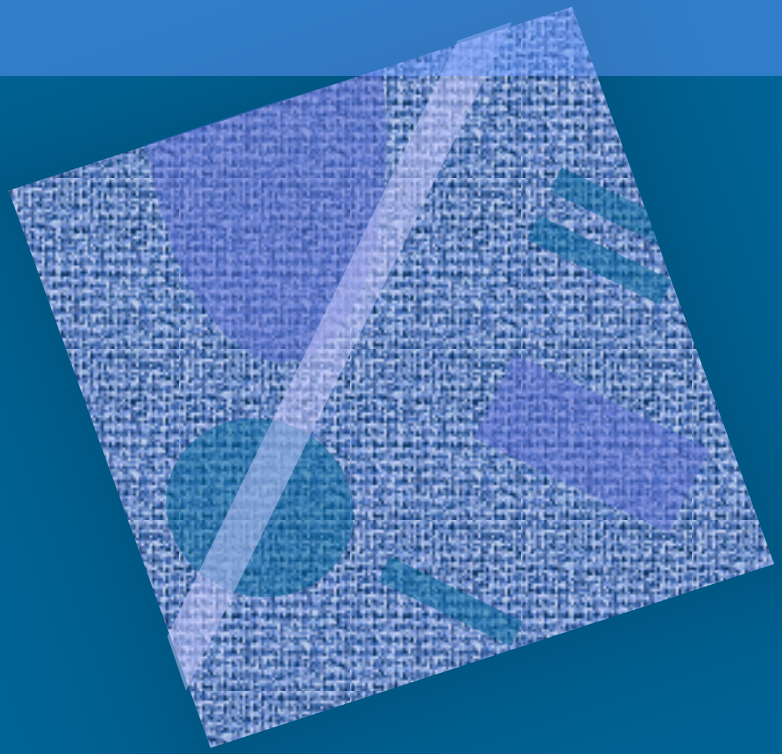
COMS 359: Interactive Media

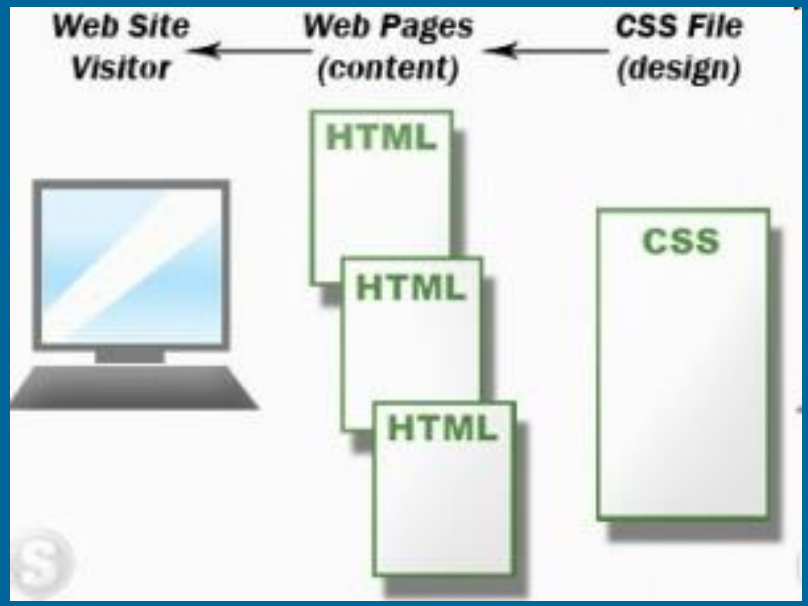


Agenda

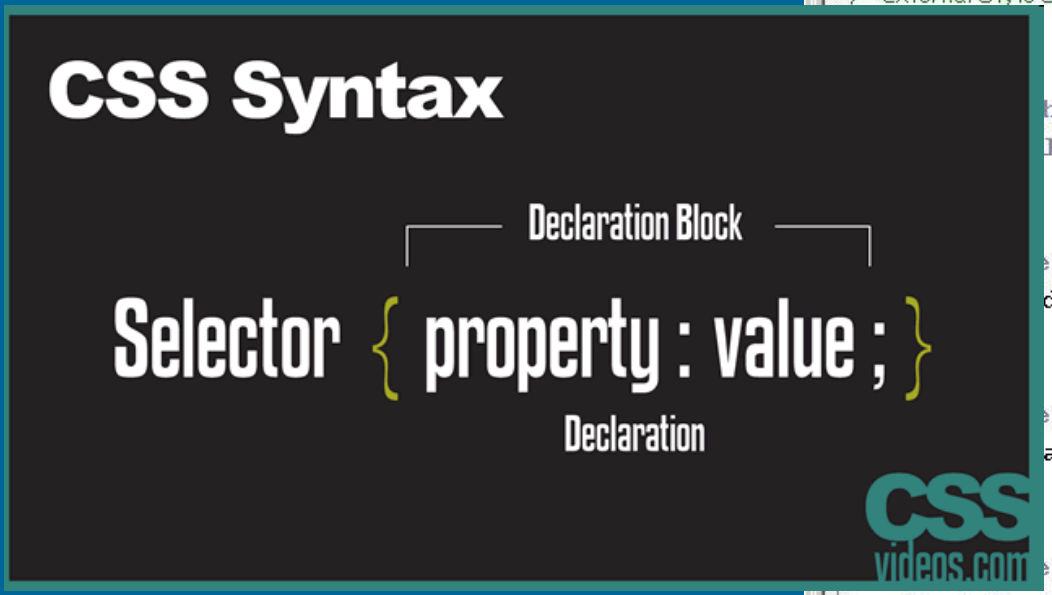
- Wireframe/Sitemap
- Review
- CSS Layout
- Preview

Review

- Introducting CSS
  - What is CSS?
  - CSS Syntax
  - Location of CSS
  - The Cascade
- Box Model
  - Box Structure
  - Box Properties



Review

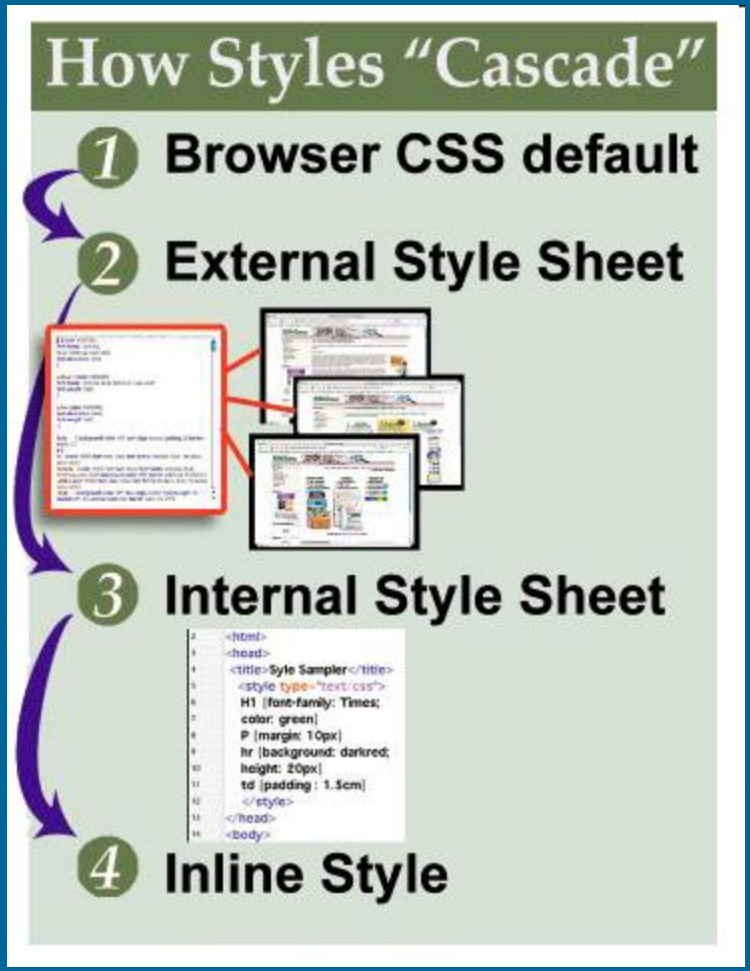


widgetstyle1.css | widget1.html

```
/* External Style Sheet */

                ht:bold;
                ly:arial;}

                :60px;
                d4400;}

                :20px;
                aaaaa;}

                :18px;
    font-family:monospace;
    color:#444444;}

ul li
  {font-family:arial;
    font-size:16px;
    color:#4477bb;
    font-weight:bold;}
```

Review

Style is “cascading” when there is an established precedence among different ways of specifying style specifications; this precedence is established by the W3C



Internal Style Sheet

Add a <style> element to the <head> of the document

Specify *selectors* and *property:values* using CSS syntax

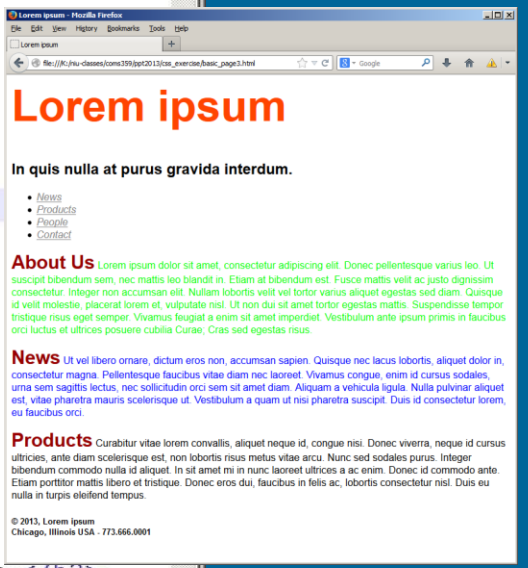
K:\niu-classes\coms359\ppt2013\css_exercise\basic_page3.html - Notepad++

File Edit Search View Encoding Language Settings Macro Run Plugins Window ?

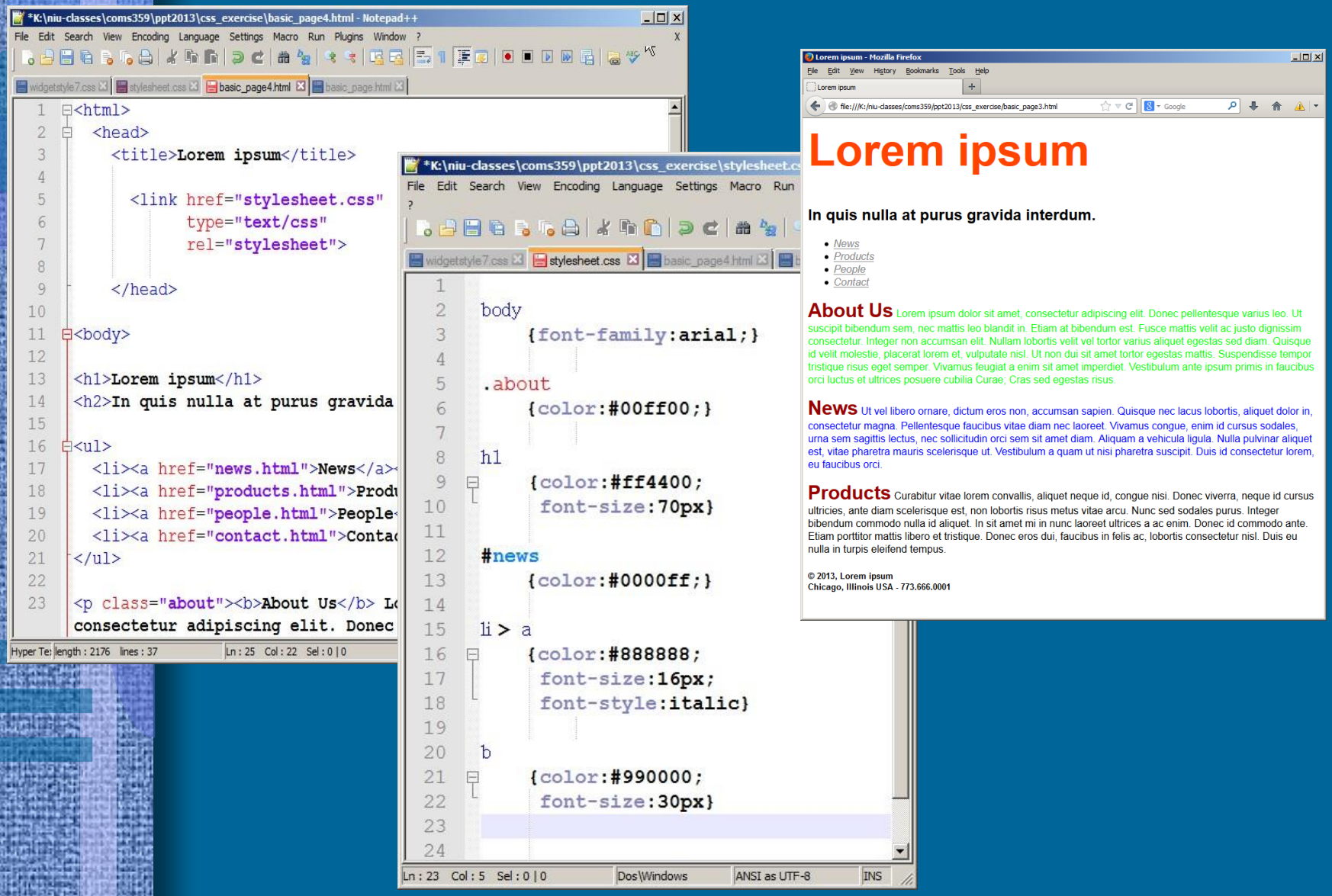
widgetstyle7.css | new 2 | basic_page4.html | basic_page3.html | basic_page.html

```
1  <html>
2    <head>
3      <title>Lorem ipsum</title>
4      <style type="text/css">
5        body
6          {font-family:arial;}
7
8        .about
9          {color:#00ff00;}
10
11       h1
12         {color:#ff4400;
13          font-size:70px}
14
15       #news
16         {color:#0000ff;}
17
18       li > a
19         {color:#888888;
20          font-size:16px;
21          font-style:italic}
22
23       b
24        {color:#990000;
25         font-size:30px}
26     </style>
27   </head>
28
29 <body>
30
31 <h1>Lorem ipsum</h1>
32 <h2>In quis nulla at purus gravida interdum.</h2>
33
34 <ul>
```

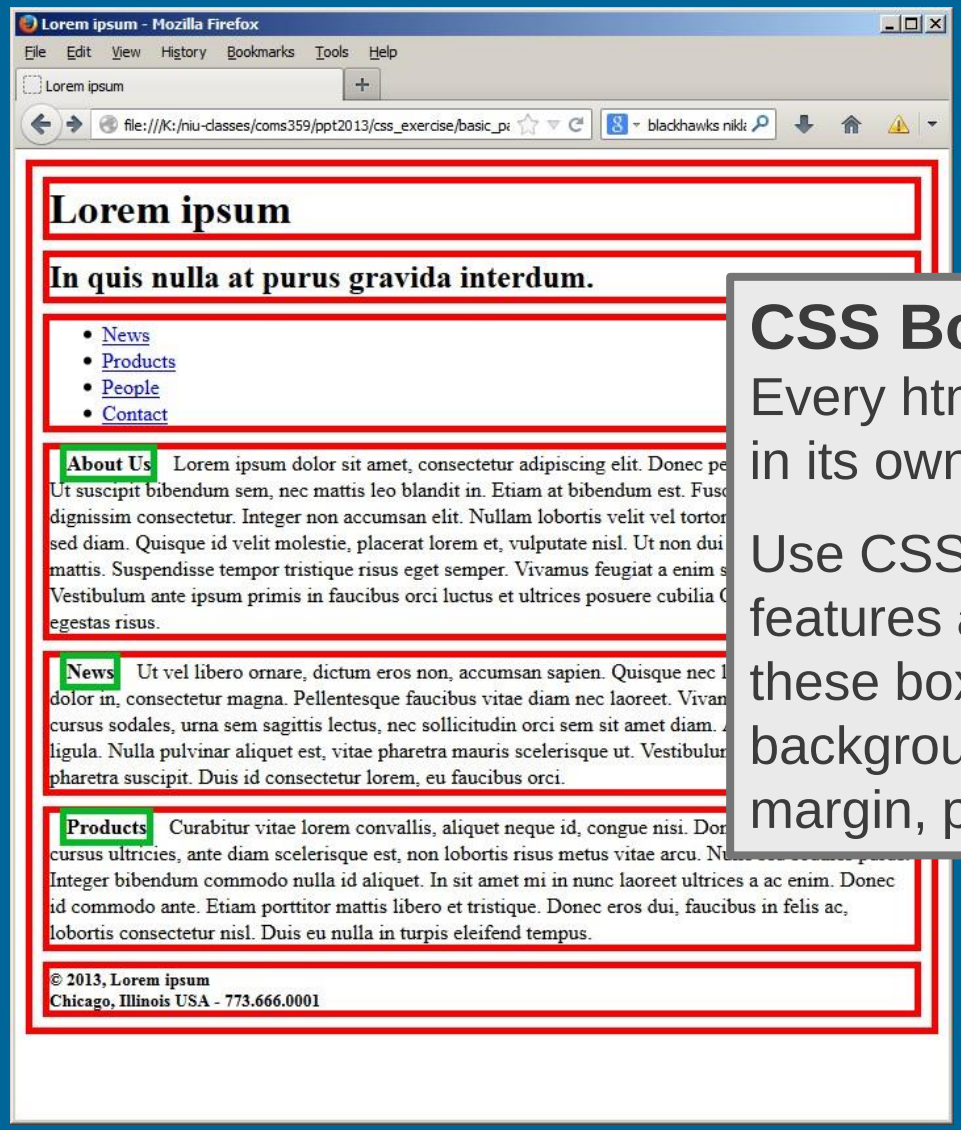
length : 2447 lines : 55 | Ln : 21 Col : 28 Sel : 0 | 0 | Dos\Windows | ANSI as UTF-8 | INS



External Style Sheet



Review

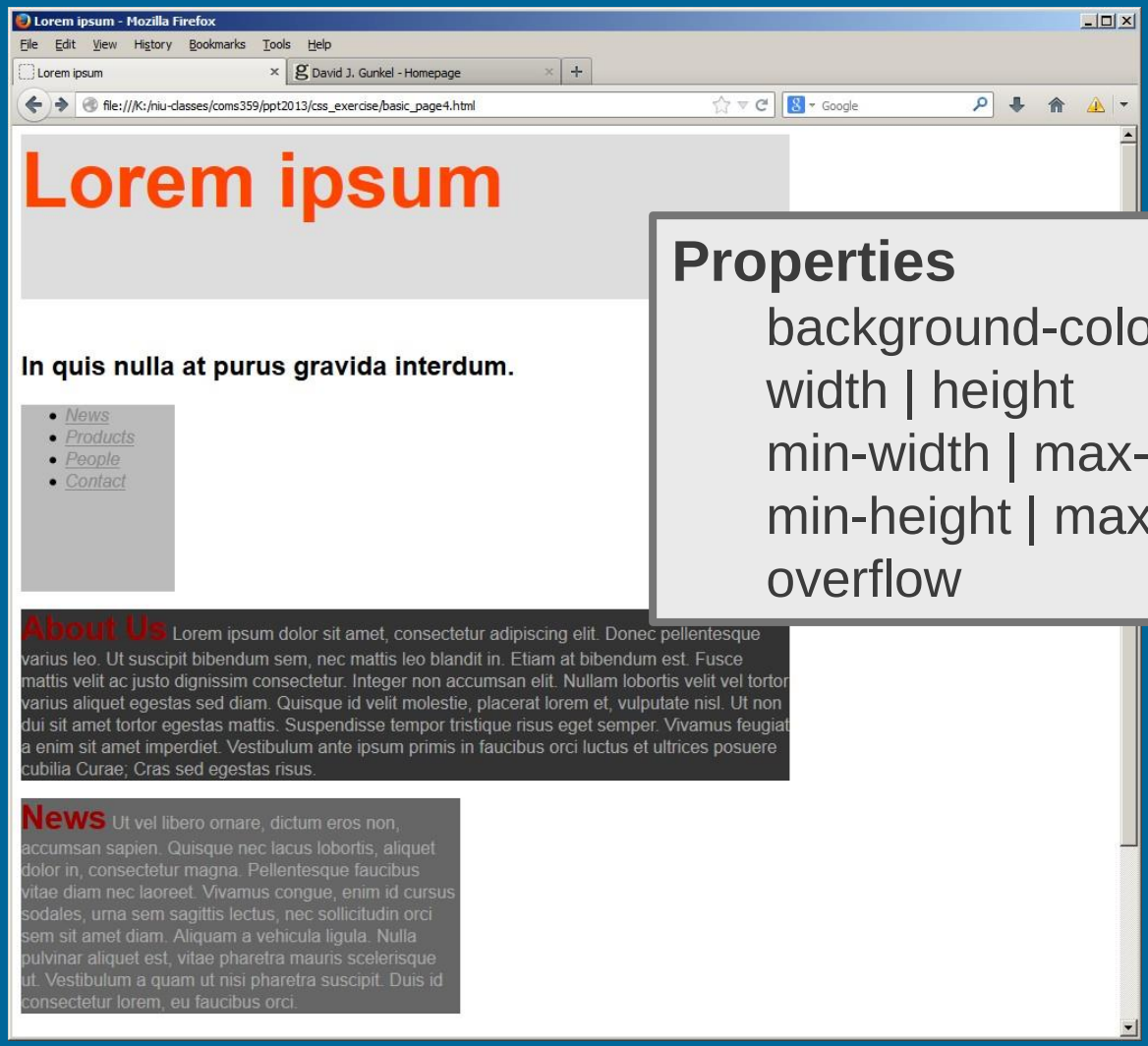


CSS Box Model

Every html element resides in its own virtual box.

Use CSS to alter the features and appearance of these boxes: width, height, background color, border, margin, padding, etc.

Review



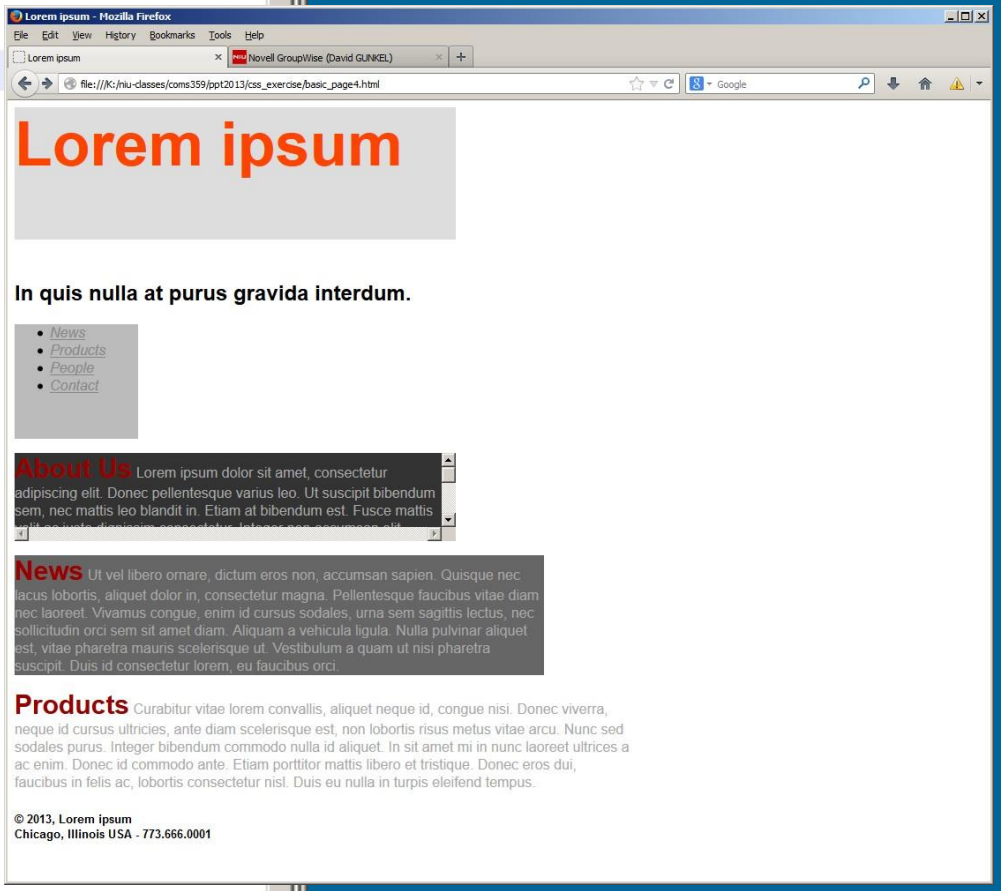
Properties

- background-color
- width | height
- min-width | max-width
- min-height | max-height
- overflow

widgetstyle7.css | stylesheet.css | basic_page4.html | basic_page.html

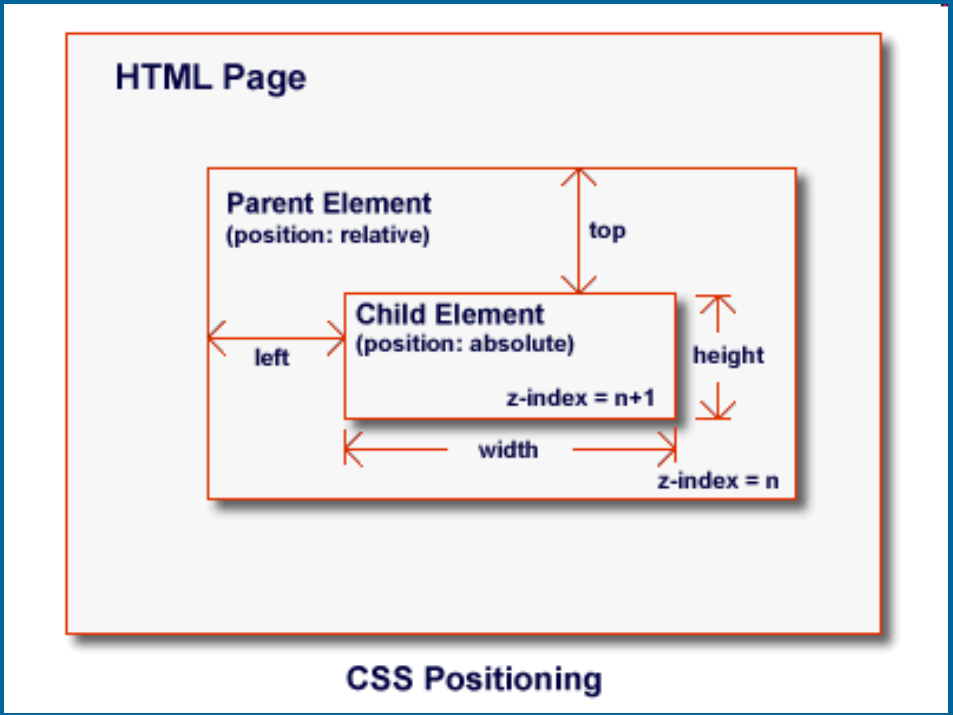
```
1
2   body
3     {font-family:arial;
4      width:700px}
5   p
6     {color:#a9a9a9}
7
8   .about
9     {background-color:#333333;
10     max-height:100px;
11     max-width:500px;
12     overflow:scroll}
13  h1
14    {color:#ff4400;
15     font-size:70px;
16     background-color:#dddddd;
17     height:150px;
18     width:500px}
19  #news
20    {background-color:#666666;
21     width:600px;}
22  li > a
23    {color:#888888;
24     font-size:16px;
25     font-style:italic;}
26  ul
27    {background-color:#bbbbbb;
28      width:100px;
29      height:130px}
30  b
31    {color:#990000;
32     font-size:30px}
33
```

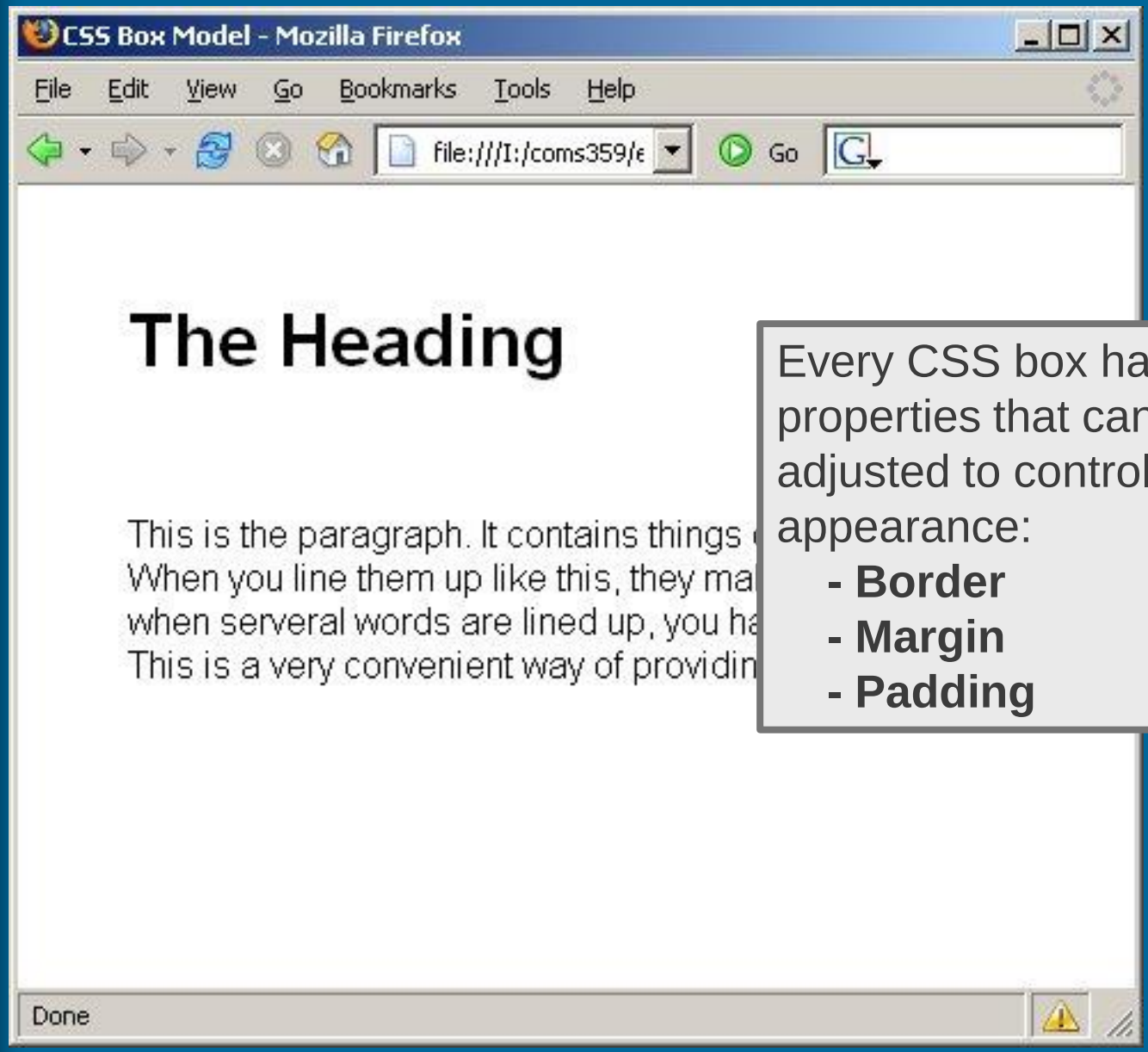
length : 563 Ln : 5 Col : 4 Sel : 0 | 0 | Dos\Windows | ANSI as UTF-8 | INS



Today

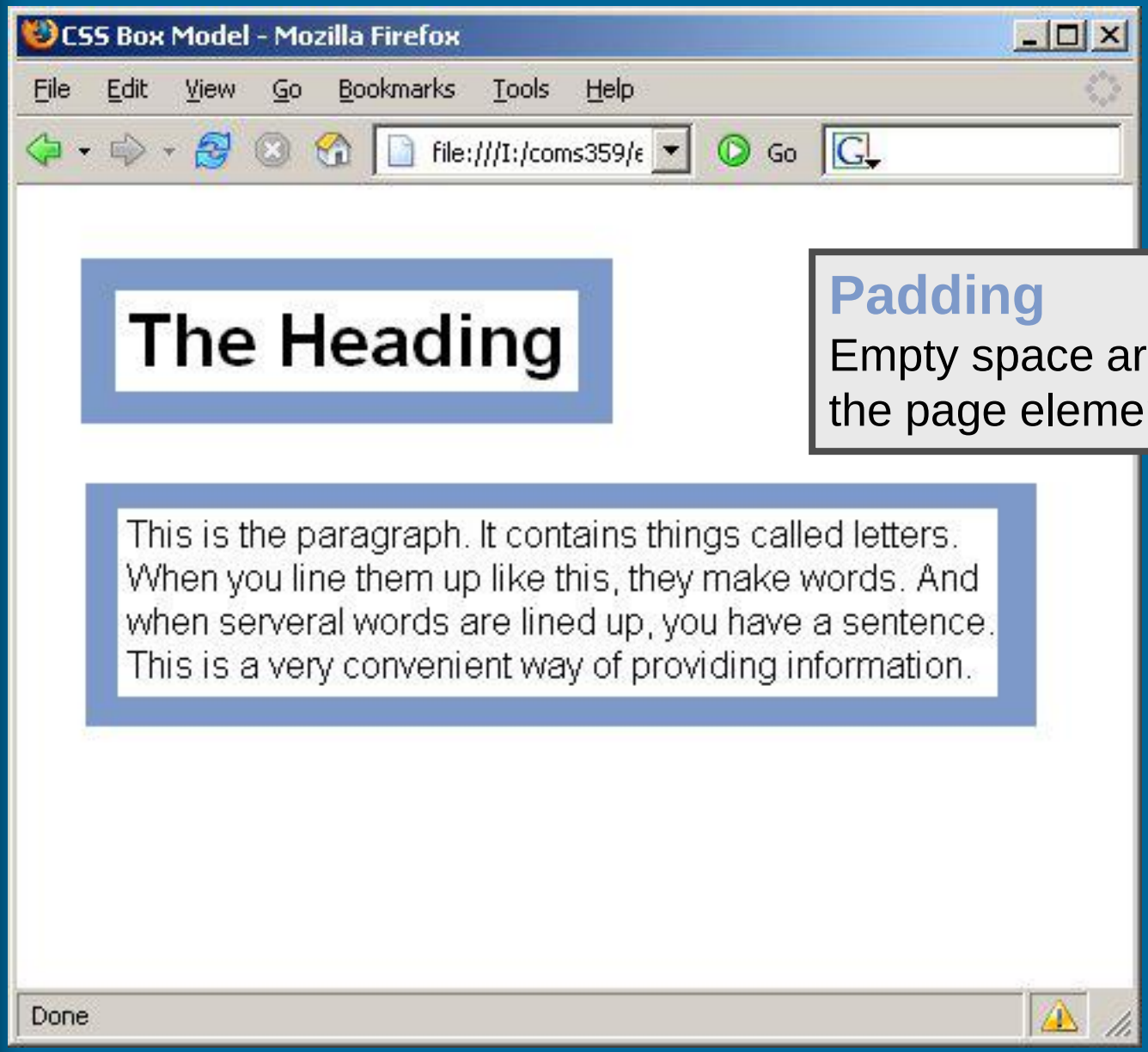
- Continue with CSS
  - margin, border & padding
  - CSS layout





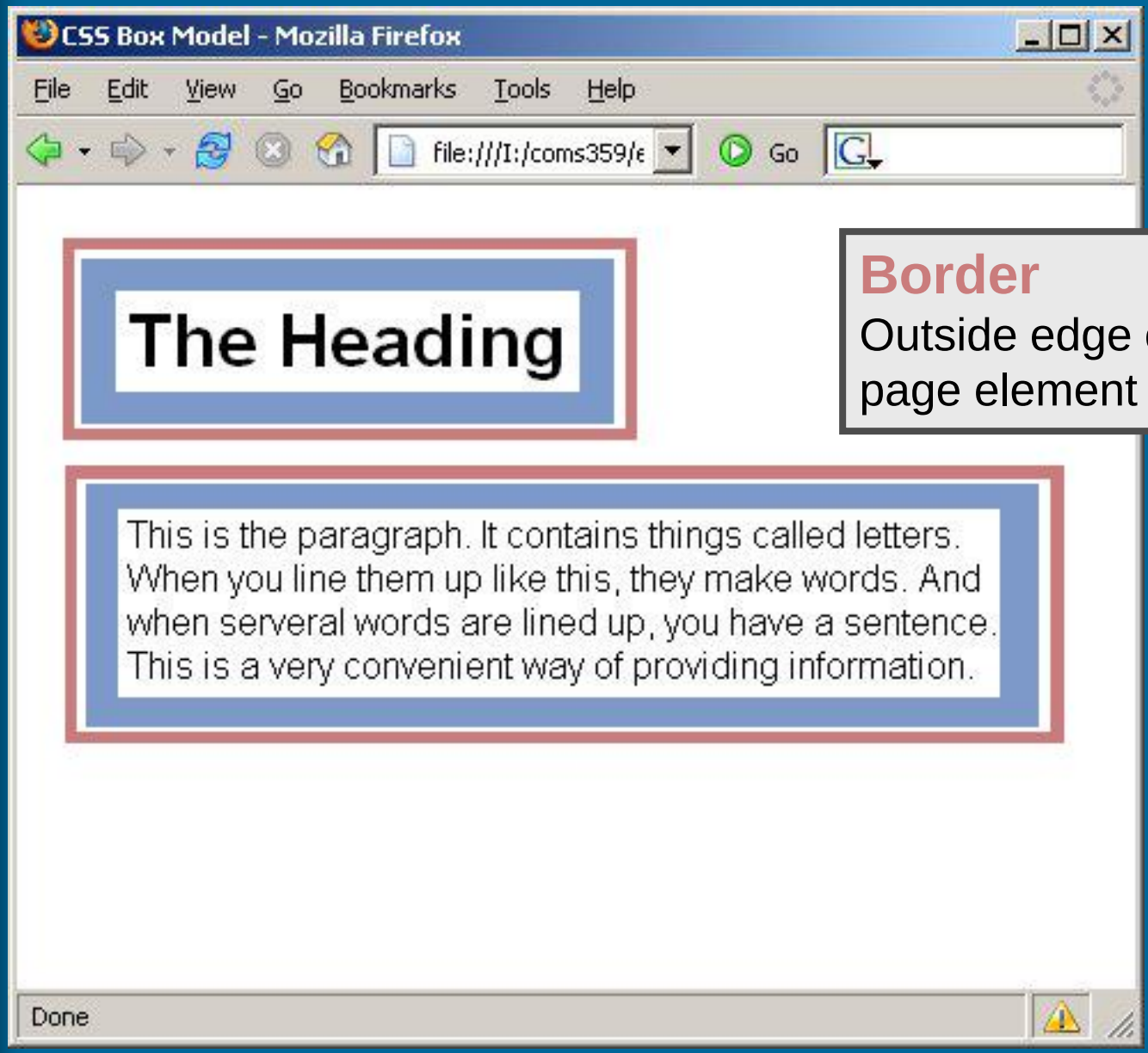
Every CSS box has three properties that can be adjusted to control its appearance:

- **Border**
- **Margin**
- **Padding**



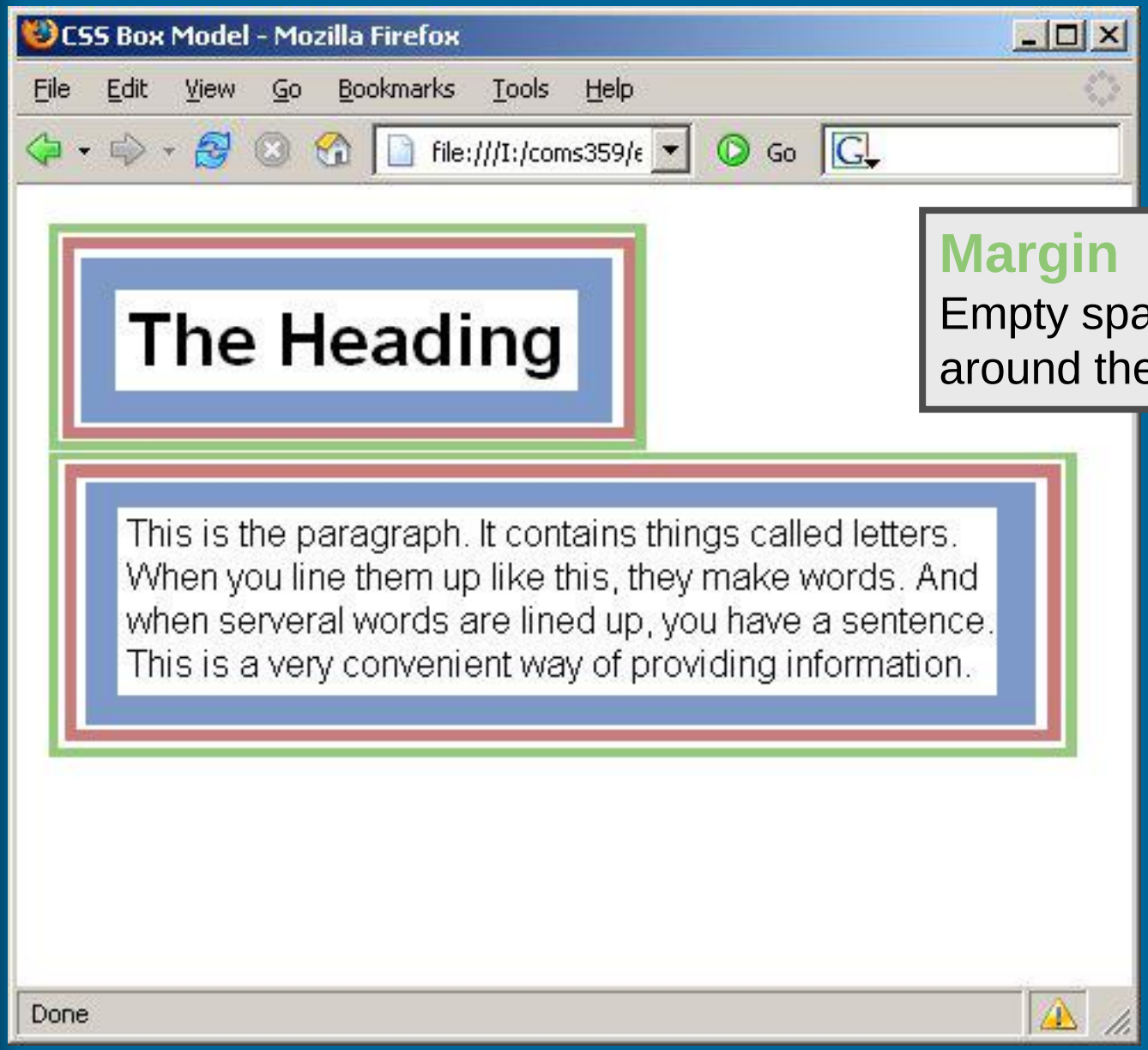
Padding

Empty space around the page element



Border

Outside edge of the page element



Margin

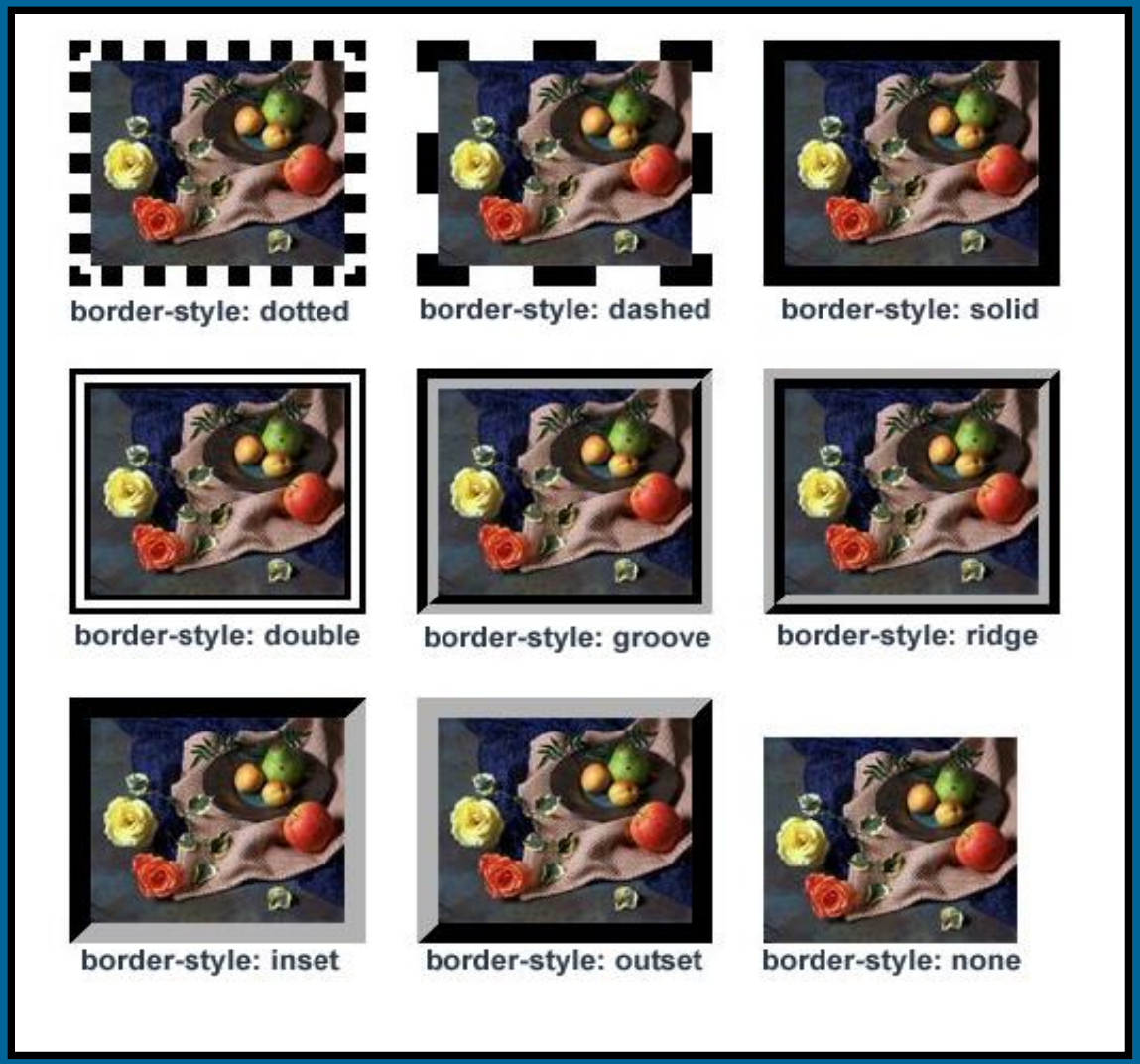
Empty space around the box

Border Properties

Property	Description	Values	Special notes
`border-color`	Changes the color of the border	[color] | transparent | inherit	Alternatives: `border-top-color`, `border-right-color`, `border-bottom-color`, `border-left-color`
`border-style`	Changes the look of the border line	none | hidden | dotted | dashed | solid | double | groove | ridge | inset | outset	Alternatives: `border-top-style`, `border-right-style`, `border-bottom-style`, `border-left-style`
`border-width`	Changes thickness, style, and color of border line	thin | medium | thick | absolute value	Alternatives: `border-top-width`, `border-right-width`, `border-bottom-width`, `border-left-width`
`border-bottom`	Changes thickness, style, and color of bottom border	thin | medium | thick | [length] | hidden | dotted | dashed | solid | double | groove | ridge | inset | outset | [color] | transparent	
`border-left`	Changes thickness, style, and color of left border	thin | medium | thick | [length] | hidden | dotted | dashed | solid | double | groove | ridge | inset | outset | [color] | transparent	
`border-top`	Changes thickness, style, and color of top border	thin | medium | thick | [length] | hidden | dotted | dashed | solid | double | groove | ridge | inset | outset | [color] | transparent	
`border-right`	Changes thickness, style, and color of right border	thin | medium | thick | [length] | hidden | dotted | dashed | solid | double | groove | ridge | inset | outset | [color] | transparent	

border-style

img {border-style:solid}



border-width

```
img  {border-style:solid;
      border-width:30px}
```

border-width: thin

border-width: medium

border-width: thick

border-width: 10px (number of pixels)

Note:
In order for “border-width” to work you must first specify a border. You do this by using “border-style”

border-color

```
img  {border-style:solid;
      border-width:30px;
      border-color:#338800}
```

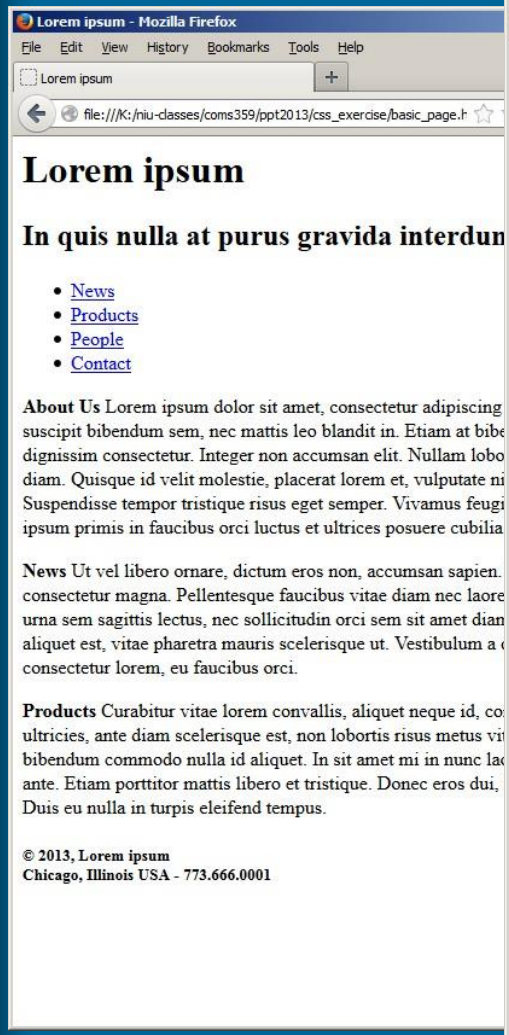
border-color:#FF0000

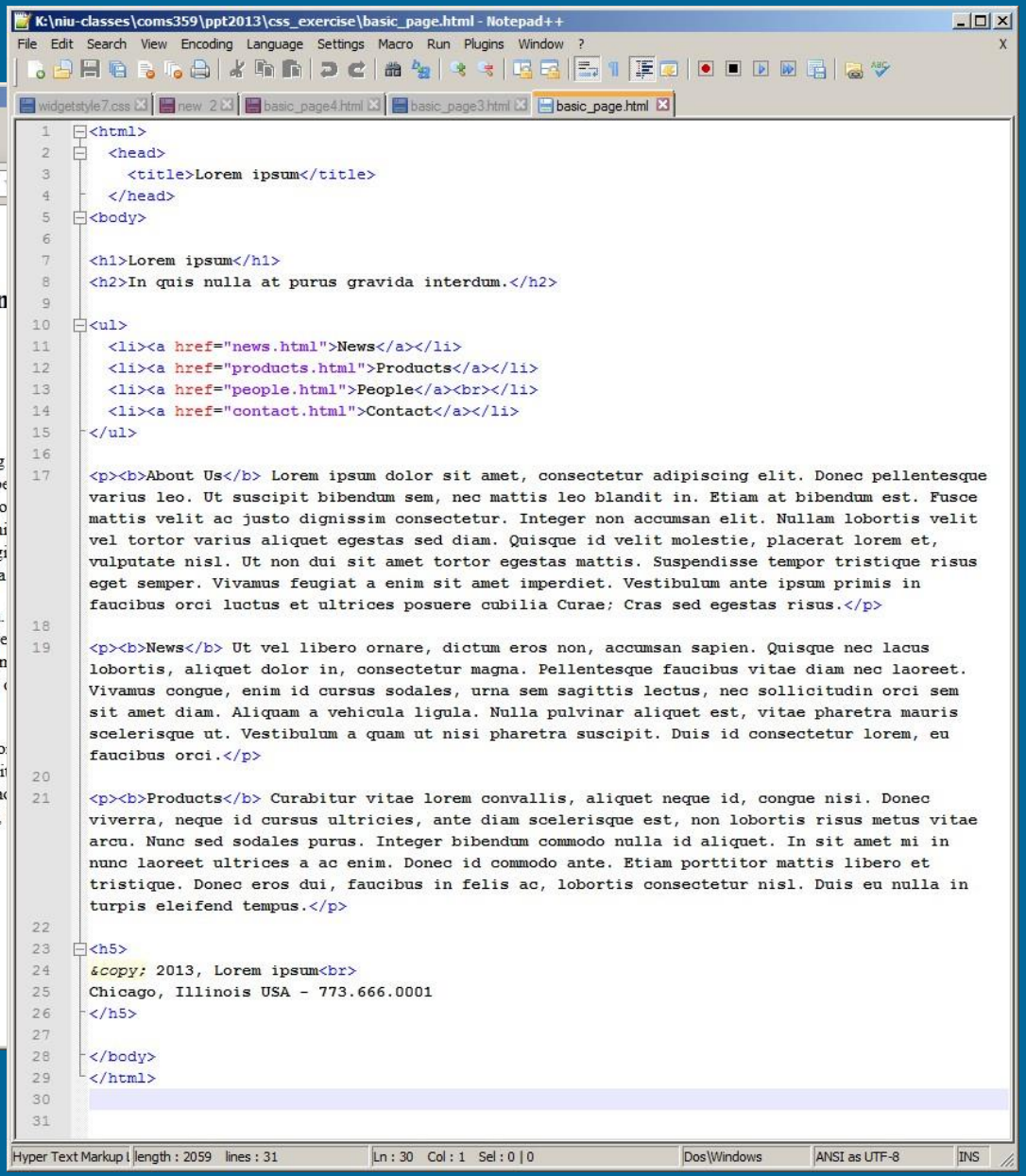
border-color:#00FF00

border-color:#0000FF

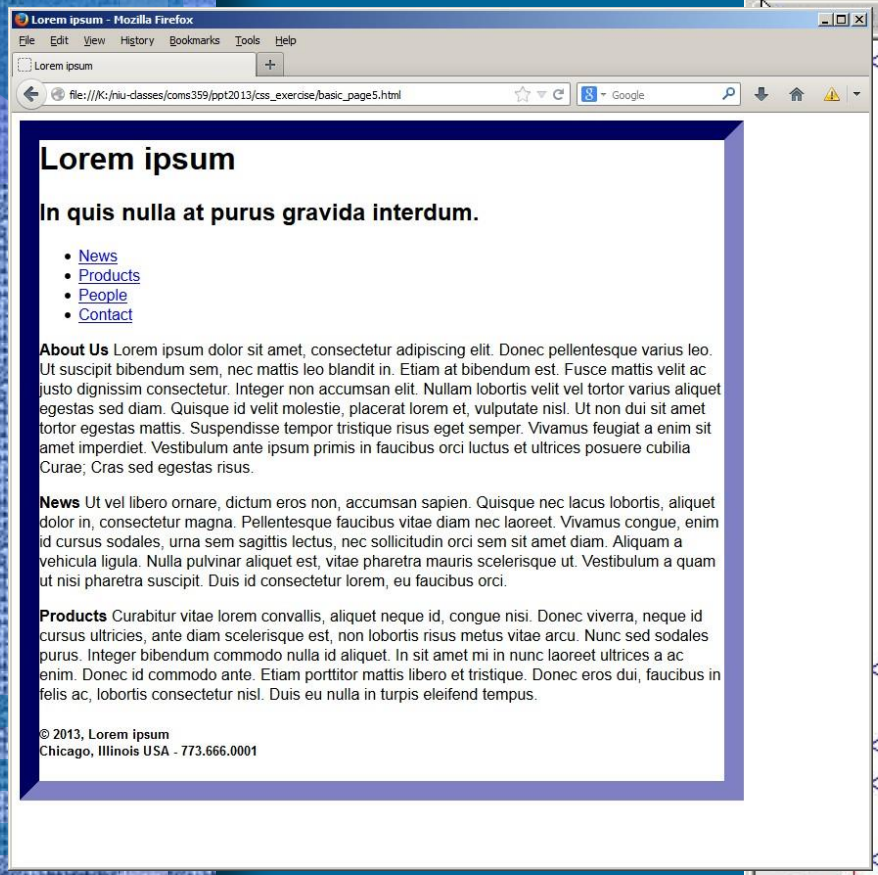
Note:
In order for “border-color” to work you must first specify a border. You do this by using “border-style”

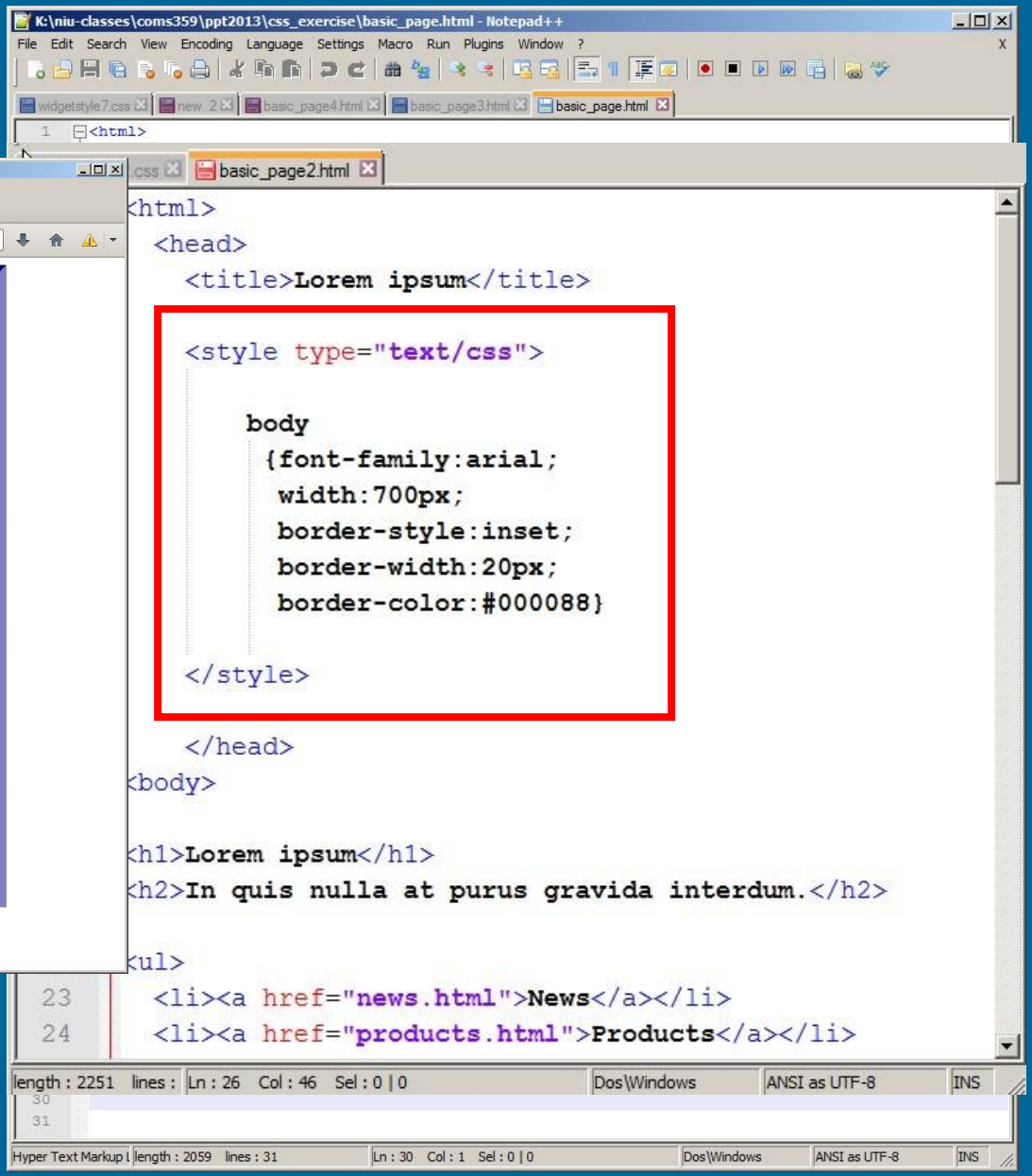
Exercise 1 – http://gunkelweb.com/coms359/lorem.html





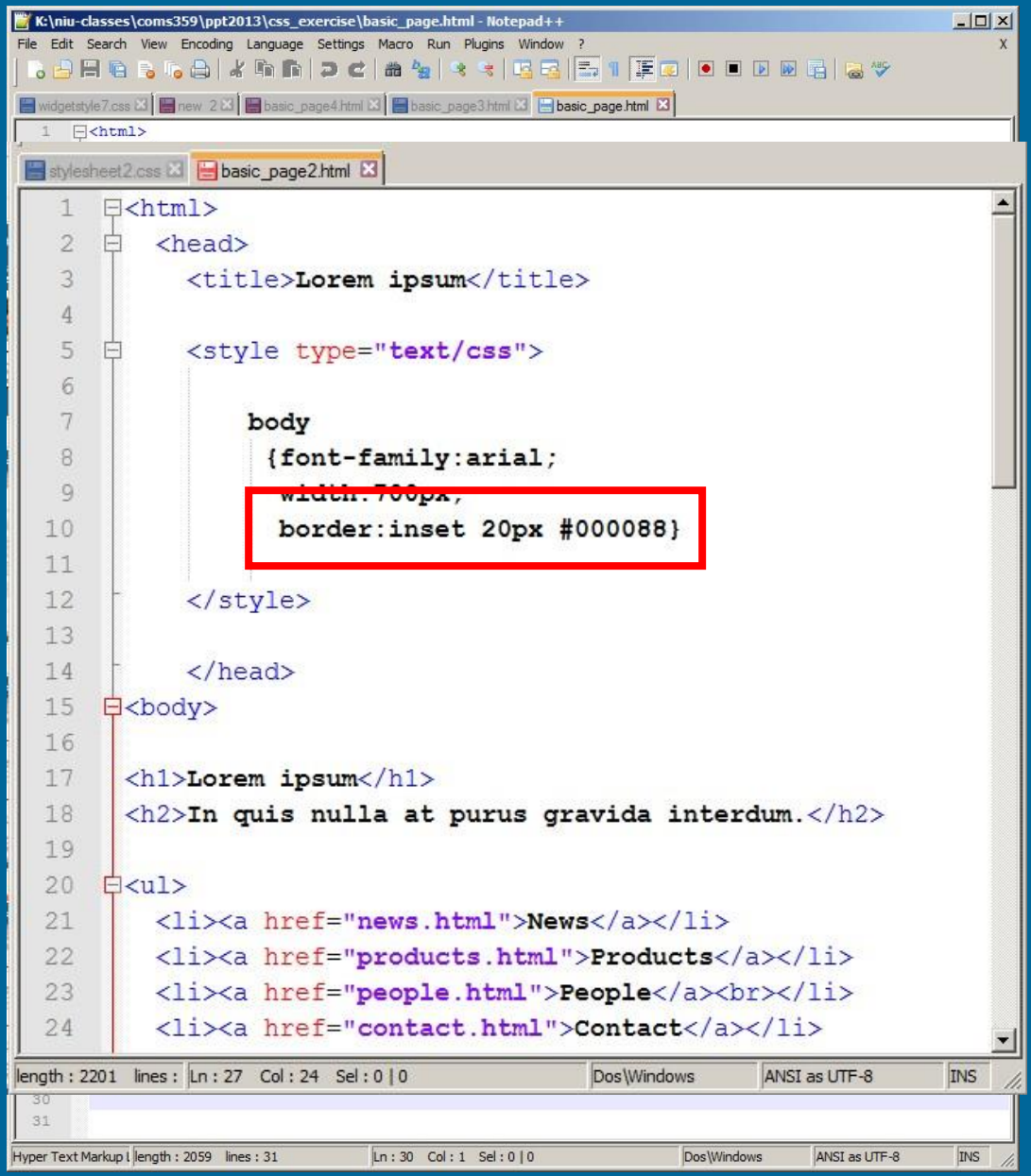
Exercise 1 – http://gunkelweb.com/coms359/lorem.html





Exercise 1 – http://gunkelweb.com/coms359/lorem.html

Shorthand notation



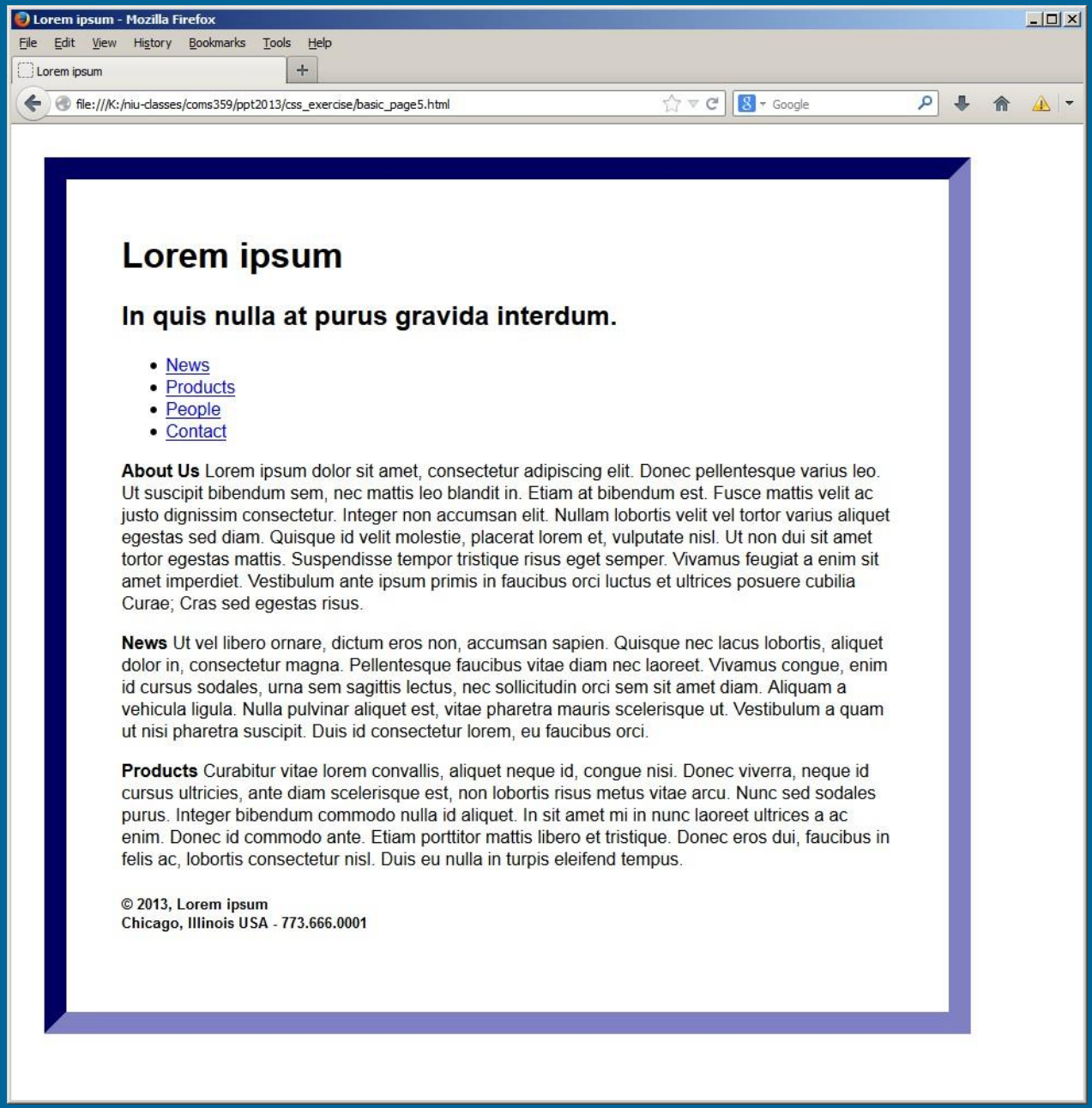
Padding Properties

Property	Description	Values	Special Notes
padding-top	Changes thickness of white space between the top of the contents and border line	[padding-width] | inherit	Padding width is measured in %, em, cm, mm, or in.
padding-right	Changes thickness of white space between the right of the contents and border line	[padding-width] | inherit	Padding width is measured in %, em, cm, mm, or in.
padding-bottom	Changes thickness of white space between the bottom of the contents and border line	[padding-width] | inherit	Padding width is measured in %, em, cm, mm, or in.
padding-left	Changes thickness of white space between the left of the contents and border line	[padding-width] | inherit	Padding width is measured in %, em, cm, mm, or in.

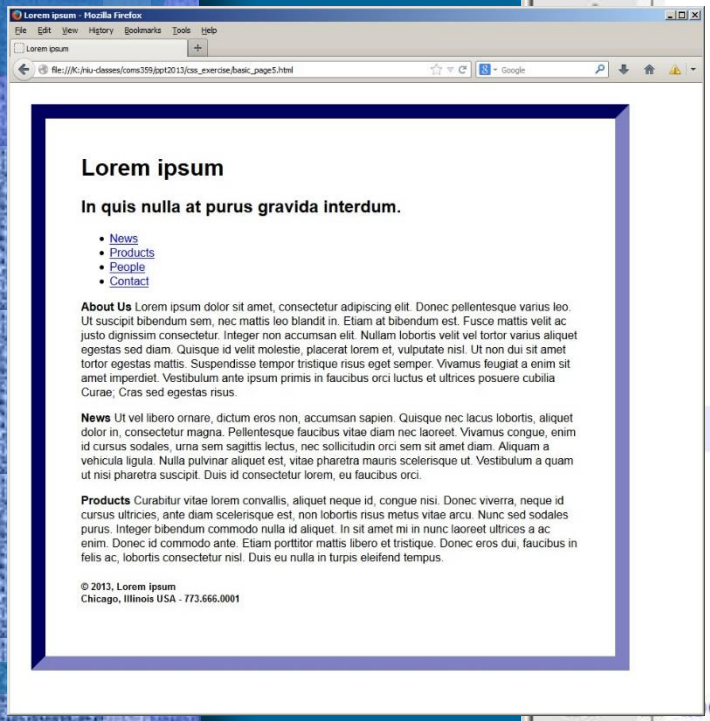
Margin Properties

Property	Description	Values	Special Notes
margin-bottom	Defines transparent area at the bottom of the CSS box	[length] | [percentage] | auto | inherit	Length is measured in ems, centimeters or inches.
margin-left	Defines transparent area at the left side of the CSS box	[length] | [percentage] | auto | inherit	Length is measured in ems, centimeters (cm), or inches (in).
margin-top	Defines transparent area at the top of the CSS box	[length] | [percentage] | auto | inherit	Length is measured in ems, centimeters (cm), or inches (in).
margin-right	Defines transparent area at the right side of the CSS box	[length] | [percentage] | auto | inherit	Length is measured in ems, centimeters (cm), or inches (in).
white-space	Determines how tabs and repeated spaces are handled	normal | pre | nowrap | inherit	Both pre and nowrap recognize "\A" as a line break symbol.

padding: 50px
margin:30px



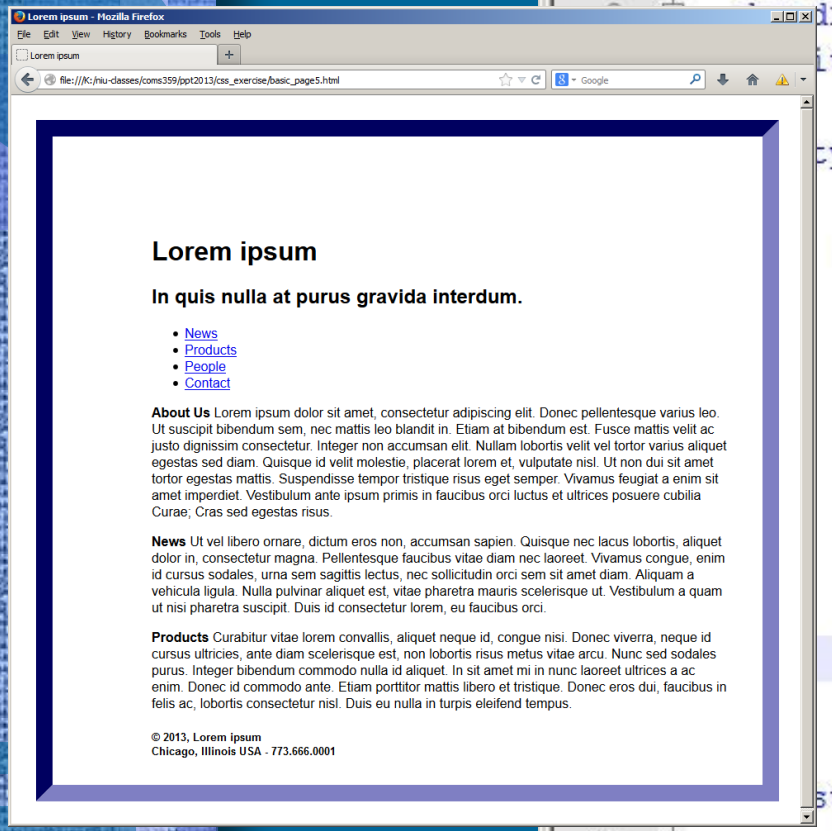
Exercise 2 – add padding and margin



stylesheet2.css | basic_page5.html

```
1  <html>
2    <head>
3      <title>Lorem ipsum</title>

       <style type="text/css">

           body
            {font-family:arial;
             width:700px;
             border:inset;
             border-width:20px;
             border-color:#000088;
             padding:50px;
             margin:30px;}

       </style>

       </head>
     ody>
20
21   <h1>Lorem ipsum</h1>
22   <h2>In quis nulla at purus gravida interdum.</h2>
23
24   <ul>
```

length : 2283 lines : | Ln : 13 Col : 20 Sel : 0 | 0 | Dos\Windows | ANSI as UTF-8 | INS



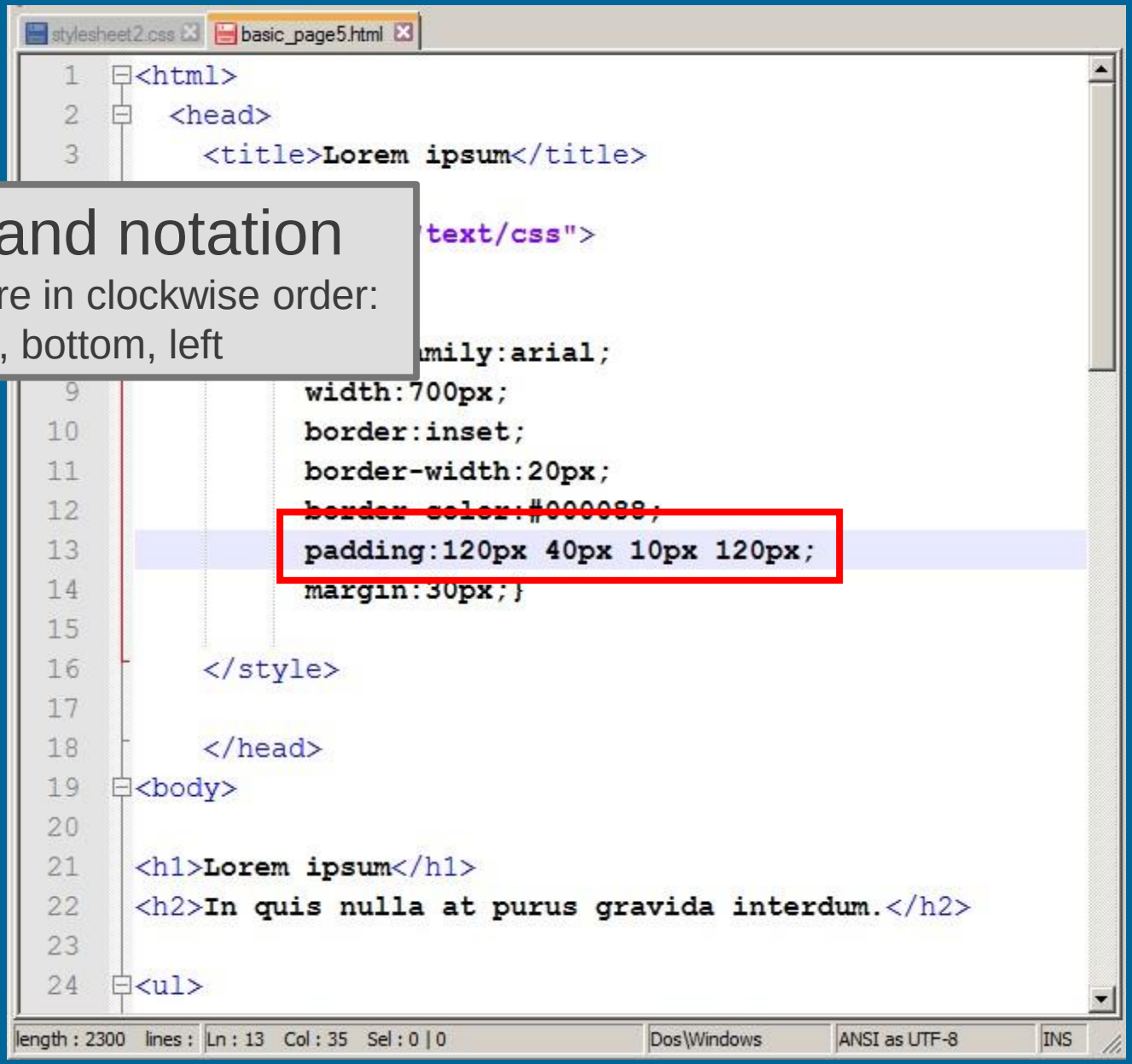
stylesheet2.css | basic_page5.html

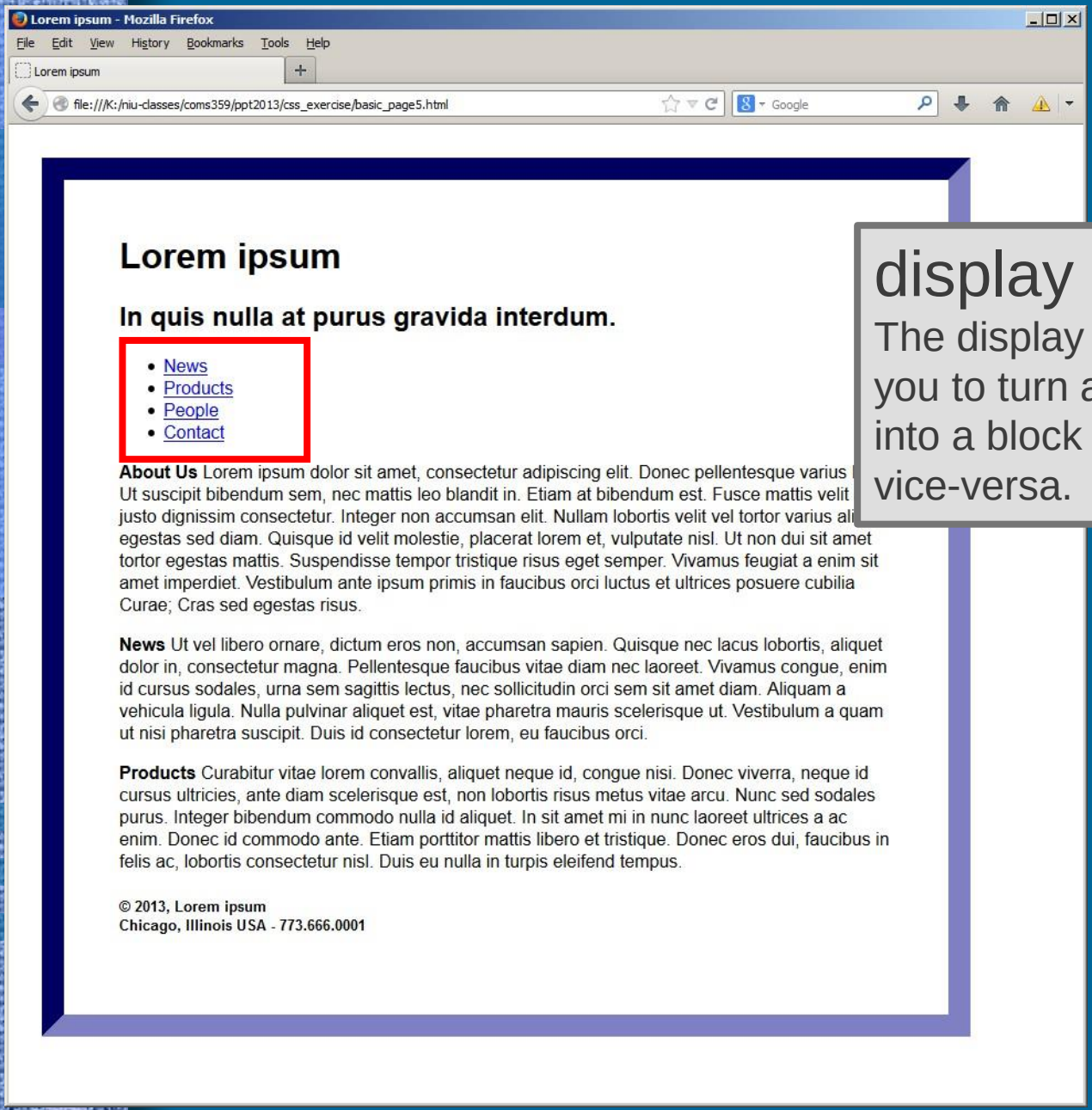
```
1  <html>
   <title>Lorem ipsum</title>
   <style type="text/css">
    body
     {font-family:arial;
      width:700px;
      border:inset;
      border-width:20px;
      border-color:#000088;
      padding-top:120px;
      padding-right:40px;
      padding-bottom:10px;
      padding-left:120px;
      margin:30px;}
   </style>
20
21    </head>
22 <body>
23
24 <h1>Lorem ipsum</h1>
```

length : 2364 lines : Ln : 16 Col : 27 Sel : 0 | 0 | Dos\Windows | ANSI as UTF-8 | INS

Shorthand notation

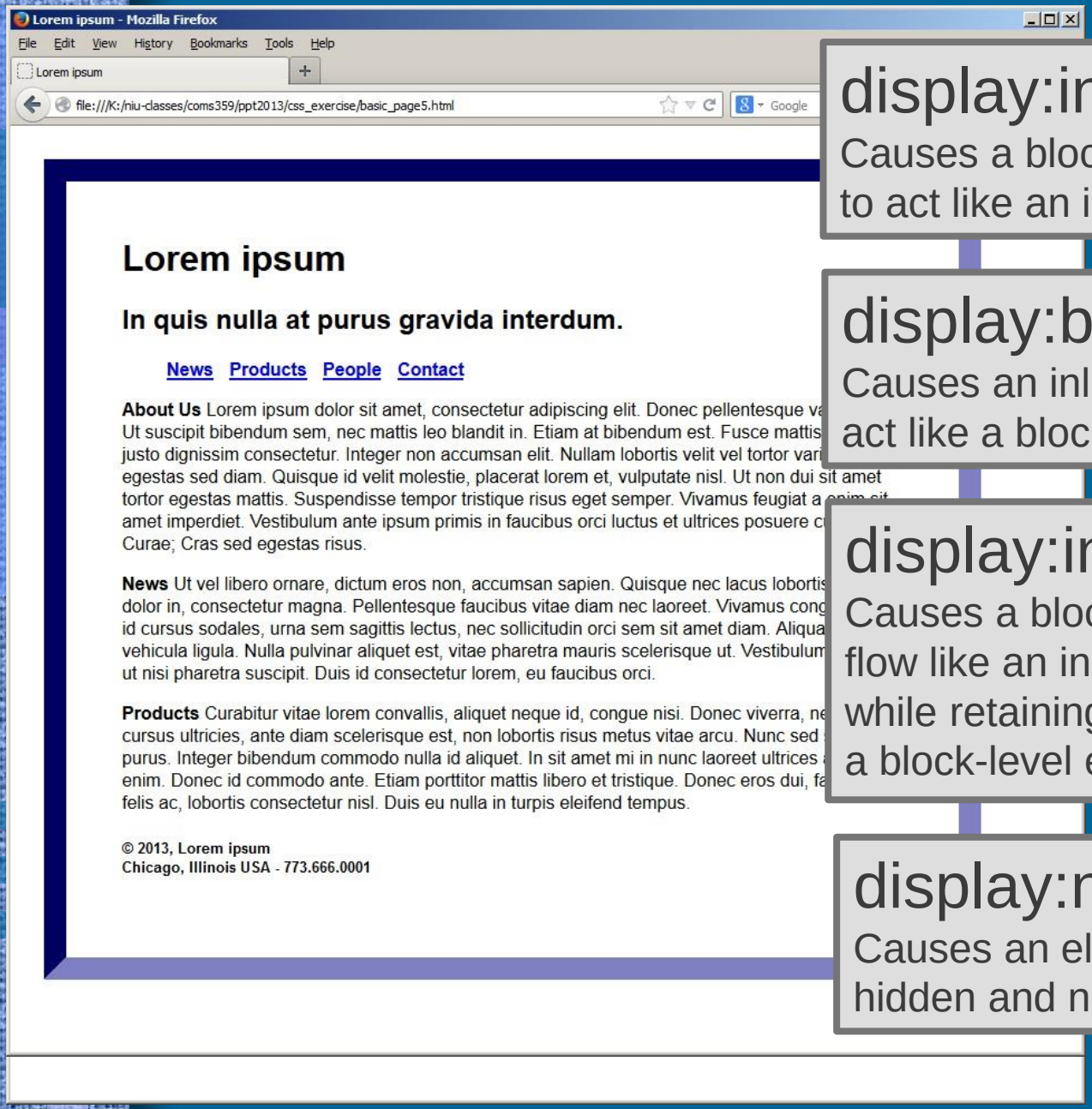
Values are in clockwise order:
top, right, bottom, left





display

The display property allows you to turn an inline element into a block level element or vice-versa.



display:inline

Causes a block-level element to act like an inline element

display:block

Causes an inline element to act like a block-level element

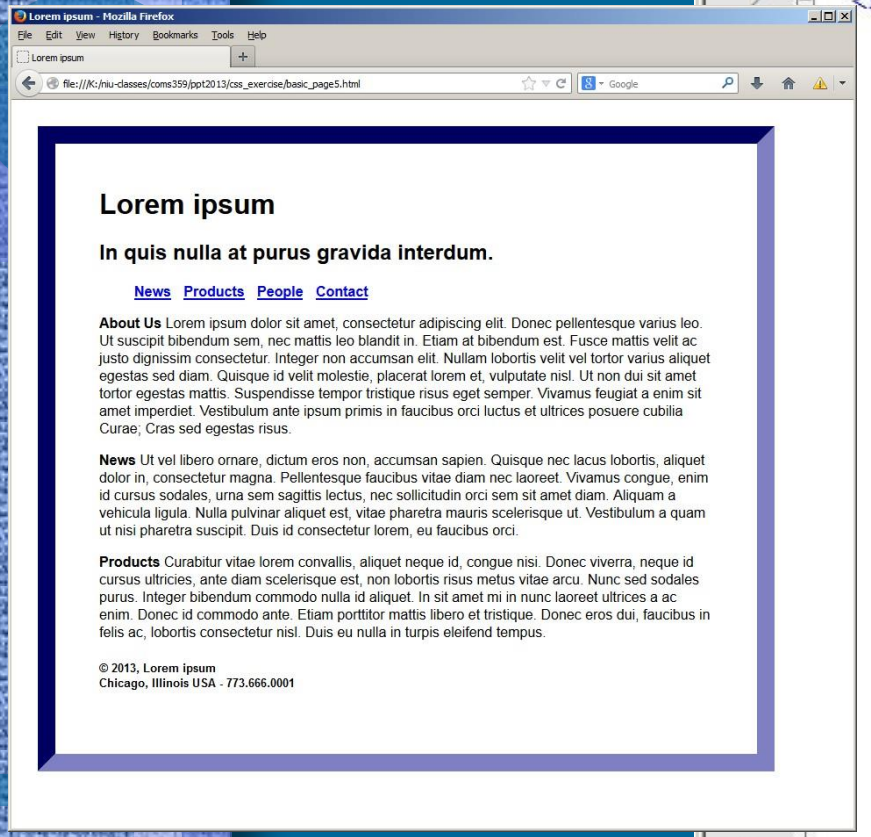
display:inline-block

Causes a block-level element to flow like an inline element, while retaining other features of a block-level element

display:none

Causes an element to be hidden and not displayed

Exercise 3 – alter the display of the <li> element



stylesheet2.css | basic_page5.html | basic_page.html

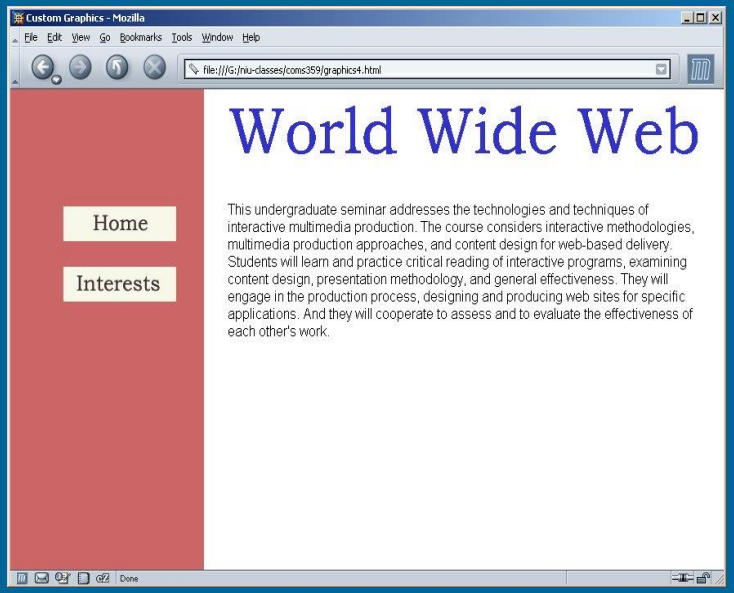
```
1  <html>
2    <head>
     <title>Lorem ipsum</title>

     <style type="text/css">

         body
          {font-family:arial;
           width:700px;
           border:inset;
           border-width:20px;
           border-color:#000088;
           padding:50px;
           margin:30px;}


         li
          {display:inline;
           margin-right:10px;
           font-weight:bold;}

     </style>

24     </head>
25   <body>
26
27   <h1>Lorem ipsum</h1>
28   <h2>In quis nulla at purus gravida interdum.</h2>
```

length : 2361 lines : 51 | Ln : 29 Col : 1 Sel : 0 | 0 | Dos\Windows | ANSI as UTF-8 | INS

CSS Layout

- Options for Page Layout

Project #1



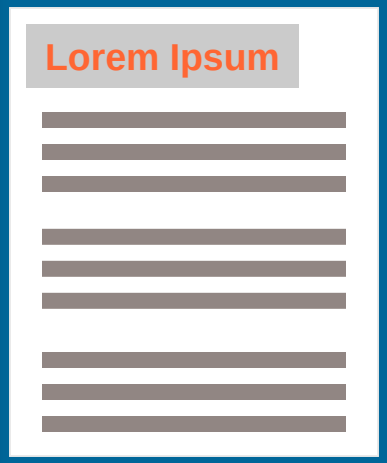
<table>

Project #2

CSS positioning

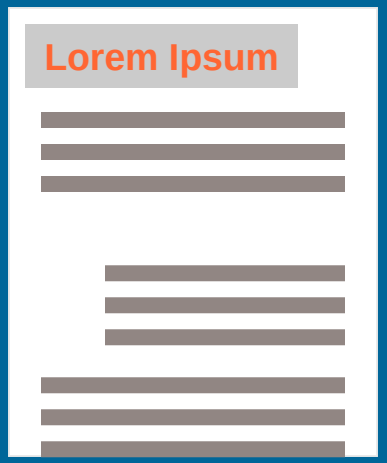
CSS Layout

- Positioning Schemes



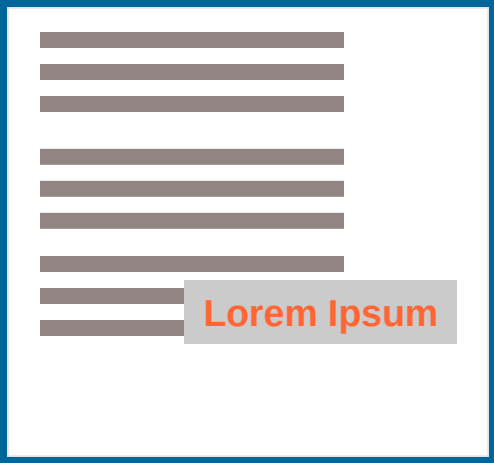
Normal Flow

Every block element appears on a new line. New elements move down the page and do not flow around to the side. (default positioning)



Relative Position

Moves an element to a new position defined in relation to where it would have sat in the normal flow of things.

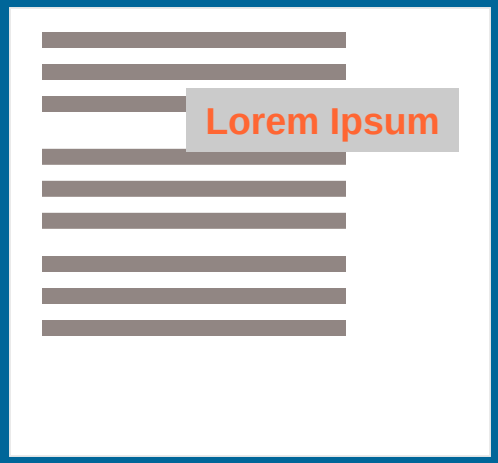


Absolute Position

Box is taken out of normal flow and no longer affects the position of the other elements on the page.

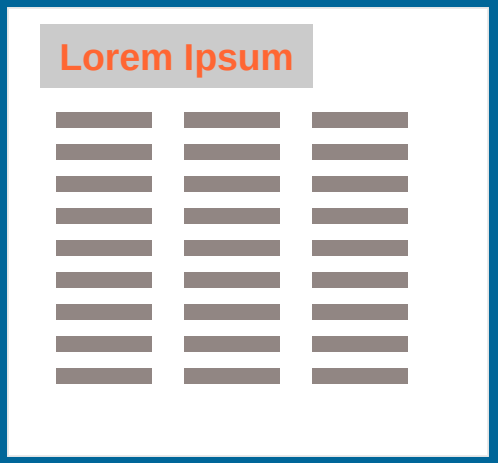
CSS Layout

- Positioning Schemes



Fixed Position

A form of absolute positioning that positionis the element in relation to the browser window. Stays in the same fixed place when the user scrolls up or down the page.



Float

Takes an element out of the normal flow and allows subsequent elements to flow along side them. Useful for multiple columns.

Exercise 4 – Use *float* to position elements side-by-side

Normal Flow

Float

Exercise 4 – Use *float* to position elements side-by-side

basic_page3.html | basic_page4.html

```
<html>
  <head>
    <title>Lorem ipsum</title>

     <link href="stylesheet4.css" type="text/css" rel="stylesheet">

    </head>

<body>
```

```
pellentesque varius leo. Ut suscipit bibendum sem, nec mattis leo blandit in. Etiam at bibendum
est. Fusce mattis velit ac justo dignissim consectetur. Integer non accumsan elit. Nullam
lobortis velit vel tortor varius aliquet egestas sed diam. Quisque id velit molestie, placerat
lorem et, vulputate nisl. Ut non dui sit amet tortor egestas matt
risus eget semper. Vivamus feugiat a enim sit amet imperdiet. Ves
faucibus orci luctus et ultrices posuere cubilia Curae; Cras sed
22
23  <p id="news"><b>News</b> Ut vel libero ornare, dictum eros non, a
    lacus lobortis, aliquet dolor in, consectetur magna. Pellentesque
    laoreet. Vivamus congue, enim id cursus sodales, urna sem sagitti
    sem sit amet diam. Aliquam a vehicula ligula. Nulla pulvinar alic
    scelerisque ut. Vestibulum a quam ut nisi pharetra suscipit. Duis
    faucibus orci.</p>
24
25  <p><b>Products</b> Curabitur vitae lorem convallis, aliquet neque
    neque id cursus ultricies, ante diam scelerisque est, non lobortis risus metus vitae arcu. Nunc
    sed sodales purus. Integer bibendum commodo nulla id aliquet. In sit amet mi in nunc laoreet
    ultrices a ac enim. Donec id commodo ante. Etiam porttitor mattis libero et tristique. Donec eros
    dui, faucibus in felis ac, lobortis consectetur nisl. Duis eu nulla in turpis eleifend tempus.</p>
26
27  <h5>
28  &copy; 2013, Lorem ipsum<br>
29  Chicago, Illinois USA - 773.666.0001
30  </h5>
31
32  </body>
33  </html>
34
```

Hyper Text Markup Langua | length : 2161 lines : 35 | Ln : 5 Col : 30 Sel : 0 | 0 | Dos\Windows | ANSI as UTF-8 | INS

1. <link>

Add a <link> tag to the basic HTML document. Set the value of the href to “stylesheet4.css”

float_page.html | stylesheet4.css | responsive_page.html | responsive.css

```
1
2  body
3   {font-family:arial;
4    padding:10px;
5    margin:30px;}
6
7  h1
8    {color:#aa4400;
9    font-size:80px;
10   background-color:#abababab;
11   margin:2px;}
12
13 li
14  {display:inline;
15   margin-right:20px;
16   font-weight:bold;}
17
18 a {color:#aa4400;}
19
20 p
21    {float:left;
22     width:33%;
23     padding:10px;
24     box-sizing: border-box;}
25
26 h5
27    {width:100%;
28    clear:left;
29    background-color:#aa4400;
30    color:#dcdcdc;
31    font-size:10px;
32    text-align:center;
33    padding:5px;}
34
```

2. Stylesheet

Make a new CSS document.
Save as “stylesheet4.css”

float_page.html | stylesheet4.css | responsive_page.html | responsive.css

```
1
2  body
3   {font-family:arial;
4    padding:10px;
5    margin:30px;}
6
7  h1
8    {color:#aa4400;
9    font-size:80px;
10   background-color:#abababab;
11   margin:2px;}
12
13 li
14  {display:inline;
15   margin-right:20px;
16   font-weight:bold;}
17
18 a {color:#aa4400;}
19
20 p
21    {float:left;
22     width:33%;
23     padding:10px;
24     box-sizing: border-box;}
25
26 h5
27    {width:100%;
28    clear:left;
29    background-color:#aa4400;
30    color:#dcdcdc;
31    font-size:10px;
32    text-align:center;
33    padding:5px;}
34
```

Apply **float:left** to all <p> elements. This will produce three columns of text and each column will take up 1/3 (or 33%) of the page width.

Add **box-sizing:border-box** to all <p> elements. This ensures that the size (height & width) of the paragraphs are uniform.

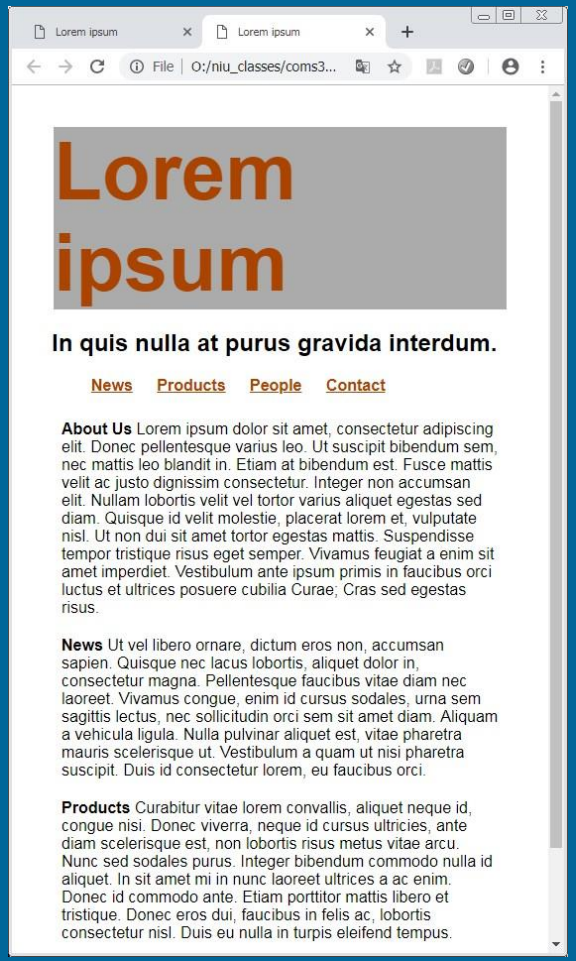
Apply **clear:left** to the <h5> footer element. This will prevent the footer from flowing around to the right of the floated <p> elements and return it to normal flow positioning.

float_page.html | stylesheet4.css | responsive_page.html | responsive.css

```
1
2  body
3   {font-family:arial;
4    padding:10px;
5    margin:30px;}
6
7  h1
8    {color:#aa4400;
9    font-size:80px;
10   background-color:#abababab;
11   margin:2px;}
12
13 li
14   {display:inline;
15   margin-right:20px;
16   font-weight:bold;}
17
18 a {color:#aa4400;}
19
20 p
21    {float:left;
22     width:33%;
23     padding:10px;
24     box-sizing: border-box;}
25
26 h5
27    {width:100%;
28    clear:left;
29    background-color:#aa4400;
30    color:#dcdcdc;
31    font-size:10px;
32    text-align:center;
33    padding:5px;}
34
```

Problem: Does not scale to small screen sizes

Problem: Does not scale to small screen sizes
Solution: "Responsive CSS"



float_page.html | stylesheet4.css | responsive_page.html | responsive.css

```
<head>
  <title>Lorem ipsum</title>
  <link href="responsive.css" type="text/css" rel="stylesheet">
  <meta name="viewport" content="width=device-width, initial-scale=1">
</head>
```

```
<h2>In quis nulla at purus gravida interdum.</h2>

<ul>
  <li><a href="news.html">News</a></li>
  <li><a href="products.html">Products</a>
  <li><a href="people.html">People</a></l
  <li><a href="contact.html">Contact</a><
</ul>

<div class="row">
<div class="column"><b>About Us</b> Lorem
varius leo. Ut suscipit bibendum sem, nec
dignissim consectetur. Integer non accums
Quisque id velit molestie, placerat lorem
tempor tristique risus eget semper. Viva
faucibus orci luctus et ultrices posuere cubilia Curae; Cras sed egestas risus.</div>

<div class="column"><b>News</b> Ut vel libero ornare, dictum eros non, accumsan sapien. Quisque nec lacus lobortis,
aliquet dolor in, consectetur magna. Pellentesque faucibus vitae diam nec laoreet. Vivamus congue, enim id cursus
sodales, urna sem sagittis lectus, nec sollicitudin orci sem sit amet diam. Aliquam a vehicula ligula. Nulla pulvinar
aliquet est, vitae pharetra mauris scelerisque ut. Vestibulum a quam ut nisi pharetra suscipit. Duis id consectetur
lorem, eu faucibus orci.</div>

<div class="column"><b>Products</b> Curabitur vitae lorem convallis, aliquet neque id, congue nisi. Donec viverra,
neque id cursus ultricies, ante diam scelerisque est, non lobortis risus metus vitae arcu. Nunc sed sodales purus.
Integer bibendum commodo nulla id aliquet. In sit amet mi in nunc laoreet ultrices a ac enim. Donec id commodo ante.
Etiam porttitor mattis libero et tristique. Donec eros dui, faucibus in felis ac, lobortis consectetur nisl. Duis eu
nulla in turpis eleifend tempus.</div>
</div>

<h5>
&copy; 2013, Lorem ipsum<br>
Chicago, Illinois USA - 773.666.0001
</h5>

</body>
</html>
```

Make 2 modifications to the <head> of the HTML document:

1) Change the name of the stylesheet to **responsive.css**
2) Add a **viewport** <meta> tag. This sets the width of the page to screen-width of the device. It allows the page to scale to different screen widths.

float_page.html | stylesheet4.css | responsive_page.html | responsive.css

```
1  <html>
2    <head>
3      <title>Lorem ipsum</title>
4      <link href="responsive.css" type="text/css" rel="stylesheet">
5      <meta name="viewport" content="width=device-width, initial-scale=1">
6    </head>
7  <body>
8
9  <h1>Lorem ipsum</h1>
10 <h2>In quis nulla at purus gravida interdum.</h2>
11
12 <ul>
13   <li><a href="news.html">News</a></li>
14   <li><a href="products.html">Products</a></li>
15   <li><a href="people.html">People</a></li>
16   <li><a href="contact.html">Contact</a></li>
17 </ul>
18
19 <div class="row">
20 <div class="column"><b>About Us</b> Lorem ipsum
   varius leo. Ut suscipit bibendum sem, nec matti
   dignissim consectetur. Integer non accumsan eli
   Quisque id velit molestie, placerat lorem et, v
   tempor tristique risus eget semper. Vivamus feu
   faucibus orci luctus et ultrices posuere cubilia Curae; Cras sed egestas risus.</div>
21
22 <div class="column"><b>News</b> Ut vel libero ornare, dictum eros non, accumsan sapien. Quisque nec lacus lobortis,
   aliquet dolor in, consectetur magna. Pellentesque faucibus vitae diam nec laoreet. Vivamus congue, enim id cursus
   sodales, urna sem sagittis lectus, nec sollicitudin orci sem sit amet diam. Aliquam a vehicula ligula. Nulla pulvinar
   aliquet est, vitae pharetra mauris scelerisque ut. Vestibulum a quam ut nisi pharetra suscipit. Duis id consectetur
   lorem, eu faucibus orci.</div>
23
24 <div class="column"><b>Products</b> Curabitur vitae lorem convallis, aliquet neque id, congue nisi. Donec viverra,
   neque id cursus ultricies, ante diam scelerisque est, non lobortis risus metus vitae arcu. Nunc sed sodales purus.
   Integer bibendum commodo nulla id aliquet. In sit amet mi in nunc laoreet ultrices a ac enim. Donec id commodo ante.
   Etiam porttitor mattis libero et tristique. Donec eros dui, faucibus in felis ac, lobortis consectetur nisl. Duis eu
   nulla in turpis eleifend tempus.</div>
25 </div>
26
27 <h5>
28 &copy; 2013, Lorem ipsum<br>
29 Chicago, Illinois USA - 773.666.0001
30 </h5>
31
32 </body>
33 </html>
```

Make modifications to the <body> of the HTML document:

- Add a ** ** tag prior to the three paragraphs.
- Close the ** ** after the paragraphs (line 25).

float_page.html | stylesheet4.css | responsive_page.html | responsive.css

```
<html>
  <head>
    <title>Lorem ipsum</title>
    <link href="responsive.css" type="text/css" rel="stylesheet">
    <meta name="viewport" content="width=device-width, initial-scale=1">
  </head>
<body>

<h1>Lorem ipsum</h1>
<h2>In quis nulla at purus gravida interdum.</h2>

<ul>
  <li><a href="news.html">News</a></li>
  <li><a href="products.html">Products</a></li>
  <li><a href="people.html">People</a></li>
  <li><a href="contact.html">Contact</a></li>
</ul>

<div class="column"><b>About Us</b> Lore
varius leo. Ut suscipit bibendum sem, ne
dignissim consectetur. Integer non accu
Quisque id velit molestie, placerat lorem et, vulputate nisl. Ut non dui sit amet tortor egestas mattis. Suspendisse
tempor tristique risus eget semper. Vivamus feugiat a enim sit amet imperdiet. Vestibulum ante ipsum primis in
faucibus orci luctus et ultrices posuere cubilia Curae; Cras sed egestas risus.</div>

<div class="column"><b>News</b> Ut vel libero ornare, dictum eros non, accumsan sapien. Quisque nec lacus lobortis,
aliquet dolor in, consectetur magna. Pellentesque faucibus vitae diam nec laoreet. Vivamus congue, enim id cursus
sodales, urna sem sagittis lectus, nec sollicitudin orci sem sit amet diam. Aliquam a vehicula ligula. Nulla pulvinar
aliquet est, vitae pharetra mauris scelerisque ut. Vestibulum a quam ut nisi pharetra suscipit. Duis id consectetur
lorem, eu faucibus orci.</div>

<div class="column"><b>Products</b> Curabitur vitae lorem convallis, aliquet neque id, congue nisi. Donec viverra,
neque id cursus ultricies, ante diam scelerisque est, non lobortis risus metus vitae arcu. Nunc sed sodales purus.
Integer bibendum commodo nulla id aliquet. In sit amet mi in nunc laoreet ultrices a ac enim. Donec id commodo ante.
Etiam porttitor mattis libero et tristique. Donec eros dui, faucibus in felis ac, lobortis consectetur nisl. Duis eu
nulla in turpis eleifend tempus.</div>
</div>

<h5>
&copy; 2013, Lorem ipsum<br>
Chicago, Illinois USA - 773.666.0001
</h5>

</body>
</html>
```

Replace the three **<p>** tags with ** **

Close the ** ** at the end of each paragraphs.

float_page.html | stylesheet4.css | responsive_page.html | responsive.css

```
<html>
  <head>
    <title>Lorem ipsum</title>
    <link href="responsive.css" type="text/css" rel="stylesheet">
    <meta name="viewport" content="width=device-width, initial-scale=1">
  </head>
<body>

<h1>Lorem ipsum</h1>
<h2>In quis nulla at purus gravida interdum.</h2>

<ul>
  <li><a href="news.html">News</a></li>
  <li><a href="products.html">Products</a></li>
  <li><a href="people.html">People</a></li>
  <li><a href="contact.html">Contact</a></li>
</ul>

<div class="row">
<div class="column"><b>About Us</b> Lorem ipsum dolor sit amet, consectetur adipiscing elit. Donec pellentesque varius leo. Ut suscipit bibendum sem, nec mattis leo blandit in. Etiam at bibendum est. Fusce mattis velit ac justo dignissim consectetur. Integer non accumsan elit. Nullam lobortis velit vel tortor varius aliquet egestas sed diam. Quisque id velit molestie, placerat lorem et, vulputate nisl. Ut non dui sit amet tortor egestas mattis. Suspendisse tempor tristique risus eget semper. Vivamus feugiat a enim sit amet imperdiet. Vestibulum ante ipsum primis in faucibus orci luctus et ultrices posuere cubilia Curae; Cras sed egestas risus.</div>

<div class="column"><b>News</b> Ut vel libero ornare, dictum eros non, accumsan sapien. Quisque nec lacus lobortis, aliquet dolor in, consectetur magna. Pellentesque faucibus vitae diam nec laoreet. Vivamus congue, enim id cursus sodales, urna sem sagittis lectus, nec sollicitudin orci sem sit amet diam. Aliquam a vehicula ligula. Nulla pulvinar aliquet est, vitae pharetra mauris scelerisque ut. Vestibulum a quam ut nisi pharetra suscipit. Duis id consectetur lorem, eu faucibus orci.</div>

<div class="column"><b>Products</b> Curabitur vitae lorem convallis, aliquet neque id, congue nisi. Donec viverra, neque id cursus ultricies, ante diam scelerisque est, non lobortis risus metus vitae arcu. Nunc sed sodales purus. Integer bibendum commodo nulla id aliquet. In sit amet mi in nunc laoreet ultrices a ac enim. Donec id commodo ante. Etiam porttitor mattis libero et tristique. Donec eros dui, faucibus in felis ac, lobortis consectetur nisl. Duis eu nulla in turpis eleifend tempus.</div>
</div>

<h5>
&copy; 2013, Lorem ipsum<br>
Chicago, Illinois USA - 773.666.0001
</h5>

</body>
</html>
```

Save the modified document as **responsive_page.html**

float_page.html | stylesheet4.css | responsive_page.html | responsive.css

```
1
2  body
3   {font-family:arial;
4    padding:10px;
5    margin:30px;}
6
7  h1
8    {color:#aa4400;
9    font-size:80px;
10   background-color:#abababab;
11   margin:2px;}
12
13 li
14  {display:inline;
15   margin-right:20px;
16   font-weight:bold;}
17
18 a {color:#aa4400;}
19
20 p
21    {float:left;
22     width:33%;
23     padding:10px;
24     box-sizing: border-box;}
25
26 h5
27    {width:100%;
28    clear:left;
29    background-color:#aa4400;
30    color:#dcdcdc;
31    font-size:10px;
32    text-align:center;
33    padding:5px;}
34
35
36
37
38
39
40
41
42
43
44
```

Modify the CSS document:

Delete everything after line 20.

float_page.html | stylesheet4.css | responsive_page.html | responsive.css

```
body
 {font-family:arial;
  padding:10px;
  margin:30px;}

h1
  {color:#aa4400;
  font-size:80px;
  background-color:#abababab;
  margin:2px;}

li
 {display:inline;
  margin-right:20px;
  font-weight:bold;}

a {color:#aa4400;}
```

float_page.html | stylesheet4.css | responsive_page.html | responsive.css

```
1
2  body
3   {font-family:arial;
4    padding:10px;
5    margin:30px;}
6
7  h1
8    {color:#aa4400;
9    font-size:80px;
10   background-color:#abababab;
11   margin:2px;}
12
13 li
14  {display:inline;
15   margin-right:20px;
16   font-weight:bold;}
17
18 a {color:#aa4400;}
19
20 .column
21  {float:left;
22   width:33%;
23   padding:10px;
24   box-sizing:border-box;}
25
26 .row:after
27  {content:"";
28   display:table;
29   clear:both;}
30
31 @media screen and (max-width: 600px)
32   {.column
33     {width: 100%;}
34   }
35
36   h5
37    {width:100%;
38     clear:left;
39     background-color:#aa4400;
40     color:#dcdcdc;
41     font-size:10px;
42     text-align:center;
43     padding:5px;}
44
```

The class **column** replaces the <p>. Float the three ** ** to the left, give them a width of 33%, and apply the **box-sizing:border-box**

float_page.html | stylesheet4.css | responsive_page.html | responsive.css

```
1
2  body
3   {font-family:arial;
4    padding:10px;
5    margin:30px;}
6
7  h1
8    {color:#aa4400;
9    font-size:80px;
10   background-color:#abababab;
11   margin:2px;}
12
13 li
14  {display:inline;
15   margin-right:20px;
16   font-weight:bold;}
17
18 a {color:#aa4400;}
19
20 .column
21  {float:left;
22   width:33%;
23   padding:10px;
24   box-sizing:border-box;}
25
26 .row:after
27  {content:"";
28   display:table;
29   clear:both;}
30
31 @media screen and (max-width: 600px)
32   {.column
33     {width: 100%;}
34   }
35
36   h5
37    {width:100%;
38     clear:left;
39     background-color:#aa4400;
40     color:#dcdcdc;
41     font-size:10px;
42     text-align:center;
43     padding:5px;}
44
```

The class **row:after** clears the float before and after the columns. This ensures that the page title and navigation links do not float like the columns.

float_page.html | stylesheet4.css | responsive_page.html | responsive.css

```
1
2  body
3   {font-family:arial;
4    padding:10px;
5    margin:30px;}
6
7  h1
8    {color:#aa4400;
9    font-size:80px;
10   background-color:#abababab;
11   margin:2px;}
12
13 li
14  {display:inline;
15   margin-right:20px;
16   font-weight:bold;}
17
18 a {color:#aa4400;}
19
20 .column
21  {float:left;
22   width:33%;
23   padding:10px;
24   box-sizing:border-box;}
25
26 .row:after
27  {content:"";
28   display:table;
29   clear:both;}
30
31 @media screen and (max-width: 600px)
32   {.column
33     {width: 100%;}
34   }
35
36   h5
37    {width:100%;
38     clear:left;
39     background-color:#aa4400;
40     color:#dcdcdc;
41     font-size:10px;
42     text-align:center;
43     padding:5px;}
44
```

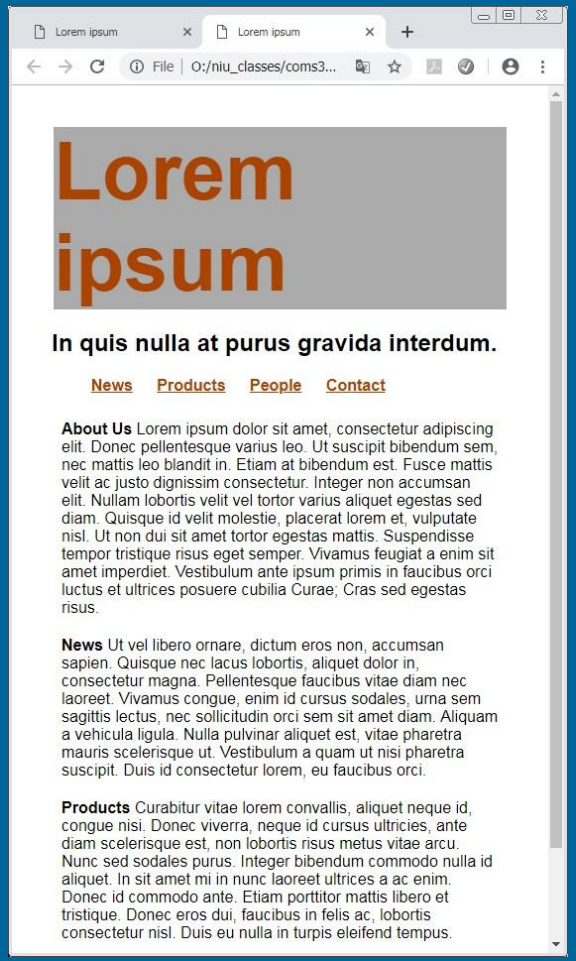
The **@media** rule is used to apply different styles for different media types/devices. When the screen size of the device has a **max-width** of **600px**, then **.column** class has a width of 100% instead of 33%. This has the effect of stacking the columns, when the page is displace on a devices with a screen width less than 600px.

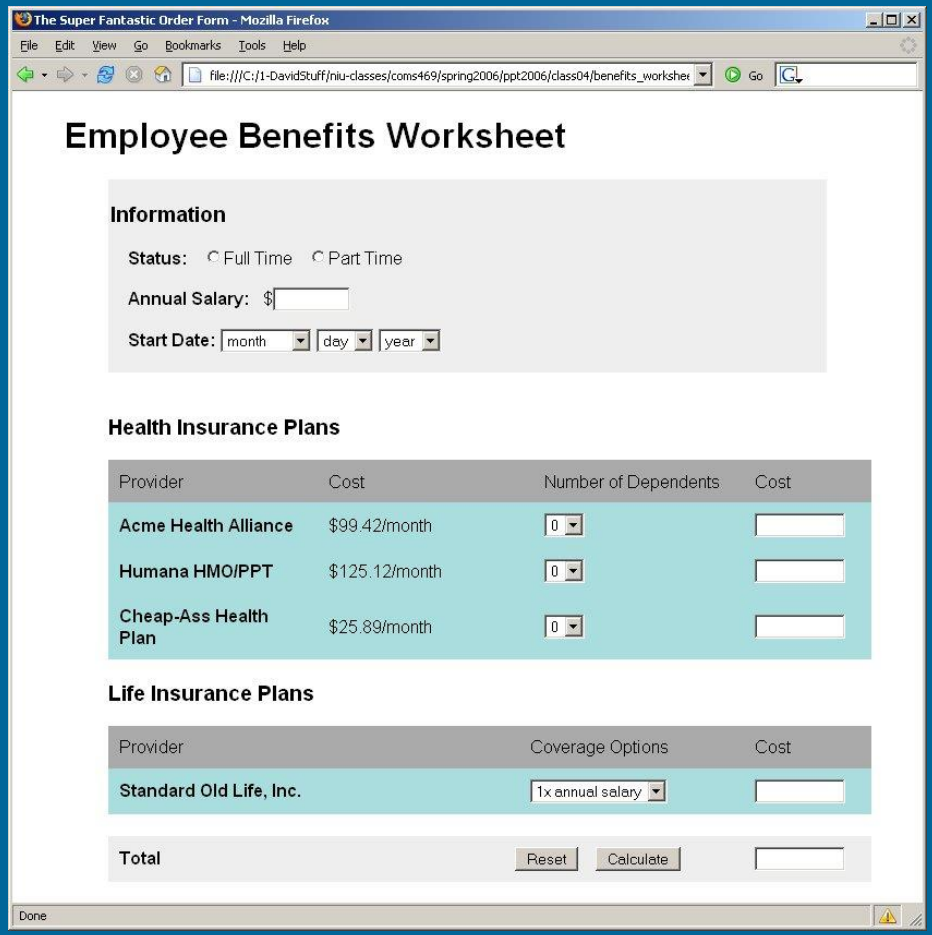
float_page.html | stylesheet4.css | responsive_page.html | responsive.css

```
1
2  body
3   {font-family:arial;
4    padding:10px;
5    margin:30px;}
6
7  h1
8    {color:#aa4400;
9    font-size:80px;
10   background-color:#abababab;
11   margin:2px;}
12
13 li
14  {display:inline;
15   margin-right:20px;
16   font-weight:bold;}
17
18 a {color:#aa4400;}
19
20 .column
21  {float:left;
22   width:33%;
23   padding:10px;
24   box-sizing:border-box;}
25
26 .row:after
27  {content:"";
28   display:table;
29   clear:both;}
30
31 @media screen and (max-width: 600px)
32   {.column
33     {width: 100%;}
34   }
35
36   h5
37    {width:100%;
38     clear:left;
39     background-color:#aa4400;
40     color:#dcdcdc;
41     font-size:10px;
42     text-align:center;
43     padding:5px;}
44
```

Save as
responsive.css

Lorem ipsum
File | O:/niu_classes/coms359/ppt2019/css_exercise/float_page.html
Lorem ipsum
In quis nulla at purus gravida interdum.
News Products People Contact
About Us Lorem ipsum dolor sit amet, consectetur adipiscing elit. Donec pellentesque varius leo. Ut suscipit bibendum sem, nec mattis leo blandit in. Etiam at bibendum est. Fusce mattis velit ac justo dignissim consectetur. Integer non accumsan elit. Nullam lobortis velit vel tortor varius aliquet egestas sed diam. Quisque id velit molestie, placerat lorem et, vulputate nisl. Ut non dui sit amet tortor egestas mattis. Suspendisse tempor tristique risus eget semper. Vivamus feugiat a enim sit amet imperdiet. Vestibulum ante ipsum primis in faucibus orci luctus et ultrices posuere cubilia Curae; Cras sed egestas risus.
News Ut vel libero ornare, dictum eros non, accumsan sapien. Quisque nec lacus lobortis, aliquet dolor in, consectetur magna. Pellentesque faucibus vitae diam nec laoreet. Vivamus congue, enim id cursus sodales, urna sem sagittis lectus, nec sollicitudin orci sem sit amet diam. Aliquam a vehicula ligula. Nulla pulvinar aliquet est, vitae pharetra mauris scelerisque ut. Vestibulum a quam ut nisi pharetra suscipit. Duis id consectetur lorem, eu faucibus orci.
Products Curabitur vitae lorem convallis, aliquet neque id, congue nisi. Donec viverra, neque id cursus ultricies, ante diam scelerisque est, non lobortis risus metus vitae arcu. Nunc sed sodales purus. Integer bibendum commodo nulla id aliquet. In sit amet mi in nunc laoreet ultrices a ac enim. Donec id commodo ante. Etiam porttitor mattis libero et tristique. Donec eros dui, faucibus in felis ac, lobortis consectetur nisl. Duis eu nulla in turpis eleifend tempus.
© 2013, Lorem ipsum
Chicago, Illinois USA - 773.666.0001


Lorem ipsum
Lorem ipsum
File | O:/niu_classes/coms3...
Lorem ipsum
In quis nulla at purus gravida interdum.
News Products People Contact
About Us Lorem ipsum dolor sit amet, consectetur adipiscing elit. Donec pellentesque varius leo. Ut suscipit bibendum sem, nec mattis leo blandit in. Etiam at bibendum est. Fusce mattis velit ac justo dignissim consectetur. Integer non accumsan elit. Nullam lobortis velit vel tortor varius aliquet egestas sed diam. Quisque id velit molestie, placerat lorem et, vulputate nisl. Ut non dui sit amet tortor egestas mattis. Suspendisse tempor tristique risus eget semper. Vivamus feugiat a enim sit amet imperdiet. Vestibulum ante ipsum primis in faucibus orci luctus et ultrices posuere cubilia Curae; Cras sed egestas risus.
News Ut vel libero ornare, dictum eros non, accumsan sapien. Quisque nec lacus lobortis, aliquet dolor in, consectetur magna. Pellentesque faucibus vitae diam nec laoreet. Vivamus congue, enim id cursus sodales, urna sem sagittis lectus, nec sollicitudin orci sem sit amet diam. Aliquam a vehicula ligula. Nulla pulvinar aliquet est, vitae pharetra mauris scelerisque ut. Vestibulum a quam ut nisi pharetra suscipit. Duis id consectetur lorem, eu faucibus orci.
Products Curabitur vitae lorem convallis, aliquet neque id, congue nisi. Donec viverra, neque id cursus ultricies, ante diam scelerisque est, non lobortis risus metus vitae arcu. Nunc sed sodales purus. Integer bibendum commodo nulla id aliquet. In sit amet mi in nunc laoreet ultrices a ac enim. Donec id commodo ante. Etiam porttitor mattis libero et tristique. Donec eros dui, faucibus in felis ac, lobortis consectetur nisl. Duis eu nulla in turpis eleifend tempus.

Preview

- HTML Forms
  - Duckett - ch. 7 (pp. 144-174)