

COMP 1017

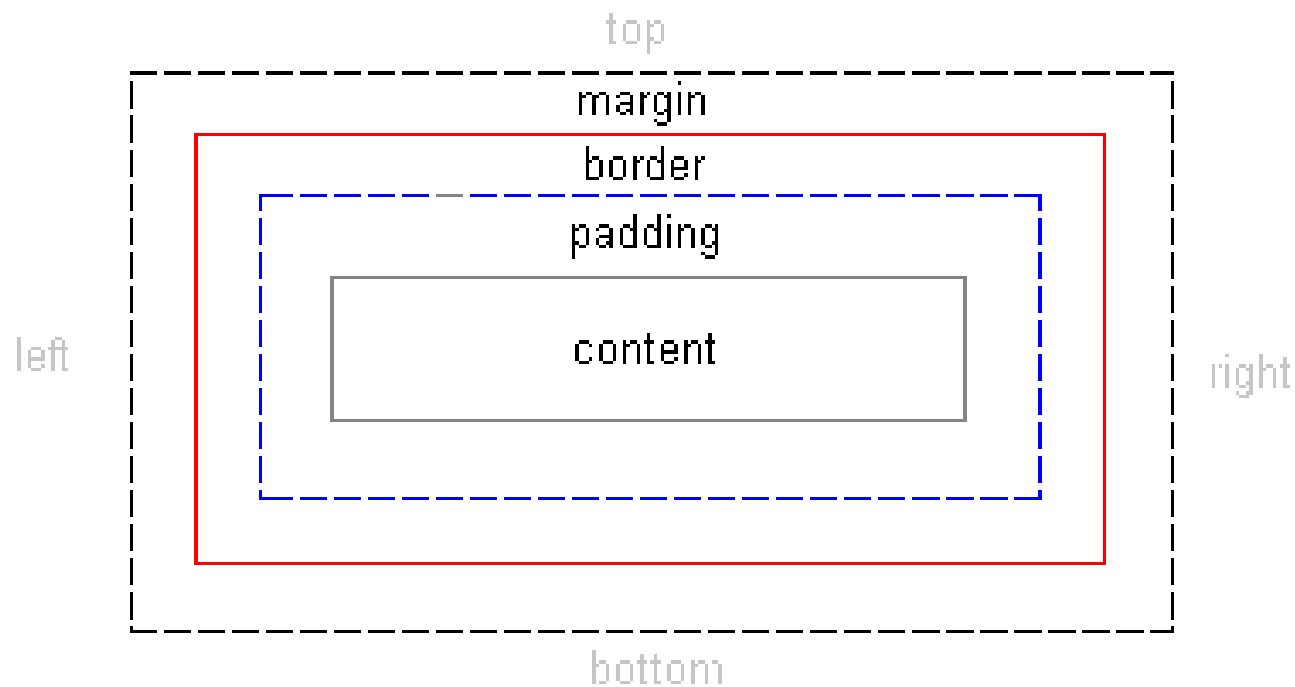
Day 12

The Box Model

Every single element on a web page is rendered as a **box**.

Each box has four different parts:

1. content
2. padding
3. border
4. margin



- margin edge
- border edge
- - - padding edge
- content edge

We've already got content mastered,
so let's focus on the other three parts.

Margin

White Space

The **margin** is the space around an element.

It can be used to push and pull elements around in the layout.

Margins can be controlled by:

- top (margin-top)
- right (margin-right)
- bottom (margin-bottom)
- left (margin-left)

... or, you can just control all sides
with a single property.

`margin: 5px 10px 5px 10px;`

- The order is top, right, bottom, left.

`margin: 5px 10px;`

- The order is top-bottom, right-left.

`margin: 5px 10px 15px;`

- The order is top, right-left, bottom.

`margin: 30px;`

- All margins will be 30px.

Border

The Space Around

The **border** is the line between margin and padding.

By default, the border has a **width of zero**, but we can make it thicker.

We can also control the **style** (pattern)
and its **colour** (color).

The longhand declarations look
something like this ...

`border-style: none | solid | dotted | dashed | double; /* etc. */`

`border-width: thin | medium | thick | 1px;`

`border-color: red | #E51400 | rgb(229,20,0) | rgba(229,20,0,100);`

But we can simplify it.

```
border: 1px solid red;
```

As with margins, you can also target each side of the border.

Padding

The Space Within

Padding is the space around the element, inside of the border.

Think of it as like packing peanuts
inside a box, protecting your content.

Padding behaves in a very similar way to margins.

Padding can be controlled by:

- top (padding-top)
- right (padding-right)
- bottom (padding-bottom)
- left (padding-left)

... or, you can just control all sides
with a single property.

`padding: 5px 10px 5px 10px;`

- The order is top, right, bottom, left.

`padding: 5px 10px;`

- The order is top-bottom, right-left.

`padding: 5px 10px 15px;`

- The order is top, right-left, bottom.

`padding: 30px;`

- All padding will be 30px.

Widths & Heights

When it comes to element **sizes**, it's important to note that **all parts of the box model contribute.**

A box's total width includes:

margin-left + border-left + padding-left +
content width + padding-right + border-
right + margin-right

A box's total height includes:

border-top + padding-top + content height
+ padding-bottom + border-bottom

Supplemental Readings

<http://kamleshshrestha.com.np/css-box-model/>

<https://torquemag.io/2018/06/css-box-model/>

<https://hackernoon.com/css-box-model-45ecf4ac219e>

https://developer.mozilla.org/en-US/docs/Learn/CSS/Introduction_to_CSS/Box_model

<https://codepen.io/carolineartz/full/ogVXZj>