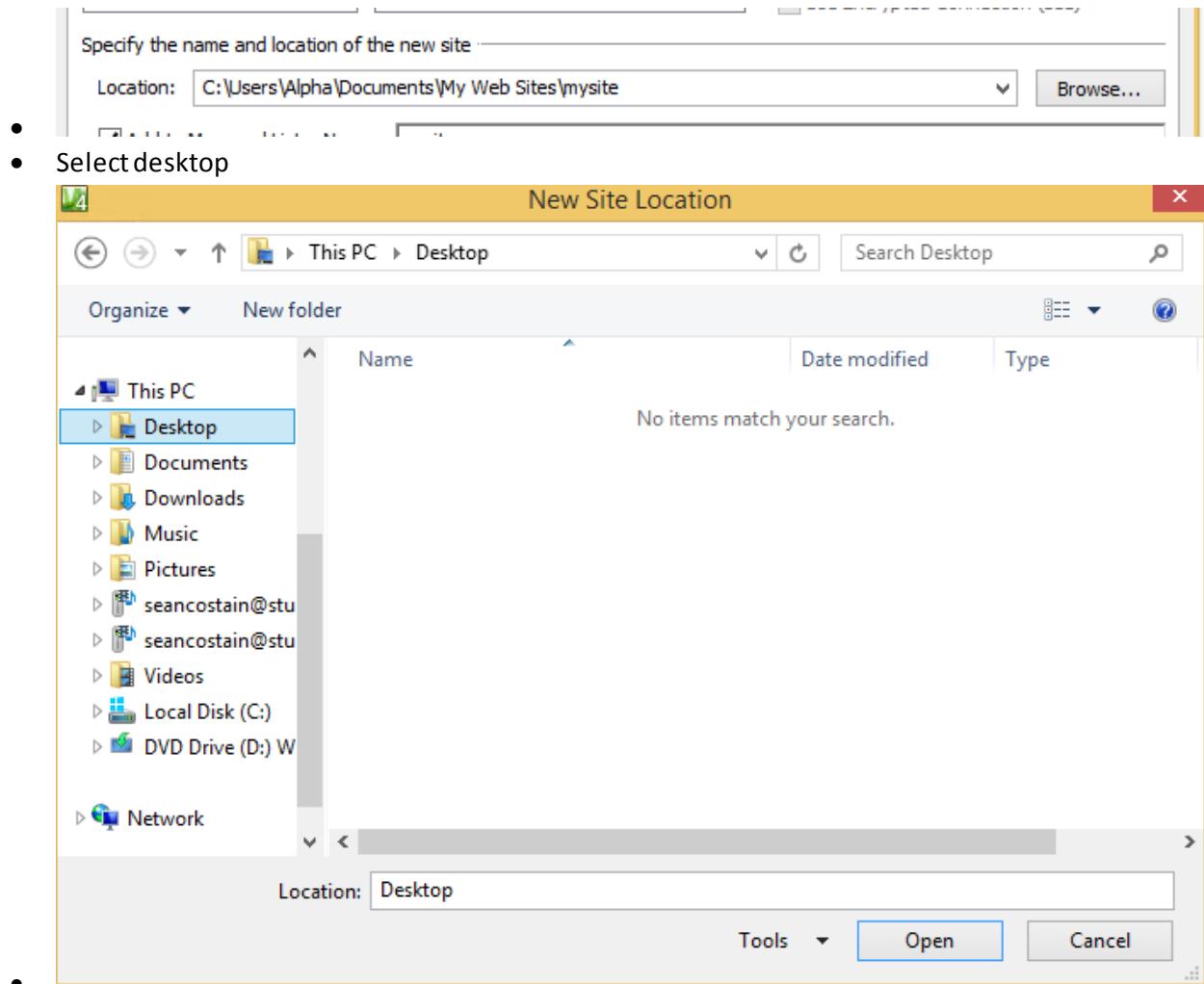
- You should see a page that looks like this



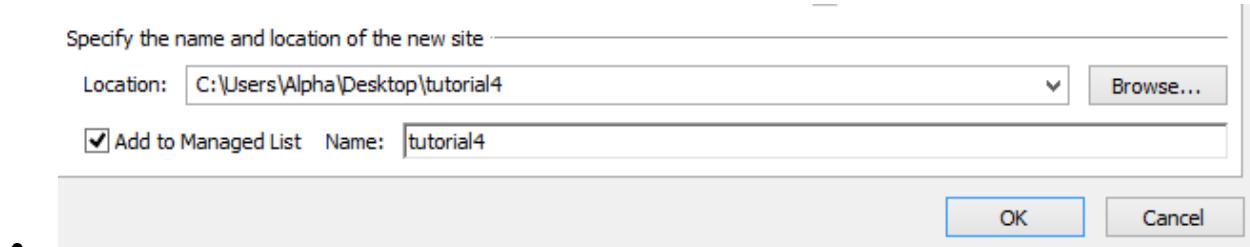
- This is the default blank page you get, we are going to start building sites (more than one page) today, so let's set up our environment
- Go to Site new site



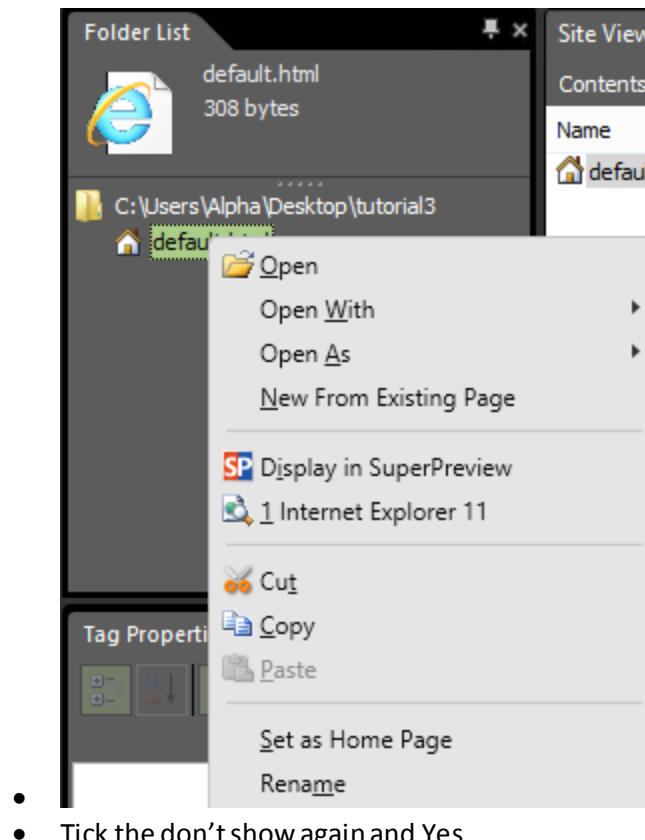
- On the location, there is a browse button, click on this



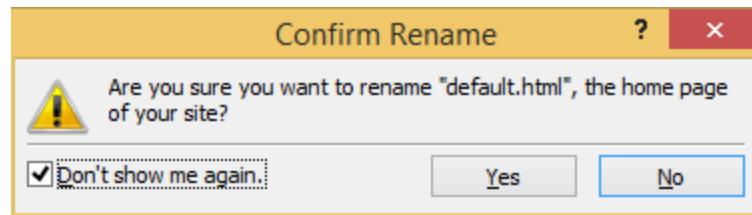
- Click on open
- At the end of the location, type in the name of your site, in this case, use tutorial 4



- Then click on ok
- Expression defaults its main page to default.html, which works on all major web servers (Apache and IIS), though to keep things simple, right click and rename it to index.html



- Tick the don't show again and Yes



- Now double click the index.html file
- It should open up the page in code view and put in the basic requirements for a page, as we are going to work with html 5, you need to modify a couple of things to the basic html 4 layout supplied.
- The doctype needs to be cleaned up, remove the extra xmlns information from the html tag and, for the moment, remove the meta content. You should end up with this:

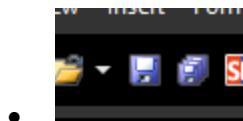
Site View index.html* x

```

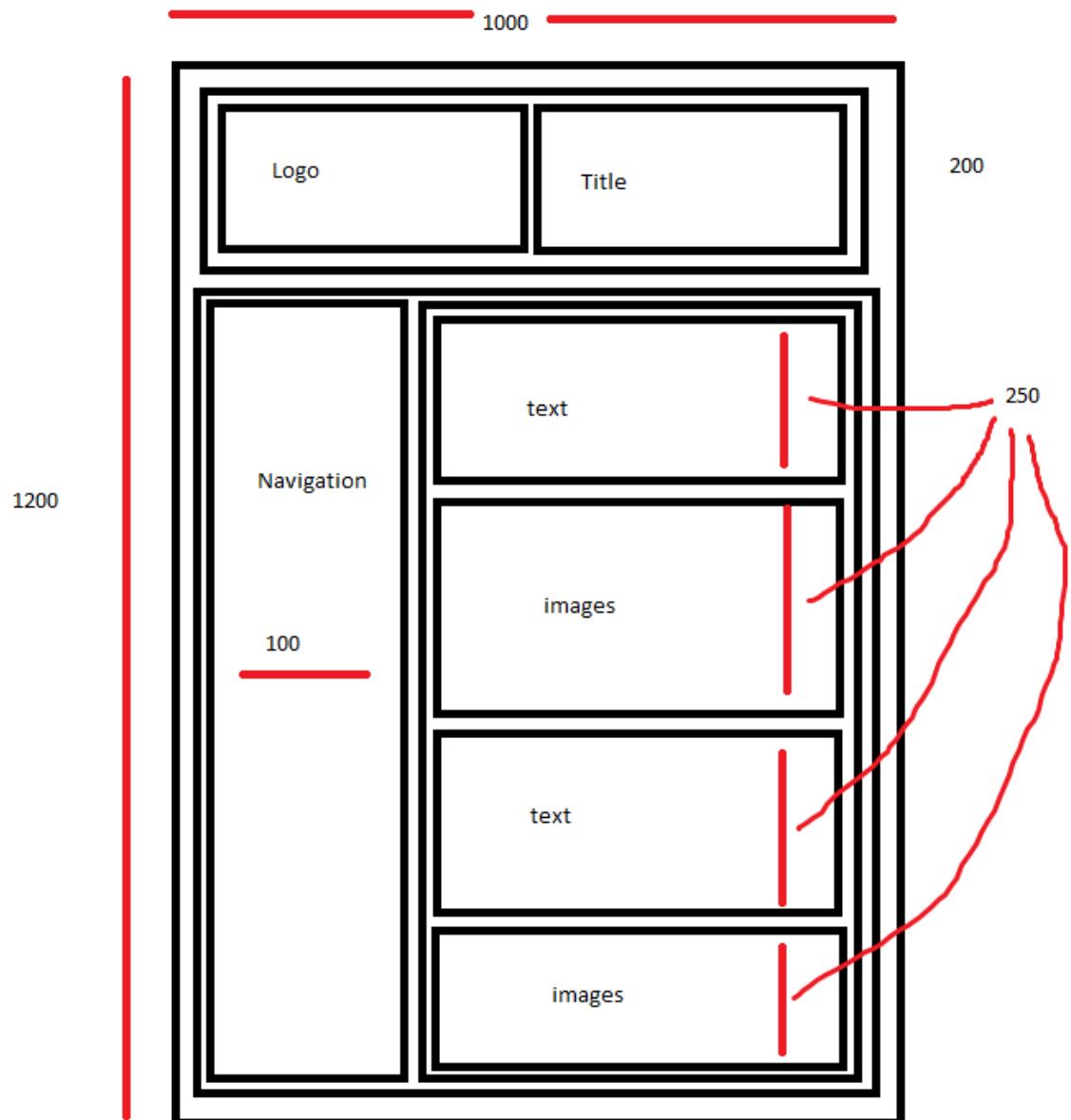
1 <!DOCTYPE html>
2 <html>
3 <head>
4 </head>
5
6 <body>
7
8 </body>
9
10 </html>
11

```

- Save the website



- From here we now look at the design of the site



- This is the index page so to start with, let's create the skeleton structure
- Start from the outside and work your way in.

```
7 <body>
8   <div id="dPage">
9     </div><!-- eo dPage -->
0 </body>
1
```

- Next is the header

```

5
7 <body>
8   <div id="dPage">
9     <div id="dHeader"></div><!-- eo dHeader -->
0   </div><!-- eo dPage -->
1 </body>
2

```

- Then content

```

5
7 <body>
8   <div id="dPage">
9     <div id="dHeader"></div><!-- eo dHeader -->
10    <div id="dContent"></div><!-- eo dContent -->
11    </div><!-- eo dPage -->
12 </body>
13

```

- Now we add the div boxes for the dHeader section

```

5
7 <body>
8   <div id="dPage">
9     <div id="dHeader">
10      <div id="dLogo"></div><!-- eo dLogo -->
11      <div id="dTitle"></div><!-- eo dTitle -->
12    </div><!-- eo dHeader -->
13    <div id="dContent"></div><!-- eo dContent -->
14  </div><!-- eo dPage -->
15 </body>
16

```

- Next is the breakdown of the dContent

```

5
7 <body>
8   <div id="dPage">
9     <div id="dHeader">
10      <div id="dLogo"></div><!-- eo dLogo -->
11      <div id="dTitle"></div><!-- eo dTitle -->
12    </div><!-- eo dHeader -->
13    <div id="dContent">
14      <div id="dLeft"></div><!-- eo dLeft -->
15      <div id="dRight"></div><!-- eo dRight -->
16    </div><!-- eo dContent -->
17  </div><!-- eo dPage -->
18 </body>
19

```

- And finally the breakdown of dRight

```

5
7 <body>
8   <div id="dPage">
9     <div id="dHeader">
10      <div id="dLogo"></div><!-- eo dLogo -->
11      <div id="dTitle"></div><!-- eo dTitle -->
12    </div><!-- eo dHeader -->
13    <div id="dContent">
14      <div id="dLeft"></div><!-- eo dLeft -->
15      <div id="dRight">
16        <div id="dTextBox1"></div><!-- eo dTextBox1 -->
17        <div id="dImgBox1"></div><!-- eo dImgBox1 -->
18        <div id="dTextBox2"></div><!-- eo dTextBox2 -->
19        <div id="dImgBox2"></div><!-- eo dImgBox2 -->
20      </div><!-- eo dRight -->
21    </div><!-- eo dContent -->
22  </div><!-- eo dPage -->
23 </body>

```

- From here we now move onto the styles; as always work from the outside in, testing each line as you type it in. So first is dPage

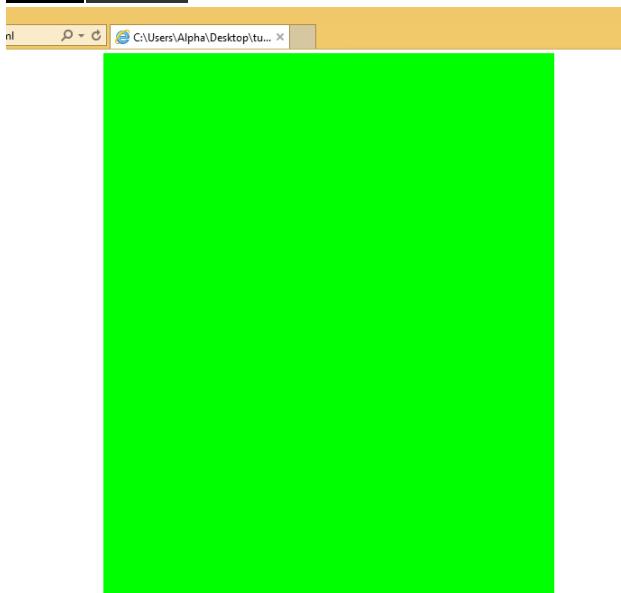
```
4 <head>
5   <style type="text/css">
6     #dPage {width:1000px; height:1200px; background-color:lime; margin:0 auto;}
7   </style>
8 </head>
9
```

- Save and check the page



-

- Save and check the page



-

- You should have a floating green box

- Next is dHeader, remember, we shouldn't be seeing any lime once we have finished putting in the level of styles

```
4 <head>
5   <style type="text/css">
6     #dPage {width:1000px; height:1200px; background-color:lime; margin:0 auto;}
7     #dHeader{width:100px; height:200px; background-color:#99CCFF;}
8   </style>
9 </head>
10
```

-

- Save and look



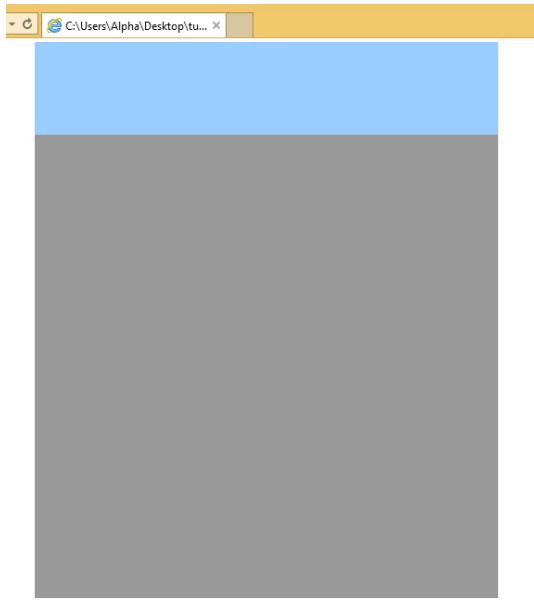
-

- Next is the dContent box

```
4 <head>
5   <style type="text/css">
6     #dPage {width:1000px; height:1200px; background-color:lime; margin:0 auto;}
7     #dHeader{width:100px; height:200px; background-color:#99CCFF;}
8     #dContent{width:1000px; height:1000px; background-color:#999999;}
9   </style>
10 </head>
```

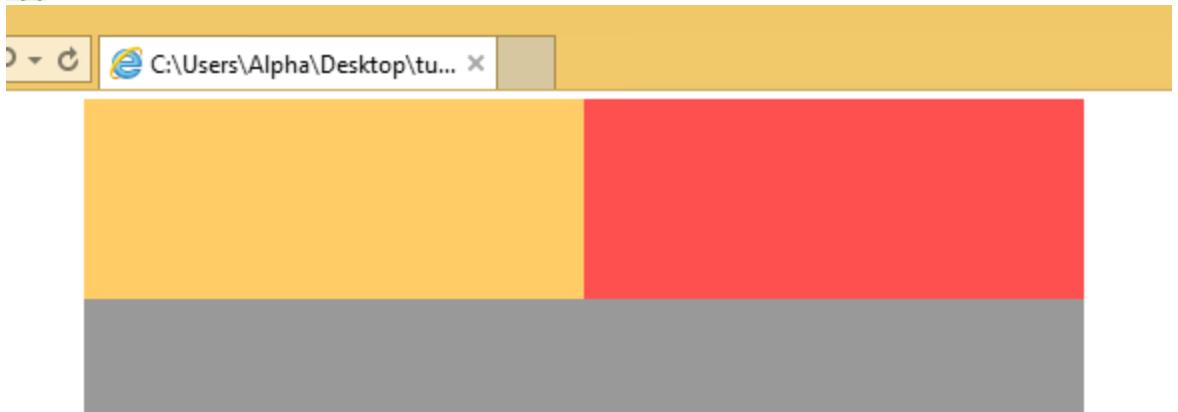
-

- Save and view



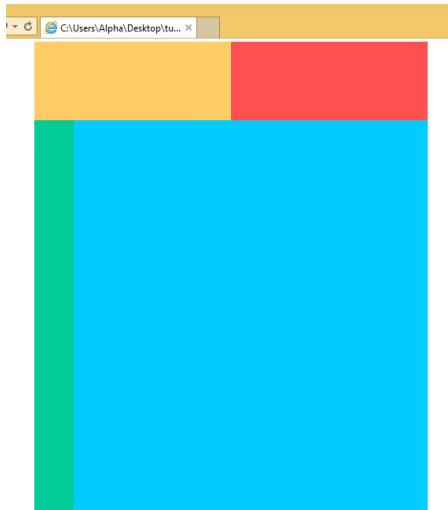
- Now we move on to the dLogo and dTitle that reside in the header part of our page

```
4 <head>
5   <style type="text/css">
6     #dPage {width:1000px; height:1200px; background-color:lime; margin:0 auto;}
7     #dHeader{width:1000px; height:200px; background-color:#99CCFF;}
8     #dContent{width:1000px; height:1000px; background-color:#999999;}
9     #dLogo{ width:500px; height:200px; background-color:#FFCC66; float:left;}
10    #dTitle{width:500px; height:200px; background-color:#FF5050; float:right;}
11   </style>
12 </head>
13
```



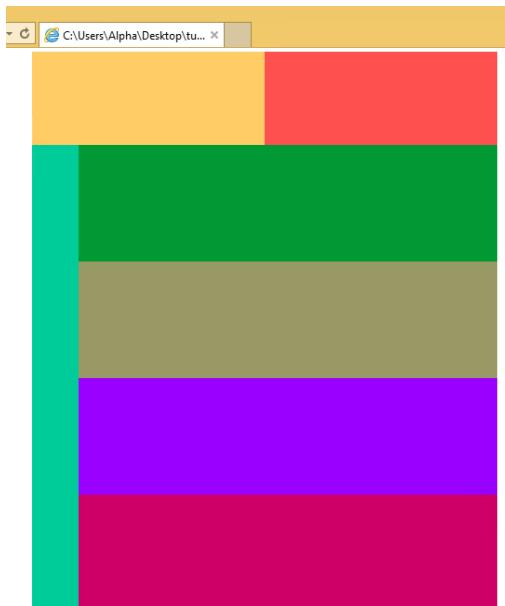
- Next is the left and right columns of the content box

```
4 <head>
5   <style type="text/css">
6     #dPage {width:1000px; height:1200px; background-color:lime; margin:0 auto;}
7     #dHeader{width:1000px; height:200px; background-color:#99CCFF;}
8     #dContent{width:1000px; height:1000px; background-color:#999999;}
9     #dLogo{ width:500px; height:200px; background-color:#FFCC66; float:left;}
10    #dTitle{width:500px; height:200px; background-color:#FF5050; float:right;}
11    #dCLeft{width:100px; height:1000px; background-color:#00CC99; float:left;}
12    #dCRight{width:900px; height:1000px; background-color:#00CCFF; float:right;}
13   </style>
14 </head>
```

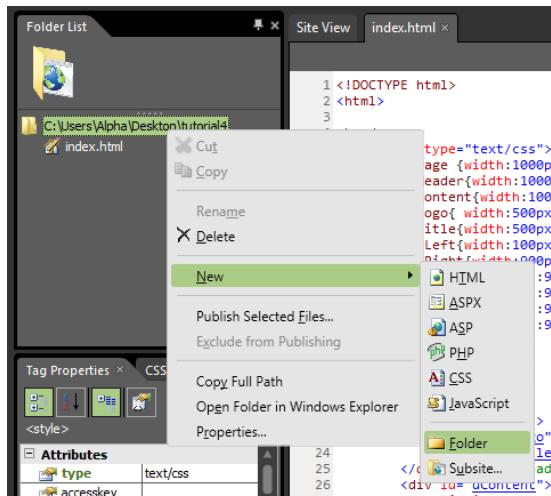


- Finally we style the 4 rows left in the dCRight column

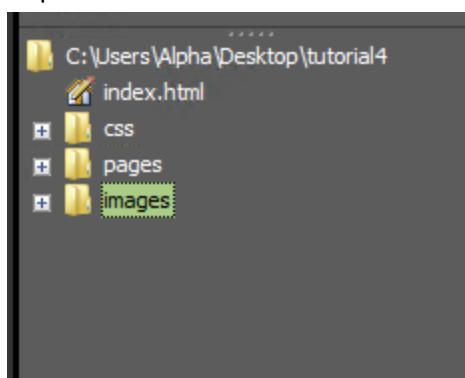
```
4 <head>
5     <style type="text/css">
6         #dPage {width:1000px; height:1200px; background-color:lime; margin:0 auto;}
7         #dHeader{width:1000px; height:200px; background-color:#99CCFF;}
8         #dContent{width:1000px; height:1000px; background-color:#999999;}
9         #dLogo{ width:500px; height:200px; background-color:#FFCC66; float:left;}
10        #dTitle{width:500px; height:200px; background-color:#FF5050; float:right;}
11        #dCLeft{width:100px; height:1000px; background-color:#00CC99; float:left;}
12        #dCRight{width:900px; height:1000px; background-color:#00CCFF; float:right;}
13        #dTextBox1{ width:900px; height:250px; background-color:#009933;}
14        #dImgBox1{ width:900px; height:250px; background-color:#999966;}
15        #dTextBox2{ width:900px; height:250px; background-color:#9900FF;}
16        #dImgBox2{ width:900px; height:250px; background-color:#CC0066;}
17     </style>
18 </head>
```



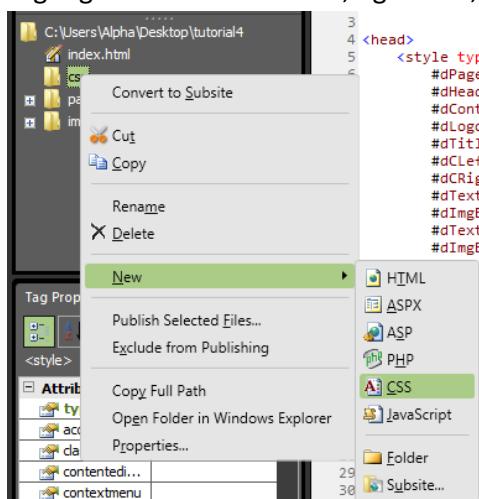
- Now that we have our base layout, before we start putting in content, let's make some folders for the directory structure of our site and then move the styles to an external stylesheet.
- So, we want to make the following folders css, images and pages; to do this, we right click on the folder name in the folder list section and add new



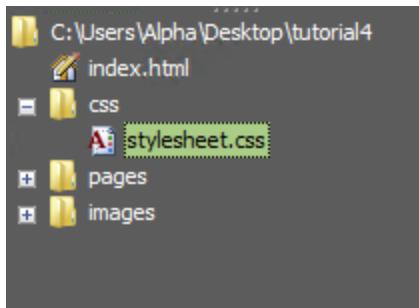
- Repeat for all of the folders



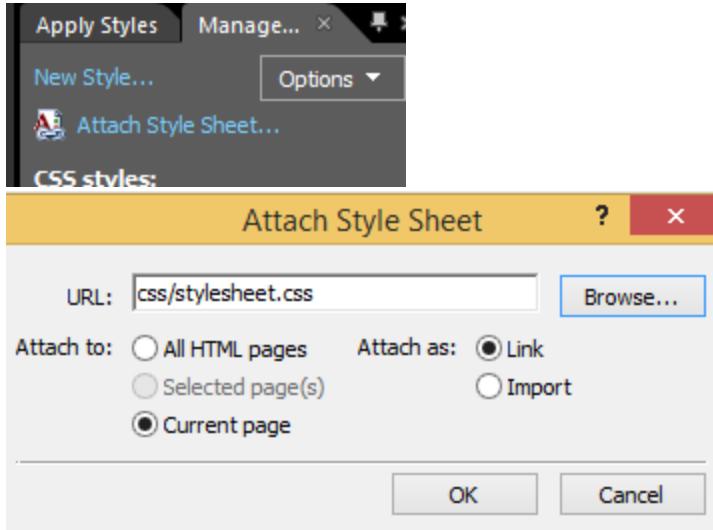
- Now, let's make the external stylesheet and link it up.
- Highlight the new css folder, right click, new css file



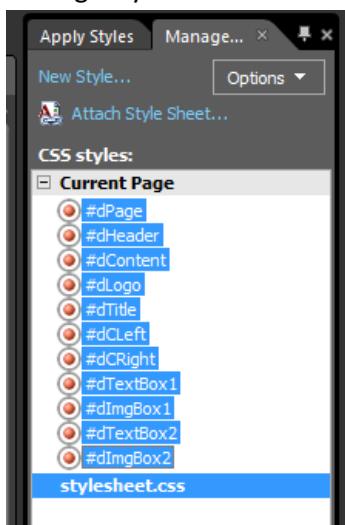
- Call it **stylesheet.css**



- Now, click on the attach stylesheet section and link the stylesheet to your index page



- Notice how it is now linked with css/stylesheet.css, this is because the system recognises that your stylesheet is actually within a folder. To go forwards into a folder you put the folder name and a / to navigate back, you use ../
- From here, drag and drop the styles from the current page to the stylesheet.css in the manage styles section



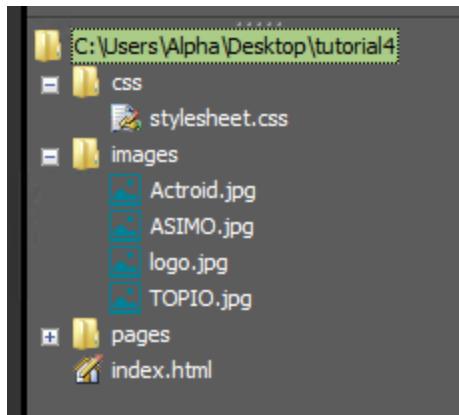
- You should end up with a page that looks like this

```

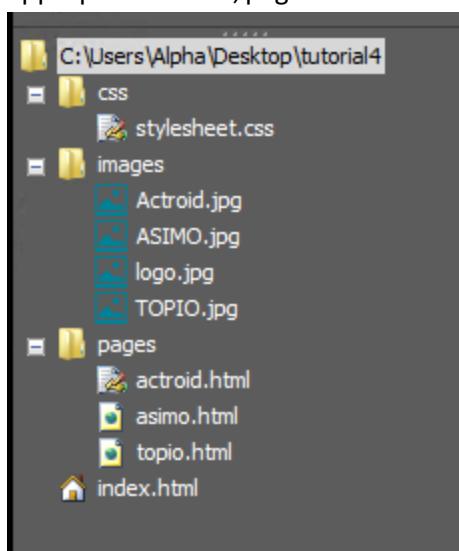
1 <!DOCTYPE html>
2 <html>
3
4 <head>
5   <style type="text/css">
6     </style>
7   <link href="css/stylesheet.css" rel="stylesheet" type="text/css">
8 </head>
9
10 <body>
11   <div id="dPage">
12     <div id="dHeader">
13       <div id="dLogo"></div><!-- eo dLogo -->
14       <div id="dTitle"></div><!-- eo dTitle -->
15     </div><!-- eo dHeader -->
16     <div id="dContent">
17       <div id="dLeft"></div><!-- eo dLeft -->
18       <div id="dRight">
19         <div id="dTextBox1"></div><!-- eo dTextBox1 -->
20         <div id="dImageBox1"></div><!-- eo dImageBox1 -->
21         <div id="dTextBox2"></div><!-- eo dTextBox2 -->
22         <div id="dImageBox2"></div><!-- eo dImageBox2 -->
23       </div><!-- eo dRight -->
24     </div><!-- eo dContent -->
25   </div><!-- eo dPage -->
26 </body>
27
28 </html>
29

```

- Save and run up the page, make sure it is working
- So what we will do is now put some content into the site, I'm going to be putting in information regarding robots.
- Jump on Bing, find some image relating to robots and text,
- So the index page is my introduction to the site, with links to pages on ASIMO, TOPIO and Actroid Don't forget to create a Logo
- When you download your images, put them in the images folder



- As, I know that I will have 4 pages, I can now make them, resaving the index page into the appropriate folder, pages.

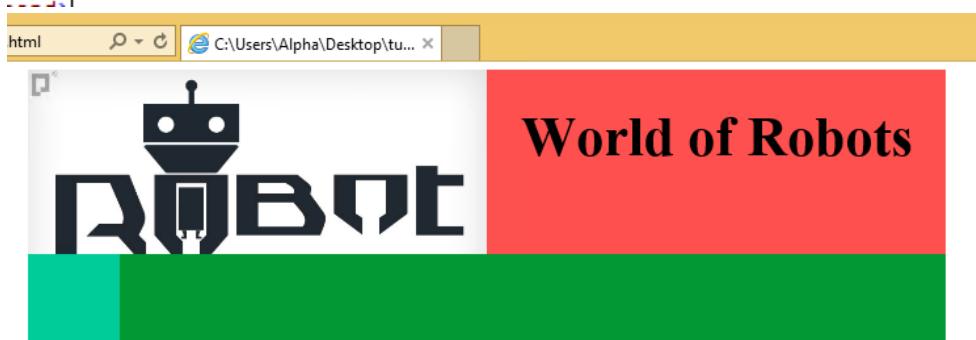


- Remember that index.html doesn't go into the pages folder. It stays in the root directory of the site.
- Okay, content time, open up the index page and put in the logo and title text

```

<div id="dHeader">
  <div id="dLogo"></div><!-- eo dLogo -->
  <div id="dTitle"><h1>World of Robots</h1></div><!-- eo dTitle -->
</div><!-- eo dHeader -->
<style type="text/css">
  .logoSize{width:500px;}
  #dTitle h1{ font-size:60px; text-align:center; }
</style>
<link href="css/stylesheet.css" rel="stylesheet" type="text/css">

```



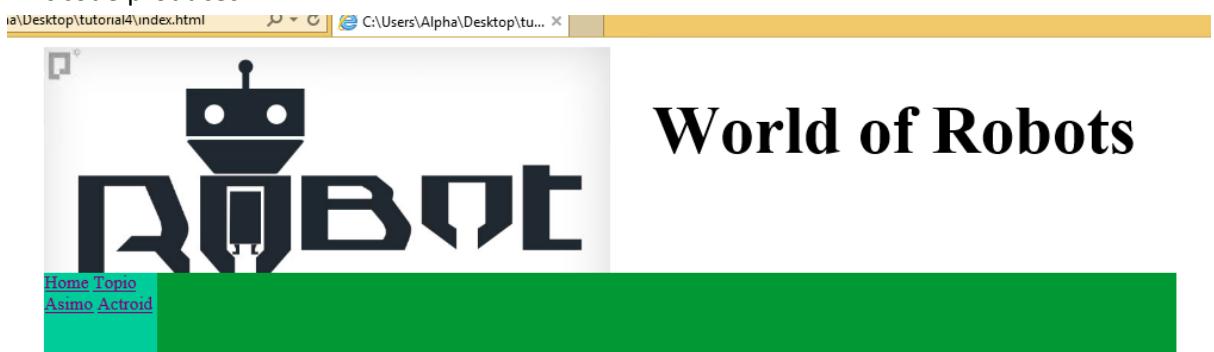
- Notice the new technique of nesting the style of h1 inside the #dTitle tag. What this means is, that when the browser is displaying this page, when it goes inside the dTitle area and finds a h1, it knows there is a style specifically for that.
- Now that I am happy with that look, I can drag the 2 new styles into the stylesheet and apply an appropriate background colour for the text
- From here, a quick look at the navigation of the site

```

<div id="dCLeft">
  <a href="index.html">Home</a>
  <a href="pages/topio.html">Topio</a>
  <a href="pages/asimo.html">Asimo</a>
  <a href="pages/actroid.html">Actroid</a>
</div><!-- eo dCLeft -->

```

- This code produces



- So, a quick look shows that we are going to need to put line breaks in and increase the font of the links... And, also, that 100px for navigation is probably too small.
- Now, we create a class to modify the links and change the width of navigation to 200px in the style sheet css file

```

.logoSized{width:500px;}
    #dTitle h1{ font-size:60px; text-align:center;}
#dPage {width:1000px; height:1200px; background-color:lime; margin:0 auto;}
    #dHeader{width:1000px; height:200px; background-color:#99CCFF;}
    #dContent{width:1000px; height:1000px; background-color:#999999;}
    #dLogo{ width:200px; height:200px; background-color:#FFCC66; float:left;}
    #dTitle{width:500px; height:200px; background-color:white; float:right;}
    #dCLeft{width:200px; height:1000px; background-color:#00CC99; float:left;}
    #dCRight{width:800px; height:1000px; background-color:#00CCFF; float:right;}
    #dTextBox1{ width:800px; height:250px; background-color:#009933;}
    #dImgBox1{ width:800px; height:250px; background-color:#999966;}
    #dTextBox2{ width:800px; height:250px; background-color:#9900FF;}
    #dImgBox2{ width:800px; height:250px; background-color:#CC0066;}

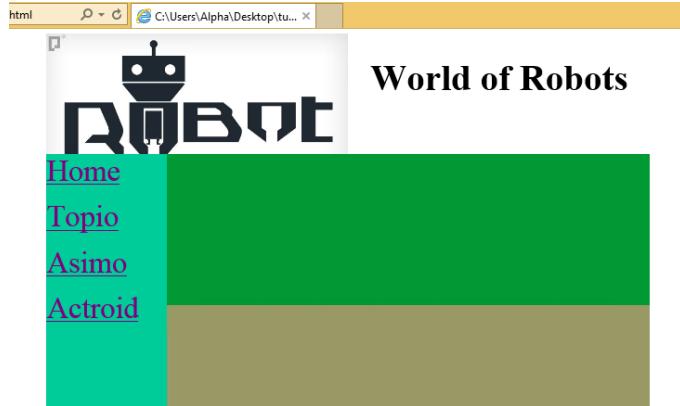
```

- <div id="dCLeft">
 Home

 Topio

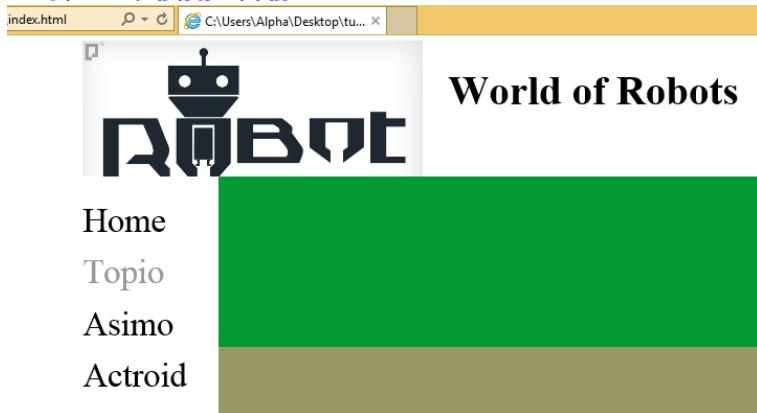
 Asimo

 Actroid
 </div><!-- eo dCLeft -->
 <style type="text/css">
 .navLinks{font-size:50px;}
 </style>



- So, now that has been done, the links have more space to work with but there should still be some changes, no underline, white background. When you are dealing with your site, you work this out based upon your original design. So the underline, I can do on the class, the background in the style sheet. Once I have completed the class, I'll drag it into the stylesheet to keep all the styles in the same place.

```
1 /* Class links */
2 .navLinks{font-size:50px; text-align:center; text-decoration:none; color:black;}
3 .logoSize{width:500px;}
4
5 /* Nesting styles on id */
6 #dCLeft a:hover{color:#999999;}
7 #dTitle h1{ font-size:60px; text-align:center;}
8
9 /* id Styles */
10 #dPage {width:1000px; height:1200px; background-color:lime; margin:0 auto;}
11 #dHeader{width:1000px; height:200px; background-color:#99CCFF;}
12 #dContent{width:1000px; height:1000px; background-color:#999999;}
13 #dLogo{ width:500px; height:200px; background-color:#FFCC66; float:left;}
14 #dTitle{width:500px; height:200px; background-color:white; float:right;}
15 #dCLeft{width:200px; height:1000px; background-color:white; float:left;}
16 #dCRight{width:800px; height:1000px; background-color:#00CCFF; float:right;}
17 #dTextBox1{ width:800px; height:250px; background-color:#009933;}
18 #dImgBox1{ width:800px; height:250px; background-color:#999966;}
19 #dTextBox2{ width:800px; height:250px; background-color:#9900FF;}
20 #dImgBox2{ width:800px; height:250px; background-color:#CC0066;}
21
22 --> content
<div id="dCLeft">
<br><br>
  <a href="index.html" class="navLinks">Home</a><br><br>
  <a href="pages/topio.html" class="navLinks">Topio</a><br><br>
  <a href="pages/asimo.html" class="navLinks">Asimo</a><br><br>
  <a href="pages/actroid.html" class="navLinks">Actroid</a>
</div><!-- eo dCLeft -->
<div id="dContent">
```



- I also added the navigation change on mouse over. From here, just add the text and images for each box, centre the images then follow it with a heading and some text, the text boxes should also have links to the relevant page, and then we will turn the images into links as well.
- Added the following styles and content

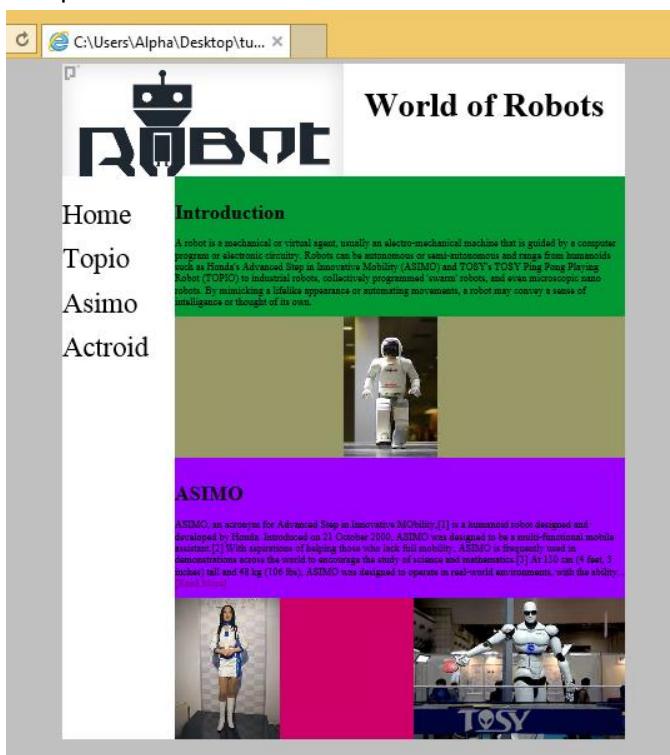
```
        <style type="text/css">
            body {font-size:18px; background-color:#C0C0C0;}
            .imgSize{height:250px;}
        </style>
        <link href="css/styles.css" rel="stylesheet" type="text/css" />
```

```

27             <div id="dTextBox1">
28                 <br><h1>Introduction</h1>
29 A robot is a mechanical or virtual agent, usually an electro-mechanical machine that is guided by a computer
30 electronic circuitry. Robots can be autonomous or semi-autonomous and range from humanoids such as Honda's Ad
31 in Innovative Mobility (ASIMO) and TOSY's TOSY Ping Pong Playing Robot (TOPIO) to industrial robots, collecti
32 programmed 'swarm' robots, and even microscopic nano robots. By mimicking a lifelike appearance or automating
33 a robot may convey a sense of intelligence or thought of its own.
34             </div><!-- eo dTextBox1 -->
35             <div id="dImgBox1">
36                 
37             </div><!-- eo dImgBox1 -->
38             <div id="dTextBox2">
39                 <br><h1>ASIMO</h1>
40             </div><!-- eo dTextBox2 -->
41             <div id="dImgBox2">
42                 
43                 
44             </div><!-- eo dImgBox2 -->
45             </div><!-- eo dCRight -->
46             ...
47

```

- This produces:



- Now the stylesheet can be modified, but here we can introduce a tip that will make that easier. The text box and image boxes are pretty much the same thing, with additional styles being applied to the content without changing them, as such they can all be amalgamated into a singular data box, so the new external stylesheet looks like this

```

1 /* Class links */
2 .navLinks{font-size:50px; text-align:center; text-decoration:none; color:black;}
3 .logoSize{width:500px;}
4
5 /* Nesting styles on id */
6 #dCLeft a:hover{color:#999999;}
7 #dTitle h1{ font-size:60px; text-align:center;}
8
9 /* id Styles */
10 #dPage {width:1000px; height:1200px; background-color:lime; margin:0 auto;}
11 #dHeader{width:1000px; height:200px; background-color:#99CCFF;}
12 #dContent{width:1000px; height:1000px; background-color:#999999;}
13 #dLogo{ width:500px; height:200px; background-color:#FFCC66; float:left;}
14 #dTitle{width:500px; height:200px; background-color:white; float:right;}
15 #dCLeft{width:200px; height:1000px; background-color:white; float:left;}
16 #dCRight{width:800px; height:1000px; background-color:#00CCFF; float:right;}
17 #dataBox {width:800px; height:250px; background-color:white;}
18
19 /*
20 #dTextBox1{ width:800px; height:250px; background-color:#009933;}
21 #dImgBox1{ width:800px; height:250px; background-color:#999966;}
22 #dTextBox2{ width:800px; height:250px; background-color:#9900FF;}
23 #dImgBox2{ width:800px; height:250px; background-color:#CC0066;}
24 */

```

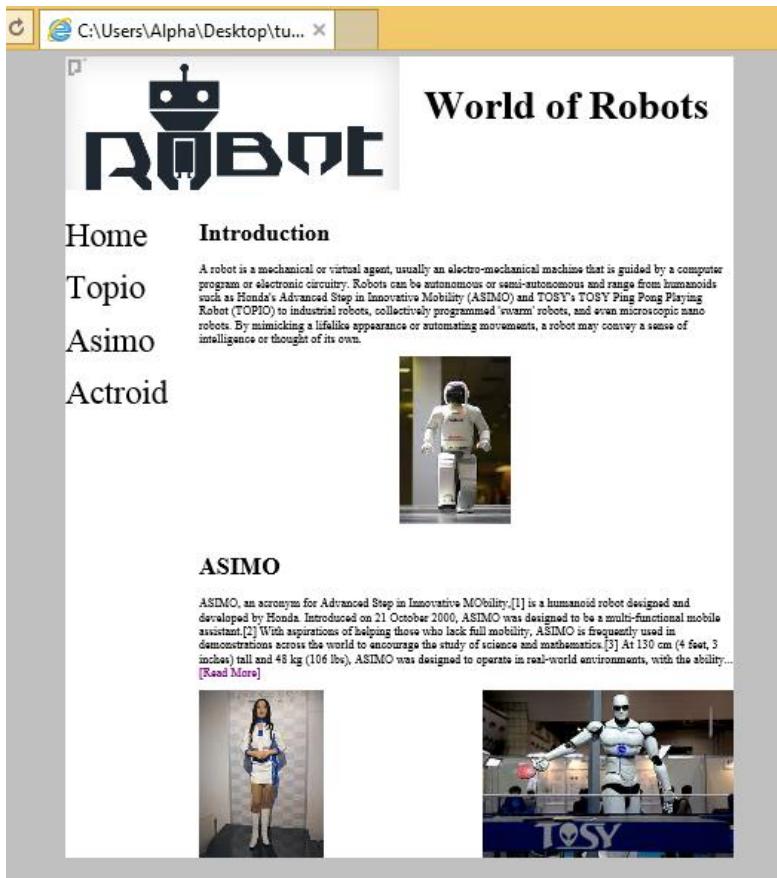
- And the index page changed to:

```

25 </div><!-- eo dContent -->
26 <div id="dCRight">
27   <div id="dataBox">
28     <br><h1>Introduction</h1>
29 A robot is a mechanical or virtual agent, usually an electro-mechanical
electronic circuitry. Robots can be autonomous or semi-autonomous and
in Innovative Mobility (ASIMO) and TOSY's TOSY Ping Pong Playing Robot
programmed 'swarm' robots, and even microscopic nano robots. By mimicking
a robot may convey a sense of intelligence or thought of its own.
30   </div><!-- eo dTextBox1 -->
31   <div id="dataBox">
32     <!-- eo dImgBox1 -->
34   <div id="dataBox">
35     <br><h1>ASIMO</h1>
36 ASIMO, an acronym for Advanced Step in Innovative Mobility,[1] is a human
Introduced on 21 October 2000, ASIMO was designed to be a multi-functional
helping those who lack full mobility, ASIMO is frequently used in demo
of science and mathematics.[3] At 130 cm (4 feet, 3 inches) tall and 4
real-world environments, with the ability... <a href="pages/asimo.html"
37   </div><!-- eo dTextBox2 -->
38   <div id="dataBox">
39     <!-- eo dImgBox2 -->
42   </div><!-- eo dCRight -->
43 </div><!-- eo dContent -->

```

- Produces



- Now that we have a page that looks better, we still have to make the images link to do this, do the following

```

30         </div><!-- eo dTextBox1 -->
31         <div id="dataBox">
32             <a href="pages/asimo.html"></a>
34         </div><!-- eo dTextRox1 -->

```

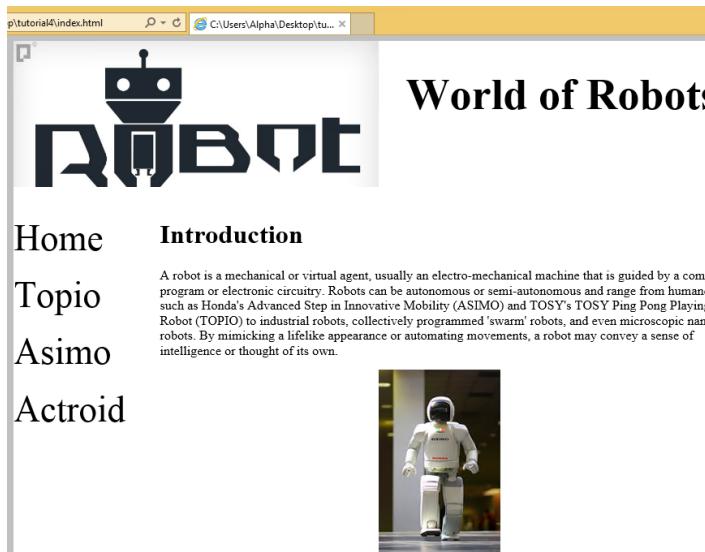
- Also add a border of 0 to all images in the external style sheet.

```

1  /* Class links */
2  .imgSize{height:250px;}
3  .navLinks{font-size:50px; text-align:center; text-decoration:none; color:black;}
4  .logoSize{width:500px;}
5
6  /* Nesting styles on id */
7  #dCLeft a:hover{color:#999999;}
8  #dTitle h1{ font-size:60px; text-align:center;}
9
10 /* id Styles */
11 #dPage {width:1000px; height:1200px; background-color:lime; margin:0 auto;}
12 #dHeader{width:1000px; height:200px; background-color:#99CCFF;}
13 #dContent{width:1000px; height:1000px; background-color:#999999;}
14 #dLogo{ width:500px; height:200px; background-color:#FFCC66; float:left;}
15 #dTitle{width:500px; height:200px; background-color:white; float:right;}
16 #dCLeft{width:200px; height:1000px; background-color:white; float:left;}
17 #dCRight{width:800px; height:1000px; background-color:#00CCFF; float:right;}
18 #dataBox {width:800px; height:250px; background-color:white;}
19
20 /* Global Styles */
21 img {border:0px;}
22 body {font-size:18px; background-color:#C0C0C0;}

```

- This produces an image that works as a link



- Without letting the image get a purple border
- Now do a file save as of the index page over the other pages.
- And clear out the content each page.
- You should have the following code

```

1 <!DOCTYPE html>
2 <html>
3
4 <head>
5   <style type="text/css">
6     </style>
7   <link href="../css/stylesheets.css" rel="stylesheet" type="text/css">
8 </head>
9
10 <body>
11   <div id="dPage">
12     <div id="dHeader">
13       <div id="dLogo">
14         </div><!-- eo dLogo -->
15       <div id="dTitle"><h1>World of Robots</h1></div><!-- eo dTitle -->
16     </div><!-- eo dHeader -->
17     <div id="dContent">
18       <div id="dLeft">
19         <br><br>
20         <a href="../index.html" class="navLinks">Home</a><br><br>
21         <a href="topio.html" class="navLinks">Topio</a><br><br>
22         <a href="asimo.html" class="navLinks">Asimo</a><br><br>
23         <a href="actroid.html" class="navLinks">Actroid</a>
24       </div><!-- eo dLeft -->
25       <div id="dRight">
26         <div id="dataBox"></div><!-- eo dataBox -->
27         <div id="dataBox"></div><!-- eo dataBox -->
28         <div id="dataBox"></div><!-- eo dataBox -->
29         <div id="dataBox"></div><!-- eo dataBox -->
30       </div><!-- eo dRight -->
31     </div><!-- eo dContent -->
32   </div><!-- eo dPage -->
33 </body>
34
35 </html>
36

```

- Load up the page and check to make sure your navigation works, now, on the sub pages, have a look at the link layout and compare with the index page
- Asimo page

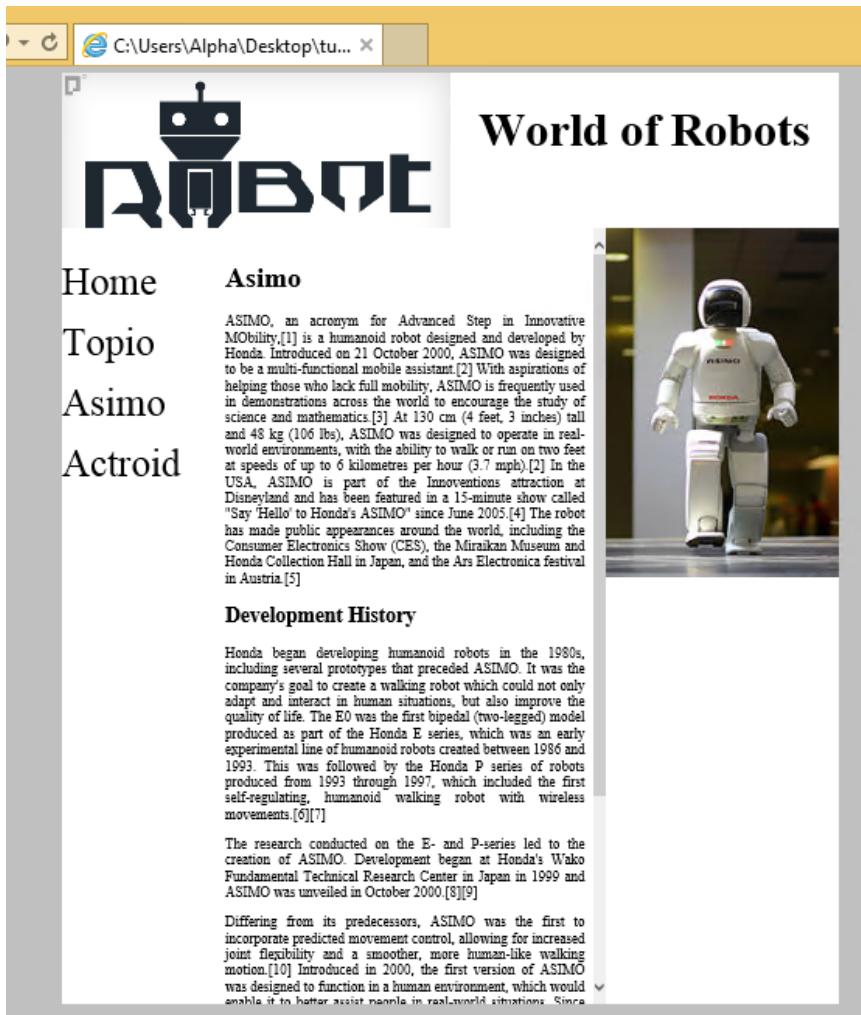
```

<a href="../index.html" class="navLinks">Home</a><br><br>
<a href="topio.html" class="navLinks">Topio</a><br><br>
<a href="asimo.html" class="navLinks">Asimo</a><br><br>
<a href="actroid.html" class="navLinks">Actroid</a>

```

- Index Page


```
<a href="index.html" class="navLinks">Home</a><br><br>
<a href="pages/topio.html" class="navLinks">Topio</a><br><br>
<a href="pages/asimo.html" class="navLinks">Asimo</a><br><br>
<a href="pages/actroid.html" class="navLinks">Actroid</a>
```
- Make note that the index page should not be in the pages folder
- Now that you have a bare bones structure for your website, finish it off with additional content
- Create the Asimo page so that it looks like this



- Create the Actroid Page so that it looks like this:

World of Robots

Actroid

Actroid is a type of android (humanoid robot) with strong visual human-likeness developed by Osaka University and manufactured by Kokoro Company Ltd. (the animatronics division of Sanrio). It was first unveiled at the 2003 International Robot Exhibition in Tokyo, Japan. Several different versions of the product have been produced since then. In most cases, the robot's appearance has been modeled after an average young woman of Japanese descent.

The Actroid woman is a pioneer example of a real machine similar to imagined machines called by the science fiction terms android or gynoid, so far used only for fictional robots. It can mimic such lifelike functions as blinking, speaking, and breathing. The "Replica" models are interactive robots with the ability to recognize and process speech and respond in kind.

Technology

Internal sensors allow Actroid models to react with a natural appearance by way of air actuators placed at many points of articulation in the upper body. Early models had 42 points of articulation, later models have 47. So far, movement in the lower body is limited. The operation of the robot's sensory system in tandem with its air powered movements make it quick enough to react to or fend off intrusive motions, such as a slap or a poke. Artificial intelligence gives it the ability to react differently to more gentle kinds of touch, such as a pat on the arm.

The Actroid can also imitate human-like behavior with slight shifts in position, head and eye movements and the appearance of breathing in its chest. Additionally, the robot can be "taught" to imitate humans

- And finally make the TOPIO page to look like this:

World of Robots

TOPIO

TOPIO ("TOSY Ping Pong Playing Robot") is a bipedal humanoid robot designed to play table tennis against a human being. It has been developed since 2005 by TOSY, a robotics firm in Vietnam. It was publicly demonstrated at the Tokyo International Robot Exhibition (TIREX) on November 28, 2007. [1] TOPIO 3.0 (the latest version of TOPIO) stands approximately 1.88 m (6' 2") tall and weighs 120 kg (264 lbs). [2] Every TOPIO uses an advanced artificial intelligence system to learn and continuously improve its skill level while playing. [3]

Technologies

- Recognition of fast moving objects
- Artificial Intelligence
- Low inertia mechanical system
- Fast and accurate movement control
- Balanced bipedal walking

- Each of the pages were modified by styles on their own page and didn't touch the external stylesheet.
- **Attempt to design and code them before continuing on**

- Here's the code for Asimo

- This is the code for Actroid

```

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26
27 Actroid is a type of android (humanoid robot) with strong visual human-likeness developed by Osaka
28 manufactured by Kokoro Company Ltd. (the animatronics division of Sanrio). It was first unveiled at
29 International Robot Exhibition in Tokyo, Japan. Several different versions of the product have been
30 In most cases, the robot's appearance has been modeled after an average young woman of Japanese de:
31 <p>
32 The Actroid woman is a pioneer example of a real machine similar to imagined machines called by the
33 terms android or gynoid, so far used only for fictional robots. It can mimic such lifelike function
34 speaking, and breathing. The "Repliee" models are interactive robots with the ability to recognize
35 and respond in kind.
36 </p>
37 
38 <h2>Technology</h2>
39 <p>
40 Internal sensors allow Actroid models to react with
41 of articulation in the upper body. Early models had
42 the lower body is limited. The operation of the rot
43 quick enough to react to or fend off intrusive moti
44 ability to react differently to more gentle kinds o
45 </p>
46 <p>
47 The Actroid can also imitate human-like behavior wi
48 appearance of breathing in its chest. Additionally,
49 person who is wearing reflective dots at key points
50 computing limb and joint movements to match what it
51
52 </p>
53 <p>
54 The skin is composed of silicone and appears highly
55 and most of the computer hardware that operates the
56 robot's lack of locomotion capabilities. When displ
57 support from behind.
58 </p>
59 <p>
60 The interactive Actroids can also communicate on a
61 Actroids record the speech of a human, and this sol
62 of the robot's own operation. Speech recognition sc
63 sentences, which can then be processed by the Actr
64 to the unit.
65 </p>
66 <p>
67 Further interactivity is achieved through non-verba
68 of "floor sensors and omnidirectional vision sensor
69 the robots can respond in limited ways to body lang
70 uage and vocal inflection.
71 </p>
72 </div><!-- eo dContent -->
73 </div><!-- eo dRight -->
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24             </div><!-- eo dCLeft -->
25             <div id="dCRight" style="background-color:white;">
26                 <br><h1>TOPIO</h1>
27                 
28             </p>
29             TOPIO ("TOSY Ping Pong Playing Robot") is a bipedal humanoid robot designed to play table tennis.
30             It has been developed since 2005 by TOSY, a robotics firm in Vietnam. It was publicly demonstrated at the
31             International Robot Exhibition (IREX) on November 28, 2007.[1] TOPIO 3.0 (the latest version of
32             approximately 1.88 m (6' 2") tall and weighs 120 kg (264 lbs).[2] Every TOPIO uses an advanced
33             system to learn and continuously improve its skill level while playing.[3]
34             </p>
35             <h2>Technologies</h2>
36             <ul>
37                 <li>Recognition of fast moving objects</li>
38                 <li>Artificial Intelligence</li>
39                 <li>Low Inertia mechanical system</li>
40                 <li>Fast and accurate movement control</li>
41                 <li>Balanced bipedal walking</li>
42             </ul>
43             </p>
44             </div><!-- eo dCRight -->
45         </div><!-- eo dContent -->
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