CSS

CSS Box Model

Agenda

1   **CSS Box Model**
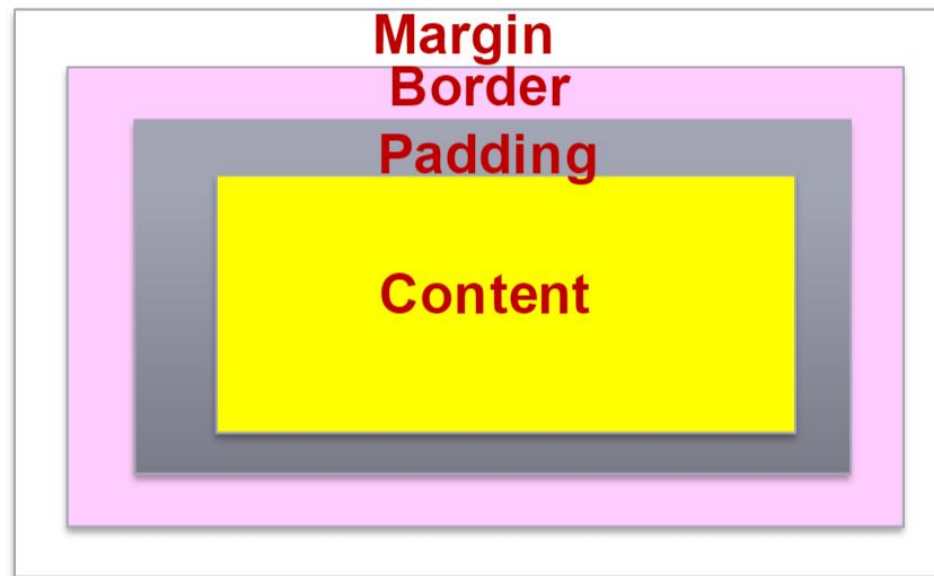
CSS Box Model

Objectives

At the end of this module, you will be able to

- Design the layout of a document using Box Model

- Set the height and Width of an element

- Set padding, border and margin properties

Box Model : Introduction

- Box model is useful for designing the layout of an HTML Page.

- CSS Box model describes a box that wraps around HTML elements.

- Using this model, we can define the margins, borders, padding and the actual content.

- We can place border around elements and space elements in relation to each other.

Box Model : Illustration

Setting the height and width of an element

- You can set the height and width of an element using the **height** and **width** properties.
- The width attribute specifies the width of an image, in pixels.
- The height attribute specifies the height of the element, in pixels.

Demo :Setting the height and width

```
<html><head><style>
img.large{
height:200px; width:300px;
}
img.normal {
  height:auto;width:auto;
}
p.custom {
  height:120px;width:150px;
}
</style></head>
```

Demo :Setting the height and width(Contd.).

```html
<body>
<img class="normal" src="kitten.jpg" />
<img class="large" src="kitten.jpg" />
<p class="custom">We are using user defined height and width for this
  paragraph</p>
<p>This is the paragraph created without using user defined height and
    weight. </p>
</body></html>
```

Output :

We are using user
defined height and width
for this paragraph

This is the paragraph that we created, without using user defined height and weight.

CSS Padding

- You can use the CSS padding properties to define the space between the element border and the element content.

- It is possible to change the top, right, bottom and left padding independently using separate properties.

- You can also use a shorthand padding property to change all paddings in a single statement.

- Individual padding properties can be specified as follows :

    padding-top:20px;
    padding-bottom:30px;
    padding-right:25px;
    padding-left:10px;

CSS Padding (Contd.).

Shorthand padding property can be specified as follows :

padding : 20px 30px 25px 10px;

where

top padding is 20px.

right padding is 30px.

bottom padding is 25px.

left padding is 10px.

CSS Border

- You can use the CSS Border properties to specify the style and color of an element's border.

- You can use the following properties :

    border-style

    border-width

    border-color

Demo : CSS Padding and Border
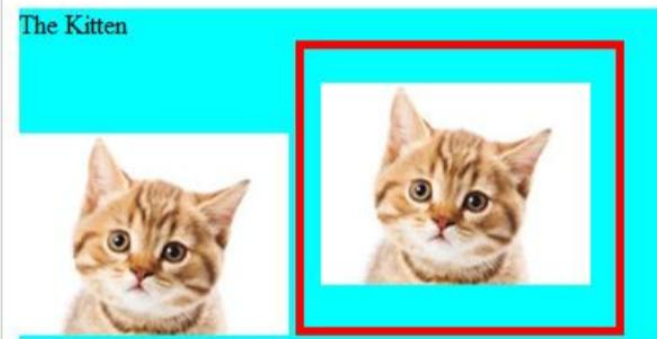
```
<!DOCTYPE html>
<html><head><style>
p {
background-color:cyan;
}
img.i1
{
    padding-top:20px;
    padding-bottom:25px;
    padding-right:15px;
    padding-left:10px;
    border-style:solid;
    border-width:5px;
    border-color:red;
}
```

Demo : CSS Padding and Border (Contd.).

```
</style>
</head>
<body>
<p> The Kitten <br>
<img src="kitten.jpg" />
<img class="i1" src="kitten.jpg" />
</p>
</body>
</html>
```

Output:

Quiz

1. If you use negative values for padding, it will result in
   a) An Error. The HTML page will not be displayed.
   b) No error. The HTML page will be displayed with value of padding considered as zero.
   c) The HTML page will be displayed with overlapping of border with the content.
   d) None of the above.

CSS Margin

- Using CSS Margin properties you can specify the space around elements.

- You can also specify different margin for different sides :

  margin-top:50px;
  margin-bottom:30px;
  margin-right:25px;
  margin-left:10px;

- You can also specify Margin shorthand property to specify margin values.

- The shorthand property for all margin properties is **margin**.

margin:50px 30px 25px 10px; *where*

  top margin is 50px.

  right margin is 30px.

  bottom margin is 25px.

  left margin is 10px.

Demo : CSS Margin

```
<!DOCTYPE html>
<html>
<head>
<style>
p {
background-color:cyan;
}
img.i1 {
padding:20px;
border-style:solid;
border-width:5px;
border-color:red;
margin: 40px 30px 20px 10px;
}
</style>
```

Demo : CSS Margin

```
</head>
<body>
<p> The Kitten<br>
<img src="kitten.jpg" />
<img class="i1" src="kitten.jpg" />
</p>
</body>
</html>
```

Output :

Quiz

1. How do you assign 25px as the value of top margin for a paragraph?

    a) p{margin-top:25px;}

    b) p{top-margin:25px;}

    c) p{upper-margin:25px;}

    d) p{margin-upper:25px;}

2. Which of the following is not a valid border property?

    a) border-style

    b) border-width

    c) border-color

    d) border-height

Summary

In this module, you were able to :

- Design the layout of a document using Box Model

- Set the height and Width of an element

- Set padding, border and margin properties

Thank You