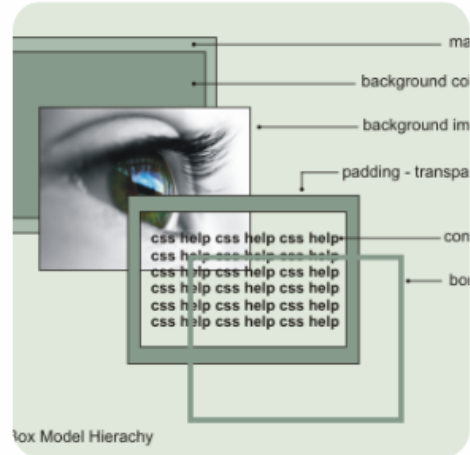


# CSS Rules



rule structure · combining  
rules · combining selectors


# Agenda

- Combining Rules & Selectors
- Classes, IDs and DIVs

# Border Styles

**border-bottom: 1px solid black;**

 This property controls how the border under an element looks.

 We're going to style the bottom border so that it is a 1-pixel-thick, solid black line.

Placing the above rule associated with h1 “selector”, will draw a line - 1 pixel wide - under the heading in our site (you did this in lab01)

## Mobile Applications

---

### 1. Apps

# CSS Selectors

- CSS selectors are used to "find" (or select) the HTML elements you want to style.
- Simple selectors (select elements based on name, id, class)

p                  #id                  .class

- Combinator selectors (select elements based on a specific relationship between them)

#id p {color:blue;}

# Multiple Rules

```
h1 {  
    font-family: sans-serif;  
    color:      gray;  
}  
  
h2 {  
    font-family: sans-serif;  
    color:      gray;  
}  
  
p {  
    color: maroon;  
}
```

Here's the rule to select `<h1>` elements and change the font-family to sans-serif and the font color to gray. We'll talk a lot more about fonts later.

And here's another rule to do the exact same thing to the `<h2>` element.

# Combining Selectors

Rules can be combined if they are identical

```
h1 {  
    font-family: sans-serif;  
    color:      gray;  
}  
  
h2 {  
    font-family: sans-serif;  
    color:      gray;  
}  
  
p {  
    color: maroon;  
}
```

```
h1, h2 {  
    font-family: sans-serif;  
    color:      gray;  
}
```

```
p {  
    color: maroon;  
}
```

To write a rule for more than one element, just put commas between the selectors, like "h1, h2".

```
h1, h2 {  
  font-family: sans-serif;  
  color: gray;  
  border-bottom: 1px solid black;  
}
```

Here we're adding a property to change the bottom border for both the `<h1>` and `<h2>` elements.

```
p {  
  color: maroon;  
}
```

# Multiple Rules & Selectors

```
h1, h2 {  
  font-family: sans-serif;  
  color: gray;  
}
```

← The first rule stays the same. We're still going to use a combined rule for the font-family and color for both <h1> and <h2>.

```
h1 {  
  border-bottom: 1px solid black;  
}
```

← But now we're adding a second rule that adds another property just to <h1>: the border-bottom property.

```
p {  
  color: maroon;  
}
```

- Both h1 and h2 share the font-family and colour attributes, however only h1 is underlined



The following two sets of style rules would produce identical results

Rules can be listed separately

```
p {color: black;}  
p {background-color: teal;}  
p {padding: 1em;}  
p {margin: 1em;}  
p {font-family: helvetica, sans-serif;}  
p {text-align: justify;}
```

Or, rules can be grouped. Property:Value pairs need to be separated by a semicolon.

```
p {  
  color: black;  
  background-color: teal;  
  padding: 1em;  
  margin: 1em;  
  font-family: helvetica, sans-serif;  
  text-align: justify;  
}
```

- Selectors can be combined into comma-separated groups.
- We combine the selectors so that a single declaration applies to multiple selectors.

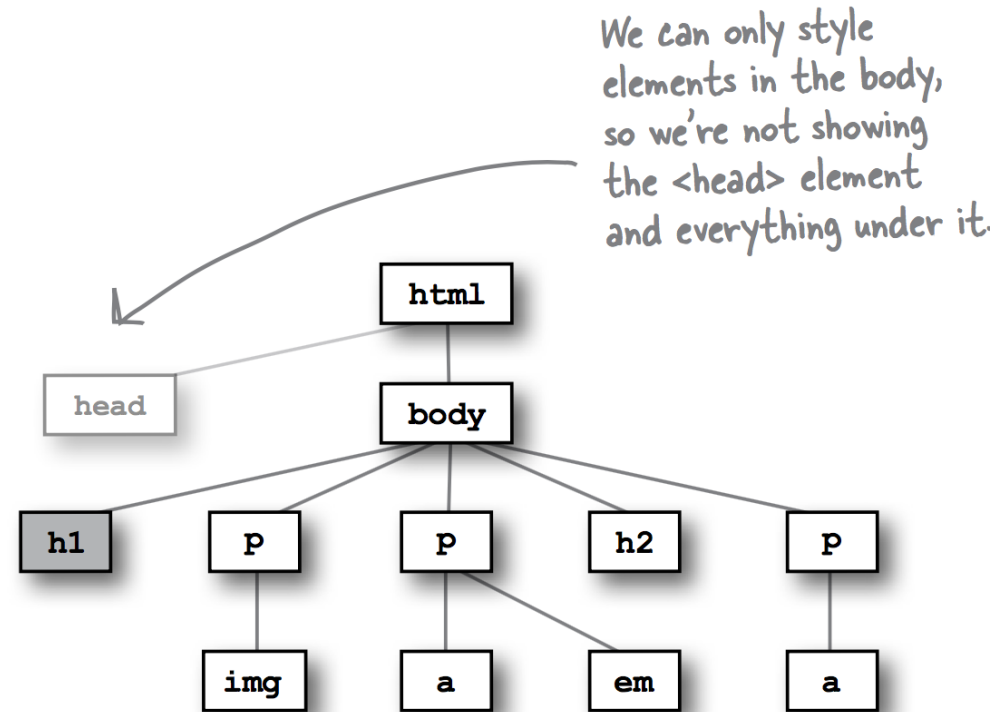
```
h1 { color: maroon; }  
h2 { color: maroon; }  
h3 { color: maroon; }  
h4 { color: maroon; }  
h5 { color: maroon; }  
h6 { color: maroon; }
```

```
h1, h2, h3, h4, h5, h6 { color: maroon; }
```

# Seeing Selectors Visually

```
h1 {  
  font-family: sans-serif;  
}
```

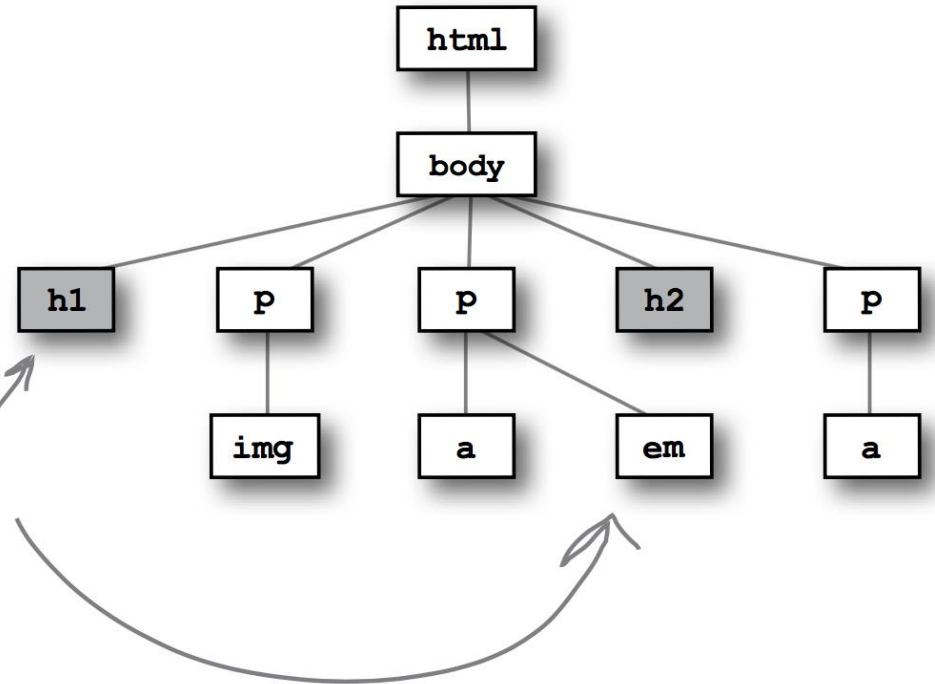
This selector matches any `<h1>` elements in the page, and there's only one.



# Seeing Selectors Visually

```
h1, h2 {  
  font-family: sans-serif;  
}
```

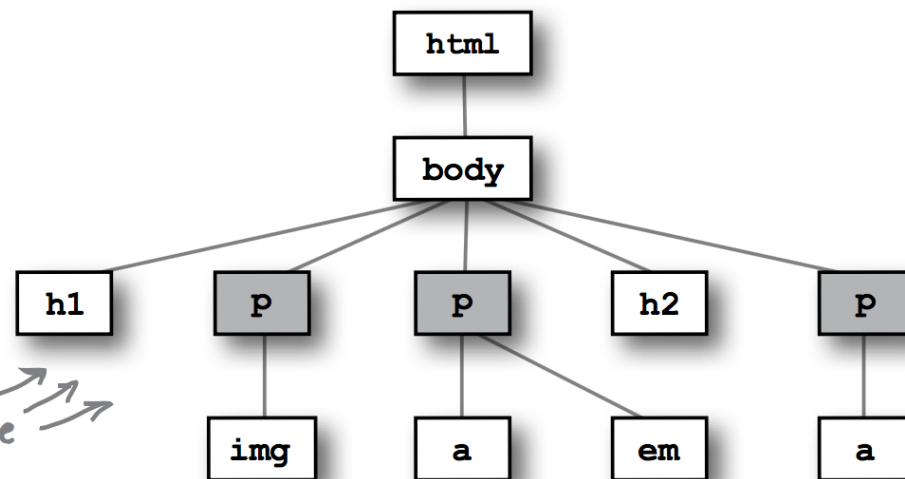
Now the selector  
matches both <h1>  
and <h2> elements.



# Seeing Selectors Visually

```
p {  
  font-family: sans-serif;  
}
```

This selector matches all the  
<p> elements in the tree.

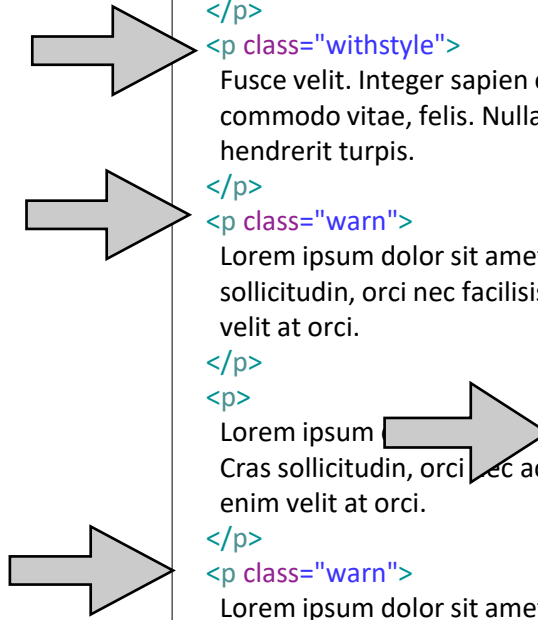


## **class** Attribute

---

- While the name of an element specifies its *type*, the class attribute lets you assign to it one or more *subtypes*.
- These subtypes may then be used in CSS code for styling purposes.
- In particular, several elements may share a class and only those elements can be identified for restyling

# Using **class** to identify elements



The diagram illustrates the use of the **class** attribute in HTML to identify elements. It shows a sequence of HTML code blocks within a `<body>` tag. Four grey arrows point to specific `class` attributes: the first arrow points to `class="withstyle"` on a `<p>` tag; the second arrow points to `class="warn"` on another `<p>` tag; the third arrow points to `class="warn"` on a `<span>` tag; and the fourth arrow points to `class="warn"` on a final `<p>` tag. The code is as follows:

```
<body>
<p>
  Lorem ipsum dolor sit amet, consectetur adipiscing elit. Cras sollicitudin, orci
  nec facilisis vehicula, neque urna porta risus, ut sagittis enim velit at orci.
</p>
<p class="withstyle">
  Fusce velit. Integer sapien enim, rhoncus vitae, cursus non,
  commodo vitae, felis. Nulla convallis ante sit amet urna. Maecenas condimentum
  hendrerit turpis.
</p>
<p class="warn">
  Lorem ipsum dolor sit amet, consectetur adipiscing elit. Cras
  sollicitudin, orci nec facilisis vehicula, neque urna porta risus, ut sagittis enim
  velit at orci.
</p>
<p>
  Lorem ipsum , <span class="warn">consectetur adipiscing elit</span>.
  Cras sollicitudin, orci nec facilisis vehicula, neque urna porta risus, ut sagittis
  enim velit at orci.
</p>
<p class="warn">
  Lorem ipsum dolor sit amet, consectetur adipiscing elit. Cras
  sollicitudin, orci nec facilisis vehicula, neque urna porta risus, ut sagittis enim
  velit at orci.
</p>
</body>
```

# Classes in Action

```
<body>
  <p>
    Lorem ipsum dolor sit amet, consectetur adipiscing elit. Cras
    sollicitudin, orci
    nec facilisis vehicula, neque urna porta risus, ut sagittis enim
    velit at orci.
  </p>
  <p class="withstyle">
    Fusce velit. Integer sapien enim, rhoncus vitae, cursus non,
    commodo vitae, felis. Nulla convallis ante sit amet urna.
    Maecenas condimentum hendrerit turpis.
  </p>
  <p class="warn">
    Lorem ipsum dolor sit amet, consectetur adipiscing elit. Cras
    sollicitudin, orci nec facilisis vehicula, neque urna porta risus, ut
    sagittis enim
    velit at orci.
  </p>
  <p>
    Lorem ipsum dolor sit amet, <span class="warn">consectetur
    adipiscing elit</span>.
    Cras sollicitudin, orci nec acilisis vehicula, neque urna porta
    risus, ut sagittis enim velit at orci.
  </p>
  <p class="warn">
    Lorem ipsum dolor sit amet, consectetur adipiscing elit. Cras
    sollicitudin, orci nec facilisis vehicula, neque urna porta risus, ut
    sagittis enim velit at orci.
  </p>
</body>
```



style.css

```
p {
  background-color: white;
  color: black;
}

.withstyle {
  background-color: olive;
  color: navy;
}

.warn {
  background-color: yellow;
  color: red;
}
```



Lorem ipsum dolor sit amet, consectetur adipiscing elit. Cras sollicitudin, orci nec facilisis vehicula, neque urna porta risus, ut sagittis enim velit at orci.

Fusce velit. Integer sapien enim, rhoncus vitae, cursus non, commodo vitae, felis. Nulla convallis ante sit amet urna. Maecenas condimentum hendrerit turpis.

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Cras sollicitudin, orci nec facilisis vehicula, neque urna porta risus, ut sagittis enim velit at orci.

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Cras sollicitudin, orci nec acilisis vehicula, neque urna porta risus, ut sagittis enim velit at orci.

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Cras sollicitudin, orci nec facilisis vehicula, neque urna porta risus, ut sagittis enim velit at orci.



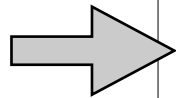
## ID Attribute

---

- While the name of an element specifies its *type*, the id attribute lets you identify a specific element.
- Targeting elements by ID means you can devise rules that apply to a single element in a document
- IDs must be unique to a document - there cannot be two elements with the same IDs

# Using **id** to identify elements

---



```
<body>
<p id="first">
  Lorem ipsum dolor sit amet, consectetur adipiscing elit. Cras sollicitudin, orci
  nec facilisis vehicula, neque urna porta risus, ut sagittis enim velit at orci.
</p>
<p class="withstyle">
  Fusce velit. Integer sapien enim, rhoncus vitae, cursus non,
  commodo vitae, felis. Nulla convallis ante sit amet urna. Maecenas condimentum
  hendrerit turpis.
</p>
<p class="warn">
  Lorem ipsum dolor sit amet, consectetur adipiscing elit. Cras
  sollicitudin, orci nec facilisis vehicula, neque urna porta risus, ut sagittis enim
  velit at orci.
</p>
<p>
  Lorem ipsum dolor sit amet,<span class="warn">consectetur adipiscing elit</span>.
  Cras sollicitudin, orci nec acilisis vehicula, neque urna porta risus, ut sagittis
  enim velit at orci.
</p>
<p class="warn">
  Lorem ipsum dolor sit amet, consectetur adipiscing elit. Cras
  sollicitudin, orci nec facilisis vehicula, neque urna porta risus, ut sagittis enim
  velit at orci.
</p>
</body>
```

# Classes & IDs in Action

```
<!DOCTYPE html>
<html>
<head>
<title> Sample for topic 03 </title>
<link rel="stylesheet" href="style.css" type="text/css"/>
</head>
<body>
<div id="maincontent">
<p id="first">
  Lorem ipsum dolor sit amet, consectetur adipiscing elit. Cras sollicitudin, orci
  nec facilisis vehicula, neque urna porta risus, ut sagittis enim velit at orci.
</p>
<p class="withstyle">
  Fusce velit. Integer sapien enim, rhoncus vitae, cursus non,
  commodo vitae, felis. Nulla convallis ante sit amet urna. Maecenas condimentum
  hendrerit turpis.
</p>
<p class="warn">
  Lorem ipsum dolor sit amet, consectetur adipiscing elit. Cras
  sollicitudin, orci nec facilisis vehicula, neque urna porta risus, ut sagittis enim
  velit at orci.
</p>
<p>
  Lorem ipsum dolor sit amet,<span class="warn">consectetur adipiscing elit</span>.
  Cras sollicitudin, orci nec acilisis vehicula, neque urna porta risus, ut sagittis
  enim velit at orci.
</p>
</div>
<div id="footer">
<p class="warn">
  Lorem ipsum dolor sit amet, consectetur adipiscing elit. Cras
  sollicitudin, orci nec facilisis vehicula, neque urna porta risus, ut sagittis enim
  velit at orci.
</p>
</div>
</body>
</html>
```



```
p {
  background-color: white;
  color: black;
}

.withstyle {
  background-color: olive;
  color: navy;
}

.warn {
  background-color: yellow;
  color: red;
}

#first {
  background-color: green;
  color: red;
}
```



Lorem ipsum dolor sit amet, consectetur adipiscing elit. Cras sollicitudin, orci nec facilisis vehicula, neque urna porta risus, ut sagittis enim velit at orci.

Fusce velit. Integer sapien enim, rhoncus vitae, cursus non, commodo vitae, felis. Nulla convallis ante sit amet urna. Maecenas condimentum hendrerit turpis.

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Cras sollicitudin, orci nec facilisis vehicula, neque urna porta risus, ut sagittis enim velit at orci.

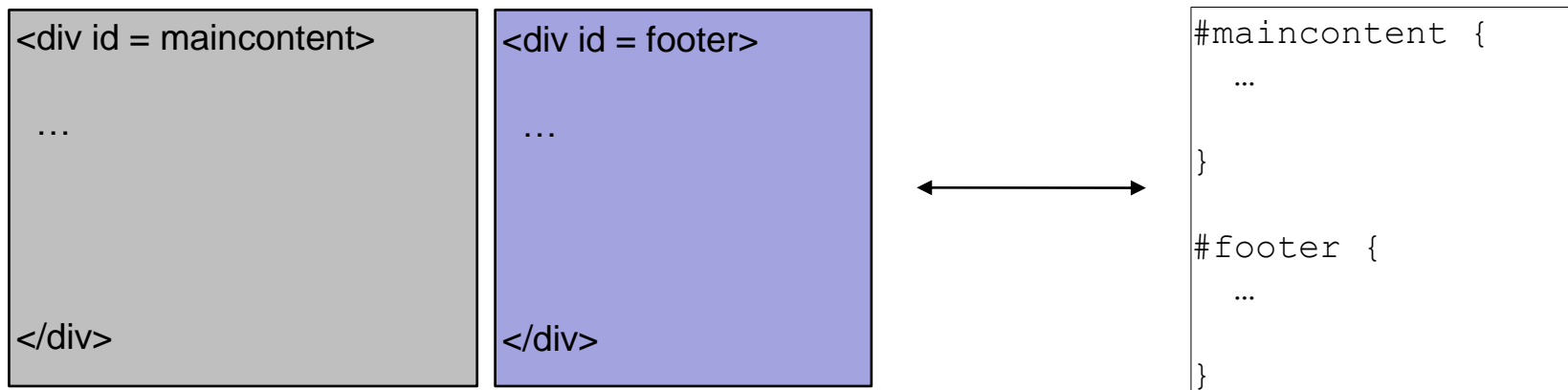
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Cras sollicitudin, orci nec acilisis vehicula, neque urna porta risus, ut sagittis enim velit at orci.

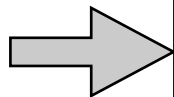
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Cras sollicitudin, orci nec facilisis vehicula, neque urna porta risus, ut sagittis enim velit at orci.

# Using Divs to define Regions of a Page

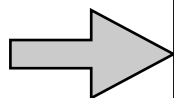
---

- Use DIV elements as containers, one for the main content and one for the left content
- Allocate an ID to each of these divs
- Create CSS rules for each DIVs

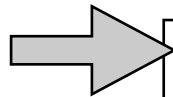
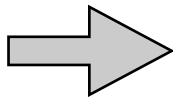




```
<!DOCTYPE html>
<html>
  <head>
    <title> Sample for topic 03 </title>
    <link rel="stylesheet" href="style.css" type="text/css"/>
  </head>
  <body>
    <div id="maincontent">
      <p id="first">
        Lorem ipsum dolor sit amet, consectetur adipiscing elit. Cras sollicitudin, orci
        nec facilisis vehicula, neque urna porta risus, ut sagittis enim velit at orci.
      </p>
      <p class="withstyle">
        Fusce velit. Integer sapien enim, rhoncus vitae, cursus non,
        commodo vitae, felis. Nulla convallis ante sit amet urna. Maecenas condimentum
        hendrerit turpis.
      </p>
      <p class="warn">
        Lorem ipsum dolor sit amet, consectetur adipiscing elit. Cras
        sollicitudin, orci nec facilisis vehicula, neque urna porta risus, ut sagittis enim
        velit at orci.
      </p>
      <p>
        Lorem ipsum dolor sit amet,<span class="warn">consectetur adipiscing elit</span>.
        Cras sollicitudin, orci nec acilisis vehicula, neque urna porta risus, ut sagittis
        enim velit at orci.
      </p>
    </div>
    <div id="footer">
      <p class="warn">
        Lorem ipsum dolor sit amet, consectetur adipiscing elit. Cras
        sollicitudin, orci nec facilisis vehicula, neque urna porta risus, ut sagittis enim
        velit at orci.
      </p>
    </div>
  </body>
</html>
```



```
<!DOCTYPE html>
<html>
  <head>
    <title> Sample for topic 03 </title>
    <link rel="stylesheet" href="style.css" type="text/css"/>
  </head>
  <body>
    <div id="maincontent">
      <p id="first">
        Lorem ipsum dolor sit amet, consectetur adipiscing elit. Cras sollicitudin, orci
        nec facilisis vehicula, neque urna porta risus, ut sagittis enim velit at orci.
      </p>
      <p class="withstyle">
        Fusce velit. Integer sapien enim, rhoncus vitae, cursus non,
        commodo vitae, felis. Nulla convallis ante sit amet urna. Maecenas condimentum
        hendrerit turpis.
      </p>
      <p class="warn">
        Lorem ipsum dolor sit amet, consectetur adipiscing elit. Cras
        sollicitudin, orci nec facilisis vehicula, neque urna porta risus, ut sagittis enim
        velit at orci.
      </p>
      <p>
        Lorem ipsum dolor sit amet,<span class="warn">consectetur adipiscing elit</span>.
        Cras sollicitudin, orci nec acilisis vehicula, neque urna porta risus, ut sagittis
        enim velit at orci.
      </p>
    </div>
    <div id="footer">
      <p class="warn">
        Lorem ipsum dolor sit amet, consectetur adipiscing elit. Cras
        sollicitudin, orci nec facilisis vehicula, neque urna porta risus, ut sagittis enim
        velit at orci.
      </p>
    </div>
  </body>
</html>
```



# Classes, IDs & Divs in Action

```
<div id="maincontent">
  <p id="first">
    Lorem ipsum dolor sit amet, consectetur adipiscing elit. Cras sollicitudin, orci
    nec facilisis vehicula, neque urna porta risus, ut sagittis enim velit at orci.
  </p>
  <p class="withstyle">
    Fusce velit. Integer sapien enim, rhoncus vitae, cursus non,
    commodo vitae, felis. Nulla convallis ante sit amet urna. Maecenas condimentum
    hendrerit turpis.
  </p>
  <p class="warn">
    Lorem ipsum dolor sit amet, consectetur adipiscing elit. Cras
    sollicitudin, orci nec facilisis vehicula, neque urna porta risus, ut sagittis enim
    velit at orci.
  </p>
  <p>
    Lorem ipsum dolor sit amet, <span class="warn">consectetur adipiscing elit</span>.
    Cras sollicitudin, orci nec acilisis vehicula, neque urna porta risus, ut sagittis
    enim velit at orci.
  </p>
</div>
<div id="footer">
  <p class="warn">
    Lorem ipsum dolor sit amet, consectetur adipiscing elit. Cras
    sollicitudin, orci nec facilisis vehicula, neque urna porta risus, ut sagittis enim
    velit at orci.
  </p>
</div>
```

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Cras sollicitudin, orci nec facilisis vehicula, neque urna porta risus, ut sagittis enim velit at orci.

Fusce velit. Integer sapien enim, rhoncus vitae, cursus non, commodo vitae, felis. Nulla convallis ante sit amet urna. Maecenas condimentum hendrerit turpis.

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Cras sollicitudin, orci nec facilisis vehicula, neque urna porta risus, ut sagittis enim velit at orci.

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Cras sollicitudin, orci nec acilisis vehicula, neque urna porta risus, ut sagittis enim velit at orci.

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Cras sollicitudin, orci nec facilisis vehicula, neque urna porta risus, ut sagittis enim velit at orci.

```
p {
  background-color: white;
  color: black;
}

.withstyle {
  background-color: olive;
  color: navy;
}

.warn {
  background-color: yellow;
  color: red;
}

#first {
  background-color: green;
  color: red;
}

#maincontent {
  border-style: solid;
  border-width: 2px;
}

#footer {
  border-style: dashed;
  border-color: red;
  border-width: 2px;
}
```