

## Intro to CSS 5 - Positioning

So far we have learned a good bit on CSS. In the first lecture we touched a little on positioning with padding and margins but we need to dive a bit deeper so we can feel more confident in working with layouts and placement. Some of this might be a revisitation to things we slightly worked with before and some might be a bit confusing for some but we will walk through it step by step using some divs that we will make into different coloured boxes. However, the things here can be applied to images, tables and other elements as well.

When we are positioning things in CSS, The browser will always want to position it from a reference point. To be able to fully control things better we have to understand those points of reference and

than get into the placement.

In CSS there are different methods we can use to place things where we want them to be:

- Static
- Relative
- Fixed
- Absolute

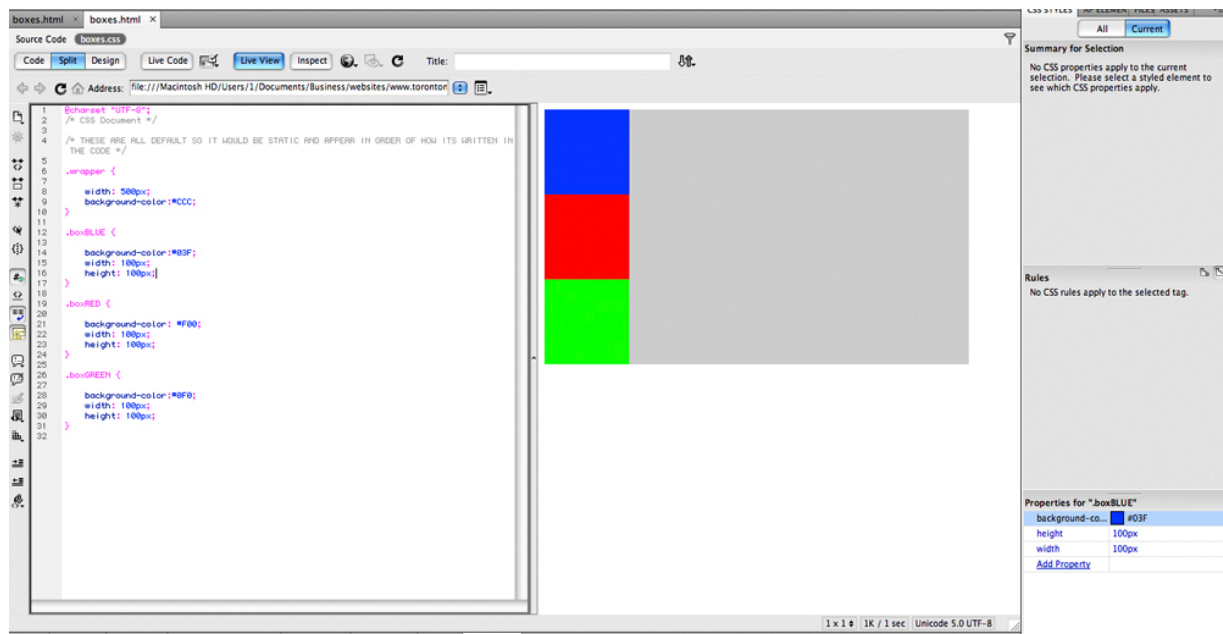
Lets break them down one by one.

## Static

Elements by default are positioned using this method so, if you don't specify in your CSS what method you want, this will be it, same as if you specify it to be so (position: static;). Static elements do not use the left, right, top or bottom attribute.

Rather, they flow with the webpage based on where they are in the **HTML** code. So think of the reference point for this one to be just as it is laid down in the HTML code.

Refer to the contents of the folder "1 Static Elements" for example.



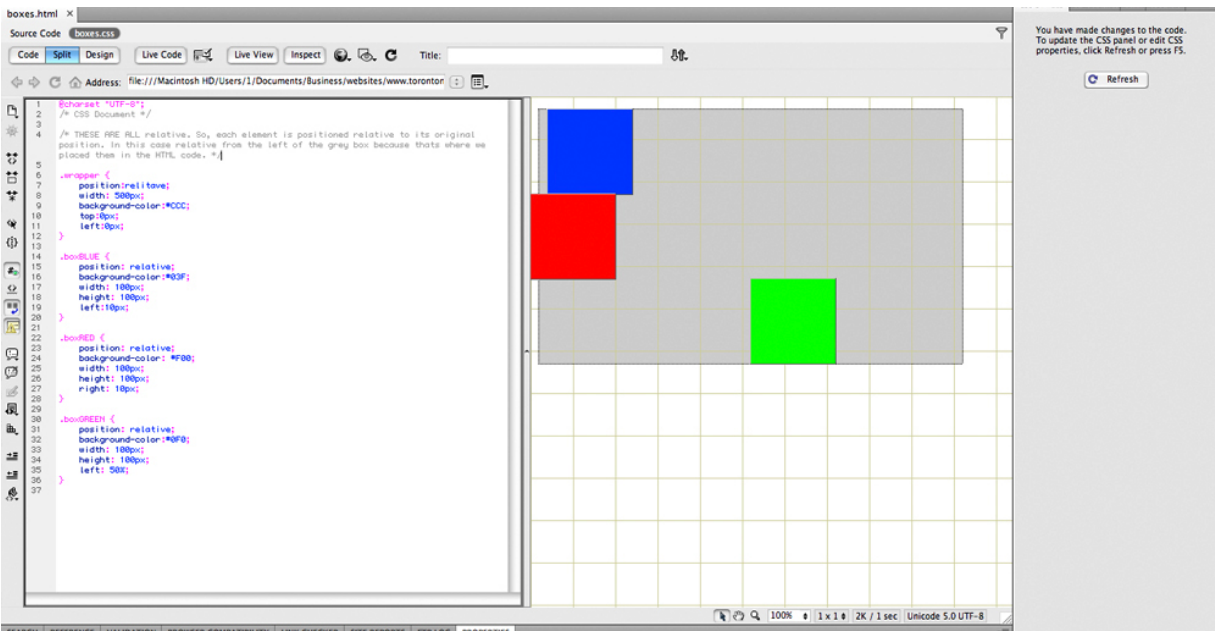
```
1 <!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
2 "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
3 <html xmlns="http://www.w3.org/1999/xhtml">
4 <head>
5 <meta http-equiv="Content-Type" content="text/html; charset=UTF-8" />
6 <title>Static Boxes</title>
7 <link href="boxes.css" rel="stylesheet" type="text/css" />
8 </head>
9 <body>
10
11 <div class="wrapper">
12 <div class="boxBLUE"></div>
13 <div class="boxRED"></div>
14 <div class="boxGREEN"></div>
15 </div>
16 </body>
17 </html>
18
```

## Relative

Relative positioning can be confusing and

often gets misconstrued. Basically a relative position is in relation to itself. So when you move something in a relative position it moves from its original location. If it is in a parent object it will move from that location in the parent object. Think of the reference point as from where it originally was in the 1st place.

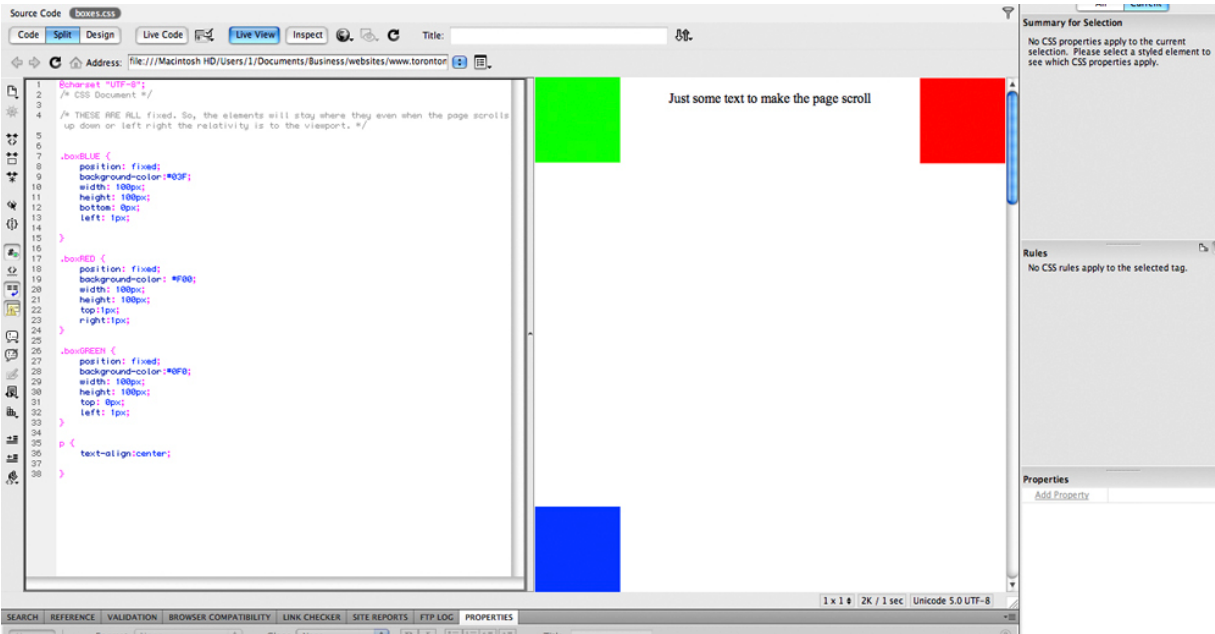
Refer to the contents of the folder "2 Relative Elements" for example.



## Fixed

Fixed elements when placed move to a location with the relativity being to the viewport. So when you scroll the page it will stay fixed to the one spot and stay there. Use this for sticky headers and other elements you want to stay fixed. So here we can think of the reference point from the position of the web browser walls.

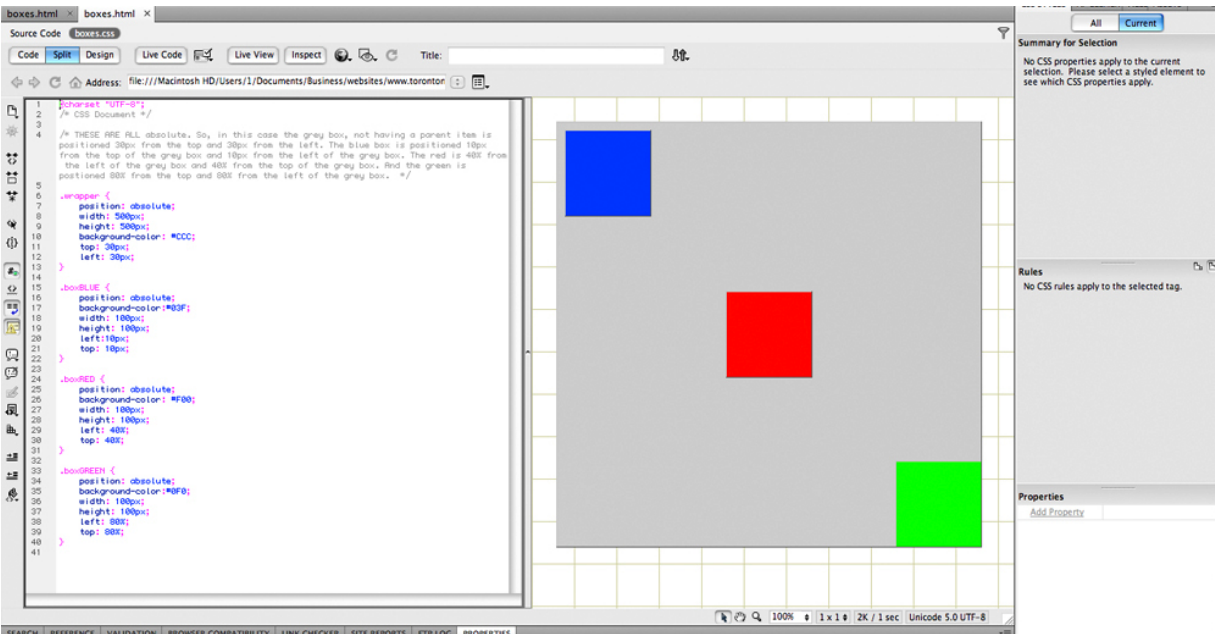
Refer to the contents of the folder "3 Fixed Elements" for example.



## Absolute

Setting the `position: absolute;` will make it position itself relative to the nearest positioned parent item. If there is no positioned parent item, it will be absolute from the origin placement of the body tag. You can reference these points of relativity in the "rules" panel in DW. So here we can think of the reference point as being from its parent item.

Refer to the contents of the folder "4 Absolute Elements" for example.



## Understanding left: right: top: and down:

We touched briefly on this before but lets take a look again in better detail.

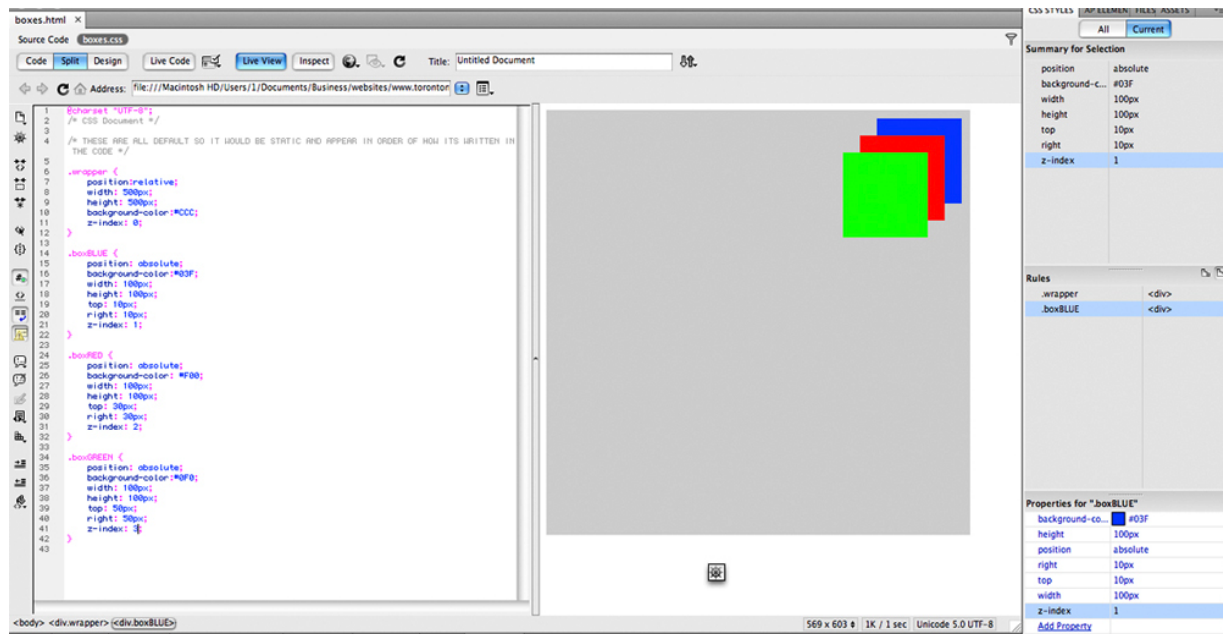
When we write left: 10px; this means we will be moving the object 10px **from** the left. So, it will move right. This is also the case with right, up

and down. Always think of it in the context of moving **from** whatever you specify.

## Z-Index (Overlapping elements)

Sometimes we want to place things on top of each other. We can stack things like this by using the z-index and stack in any order we choose. This will allow you to stack some text over a background image or whatever else you need to stack. The lower the z-index; number; is, the deeper down it will be.

Refer to the contents of the folder "5 Z Index Elements" for example.

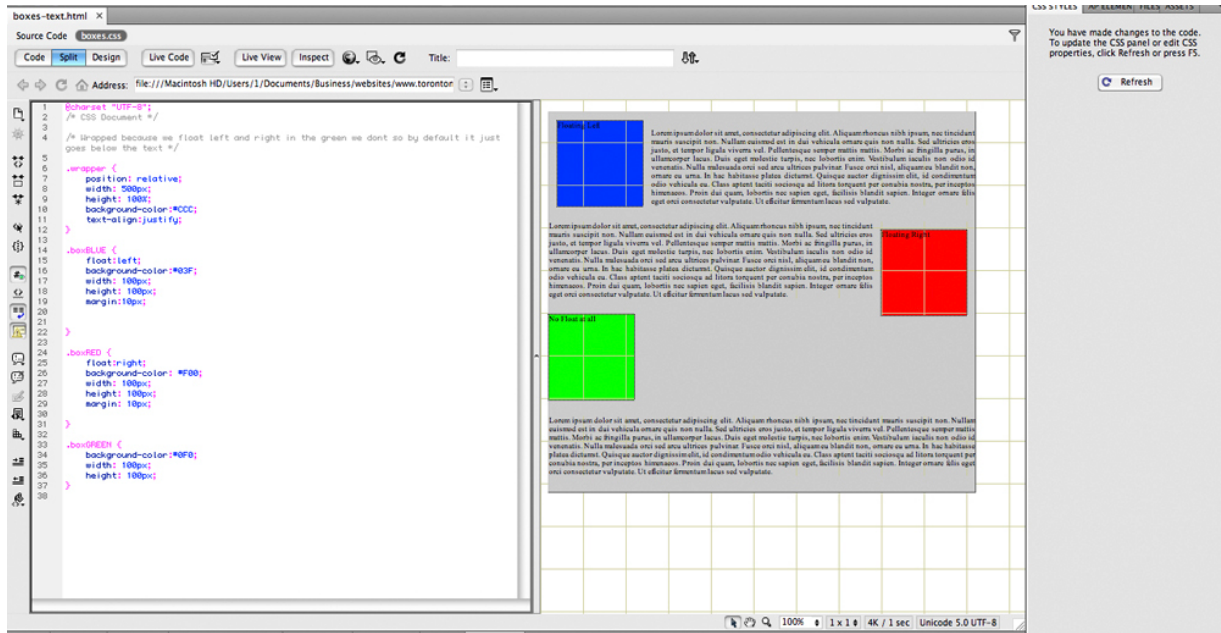


## Float

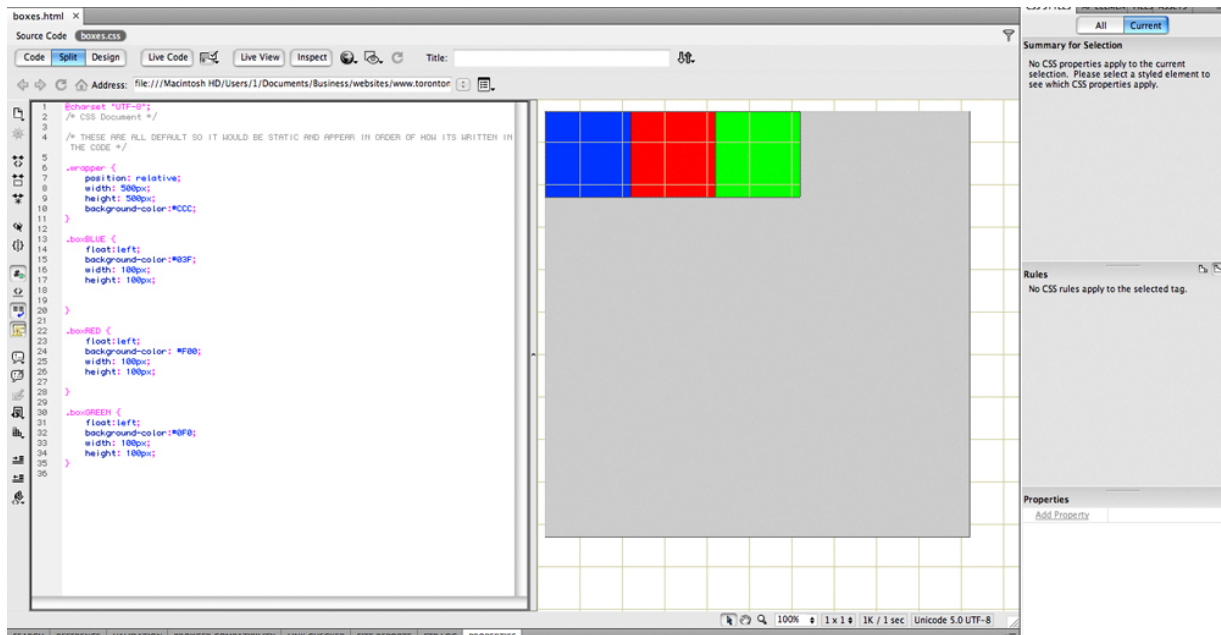
We can use float to wrap text around an image. Or to stack things. If you floated an image left and wrote text the text would wrap around it, same if we do it to the right. Then you could give the box some margin to keep the text a little bit away from it.

Refer to the contents of the folder "6 Float" for example.

# Here are the boxes with the wrapped text:



# And with the stacked div's

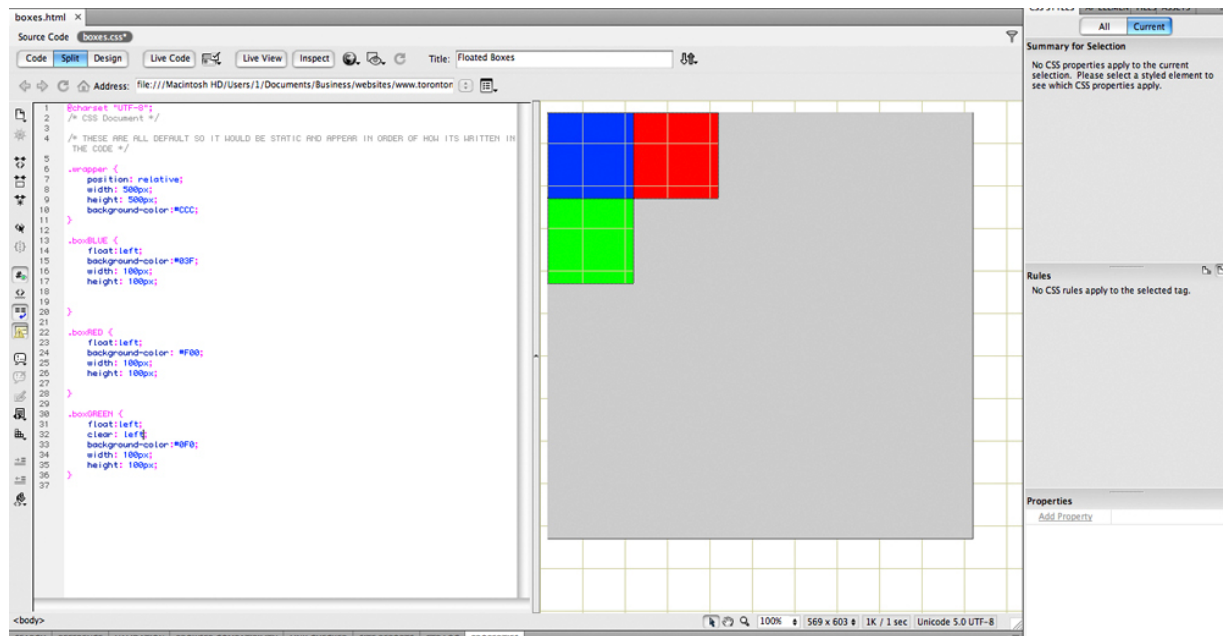


Remember again, this can be applied to divs, images, tables and so on.

## Clear

We can further control our floating with clear. When we use the float method it makes other objects flow around it, we can make it not do this by telling it to clear the object. We can clear left, clear right or both. So. lets say we want the green box to still float left but to clear the 2 boxes to the left. We clear: left; and end up with this.

Refer to the contents of the folder "6 Float/boxes-Stacked-clear" for example.



## Alignment

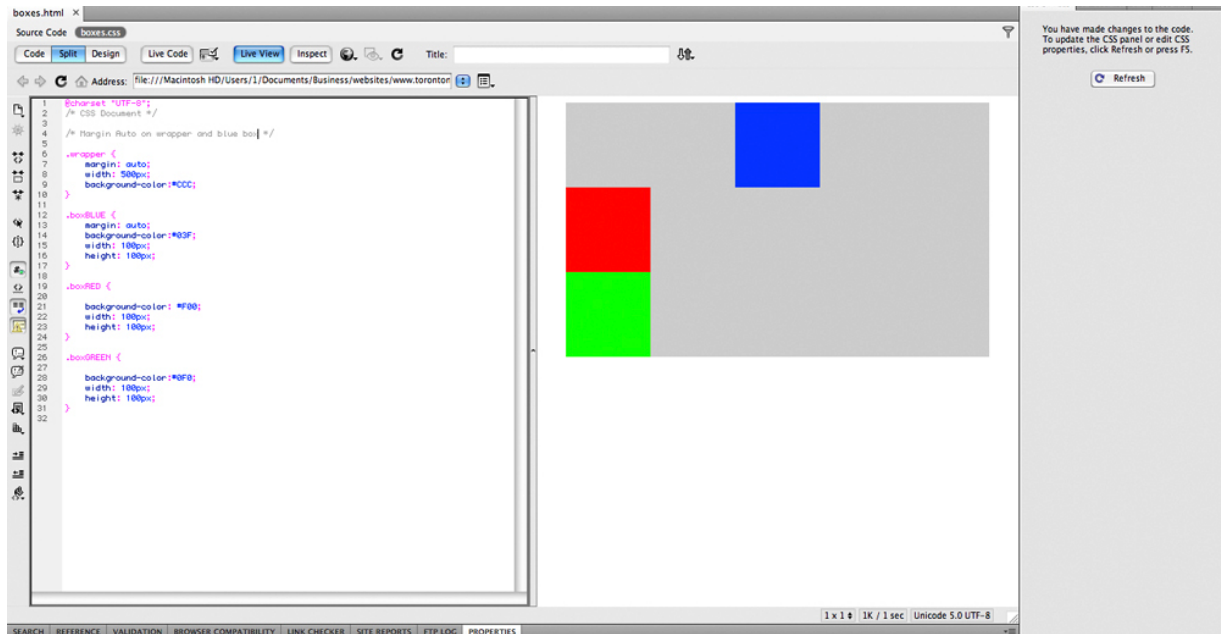
You can easily centre an element by using `margin: auto;` In this case we make the grey box in the BG aligned in the middle and the blue box simply by adding that command. We can also:

`margin-left: auto;` to place things to the left.

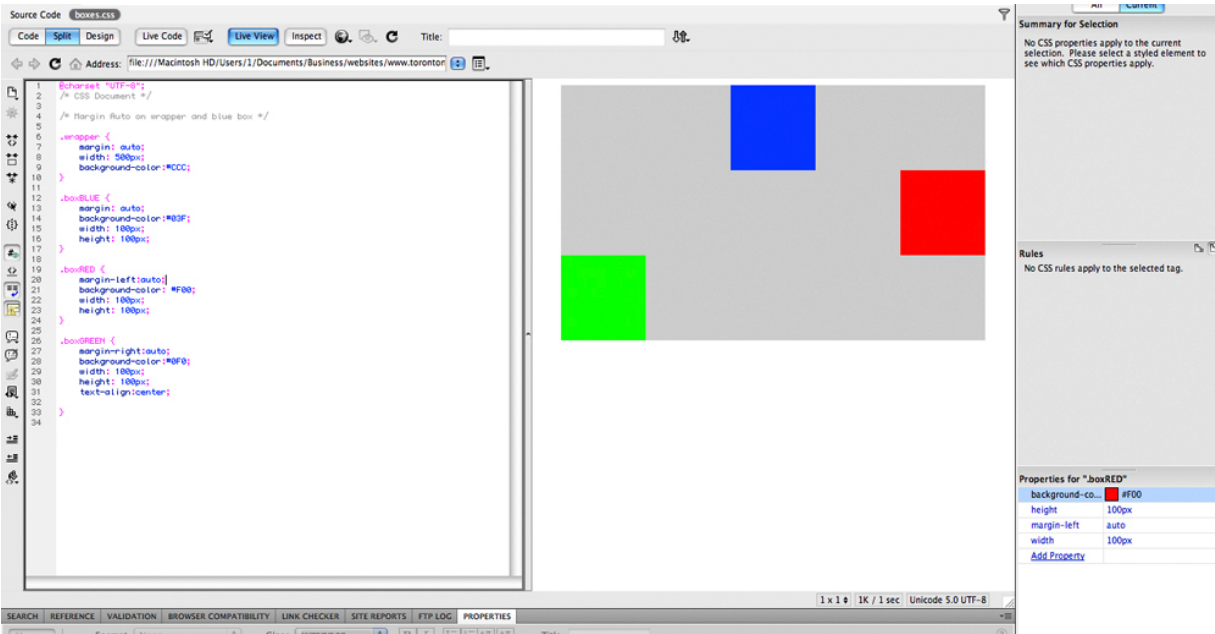
`margin-right: auto;` to place things to the right.

or use a % or length (px, cm so on) value.

Refer to the contents of the folder "7 Align" for example.



In this example we have the same as before but the red box is margin-left: auto;



With this, we we should be a little more confident and efficient in our placement of things in our layouts. Study the examples that go with this and play around to get more familiar.