

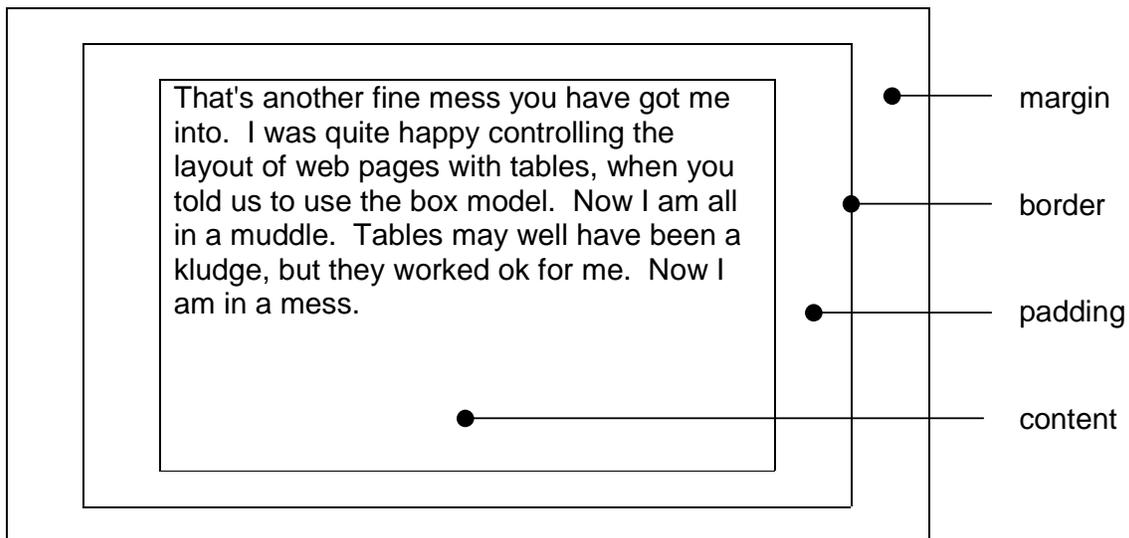
Website Development

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4 The Box Model

The box is the fundamental building block of modern webpage layouts.

4.1 The Box Model



In a style sheet we might write:

```
#box {  
  width: 300px;  
  height: 200px;  
  padding: 10px;  
  border: 1px solid black;  
  margin: 20px;  
}
```

px stands for pixel and is a *picture element*, the smallest possible dot on the screen. For example, a monitor with a resolution of 800 x 600 has 800 pixels in the horizontal direction and 600 pixels in the vertical.

The total width of the box is:

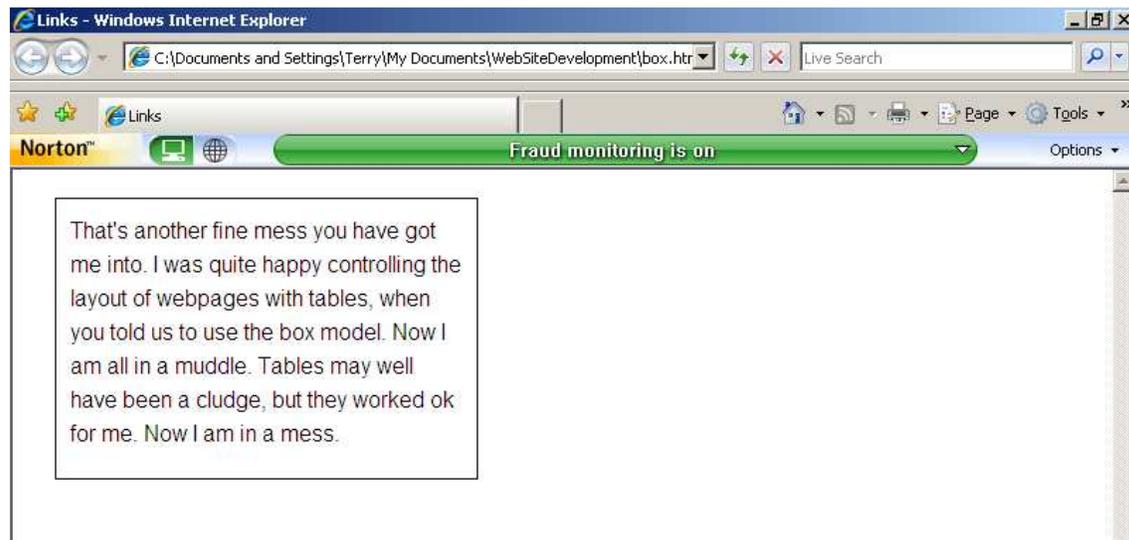
$$20\text{px} + 1\text{px} + 10\text{px} + 300\text{px} + 10\text{px} + 1\text{px} + 20\text{px} = 362\text{px}$$

Other border styles include *dotted*, *dashed* and *none*.

And in HTML we might write:

```
<div id="box">  
<p>That's another fine mess you have got me into. I was quite  
happy controlling the layout of web pages with tables, when  
you told us to use the box model. Now I am all in a muddle.  
Tables may well have been a kludge, but they worked ok for me.  
Now I am in a mess.</p>  
</div>
```

And see:



The CSS rule

```
#box {  
  width: 300px;  
  height: 200px;  
  padding: 10px;  
  border: 1px solid black;  
  margin: 20px;  
}
```

applies to the HTML element

```
<div id="box">  
<p> That's another fine mess you have got me into.... Now I  
am in a mess.</p>  
</div>
```

and instructs the browser to display the box and its contents.

div stands for division - a block of HTML

4.2 The Style sheet

The entire CSS file, named boxstyle.css, is shown below.

```
/* boxstyle.css - style sheet for box.html */  
  
p {  
  font-family: Arial, Helvetica, sans-serif;  
}  
  
p {  
  font-size: 1em;  
  line-height: 1.5em;  
}  
  
#box {  
  width: 300px;  
  height: 200px;  
  padding: 10px;  
  border: 1px solid black;  
  margin: 20px;  
}
```

4.3 The HTML File

The entire html file, named box.html, is shown below.

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01
transitional//EN">
<html>
<head>
<title>Boxes</title>
<meta http-equiv="Content-Type"
content="text/html; charset=utf-8">

<style type="text/css">
@import url(boxstyle.css);
</style>

</head>
<body>
<div id="box">
<p>That's another fine mess you have got me into. I was quite
happy controlling the layout of web pages with tables, when
you told us to use the box model. Now I am all in a muddle.
Tables may well have been a kludge, but they worked ok for me.
Now I am in a mess.</p>
</div>
</body>
</html>
```

4.4 Exercise

1. Create a box and place a paragraph of text in it. Validate both your style sheet and your HTML. Experiment with different widths, heights, padding, borders and margins.