

# CMPT 165

## Advanced XHTML + CSS – Part 3

June 5<sup>th</sup>, 2015

# Today's agenda

- More on:
  - class
  - <div> and <span> tags
- Positioning elements

# Why class?

```
<ol>
  <li>
    <p class="q">What is 1+1?</p>
    <p class="a">Ans: 2</p>
  </li>
  <li>
    <p class="q">What is 2+2?</p>
    <p class="a">Ans: 4</p>
  </li>
  <li>
    <p class="q">What is 3+3?</p>
    <p class="a">Ans: 6</p>
  </li>
</ol>
```

1. What is 1+1?

Ans: 2

2. What is 2+2?

Ans: 4

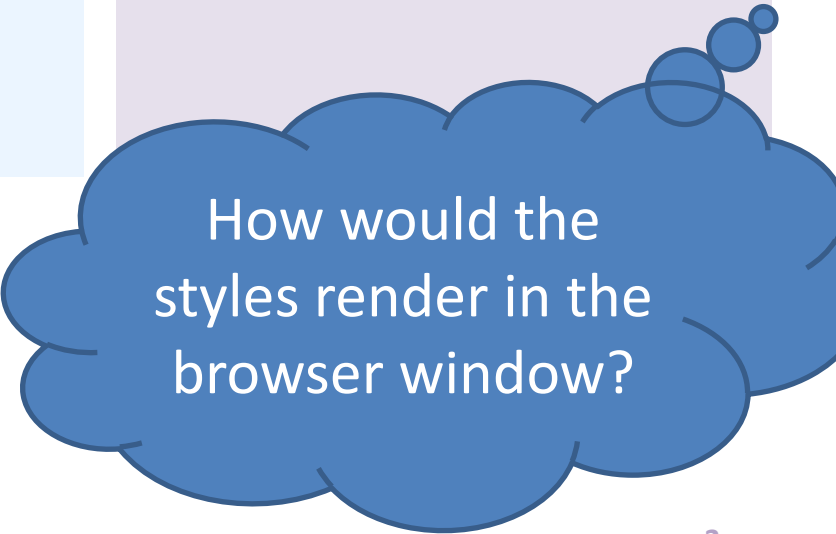
3. What is 3+3?

Ans: 6

```
body {
  font-family: monospace;
}

.q {
  font-weight: bold;
}

.a {
  color: blue;
  text-indent: 10em;
}
```



How would the styles render in the browser window?

# More on class

- **id** vs. **class**?
- **id** names must be unique in each webpage

```
<h1 id="key">A heading</h1>  
<p id="key">A paragraph</p>
```

Q: Can we reuse names of class for different elements? e.g.

```
<h1 class="key">A heading</h1>  
<p class="key">A paragraph</p>  
<div class="key">A divider</div>
```

# Class by context

```
<h1 class="key">A heading</h1>  
<p class="key">A paragraph</p>  
<div class="key">A divider</div>
```

```
h1 { color: #a5a; }  
  
body { font-family: sans-serif; }
```

```
h1.key {  
    color: green;  
}
```

```
p.key {  
    color: blue;  
}
```

```
div.key {  
    color: red;  
}
```

A heading

A paragraph

A divider

# More on class

- **id** vs. **class**?
- **id** names must be unique in each webpage

```
<h1 id="key">A heading</h1>  
<p id="key">A paragraph</p>
```

Q: Can we reuse names of class for different elements? e.g.

```
<h1 class="key">A heading</h1>  
<p class="key">A paragraph</p>  
<div class="key">A divider</div>
```

A: Yes!

# Understanding stylerules

```
<body>
<h1 id="h1a">A heading</h1>

<h1 id="h1b" class="key">Heading2</h1>

<p id="p1">This is a sentence.</p>

<p id="p2">This is another sentence.</p>

</body>
|
```

```
body {
  font-family:sans-serif;
  color: blue;
}
h1 {
  color: #a5a; }
h1.key{
  color: red;
}
```

A heading

Heading2

This is a sentence.

This is another sentence.

# Understanding stylerules

```
<body>
  <h1 id="h1a">Heading A</h1>

  <h1 id="h1b" class="key">Heading B</h1>

  <p id="p1">This is a sentence.</p>

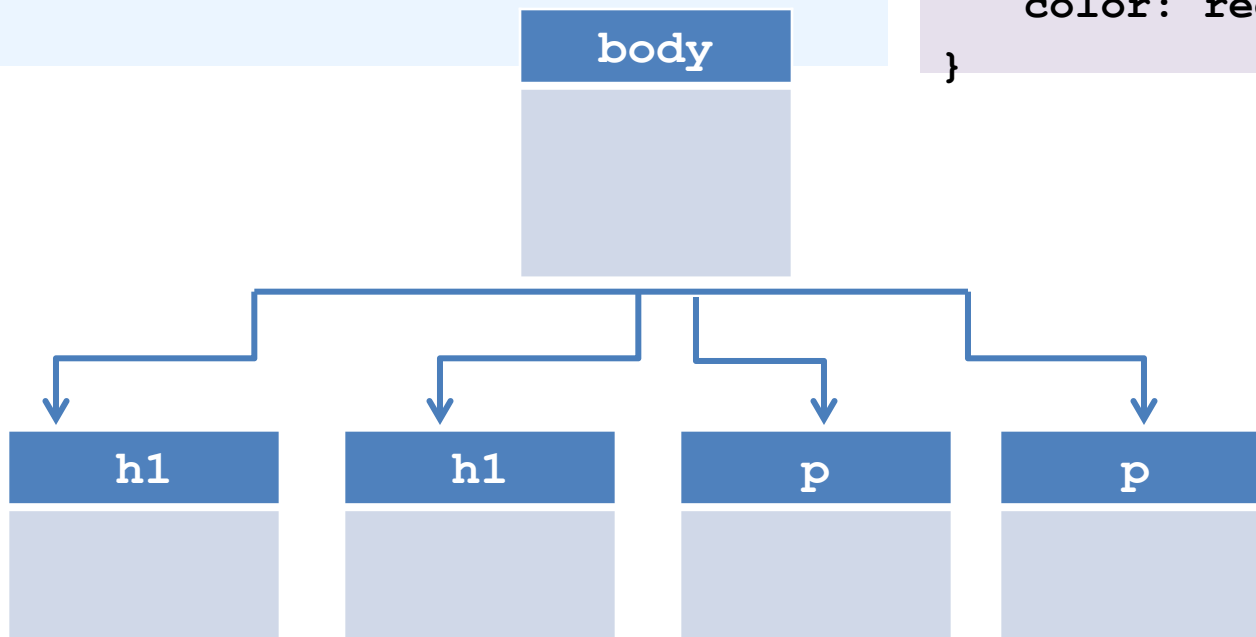
  <p id="p2">This is another sentence.</p>

</body>
```

```
body {
  font-family:sans-serif;
  color: blue;
}

h1 {
  color: #a5a;
}

h1.key{
  color: red;
}
```





# Understanding stylerules

```
<body>
  <h1 id="h1a">Heading A</h1>

  <h1 id="h1b" class="key">Heading B</h1>

  <p id="p1">This is a sentence.</p>

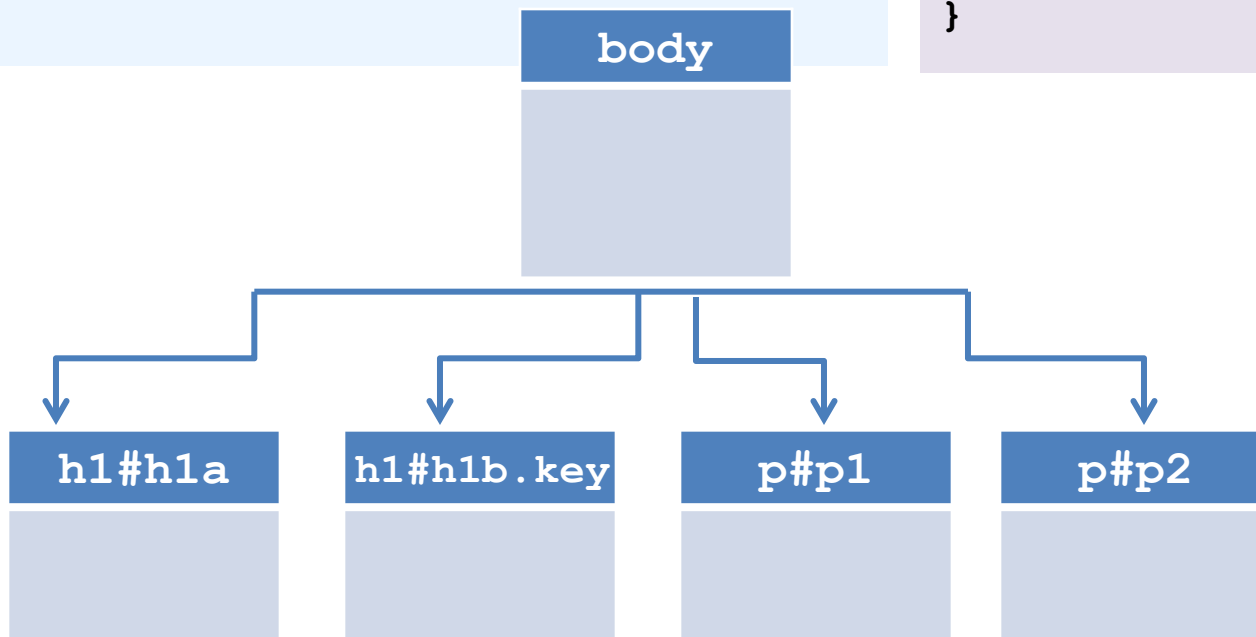
  <p id="p2">This is another sentence.</p>

</body>
```

```
body {
  font-family:sans-serif;
  color: blue;
}

h1 {
  color: #a5a; }

h1.key{
  color: red;
}
```



# Understanding stylerules

```
<body>
  <h1 id="h1a">Heading A</h1>

  <h1 id="h1b" class="key">Heading B</h1>

  <p id="p1">This is a sentence.</p>

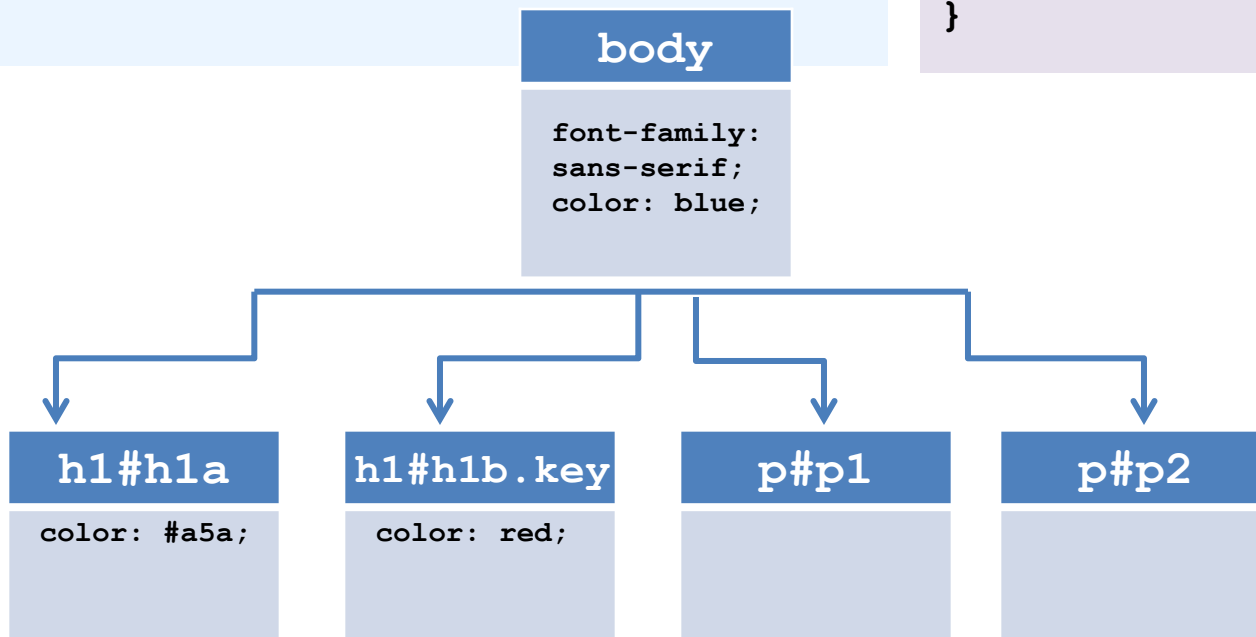
  <p id="p2">This is another sentence.</p>

</body>
```

```
body {
  font-family:sans-serif;
  color: blue;
}

h1 {
  color: #a5a; }

h1.key{
  color: red;
}
```



# Understanding stylerules

```
<body>
  <h1 id="h1a">Heading A</h1>

  <h1 id="h1b" class="key">Heading B</h1>

  <p id="p1">This is a sentence.</p>

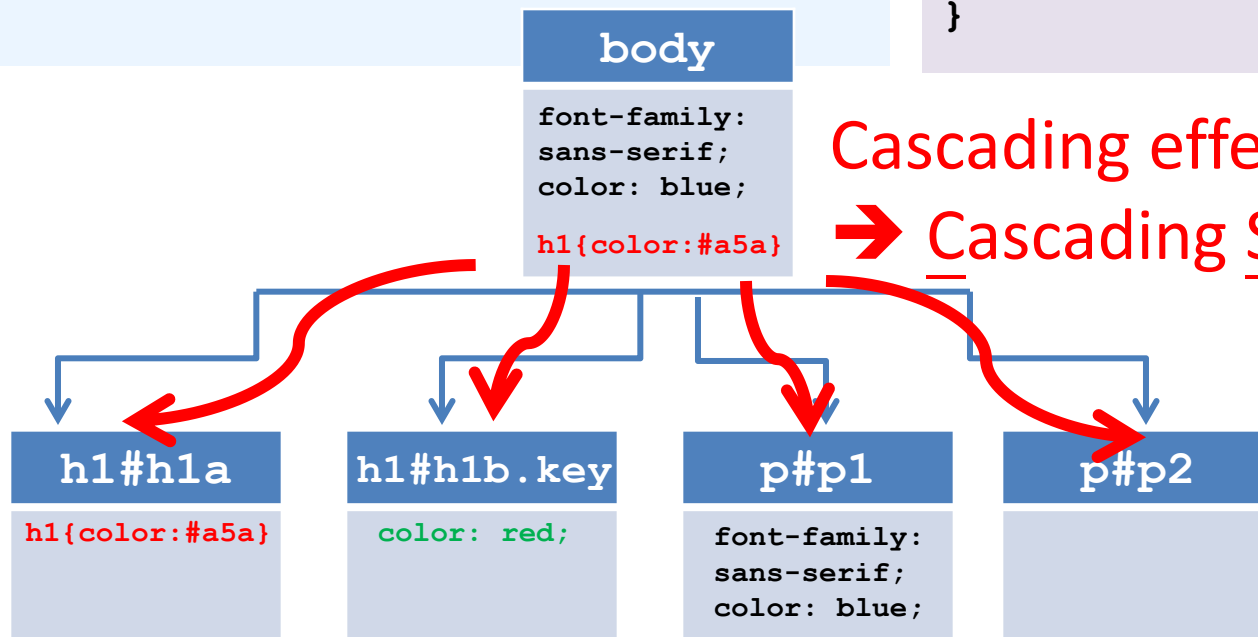
  <p id="p2">This is another sentence.</p>

</body>
```

```
body {
  font-family:sans-serif;
  color: blue;
}

h1 {
  color: #a5a; }

h1#h1a{
  color: red;
}
```



Cascading effect  
→ Cascading Style Sheet

# More on class

Q: Can an element belong to multiple classes?

```
<h1 class="class_dgreen class_fantasy">Hello!</h1>
```

```
<p class="class_dgreen">Lorem ipsum dolor sit amet, cum  
ea periculis complectitur, ex quo option alienum. Ex tale  
temporibus mei, graeco fuisset omittam an vel, sed ex  
brute decore. Ea putant. </p>
```

```
<p class="class_dred class_serif">Nullam aeterno  
liberavisse nec id. Doming efficiendi liberavisse no pri.  
Per ea alterum expetenda sententiae, quo et rebum  
nominati dissentiunt, quis dice doming efficiendi  
liberavisse no pri. Per ea alterum expetenda sententiae,  
quo et rebum nominati dissentiunt, quis dice. </p>
```

```
h1 { color: #a5a; }  
  
body { font-family: sans-serif; }  
  
.class_serif  
{  
    font-family: serif;  
}  
.class_dgreen  
{  
    color: #030;  
}  
.class_dred  
{  
    color: #600;  
}  
.class_fantasy  
{  
font-family: Impact, fantasy;  
}
```

# Today's agenda

- More on:
  - class
  - `<div>` and `<span>` tags
- Positioning elements

# Generic Tags

`<span>`     span

- Inline
- Mostly used to style specific parts of content

`<div>`     division

- Block
- Used to divide a webpage into related parts

# Why span?

Lorem ipsum dolor sit amet, cum ea periculis complectitur, ex quo option alienum. *Ex tale temporibus mei, graeco fuisset omittam an vel, sed ex brute decore.* Ea putant fuisset patrioque eum, atqui integre vivendum cum ex, cu sea sadipscing neglegentur. Mea ne wisi commodo, his eu. No decore voluptua nam.

## Option1:

```
<p>Lorem ipsum dolor sit amet, cum ea periculis
complectitur, ex quo opon alie dsfafas faf sfafsaf anum.
<span class="cool_quote"> Ex tale temporibus mei, graeco
fuisset omittam an vel, sed ex brute decore. </span> Ea
putant fuisset patrioque eum, atqui integre vivendum cum
ex, cu sea sadipscing neglegentur. Mea ne wisi commodo, his
eu. No decore voluptua nam.</p>
```

```
.cool_quote{
    font-family: serif;
    color: #33b;
    font-weight: bold;
    font-style: italic;
}
```

## Option2:

```
<p>Lorem ipsum dolor sit amet, cum ea periculis
complectitur, ex quo opon alie dsfafas faf sfafsaf anum. <i
style="font-style:italic;color: blue; font-weight:bold;
font-family:serif"> Ex tale temporibus mei, graeco fuisset
omittam an vel, sed ex brute decore. </i> Ea putant fuisset
patrioque eum, atqui integre vivendum cum ex, cu sea
sadipscing neglegentur. Mea ne wisi commodo, his eu. No
decore voluptua nam.</p>
```

### Option2:

- Cannot reuse styles
- More cluttered
  - ➔ Harder to maintain
- More characters
  - ➔ Larger file size

# Generic Tags

`<span>`     span

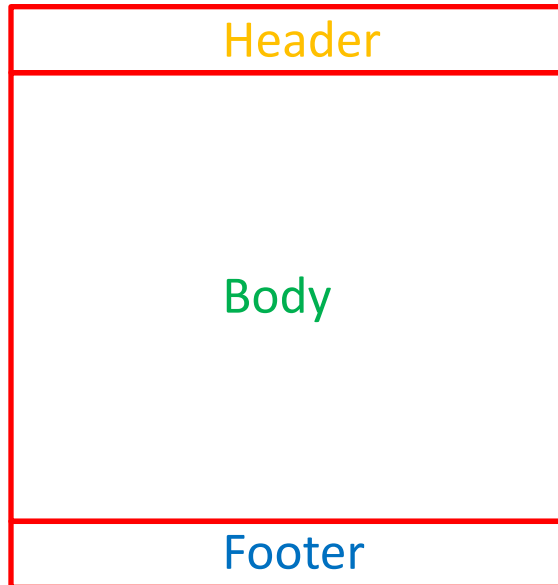
- Inline
- Mostly used to style specific parts of content

`<div>`     division

- Block
- Used to divide a webpage into related parts



# <div> uses

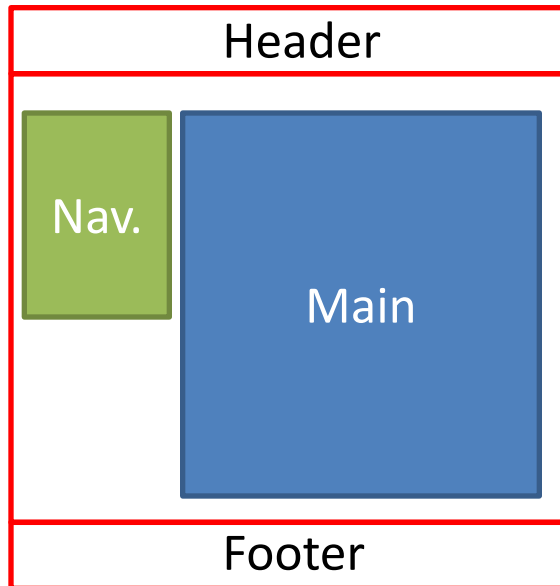


```
<body>
  <div id="header">
    <h1> My Heading </h1>
  </div>

  <div id="body">
    <p>Body</p>
  </div>

  <div id="footer">
    <p>Copyright goes here.</p>
  </div>
</body>
```

# <div> illustrated



~25%

```
<div id="header"> <!-- divider 1 -->
  <h1> My Heading </h1>
</div>
<div id="body"> <!-- divider 2 -->
  <div id="nav"> <!-- subdivider#1 -->
    <ul>
      <li><a href="index.html">Home</a></li>
      <li><a href="me.html">About me</a></li>
      <li><a href="notes.html">My course notes</a></li>
      <li><a href="contact.html">Contact</a></li>
    </ul>
  </div>
  <div id="main_body"> <!-- subdivider#2 -->
    <p>Lorem ipsum dolor sit amet, cum ea periculis
      complectitur, ex quo option alienum. Ex tale
      temporibus mei, graeco fuisset omittam an vel, sed ex
      brute decore. Ea putant fuisset patrioque eum, atqui
      integre vivendum cum ex. Ea putant fuissetr. Mea ne
      wisi commodo, his eu. No decore voluptua nam.</p>

    <p>Bom ipsucomplectitur, ex quo option alienum. <i
      style="font-color;blue;"> Ex tale temporibus mei,
      graeco fuisset omittam an vel, sed ex brute decore.
      </i> Ea putant fuisset patr his eu. No decore
      voluptua nam.</p>
  </div>
</div>
<div id="footer"> <!-- divider 3 -->
  <p>Copyright goes here.</p>
</div>
```

# Styling dividers

Nothing happens???

...Generic: you need to specify

```
<div id="header"> <!-- divider 1 -->
  <h1> My Heading </h1>
</div>
<div id="body"> <!-- divider 2 -->
  <div id="nav"> <!-- subdivider#1 -->
    <ul>
      <li><a href="index.html">Home</a></li>
      <li><a href="me.html">About me</a></li>
      <li><a href="notes.html">My course notes</a></li>
      <li><a href="contact.html">Contact</a></li>
    </ul>
  </div>
  <div id="main_body"> <!-- subdivider#2 -->
    <p>Lorem ipsum dolor sit amet, cum ea periculis complectitur, ex quo option alienum.
    Ex tale temporibus mei, graeco fuisset omittam an vel, sed ex brute decore. Ea putant
    fuisset patrioque eum, atqui integre vivendum cum ex. Ea putant fuissetr. Mea ne wisi
    commodo, his eu. No decore voluptua nam.</p>
  </div>
</div>
```

## My Heading

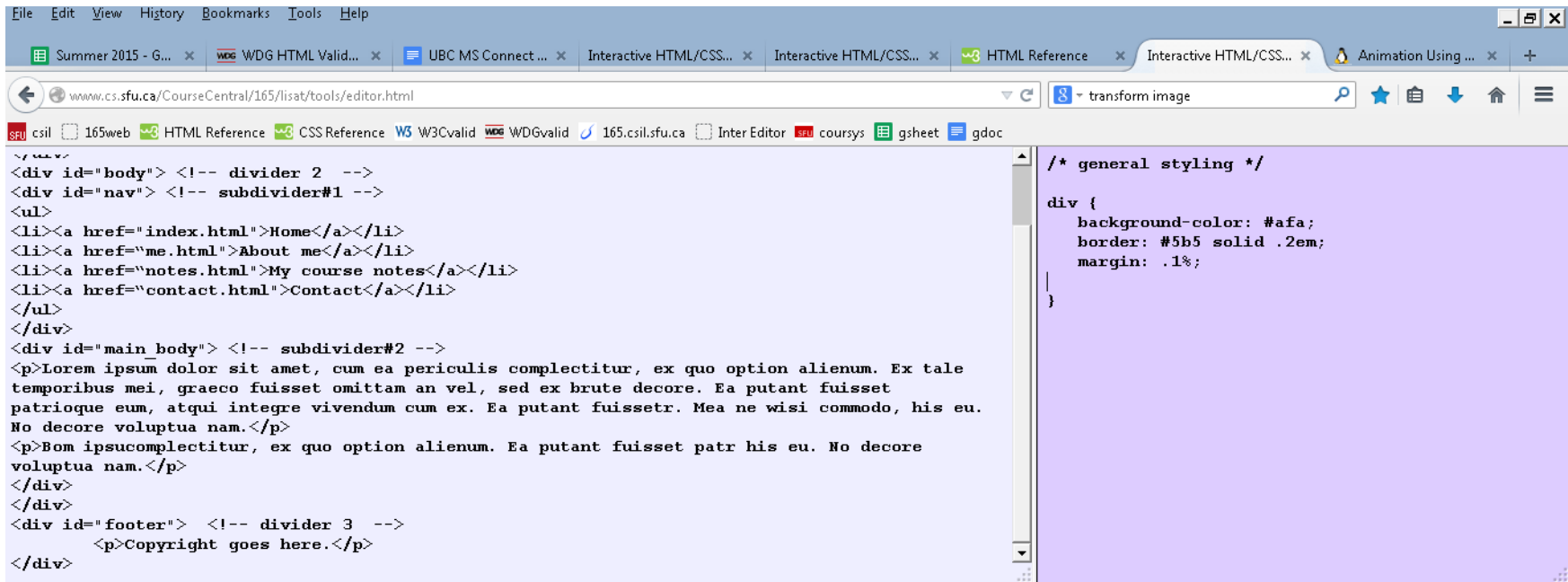
- [Home](#)
- [About me](#)
- [My course notes](#)
- [Contact](#)

Lorem ipsum dolor sit amet, cum ea periculis complectitur, ex quo option alienum. Ex tale temporibus mei, graeco fuisset omittam an vel, sed ex brute decore. Ea putant fuisset patrioque eum, atqui integre vivendum cum ex. Ea putant fuissetr. Mea ne wisi commodo, his eu. No decore voluptua nam.

Born ipsucomplectitur, ex quo option alienum. *Ex tale temporibus mei, graeco fuisset omittam an vel, sed ex brute decore.* Ea putant fuisset patr his eu. No decore voluptua nam.

Copyright goes here.

# Styling dividers



## My Heading

- [Home](#)
- [About me](#)
- [My course notes](#)
- [Contact](#)

Lorem ipsum dolor sit amet, cum ea periculis complectitur, ex quo option alienum. Ex tale temporibus mei, graeco fuisset omittam an vel, sed ex brute decore. Ea putant fuisset patrioque eum, atqui integre vivendum cum ex. Ea putant fuisset. Mea ne wisi commodo, his eu. No decore voluptua nam.

Bom ipsucomplectitur, ex quo option alienum. Ea putant fuisset patr his eu. No decore voluptua nam.

Copyright goes here.

# Styling dividers

The screenshot shows a web browser window with multiple tabs. The active tab is 'www.cs.sfu.ca/CourseCentral/165/lisat/tools/editor.html'. The browser's address bar shows the URL. The editor displays HTML code for a page with three dividers. The right pane shows CSS styling for the first divider. The bottom pane shows the rendered HTML page with the styling applied.

**HTML Code (Left Pane):**

```

<div id="body"> <!-- divider 2 -->
<div id="nav"> <!-- subdivider#1 -->
<ul>
<li><a href="index.html">Home</a></li>
<li><a href="me.html">About me</a></li>
<li><a href="notes.html">My course notes</a></li>
<li><a href="contact.html">Contact</a></li>
</ul>
</div>
<div id="main_body"> <!-- subdivider#2 -->
<p>Lorem ipsum dolor sit amet, cum ea periculis complectitur, ex quo option alienum. Ex tale temporibus mei, graeco fuisset omittam an vel, sed ex brute decore. Ea putant fuisset patrioque eum, atqui integre vivendum cum ex. Ea putant fuisset. Mea ne wisi commodo, his eu. No decore voluptua nam.</p>
<p>Bom ipsucomplectitur, ex quo option alienum. Ea putant fuisset patr his eu. No decore voluptua nam.</p>
</div>
<div id="footer"> <!-- divider 3 -->
<p>Copyright goes here.</p>
</div>

```

**CSS Code (Right Pane):**

```

/* general styling */
div {
background-color: #afa;
border: #5b5 solid .2em;
margin: 1%;
padding: .2em;
}

```

**Rendered Page (Bottom Pane):**

**My Heading**

- [Home](#)
- [About me](#)
- [My course notes](#)
- [Contact](#)

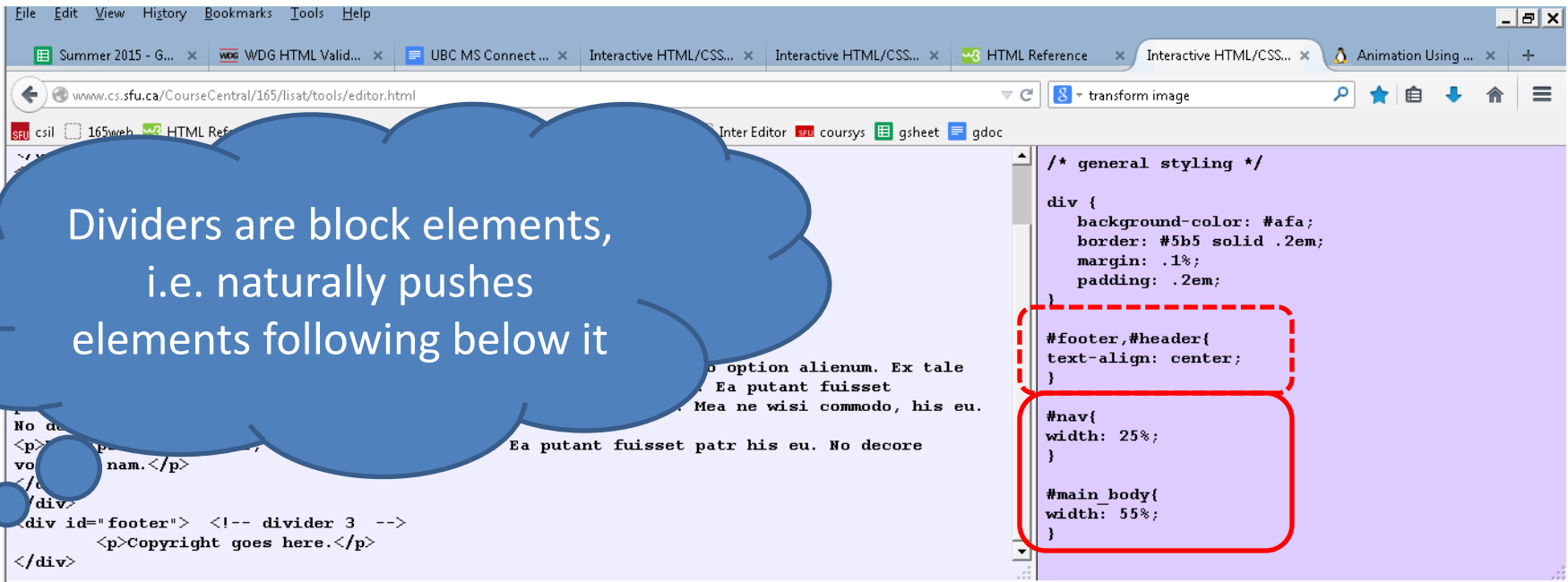
Lorem ipsum dolor sit amet, cum ea periculis complectitur, ex quo option alienum. Ex tale temporibus mei, graeco fuisset omittam an vel, sed ex brute decore. Ea putant fuisset patrioque eum, atqui integre vivendum cum ex. Ea putant fuisset. Mea ne wisi commodo, his eu. No decore voluptua nam.

Bom ipsucomplectitur, ex quo option alienum. Ea putant fuisset patr his eu. No decore voluptua nam.

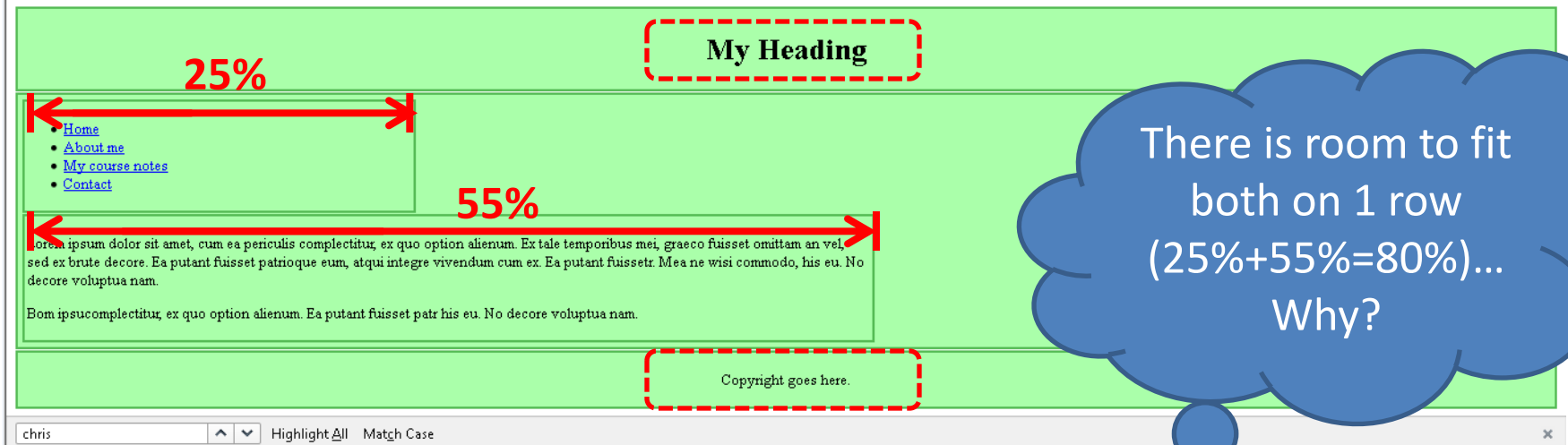
Copyright goes here.

# Styling dividers

Dividers are block elements, i.e. naturally pushes elements following below it



There is room to fit both on 1 row (25%+55%=80%)... Why?



# The “float” property

Allows browser to optimize location of elements

- Element can float but stay to the “left”, “right”, etc.

```
div {  
    float: left;  
}
```

## My Heading

- [Home](#)
- [About me](#)
- [My course notes](#)
- [Contact](#)

Lorem ipsum dolor sit amet, cum ea periculis complectitur, ex quo option alienum. Ex tale temporibus mei, graeco fuisset omittam an vel, sed ex brute decore. Ea putant fuisset patrioque eum, atqui integre vivendum cum ex. Ea putant fuissetr. Mea ne wisi commodo, his eu. No decore voluptua nam.

Bom ipsucomplectitur, ex quo option alienum. Ea putant fuisset patr his eu. No decore voluptua nam.

Copyright goes here.

# The “float” property

Allows browser to optimize location of elements

- Element can float but stay to the “left”, “right”, etc.

```
<div id="header"> <!-- divider 1 -->
  <h1> My Heading </h1>
```

```
</div>
<div id="body"> <!-- divider 2 -->
<div id="nav"> <!-- subdivider#1 -->
<ul>
<li><a href="index.html">Home</a></li>
<li><a href="me.html">About me</a></li>
<li><a href="notes.html">My course notes</a></li>
<li><a href="contact.html">Contact</a></li>
</ul>
</div>
```

```
<div id="main_body"> <!-- subdivider#2 -->
<h2>Subheading</h2>
<p>Lorem ipsum dolor sit amet, cum ea periculis complectitur, ex quo option alienum. Ex tale temporibus mei, graeco
fuisset omittam an vel, sed ex brute decore. Ea putant fuisset patrioque eum, atqui integre vivendum cum ex. Ea
putant fuissetr. Mea ne wisi commodo, his eu. No decore voluptua nam.</p>
<p>Bom ipsucomplectitur, ex quo option alienum. Ea putant fuisset patr his eu. No decore voluptua nam.</p>
</div>
<div id="footer"> <!-- divider 3 -->
```

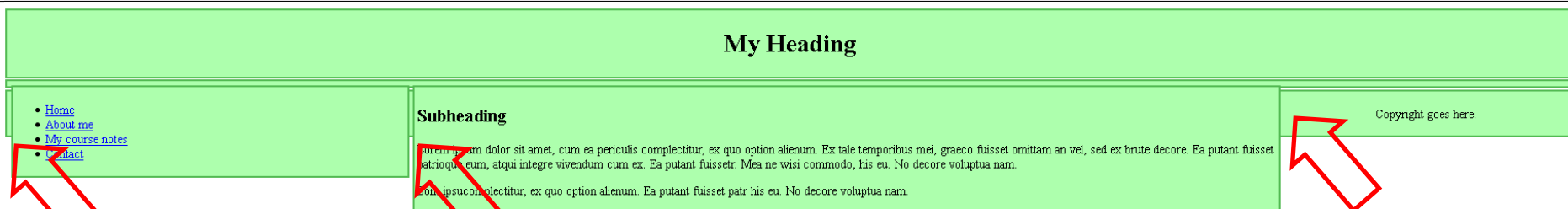
```
/* general styling */

div {
  background-color: #afa;
  border: #5b5 solid .2em;
  margin: .1%;
  padding: .2em;
}

#footer, #header {
  text-align: center;
}

#nav {
  width: 25%; float: left;
}

#main_body {
  width: 55%; float: left;
}
```



Floats toward left side, next to existing elements



# The “clear” property

```
<div id="header"> <!-- divider 1 -->
  <h1> My Heading </h1>
</div>
<div id="body"> <!-- divider 2 -->
<div id="nav"> <!-- subdivider#1 -->
<ul>
<li><a href="index.html">Home</a></li>
<li><a href="me.html">About me</a></li>
<li><a href="notes.html">My course notes</a></li>
<li><a href="contact.html">Contact</a></li>
</ul>
</div>
<div id="main_body"> <!-- subdivider#2 -->
<h2>Subheading</h2>
<p>Lorem ipsum dolor sit amet, cum ea periculis complectitur, ex quo option alienum. Ex tale temporibus mei, graeco fuisset omittam an vel, sed ex brute decore. Ea putant fuisset patrioque eum, atqui integre vivendum cum ex. Ea putant fuissetr. Mea ne wisi commodo, his eu. No decore voluptua nam.</p>
<p>Bom ipsucomplectitur, ex quo option alienum. Ea putant fuisset patr his eu. No decore voluptua nam.</p>
</div>
<div id="footer"> <!-- divider 3 -->
```

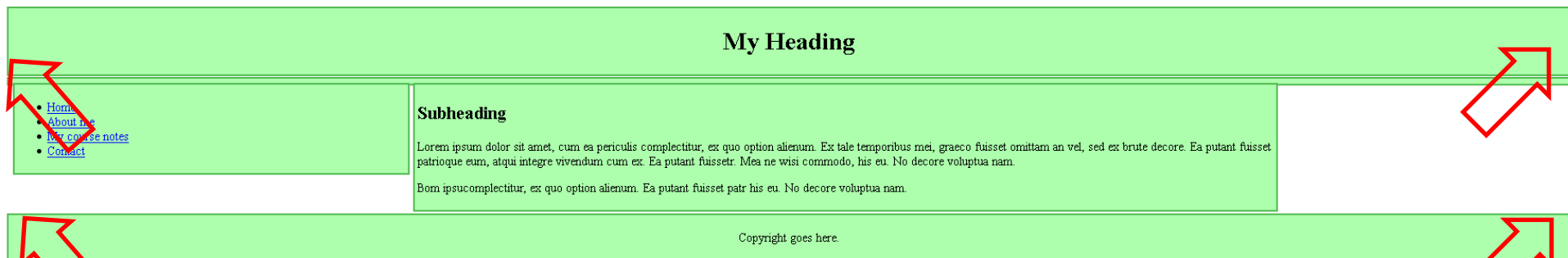
```
/* general styling */

div {
  background-color: #afa;
  border: #5b5 solid .2em;
  margin: .1%;
  padding: .2em;
}

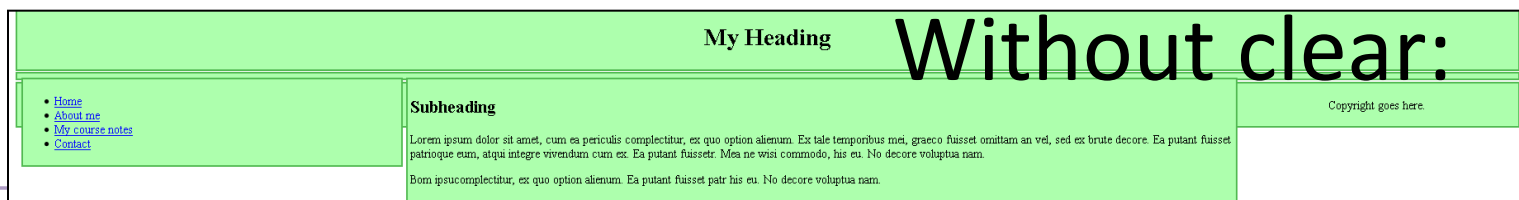
#footer, #header {
  text-align: center; clear: both;
}

#nav {
  width: 25%; float: left;
}

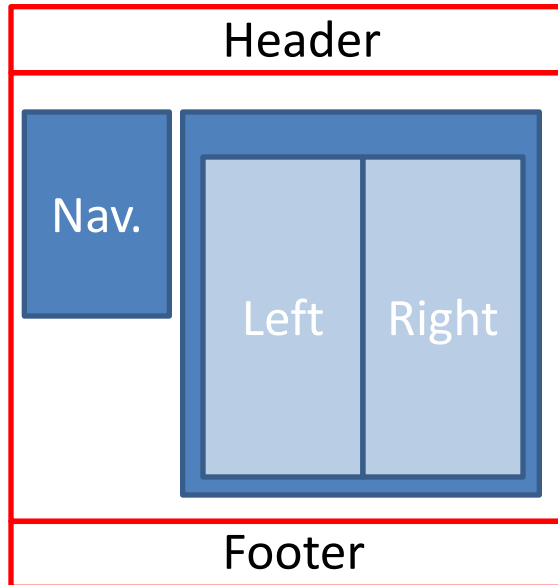
#main_body {
  width: 55%; float: left;
}
```



**clear property: clears up space on **both** sides**



# <div> uses



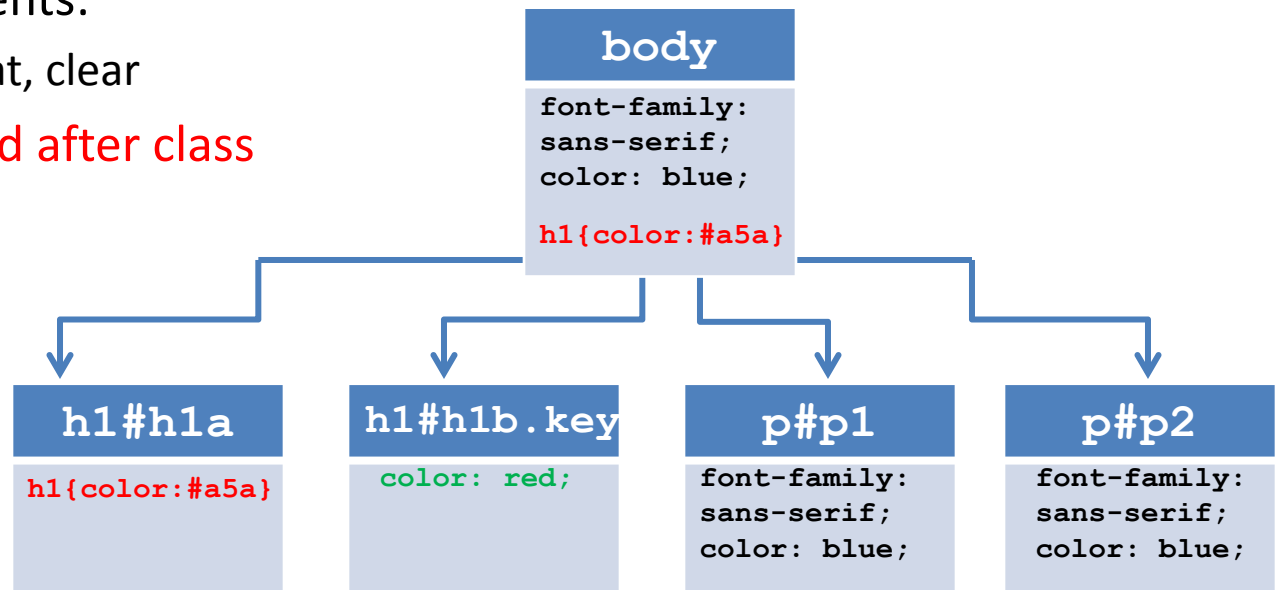
```
<div id="header"> <!-- divider 1 -->
  <h1> My Heading </h1>
</div>
<div id="body"> <!-- divider 2 -->
  <div id="nav"> <!-- subdivider#1 -->
    <ul>
      <li><a href="index.html">Home</a></li>
      <li><a href="me.html">About me</a></li>
      <li><a href="notes.html">My course notes</a></li>
      <li><a href="contact.html">Contact</a></li>
    </ul>
  </div>
  <div id="main_body"> <!-- subdivider#2 -->
    <p>Lorem ipsum dolor sit amet, cum ea periculis
      complectitur, ex quo option alienum. Ex tale
      temporibus mei, graeco fuisset omittam an vel, sed ex
      brute decore. Ea putant fuisset patrioque eum, atqui
      integre vivendum cum ex. Ea putant fuissetr. Mea ne
      wisi commodo, his eu. No decore voluptua nam.</p>

    <p>Bom ipsucomplectitur, ex quo option alienum. <i
      style="font-color;blue;"> Ex tale temporibus mei,
      graeco fuisset omittam an vel, sed ex brute decore.
      </i> Ea putant fuisset patr his eu. No decore
      voluptua nam.</p>
  </div>
</div>
<div id="footer"> <!-- divider 3 -->
  <p>Copyright goes here.</p>
</div>
```

How? Demo

# Summary

- **class**
  - **class** selection by context
  - Elements with multiple classes
- Markup/style tree
- <div> and <span> tags revisited
- Positioning elements:
  - Properties: float, clear
- Exercise #4 posted after class



# Questions?