CSS Box Models

All HTML elements can be considered as boxes. The term "box model" is used when talking about design and layout.

The box model is essentially a box that wraps around HTML elements, and it consists of: margins, borders, padding, and the actual content.

The box model allows us to place a border around elements and space elements in relation to other elements.

The image below illustrates the box model:

- **Margin** - Clears an area around the border. The margin does not have a background color, it is completely transparent

- **Border** - A border that goes around the padding and content. The border is affected by the background color of the box

- **Padding** - Clears an area around the content. The padding is affected by the background color of the box

- **Content** - The content of the box, where text and images appear.

Width and Height of an Element

NOTE: When you specify the width and height properties of an element, **you are just setting the width and height of the content area**. To know the full size of the element, you must also add its surrounding padding, border and margin.

The total width of the element in the example below is 300px:

     width:250px;
     padding:10px;
     border:5px solid gray;
     margin:10px;

     Because:
     250px (width)
     + 20px (left and right padding)
     + 10px (left and right border)
     + 20px (left and right margin)
     = 300px

TOTAL ELEMENT WIDTH = width + left padding + right padding + left border + right border + left margin + right margin

TOTAL ELEMENT HEIGHT = height + top padding + bottom padding + top border + bottom border + top margin + bottom margin

EXAMPLE:

```
<html>
  <head>
    <style type="text/css">
    div.ex{
      width:220px;
      padding:10px;
      border:5px solid gray;
      margin:0px;
    }
    </style>
  </head>
</html>
```

NOTE: This may look different in different browsers. Most versions of Internet Explorer, for example, include padding and border in the width. This can be fixed with a DOCTYPE declaration, but this is trivial. The point is that your website will not look identical in all browsers.