

CSS Layout

MSc. Trần Thị Bích Hạnh



KHOA CÔNG NGHỆ THÔNG TIN
TRƯỜNG ĐẠI HỌC KHOA HỌC TỰ NHIÊN

Agenda

1
References

2
Styling

3
Box Model

4
Layout

CSS Layout —

A decorative graphic at the bottom of the slide features a series of overlapping, wavy lines in blue, orange, and white, resembling a stylized road or water surface.

1

CSS Layout

REFERENCES CSS



References



- W3C CSS Training
 - <http://www.w3.org/wiki/CSS/Training>
- Learn Layout
 - <http://learnlayout.com>
- Andy Budd, **CSS Mastery**, Advanced Web Standard Solutions, Second Edition, 2009
- CSS Cheat Sheet



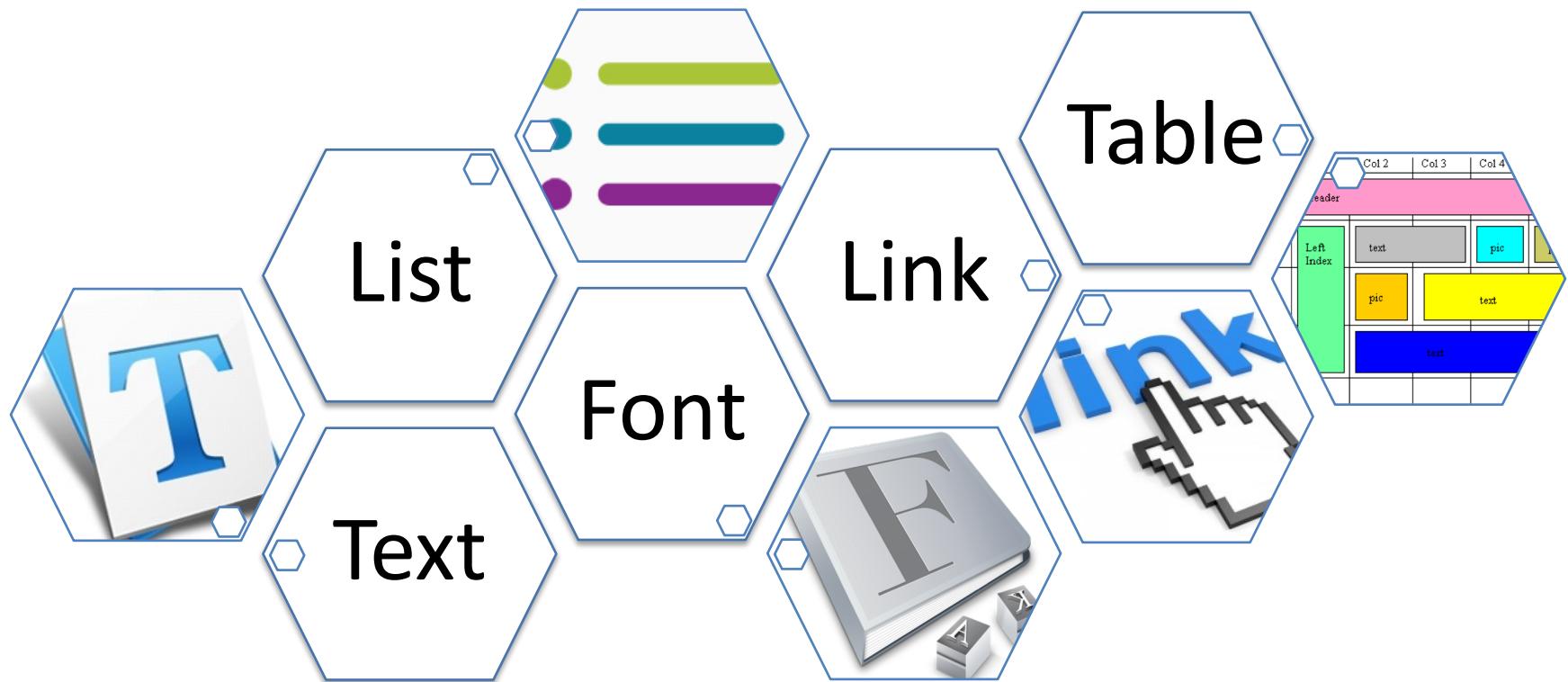
2

CSS Layout

STYLING CSS



Styling



CSS Text



Text

- color
- text-align
- text-decoration
- text-indent

CSS Text – color



- Specifiy the color of a text
- Syntax

```
color: color keywords | color values
```

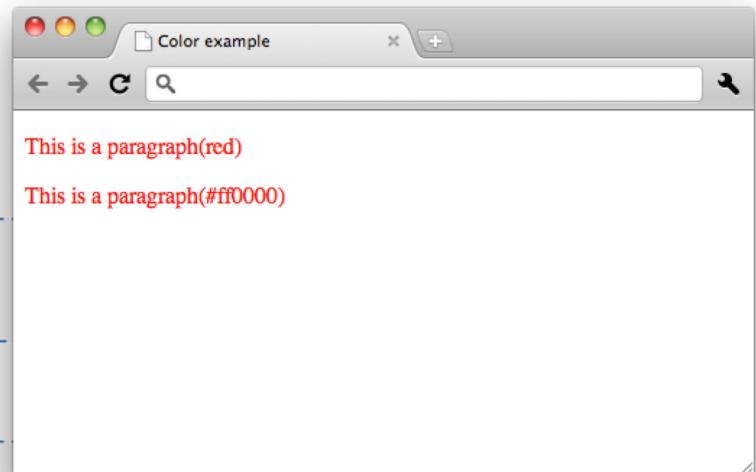
- Ví dụ

[style.css]

```
p#key{ color: red; }  
p#val{ color: #ff0000; }
```

[index.html]

```
<p id="key">This is a paragraph(red)</p>  
<p id="val">This is a paragraph(#ff0000)</p>
```



CSS Text – text-align

- Set the horizontal alignment of a text
- Syntax

```
text-align: left | right | center | justify
```

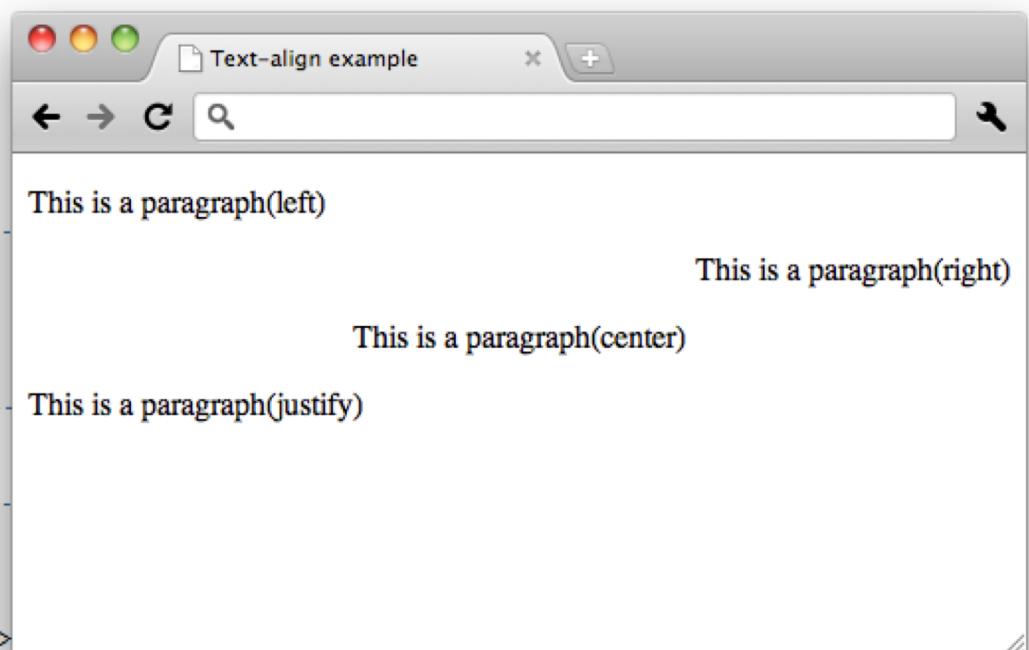
□ Example

[style.css]

```
p#le{ text-align: left; }  
p#ri{ text-align: right; }  
p#ce{ text-align: center; }  
p#ju{ text-align: justify; }
```

[index.html]

```
<p id="le">This is a paragraph(left)</p>  
<p id="ri">This is a paragraph(right)</p>  
<p id="ce">This is a paragraph(center)</p>  
<p id="ju">This is a paragraph(justify)</p>
```



CSS Text – text-decoration

- Specify the position of the line displayed with a text
- Syntax

```
text-decoration: none | underline | overline | line-through | blink
```

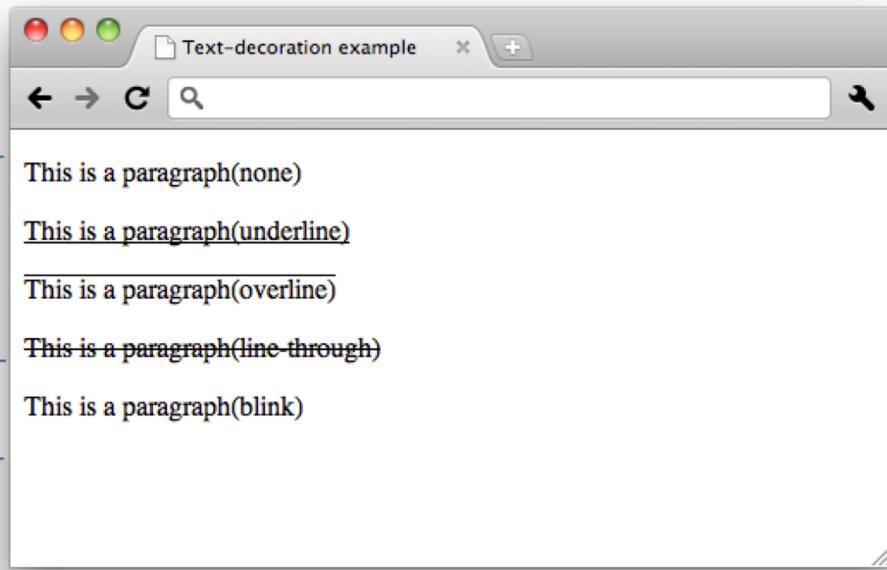
□ Example

[style.css]

```
p#no{ text-decoration: none; }  
p#un{ text-decoration: underline; }  
p#ov{ text-decoration: overline; }  
p#th{ text-decoration: line-through; }  
p#bl{ text-decoration: blink; }
```

[index.html]

```
<p id="no">This is a paragraph(none)</p>  
<p id="un">This is a paragraph(underline)</p>  
<p id="ov">This is a paragraph(overline)</p>  
<p id="th">This is a paragraph(line-through)</p>  
<p id="bl">This is a paragraph(blink)</p>
```



CSS Text – text-indent

- Specify the indentation of the first line of a text
- Syntax

```
text-indent: length;
```

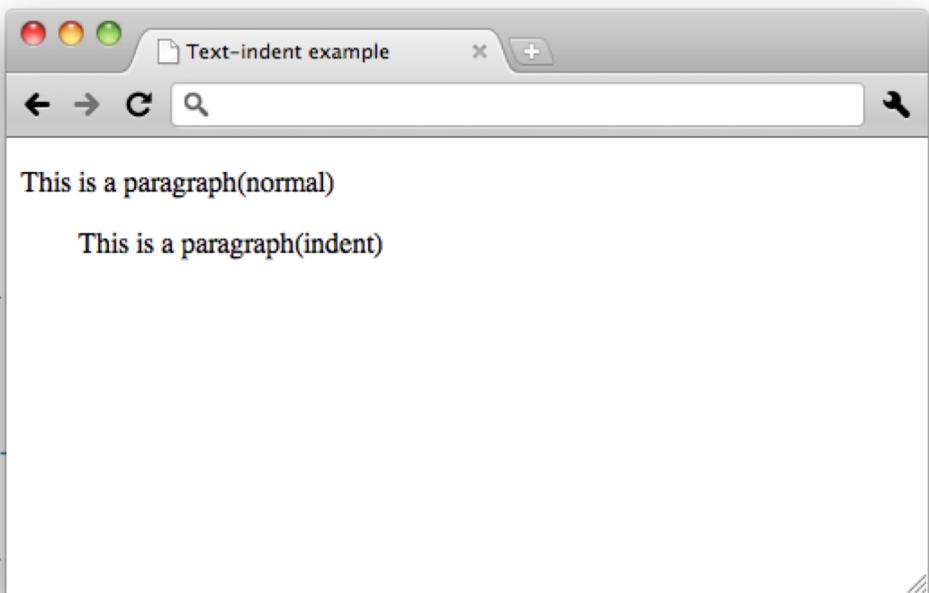
- Example

[style.css]

```
p#ind{  
    text-indent: 2em;  
}
```

[index.html]

```
<p>This is a paragraph(normal)</p>  
<p id="ind">This is a paragraph(indent)</p>
```



CSS Font



Font

- font-size
- font-family
- font-style
- font-weight





CSS Font – font-size

- Specify the size of the text
- Syntax

```
p{  
    font-size: <absolute-size> | <relative-size> | <length> | <percentage>;  
}
```

- absolute-size: [xx-small | x-small | small | medium | large | x-large | xx-large]
- relative-size: [larger | smaller]

CSS Font – font-size (cont.)

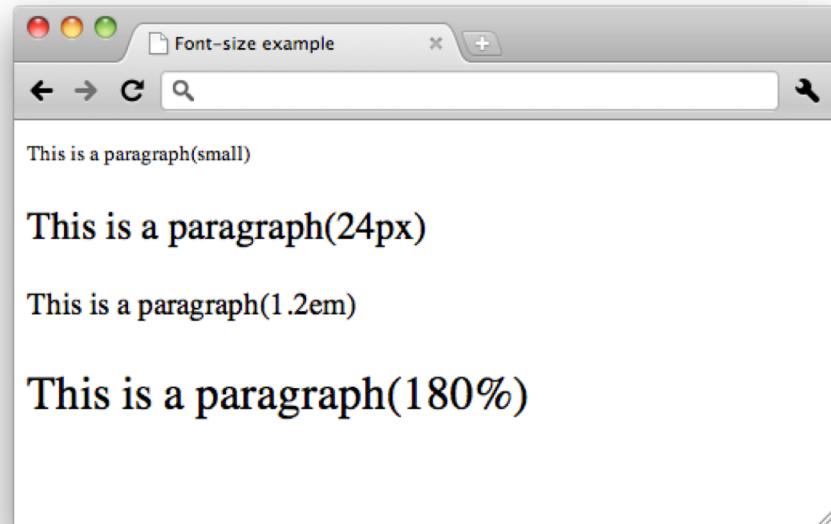
□ Example

[style.css]

```
p#ab{ font-size: small; }
p#px{ font-size: 24px; }
p#em{ font-size: 1.2em; }
p#per{ font-size: 180%; }
```

[index.html]

```
<p id="ab">This is a paragraph(small)</p>
<p id="px">This is a paragraph(24px)</p>
<p id="em">This is a paragraph(1.2em)</p>
<p id="per">This is a paragraph(180%)</p>
```



CSS Font – font-family

- Specify a font or list of fonts for the text
- Syntax

```
p{  
    font-family: <family-name> | <generic-family>;  
}
```

- family-name: “Arial”, “Time New Roman”...
- generic-family: [serif | sans-serif | cursive | fantasy | monospace]

CSS Font – font-family (cont.)

□ Example

[style.css]

```
p#se{ font-family: "Time New Roman", Garamond, serif; }  
p#sa{ font-family: Helvetica, "MS Verdana", sans-serif; }
```

[index.html]

```
<p id="se">This is a paragraph(serif)</p>  
<p id="sa">This is a paragraph(sans-serif)</p>
```



CSS Font – font-style

- Used to turn italic text on and off
- Syntax

```
p{  
    font-style: normal | italic | oblique;  
}
```

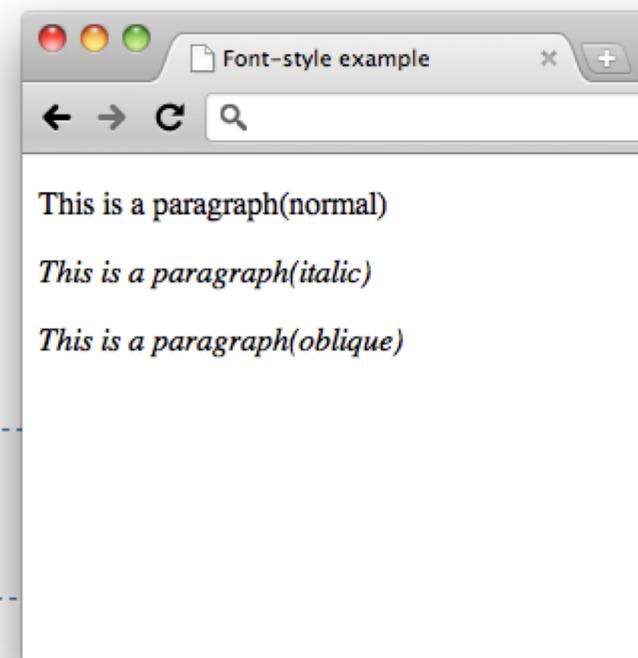
- Example

[style.css]

```
p#no{ font-style: normal; }  
p#i{ font-style: italic; }  
p#ob{ font-style: oblique; }
```

[index.html]

```
<p id="no">This is a paragraph(normal)</p>  
<p id="i">This is a paragraph(italic)</p>  
<p id="ob">This is a paragraph(oblique)</p>
```



CSS Font – font-weight

- Set how bold the text is
- Syntax

```
p{  
  font-weight: normal |bold | bolder | lighter | 100 | 200 | 300 | 400 | 500 | 600 | 700 | 800 | 900  
}
```

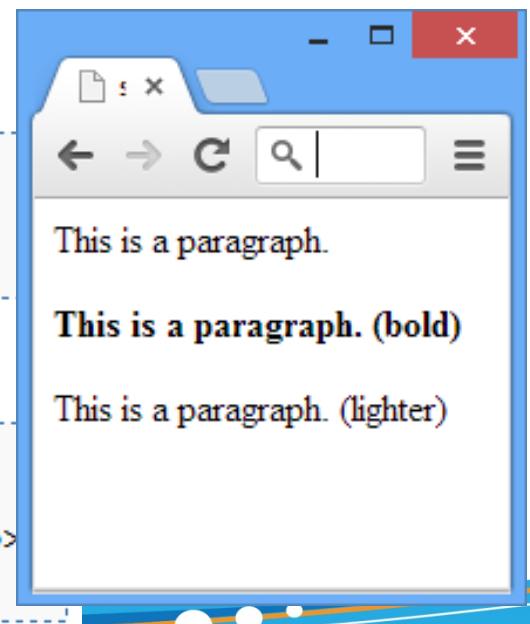
- Example

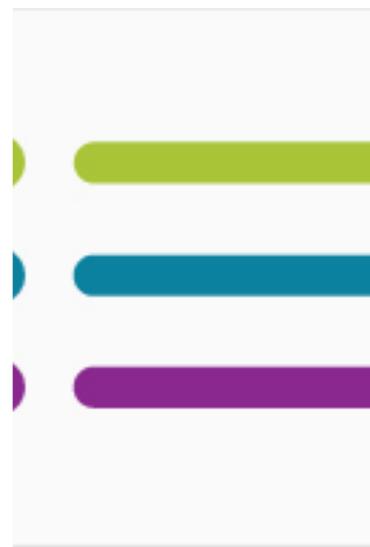
[style.css]

```
p#bold{ font-weight: bold; }  
p#lighter{ font-weight: lighter; }
```

[index.html]

```
<p>This is a paragraph.</p>  
<p id="bold">This is a paragraph. (bold)</p>  
<p id="lighter">This is a paragraph. (lighter)</p>
```





List

- list-style-type
- list-style-image



CSS List – list-style-type

- Specify the type of list item marker
- Syntax: `list-style-type: value;`
 - Unordered list
 - disc
 - circle
 - square
 - Ordered list
 - dicimal: 1, 2, 3, ...
 - decimal-leading-zero: 01, 02, 03, ...
 - lower-roman: i, ii, iii, ...
 - upper-roman: I, II, III, ...
 - lower-greek: α, β, γ, ...
 - lower-latin: a, b, c, ...
 - upper-latin: A, B, C, ...
 - armenian: 1, 2, 3, ...



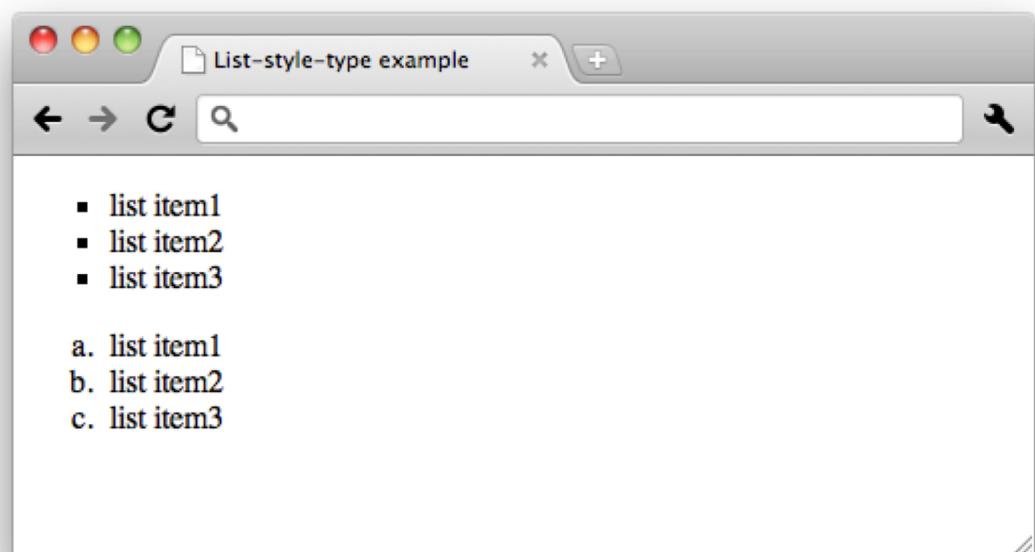
□ Example

[style.css]

```
ul{  
    list-style-type: square;  
}  
ol{  
    list-style-type: lower-alpha;  
}
```

[index.html]

```
<ul>  
    <li>list item1</li>  
    <li>list item2</li>  
    <li>list item3</li>  
</ul>  
<ol>  
    <li>list item1</li>  
    <li>list item2</li>  
    <li>list item3</li>  
</ol>
```



CSS List – list-style-image

- Allow to use a custom image for the list item marker

- Syntax

```
list-style-image: <uri> | none;
```

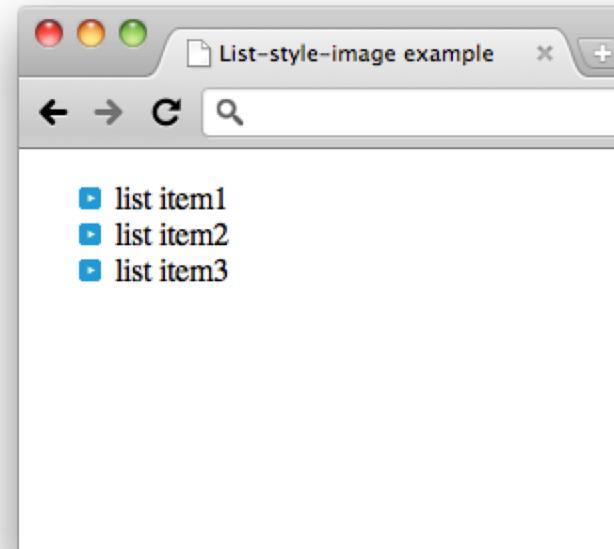
- Example

[style.css]

```
ul{  
    list-style-image: url(images/list.gif);  
}
```

[index.html]

```
<ul>  
    <li>list item1</li>  
    <li>list item2</li>  
    <li>list item3</li>  
</ul>
```



CSS Link



Link

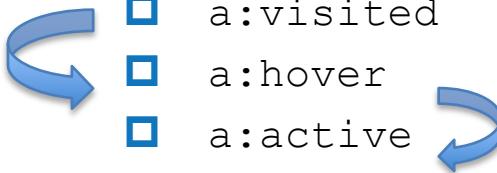
- a:link
- a:visited
- a:hover
- a:active



□ Specify styles for the link states

□ Syntax

```
□ a:link      { attribute:value; }
□ a:visited   { attribute:value; }
□ a:hover    { attribute:value; }
□ a:active    { attribute:value; }
```



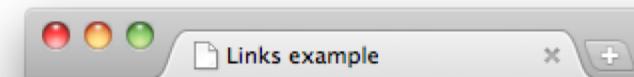
□ Example

[style.css]

```
a:link, a:visited{
  color: #ff0000;
  text-decoration: underline;
}
a:hover, a:active{
  color: #0000ff;
  text-decoration: none;
}
```

[index.html]

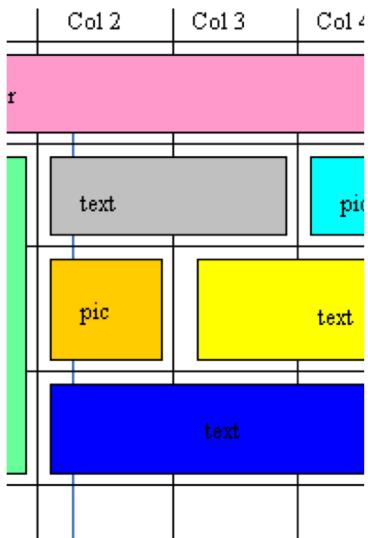
```
<p>Jump to <a href="http://www.google.com/">Google</a></p>
<p>Jump to <a href="http://www.yahoo.com/">Yahoo!</a>
```



Jump to [Google](http://www.google.com/)

Jump to [Yahoo!](http://www.yahoo.com/)

CSS Table



Table

- border-spacing
- border-collapse
- text-align
- vertical-align

CSS Table – border-spacing



- Using border-spacing instead of cellspacing

1	2
3	4

```
table
{
    width: 100%;
```

21/02/201
9

1	2
3	4

```
table
{
    width: 100%;
    border-spacing: 0px;
}
```

Phát triển ứng dụng web

26

CSS Table Border-collapse



□ Separate border collapse

```
table
{
    width: 100%;
    border: 1px solid Black;
    border-collapse: separate;
    border-spacing: 5px;
}
td
{
    background-color: #009900;
    border: 1px solid Black;
}
```

1	2
3	4

CSS Table Border-collapse



□ Solid border collapse

```
table
{
    width: 100%;
    border: 1px solid Black;
    border-collapse: collapse;
    border-spacing: 5px;
}
td
{
    background-color: #009900;
    border: 1px solid Black;
}
```

1	2
3	4

CSS Table Alignment

- Horizontal: text-align
- Vertical: vertical-align

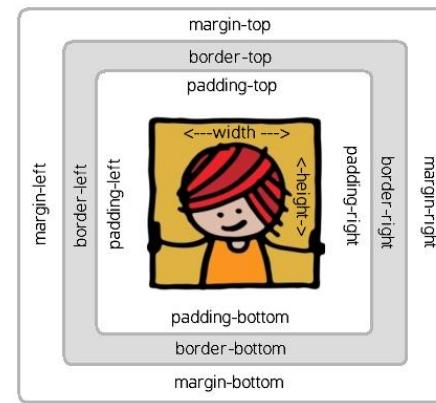
```
td  
{  
background-color: #009900;  
border:1px solid Black;  
text-align:center;  
vertical-align:bottom;  
height:30px;  
}
```

1	2
3	4

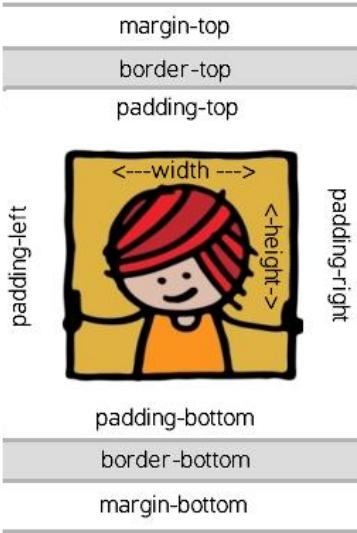
3

CSS Layout

BOX MODEL CSS



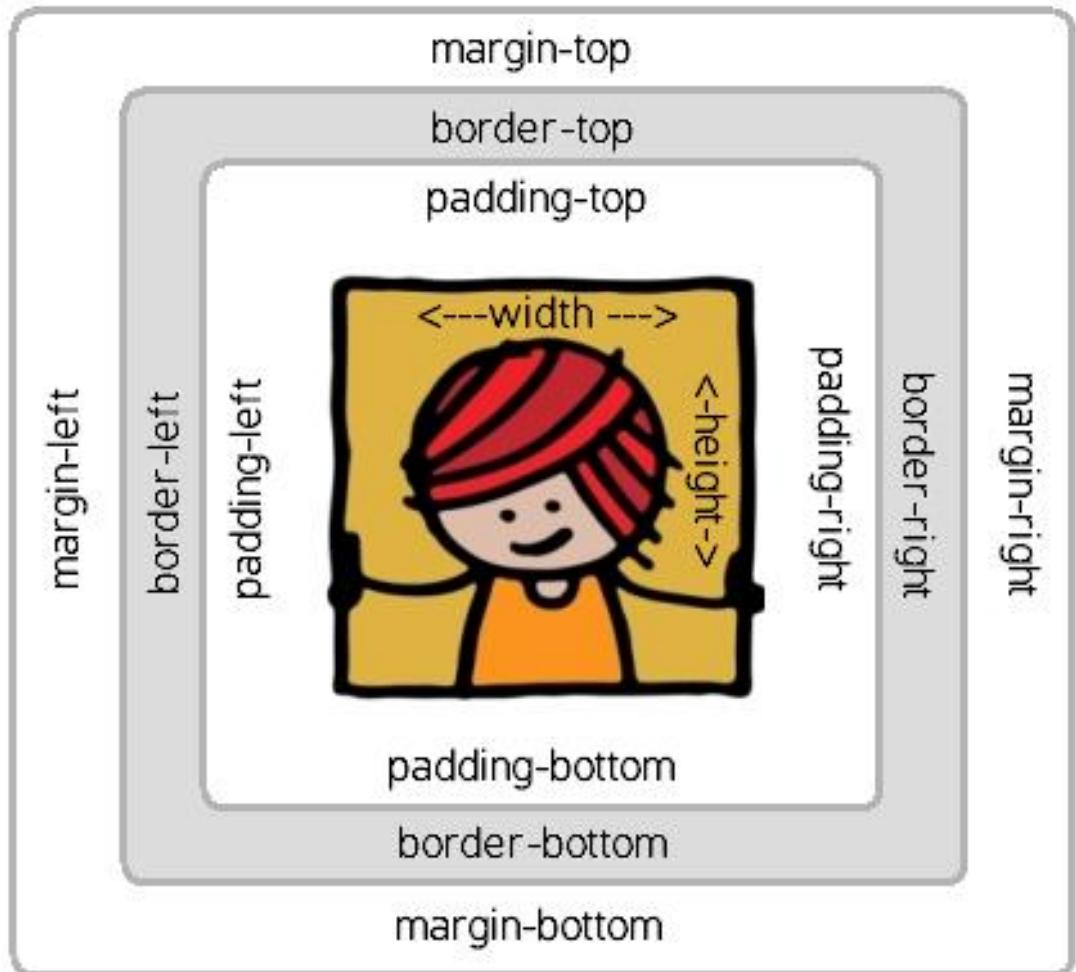
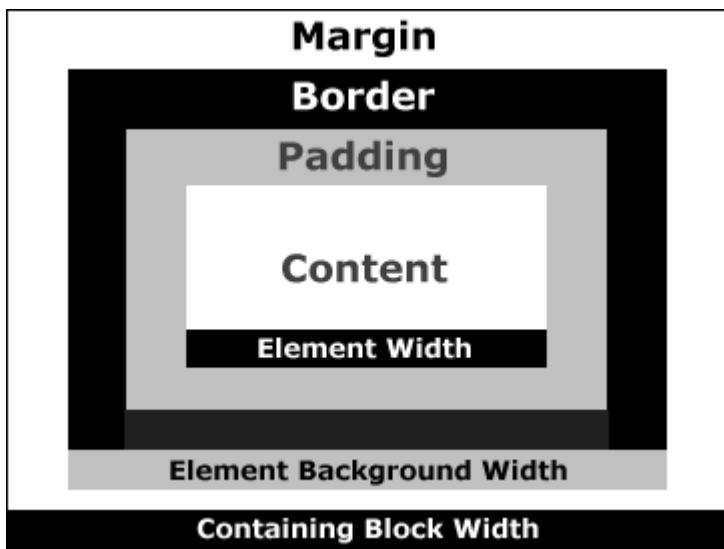
CSS Box Model



Box Model

- width, height
- padding, margin
- background
- border

CSS Box Model

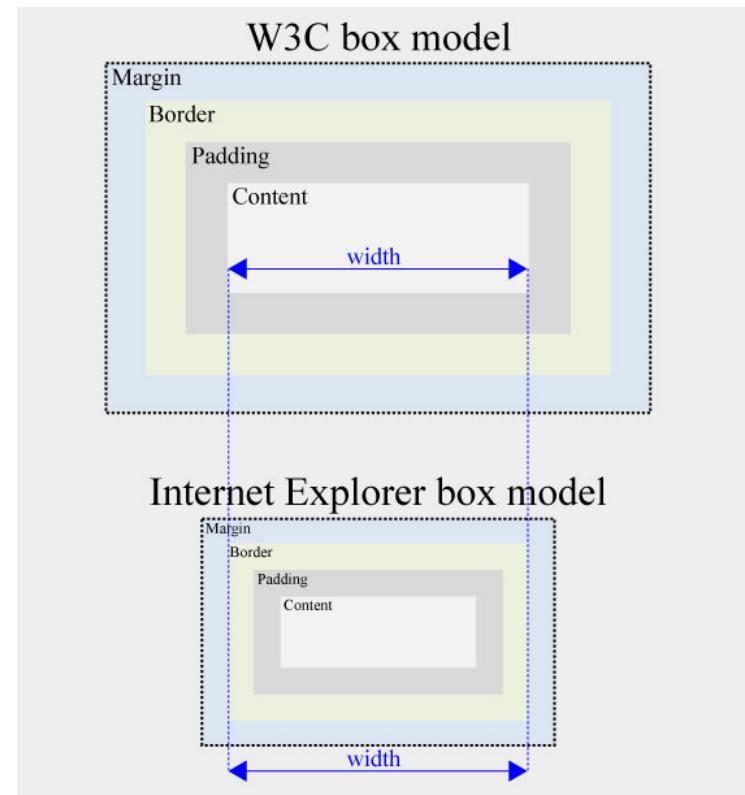


Box Model – width & height



- Specify width and height of the element's content area
- Syntax

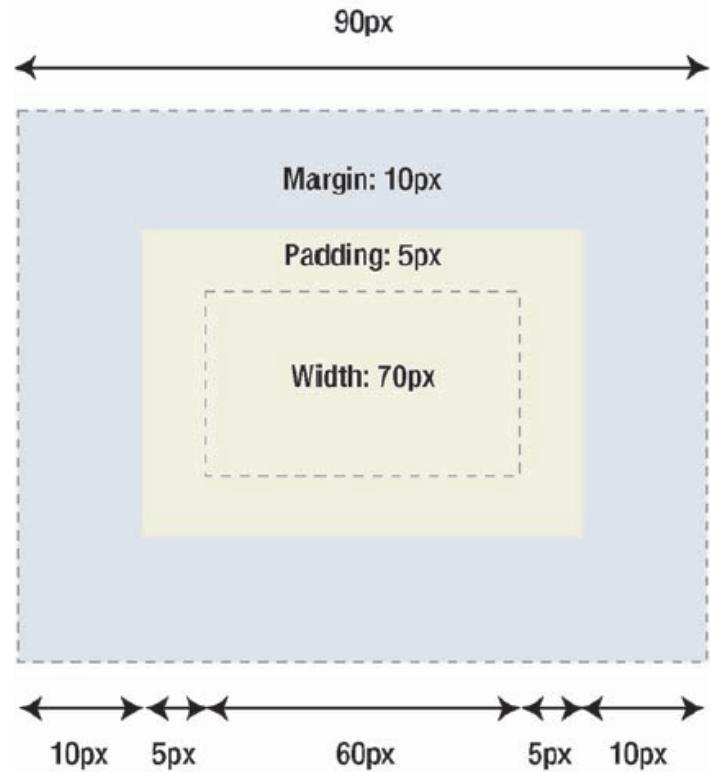
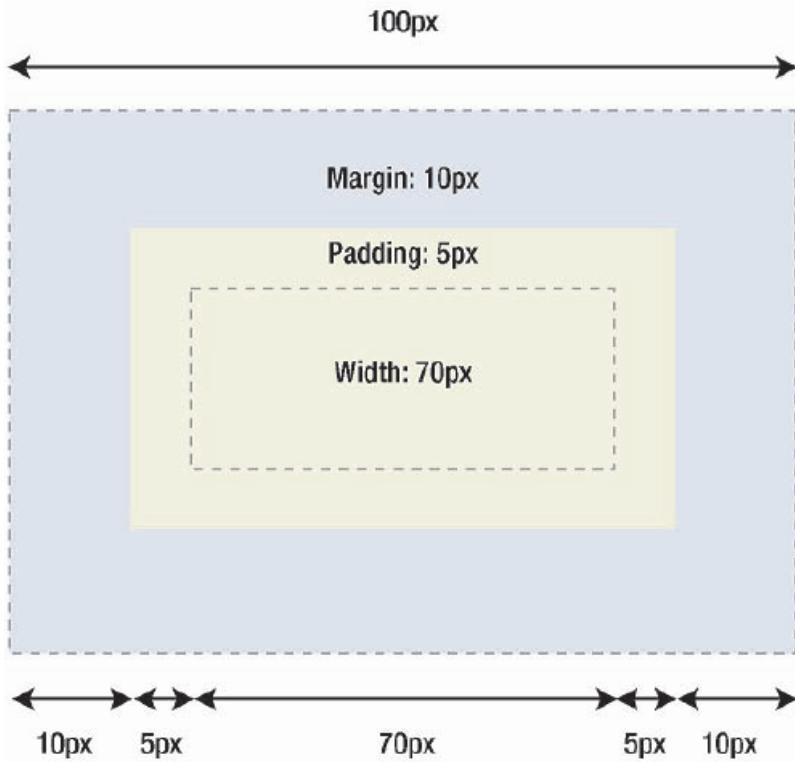
```
width: <length> | <percentage> | auto;  
height: <length> | <percentage> | auto;
```



Box Model – Standard vs. IE6



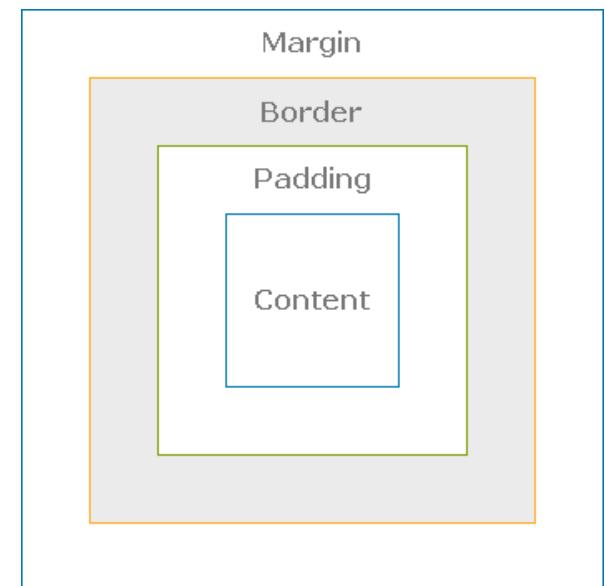
```
#myBox {  
    margin: 10px;  
    padding: 5px;  
    width: 70px;  
}
```



Box Model - padding

- Specify the width of the padding area
- Syntax

```
padding-top: <length> | <percentage>
padding-right: <length> | <percentage>
padding-bottom: <length> | <percentage>
padding-left: <length> | <percentage>
padding: <top&bottom> <right&left>
padding: <top> <right&left> <bottom>
padding: <top> <right> <bottom> <left>
```



Box Model – padding (cont.)

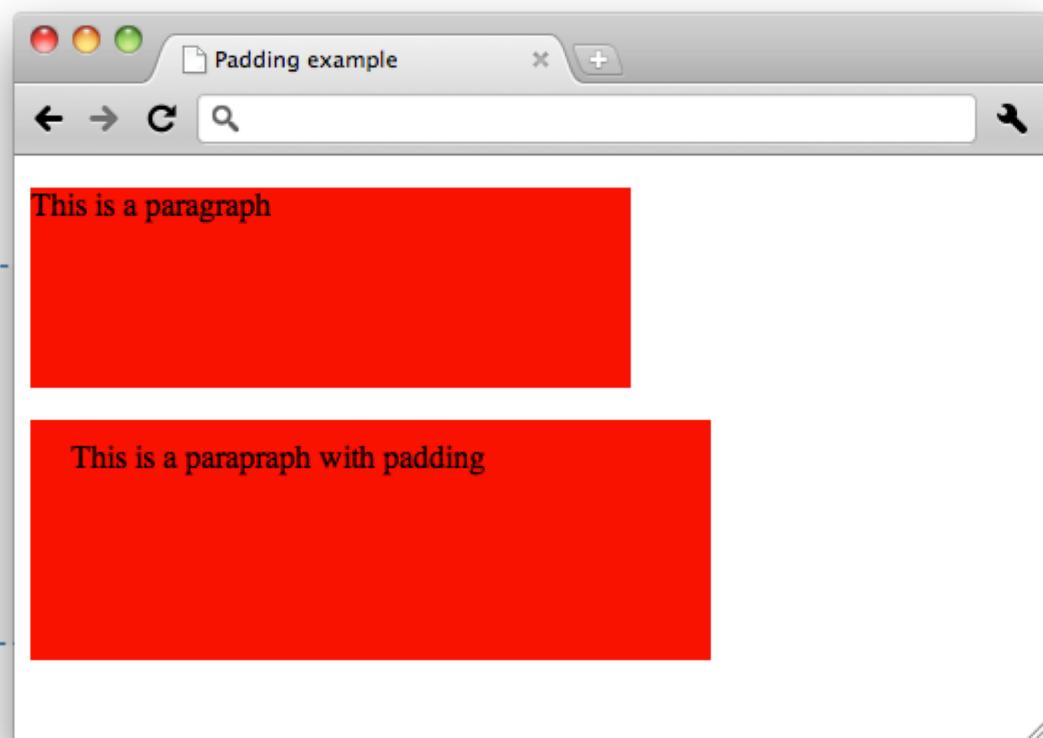
□ Syntax

[style.css]

```
p{  
    width: 300px;  
    height: 100px;  
    background-color: red;  
}  
p#pad{  
    padding: 10px 20px;  
}
```

[index.html]

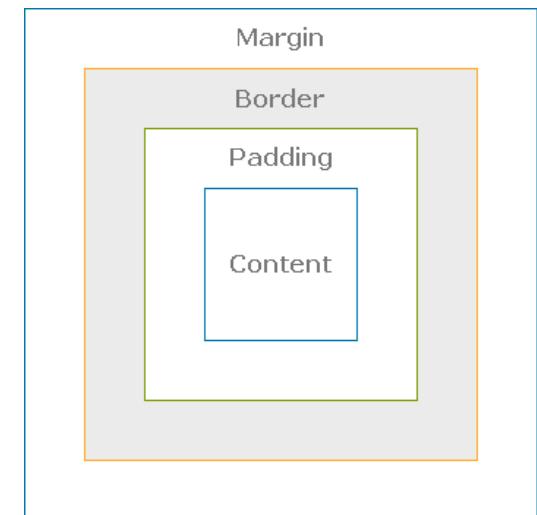
```
<p>This is a paragraph</p>  
<p id="pad">This is a paragraph with padding</p>
```



Box Model – margin

- Specify the width of margin area
- Syntax

```
margin-top: <length> | <percentage>
margin-right: <length> | <percentage>
margin-bottom: <length> | <percentage>
margin-left: <length> | <percentage>
margin: <top&bottom> <right&left>
margin: <top> <right&left> <bottom>
margin: <top> <right> <bottom> <left>
```

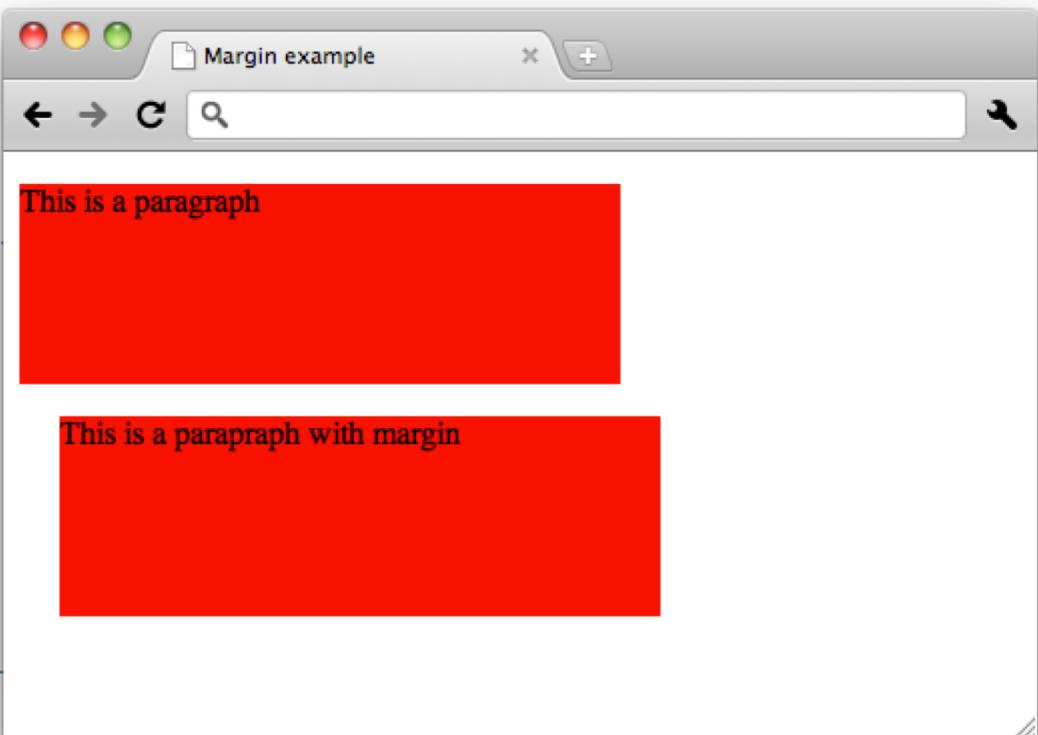


Box Model – margin (cont.)

□ Example

[style.css]

```
p{  
    width: 300px;  
    height: 100px;  
    background-color: red;  
}  
p#mar{  
    margin-top: 10px;  
    margin-bottom: 10px;  
    margin-left: 20px;  
    margin-right: 20px;  
}
```



[index.html]

```
<p>This is a paragraph</p>  
<p id="mar">This is a paragraph with margin</p>
```

Box Model – background-color



- Specify the background color
- Syntax

```
background-color: <color>
```

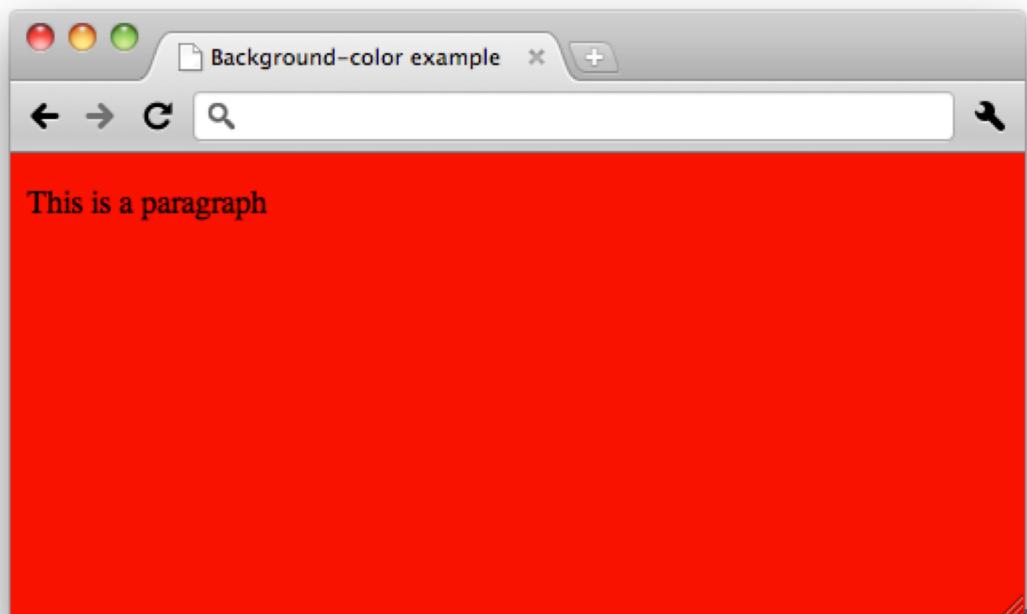
- Example

[style.css]

```
body{  
    background-color: red;  
}
```

[index.html]

```
<body>  
<p>This is a paragraph</p>  
</body>
```





- Specify background image
- Syntax

```
background-image: <uri> | none
```

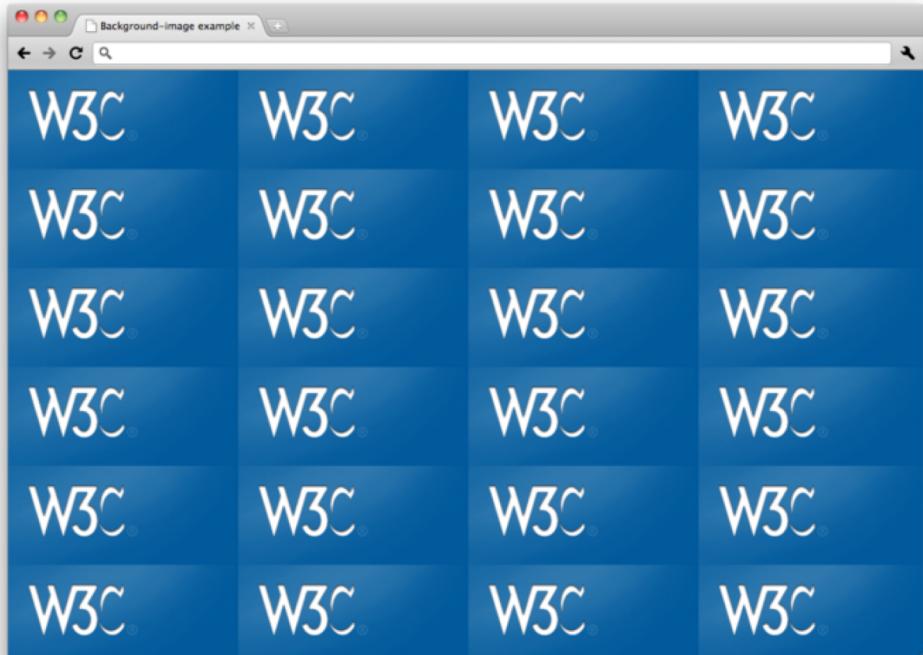
- Example

[style.css]

```
body{  
    background-image: url (images/logo.png);  
}
```

[index.html]

```
<body>  
<p>This is a paragraph</p>  
</body>
```





- Specify how the background image should be repeated
- Syntax

```
background-repeat: repeat | repeat-x | repeat-y | no-repeat
```

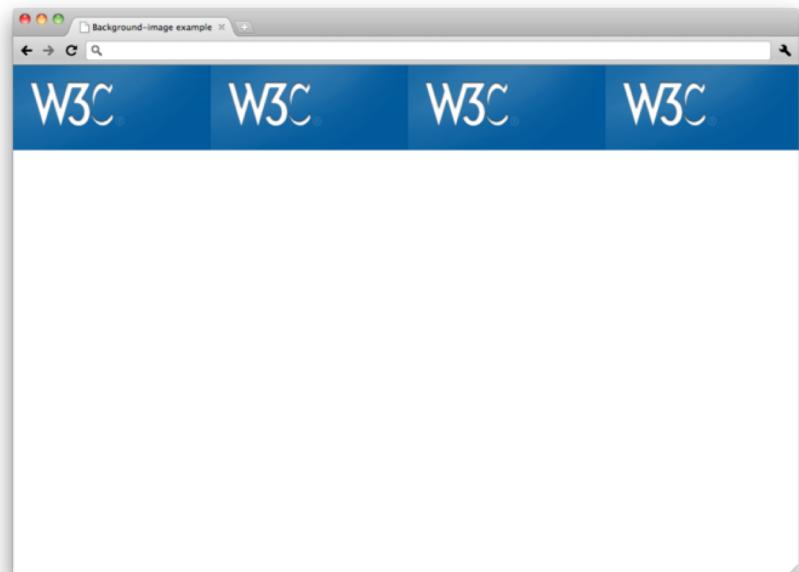
□ Example

[style.css]

```
body{  
    background-image: url(images/logo.png);  
    background-repeat: repeat-x;  
}
```

[index.html]

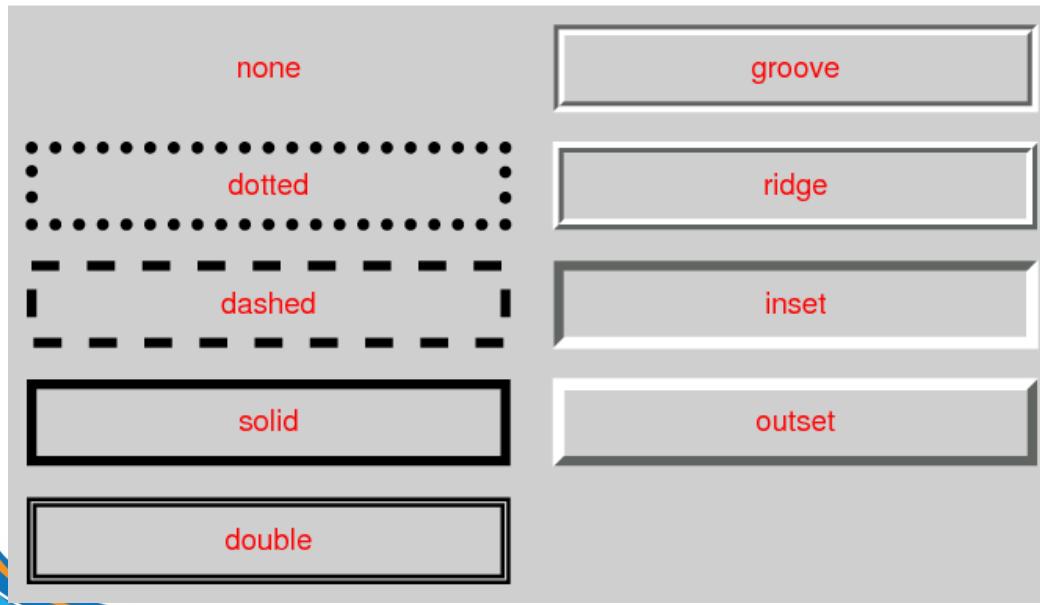
```
<body>  
<p>This is a paragraph</p>  
</body>
```



Box Model – border-style

- Specify the border style
- Syntax

```
border-style: none | hidden | dotted | dashed | solid | double | groove | ridge | inset | outset
```



Box Model – border-color



- Specify the border color
- Syntax

```
border-color: <color> | transparent
```

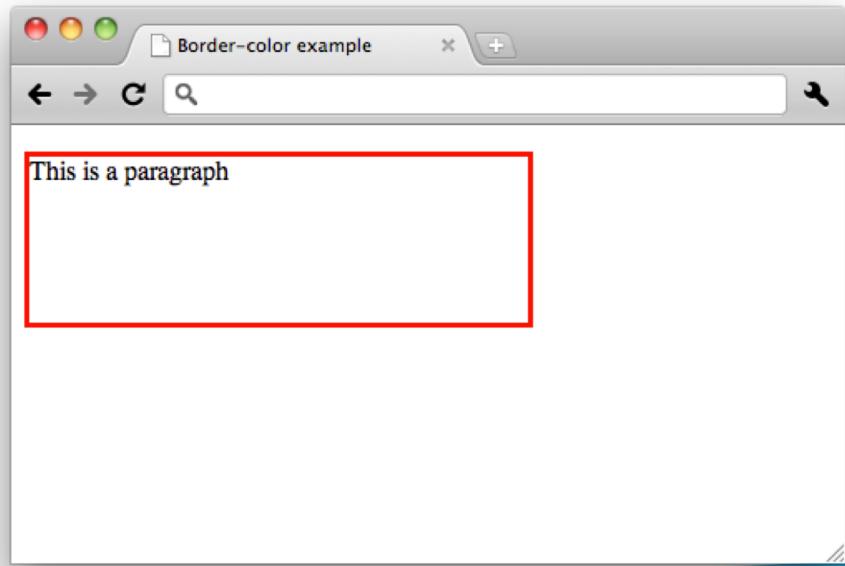
- Example

[style.css]

```
p{  
    width: 300px;  
    height: 100px;  
    border-style: solid;  
    border-color: red;  
}
```

[index.html]

```
<p>This is a paragraph</p>
```



Box Model – border-width

- Specify the border width
- Syntax

```
border-width: thin | medium | thick | <length>
```

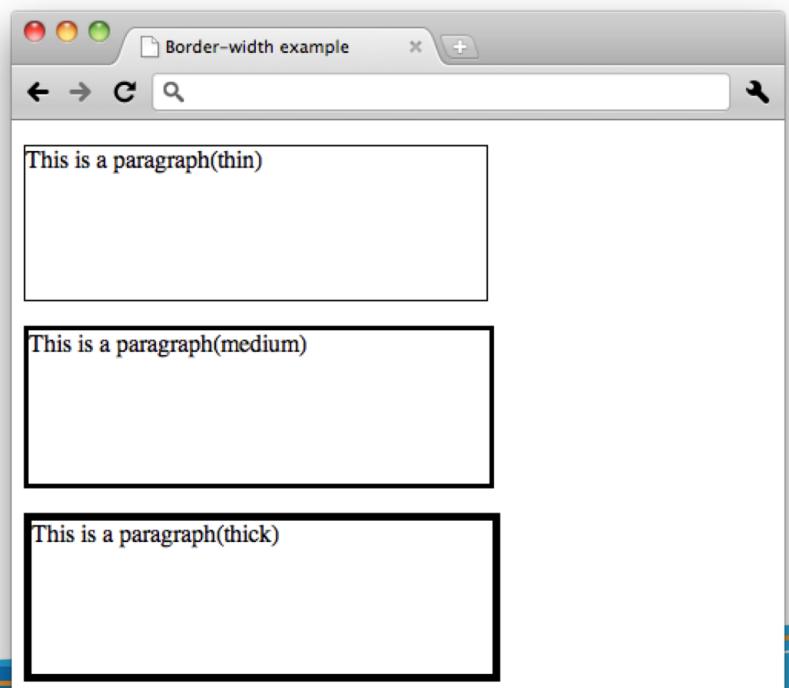
- Example

[style.css]

```
p#thin{ border-width: thin; }  
p#med{ border-width: medium; }  
p#thick{ border-width: thick; }
```

[index.html]

```
<p id="thin">This is a paragraph(thin)</p>  
<p id="med">This is a paragraph(medium)</p>  
<p id="thick">This is a paragraph(thick)</p>
```



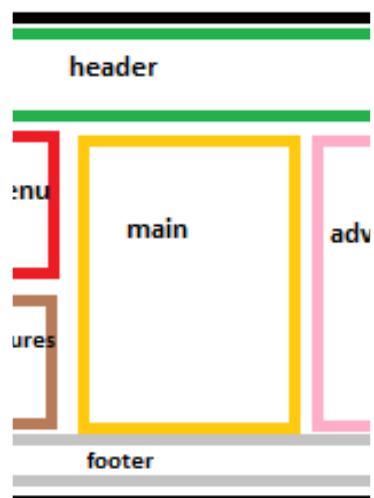
4

CSS Layout

LAYOUT CSS



CSS Layout



CSS Layout

- display
- margin:auto
- max-width & min-height
- position
- float
- clear
- overflow:auto

CSS Layout – display

- Specify how an element is displayed
- Syntax

```
display: block | inline | none;
```

- Example

block

```
<div>  
  Block element  
</div>
```

inline

Inline element is `` like this. `` Can you see the difference?



display: none

Đại học Khoa học tự nhiên

Đại học tự nhiên

visibility: hidden

```
<p>
    Đại học <span style="visibility: hidden">Khoa học</span> <span>tự nhiên</span>
</p>
```

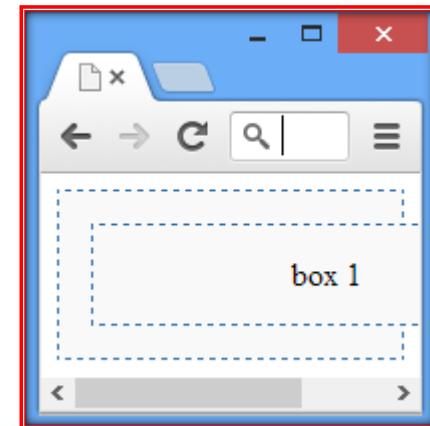
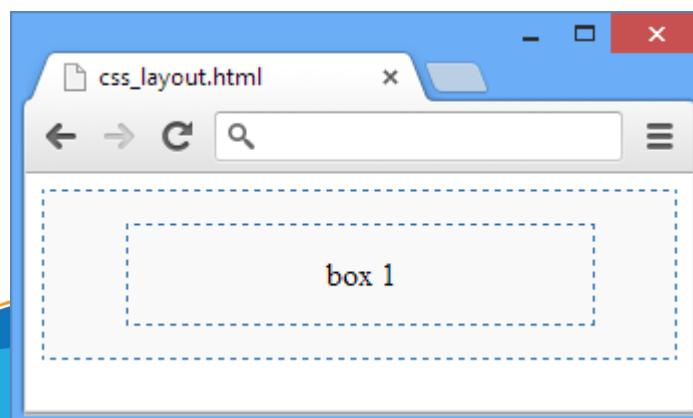
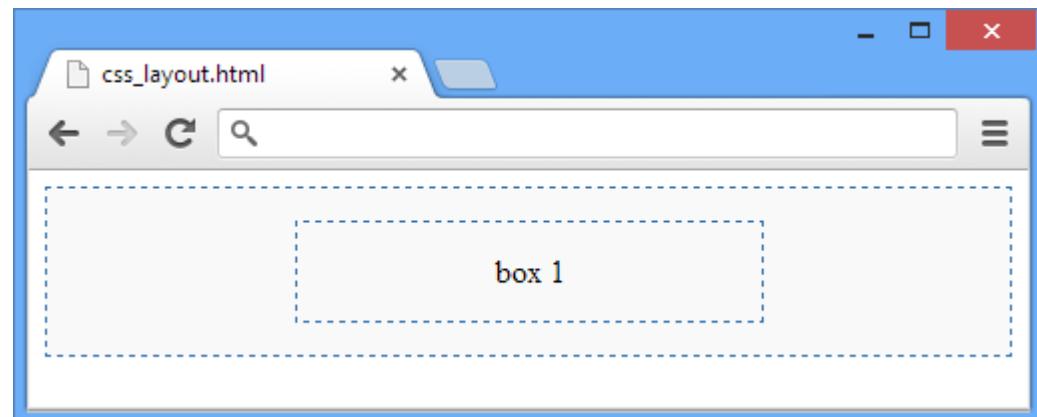
Đại học tự nhiên

CSS Layout – margin:auto



- Horizontally center the element within its container
- Example

```
#box1 {  
    width: 100px;  
    margin: 0 auto;  
}
```

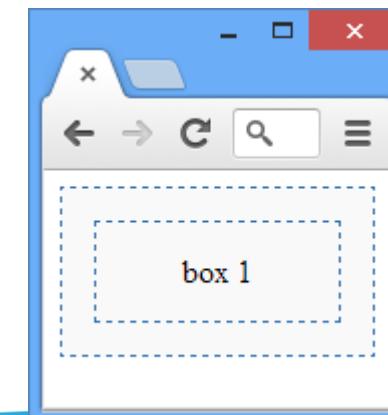
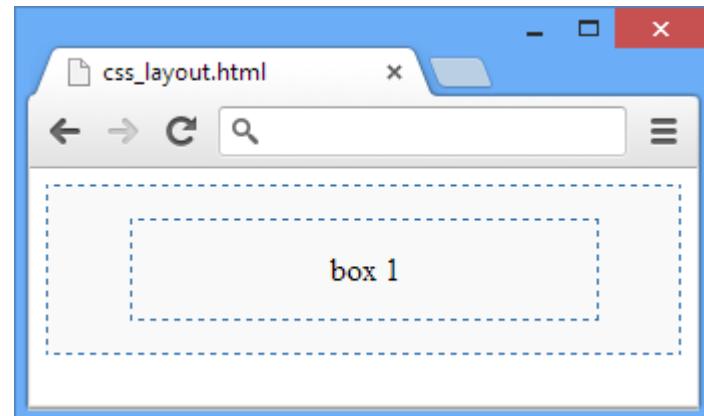


CSS Layout – max-width & min-height



- Specify the maximum width of the element's content
- Example

```
#box1 {  
    max-width: 200px;  
    margin: 0 auto;  
}
```

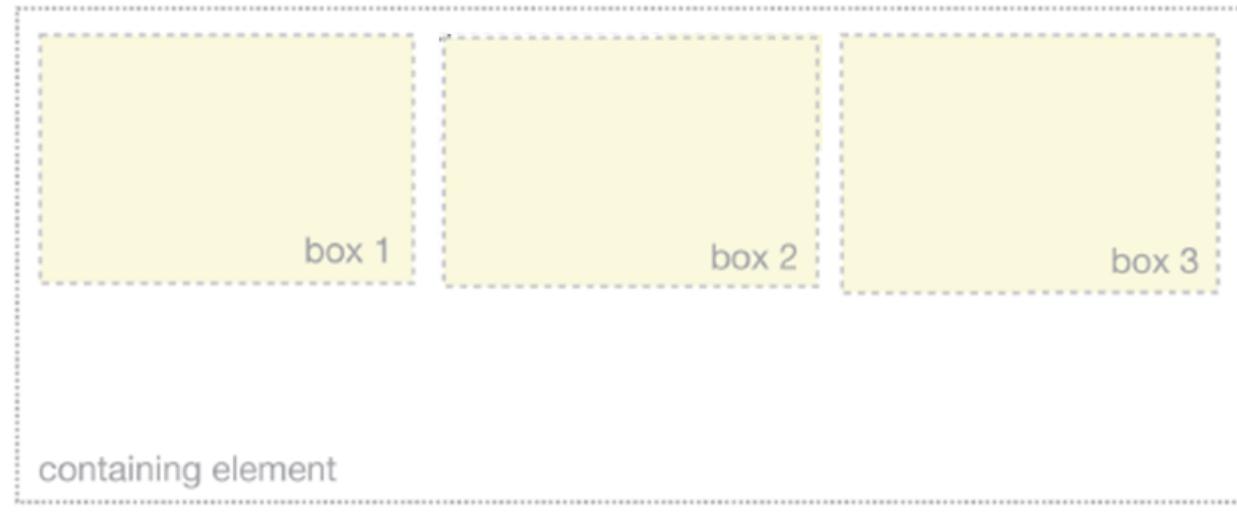


CSS Layout - position

- Specify the type of positioning method used for an element
- Syntax

```
position: static | relative | fixed | absolute;
```

- Ex

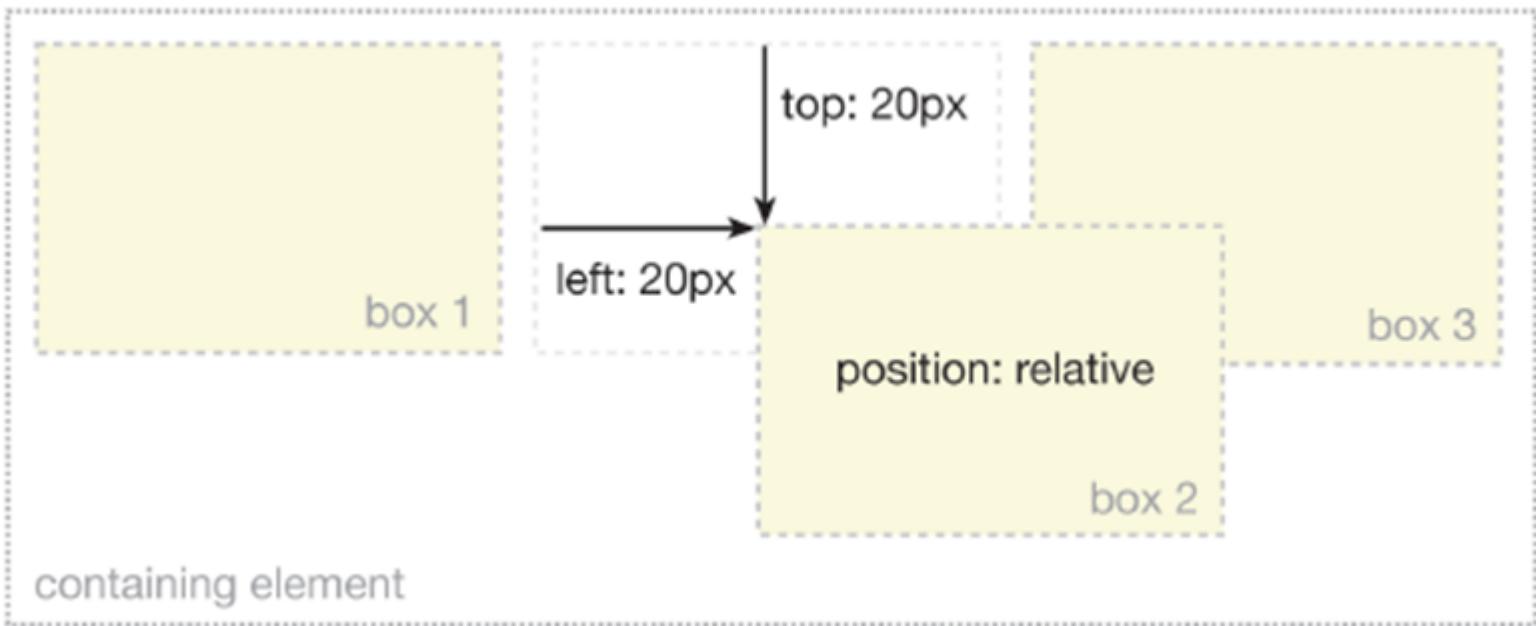


Layout - position

position	Gap	Description
static	✓	Default. Static positioned elements are not affected by the top, bottom, left, and right properties
fixed	✗	Positioned relative to the viewport
relative	✓	Positioned relative to its normal position
absolute	✗	Positioned relative to the nearest positioned ancestor

CSS Layout – position:relative

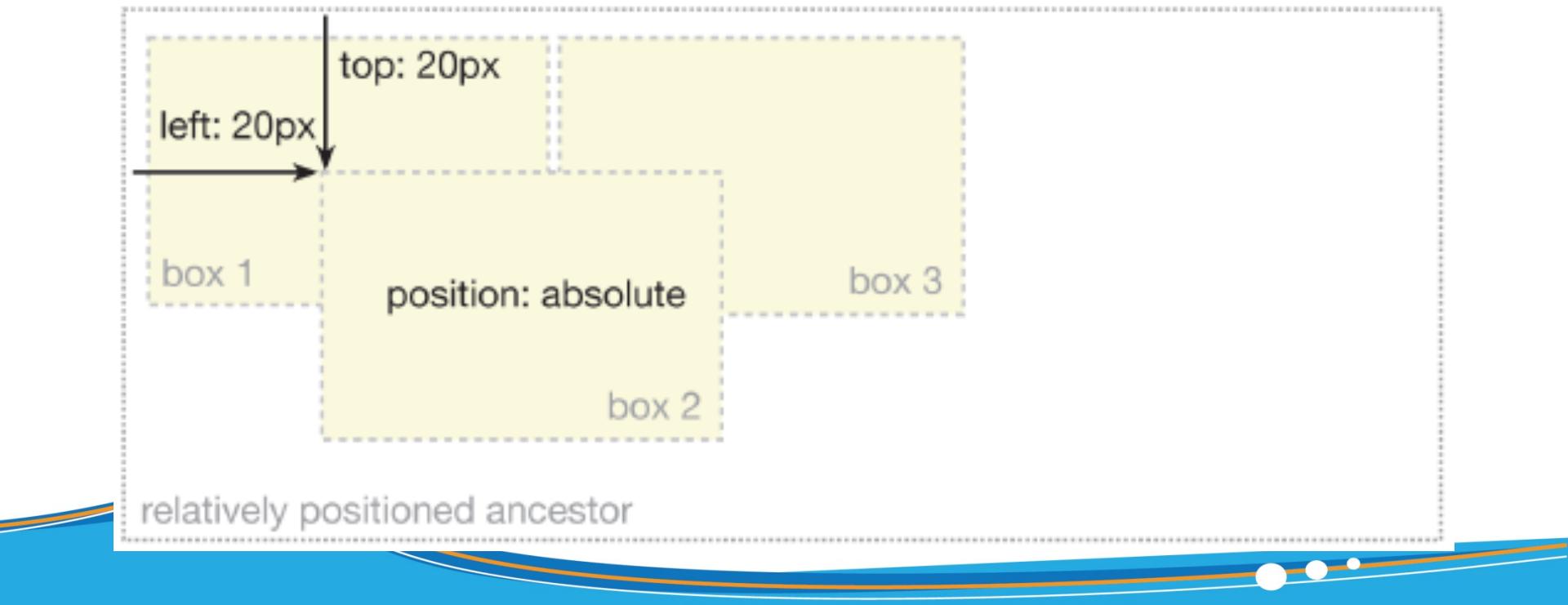
```
#box2 {  
    position: relative;  
    top: 20px;  
    left: 20px;  
}
```



CSS Layout – position:absolute



```
#box2 {  
    position: absolute;  
    top: 20px;  
    left: 20px;  
}
```

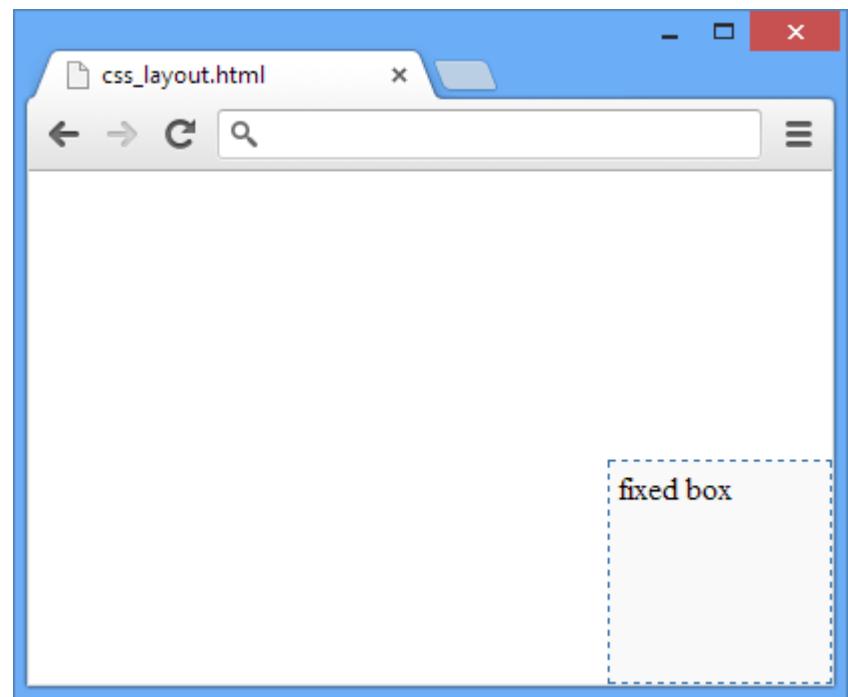
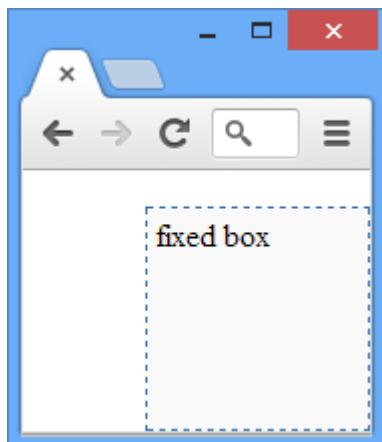




CSS Layout – position:fixed



```
#fixed {  
    position: fixed;  
    bottom: 0;  
    right: 0;  
}
```



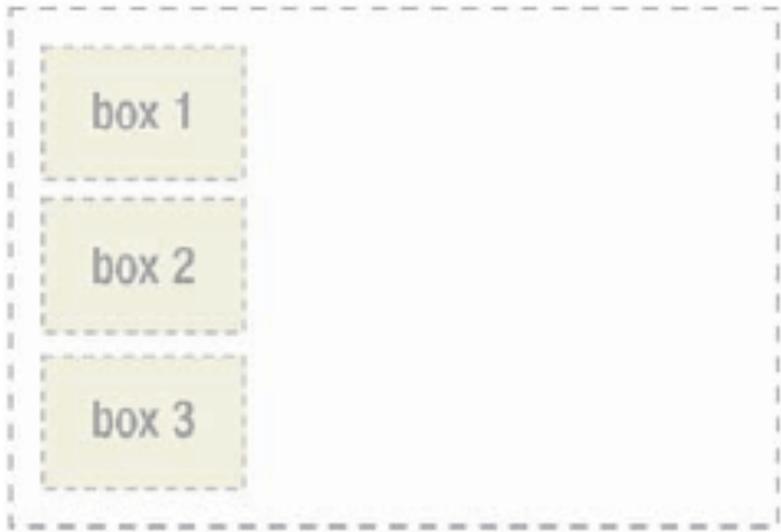
CSS Layout – float

□ Syntax

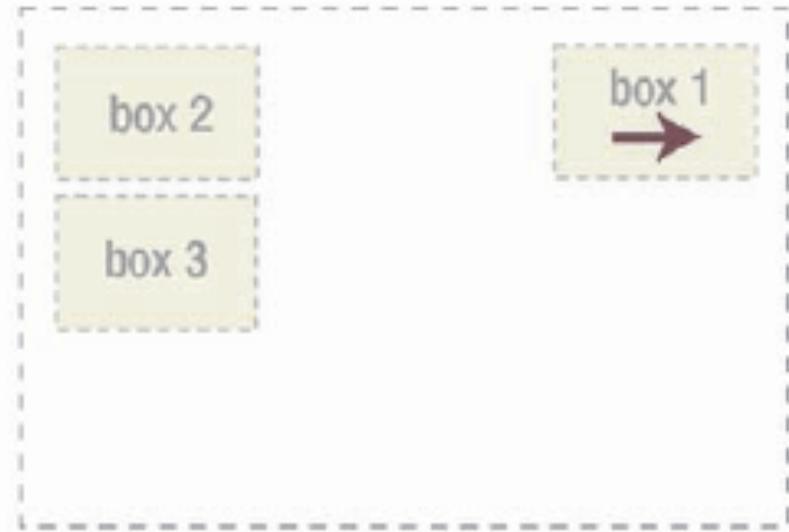
```
float: left | right;
```

□ Example

No Boxes Floated



Box 1 Floated Right

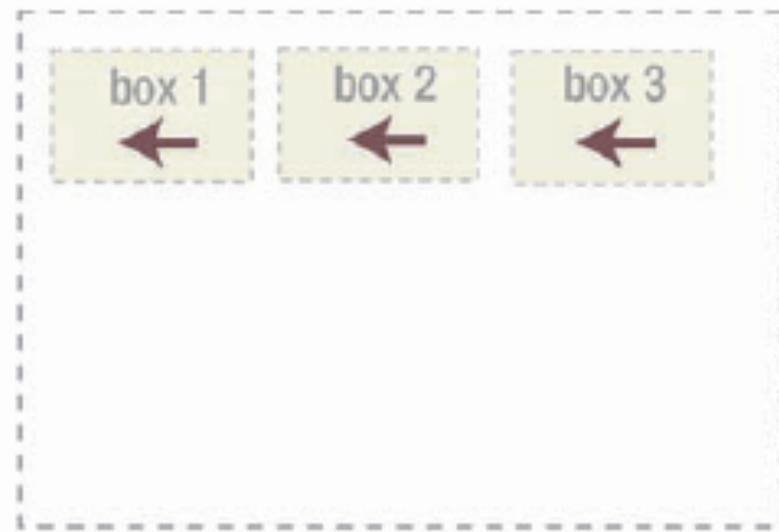


CSS Layout – float

Box 1 Floated Left

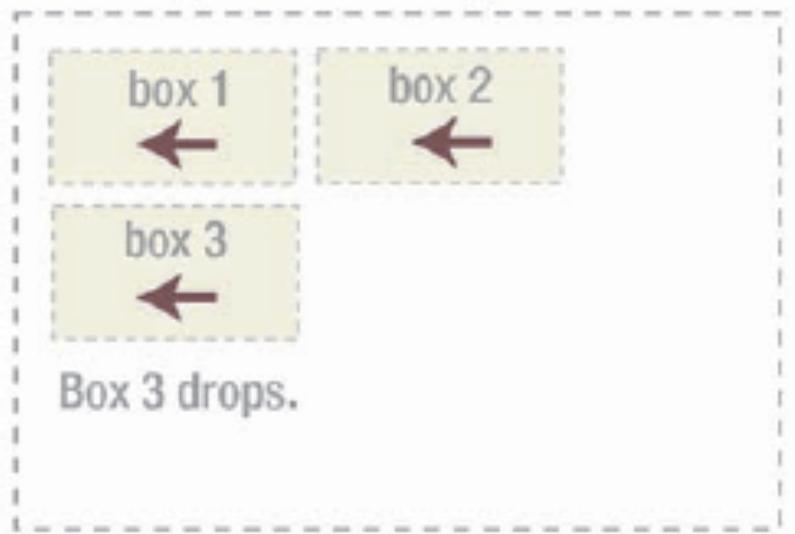


All Three Boxes Floated Left

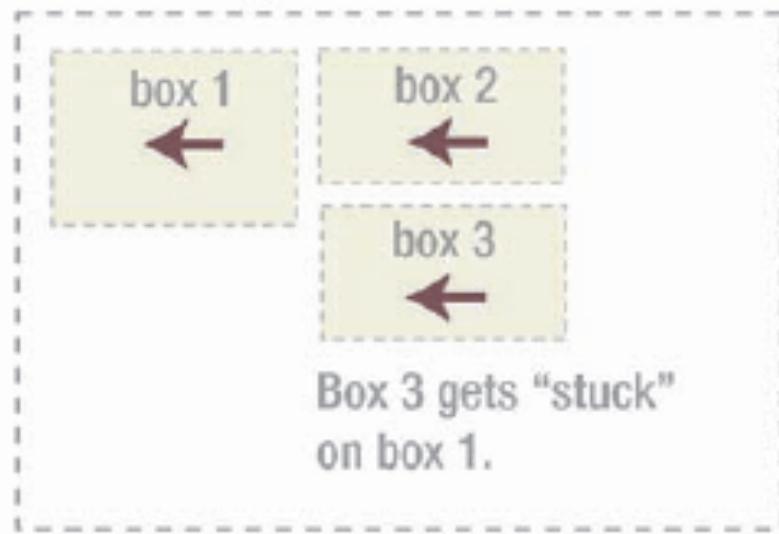


CSS Layout – float

Not Enough Horizontal Space



Different Height Boxes



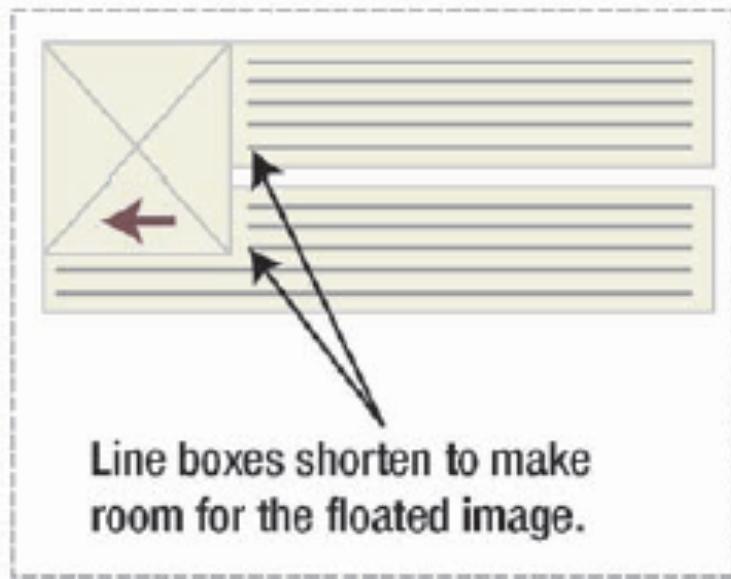
CSS Layout – float



No Boxes Floated



Image Floated Left



Line boxes shorten to make room for the floated image.

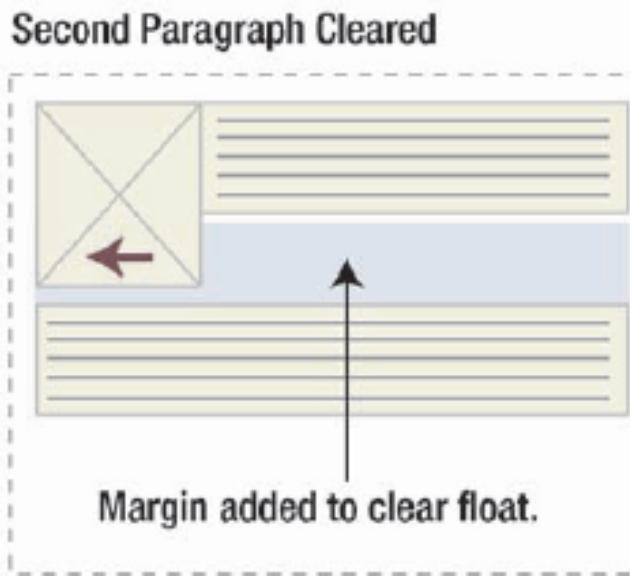
CSS Layout – clear

□ Syntax

```
clear: left | right | both;
```

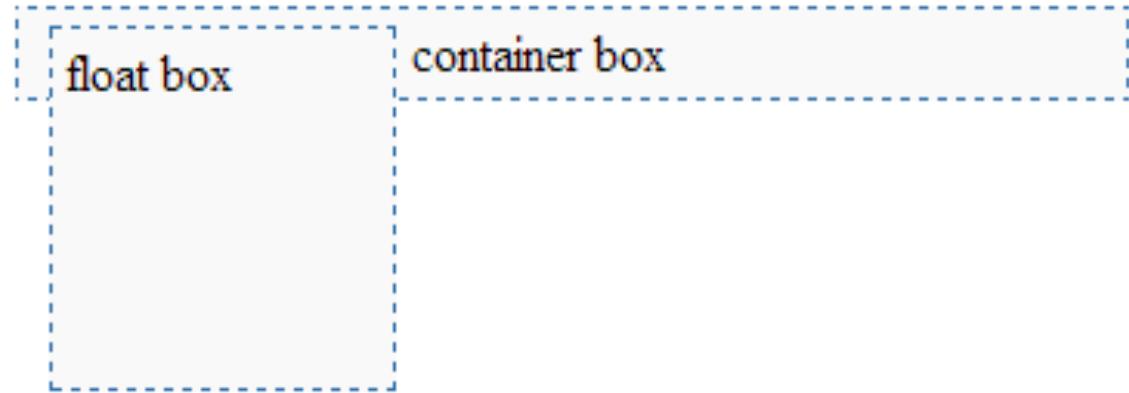
□ Example

```
.clear {  
  clear: both;  
}
```

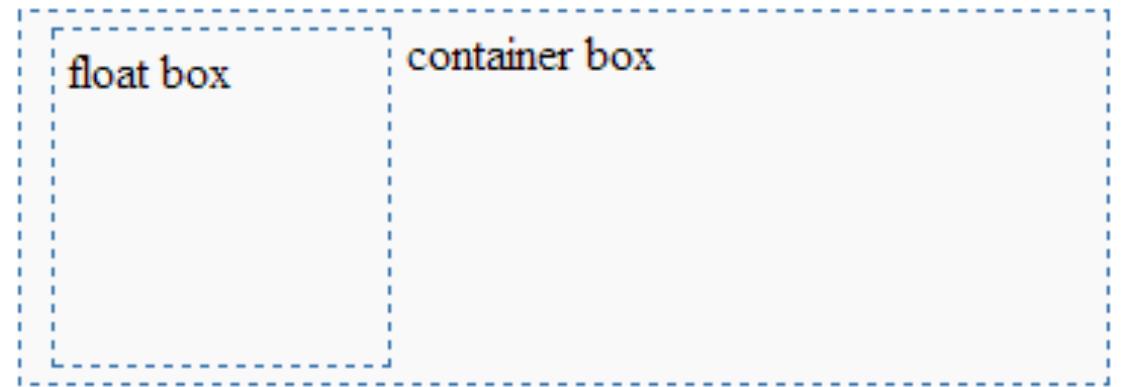




CSS Layout – overflow:auto



```
#container {  
    overflow: auto;  
}
```

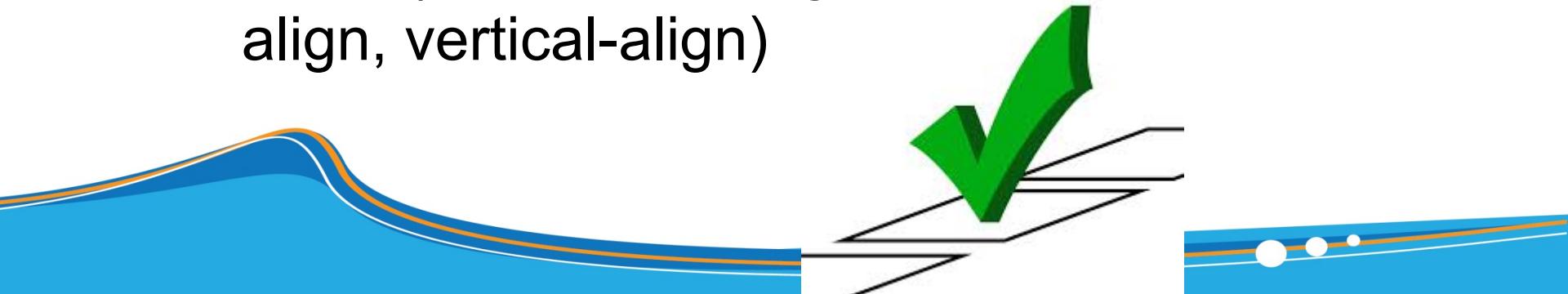


Summary



□ Styling

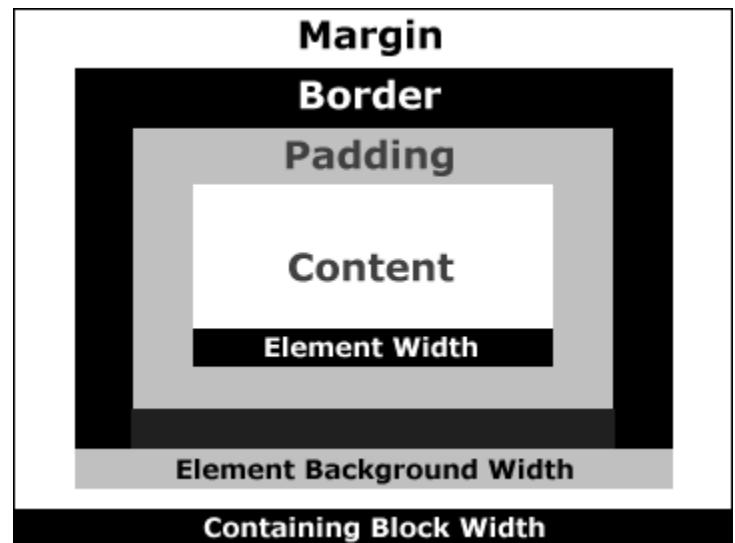
- Text (color, text-align, text-decoration, text-indent)
- Font (font-size, font-family, font-style, font-weight)
- List (list-item-style, list-item-image)
- Link (a:link, a:visited, a:hover, a:active)
- Table (border-spacing, border-collapse, text-align, vertical-align)



Summary (cont.)

□ Box Model

- width, height
- padding, margin
- background-color, background-image, background-repeat
- border-style, border-color, border-width



Summary (cont.)

□ Layout

- display: block | inline | none
- margin:auto
- max-width, min-height
- position: static | relative | fixed | absolute
- float: left | right
- clear: left | right | both
- overflow:auto

