CHAPTER 3: CSS (CONTINUED)

Note

- All example files used in this chapter are available at

https://swe.umbc.edu/~zzaidi1/is448/chap3-examples/

A step back into HTML

- Two HTML tags that are especially useful when applying styles
  - `<div>` tag
  - `<span>` tag

Logical Divisions: div

☐ May want to apply special style properties to an entire section of the document

<div class="standout">
  <h2>Spatula City! Spatula City!</h2>
  <p>See our spectacular spatula specials!</p>
  <p class="special">We'll beat any advertised price!</p>
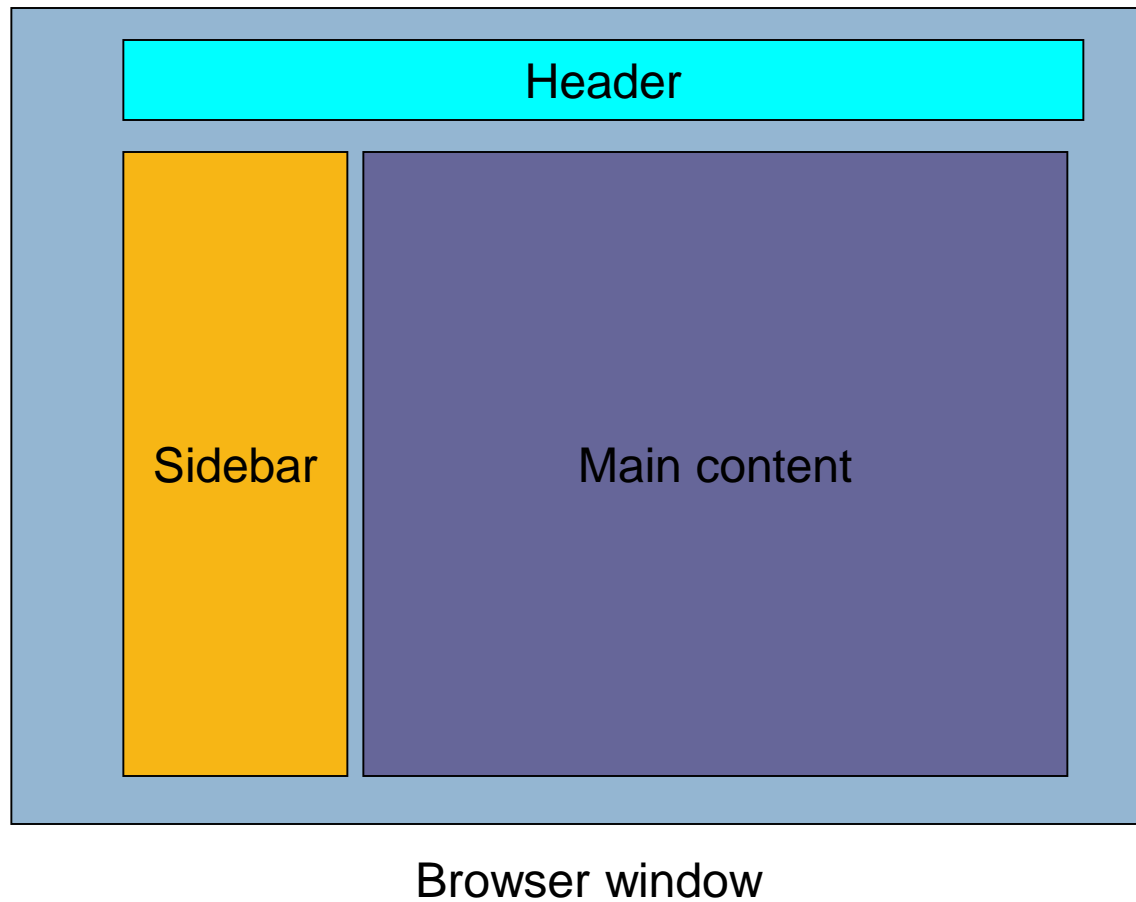*</div>*

HTML

Browser view:
See mypage_divtags.html

☐ <div> tag:

  ☐ used to indicate a logical section or area of page

  ☐ has no appearance by default, but you can apply styles to it

  ☐ Block tag

Logical divisions: div

Browser window

Inline styling: <span>

- Want to apply a style to less than a whole paragraph/line of text

- Has no default layout

- Can apply style to text within <span> tags

```
.spanred{
        font-size: 24pt;
        font-family: Arial; color: red
}
```
CSS

```
<p >
   It sure is fun to be in
   <span class="spanred">total</span>
   control of text
</p>
```
HTML

Browser view: See mypage_span.html

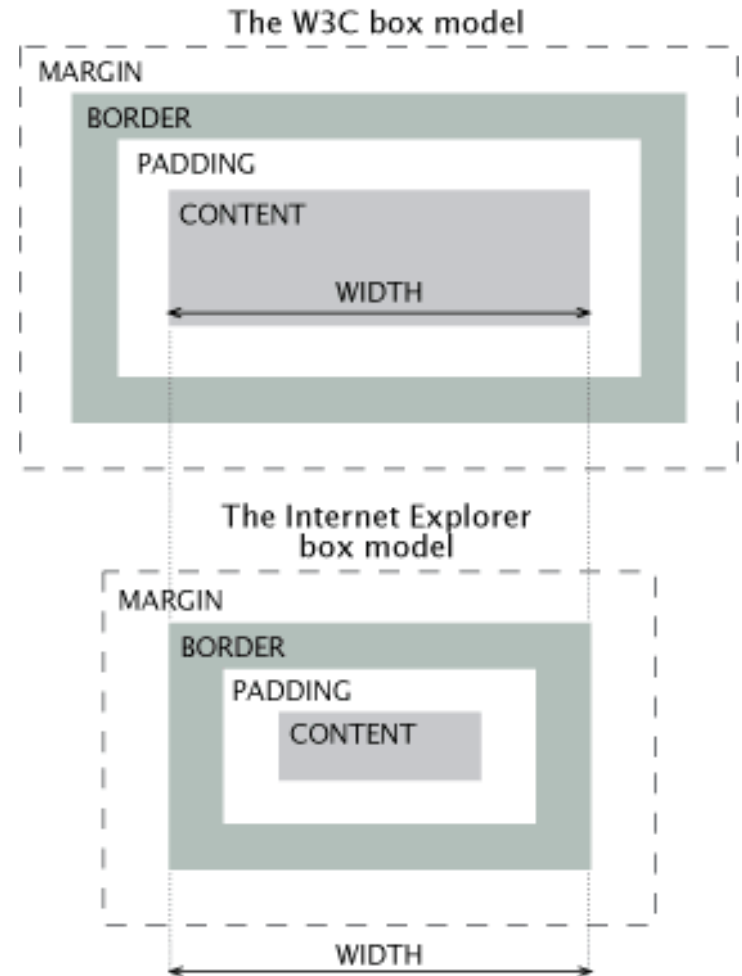# Now, back to CSS concepts!

CSS Box Model

- Motivation
  - want to be able to style individual elements, groups of elements, sections of text of the page
 - want to create complex page layouts

CSS Box Model

- For layout purposes, every element is composed of
  - the actual element's **content**
  - a **border** around the element
  - **padding** between the content and the border (*inside*)
  - a **margin** between the border and other content (*outside*)

- IE6 doesn't implement the CSS box model right
  - see links on BB course page

The W3C box model

MARGIN
BORDER
PADDING
CONTENT
WIDTH

The Internet Explorer box model

MARGIN
BORDER
PADDING
CONTENT
WIDTH

CSS Box Model

- Width of an element = content width + L/R padding + L/R border + L/R margin
- Height of an element = content height + T/B padding + T/B border + T/B margin

Boundary of content container

Height

Width

Margin

Padding
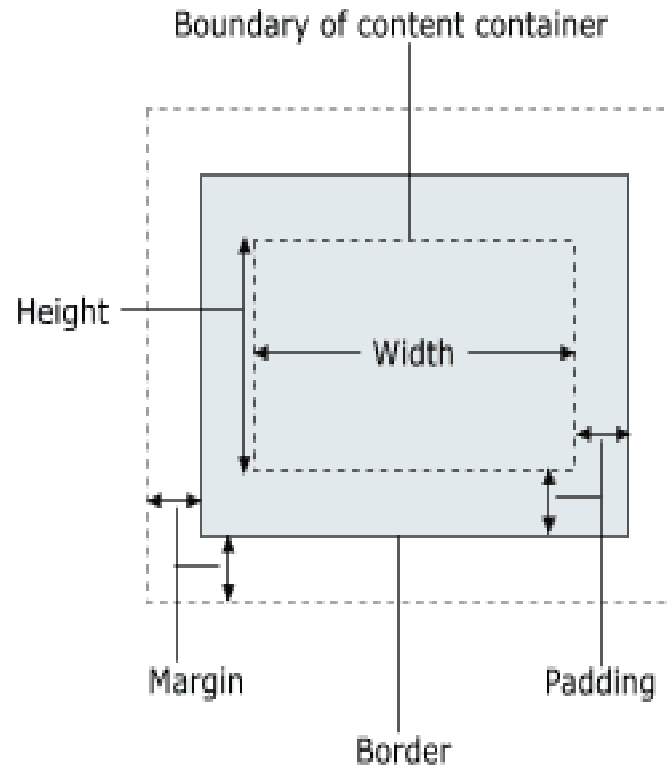
Border

Border Properties

- border-style
  - values: solid, dotted, dashed, double, none
  - Can set individual borders
    - border-top-style, border-left-style, border-bottom-style, border-right-style
- border-width
  - sets thickness
  - can set individual borders as above
    - border-top-width, border-left-width, border-bottom-width, border-right-width

Border Properties

- border-color
  - can set individual borders
    - border-top-color, border-left-color, border-bottom-color, border-right-color
- See mypage_borders.html

Lab

- □ Do exercise 1 of lab handout, css-lab.pdf, posted along with course slides on blackboard for this lecture

Padding

- padding: padding on all 4 sides
- padding-bottom: padding on bottom side only
- padding-left: padding on left side only
- padding-right: padding on right side only
- padding-top: padding on top side only

Padding

CSS

```
p { padding: 20px; border: 3px solid black; }
h2 { padding: 0px; background-color: yellow; }
```

Browser view:

All you can eat buffet!

padding: spacing within element

This is the first paragraph

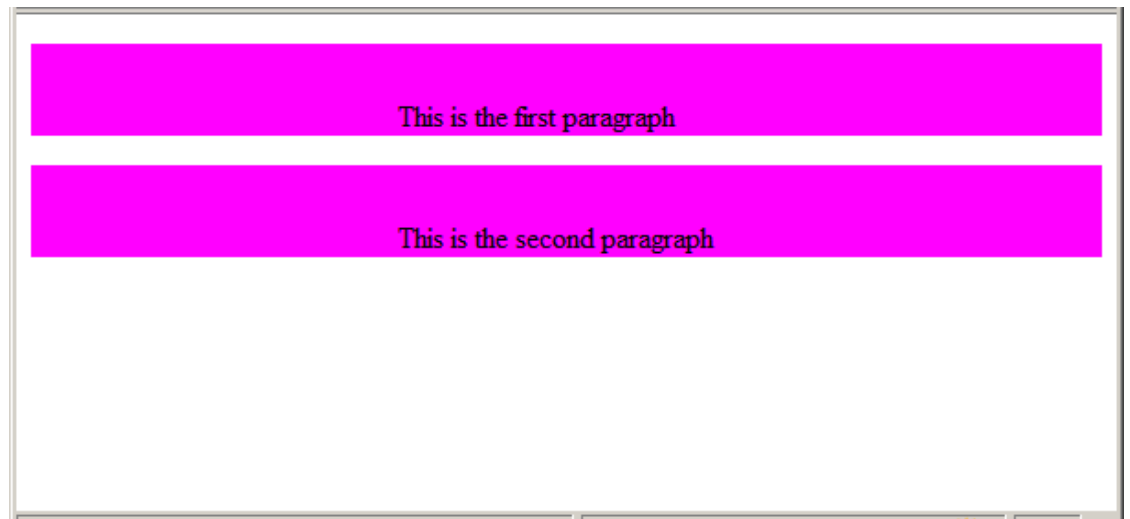This is the second paragraph

Also see mypage_padding.html

Padding

□ Can set padding for each side separately

□ Note how padding takes on the background color

CSS
```
p {
    padding-left: 200px;
    padding-top: 30px;
    background-color: fuchsia;
}
```

Browser view:

This is the first paragraph

This is the second paragraph

Browser view:
See mypage_indpadding.html

Margins

- **margin**: margin on all 4 sides
- **margin-bottom**: margin on bottom side only
- **margin-left**: margin on left side only
- **margin-right**: margin on right side only
- **margin-top**: margin on top side only
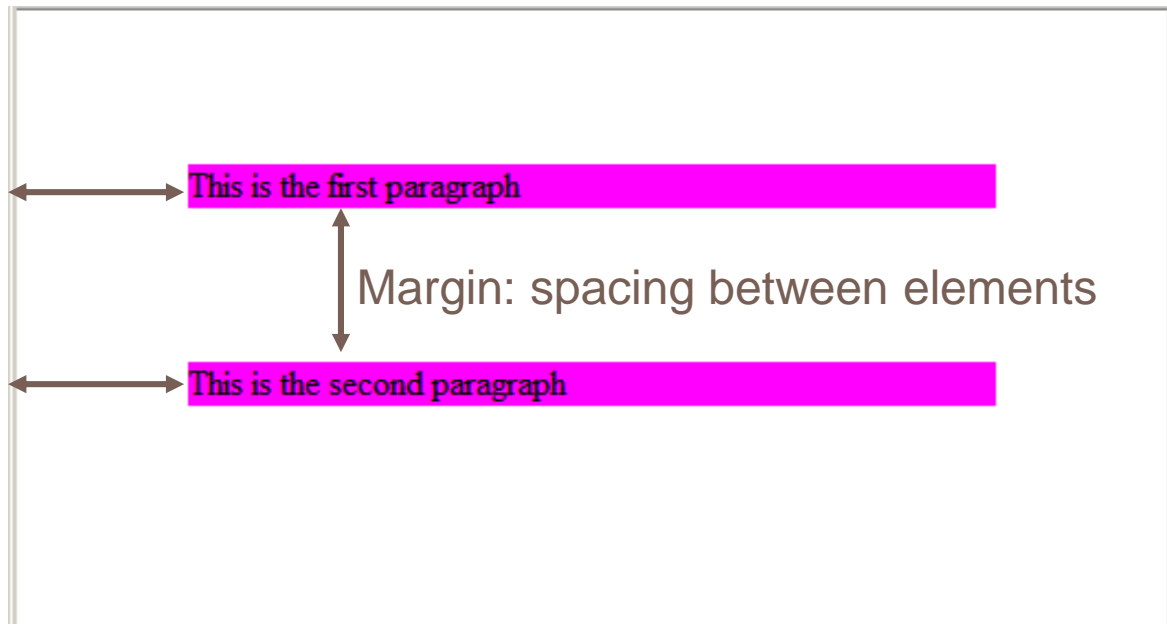
Margins

CSS

```
p {
        margin: 70px;
        background-color: fuchsia;
}
```

- Also see mypage_margin.html

Note how margins are transparent (they don't contain the element's background color, etc.)

This is the first paragraph

Margin: spacing between elements

This is the second paragraph

CSS Properties for Dimensions

- **width, height**: how wide or tall to make this element
- **max-width, max-height, min-width, min-height**: the maximum or minimum size of this element in the given dimension
- all of these apply only to block elements; ignored for inline elements
- **width** property sets the width of the area inside the padding, border and margin

Dimensions

p { width: 400px; background-color: yellow; }
h2 { width: 50%; background-color: aqua; }

See mypage_dimensions.html
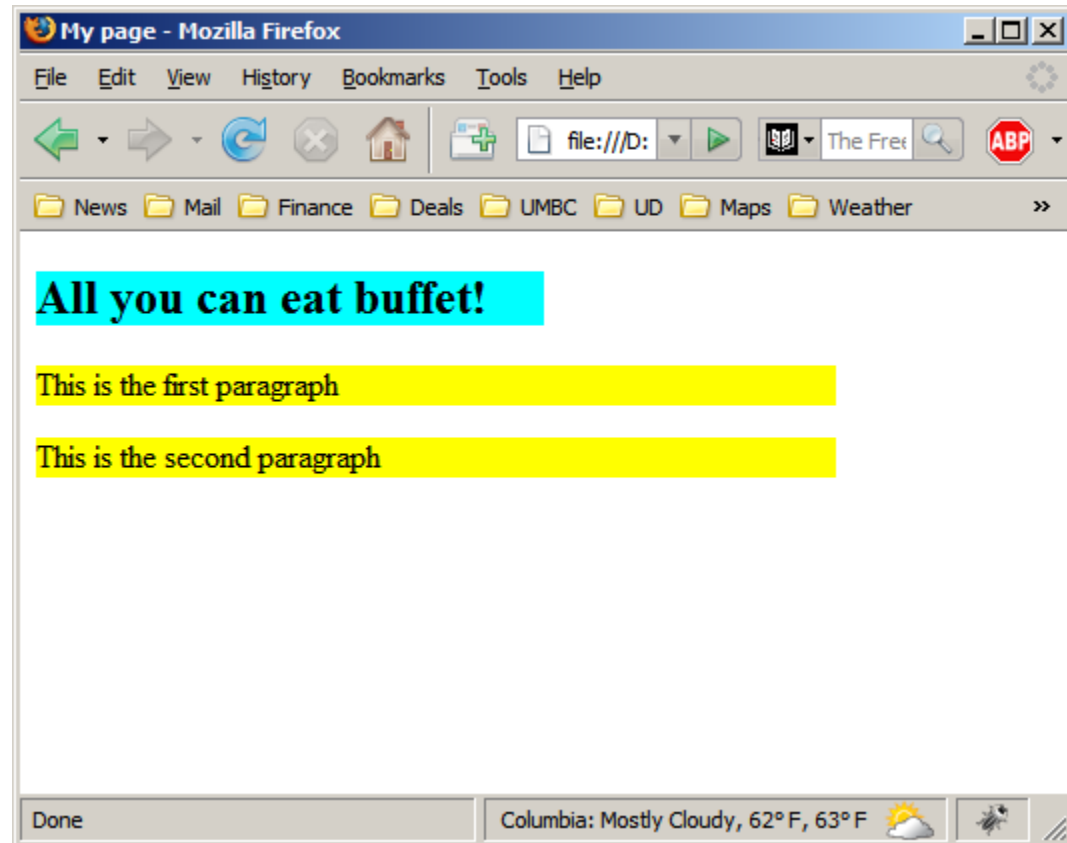
CSS: Background Images

☐ Use the background-image property to place an image in the background of an element

```
body{
        background-image: url(halloween_image.jpg)
}
```

```
<body>
<p> Halloween is not too far away </p>
</body>
```

See mypage_bgimage.html

Other background properties

- background-repeat
  - repeat: default
  - no-repeat: one copy of image displayed
  - repeat-x: image to be repeated horizontally
  - repeat-y: image to be repeated vertically
- background-position
  - values: top, center, bottom, left and right, or a length value in px or pt

CSS Properties: Background

- **background-color** : color to fill background
- **background-image** : image to place in background
- **background-position** : placement of bg image within element
- **background-repeat** : whether/how bg image should be repeated
- **background-attachment** : whether bg image scrolls with page
- **background** : shorthand to set all background properties

CSS properties: text-align

- Specifies the horizontal alignment of text in an element

- Common values: center, left, right, justify

- Example usage

```
h1 {
    text-align: center;
}
```

```
.format{
    text-align: right;
}
```

Lab

- Do exercise 2 of lab handout, css-lab.pdf, posted along with course slides on blackboard for this lecture
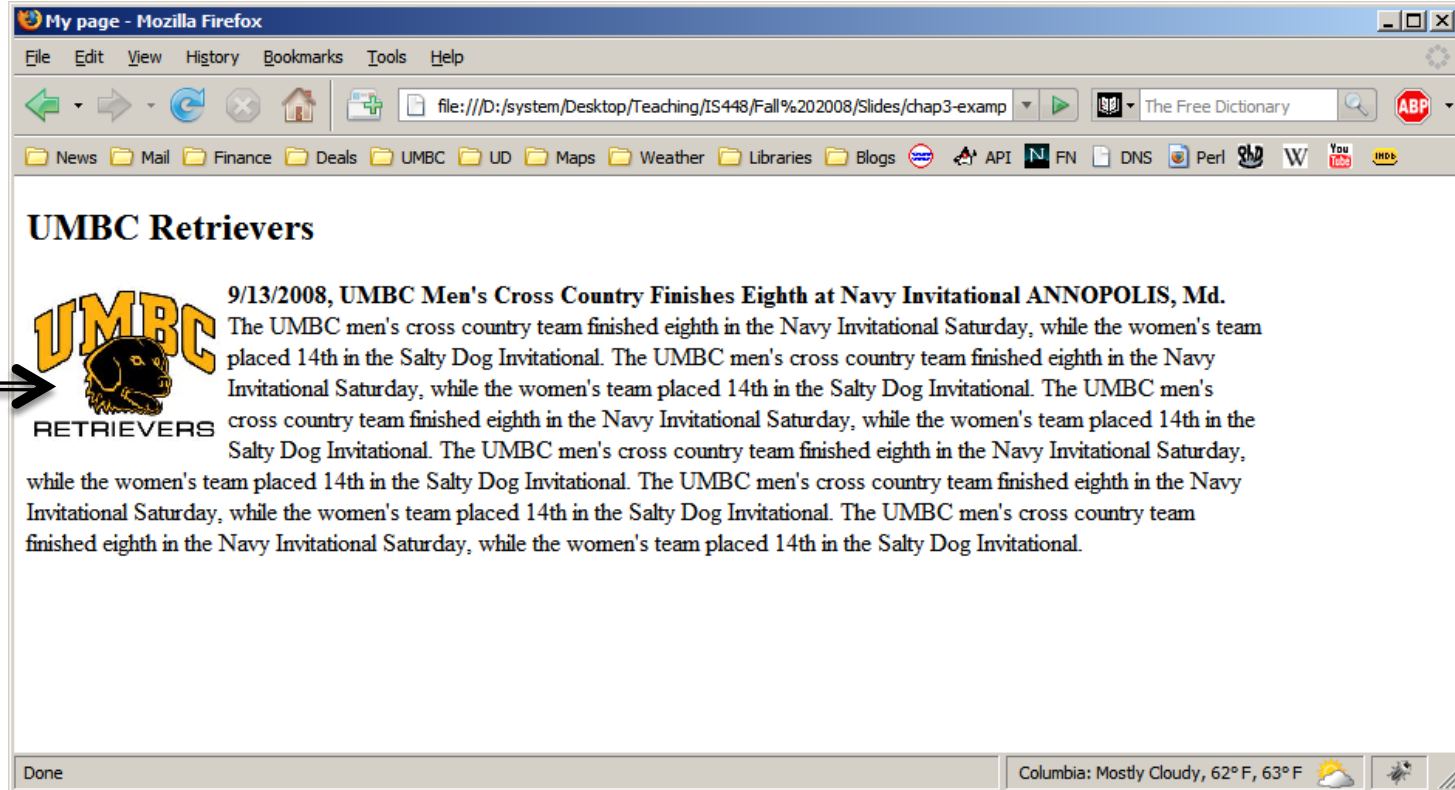
Floating elements: float Property

- Floating elements are removed from normal document flow
    - Underlying text wraps around floating element as necessary
- float can have values left, right, or none (default)
- Usually has a width property
    - Otherwise, default is 100% width
    - Other text can't wrap around
- Reference
  http://www.w3.org/TR/CSS2/visuren.html#floats
- See example_float.html

float Property

img.headericon { **float: left**; width: 130px; }

Image floats to
left while text
wraps
around image

See mypage_float_left.html

Adding two columns with float

```
.left   {  float: left; width:200px;   }
.right {  float: right; width:600px;   }
```
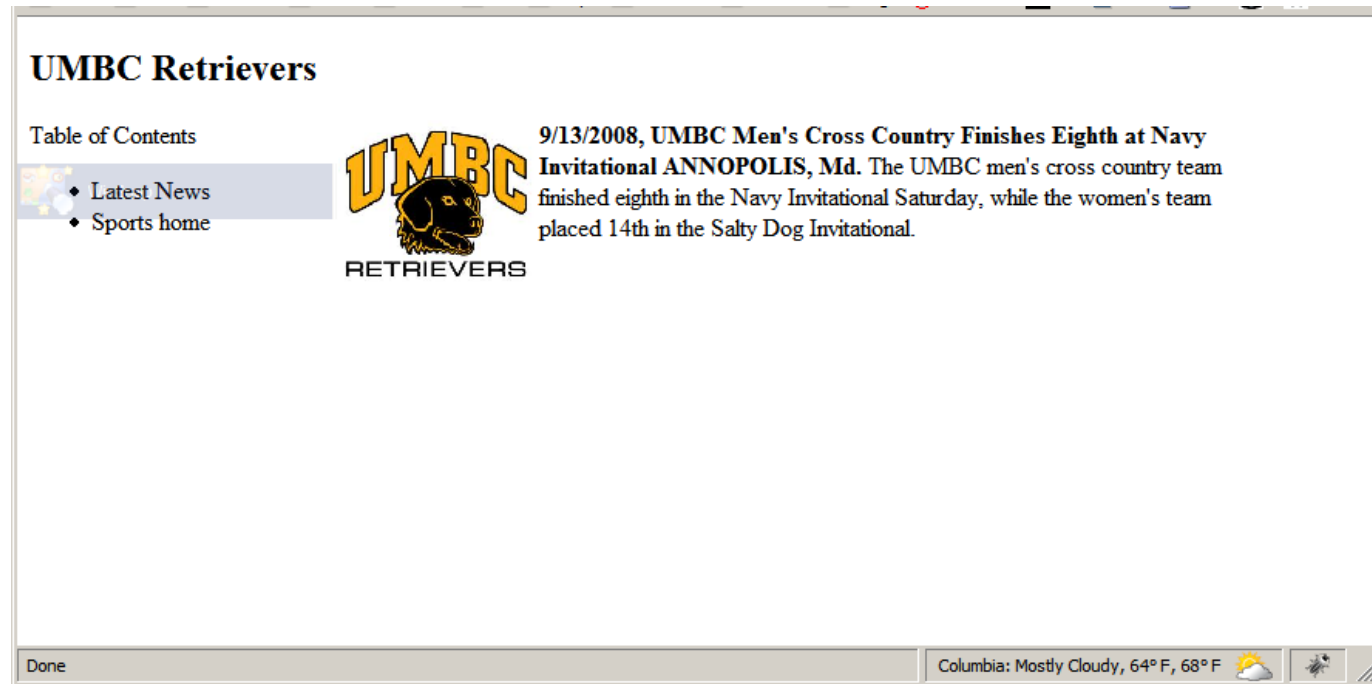

See mypage_float1.html

clear Property

- Disallows any floating elements from overlapping this element
- clear can be left, right, both, or none (default)

clear Property

```
p.clearonright
{
    clear:right;
}
```


See mypage_clear2.html

Lab

- ☐ Do exercise 3 and 4 of lab handout, css-lab.pdf, posted along with course slides on blackboard for this lecture