Block & Inline Elements

- CSS divides HTML into two types: inline and block.
- After block elements, browsers render a new line.
- Inline elements: img, a, br, em, strong, hr
- Block elements: p, h1, ul, ol, li, almost everything else

Element: Div

- Block level element. Each new div is rendered on a new line.
- A division, or section of content within an HTML page.
- Used to group elements to format them with CSS.
- Apply IDs and Classes to divs to control their styles with CSS.

```
<div>
 <p>Content<p>
 <p>Content<p>
</div>


<div id="header">
 <h1>Main Heading<h1>
</div>


<div class="sub-content">
 <p>Some more content<p>
</div>
```

Grouping elements with div

- The div tag is used everywhere to group elements together into sections.
- For example, what if we want the first 2 paragraphs of a section to be right-aligned, purple & bold, but we don't want any other paragraphs to be right-aligned?
- We would wrap them in a div element to style them differently.

Grouping elements with div

```
.align-right {
 text-align: right;
 color: purple;
 font-weight: bold;
}
```

```
<div class="align-right">
 <p>Lorem ipsum dolor sit amet, consectetur adipisicing elit</p>
 <p>Sed do eiusmod tempor incididunt ut labore et dolore.</p>
</div>
<p>Magna aliqua. Ut enim ad minim veniam.</p>
<p>Quis nostrud exercitation ullamco.</a>
```

Lorem ipsum dolor sit amet, consectetur adipisicing elit

Sed do eiusmod tempor incididunt ut labore et dolore.

Magna aliqua. Ut enim ad minim veniam.

Quis nostrud exercitation ullamco.

Let's Develop It

Let's use our site from last week to add divs to separate content into different sections on our page.

1. Create div for a header, content area, sidebar, and a footer.
2. Assign each div a class describing what they are. We will select this class later to style the divs with CSS.

Element: Span

- Inline element
- Each new span is rendered next to each other
- Only wraps when it reaches the edge of the containing element
- Can be used to apply styles to text inline so as not to break the flow of content

Span

Span is used to apply a specific style inline

```
.love {
 color: yellow;
}
```

```
<p>Paragraph with <span class="love">yellow</span> text.</p>
```

Paragraph with yellow text.

Let's Develop It

Let's add some spans to our content to help highlight some text.

1. Add some spans and assign them a class called featured
2. Add two more spans and assign them different IDs (hint: remember one ID per page)
3. Change the background color and text color using CSS
4. View the results in your browser.

Pseudo-classes, more CSS for links

Changing the format of a link when you hover over it is accomplished by using pseudo-classes.

CSS pseudo-classes are used to add special effects to some selectors.

Syntax:

```
selector:pseudo-class
{
 property:value;
}
```

Example:

```
a:link
{
 text-decoration: none;
}
```

Pseudo-classes, more CSS for links

```
a:link  {color:#FF0000;} /* unvisited link */
a:visited    {color:#00FF00;} /* visited link */
a:hover {color:#FF00FF;} /* mouse over link */
a:active     {color:#0000FF;} /* selected link */
```

Note: a:hover MUST come after a:link and a:visited in the CSS definition in order to be effective!

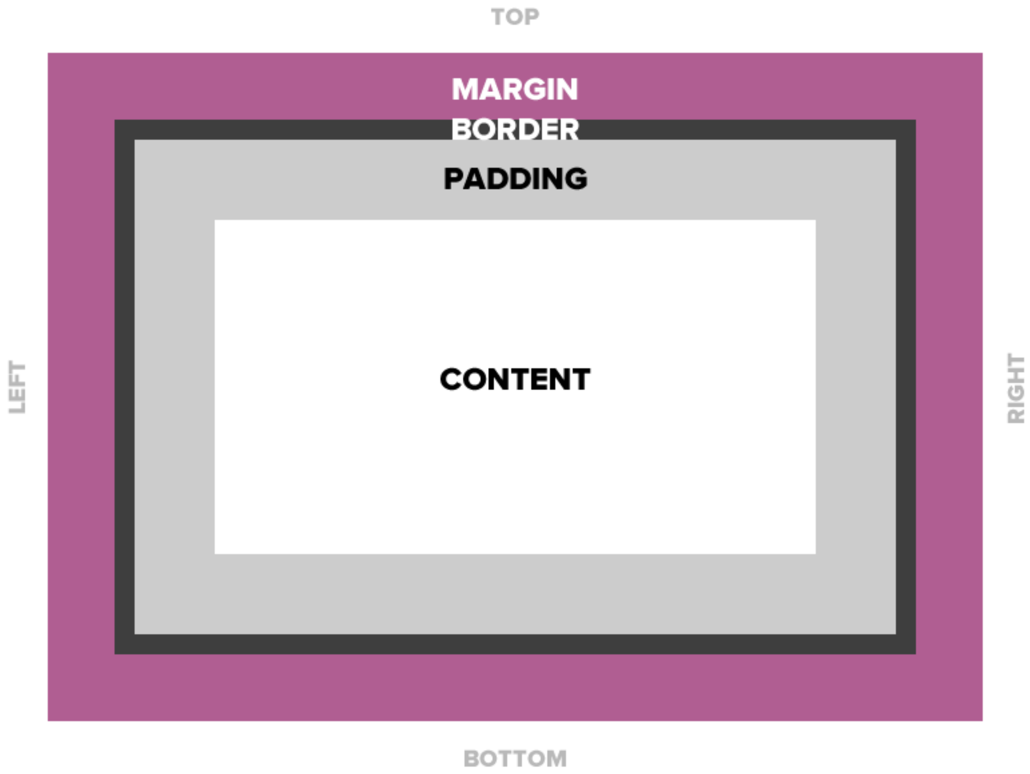
Note: a:active MUST come after a:hover in the CSS definition in order to be effective!

Let's Develop It

Add pseudo classes to all of your links in the stylesheet and give them different background colors

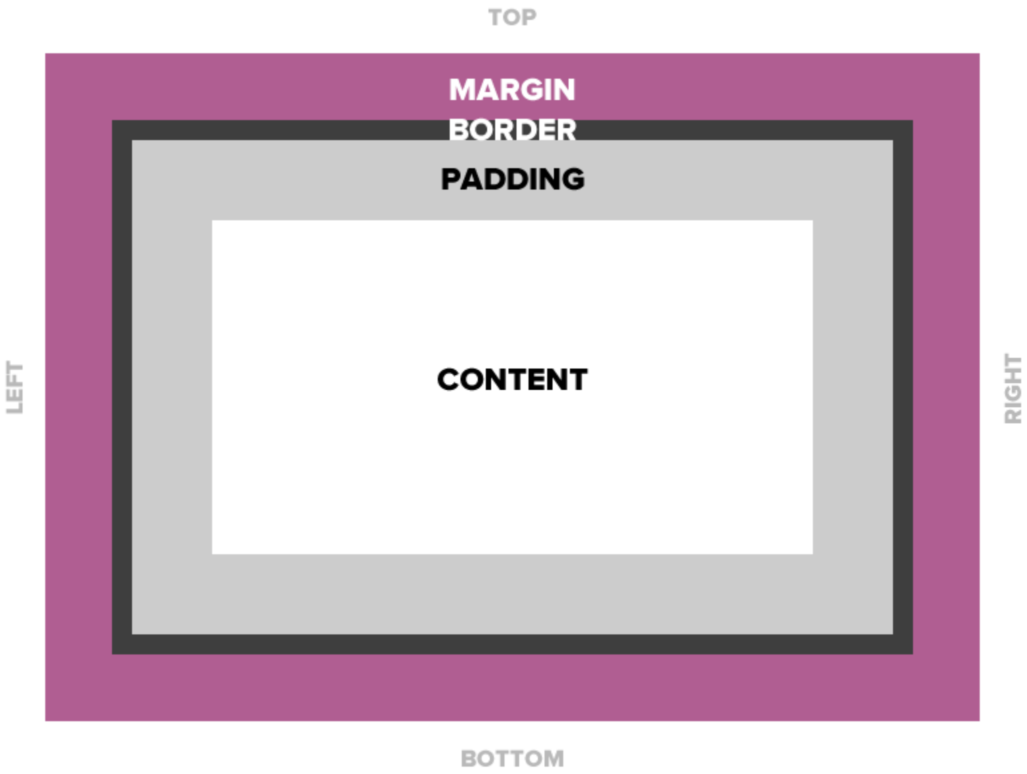
1. a:link
2. a:visited
3. a:hover
4. a:active

Box Model



Padding

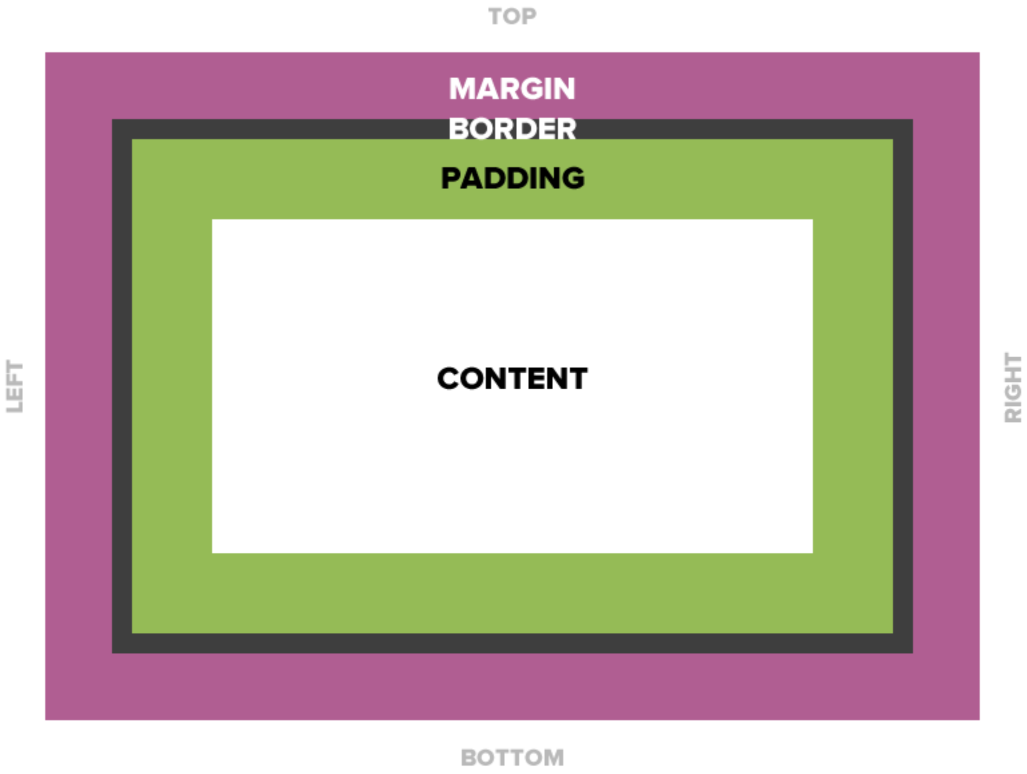
Space between the border and the content



Padding

Space between the border and the content

Adds to the total width of the box.



Padding (clockwise)

15 pixels on all sides

```
padding: 15px;
```

10 pixels on top only

```
padding-top: 10px;
```

10 on top, 5 on right, 3 on bottom, 5 on left

```
padding: 10px 5px 3px 5px;
```

10 pixels on top and bottom only

```
padding: 10px 0;
```

Padding

Four values

```
padding: top right bottom left;
```

Two values

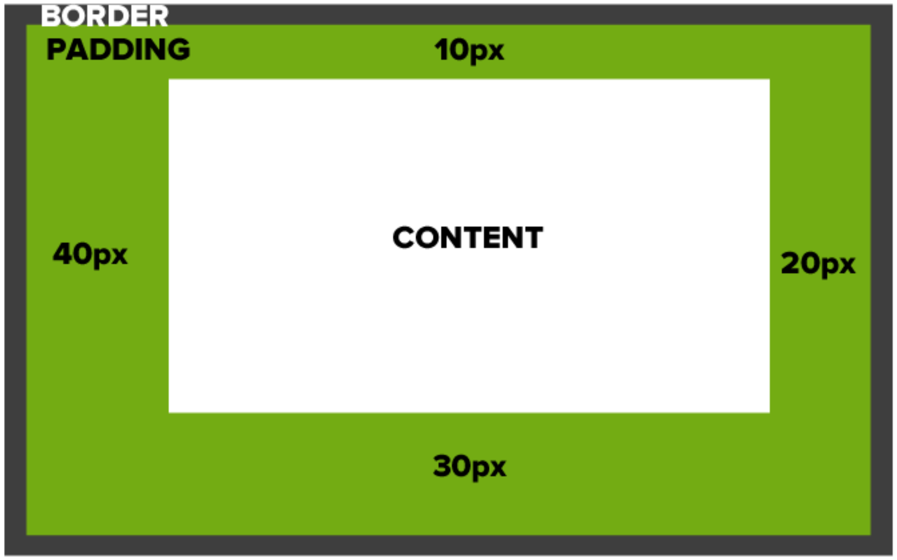
```
padding: top/bottom right/left;
```

One value

```
padding: all;
```

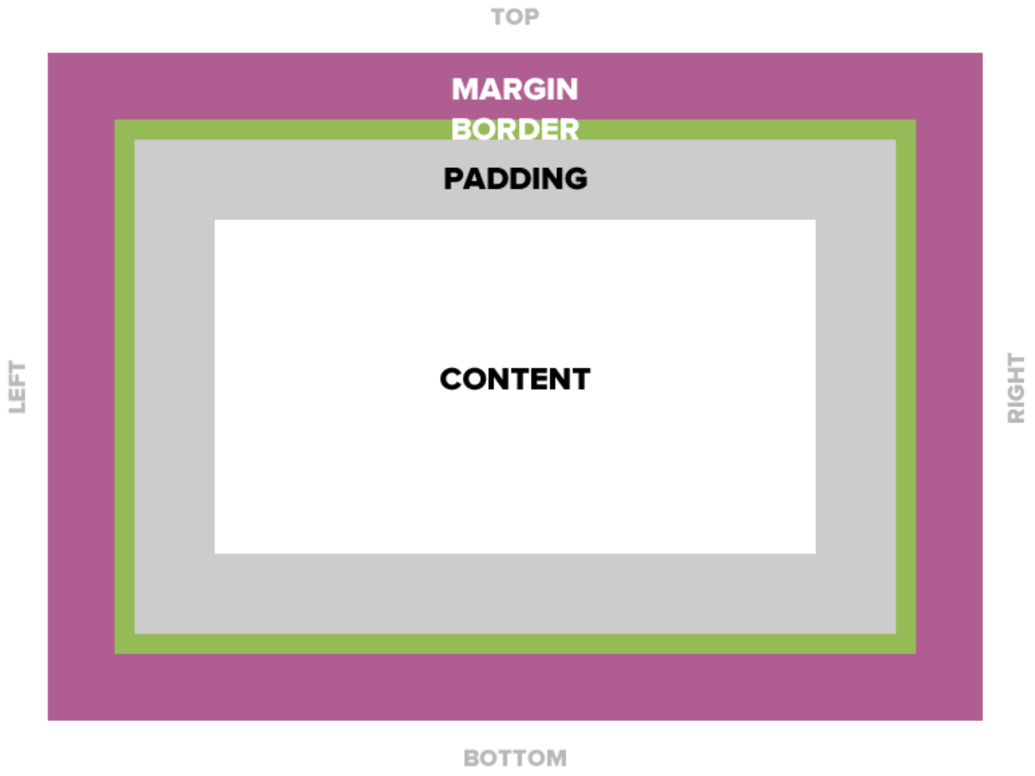
Padding

```
padding: 10px 20px 30px 40px;
```



Border

The edge around the box, specified as 1) thickness 2) style 3) color



Border

A solid red border

```
border: 1px solid #ff0000;
```

A thick dotted black top border

```
border-top: 4px dotted #000000;
```

Two different border styles

```
border-top: 1px solid #ff0000;
border-bottom: 4px dotted #000000;
```

Border - Other Properties

```
border-width: 10px;
border-style: dashed;
border-color: #666666;
```

You can specify each property separately, or all three together.

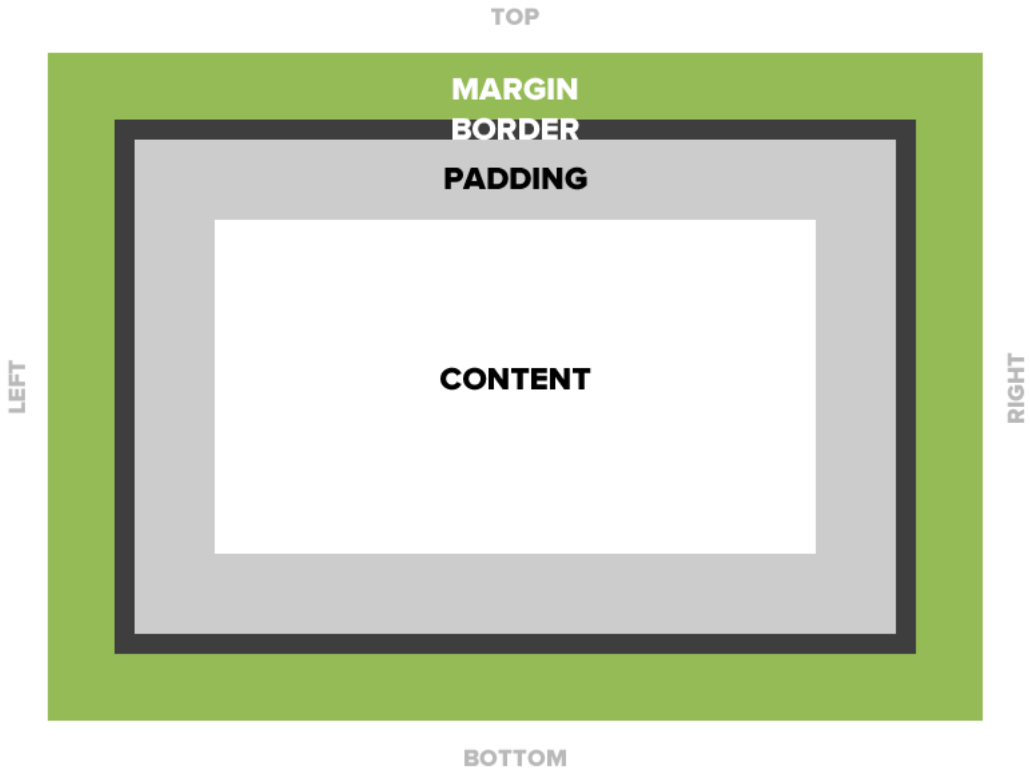
Let’s Develop It

Let’s add some padding and a border around our sidebar div

1. Change the background color of your sidebar and footer divs
2. Add some padding to your sidebar and footer divs
3. Add a border to the right side of your sidebar
4. Add a border to the top side of your footer

Margin

The transparent area or buffer around the box that separates it from other elements.



Margin

15 pixels on all sides

```
margin: 15px;
```

10 on top, 5 on right, 3 on bottom, 5 on left

```
margin: 10px 5px 3px 5px;
```

10 pixels on top

```
margin-top: 10px;
```

20 pixels on top and bottom

```
margin: 20px 0;
```

Auto Margin

If a margin is set to auto on a box that has width, it will take up as much space as possible.

CENTERED

```
margin: auto;
width: 300px;
```

FLUSH-RIGHT

```
margin-left: auto;
margin-right: 5px;
width: 300px;
```

It will only work if there is a width!

Let's Develop it!

Let's add some widths and margins to some of our block elements.

1. Give the ordered list in your sidebar a width of 200px and center it within the sidebar. Create an <ol> if not there already
2. Give all paragraphs a bottom margin of 2em
3. Let's set the content div to a width of 80% and center it
4. Add a margin around any images in the content area

Property: Width

Sets the width of an element.

Does not include padding or borders, remember these add to the width.

Can be specified in %, px, em, or other unit of measure

Property: Height

Sets the height of an element.

Does not include padding or borders, remember these add to the height.

Can be specified in %, px, em, or other unit of measure

Let's develop it!

Add a width & height to our divs. Use IDs or classes to target each div with CSS

1. Make the sidebar div width 20% and height 100%

Static Positioning

HTML elements are positioned static by default.

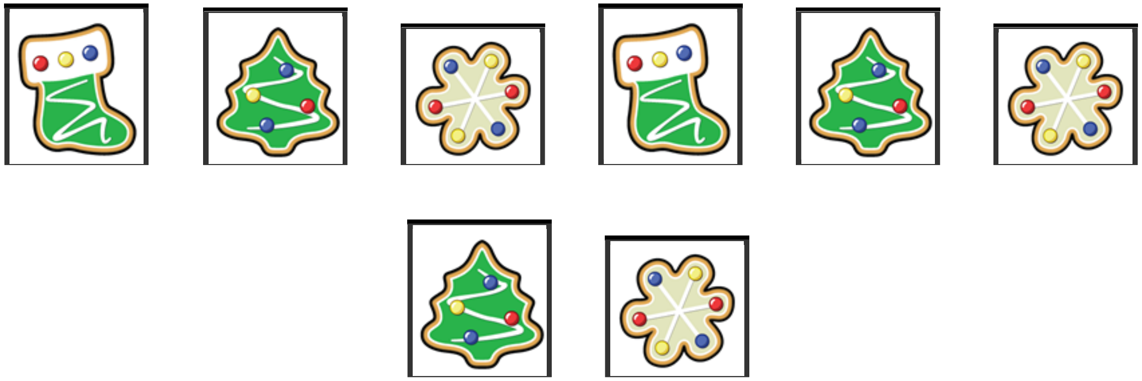
Static elements are positioned in the normal flow of the page

Static elements ignore top, bottom, right or left property specifications.

Static Positioning

In normal flow, inline boxes flow from left to right,
wrapping to next line when needed.

```
<img src="images/cookie1.png"/>
<img src="images/cookie2.png"/>
<img src="images/cookie3.png"/>
...
<img src="images/cookie2.png"/>
<img src="images/cookie3.png"/>
```



Static Positioning

In normal flow, block boxes flow from top to bottom, making a new line after every box.

```
<p>Greetings</p>
<p>Hello</p>
<p>Hi there!</p>
```

Greetings

Hello

Hi there!

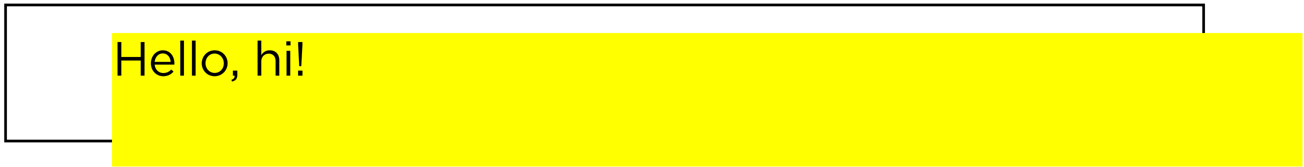
Relative Positioning

- Takes the element out of the normal flow, allowing it to be moved to the top, left, right or bottom.
- Does not affect the elements surrounding it.
- Makes an element a "positioning context" in which to position other elements relative to it.
- Relative positioning and absolute positioning are used together.

Relative Positioning

The "relative" value will still put the element in the normal flow, but then offset it according to top/left/right/bottom properties.

```
.relative{
 position: relative;
 left: 80px;
 top: 20px;
 height: 100px;
 background-color: yellow;
}
```



Hello, hi!

Absolute Positioning

- Positions element outside of the normal flow.
- An absolutely positioned element is offset from its container block, positioned relative.
- Its container block is the first element that has a position other than static.
- If no such element is found, the container block is <html>.
- Other elements act as if it's not there.
- Determined by its offset values in the properties top, bottom, right and left.

Absolute Positioning

The "absolute" value will take the element out of the normal flow and position it in relation to the window (or the closest non-static element).

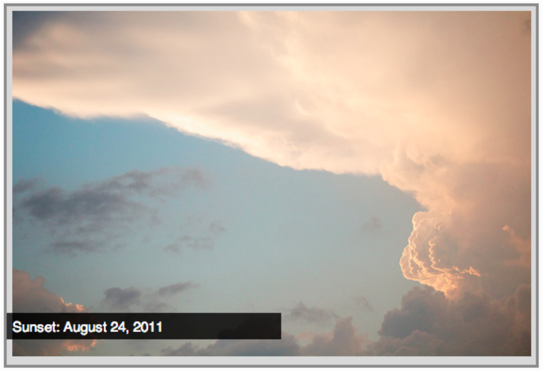
```
.top{
 position: absolute;
 top: -40px;
 right: 10px;
 background-color: yellow
}


.bottom{
 position: absolute;
 bottom: -40px;
 left:60px;
 background-color: green
}
```

Example: Absolute Positioning

Here's an example of an image with a caption absolutely positioned over top of it.

The containing div has a position of relative, and the caption has a position of absolute.



Z-index

When you use positioning to move elements out of the normal flow of content, elements can overlap. You can change the order of overlapping with z-index.

The element with highest z-index goes on top.

```
.bottom{
 position: absolute;
 bottom: 10px;
 left:60px;
 background-color: yellow;
}


.top{
 position: absolute;
 bottom: 15px;
 left:60px;
 background-color: green;
 z-index: 2;
}
```

Let's develop it!

Let's position our site title over the header image and center everything

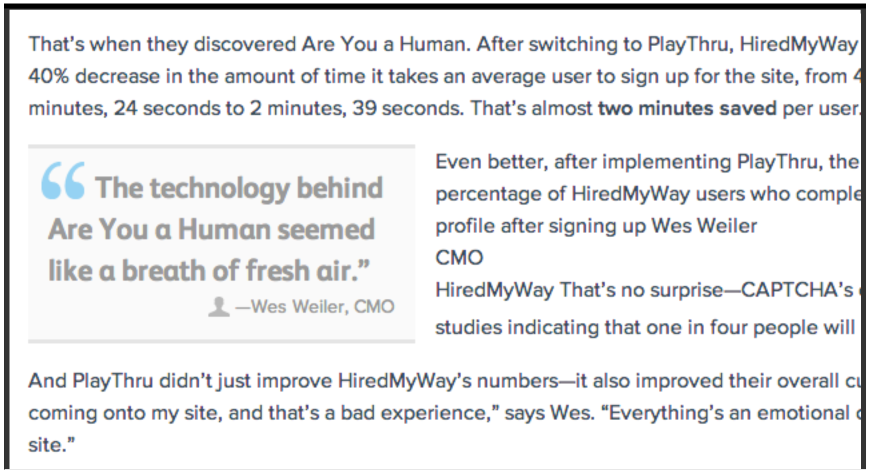
1. Add a background color, width:100%, text-align: center; and position: relative to your heading h1
2. Center the image adding text-align: center to the containing element
3. Position your heading absolutely within the image using the top property
4. Add a border to the image in the header, use border-radius to add rounded corners

Float

- "Floating" an element takes it in the normal flow, as far to the left or right of it's containing element as possible.
- Any other elements, such as paragraphs or lists, will wrap around the floated element.
- Always specify a width when floating an element, otherwise the element is likely to take up the whole page and not appear floated.
- You can specify a) whether an element is floated or not, and b) which side it floats on.

Float: Example

Below a <blockquote> is floated to the left, allowing text to wrap around it on the right



That's when they discovered Are You a Human. After switching to PlayThru, HiredMyWay 40% decrease in the amount of time it takes an average user to sign up for the site, from 4 minutes, 24 seconds to 2 minutes, 39 seconds. That's almost **two minutes saved** per user.

> “The technology behind Are You a Human seemed like a breath of fresh air.”
>
> —Wes Weiler, CMO

Even better, after implementing PlayThru, the percentage of HiredMyWay users who comple profile after signing up Wes Weiler
CMO
HiredMyWay That's no surprise—CAPTCHA's
studies indicating that one in four people will

And PlayThru didn't just improve HiredMyWay's numbers—it also improved their overall cu coming onto my site, and that's a bad experience,” says Wes. “Everything's an emotional site.”

Float

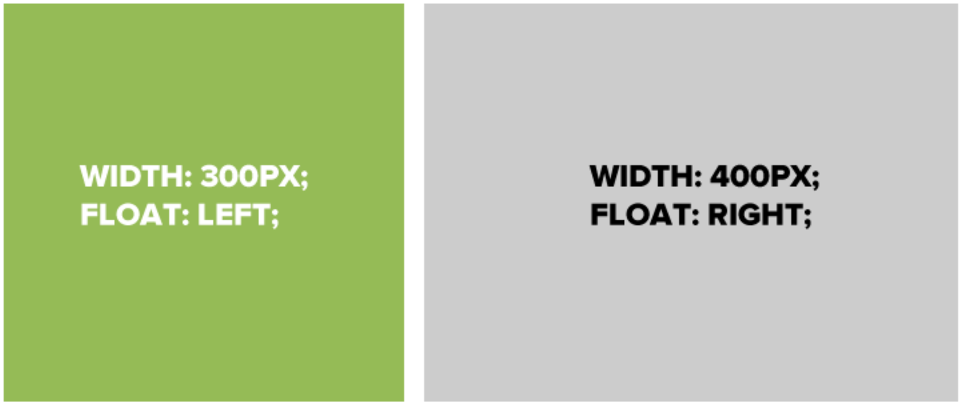
```
.float{
 float:left;
 width:200px;
 background:yellow;
}
```

Hi, I'm a yellow box with black text.
I like to hang out on the left side.

Not floating element
Not floating element
Not floating element with wrapping Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.

Using floats to place elements side by side

If you want two block level elements to be side by side, you need to float both elements. One left, and one right.



WIDTH: 300PX;
FLOAT: LEFT;

WIDTH: 400PX;
FLOAT: RIGHT;

Clear

- Clearing tells the element on which side (right, left, both) other elements cannot appear.
- If you had an image floated left, and you did not want the paragraph to appear next to it, you would add clear: left; to the paragraph.
- Clearing both sides makes sure floats don’t flow past the clear element.

```
clear: right;
clear: left;
clear: both;
```

Clear

```
.float{
 float:left;
 width:50px;
 background:yellow;
}
.clear-left{
 clear:left
}
```

hi Not floating element

hi Not floating element

hi

Non-floating element with a class of .clear-left

Let's Develop It

Let's float our side bar and content areas. Clear all floats in the footer.

1. Float the sidebar div to the left
2. Float the content area to the right
3. Clear any floats in the footer div so that the flow lines up properly.

Questions?

?