

HTML / CSS

Website layers

Behavior (JS)

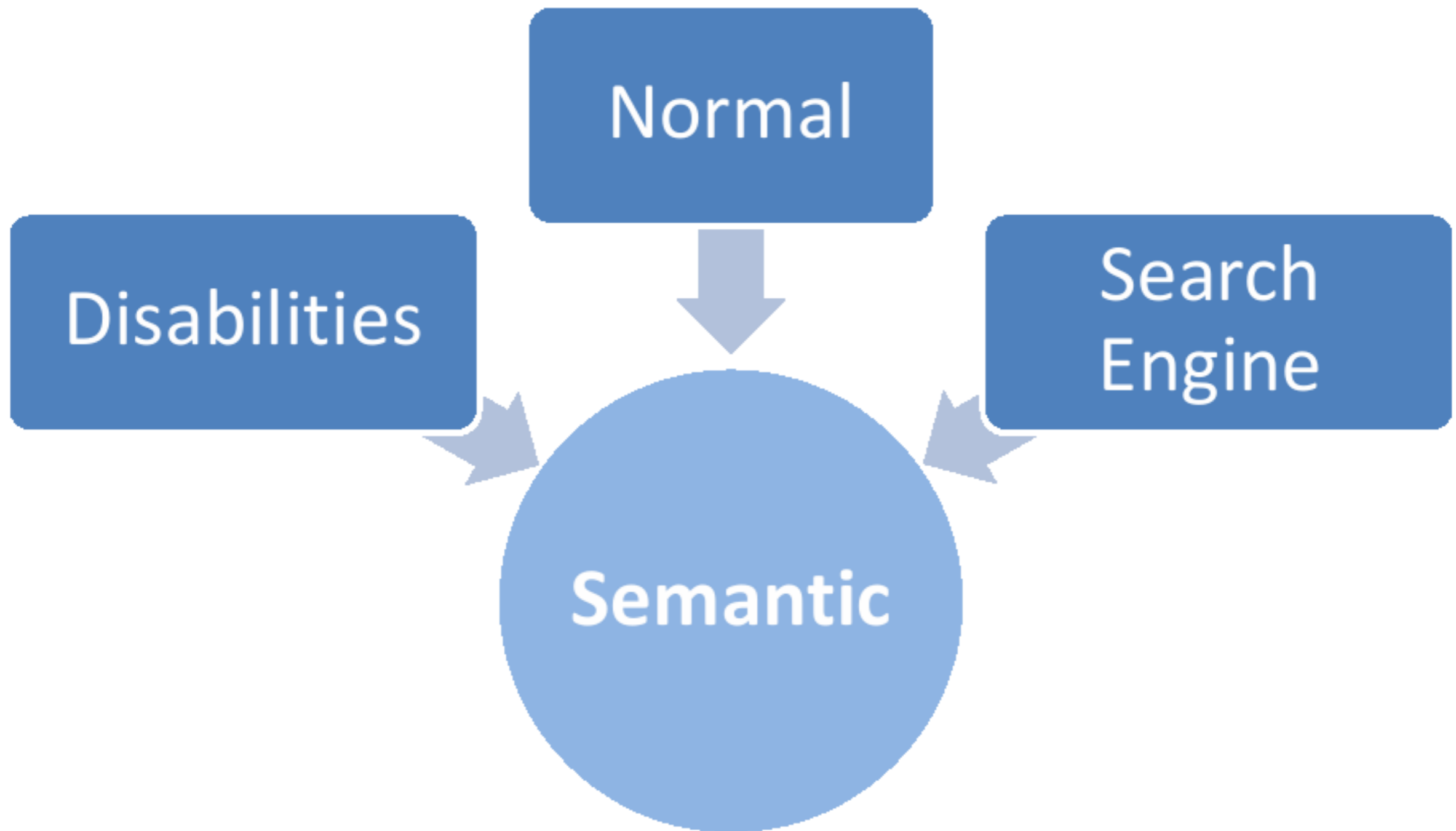


Presentation (CSS)



Content (HTML)

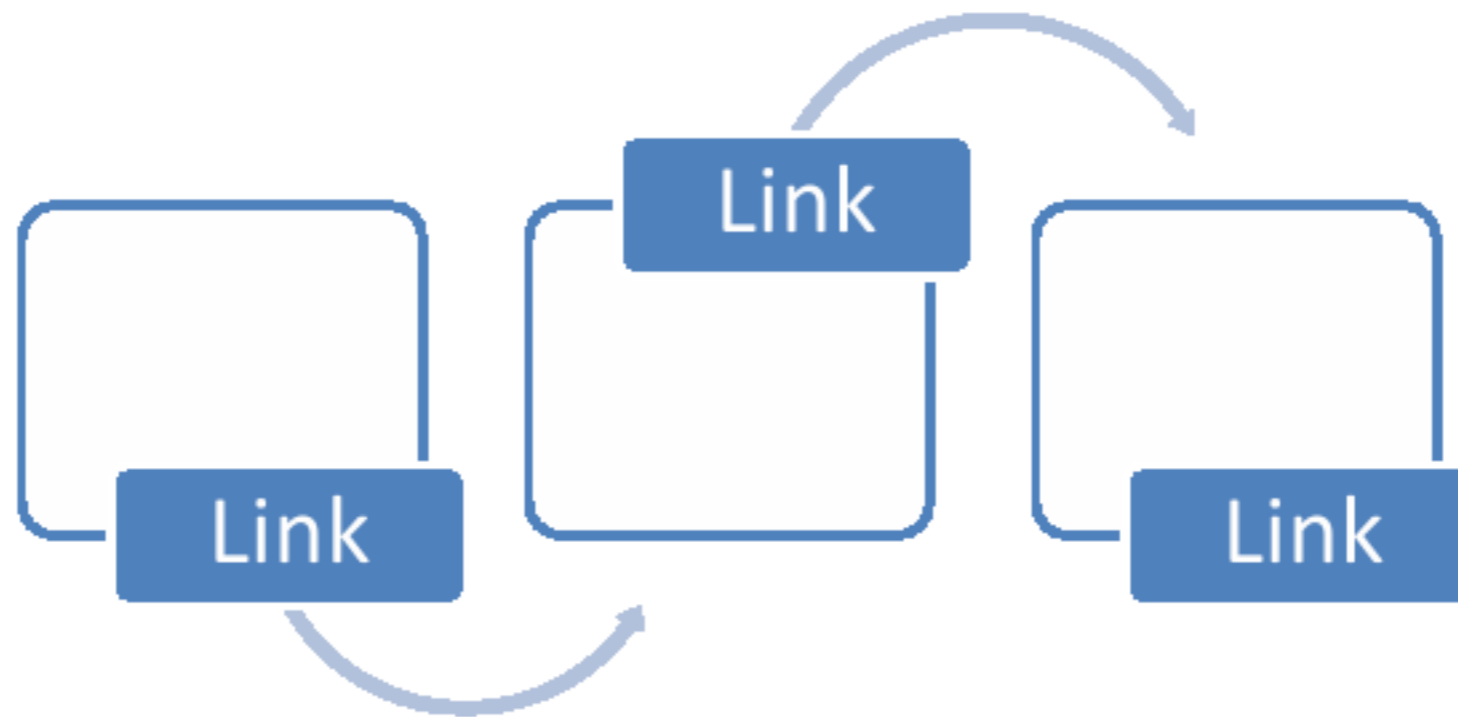
Website Users



HTML

What is HTML?

Hyper Text Markup Language



Tags

<p>Content</p>

↑
Open

↑
Close

Nested Tags

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

Basic Structure

```
<!DOCTYPE HTML>  
<html>  
  <head></head>  
  <body></body>  
</html>
```

Head

```
<!DOCTYPE HTML>
<html>
  <head>
    <title>Learn HTML</title>
  </head>
  <body></body>
</html>
```

Preview



Body

```
<!DOCTYPE HTML>
<html>
  <head>
    <title>Learn HTML</title>
  </head>
  <body>
    <h1>My first page</h1>
    <p>Lorem ipsum dolor sit amet,
      consectetur adipiscing elit.
      ipsum dolor sit amet, consectetur
      adipiscing elit.</p>
  </body>
</html>
```

Preview



My first page

Lorem ipsum dolor sit amet, consectetur adipiscing elit. ipsum dolor sit amet, consectetur adipiscing elit.

Headers

<h1>Header 1</h1>

<h2>Header 2</h2>

<h3>Header 3</h3>

<h4>Header 4</h4>

<h5>Header 5</h5>

<h6>Header 6</h6>

Preview



Header 1

Header 2

Header 3

Header 4

Header 5

Header 6

Paragraph

```
<p>Lorem ipsum dolor sit amet, consectetur  
adipiscing elit. ipsum dolor sit amet,  
consectetur adipiscing elit.</p>
```

```
<p>Lorem ipsum dolor sit amet, consectetur  
adipiscing elit. ipsum dolor sit amet,  
consectetur adipiscing elit.</p>
```

Preview



Lorem ipsum dolor sit amet, consectetur adipiscing elit. ipsum dolor sit
consectetur adipiscing elit.

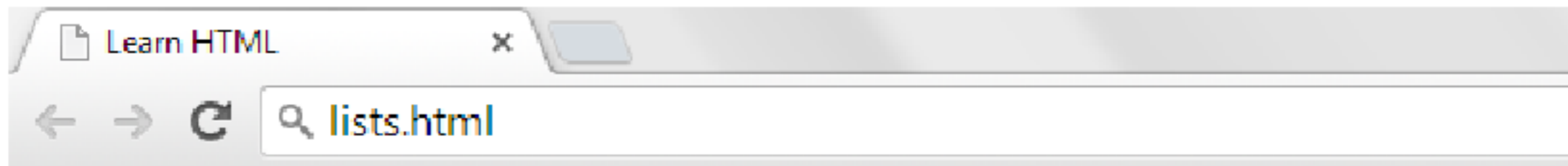
Lorem ipsum dolor sit amet, consectetur adipiscing elit. ipsum dolor sit
consectetur adipiscing elit.

Lists

```
<ul>  
  <li>List item</li>  
  <li>List item</li>  
  <li>List item</li>  
</ul>
```

```
<ol>  
  <li>List item</li>  
  <li>List item</li>  
  <li>List item</li>  
</ol>
```

Preview



- List item
- List item
- List item

1. List item
2. List item
3. List item

Div

```
<div>  
  <h1>Division Header</h1>  
  <p>Division Paragraph</p>  
</div>
```

```
<div>  
  <h1>Division 2 Header</h1>  
  <p>Division 2 Paragraph</p>  
</div>
```

Preview



Division Header

Division Paragraph

Division 2 Header

Division 2 Paragraph

Block elements

BLOCK ELEMENTS EXPAND NATURALLY



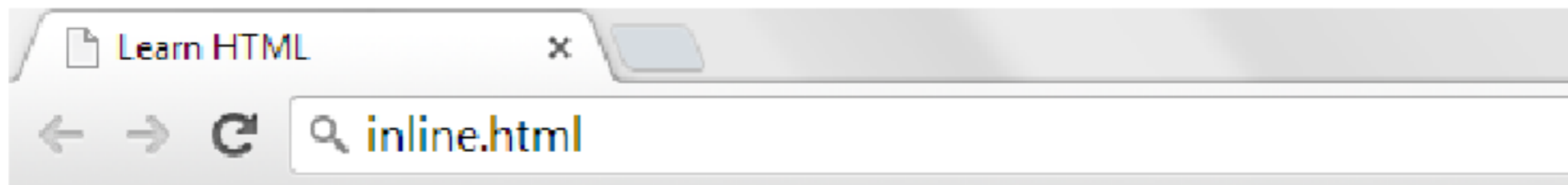
AND NATURALLY DROP BELOW OTHER ELEMENTS



Inline elements

`<p>This paragraph contains inline element</p>`

Preview



This paragraph contains **inline element**

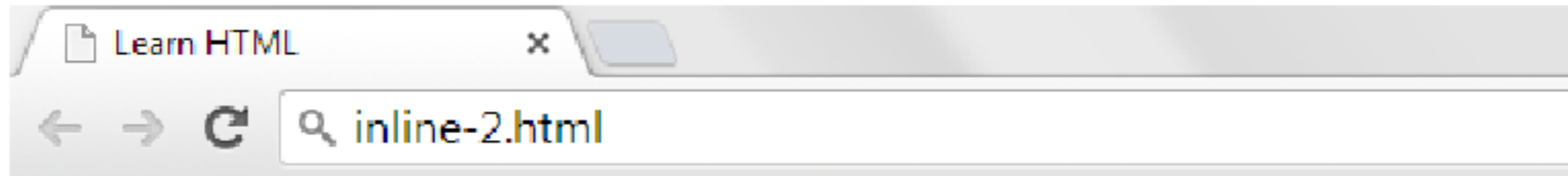
More Inline elements

`Inline element`

`Inline element`

`Inline element`

Preview



Inline element *Inline element* Inline element

Attribute

```

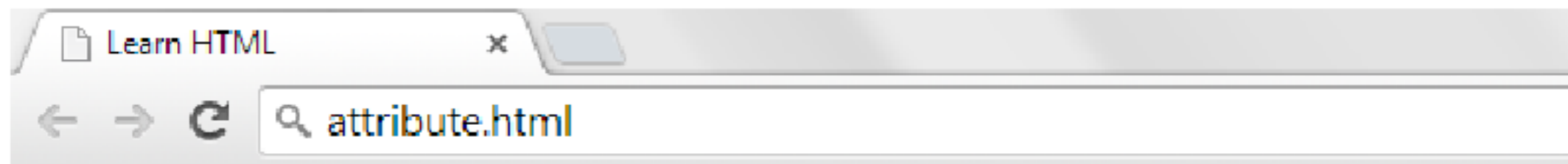
```

↑
Name

↑
Value

Add more info to tag

Preview



HTML 5 tags

`<header> ... </header>`

`<footer> ... </footer>`

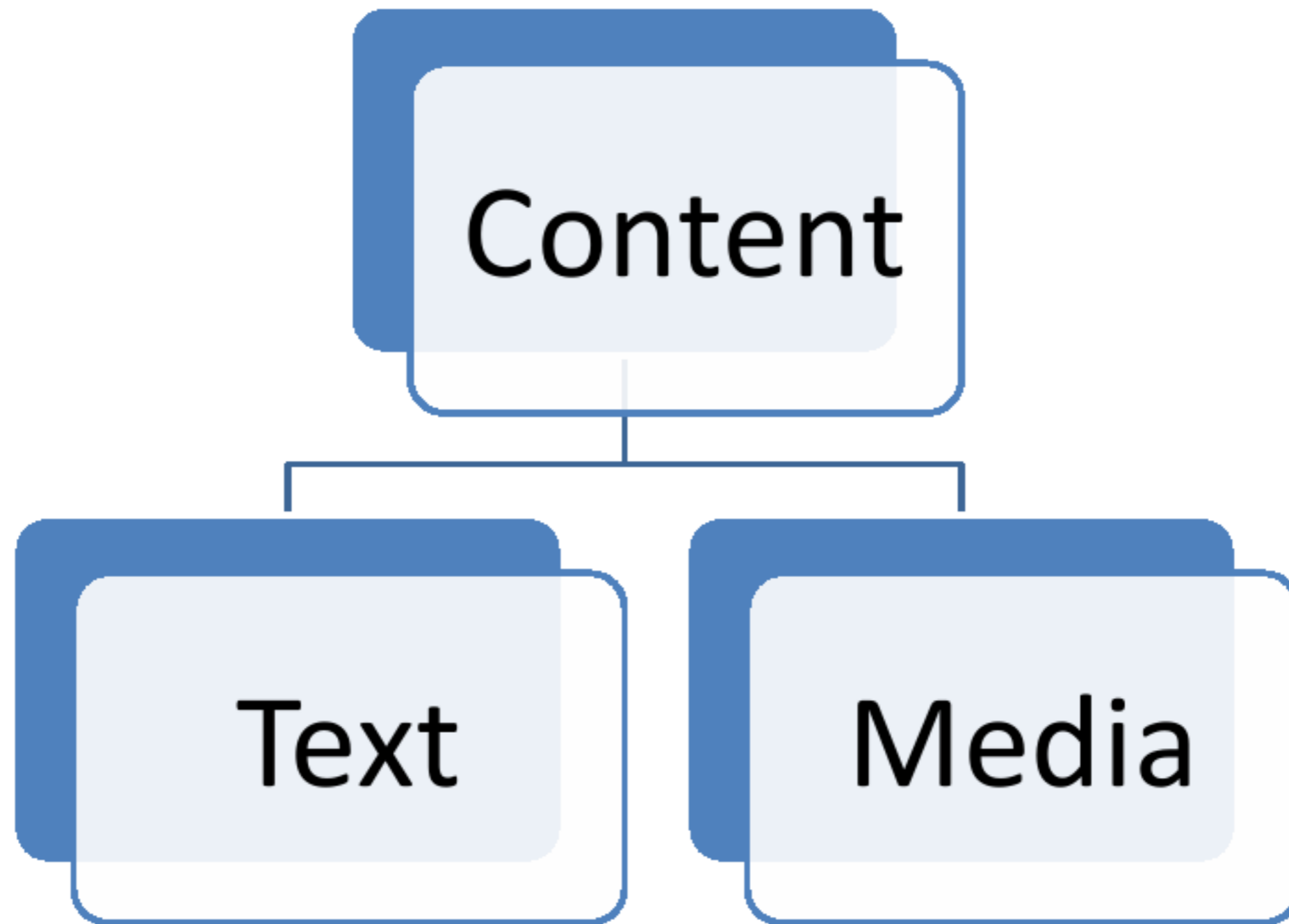
`<aside> ... </aside>`

`<nav> ... </nav>`

`<section> ... </section>`

`<article> ... </article>`

Semantic



CSS

What is CSS?

Cascading Style Sheets



Styles1

The diagram consists of three blue, parallelogram-shaped boxes arranged horizontally. Each box is tilted slightly to the right. The first box on the left is labeled 'Styles1', the middle box is labeled 'Styles2', and the rightmost box is labeled 'Styles3'. The boxes are solid blue with white text.

Styles2

Styles3

How to use it?

```
<head>
  <title>Learn HTML</title>
  <link rel="stylesheet" href="../../stylesheets/styles.css">
</head>
```

```
<style>
  h1{color:red;}
  p{font-size:14px;}
</style>
```

```
<h1 style="color:red;">Selectors</h1>
<p style="font-size:14px;">Lorem ipsum dolor sit
amet, consectetur adipiscing elit. Maecenas non arcu
ornare, fermentum erat ac, semper enim.</p>
```

Rules



Selectors

p

Element

.name

Class

#name

Id

Element Selector

```
<h1>My first page</h1>  
<p>Lorem ipsum dolor sit amet,  
consectetur adipiscing elit.  
ipsum dolor sit amet, consectetur  
adipiscing elit.</p>
```

```
h1 { color: red; }  
p { font-size: 20px; }
```

Preview



My first page

Lorem ipsum dolor sit amet, consectetur adipiscing elit. ipsum dolor
consectetur adipiscing elit.

Class Selector

```
<h1>My first page</h1>
```

```
<p class="intro">Lorem ipsum dolor sit amet,  
adipiscing elit. adipiscing elit.</p>
```

```
<p>Lorem ipsum dolor sit amet, consectetur  
adipiscing elit. adipiscing elit.</p>
```

```
h1{color:red;}  
p{font-size:20px;}  
.intro{color:green;}
```

Preview



My first page

Lorem ipsum dolor sit amet,consectetur adipiscing elit. adipiscing elit.

Lorem ipsum dolor sit amet,consectetur adipiscing elit. adipiscing elit.

ID Selector

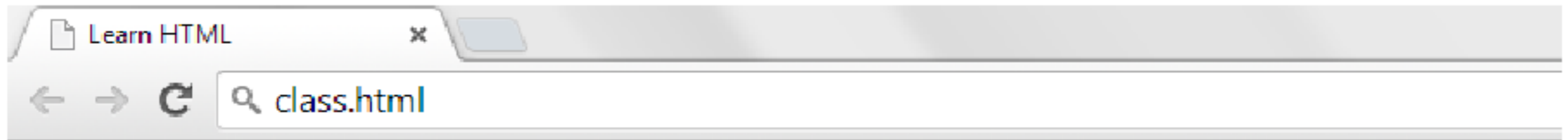
```
<h1>My first page</h1>
```

```
<p id="intro">Lorem ipsum dolor sit amet,  
adipiscing elit. adipiscing elit.</p>
```

```
<p>Lorem ipsum dolor sit amet, consectetur  
adipiscing elit. adipiscing elit.</p>
```

```
h1{color:red;}  
p{font-size:20px;}  
#intro{color:green;}
```

Preview



My first page

Lorem ipsum dolor sit amet,consectetur adipiscing elit. adipiscing elit.

Lorem ipsum dolor sit amet,consectetur adipiscing elit. adipiscing elit.

2 Rules

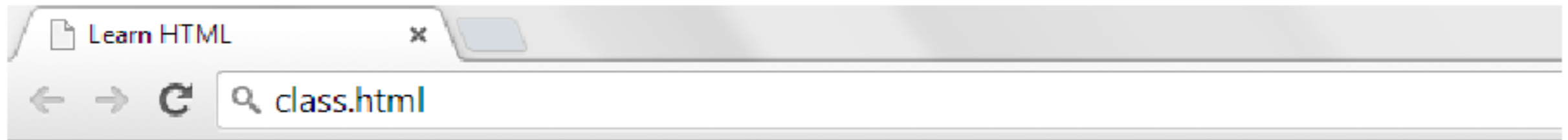
```
<h1>My first page</h1>
```

```
<p id="intro" class="intro">Lorem ipsum dolor  
adipiscing elit. adipiscing elit.</p>
```

```
<p>Lorem ipsum dolor sit amet, consectetur  
adipiscing elit. adipiscing elit.</p>
```

```
h1{color:red;}  
p{font-size:20px;}  
#intro{color:green;}  
.intro{color:blue;}
```

Preview



My first page

Lorem ipsum dolor sit amet,consectetur adipiscing elit. adipiscing elit.

Lorem ipsum dolor sit amet,consectetur adipiscing elit. adipiscing elit.

Specificity

1

Element

10

Class

100

Id

Class VS ID

Class

- Use a lot
- Lower specificity

ID

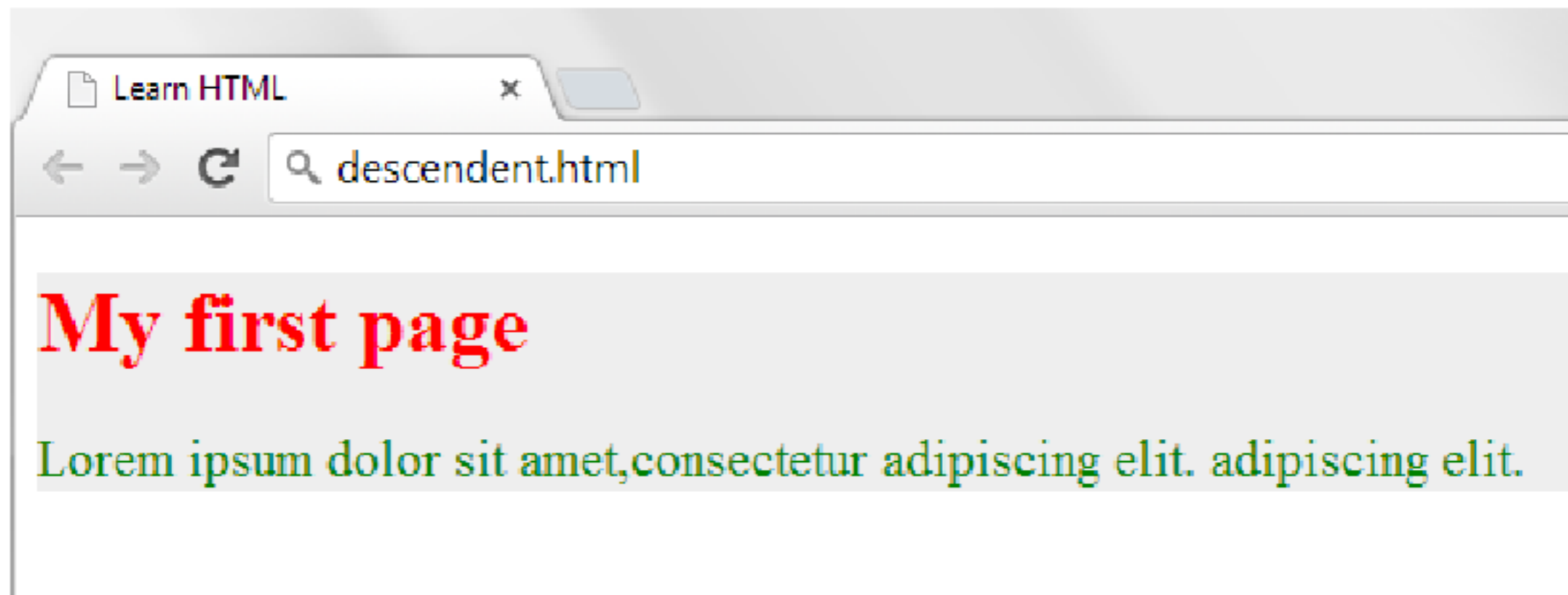
- Use once
- Higher specificity

Descendent Selector

```
<div class="content">  
  <h1>My first page</h1>  
  <p>Lorem ipsum dolor sit amet, consectetur  
  adipiscing elit. adipiscing elit.</p>  
</div>
```

```
.content{ background:#eee; }  
.content h1{ color:red; }  
.content p{ color:green; }
```

Preview



Naming

Bad Names

red

leftColumn

topNav

firstPara

Good Names

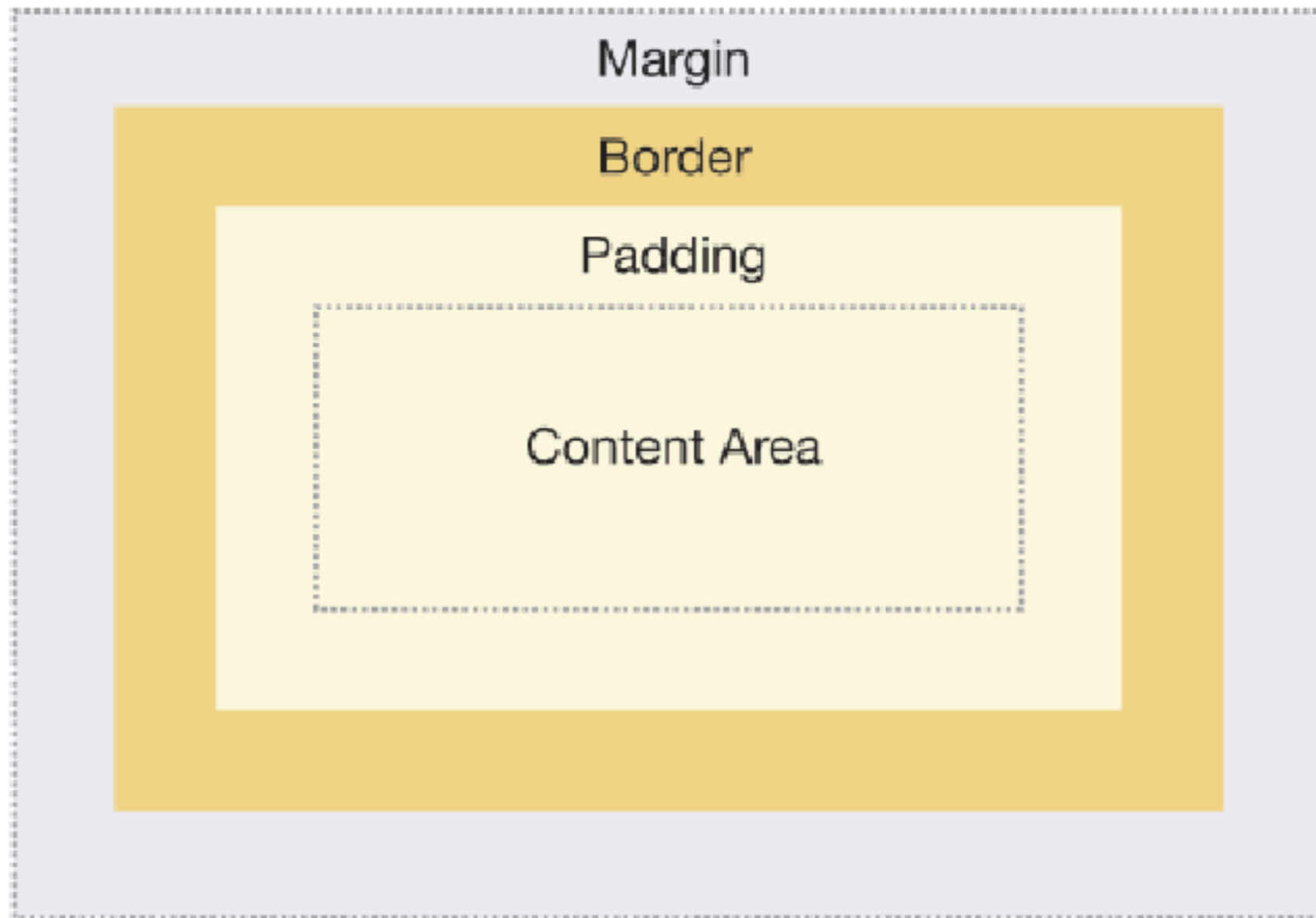
error

secondaryContent

mainNav

intro

Box Model (Block)



Box Model (Block)

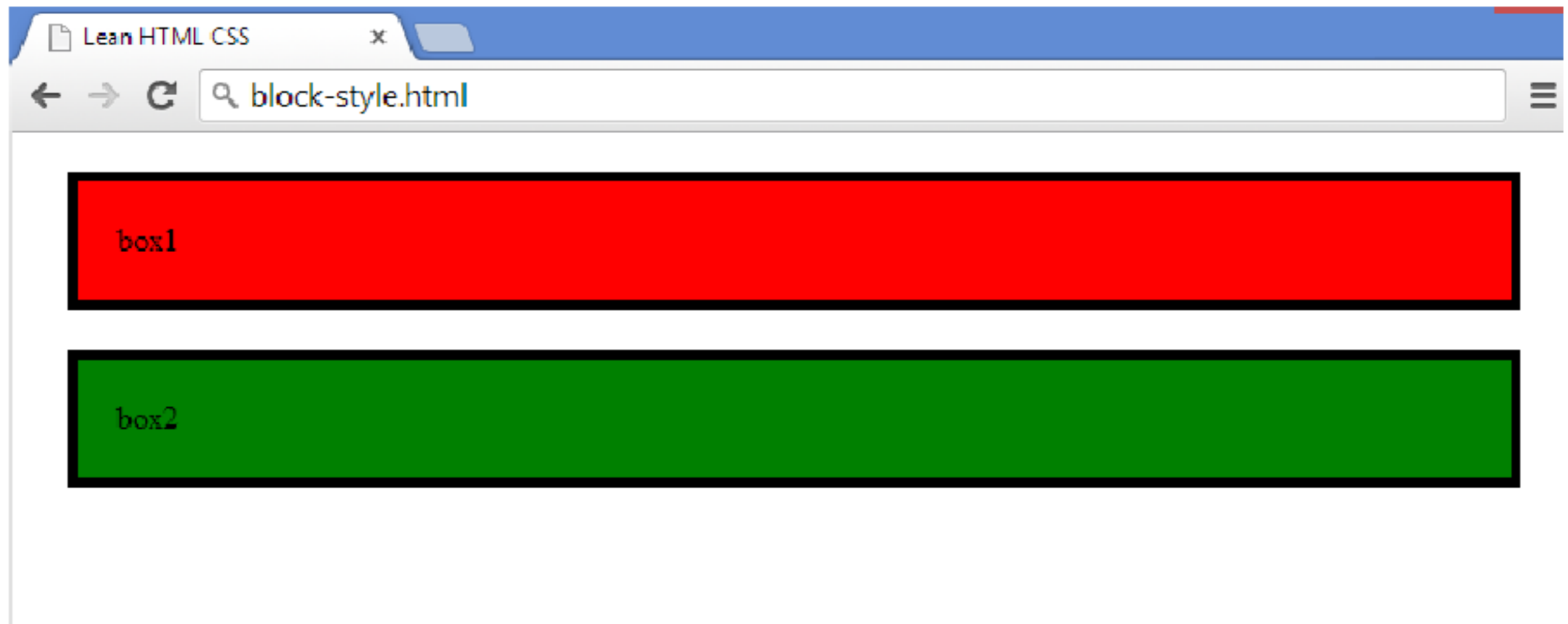
```
<div class="box1">box1</div>
```

```
<div class="box2">box2</div>
```

Box Model (Block)

```
.box1 {  
  background:red;  
  padding:20px;  
  margin:20px;  
  border: 5px solid black;  
}  
.box2 {  
  background:green;  
  padding:20px;  
  margin:20px;  
  border: 5px solid black;  
}
```

Preview



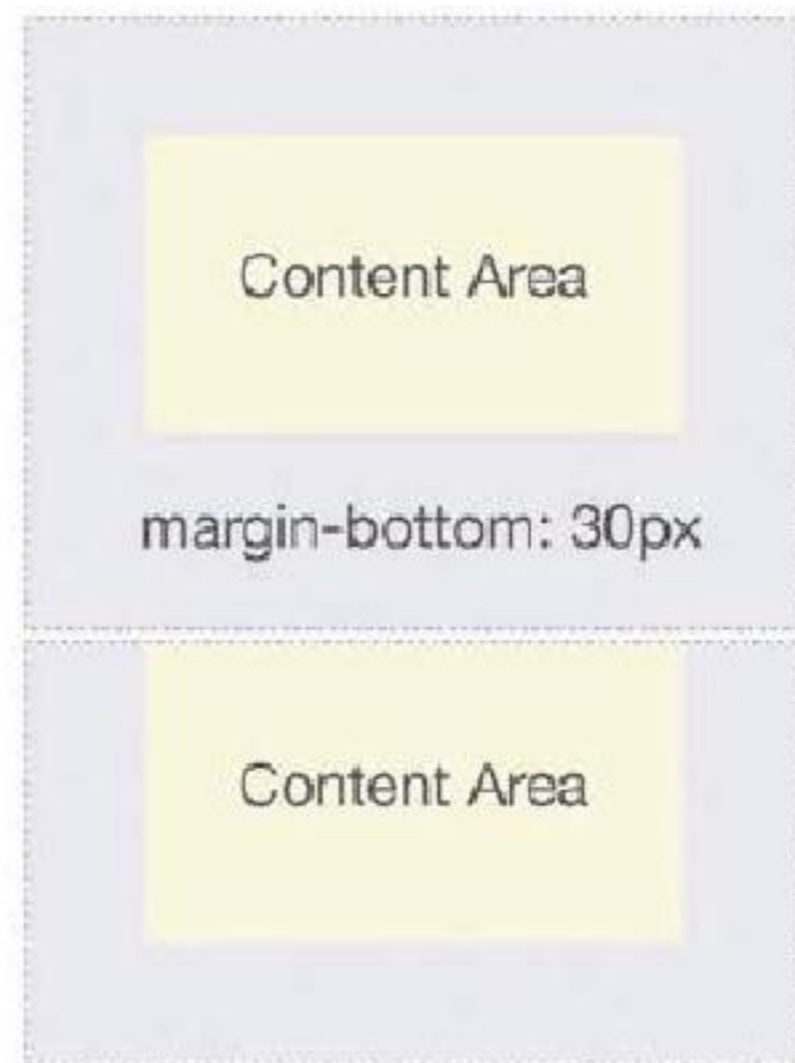
Margin collapse

Before



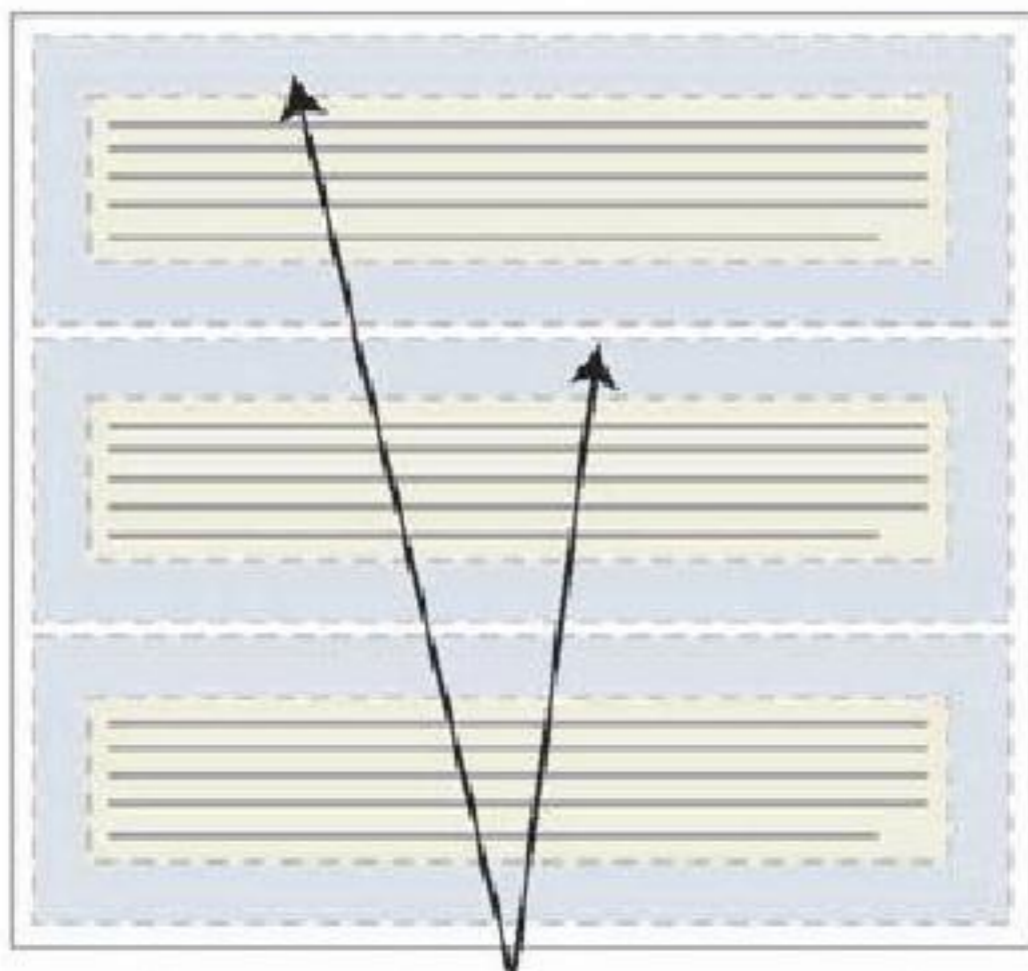
} Margins collapse to form a single margin.

After



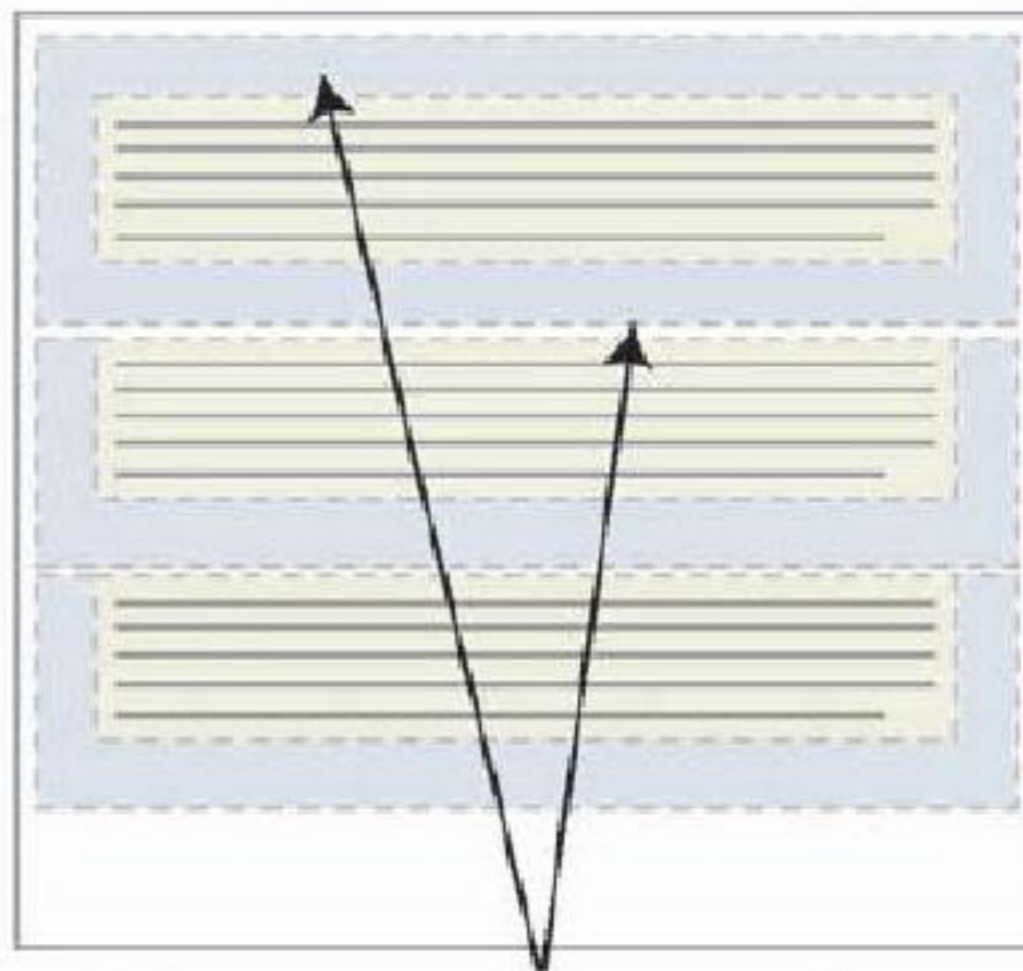
Margin collapse

Without Margin Collapsing



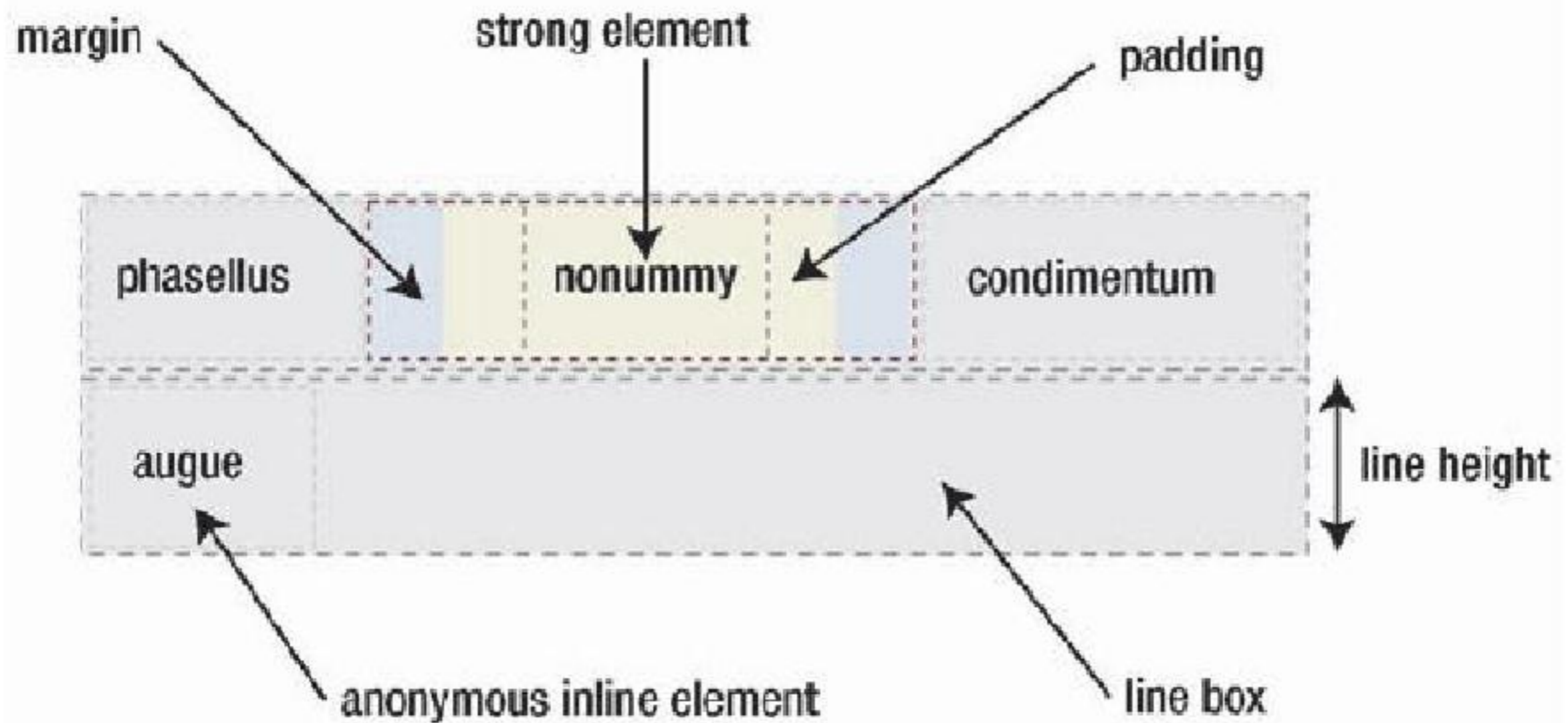
The space between paragraphs is double the space at the top.

With Margin Collapsing



The space between paragraphs is the same as the space at the top.

Box Model (Inline)

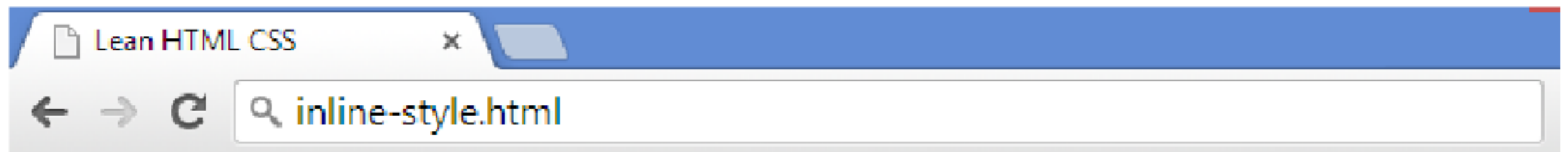


Box Model (Inline)

```
<p>Lorem ipsum dolor sit amet,  
consectetur <strong>adipiscing</strong>  
Duis eget felis mollis, venenatis  
nunc non, ornare nibh. venenatis  
nunc non, ornare nibh orem ipsum dolor sit  
amet </p>
```

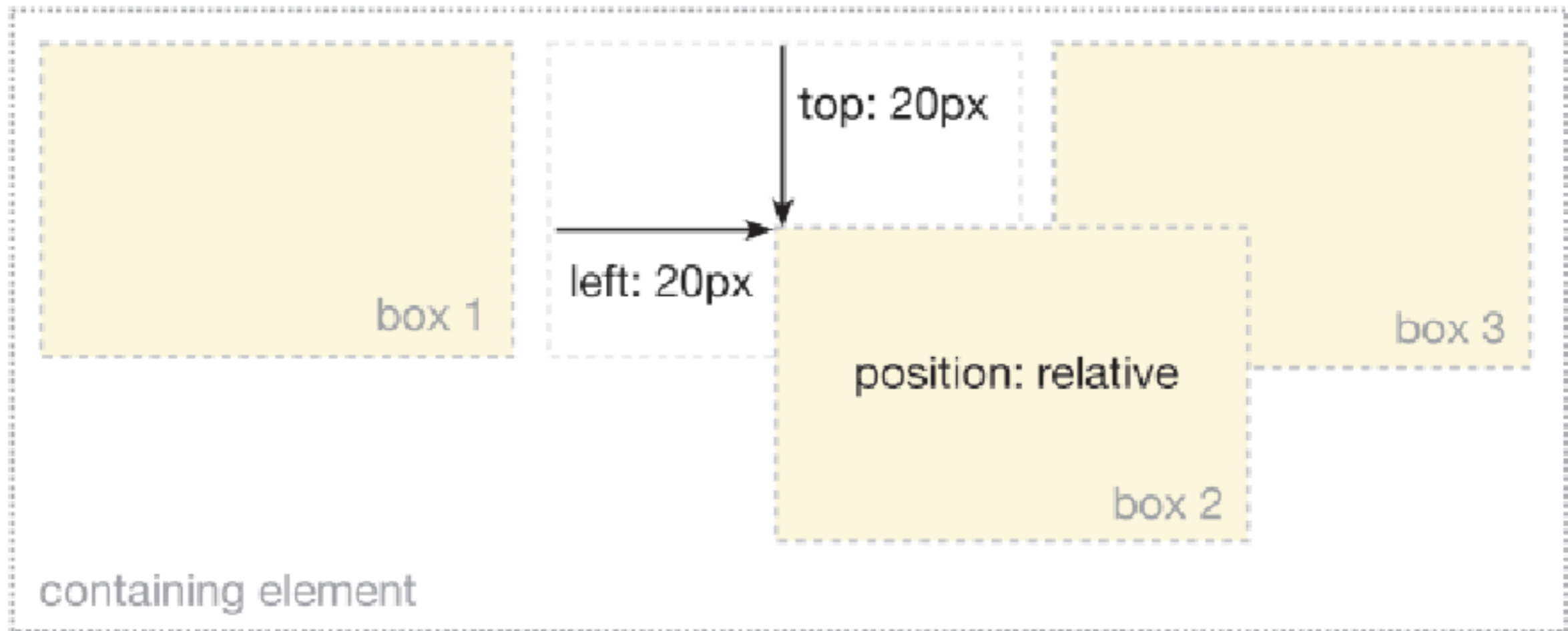
```
strong{  
  padding:20px;  
  margin:20px;  
}
```

Preview

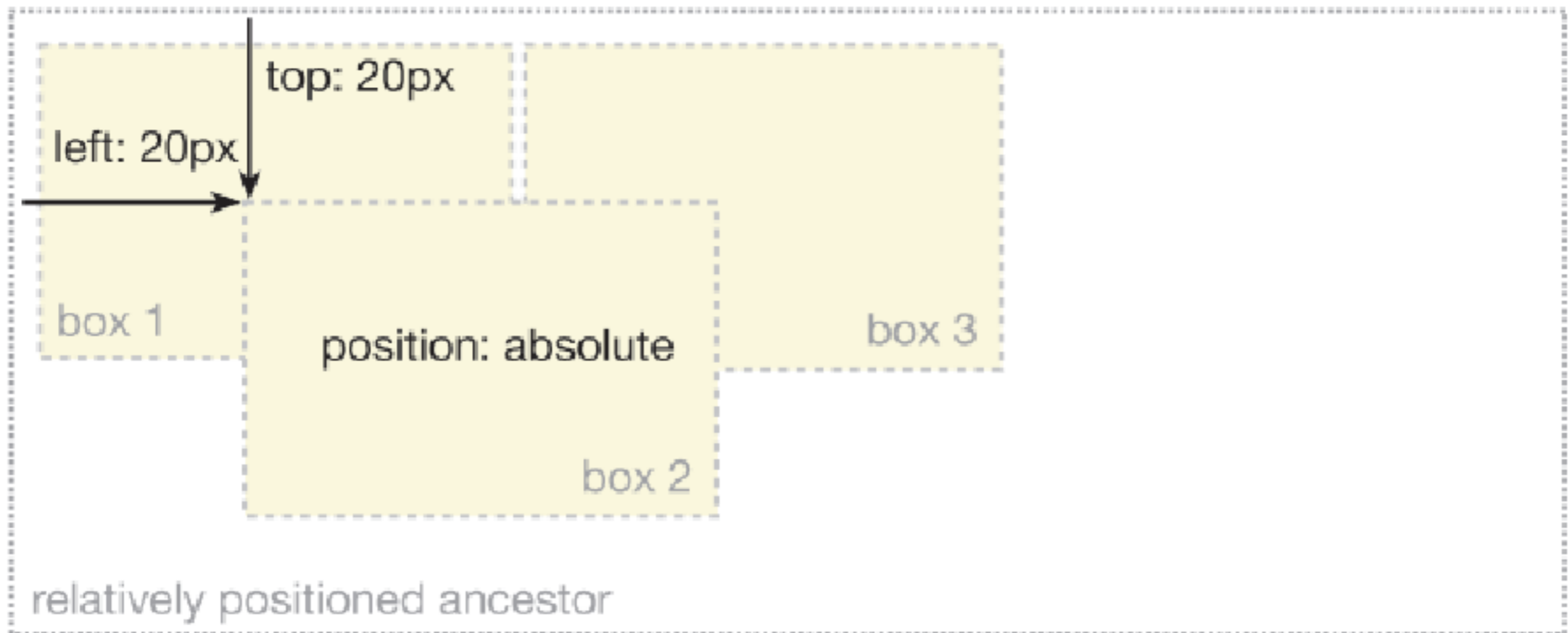


Lorem ipsum dolor sit amet, consectetur adipiscing elit. Duis eget felis mollis, venenatis nunc non ornare nibh. venenatis nunc non, ornare nibh orem ipsum dolor sit amet

Relative Position



Absolute Position



Fixed Position

The image shows a side-by-side comparison of a web page layout, illustrating the effect of fixed positioning. The left side represents the original layout, and the right side shows the layout after applying fixed positioning to the sidebar and comment form.

Left Side (Original Layout):

- Header:** "snook.ca" logo.
- Left Sidebar:** A vertical menu with links: Home, About, Topics, Reviews, Contact.
- Main Content:**
 - Site Updates:** A section titled "Site Updates" with a date "February 13, 2008 | 12:00". The text says: "Just a heads up that I've updated the site a little so if anything is asking, be sure to let me know." It lists updates: "Updates include:
 - Updated the styles on the comments
 - Added an intro paragraph to the [home page](#)
 - E-mail notification checkbox state is maintained in preview (that should make you happy, Mark)
 - You can now use `code` in comments
 - Moved `ArchieType` database from Berkeley to MySQL (which went fairly smoothly except when I forgot and the first time I had to login to MySQL and delete the tables in order to reset the preview)"
 - Comments:** A section titled "COMMENTS" with "0 comments".
- Right Sidebar:** A vertical list of comments:
 - Jonathan Snook:** February 13, 2008 09:27 AM. "Actually, just noticed one small glitch as a result of changing databases: all notification subscriptions have been lost! Sorry folks."
 - James M. Smith:** February 14, 2008 07:17 AM. "I am stuck with wtfwtfwtf."
 - Mark Watson:** February 14, 2008 07:26 AM. "Thanks, Jonathan!"
 - Rob Martin:** February 14, 2008 11:21 AM. "Was. Nice. Styles look good!"

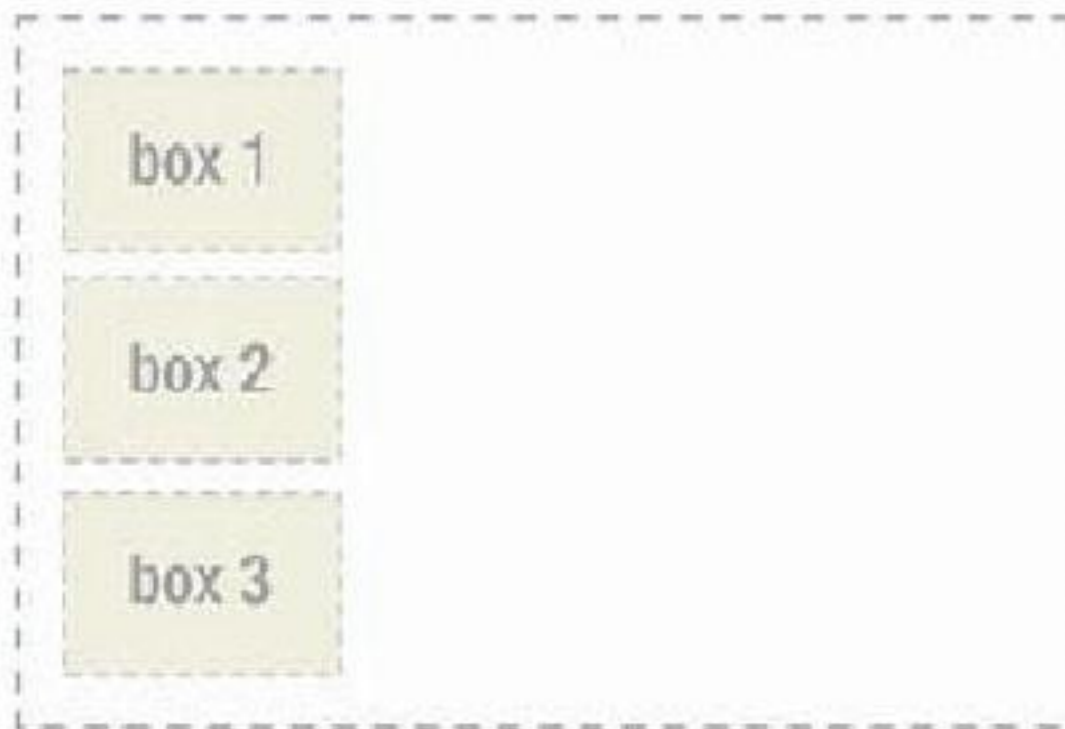
Right Side (Fixed Position Layout):

- Header:** "snook.ca" logo.
- Left Sidebar:** A vertical menu with links: Home, About, Topics, Reviews, Contact.
- Main Content:**
 - Site Updates:** A section titled "Site Updates" with a date "February 13, 2008 | 12:00". The text says: "Just a heads up that I've updated the site a little so if anything is asking, be sure to let me know." It lists updates: "Updates include:
 - Updated the styles on the comments
 - Added an intro paragraph to the [home page](#)
 - E-mail notification checkbox state is maintained in preview (that should make you happy, Mark)
 - You can now use `code` in comments
 - Moved `ArchieType` database from Berkeley to MySQL (which went fairly smoothly except when I forgot and the first time I had to login to MySQL and delete the tables in order to reset the preview)"
 - Comments:** A section titled "COMMENTS" with "0 comments".
- Right Sidebar:** A vertical list of comments:
 - Jonathan Snook:** February 13, 2008 09:27 AM. "Actually, just noticed one small glitch as a result of changing databases: all notification subscriptions have been lost! Sorry folks."
 - James M. Smith:** February 14, 2008 07:17 AM. "I am stuck with wtfwtfwtf."
 - Mark Watson:** February 14, 2008 07:26 AM. "Thanks, Jonathan!"
 - Rob Martin:** February 14, 2008 11:21 AM. "Was. Nice. Styles look good!"

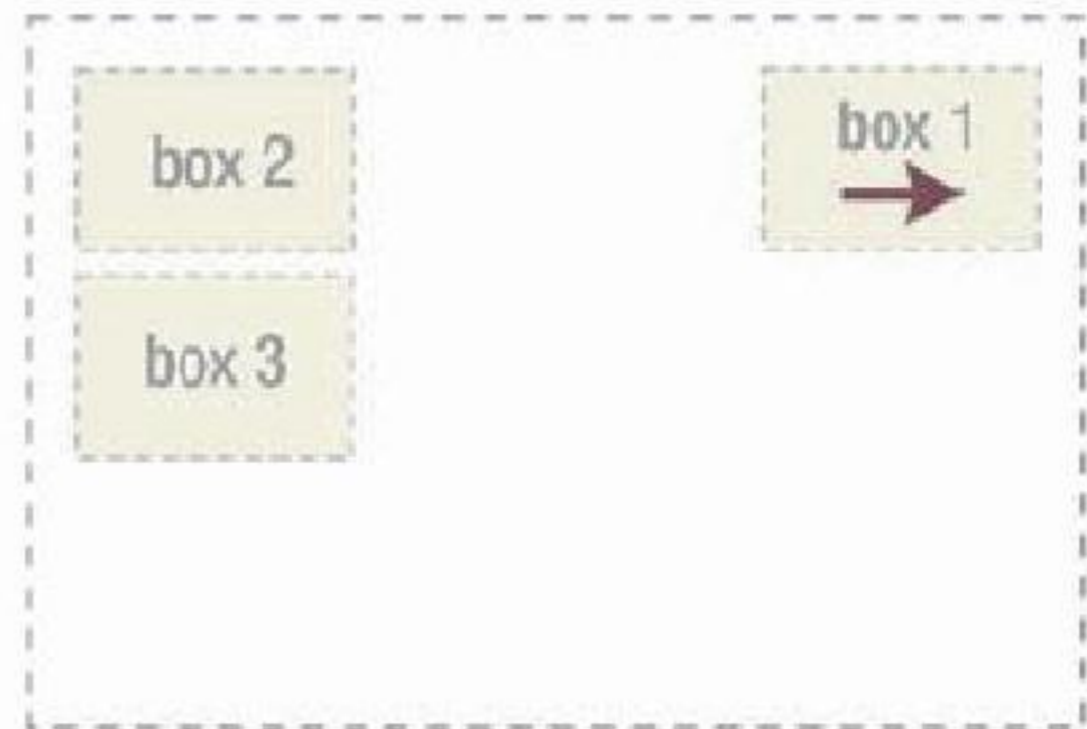
Fixed Positioning: The sidebar and comment form are fixed in position, meaning they do not scroll with the rest of the page content. This is achieved by setting `position: fixed;` on the sidebar and comment form elements.

Float

No Boxes Floated

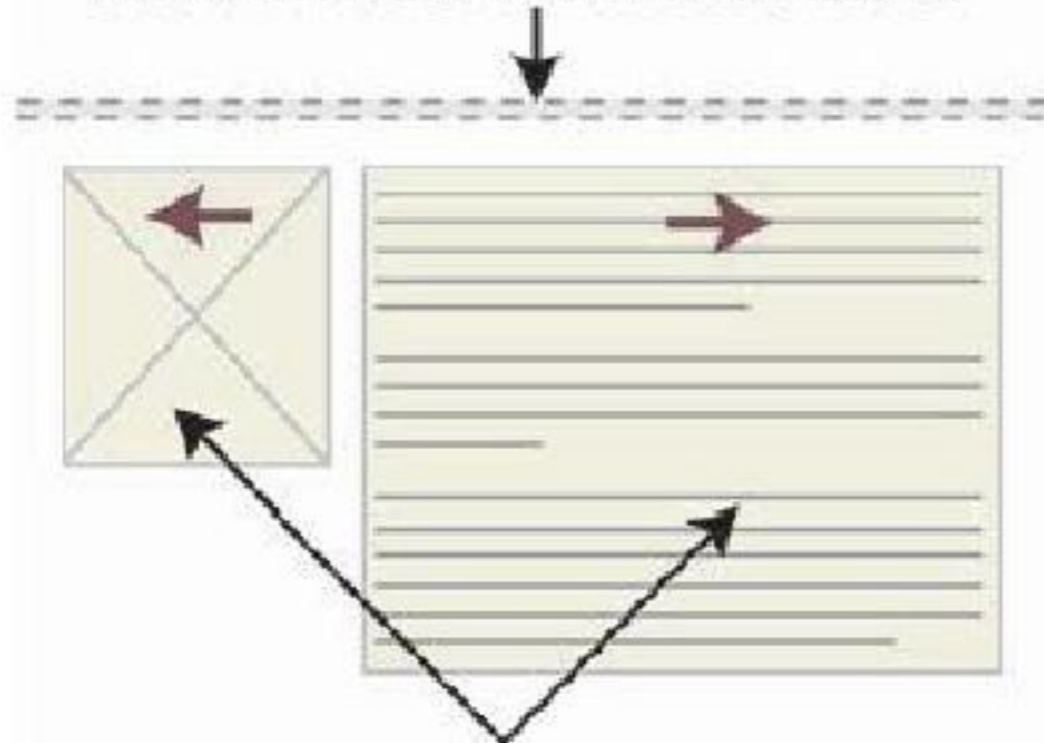


Box 1 Floated Right



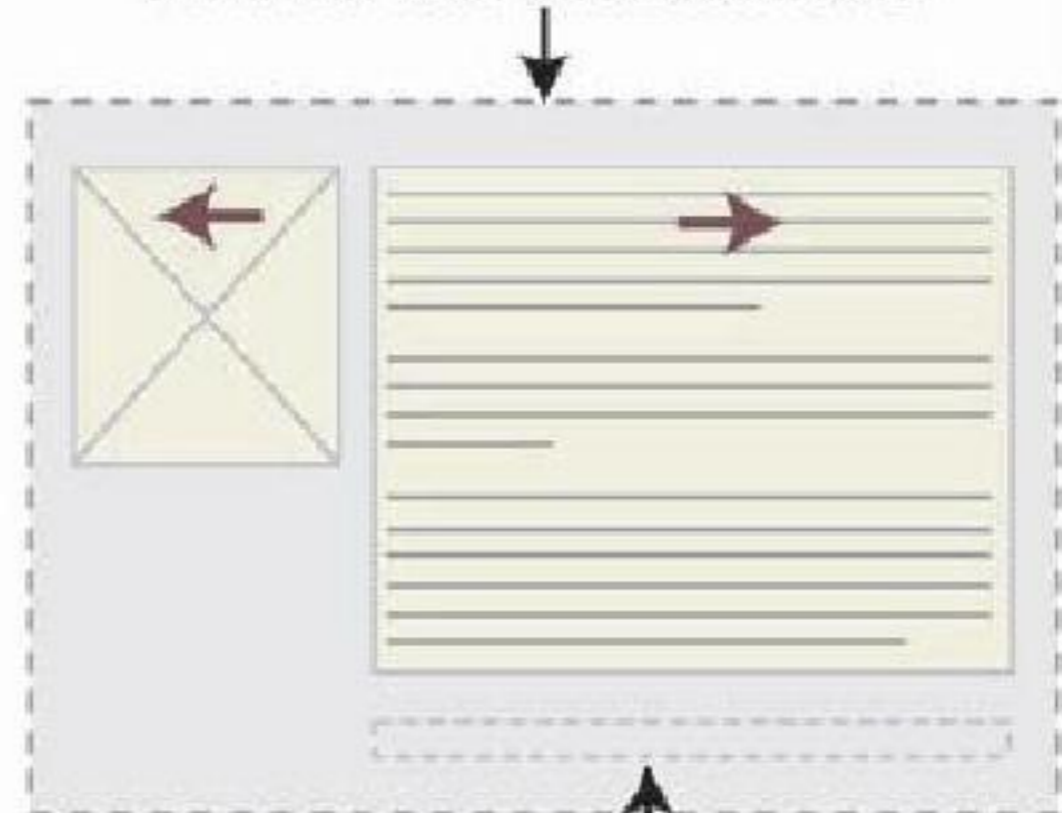
Float

Container does not enclose floats.



Floats take up no space.

Container now encloses floats.



Empty clearing div.

Assignment



Your Full Name

Job Title

Telephone Number

Email Address

Thanks