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Web Design and Databases HTML and CSS Part 3

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Based on Slides from Helen Hastie

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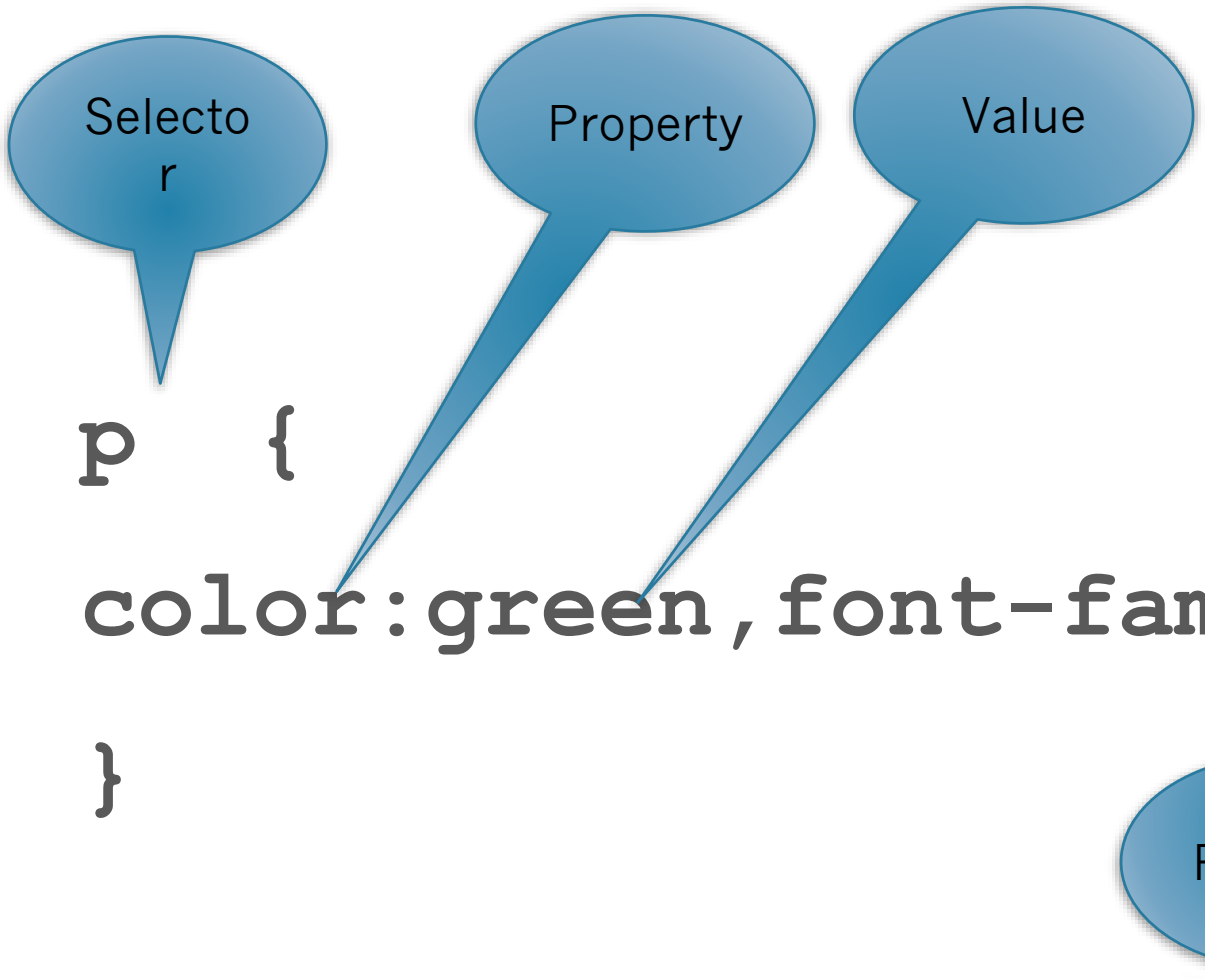
Recap

- HTML elements gives structure
- CSS adds style

CSS Rules



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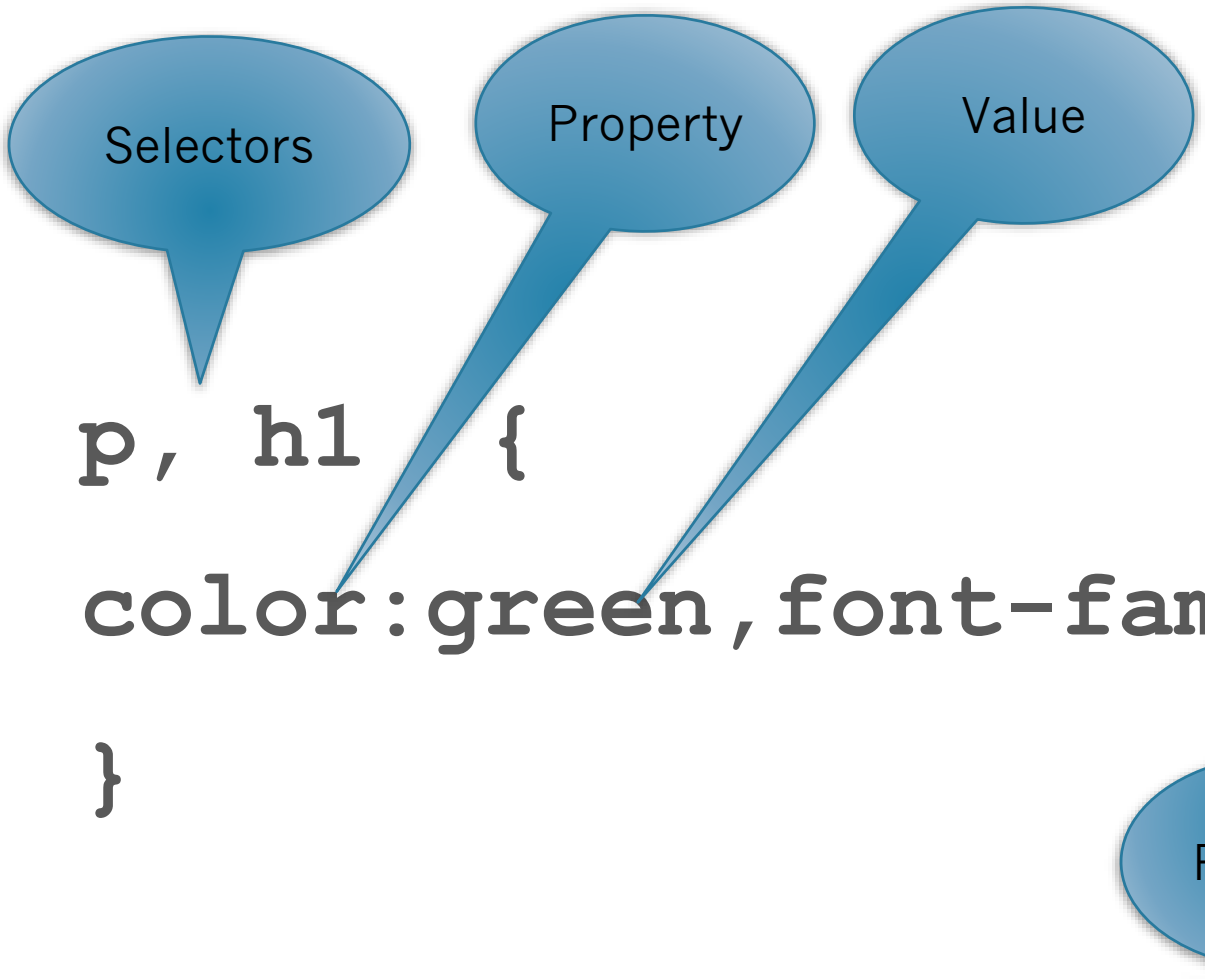
Can apply to more than one selector



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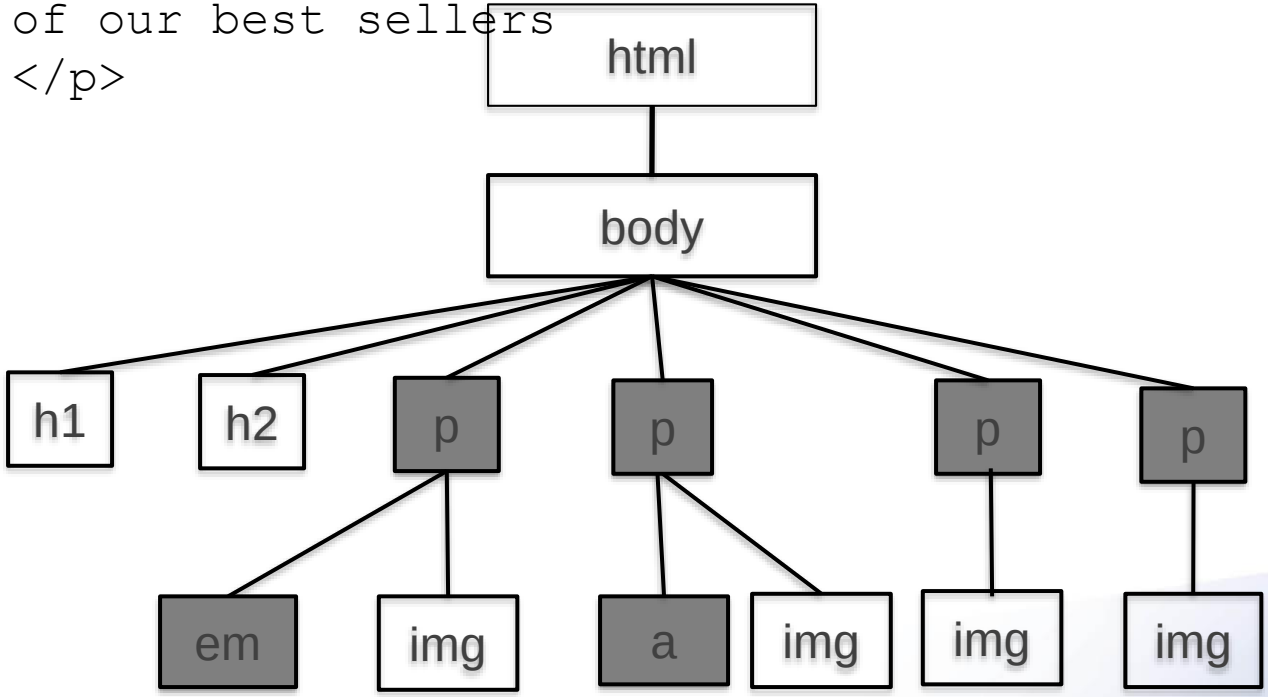
Inheritance

- Elements inside <p> inherit the properties of the <p>. For example:

```
<p>
      <img src="images/lime_lolly.png" alt="Lime
Lolly" />
      Bursting with <em>zing</em>. Our lime lolly is
one of our best sellers
    </p>
```



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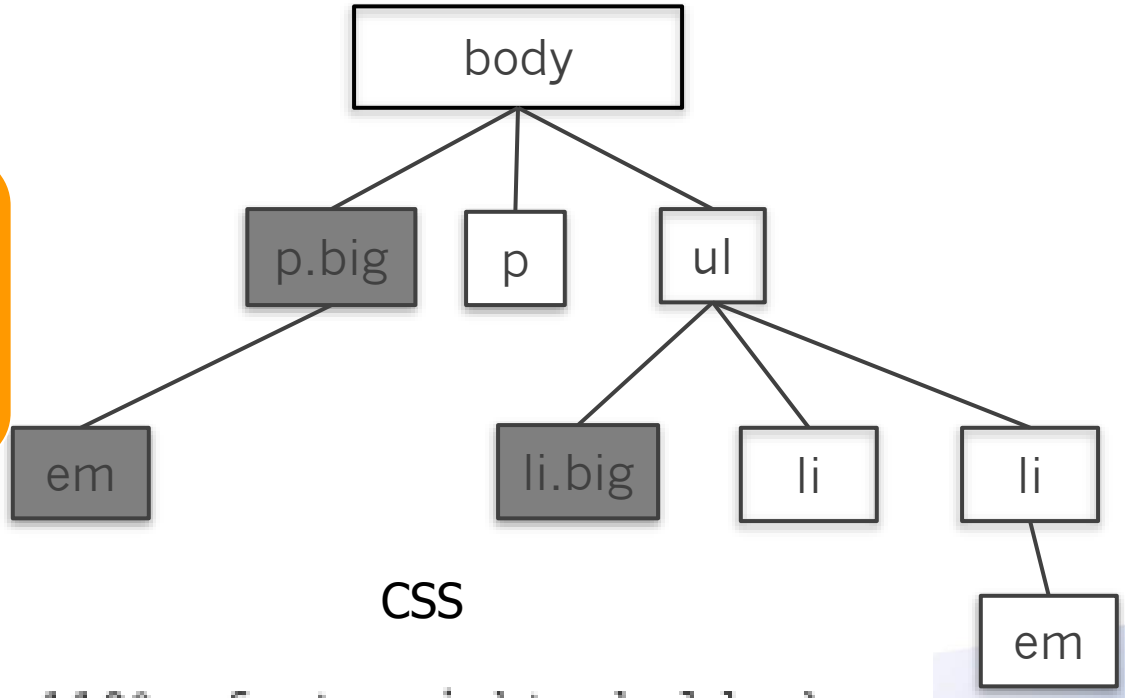
Adding a Class

```
<p class="lime">

    <img src="images/lime_lolly.png"
alt="Lime Lolly" />

    Bursting with <em>zing</em>. Our lime
lolly is one of our be

  </p>
```

```
body {
  font-family:   sans-serif;
}
h1, h2 {
    color:          gray;
}
h1 {
    border-bottom: 1px solid black;
}
p {
    color:          maroon;
}
p.lime {
  color:          green;
}
```

HTML

```
<body>
<p class="big">This is some <em>text</em></p>
<p>This is some text</p>
<ul>
<li class="big">List item</li>
<li>List item</li>
<li>List <em>item</em></li>
</ul>
</body>
```



p.big and li.big
*.big → .big

CSS

```
.big { font-size: 110%; font-weight: bold; }
```

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Elements can be in more than one class

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HTML

```
<p class="lime specials">
```

CSS

```
p.lime {
    color:          green;
}
p.specials {
   font-family:          serif;
}
```

Elements can be in more than one class

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What if all have the same property (e.g. color)? The last rule wins

```
<p class="lime strawberry orange swirl”>
```

CSS

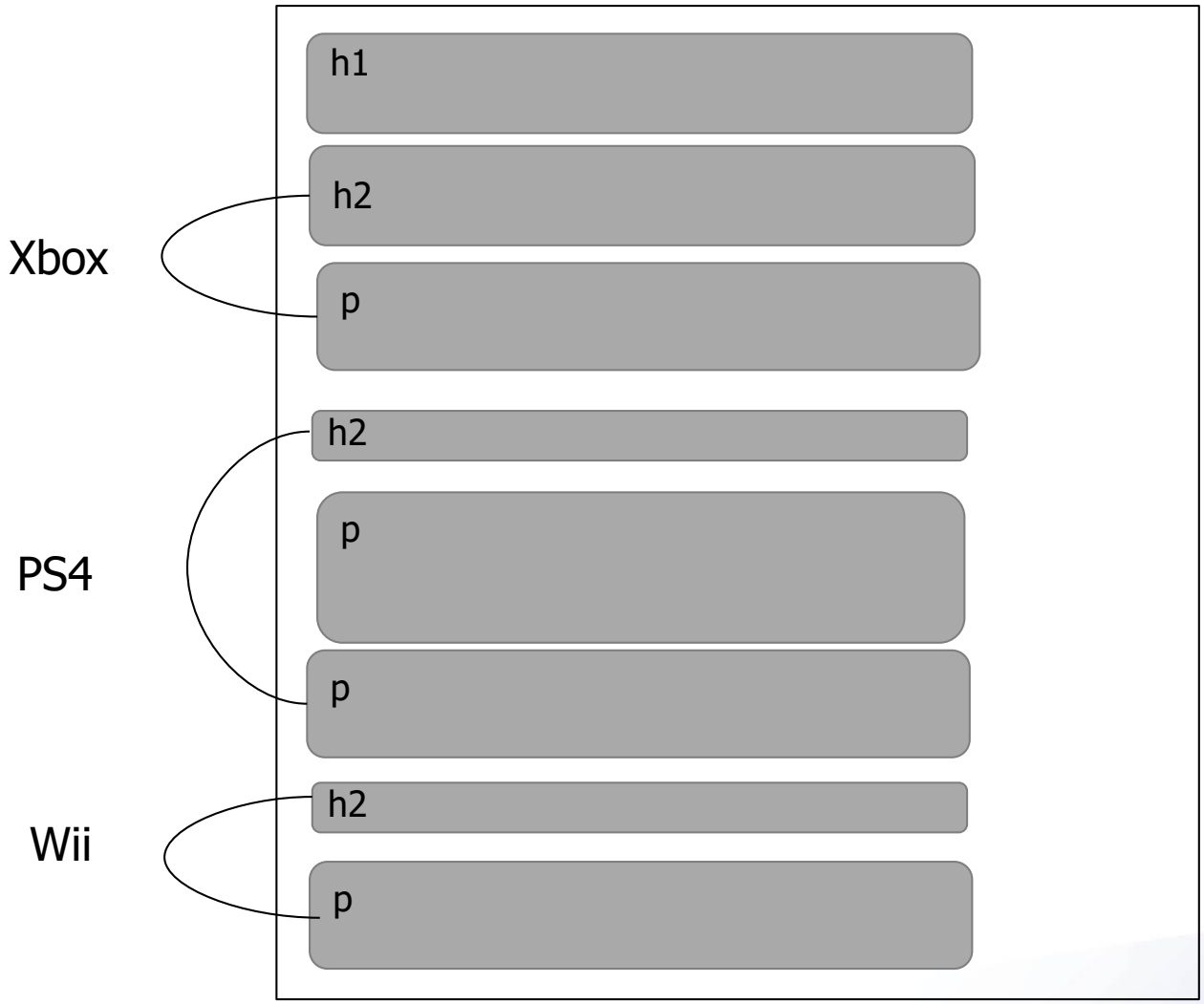
```
p.lime {
    color:          green;
}
p.strawberry {
    color:          pink;
}
p.orange {
    color:          orange;
}
p.swirl {
    color:          purple;
}
```

Today : Adding structure

Trio Private Dining	Any Night is Steak Night	Sunday is Brunch Day
For your special occasion, be it a birthday, christening or a gathering, the Trio team will design a bespoke menu reflecting your wishes within your budget	Choose from a range of specially selected steaks, cooked to your liking. Includes French fries, button mushrooms, tomatoes and add a freshly prepared sauce	Have a day off cooking and let us do the work instead! Enjoy our all day breakfast menu with Specials - see chalkboard for details

Dividing Web pages into sections

Dividing Web pages into sections



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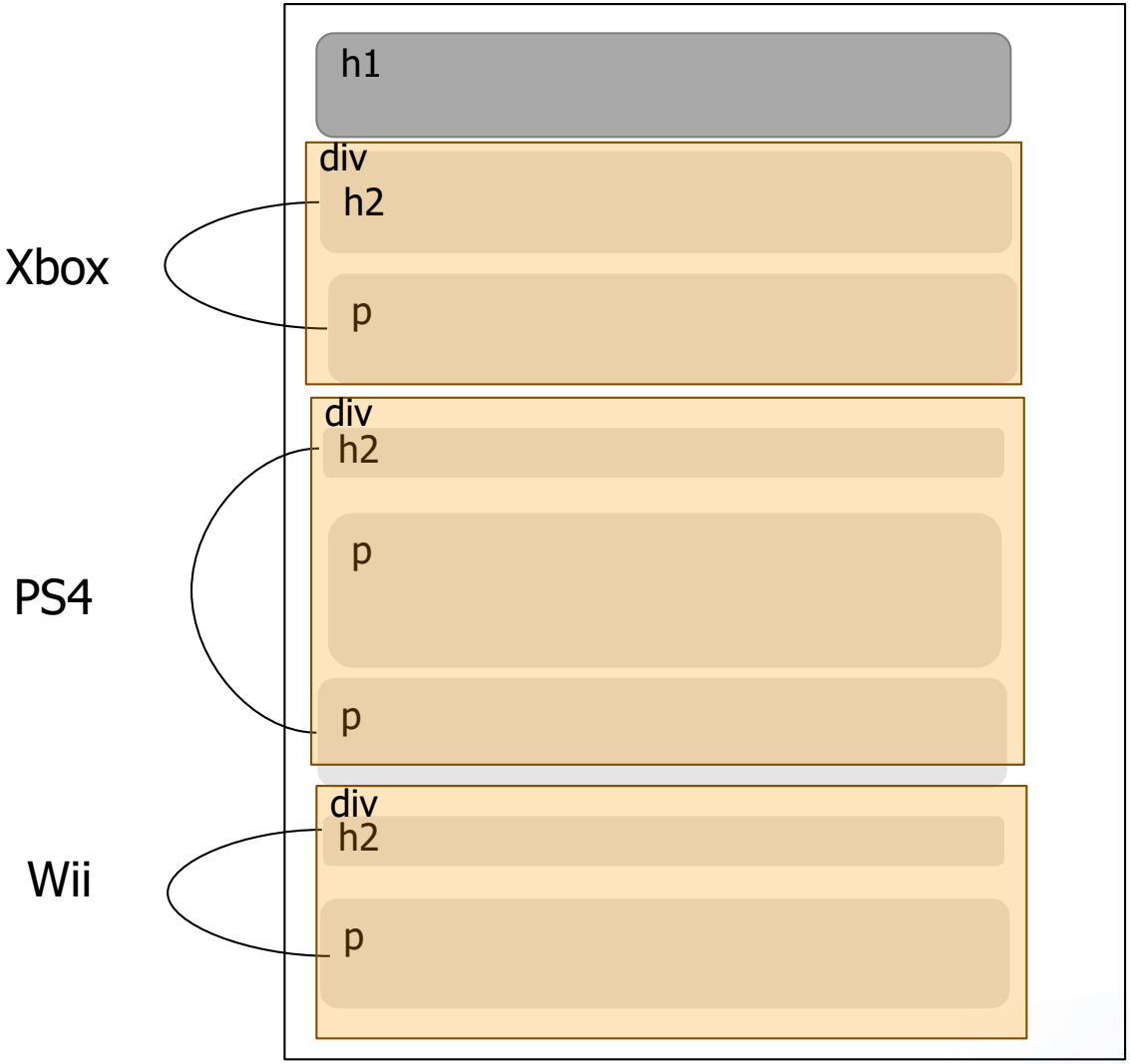
Using div to mark sections



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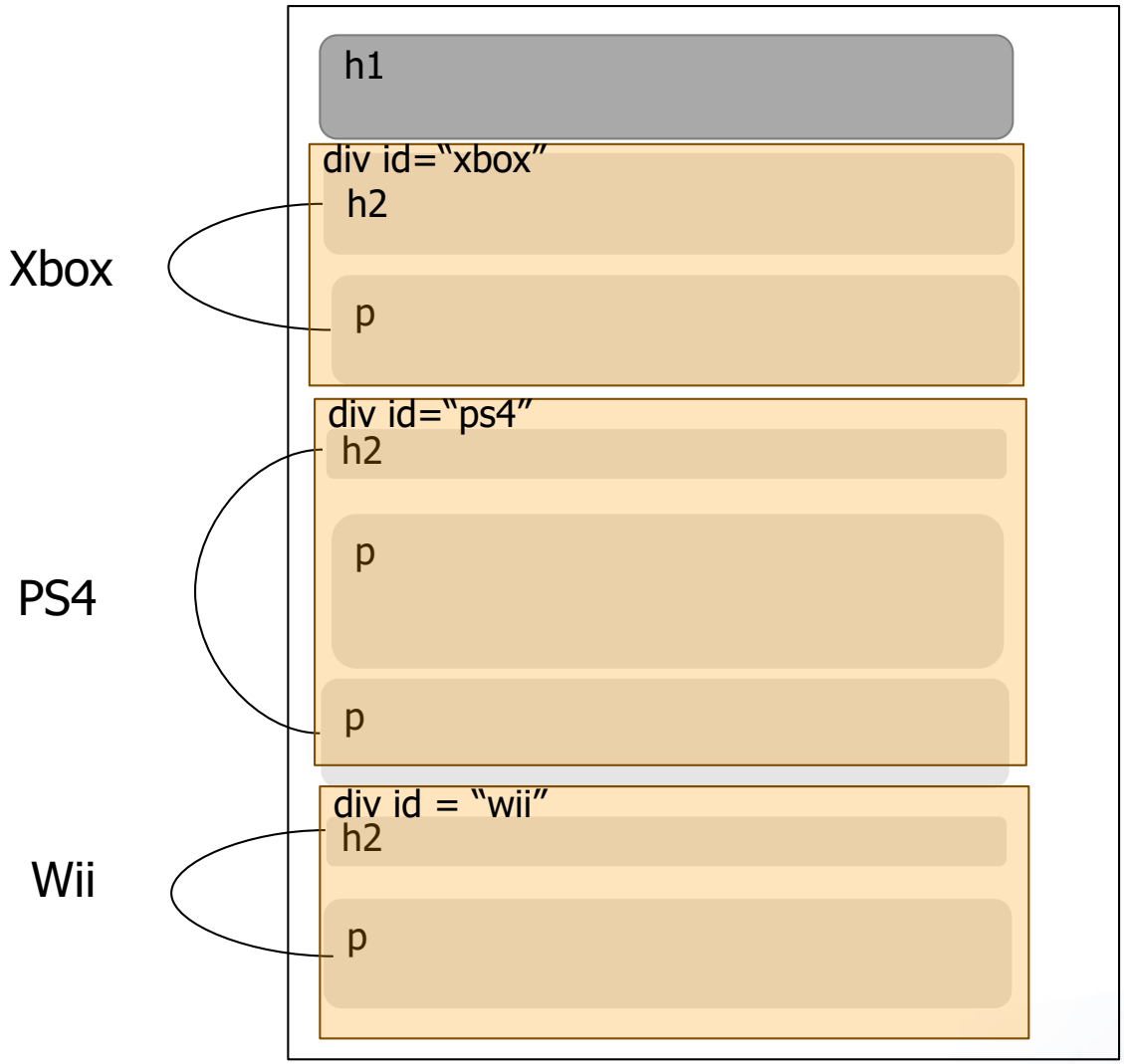
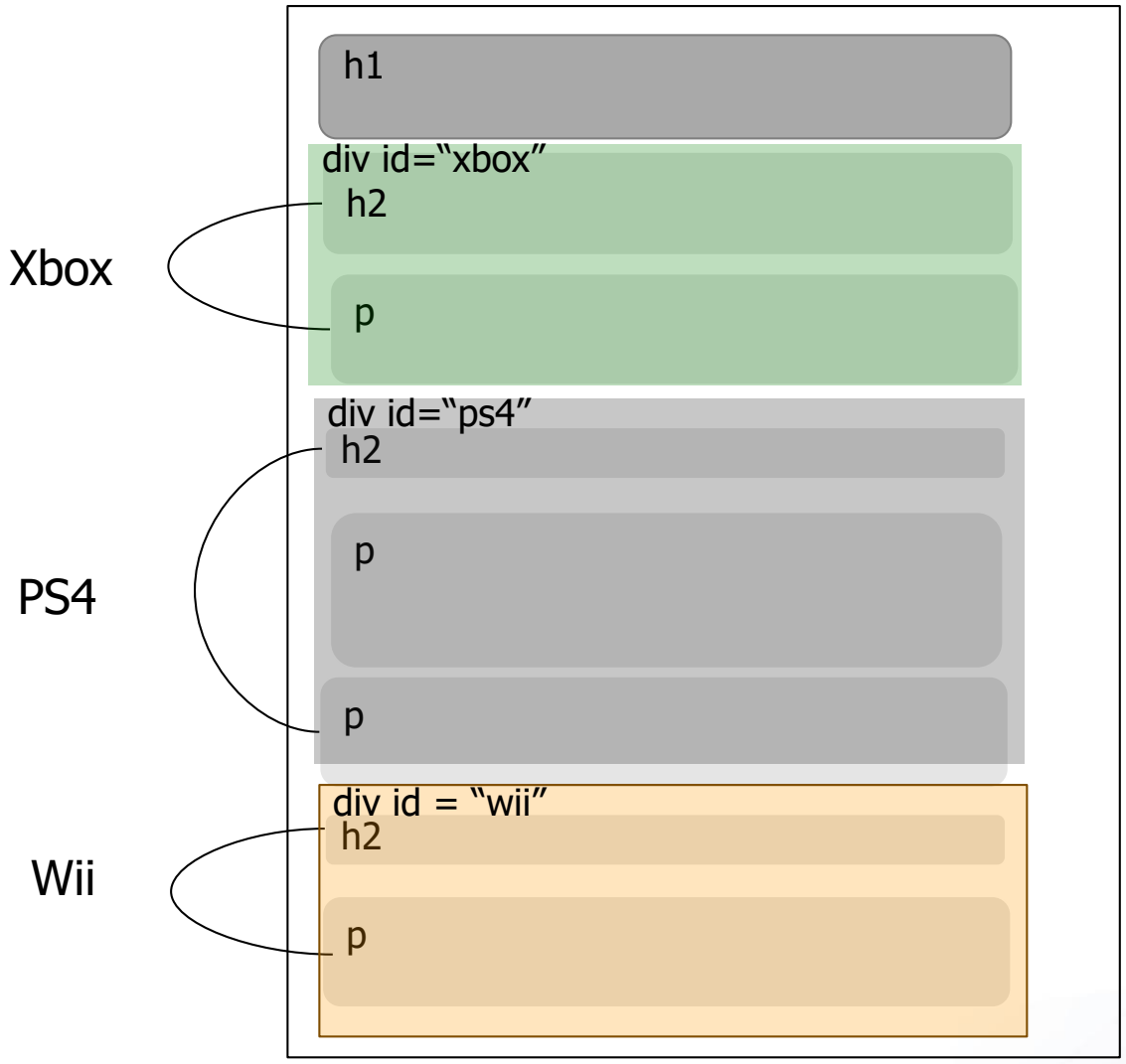
Adding labels to the sections

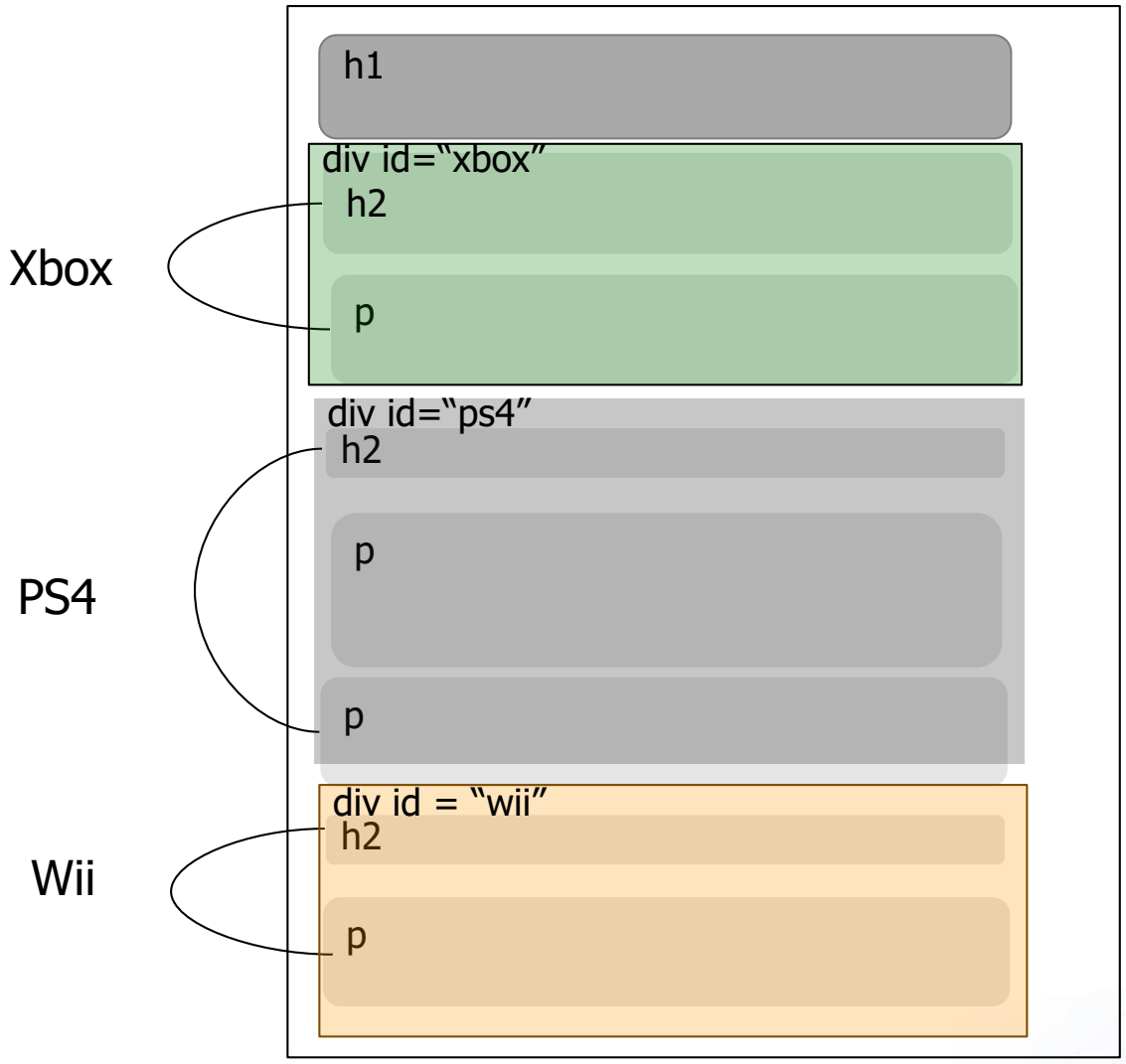


Lets add some style




```
#xbox {

background-color: green;
}

#ps4 {

background-color: black;
}

#wii {

background-color: orange;
}
```

Adding borders




```
#xbox {
border-width:thin;
border-style: solid;
border-color: black;
background-color: green;
}

#ps4 {

background-color: black;
}

#wii {

background-color: orange;
}
```

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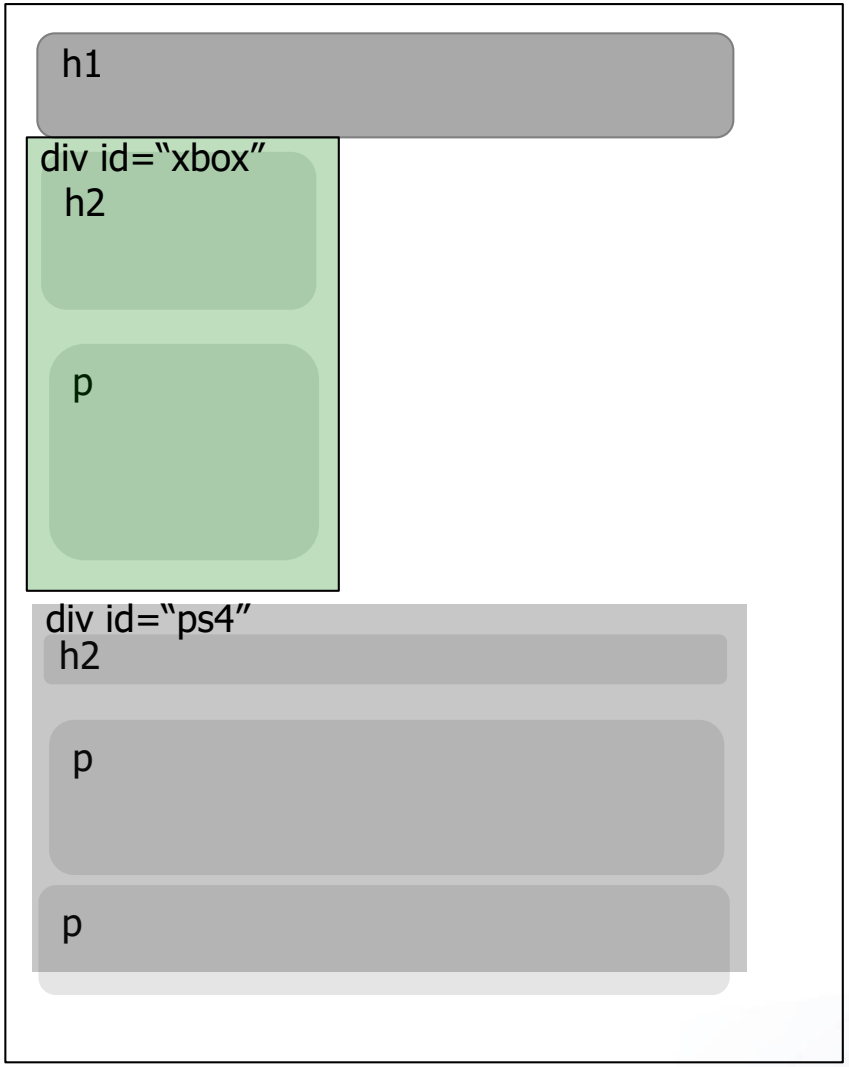
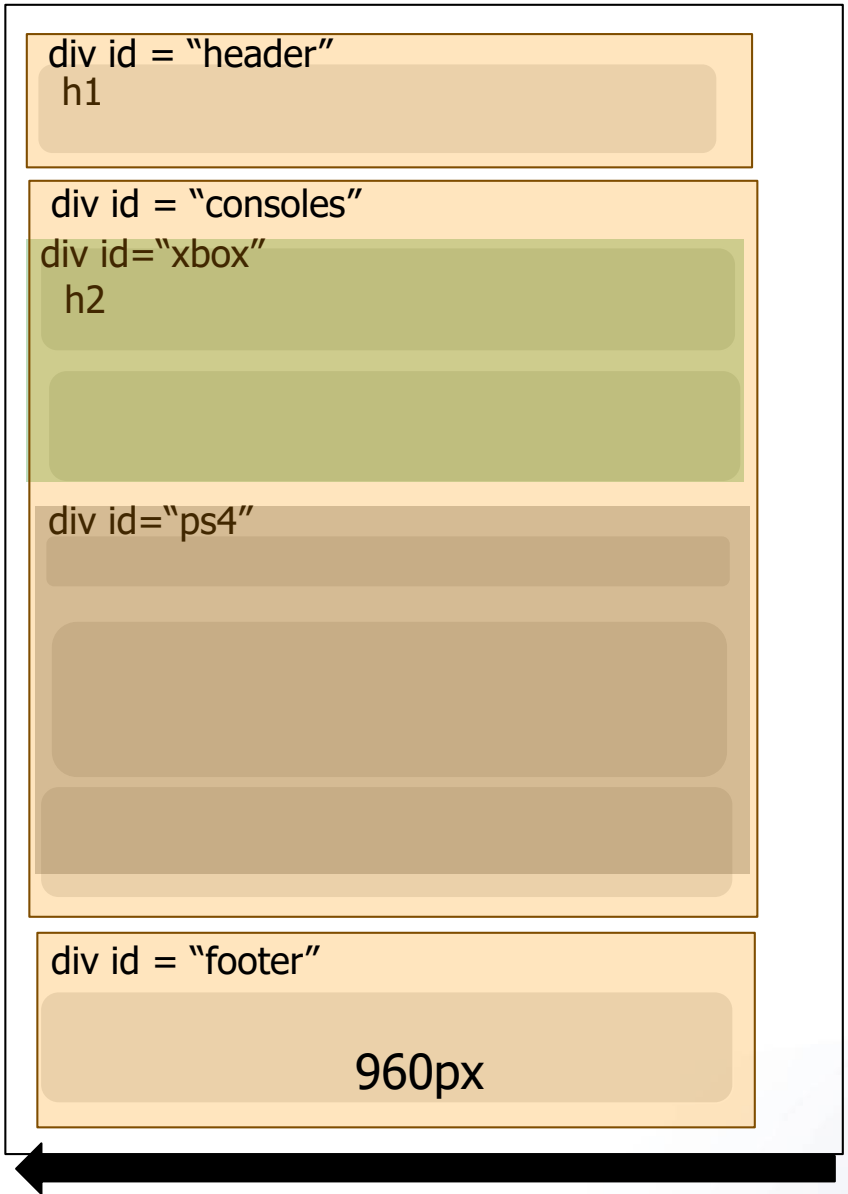
Changing the width




```
#xbox {
border-width:thin;
border-style: solid;
border-color: black;
background-color: green;
width: 200px;
}

#ps4 {

background-color: black;
}

#wii {

background-color: orange;
}
```

Adding structure on structure



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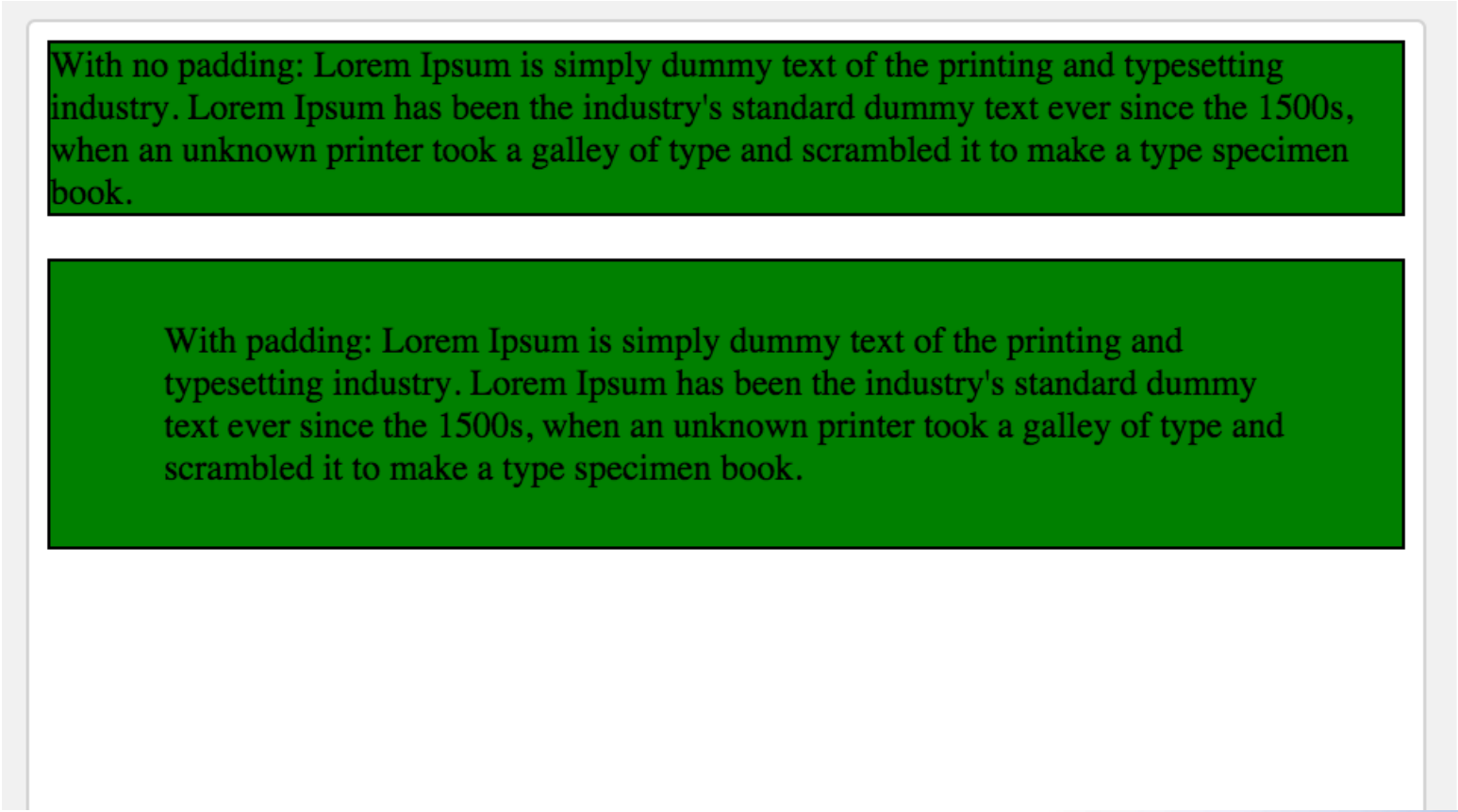
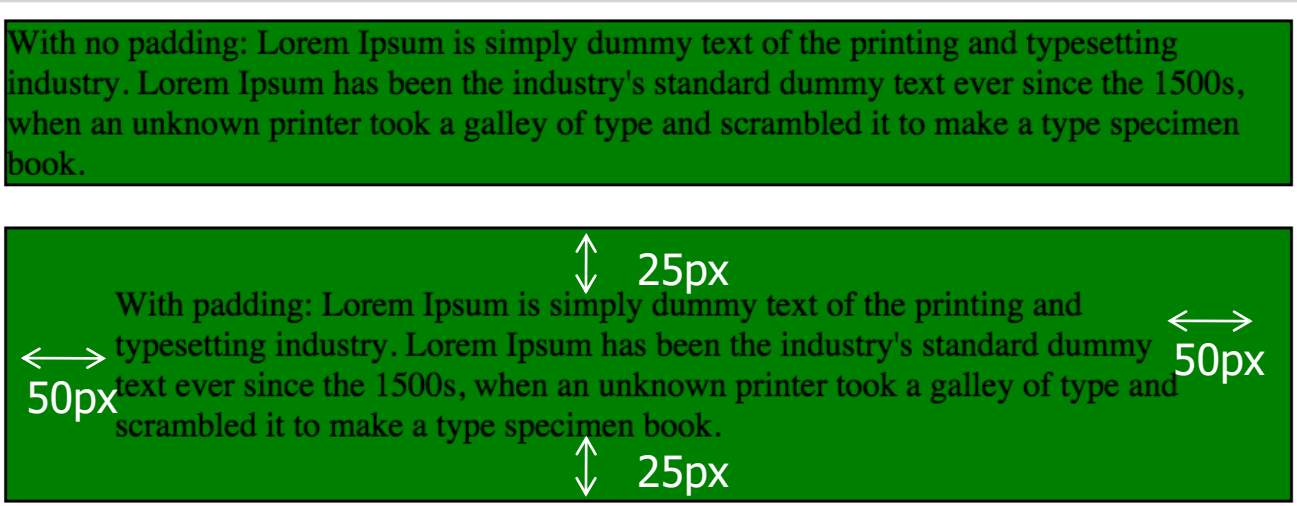
Adding padding



```
<!DOCTYPE html>
<html>
<head>
<style>
#xbox-nopadding {
border-width:thin;
border-style: solid;
border-color: black;
background-color: green;
}
#xbox-padding {
border-width:thin;
border-style: solid;
border-color: black;
background-color: green;
padding-top: 25px;
padding-right: 50px;
padding-bottom: 25px;
padding-left: 50px;
}
</style>
</head>
<body>
<div id="xbox-nopadding">
With no padding: Lorem Ipsum is simply ….
</div> <br>
<div id="xbox-padding">
With padding: Lorem Ipsum is…..
</div>
```



Adding padding

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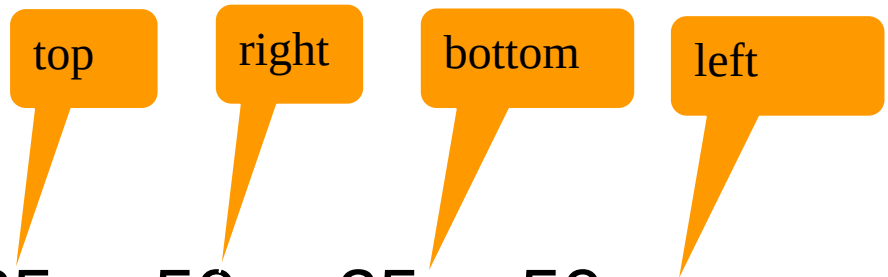
Short cut

padding-top: 25px;

padding-right: 50px;

padding-bottom: 25px;

padding-left: 50px;



padding: 25px 50px 25px 50px;

Short cut borders

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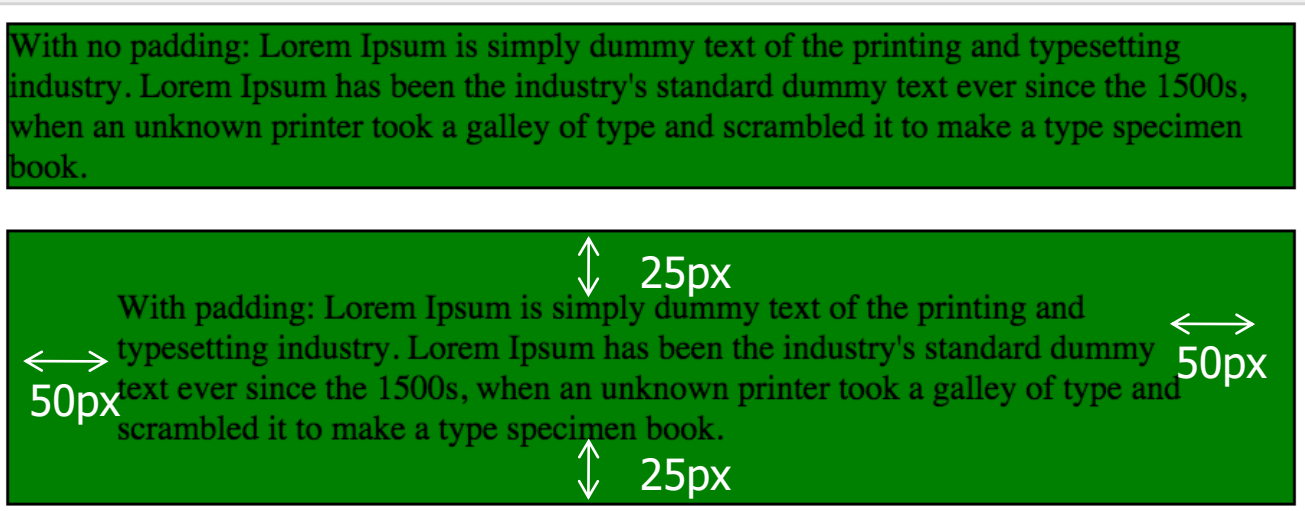
```
border-width:thin;
border-style: solid;
border-color: black;
```

They can be in any order you like

```
border: thin solid black;
```

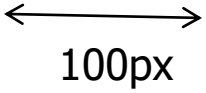
```
<!DOCTYPE html>
<html>
<head>
<style>
#xbox-nopadding {
border: thin solid black;
background-color: green;
}
#xbox-padding {
border: thin solid black;
background-color: green;
padding: 25px 50px 25px 50px;
}
</style>
</head>
<body>
<div id="xbox-nopadding">
With no padding: Lorem Ipsum is simply ….
</div> <br>
<div id="xbox-padding">
With padding: Lorem Ipsum is…..
</div>
</div>
</body>
</html>
```



Adding padding

```
<!DOCTYPE html>
<html>
<head>
<style>
#xbox-nopadding {
border: thin solid black;
background-color: green;
}
#xbox-padding {
border: thin solid black;
background-color: green;
padding: 25px 50px 25px 50px;
margin-left:100px;
}
</style>
</head>
<body>
<div id="xbox-nopadding">
With no padding: Lorem Ipsum is simply ….
</div> <br>
<div id="xbox-padding">
With padding: Lorem Ipsum is…..
</div>
```

With no padding: Lorem Ipsum is simply dummy text of the printing and typesetting industry. Lorem Ipsum has been the industry's standard dummy text ever since the 1500s, when an unknown printer took a galley of type and scrambled it to make a type specimen book.



With padding: Lorem Ipsum is simply dummy text of the printing and typesetting industry. Lorem Ipsum has been the industry's standard dummy text ever since the 1500s, when an unknown printer took a galley of type and scrambled it to make a type specimen book.

Adding margins

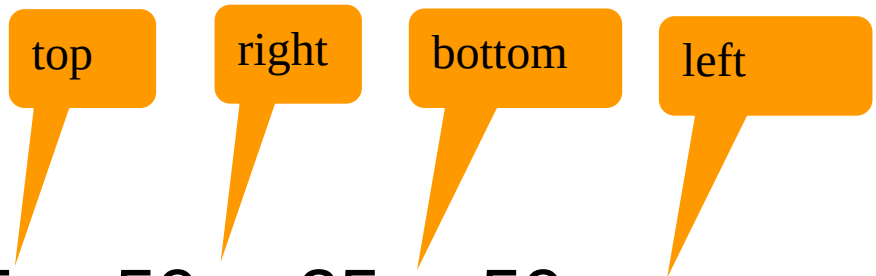
Margin short cuts

margin-top: 25px;

margin-right: 50px;

margin-bottom: 25px;

margin-left: 50px;



margin: 25px 50px 25px 50px;

If all the same

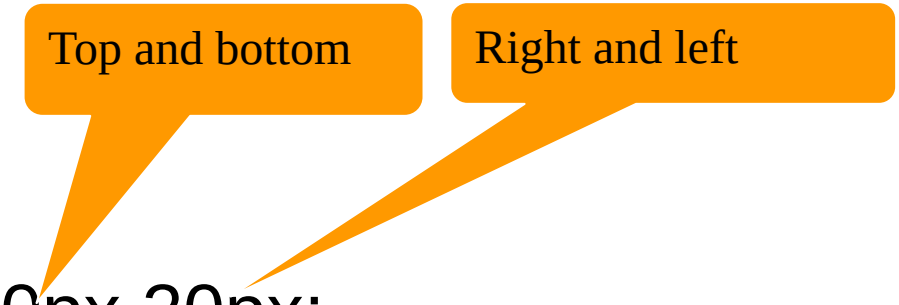
```
margin-top: 20px;
margin-right: 20px;
margin-bottom: 20px;
margin-left: 20px;
```

```
margin: 20px;
```

Works for padding too

If top and bottom are the same

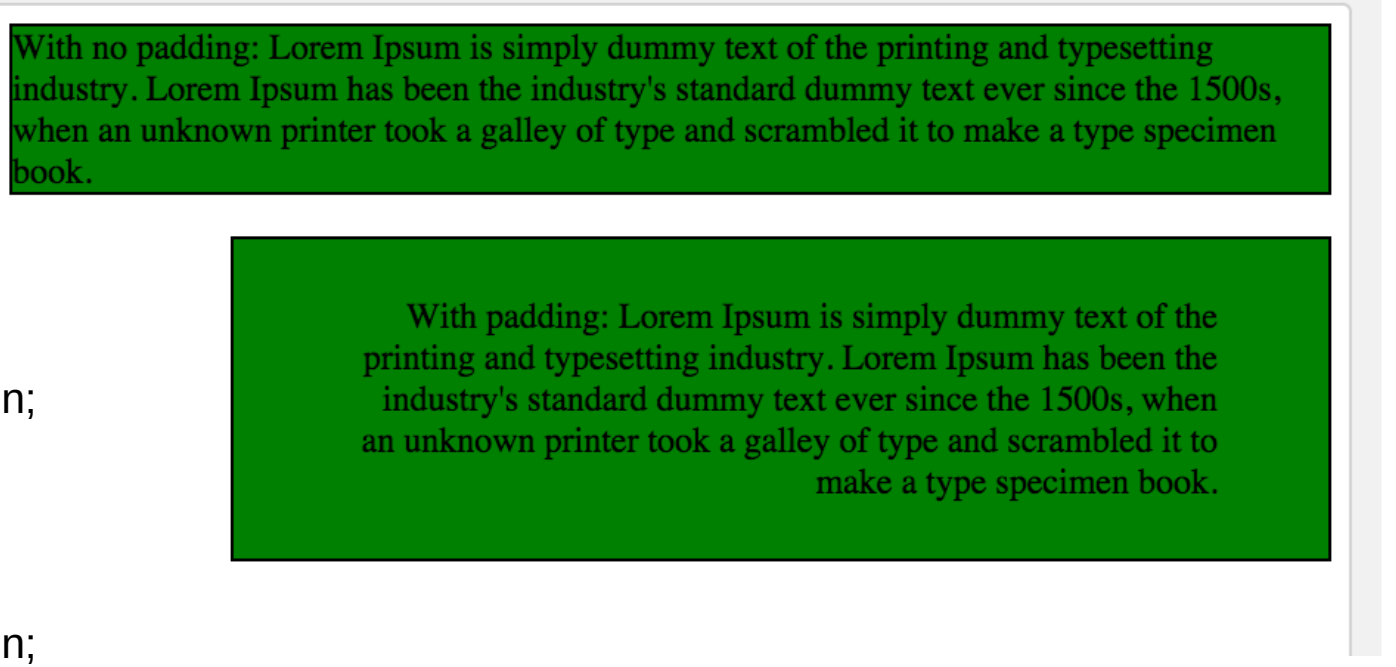
```
margin-top: 0px;
margin-right: 20px;
margin-bottom: 0px;
margin-left: 20px;
```




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

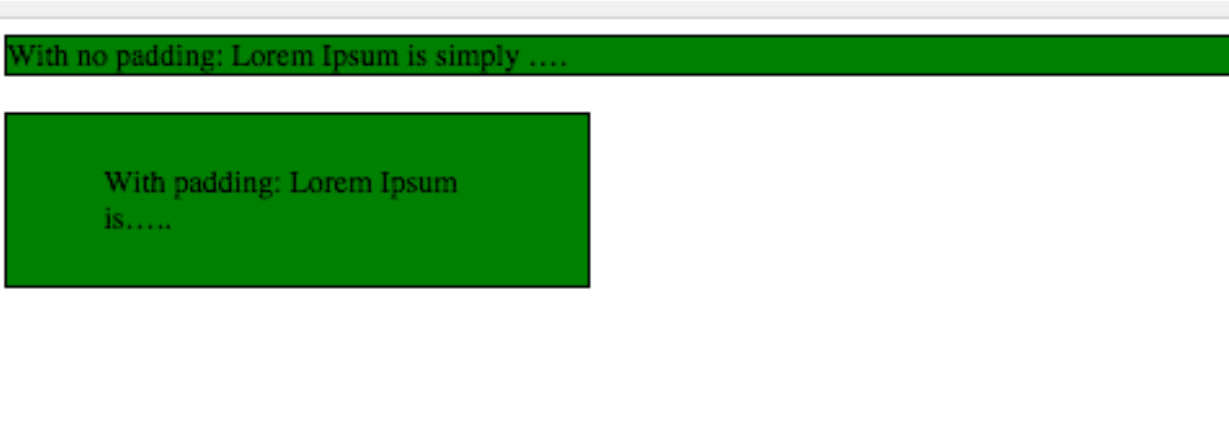
Works for padding too

```
<!DOCTYPE html>
<html>
<head>
<style>
#xbox-nopadding {
border: thin solid black;
background-color: green;
}
#xbox-padding {
border: thin solid black;
background-color: green;
padding: 25px 50px 25px 50px;
margin-left:100px;
text-align: right;
}
</style>
</head>
<body>
<div id="xbox-nopadding">
With no padding: Lorem Ipsum is simply ….
</div><br>
<div id="xbox-padding">
With padding: Lorem Ipsum is…..
```



Making the text align within a div

```
<!DOCTYPE html>
<html>
<head>
<style>
#xbox-nopadding {
border: thin solid black;
background-color: green;
}
#xbox-padding {
border: thin solid black;
background-color: green;
padding: 25px 50px 25px 50px;
width: 200px;
}
</style>
</head>
<body>
<div id="xbox-nopadding">
With no padding: Lorem Ipsum is simply ….
</div> <br>
<div id="xbox-padding">
With padding: Lorem Ipsum is…..
</div>
</div>
</body>
```



Changing the width of a div

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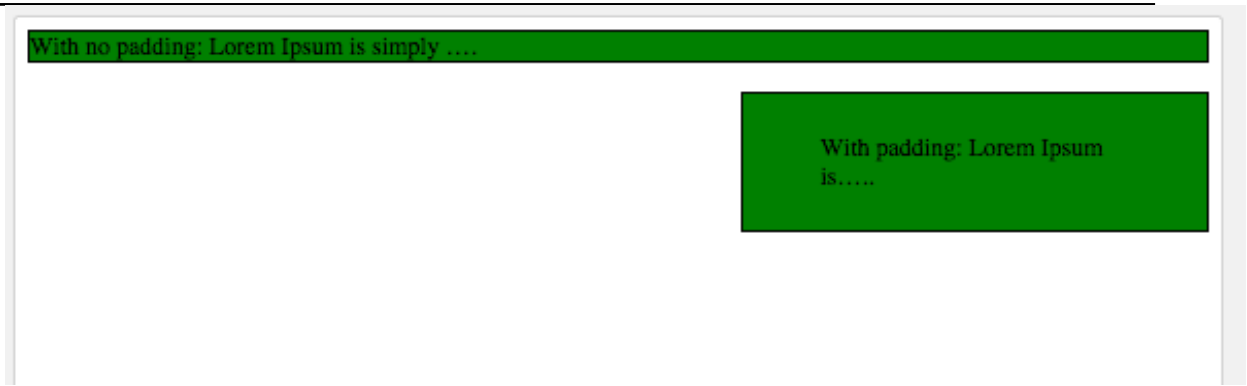
```
<!DOCTYPE html>
<html>
<head>
<style>
#xbox-nopadding {
border: thin solid black;
background-color: green;
}
#xbox-padding {
border: thin solid black;
background-color: green;
padding: 25px 50px 25px 50px;
width: 200px;
float: right;
}
</style>
</head>
<body>
<div id="xbox-nopadding">
With no padding: Lorem Ipsum is simply ….
</div> <br>
<div id="xbox-padding">
With padding: Lorem Ipsum is…..
</div>
</div>
```



Changing the position with float

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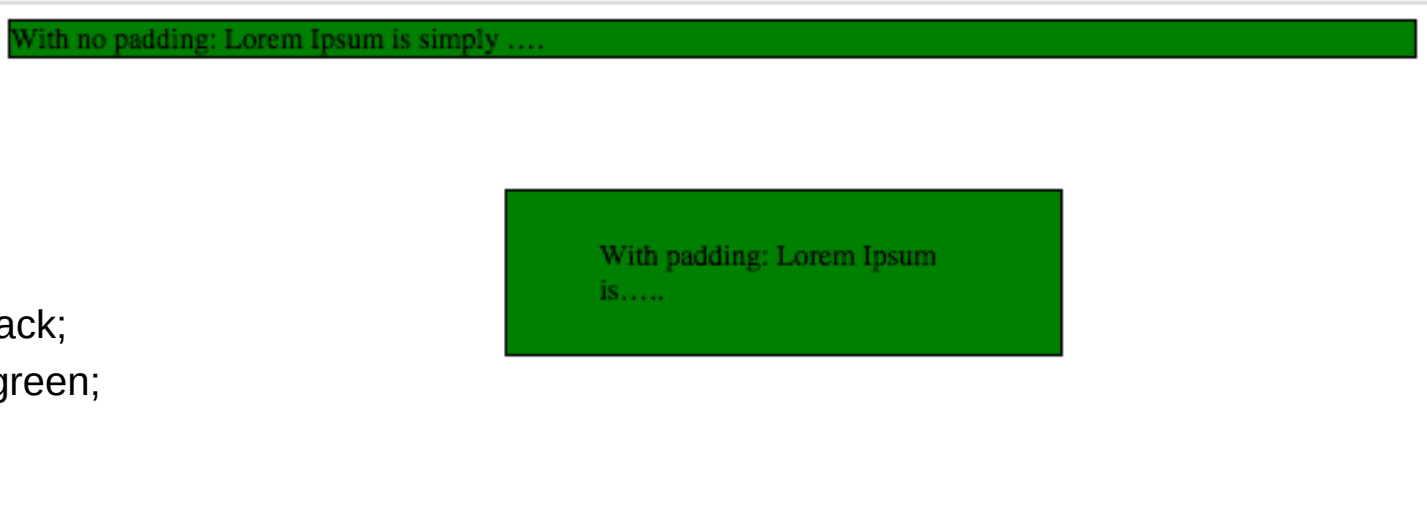
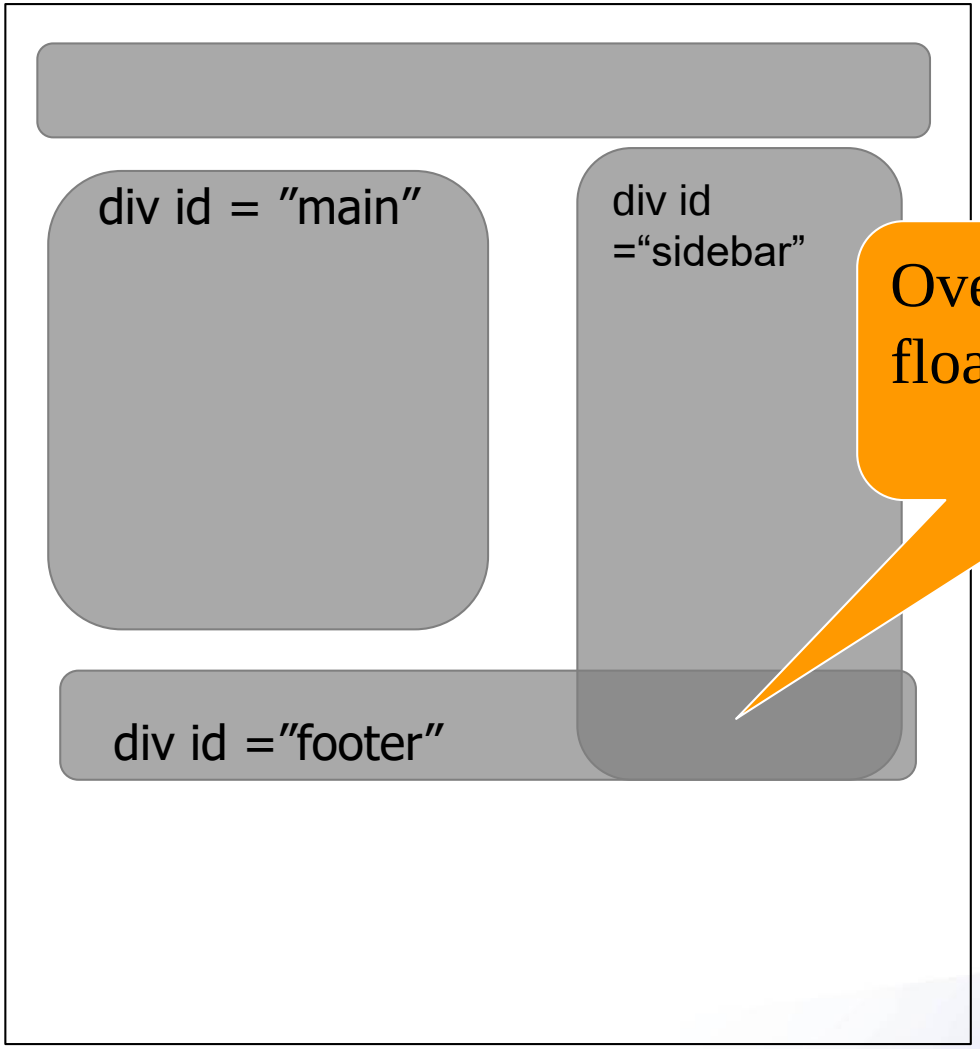
```
<!DOCTYPE html>
<html>
<head>
<style>
#xbox-nopadding {
border: thin solid black;
background-color: green;
}
#xbox-padding {
border: thin solid black;
background-color: green;
padding: 25px 50px 25px 50px;
width: 200px;
position: absolute;
top: 100px;
right: 200px;
}
</style>
</head>
<body>
<div id="xbox-nopadding">
With no padding: Lorem Ipsum is simply ….
</div> <br>
<div id="xbox-padding">
With padding: Lorem Ipsum is…..
</div>
</body>
</html>
```

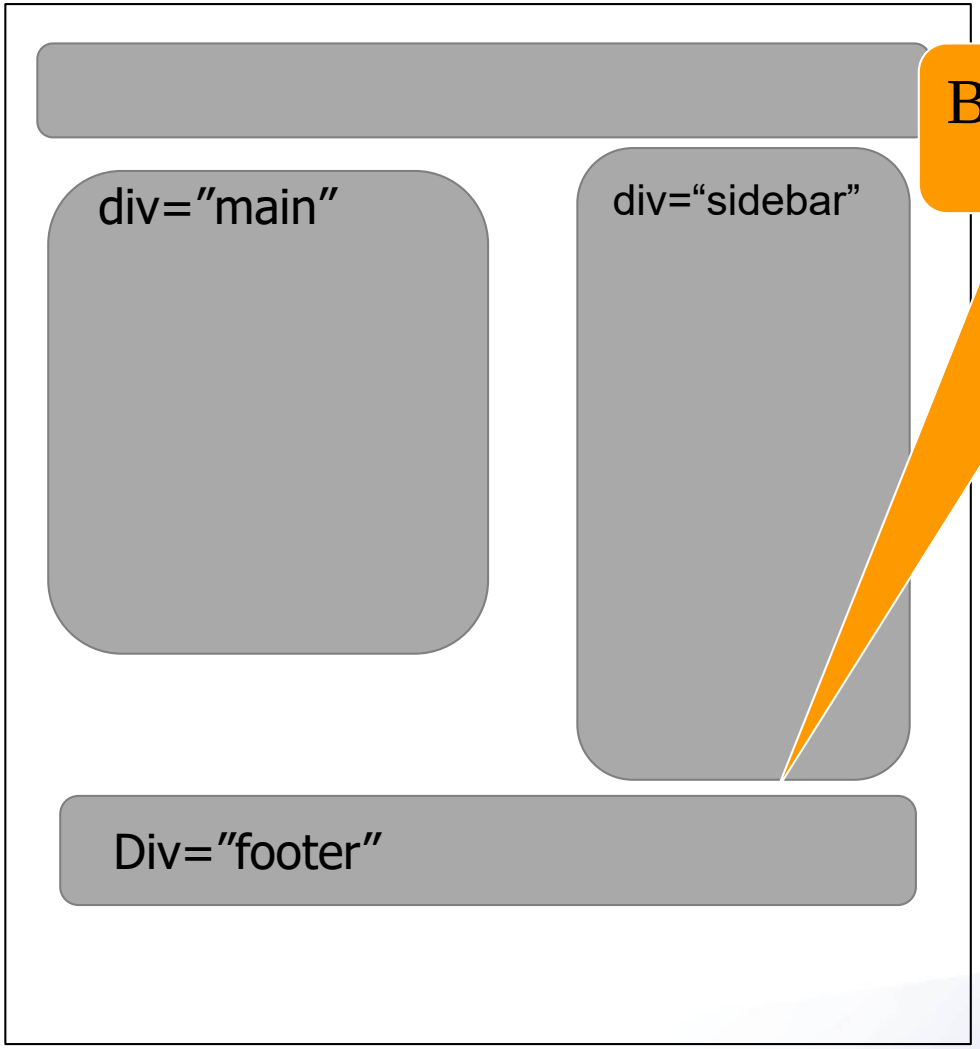


Changing the position with absolute position

Coping with overlap



Coping with overlap




```
#footer{
padding: 15px;
margin: 10px;
clear: right;
}
```

Don’t over do it

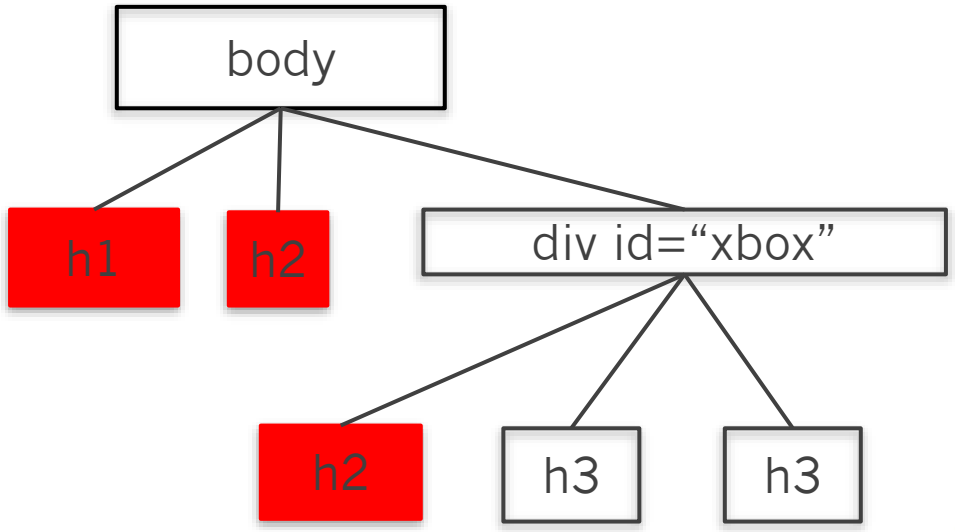
- Don’t add s unnecessarily.
- Adding structure for sections adds clarity and style
- Adding s for the sake of it creates unnecessarily complicated structure

Short cut!

- Free div generators
  - E.g. http://divoverlaylayouts.com/

Div and inheritance

```
h1, h2 {
color: red;
}
```



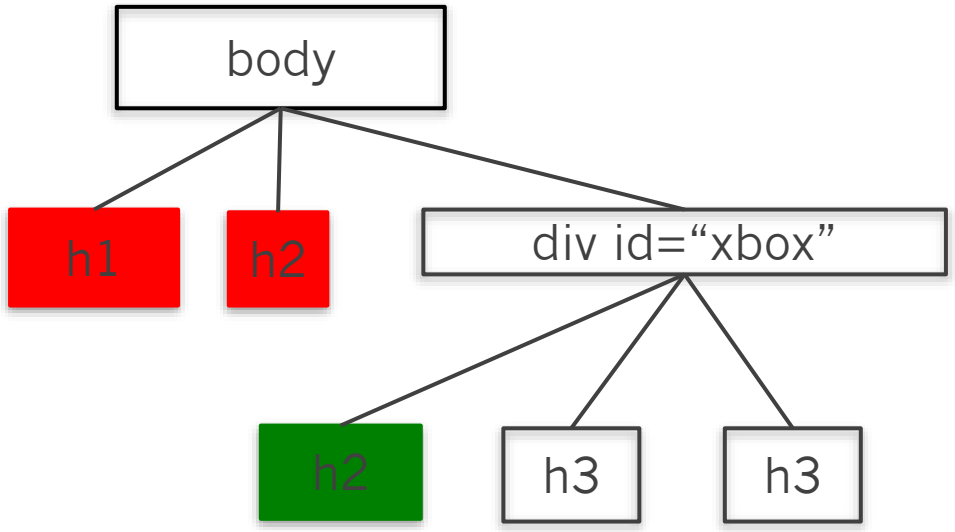
We want the div h2 to be different

Parent element

descendent

```
div  h2 {
        color: green;
}
```

Rule: select any h2 descendent of *any div*



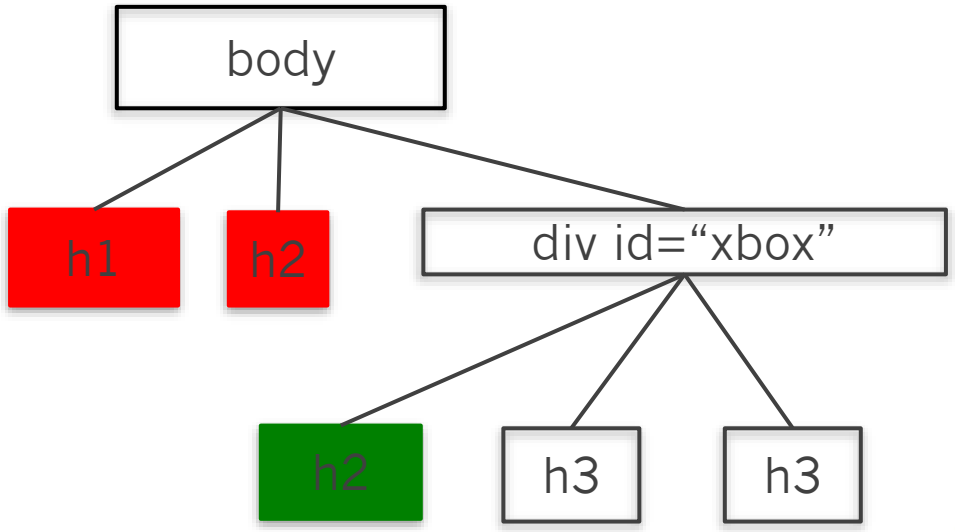
But we just want this for “xbox” div

Parent element

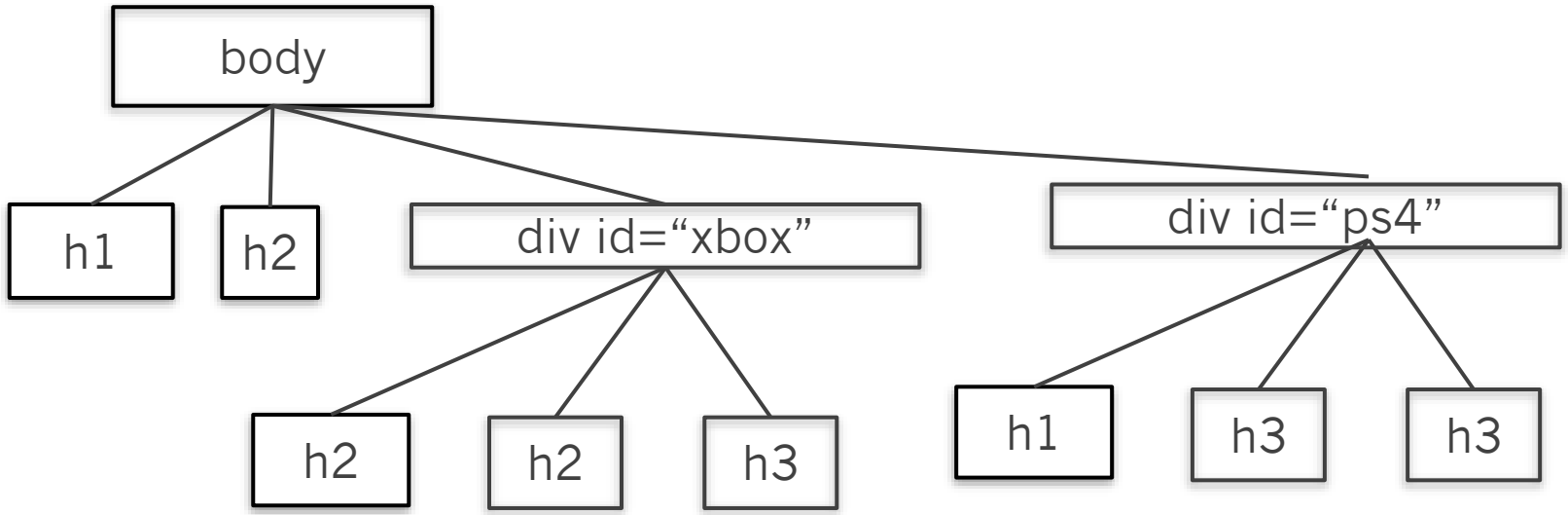
descendent

```
#xbox h2 {
color: green;
}
```

Rule: select any h2 descendent of “xbox” div

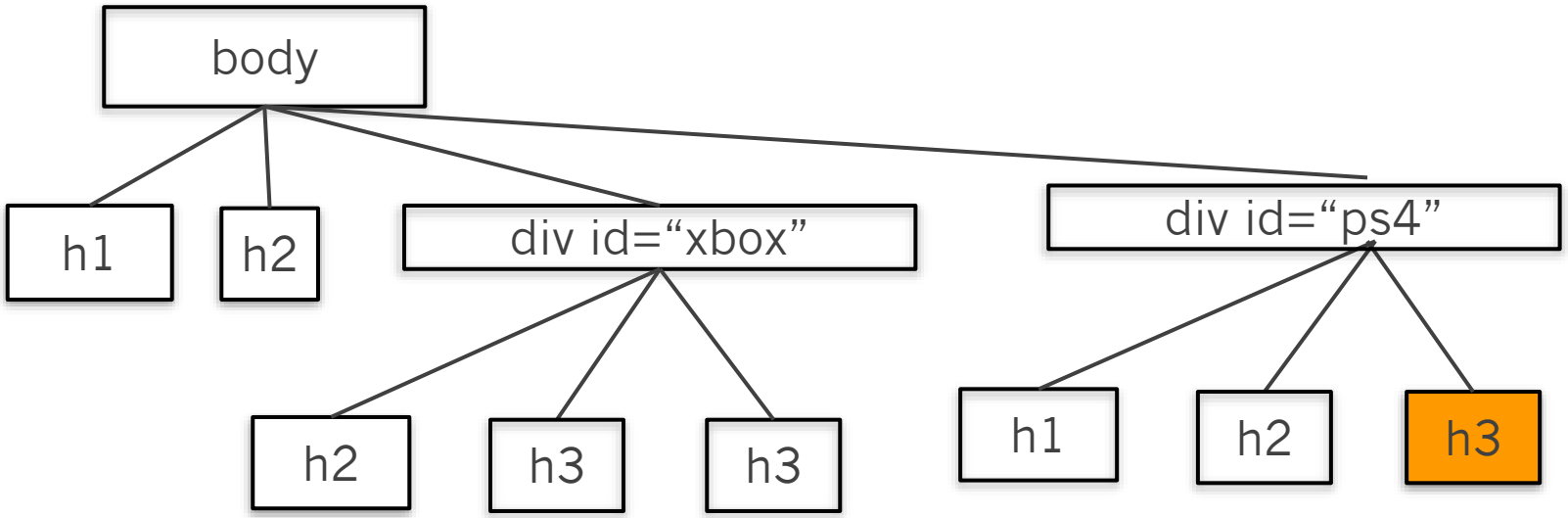


Now you try: write the selector that only selects <h3> elements inside the “ps4” and makes it orange



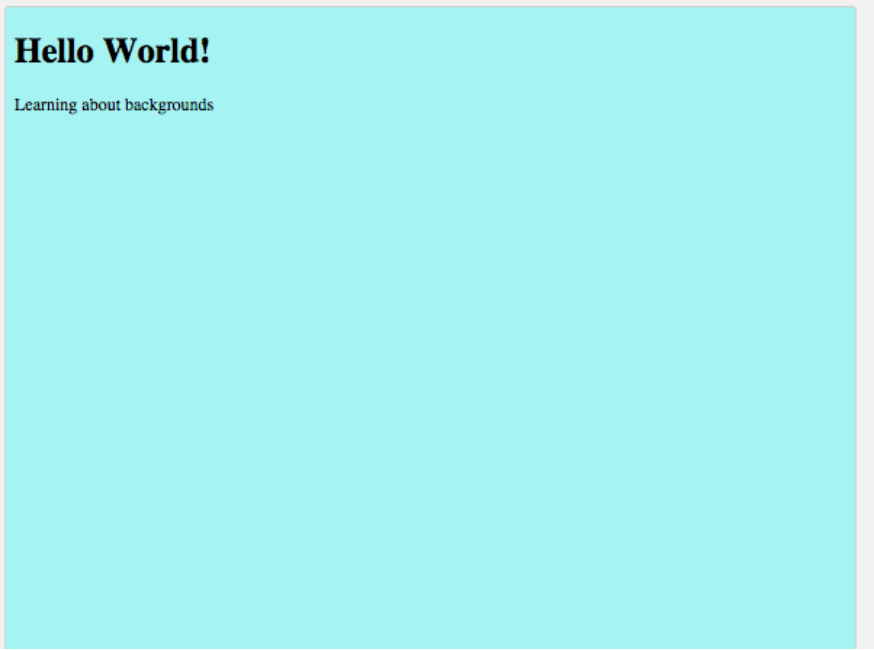
Now you try: write the selector that only selects <h3> elements inside the “ps4” and makes it orange

```
#ps4 h3 {
        color: orange;
}
```



Background colour

```
<!DOCTYPE html>
<html>
<head>
<style>
body {
    background-color: #a4f3f3;
  }
</style>
</head>
<body>

<h1>Hello World!</h1>
<p> Learning about backgrounds</p>

</body>
</html>
```

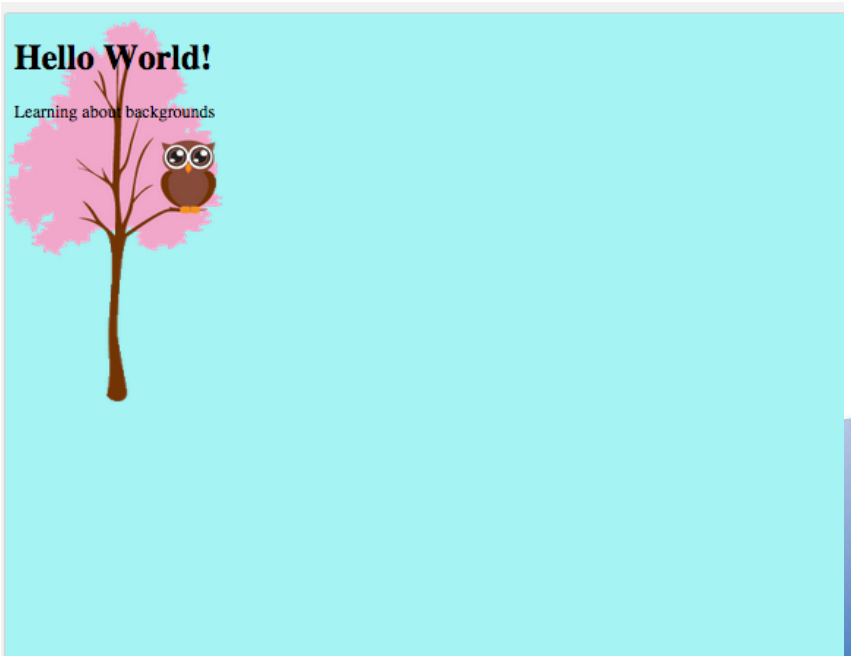


Adding a picture

```
<!DOCTYPE html>
<html>
<head>
<style>
body {
    background-color: #a4f3f3;
    background-image: url("img_tree.png");
  }
</style>
</head>
<body>

<h1>Hello World!</h1>
<p> Learning about backgrounds</p>

</body>
</html>
```

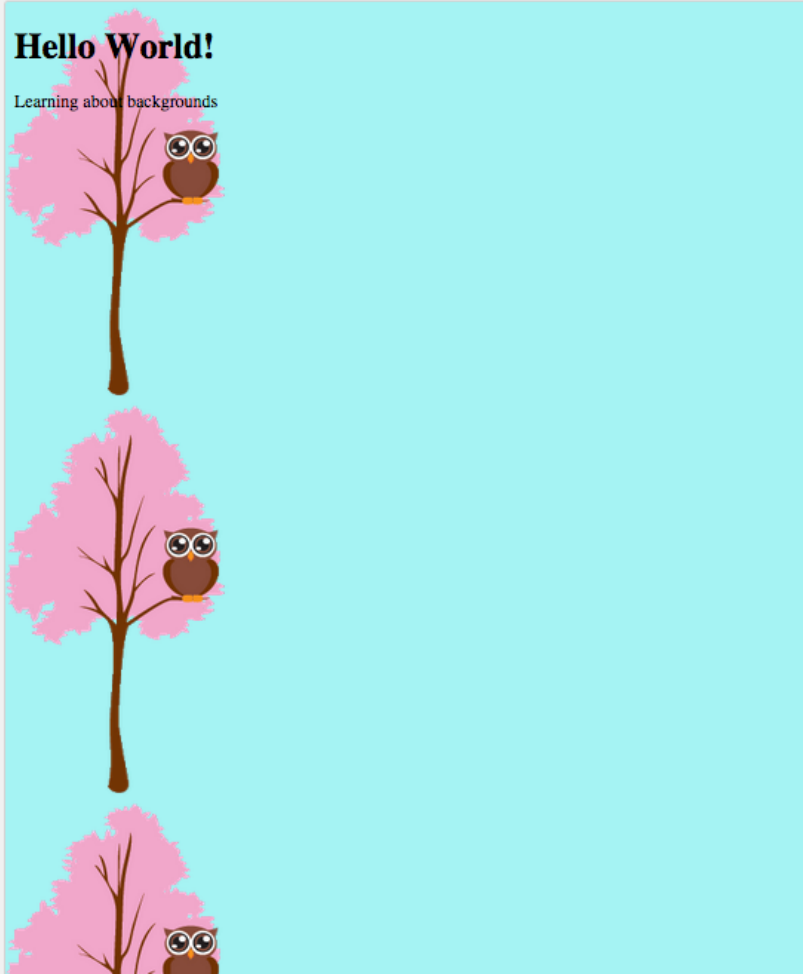
Background no-repeat

```
<!DOCTYPE html>
<html>
<head>
<style>
body {
    background-color: #a4f3f3;
    background-image: url("img_tree.png");
    background-repeat: no-repeat;
  }
</style>
</head>
<body>

<h1>Hello World!</h1>
<p> Learning about backgrounds</p>

</body>
</html>
```



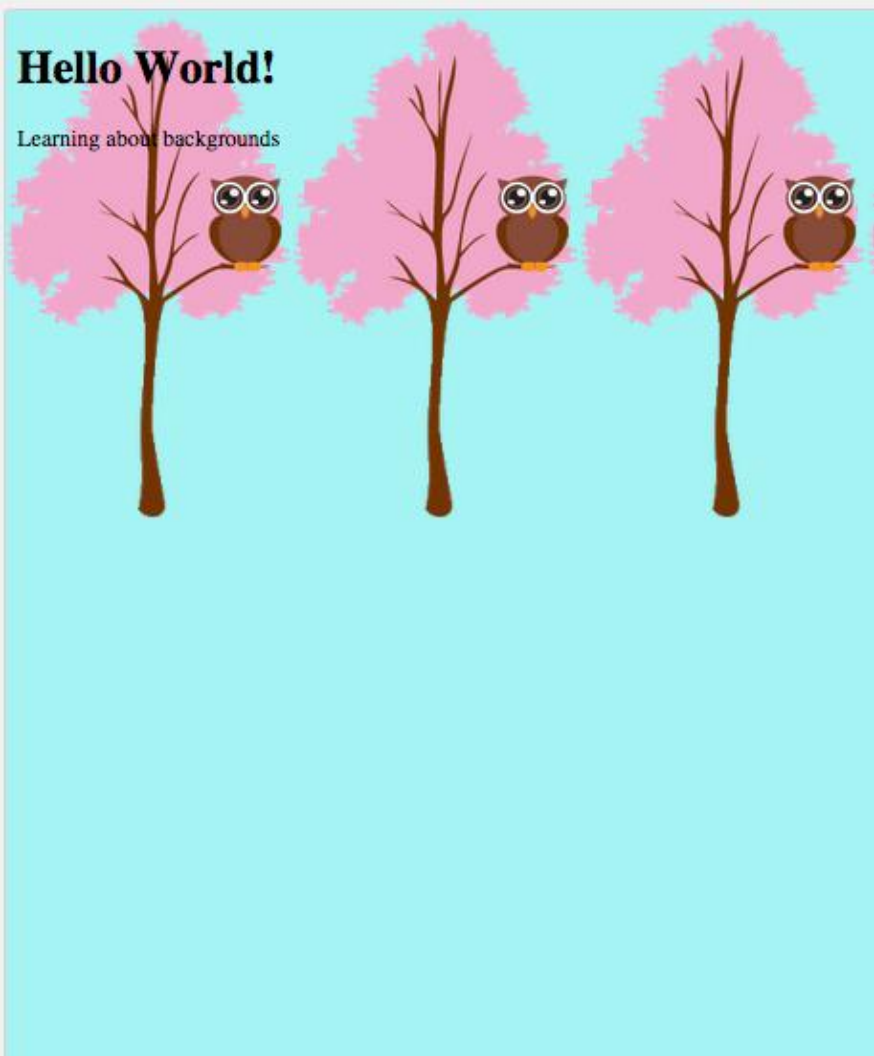
Background repeat-y

```
<!DOCTYPE html>
<html>
<head>
<style>
body {
    background-color: #a4f3f3;
    background-image: url("img_tree.png");
    background-repeat: repeat-y;
  }
</style>
</head>
<body>

<h1>Hello World!</h1>
<p> Learning about backgrounds</p>

</body>
</html>
```



Background repeat-x

```
<!DOCTYPE html>
<html>
<head>
<style>
body {
    background-color: #a4f3f3;
    background-image: url("img_tree.png");
    background-repeat: repeat-x;
  }
</style>
</head>
<body>

<h1>Hello World!</h1>
<p> Learning about backgrounds</p>

</body>
</html>
```



Background position

```
<!DOCTYPE html>
<html>
<head>
<style>
body {
    background-color: #a4f3f3;
    background-image: url("img_tree.png");
    background-repeat: no-repeat;
    background-position: right top;
  }
</style>
</head>
<body>

<h1>Hello World!</h1>
<p> Learning about backgrounds</p>

</body>
</html>
```

Shortcut: background

```
<!DOCTYPE html>
<html>
<head>
<style>
body {
    background: #a4f3f3 url("img_tree.gif") no-repeat right top;
}
</style>
</head>
<body><h1>Hello World!</h1>
<p> Learning about backgrounds</p>

</body>
</html>
```

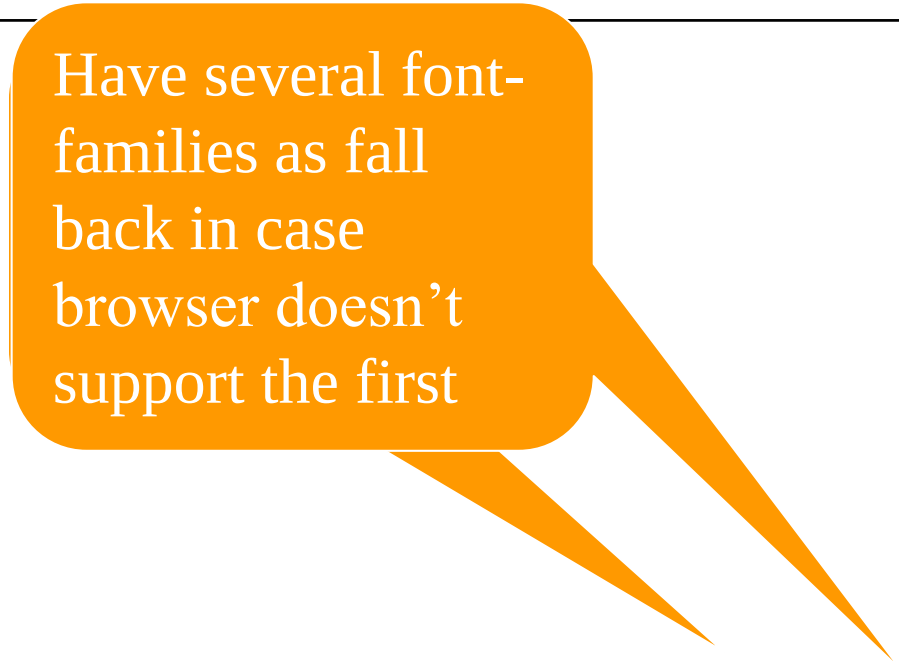
They can be in any order you like

font-family

San-serif considered easier to read on screen

Generic family	Font Family
Serif	Times New Roman Georgia
San-serif	Arial Verdana
Monospace	Courier New Lucinda console

Font-family cont




```
p {
    font-family: "Times New Roman", Times, serif;
}
```

Font short cuts

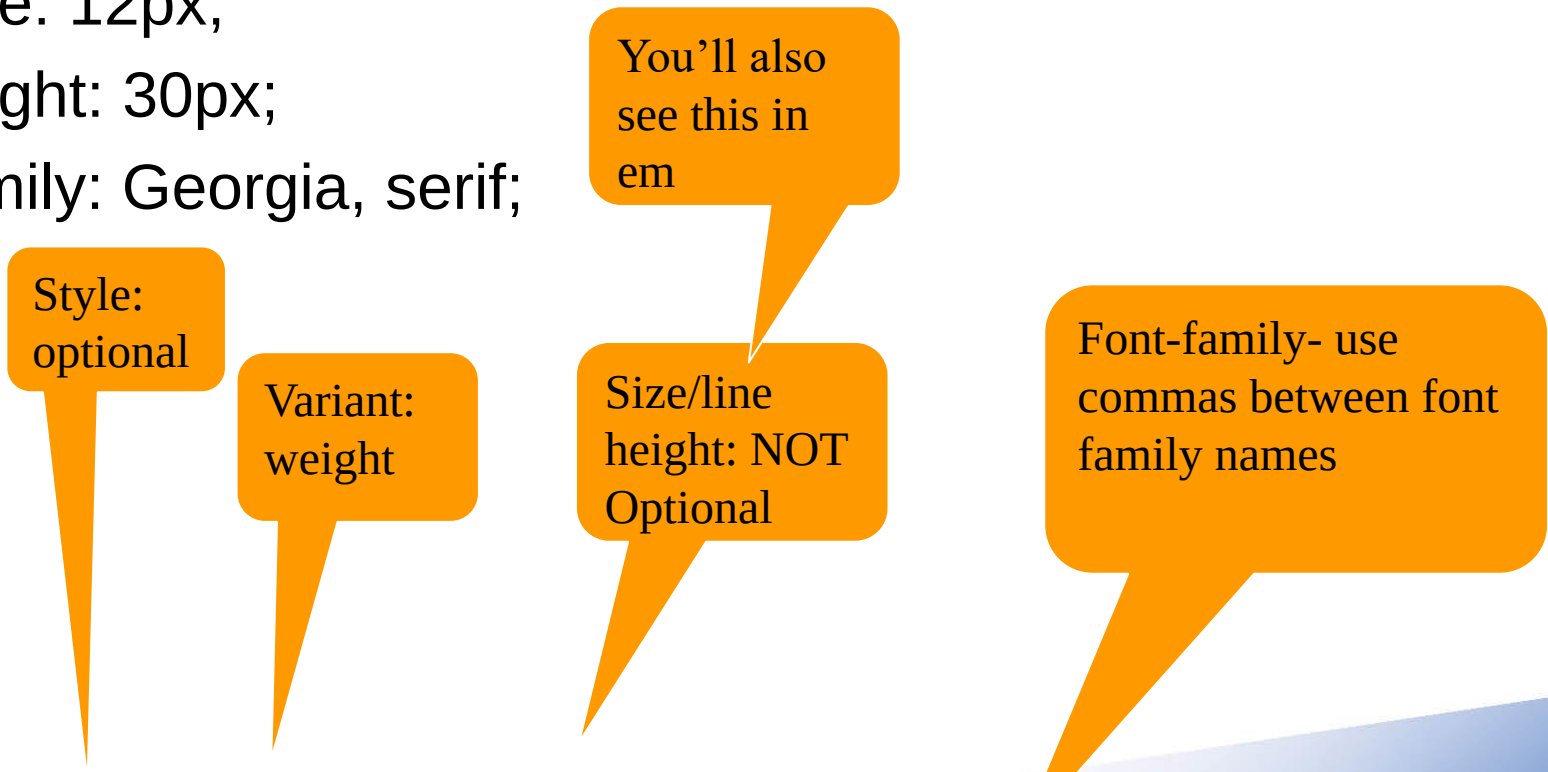
font-style: italic;

font-weight: bold;

font-size: 12px;

line-height: 30px;

font-family: Georgia, serif;

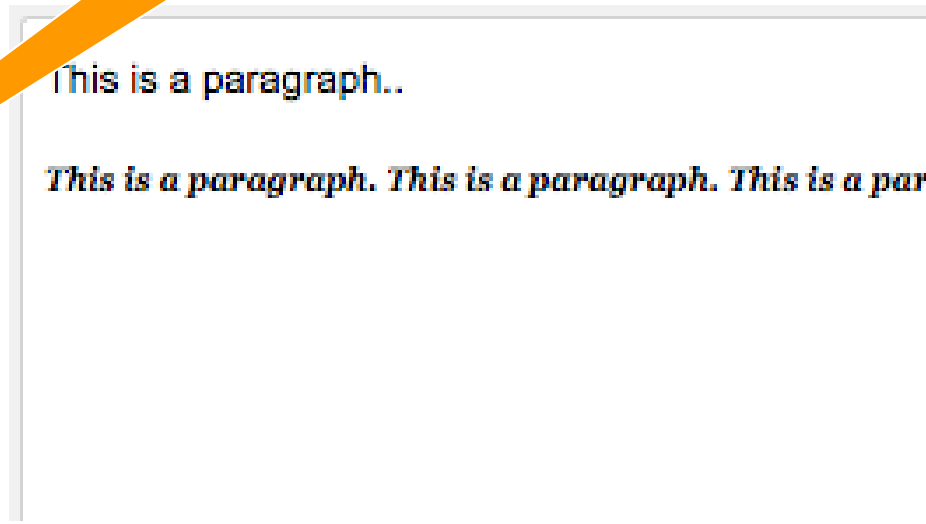


font: italic bold 12px/30px Georgia, serif;

Font short cuts

```
<!DOCTYPE html>
<html>
<head>
<style>
p.ex1 {
    font: 15px arial, sans-serif;
}

p.ex2 {
    font: italic bold 12px/30px Georgia, serif;
}
</style>
</head>
<body>

<p class="ex1">This is a paragraph..</p>
<p class="ex2">This is a paragraph. This is a
paragraph. This is a paragraph.</p>

</body>
</html>
```

Ordering matters!

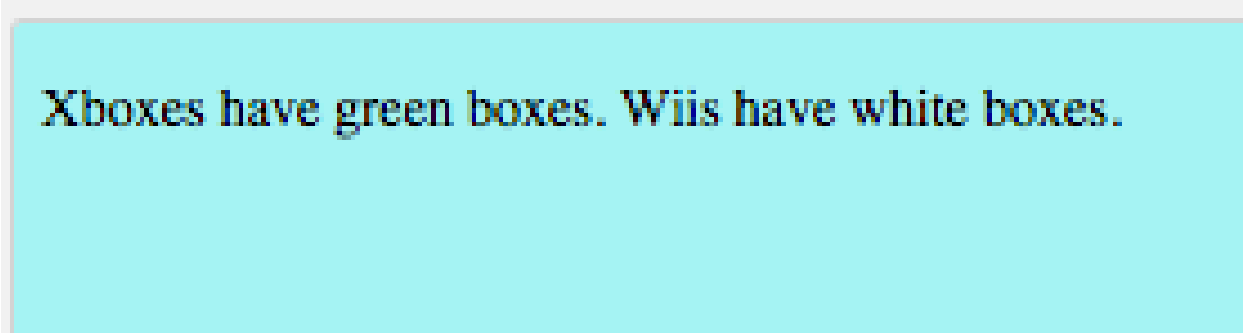


Span

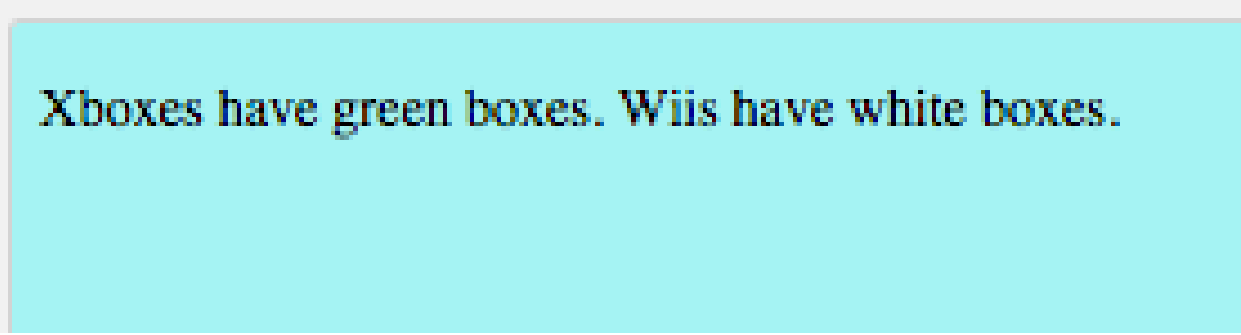
- The tag provides a way to add a hook to a part of a text or a part of a document.
- doesn’t change the text in anyway
- Let’s you add style certain parts of the text for example

Example

```
<!DOCTYPE html>
<html>
<head>
<style>
body{
background-color: #a4f3f3;
}
</style>
</head>
<body>
<p> Xboxes have green boxes. Wiis have white boxes.</p>
</body>
</html>
```

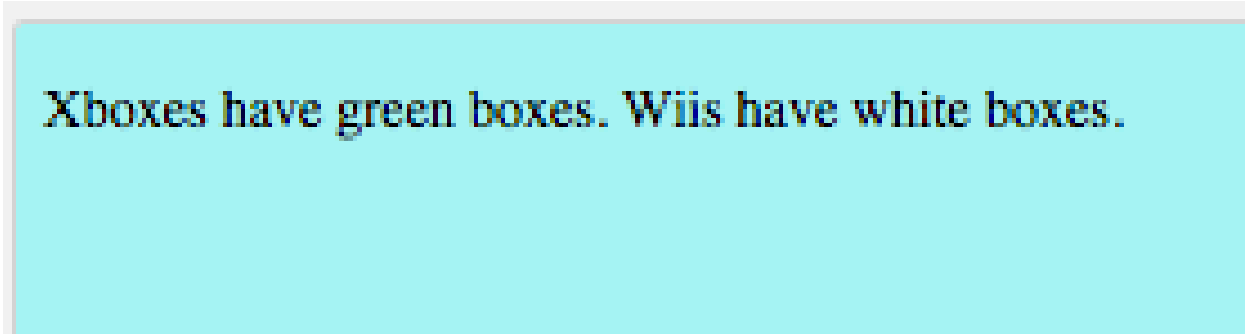


Adding spans- nothing happens




```
<!DOCTYPE html>
<html>
<head>
<style>
body{
background-color: #a4f3f3;
}
</style>
</head>
<body>
<p> Xboxes have <span> green </span> boxes. Wiis have <span> white
</span> boxes.</p></body>
</html>
```

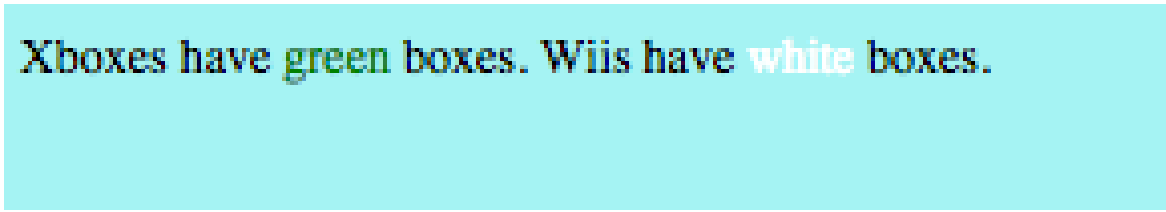
Adding spans with class- still nothing happens



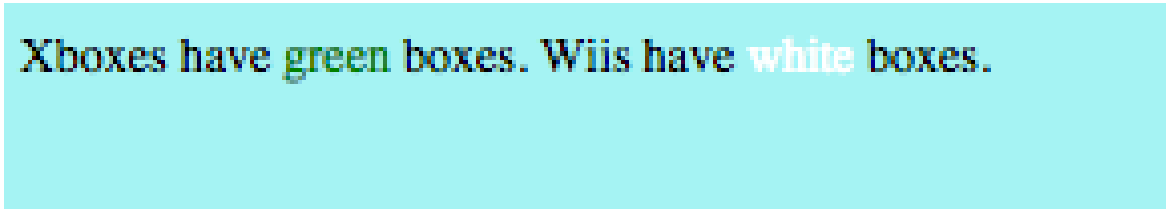

```
<!DOCTYPE html>
<html>
<head>
<style>
body{
background-color: #a4f3f3;
}
</style>
</head>
<body>
<p> Xboxes have <span class="xbox"> green </span> boxes. Wiis have
<span class-"wii"> white </span> boxes.</p></body>
</html>
```

Adding style to a span class

```
<!DOCTYPE html>
<html>
<head>
<style>
body{
background-color: #a4f3f3;
}
.xbox {
color: green;
}
.wii {
color: white
}
</style>
</head>
<body>
<p> Xboxes have <span class="xbox"> green </span> boxes. Wiis have <span class="wii"> white </span> boxes.</p>
</body>
</html>
```



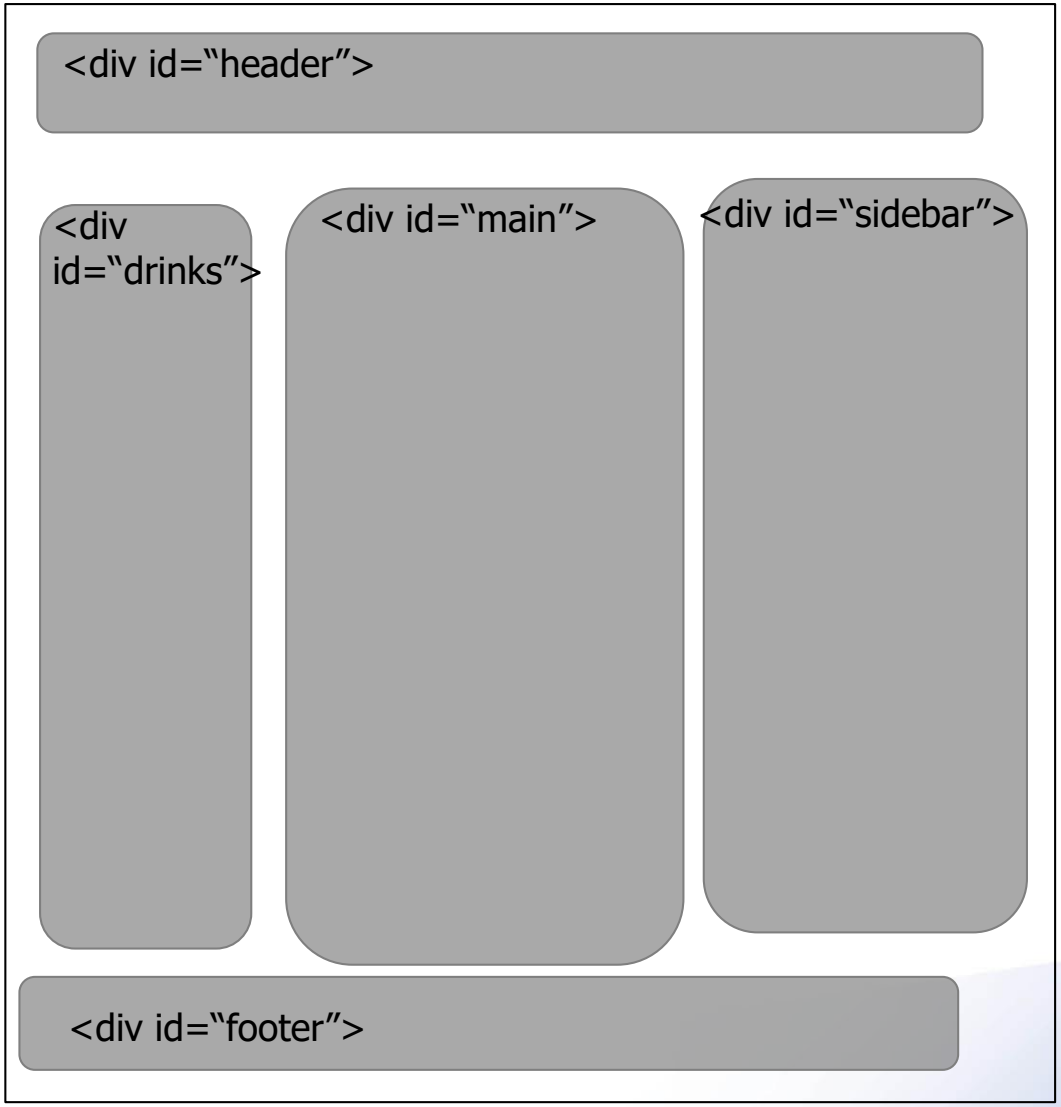
Or add style directly to class




```
<!DOCTYPE html>
<html>
<head>
<style>
body{
background-color: #a4f3f3;
}
</style>
</head>
<body>
<p> Xboxes have <span style="color:green"> green </span> boxes. Wiis have <span style="color:white"> white </span> boxes.</p>
</body>
</html>
```

That's all fine and good

- but…..HTML5 has some other tricks up it's sleeve to make things even clearer



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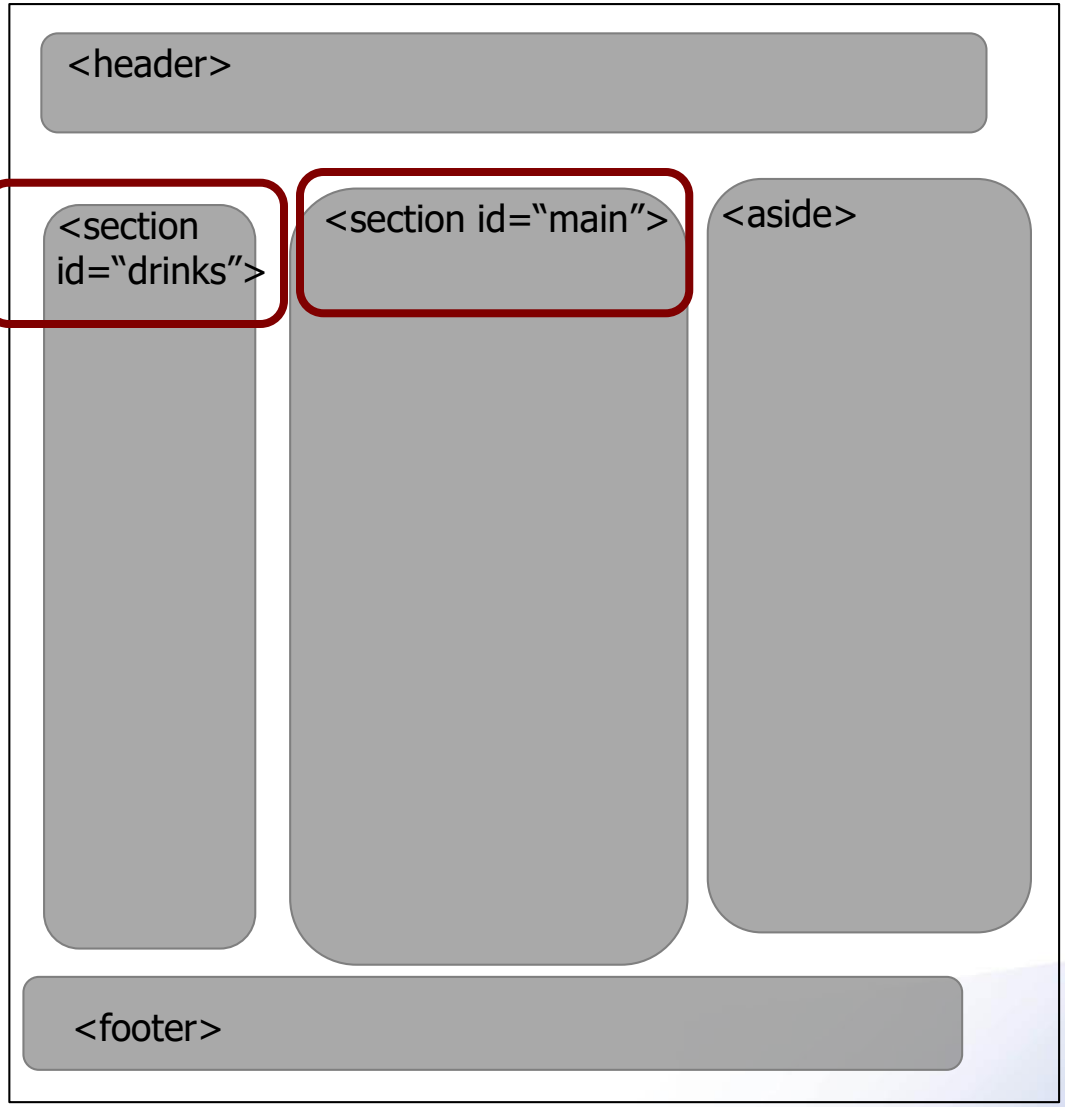
www.hw.ac.uk

<section>



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www.hw.ac.uk

Pardon me?

- I thought we'd been learning about
- What's the difference between and <section>?

<section> vs

- <section> marks a block on content that belongs to the same *semantic* category.
- Rule of thumb- would the content be listed in a table of contents?
- Yes- then it's <section>

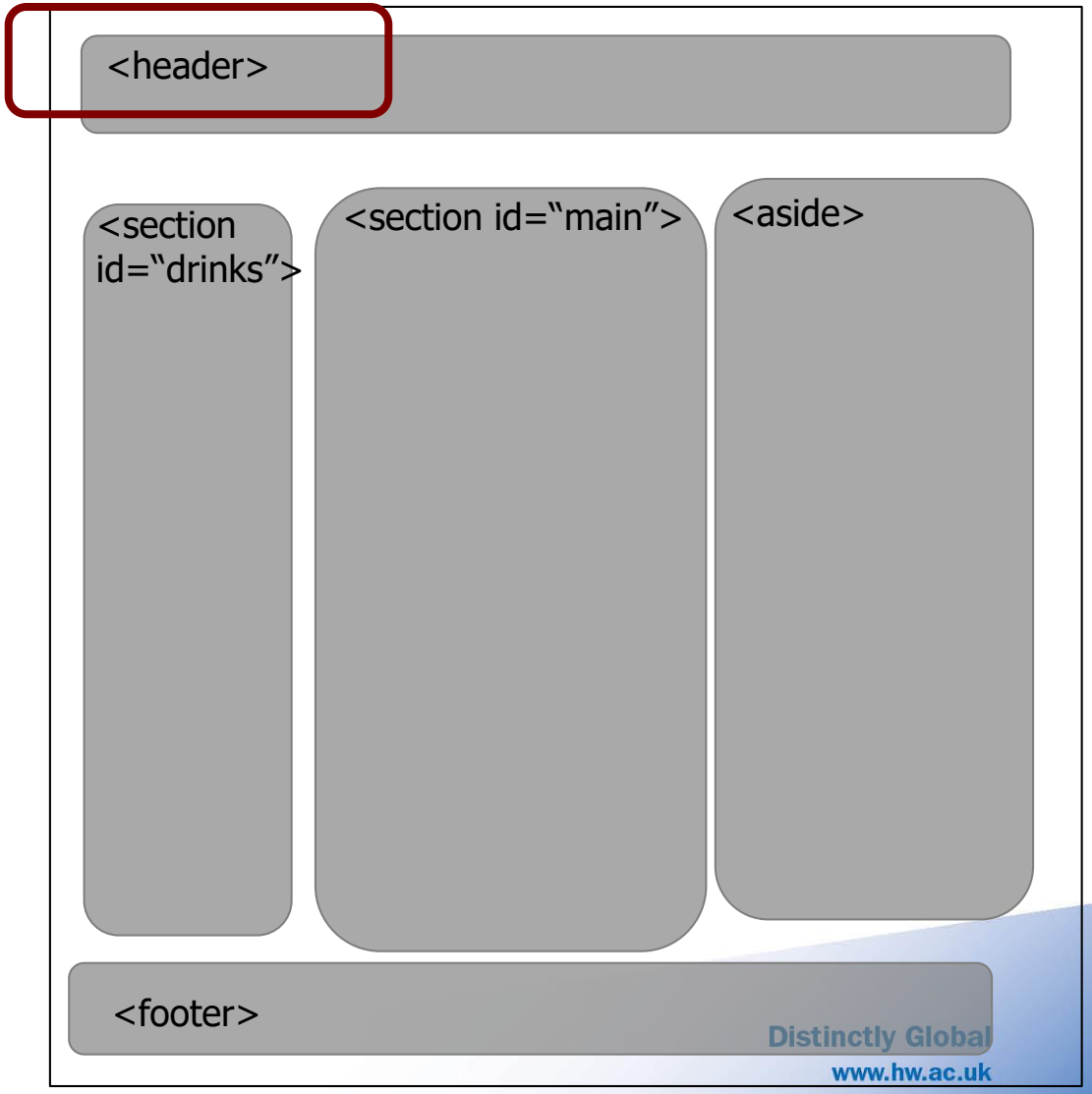
What about poor old ?

- We can still use this but the classes don’t capture any particular meaning- they can be arbitrary
- div = used to capture structure and feature inheritance
- div = a generic container element
- div= used for styling purposes or as a convenience for scripting

<header>

now <header>

Used for logo and utilities



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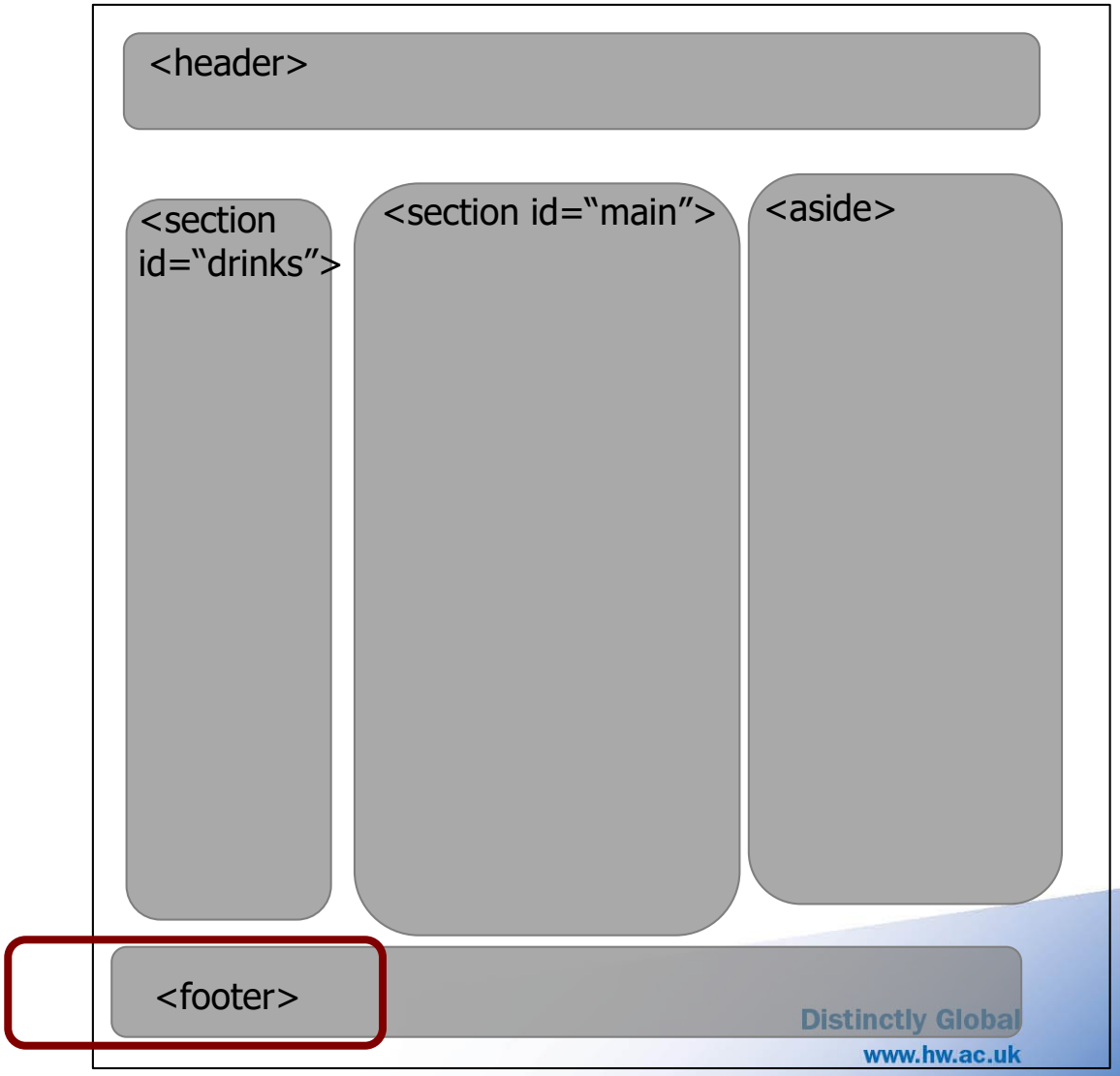
<footer>

Now <footer>

Used for boring legal stuff

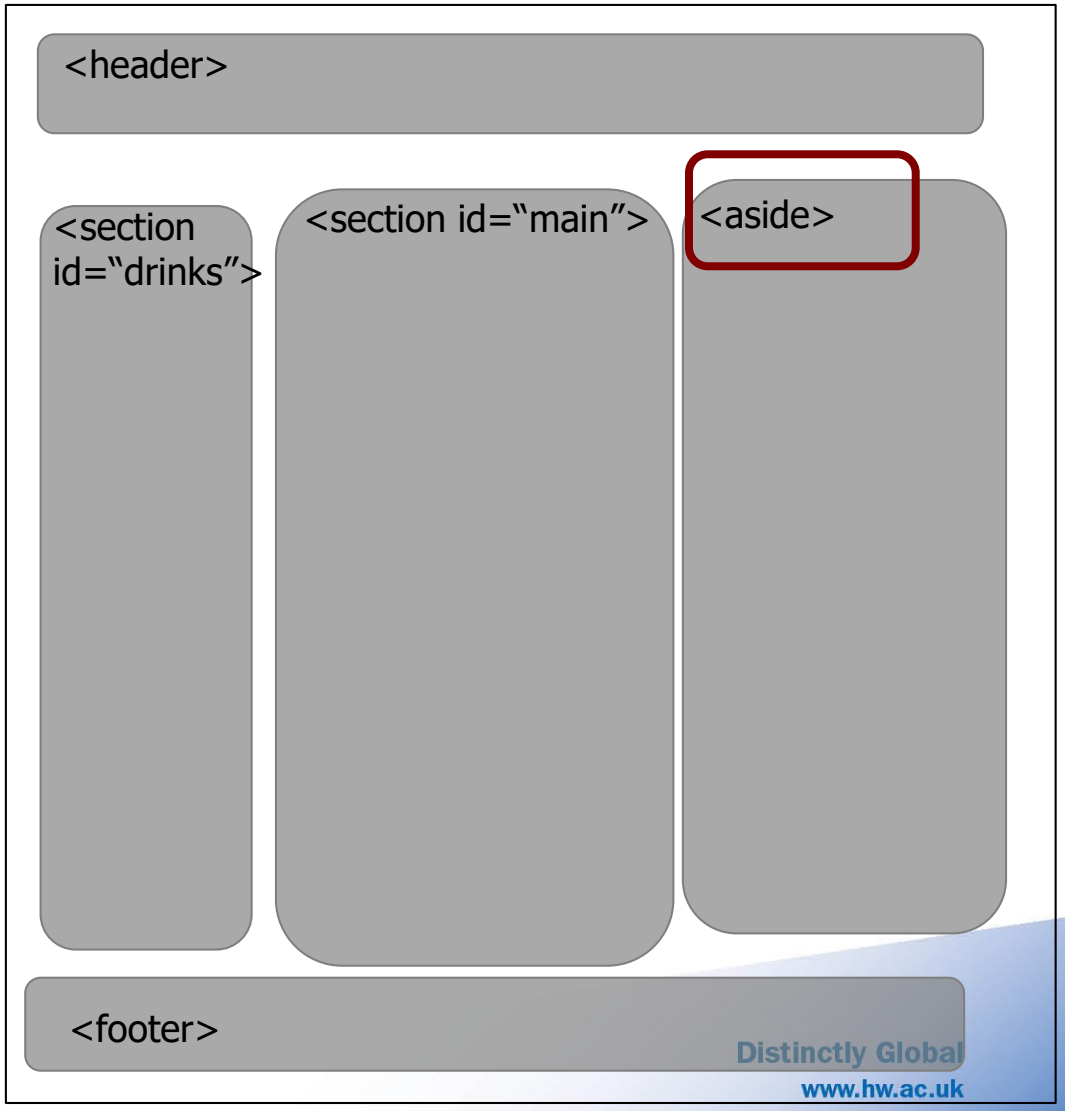


<aside>

now <aside>

content- *aside* from the content it is placed in.

Used for sidebars.



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<nav>

Navigation = list of links

Put just under <header>

```
<nav>
<ul>
    <li> <a href ="index.html"> Home </a>
    <li> <a href ="directions.html"> Directions </a>
     <li> <a href ="contact.html"> Contact us </a>
  </ul>
  </nav>
```

- Home
- Directions
- Contact us

Vertical <nav>

But with the bullets and margins and paddings removed

```
ul {
    list-style-type: none;
    margin: 0;
    padding: 0;
}
```

Home
Directions
Contact us

Horizontal <nav>

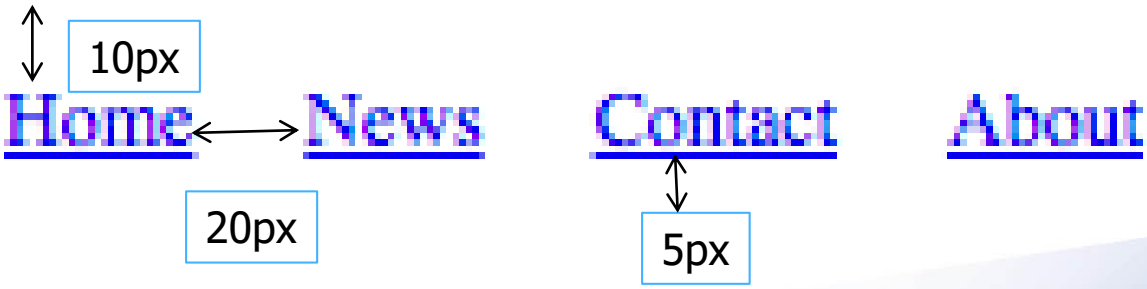
```
li {
    display: inline;
}
```

Home Directions Contact us

Now let's spread them out

```
li {
    display: inline;
    padding: 10px 10px 5px 10px;
}
```

top right bottom left



For more about <nav>

- http://www.w3schools.com/css/css_navbar.asp

Summary

- Divs allow structure
- Span allow styling of in-line parts of the website
- Font
- HTML5 has element names w/r structure to capture the semantic content of the websites (<header>, <footer>, <section>, <nav>)

Resources

- Use the websites you've worked on in the lab
- Use templates from here:

http://zypopwebtemplates.com/tag/left-sidebar

Other helpful resources

http://www.w3schools.com/html/html_layout.asp

http://www.pagecolumn.com/3_col_generator.htm