

CSS

The Skin/ How it Looks



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CSS - Cascading Style Sheets

Selector

h1

Declaration

{color:blue; font-size:12px;}

Declaration

Property

Value

Property

Value

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Controls the appearance of HTML elements

Size

Position

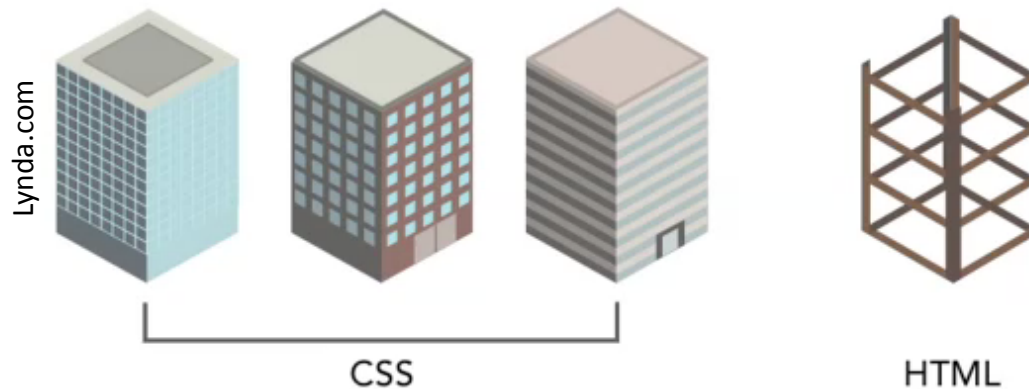
Color

Font properties

```
{  
font-size:12px;  
text-align:center;  
color:white;  
font-family:Calibri;  
}
```

CSS

Cascading Style Sheets



HTML is used to structure content.

CSS is used for formatting structured content.

CSS was a revolution in the world of web design!

With CSS You can:

- Control layout of many documents from one single style sheet;

- Have more precise control of layout;

- Apply different layout to different media-types (screen, print, etc.);

CSS

Cascading Style Sheets

How Style Sheets Work:

1. Start with a document that has been marked up in HTML
2. Write style rules for how you'd like certain elements to look
3. Attach the style rules to the document (in 1 of 3 ways).
When the browser displays the document, it follows your rules for rendering elements
(*unless the user has applied some mandatory styles).

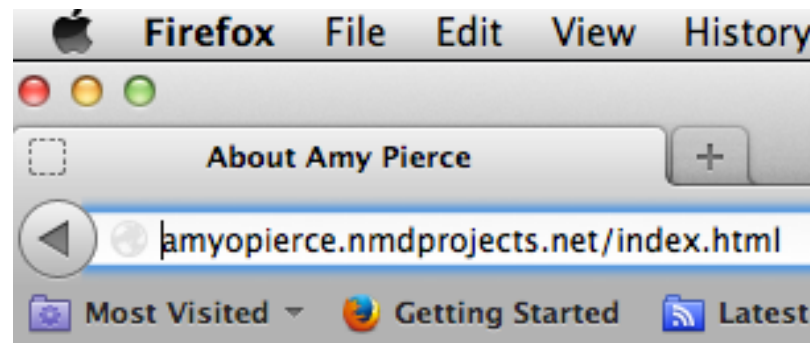
CSS

Cascading Style Sheets

1. Marking up the document:

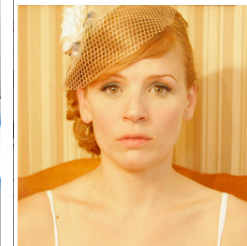
We have used semantic HTML markup to create the structure of the document, this is sometimes called the structural layer, upon which the presentation layer can be applied.

We will use our
firstname.lastname.nmdprojects
.net home page (index.html) for
this practice exercise.



About Amy Pierce

- [Home](#)
- [NMD 100 Screenings](#)
- [NMD 100 Assignments](#)
- [NMD 100 Lab Schedule](#)
- [New Media Movement](#)
- [University of Miami](#)



Portrait of Amy Pierce by Adrian Buckmaster
Check out his other portraits www.adrianbuckmaster.com

My Bio

Amy Pierce, an interdisciplinary artist, born in Yonkers, New York, integrates performance, installation, textile, sound, and video in her work. She has exhibited photography throughout the New York area, including the Brooklyn Museum and New York City's 93rd Street Y. Pierce received a BFA in studio art from the University of Connecticut. She just completed her MFA in Intermedia and is currently working on her PhD.

For more information: www.amypierce.net

Creative Statement

Creative Statement Subheading

My research is centered around the current climate of expected perfection in contemporary American wedding culture as it has and how it "perfects" wedding. The social transition to becoming a bride is saturated with a mythology of transformation, containment and self-imposed by American brides. The wedding gown is so tied to body image that it becomes an extension of self, play in constructing identity, and to rethink established conventions that are kindly transmitted and reinforced if

© 2013 Amy Pierce

* It is important that your html is well structured and consistent.

CSS

Cascading Style Sheets

2. Writing the Rules

A style sheet is made up of one or more style instructions (called rules) that describe how an element or group of elements should be displayed.

**Each rule selects an element and declares how it should look.*

```
body {  
  font-family:helvetica, sans-serif;  
  font-size:16px;  
  color:green;  
}  
p{  
  color:blue;  
}  
h1 {  
  font-family:serif;  
  font-size:24px;  
  color:red;  
}
```

Selector

h1

Declaration

{ color:blue; font-size:12px; }

Declaration

Property

Value

Property

Value

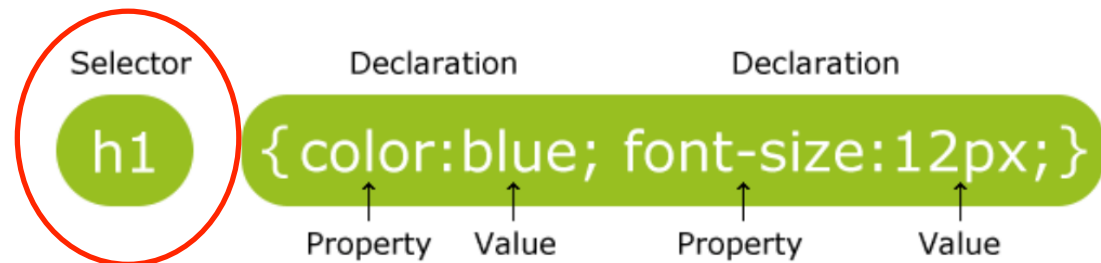
CSS

Cascading Style Sheets

There are 3 different types of Selectors:

Global or Element Type Selector.

reference the elements in the html as they are
(ex. body, p, h1, ol, li,...)



You do not have to make changes to your html to use it.

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```
<body>
  <h1>Bio</h1>
  <p>Amy Pierce
where she got made
of self-initiated
```

```
body {
  font-family:helvetica, sans-serif;
  font-size:16px;
  color:green;
}
p{
  color:blue;
}
h1 {
  font-family:serif;
  font-size:24px;
  color:red;
}
```

*Element selectors are the most global of the three types of selectors.

CSS

Cascading Style Sheets

In this example adding this CSS to the html markup results in this presentational change.

html

```
1 <!DOCTYPE html>
2
3 <html>
4 <head>
5   <title>Amy Pierce Artist Statement And Bio</title>
6 </head>
7 <body>
8   <h1>Bio</h1>
9   <p class=bioparagraphs>Amy Pierce was born in Yonkers,
10  to Connecticut where she got made fun of for having a weird
11  printing a myriad of self-initiated projects, she receives
12  for visual expression, where she started her own business
13  vision.</p>
14  <p class=bioparagraphs>She has continued to shoot and publish
15  books, Gianluca Isaia, Tishman Speyer, The Village Voice,
16  and L'ETOILE magazines.</p>
17  <p class=bioparagraphs>She has had photographs exhibited
18  City. Her work is currently in the permanent collection
19  screening and has been included in several group shows nationally.
20  Amy just began the Intermedia MFA program at the University of
21  Connecticut.
22  <h1>Artist Statement</h1>
23 </body>
24 </html>
```



CSS

```
body {
  font-family:helvetica, sans-serif;
  font-size:16px;
  color:green;
}
p{
  color:blue;
}
h1 {
  font-family:serif;
  font-size:24px;
  color:red;
}
```



Bio

Amy Pierce was born in Yonkers, New York where she made movies with her sisters, the family video camera, and loads of fake blood. I spending an unhealthy amount of time in the darkroom, printing a myriad of self-initiated projects, she received a BFA from the University business and worked as a commercial and editorial photographer for over 10 years, while simultaneously developing her artistic vision. House, Pantheon Books, Gianluca Isaia, Tishman Speyer, The Village Voice, NY Press, Japanese Playboy, Platinum Plus, Velvet Park. She has had photographs exhibited in group shows throughout the New York area, including one at the Brooklyn Museum and the Museum selection of Independent Film Project's short film screening and has been included in several group shows nationally. Amy just began the

Artist Statement

In my work, I strive to convey a concept and I choose the visual medium to best express that. I do this through photography, film, and cost make something, the more universal it becomes. I seek to transcend the frame by addressing subjects that make me personally vulnerat address stereotypical views of women, which are a reoccurring theme in my work. I am fascinated by both the absurdity and truth of genre expectations of both women and men. I have explored subjects such as perceived physical and psychological weakness, emotional dep



In this example the css is telling the browser to find **ALL** the elements in the body tag and make them green, 16px, and use a sans serif font; find all the p elements and makes them blue; find all the h1 elements and give them a serif font, make them 24px and make them red.

CSS

Cascading Style Sheets

Class Selectors reference the elements in html that are assigned a class attribute in html and are then referenced in the CSS by a (.)

Selector

. biop

Declaration

{ color:blue; font-size:12px; }

Declaration

Property

Value

Property

Value

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```
<p class="biop">a href="http://www.a  
integrates performance, installation,  
creative practice. Pierce's research  
as she explores the elasticity of wha  
ritual activities. Pierce has exhibit  
York City's Museum of Sex. Her short  
film screening series, in New York Ci  
as part of the Bad Feminists Readings  
studio art from the University of Con  
an Interdisciplinary PhD at the Unive  
</p>  
<p class="biop">For more information
```

```
body {  
    font-family:helvetica, sans-serif;  
    font-size:16px;  
    color:green;  
}  
p{  
    color:blue;  
}  
.biop{  
    color:salmon;  
}  
h1 {  
    font-family:serif;  
    font-size:24px;  
    color:red;  
}
```

* A class can be assigned to multiple elements.

CSS

Cascading Style Sheets

Class Selectors:

In html you assign a class attribute directly into the opening tag of the element like this

```
<p class="biop">For more information <a href="http://www.google.com" target="_blank" title="Google is Awesome!">google me!</a></p>
```

In CSS the (.) denotes a class which is followed by the name of the class.

```
.biop{  
    color:salmon;  
}
```

*Tags that have a class attribute are more specific than element selectors but less specific than ID selectors.

CSS

Cascading Style Sheets

Now the p elements with the **Class Selector** of “biop” reflect the styling and are presented in the color salmon.

The p elements that did not share that class selector remain blue.

```
<p class="biop">continued to shoot and  
Anglo Irish Bank, Phillips de Pury & Co., Random  
House; The Village Voice, NY Press, Japanese  
TRACE,  
and L'ETOILE magazines.</p>
```

Bio

Amy Pierce was born in Yonkers, New York where she made movies with her sisters, the family video camera, and loads of fake blood. Later she moved to Connecticut where she spent an unhealthy amount of time in the darkroom, printing a myriad of self-initiated projects, she received a BFA from the University of Connecticut. Directly following she was in business and worked as a commercial and editorial photographer for over 10 years, while simultaneously developing her artistic vision.

```
<p class="biop">photographs exhibit  
including one at the Brooklyn Museum and the  
currently in the permanent collection of the  
official selection of Independent Film Project  
several group shows nationally.
```

She has continued to shoot and publish work for clients that include: AT&T, BBDO, Anglo Irish Bank, Phillips de Pury & Co., Random House, Pantheon Books, Gianluca Isaia, Tis XLR8R, DIW, TRACE, and L'ETOILE magazines.

She has had photographs exhibited in group shows throughout the New York area, including one at the Brooklyn Museum and the Museum of Sex in New York City. Her work is currently a selection of Independent Film Project's short film screening and has been included in several group shows nationally. Amy just began the Intermedia MFA program at the University of Connecticut.

Artist Statement

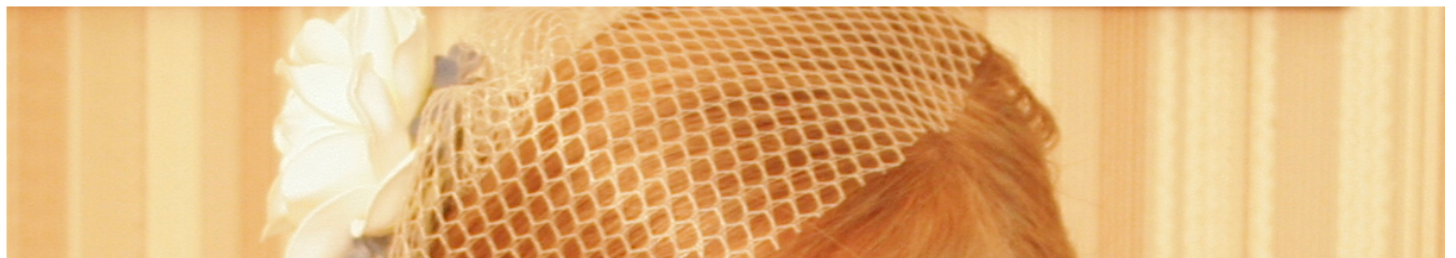
```
Amy just began the Intermedia MFA program at the  
new creative territory.</p>
```

```
<h1>Artist Statement</h1>
```

In my work, I strive to convey a concept and I choose the visual medium to best express that. I do this through photography, film, and costume-making. Though I rarely appear in the work I make something, the more universal it becomes. I seek to transcend the frame by addressing subjects that make me personally vulnerable and emotionally charged. I am influenced by the address stereotypical views of women, which are a reoccurring theme in my work. I am fascinated by both the absurdity and truth of gender roles and how they are commonly defined by the expectations of both women and men. I have explored subjects such as perceived physical and psychological weakness, emotional dependency, sexual objectification, and cultural

```
<p>In my work, I strive to convey a concept  
that. I do this through photography, film, and  
images I create, I consider all of my work to  
you make something, the more universal it becomes  
subjects that make me personally vulnerable and
```

```
<p>I am influenced by rituals, fears, imperfect  
constructed narratives, I address stereotypical  
my work. I am fascinated by both the absurdity  
commonly defined in different cultures.</p>
```



CSS

Cascading Style Sheets

ID Selectors reference the elements in html that are assigned a id attribute that you choose and then reference in the CSS by preceding with a (#)



```
<h1 id="ash">Artist Statement</h1>
```

```
<p>In my work, I strive to convey a concept that. I do this through photography, film, and images I create, I consider all of my work to you make something, the more universal it becomes subjects that make me personally vulnerable as
```

```
<p>I am influenced by rituals, fears, imperfect constructed narratives, I address stereotypical my work. I am fascinated by both the absurd commonly defined in different cultures.</p>
```

id attributes can appear more than once on the page but once you assign a specific id value- that exact value can only be assigned to one element on the page. For ex. id="ash" could only be used once but the next h1 can be assigned id="ash2" or id="artistStatement2"

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```
body {
  font-family:helvetica, sans-serif;
  font-size:16px;
  color:green;
}
p{
  color:blue;
}
.biop{
  color:salmon;
}
h1 {
  font-family:serif;
  font-size:24px;
  color:red;
}
#ash {
  font-family:"Times New Roman", serif;
  font-size:50px;
  color:silver;
}
```

CSS

Cascading Style Sheets

ID Selectors:

In html you assign an ID attribute directly into the opening tag of the element like this

```
<h1 id="ash">Creative Statement </h1>
```

In CSS the (#) denotes an ID which is followed by the name of the identifier.

```
#ash {  
  font-family:"Times New Roman", serif;  
  font-size:50px;  
  color:silver;  
}
```

*ID selectors are the most specific of the three types of selectors.

CSS

Cascading Style Sheets

Now the h1 element with the **ID Selector** of “ash” reflects the styling and is presented in the color silver and in a font size of 50px.

The h1 element “Bio” that did not share that ID selector remains red and at a font size of 24px .

```
<body>
  <h1>Bio</h1>
  <p class="biop">erce was born
  <p class="biop">continued to sl
  <p class="biop">had photograph
  Amy just began the Intermedia MFA pro
  new creative territory.</p>
  <h1 id="ash">Artist Statement</h1>
```

Bio

Amy Pierce was born in Yonkers, New York where she made movies with her sisters, the family video camera, and loads of fake blood. Later she moved to Connecticut where she spent an unhealthy amount of time in the darkroom, printing a myriad of self-initiated projects, she received a BFA from the University of Connecticut. Directly following she worked as a commercial and editorial photographer for over 10 years, while simultaneously developing her artistic vision.

She has continued to shoot and publish work for clients that include: AT&T, BBDO, Anglo Irish Bank, Phillips de Pury & Co., Random House, Pantheon Books, Gianluca Isaia, Tis XLR8R, DIW, TRACE, and L'ETOILE magazines.

She has had photographs exhibited in group shows throughout the New York area, including one at the Brooklyn Museum and the Museum of Sex in New York City. Her work is a selection of Independent Film Project's short film screening and has been included in several group shows nationally. Amy just began the Intermedia MFA program at the University of Connecticut.

Artist Statement

In my work, I strive to convey a concept and I choose the visual medium to best express that. I do this through photography, film, and costume-making. Though I rarely appear in the work, the more universal it becomes. I seek to transcend the frame by addressing subjects that make me personally vulnerable and emotionally charged.

I am influenced by rituals, fears, imperfections, and obsessions. Through elaborately constructed narratives, I address stereotypical views of women, which are a recurring theme commonly defined in different cultures.

I am drawn to the societal traditions surrounding weddings, and the role expectations of both women and men. I have explored subjects such as perceived physical and psychological and naïveté.



CSS

Cascading Style Sheets

Grouped Selectors:

If you ever need to apply the same style property to a number of elements, you can group the selectors into one rule by separating them with commas.

```
p, h2, h1, em, img {  
    border-color: blue;  
    border-style: solid;  
    border-width: 1px;  
}
```

CSS

Cascading Style Sheets

Declarations:

The declaration is made up of a property/value pair.

There can be more than one declaration in a single rule; for example, the `p` element can have both the `font-size`, `position`, `padding`, and `line-height` properties.

```
#featured p{  
    font-size: 13px;  
    position: relative;  
    padding: 44px 30px 0 118px;  
    line-height: 16px;  
}
```

Each declaration must end with a semicolon.

The curly brackets and the declarations they contain are often referred to as the declaration block.

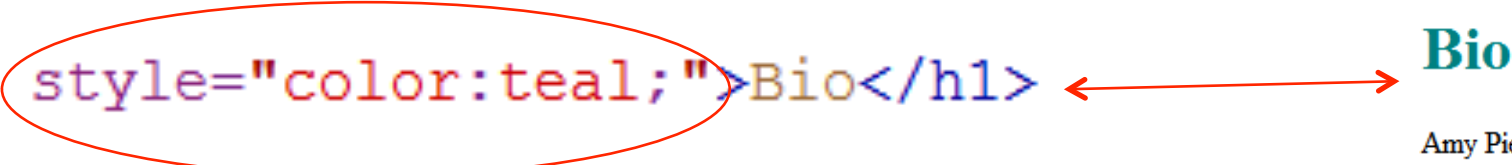
CSS

Cascading Style Sheets

3. There are 3 ways of attaching the styles to the doc.

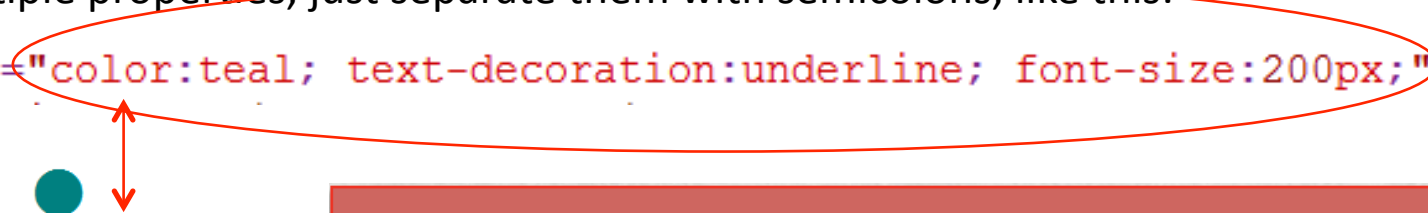
Inline Styles (the attribute style):

You can apply properties and values to a single element using the style attribute in the element itself.

`<h1 style="color:teal;">Bio</h1>`  **Bio**
Amy Pierce
she got made

To add multiple properties, just separate them with semicolons, like this:

`<h1 style="color:teal; text-decoration:underline; font-size:200px;">Bio</h1>`

 **Bio**

NOTE: This is NOT a recommended method of CSS!

CSS

Cascading Style Sheets

Embedded Style Sheets (the tag style):

An embedded style sheet is placed in a document using the style element and its rules apply only to that document.

The style element *must be placed in the head of the document and must contain a type attribute that identifies the content of the style element as "text/css"*.

```
<head>
  <title>Amy Pierce Artist Statement And Bio</title>
  <style type="text/css">
    body {
      font-family:helvetica, sans-serif;
      font-size:16px;
      color:green;
    }
    p{
      color:blue;
    }
    .biop{
      color:salmon;
    }

    h1 {
      font-family:serif;
      font-size:24px;
      color:red;
    }
    #ash {
      font-family:"Times New Roman",serif;
      font-size:50px;
      color:silver;
    }
  </style>
</head>
```

CSS

Cascading Style Sheets

External Style Sheets (link to a style sheet):

An external style sheet is a separate, text-only document that contains a number of style rules.

It must be named with the extension .css

The .css document is then linked to or imported into one or more HTML documents.

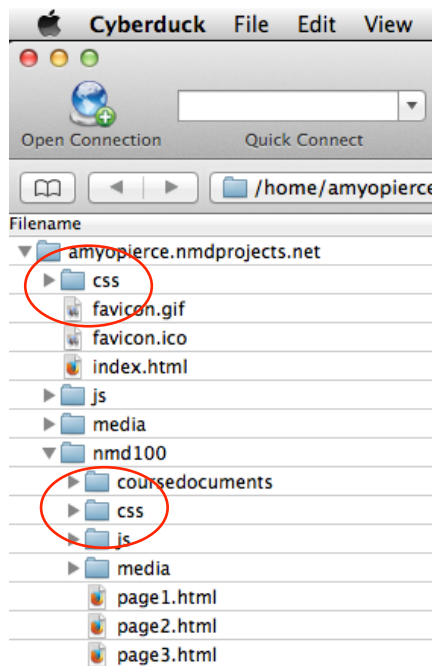
```
<head>
  <meta charset="UTF-8"/>
  <title>About Amy Pierce</title>
  <link rel="stylesheet" type="text/css" href="css/global_styles.css" />
</head>
```

CSS

Cascading Style Sheets

External Style Sheets (link to a style sheet):

Make a style sheet in Sublime Text and save it as "global_styles.css"
Upload it using Cyberduck into the css folder.



*When you make a style sheet for your nmd100 screencast page1.html you will save it as "local_styles.css"
And save it into the css folder inside the nmd100 folder.

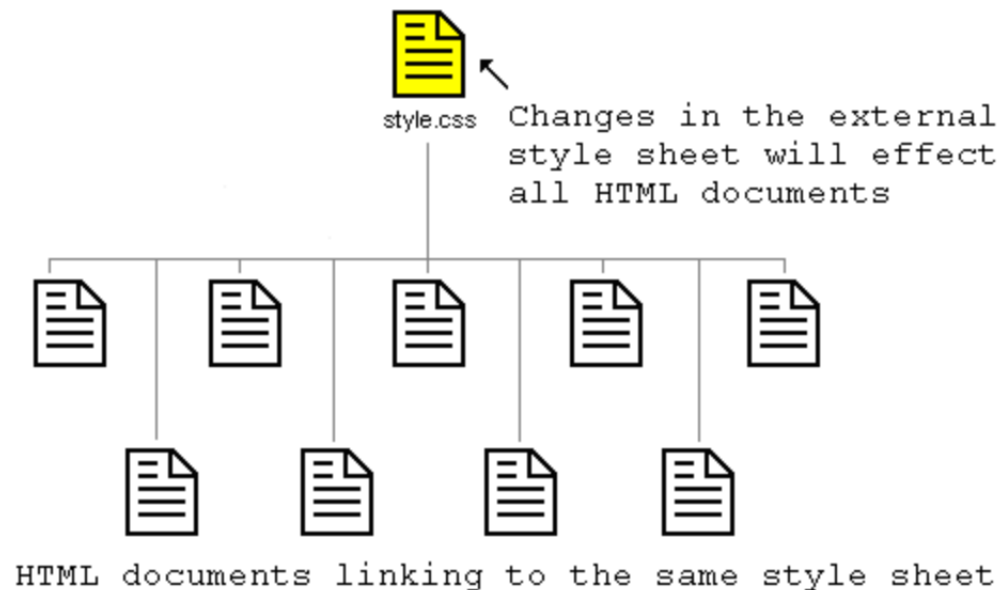
```
<head>
  <meta charset="UTF-8"/>
  <title>About Amy Pierce</title>
  <link rel="stylesheet" type="text/css" href="css/global_styles.css" />
</head>
```

*Don't forget to add css/ when linking to the external CSS which is contained in the css folder.

CSS

Cascading Style Sheets

This link tells the browser that it should use the layout from the CSS file when displaying the HTML file. The really smart thing is that several HTML documents can be linked to the same style sheet. In other words, one CSS file can be used to control the layout of many HTML documents.



This technique can save you a lot of work. If you, for example, would like to change the background color of a website with 100 pages, a style sheet can save you from having to manually change all 100 HTML documents. Using CSS, the change can be made in a few seconds just by changing one code in the central style sheet.

CSS

Cascading Style Sheets

Conflicting Styles:

Ever wonder why they are called “cascading” style sheets?

CSS allows you to apply several style sheets to the same document, which means there are bound to be conflicts.

For example: What should the browser do if a document’s imported style sheet says that h1 elements should be red, but its embedded style sheet has a rule that makes h1s purple?

The cascade refers to what happens when several sources of style information vie for control of the elements on a page:

Style information is passed down until it is overridden by a style command with more weight.

To prevent a specific rule from being overridden, you can assign it “importance” with the !important indicator.

CSS

Cascading Style Sheets

Style Sheet Hierarchy:

Browser default settings

User style settings

(set in the browser as a “reader style sheet”)

Linked external style sheet

(added with the link element)

Imported style sheets

(added with the @import function)

Embedded style sheets

(added with the style element)

Inline style information

(added with the style attribute in an opening tag)

Any style rule marked !important by the author

Any style rule marked !important by the reader (user)



CSS

Cascading Style Sheets

Specificity

More specific selectors have more weight than others when it comes to handling style rule conflicts.

ID Selectors are more specific than (and will override)

Class Selectors, which are more specific than (and will override)

Contextual Selectors, which are more specific than (and will override)

Individual Element Selectors

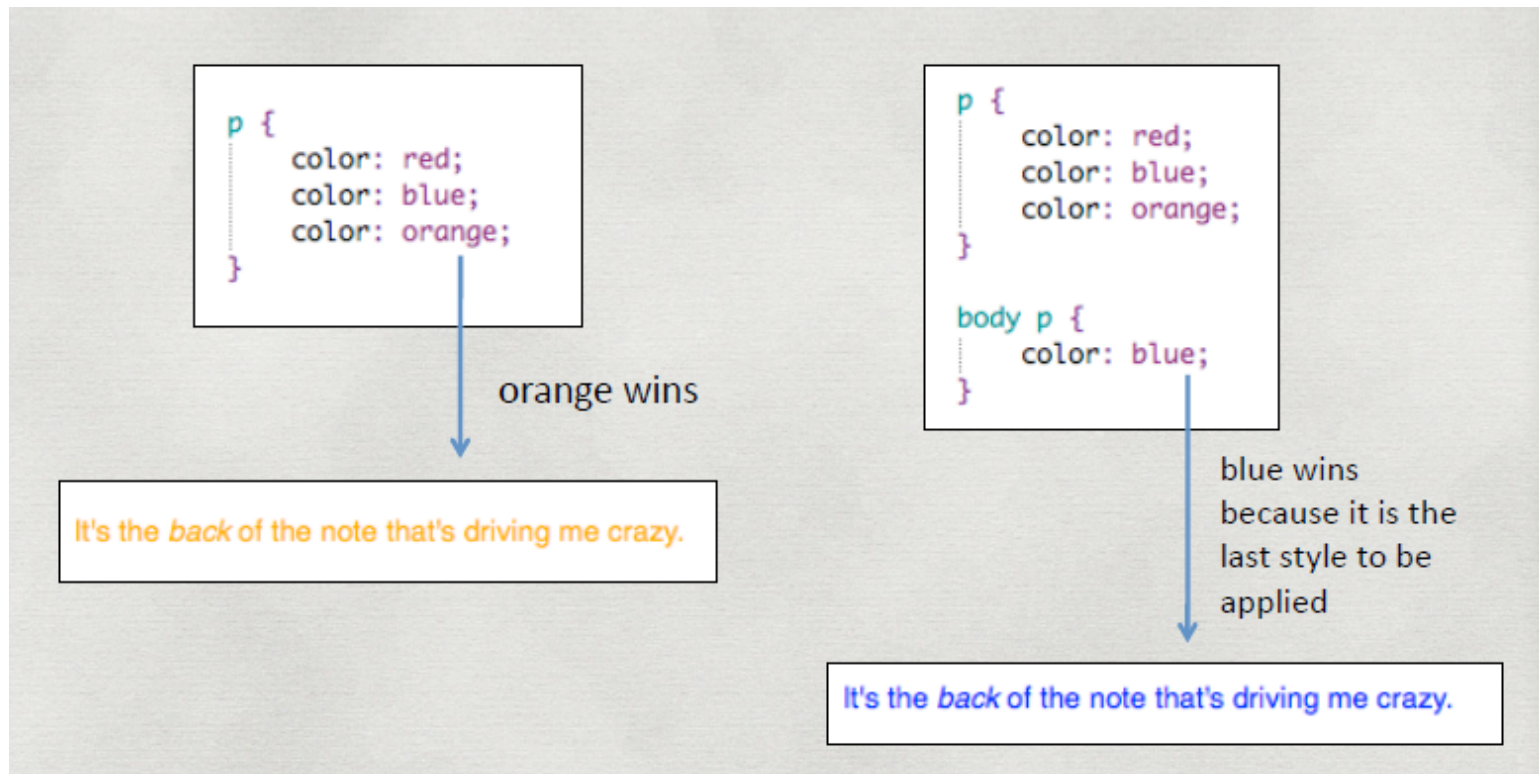


CSS

Cascading Style Sheets

Rule Order:

Finally, if there are conflicts within style rules of identical weight, whichever one comes last in the list “wins”.



CSS

Cascading Style Sheets

Specifying the Font Name

The typeface is called font family and is set using the font-family property.

font-family

Values: *one or more font or generic font family names, separated by commas* | inherit

Default: *depends on the browser*

Applies to: *all elements*

Inherits: *yes*

CSS

Cascading Style Sheets

- **Serif**
 - Examples: *Times, Times New Roman, Roman, Georgia*
 - Serif typefaces have decorative serifs, or slab-like appendages, on the ends of certain letter strokes.
- **Sans-serif**
 - Examples: *Arial, Arial Black, Verdana, Trebuchet MS, Helvetica, Geneva*
 - *Sans-serif typefaces* have straight letter strokes that do not end in serifs. They are generally considered easier to read on computer monitors.
- **Monospace**
 - Examples: *Courier, Courier New, Andale Mono*
 - In monospace (also called constant width) typefaces, all characters take up the same amount of space on a line.
- ***Cursive***
 - Examples: *Apple Chancery, Zapf-Chancery, Comic Sans*
 - Cursive fonts emulate a script or handwritten appearance.
- **Fantasy**
 - Examples: *Impact, Western, or other decorative font*
 - Fantasy fonts are purely decorative and would be appropriate for headlines and other display type. Fantasy fonts are rarely used for Web text due to cross-platform availability and legibility.

CSS

Cascading Style Sheets

Specifying Font Size

Use the aptly-named font-size property to specify the size of the text.

font-size

Values: *length unit, percentage, xx-small | x-small | small | medium | large | x-large | xx-large | smaller | larger | inherit*

Default: *medium*

Applies to: *all elements*

Inherits: *yes*

CSS

Cascading Style Sheets

Correct font-size

specific size

```
h1 { font-size: 1.5em; }
```

percentage

```
h1 { font-size: 150%; }
```

absolute keyword

```
h1 { font-size: x-large; }
```

relative keyword

```
h1 { font-size: larger; }
```

{ Never leave a space
between the value and
the unit }

```
h1 { font-size: 1.5 em; }
```

Incorrect!

CSS

Cascading Style Sheets

Font Weight (boldness)

To specify font boldness use the font-weight property.

font-weight

Values: normal | bold | bolder | lighter | 100 | 200 | 300 | 400 | 500 | 600 | 700
| 800 | 900 | inherit

Default: normal

Applies to: all elements

Inherits: yes

CSS

Cascading Style Sheets

Font Style (italics)

The font-style property affects the *posture of the text, that is*, whether the letter shapes are vertical (normal) or slanted (italic and oblique)

font-style

Values: oblique | normal | italic | inherit

Default: normal

Applies to: all elements

Inherits: yes

CSS

Cascading Style Sheets

The Shortcut Font Property

Specifying multiple font properties for each text element could get repetitive and lengthy, so CSS provides the shorthand font property that compiles all the font-related properties into one rule.

font

Values: font-style font-weight font-variant font-size/line-height font-family | inherit

Default: depends on default value for each property listed

Applies to: all elements

Inherits: yes

```
{ font: style weight variant size/line-height font-family }
```

CSS

Cascading Style Sheets

Indents

The text-indent property indents the first line of text by a specified amount.

text-indent

Values: length measurement, percentage | inherit

Default: 0

Applies to: block-level elements and table cells

Inherits: yes

Examples:

```
p#1 { text-indent: 2em; }
```

```
p#2 { text-indent: 25%; }
```

```
p#3 { text-indent: -35px; }
```

The `text-indent` property inherits, but it is worth noting that the calculated values will be passed on to descendent elements. So if a `div` is set to 800 pixels wide with a 10% indent, a `text-indent` of 80 pixels will be passed down (not the 10% value).

CSS

Cascading Style Sheets

Horizontal Alignment

You can align text for Web pages just as you would in a word processor with the text-align property.

text-align

Values: left | right | center | justify | inherit

Default: left for languages that read left to right; right for languages that read right to left

Applies to: block-level elements and table cells

Inherits: yes

Examples:

```
p { text-align: right; }
```

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

```
p { text-align: justified; }
```

CSS

Cascading Style Sheets

Text Decorations

The text-decoration property lets you put or remove a line under, over, or through text.

text-decoration

Values: none | underline | overline | line-through | blink | inherit

Default: none

Applies to: all elements

Inherits: no, but since lines are drawn across child elements they may look like are “decorated” too.

Examples:

```
a { text-decoration: underline; }
```

```
a { text-decoration: line-through; }
```

```
a { text-decoration: none; }
```

CSS

Cascading Style Sheets

Changing Capitalization

When you apply the text-transform property to a text element, it changes its capitalization when it renders without changing the way it is typed in the source.

text-transform

Values: none | capitalize | lowercase | uppercase | inherit

Default: none

Applies to: all elements

Inherits: yes

Examples:

```
p { text-transform: capitalize; }
```

```
p { text-decoration: lowercase; }
```

```
p { text-decoration: uppercase; }
```

It's The *Back* Of The Note That's Driving Me Crazy.

it's the *back* of the note that's driving me crazy.

IT'S THE *BACK* OF THE NOTE THAT'S DRIVING ME CRAZY.

CSS

Cascading Style Sheets

Text Spacing

Insert space between letters (letter-spacing) or words (wordspacing) when the text is displayed.

letter-spacing

Values: length measurement, **normal** | **inherit**

Default: **normal**

Applies to: all elements

Inherits: yes

word-spacing

Values: length measurement, **normal** | **inherit**

Default: **normal**

Applies to: all elements

Inherits: yes

CSS

Cascading Style Sheets

Other Text Properties

Without explicit instruction you can probably figure out what the rest of these properties do:
Check out www.w3schools.com/Css/ for more details.

vertical-align

Values: baseline | sub | super | top | text-top | middle | text-bottom | bottom |
| percentage | length | inherit

white-space

Values: normal | pre | nowrap | pre-wrap | pre-line | middle | inherit

visibility

Values: visible | hidden | collapse | inherit

CSS

Cascading Style Sheets

Other Text Properties

Related to bi-directional features of Unicode. The Recommendation states that it allows the author to generate levels of embedding within the Unicode embedding algorithm. If you have no idea what this means, don't worry. Neither do I. But I guess it's there should you need it for seriously multilingual sites.

text-direction

Values: ltr | rtl | inherit

unicode-bidi

Values: normal | embed | bidi-override | inherit

CSS

Cascading Style Sheets

System Fonts V. Web Fonts

WEB FONTS

Web Fonts refer to the technique of having the browser download and install fonts that are requested in the page's styles using the @font-face syntax

@FONT-FACE SYNTAX

```
@font-face {  
  font-family: 'fontName';  
  src: url('fontName.eot');  
  src: url('fontName.eot?#iefix') format('embedded-opentype'),  
       url('fontName.woff') format('woff'),  
       url('fontName.ttf') format('truetype'),  
       url('fontName.svg#svgFontName') format('svg');  
}
```

CSS

Cascading Style Sheets

CSS FONT OPTIONS

- Allow the browser to display its default font
- Specify a system font and provide fallback options
- Use @font-face to point to a hosted font resource

CSS

Cascading Style Sheets

Colors and Backgrounds:

How to apply colors and background colors to your websites.

color

background-color

background-image

background-repeat

background-attachment

background-position

background

CSS

Cascading Style Sheets

CSS COLOR PROPERTIES

```
border-color: red;
```

```
background-color: #fff;
```

```
color: rgb(255, 128, 0);
```


CSS

Cascading Style Sheets

COLOR KEYWORDS

 black	 green
 silver	 lime
 gray	 olive
 white	 yellow
 maroon	 navy
 red	 blue
 purple	 teal
 fuchsia	 aqua

Specifying Color Values

You can specify a color by its name.

visit <http://www.w3.org/TR/2011/REC-css3-color-20110607/#svg-color>
for a full list of accepted keywords

```
color: silver;  
background-color: gray;  
border-bottom-color: teal;
```

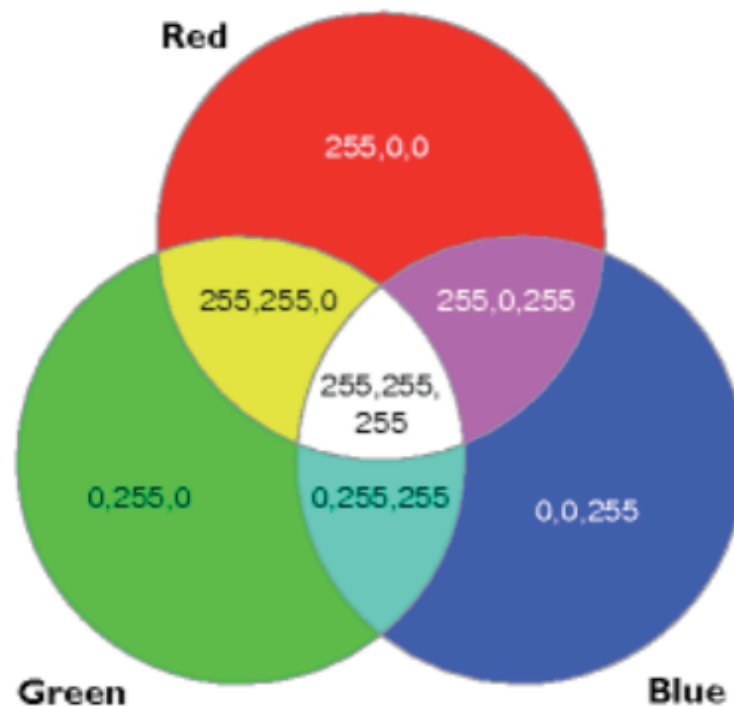
There are now more than 150 color keywords in the CSS specifications.

CSS

Cascading Style Sheets

Specifying Color Values

Or you can specify a color by its RGB color values. Color names are limited but using RGB values gives you millions of colors to choose from.



CSS

Cascading Style Sheets

RGB COLOR VALUES

Integer values (0-255)

`rgb(255, 128, 0)`

RGB COLOR

Percentages (0%-100%)

`rgb(100%, 50%, 0)`



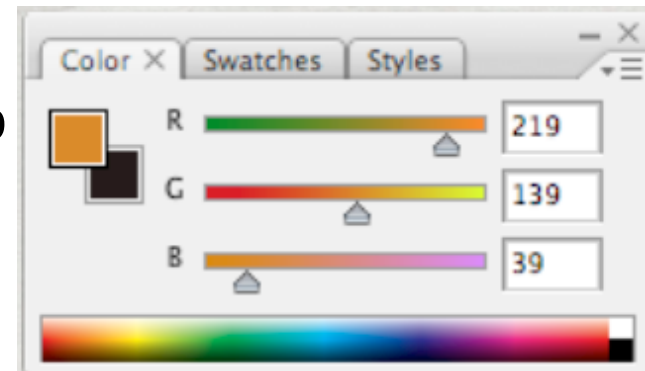
`rgb(0, 0, 0);` is **black** `rgb(255, 255, 255);` is **white**

CSS

Cascading Style Sheets

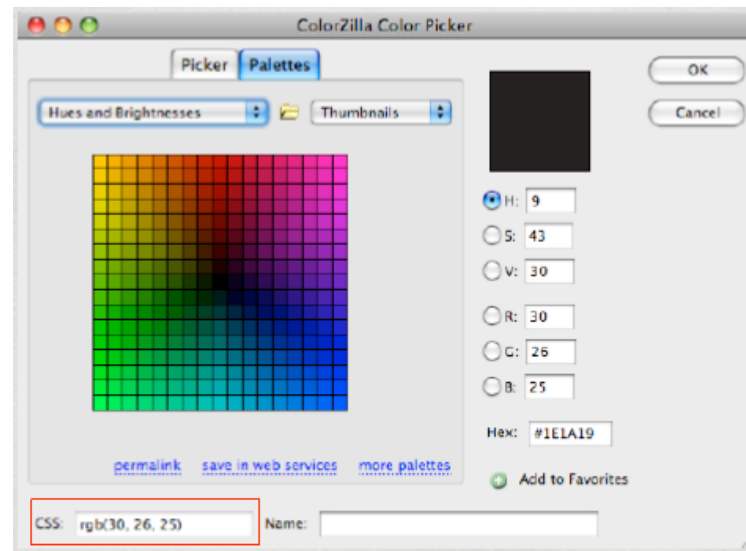
Picking a Color

Use a color picker like the one in Photo Shop



Or use a add-on like ColorZilla for Firefox,
download it for free:

www.iosart.com/firefox/colorzilla/



CSS

Cascading Style Sheets

Writing RGB Values in Style Sheets:

CSS allows RGB color values to be specified in a number of formats.

RGB numbers

```
color: rgb(200, 178, 230);
```

RGB percentages

```
color: rgb(78%, 70%, 90%);
```

RGB hexadecimals

```
color: #C8B2E6;
```

CSS

Cascading Style Sheets

About Hex Values

Hexadecimal RGB values are made up of three two-digit numbers, one for red, one for green, and one for blue.



Hex values must ALWAYS be preceded by a #

CSS

Cascading Style Sheets

HEXADECIMAL NOTATION

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
2	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47
3	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63
4	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79
5	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95
6	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111
7	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127
8	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143
9	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159
A	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175
B	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191
C	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207
D	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223
E	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239
F	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255

hex value

#ab19ef

red: ab
186

green: 19
145

blue: ef
254

rgb(186, 145, 254)

CSS

Cascading Style Sheets

Hex Shortcut

If your value happens to be made up of three pairs of double digits, such as:

```
color: #FFCC00;
```

```
color: #993366;
```

you can condense each pair down to one digit.

```
color: #FC0;
```

```
color: #936;
```


CSS

Cascading Style Sheets

<http://www.javascripter.net/faq/hextorgb.htm>

Hex-to-RGB Conversion

[Table of Contents](#)

Question: How do I convert a hex color string (e.g. "FFFFCC") to numeric RGB values of the same color?

Answer: Below is a script that does hex-to-RGB color conversion. Try it yourself:

FFFFFF R: G: B:  302

```
R = hexToR("#FFFFFF");  
G = hexToG("#FFFFFF");  
B = hexToB("#FFFFFF");
```

```
function hexToR(h) {return parseInt((cutHex(h)).substring(0,2),16)}  
function hexToG(h) {return parseInt((cutHex(h)).substring(2,4),16)}  
function hexToB(h) {return parseInt((cutHex(h)).substring(4,6),16)}  
function cutHex(h) {return (h.charAt(0)=="#") ? h.substring(1,7):h}
```

The script uses a helper function `cutHex()` that checks if the `#` character is present in the beginning of the input hexadecimal value. If so, the `cutHex()` function cuts off the `#` so that only the hexadecimal digits are left in the input value. The script uses the standard JavaScript method [substring\(\)](#) to separate the R, G, B (*red, green, blue*) hex substrings within the input hexadecimal value. Finally, the script parses the R, G, B values from hexadecimal string to number using the standard function [parseInt\(string,16\)](#); the second argument 16 specifies that the string must be parsed as a hexadecimal (base-16) value.

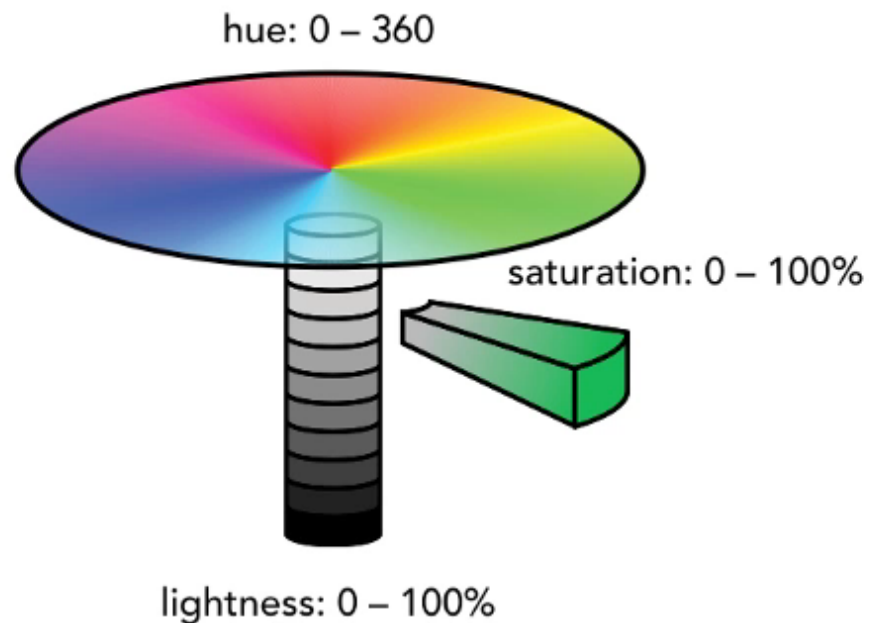
See also:

- [Changing the background color of HTML elements](#)
- [RGB to Hex](#) color converter
- [Hex to CMYK](#) color converter
- [RGB to CMYK](#) color converter
- [RGB to HSV](#) color converter
- [Predefined color names](#)

CSS

Cascading Style Sheets

HSL COLOR



CSS

Cascading Style Sheets

OPACITY

```
div {opacity:0.5;}
```

Opacity applies to all of an element's properties. Borders, backgrounds, and content all share the same amount of transparency.



CSS

Cascading Style Sheets

RGBA & HSLA

```
div {background: rgba(247, 235, 185, .5);  
      color: #000;  
      border: hsla(0, 100% 0%, .5)}
```

RGBA and HSLA allow you to specify transparency as part of the color declaration. In this manner, foreground color, backgrounds, and borders can have their own, independent transparency.

CSS

Cascading Style Sheets

BACKGROUND SYNTAX

```
div {  
  
background-color: #ff0;  
  
background-image: url(flower.png), url(ball.png), url(grass1.png);  
  
background-position: center center, 20% 80%, top left;  
  
background-origin: border-box, content-box, border-box;  
  
background-repeat: no-repeat, no-repeat, no-repeat;  
  
}
```

CSS

Cascading Style Sheets

BACKGROUND AREA

Backgrounds extend all the way to the
inside edge of an element's border.

background

CSS

Cascading Style Sheets

BACKGROUND OPTIONS

Backgrounds can contain solid colors, images, or gradients.

Backgrounds can contain solid colors, images, or gradients.

Backgrounds can contain solid colors, images, or gradients.

Backgrounds are transparent by default

Can use Background-color and have background-images on top (even more than one in CSS3)

CSS

Cascading Style Sheets

Foreground Color

The *foreground of an element consists of its text and border* (if one is specified).
You specify the foreground color with the color property.

color

Values: color value (name or numeric) | inherit

Default: depends on the browser and user's preferences

Applies to: all elements

Inherits: yes

```
<blockquote>
  <p>I'd recommend Honey Gold cereal to anyone who likes cereal. It's the
  <em>only</em> way to start the day!</p>
  <cite>&mdash; Jennifer Robbins, happy consumer</cite>
</blockquote>
```

+

```
blockquote{
  border: 4px dashed;
  color: #508C19;
}
```

=

```
I'd recommend Honey Gold cereal to anyone who likes cereal. It's the only way to
start the day!
— Jennifer Robbins, happy consumer
```


CSS

Cascading Style Sheets

Background Color

With the background-color property, you can apply background colors to any element..

background-color

Values: color value (name or numeric) | transparent | inherit

Default: transparent

Applies to: all elements

Inherits: no

```
<blockquote>
  <p>I'd recommend Honey Gold cereal to anyone who likes cereal. It's the
  <em>only</em> way to start the day!</p>
  <cite>&mdash; Jennifer Robbins, happy consumer</cite>
</blockquote>
```

+

```
blockquote{
  border: 4px dashed;
  color: #508C19;
  background-color: #B4DBE6;
}
```

=

I'd recommend Honey Gold cereal to anyone who likes cereal. It's the *only* way to start the day!

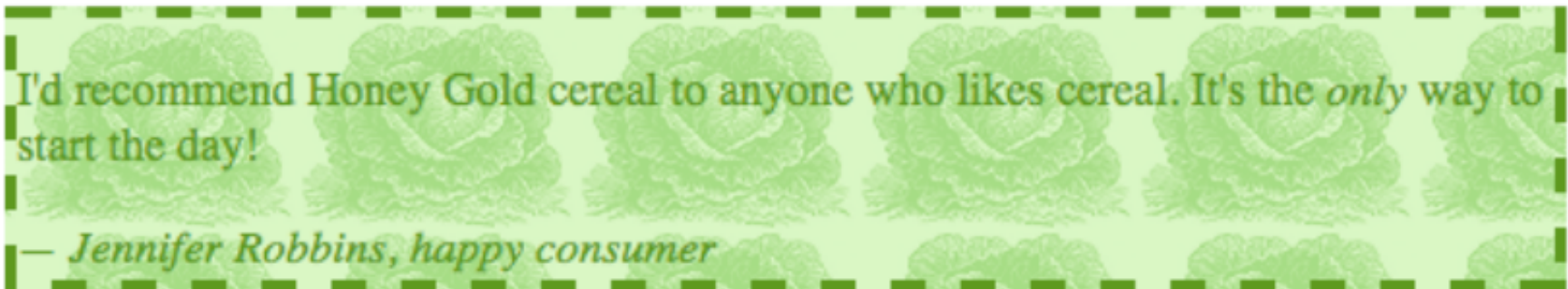
— Jennifer Robbins, happy consumer

CSS

Cascading Style Sheets

Background Images

Using CSS to add background images give you a lot of control on their position, repetition, and which element to apply them to.



CSS

Cascading Style Sheets

Adding a Background Image:

The background-image property is used to add a background image to an element. Its primary job is to provide the location of the image file

background-image

Values: *url(location of image)* | none | inherit

Default: none

Applies to: all elements

Inherits: no

```
blockquote{  
  border: 4px dashed;  
  color: #508C19;  
  background-image: url(../LWD3e_chapter13/cabbage_B.gif);  
}
```



I'd recommend Honey Gold cereal to anyone who likes cereal. It's the *only* way to start the day!

— Jennifer Robbins, happy consumer

CSS

Cascading Style Sheets

Background-Tiling

Background images tile automatically to fill the entire area of their containing element, however, you can change this behavior with the background-repeat property.

background-repeat

Values: repeat | repeat-x | repeat-y | no-repeat | inherit

Default: repeat

Applies to: all elements

Inherits: no

To repeat in only the horizontal or vertical direction use repeat-x and repeat-y respectively.

To disable repeating use no-repeat.

CSS

Cascading Style Sheets

Keyword Positioning

The keyword values (left, right, top, bottom, and center) position the origin image relative to the edges of the element.

Keywords are typically used in pairs:

```
{  
background-position: left bottom;  
background-position: right center;  
}
```

If you only use one keyword, the missing keyword is assumed to be center.
Thus, background-position: right has the same effect as the second example above.

CSS

Cascading Style Sheets

Background Attachment

With the background-image property the image scrolls along with the document, which is the default behavior. However, you can use the background-attachment property to free the background from the content and allow it to stay fixed in one position while the rest of the content scrolls.

background-attachment

Values: scroll | fixed | inherit

Default: scroll

Applies to: all elements

Inherits: no

With the background-attachment property, you have the choice of whether the background image scrolls or is fixed. When an image is *fixed*, it stays in the same position relative to the viewing area of the browser (as opposed to being relative to the element it fills).

CSS

Cascading Style Sheets

Pseudoclass Selectors:

In CSS you can apply styles to links in each of four states (link, visited, hover, active) using a special kind of selector called a pseudoclass selector.

However, the class name isn't in the markup – it's something the browser keeps track of.

So it's *kinda like a class, a pseudoclass*.

The most widely supported pseudoclasses are the *anchor related* ones. (But there are a few others too.)

CSS

Cascading Style Sheets

Love, HA!

If you want to use all four anchor pseudoclasses in a single style sheet, they need to appear in a particular order to function properly.

The initials LVHA (or according to a popular, *love, Ha!*) remind us that the required order is **:link, :visited, :hover, :active**.

This has to do with rule order and specificity.

Putting **:link** or **:visited** last would override the **:hover** and **:active** states, preventing those styles from appearing.

CSS

Cascading Style Sheets

Some other Pseudoclass Selectors:

First line Selector `:first-line`

This selector applies a style rule to the first line of the specified element.

The only properties you can apply, however, are:

color	font	background
word-spacing	letter-spacing	text-decoration
vertical-align	text-transform	line-height

```
p:first-line {  
    letter-spacing: 8px;  
}
```

S n o w W h i t e w a s b a n i s h e d f o r b e i n g m o s t
beautiful, fell in with seven dwarves, ate a poison apple, and fell asleep in a class coffin
until the handsome prince kissed her, married her, and they lived happily ever after.

CSS

Cascading Style Sheets

Before Selector :before

The :before pseudoelement is used to insert content before a specified source element without actually adding the characters to the source document (this is called *generated content in CSS*).

```
<p>
```

```
Snow White was banished for being most beautiful, fell in  
with seven dwarves, ate a poison apple, and fell asleep in  
a class coffin until the handsome prince kissed her,  
married her, and they lived happily ever after.
```

```
</p>
```

```
p:before {  
  content: "Once upon a time: ";  
  font-weight: bold;  
  color: purple;  
}
```

Once upon a time: Snow White was banished for being most beautiful, fell in with seven dwarves, ate a poison apple, and fell asleep in a class coffin until the handsome prince kissed her, married her, and they lived happily ever after.

CSS

Cascading Style Sheets

After Selector :after

The :after pseudoelement is used to insert content after a specified source element without actually adding the characters to the source document (this is called *generated content in CSS*).

```
<p>
```

```
Snow White was banished for being most beautiful, fell in  
with seven dwarves, ate a poison apple, and fell asleep in  
a class coffin until the handsome prince kissed her,  
married her, and they lived happily ever after.
```

```
</p>
```

```
p:after {  
  content: "The End."  
  font-weight: bold;  
  color: purple;  
}
```

Once upon a time: Snow White was banished for being most beautiful, fell in with seven dwarves, ate a poison apple, and fell asleep in a class coffin until the handsome prince kissed her, married her, and they lived happily ever after. **The End.**

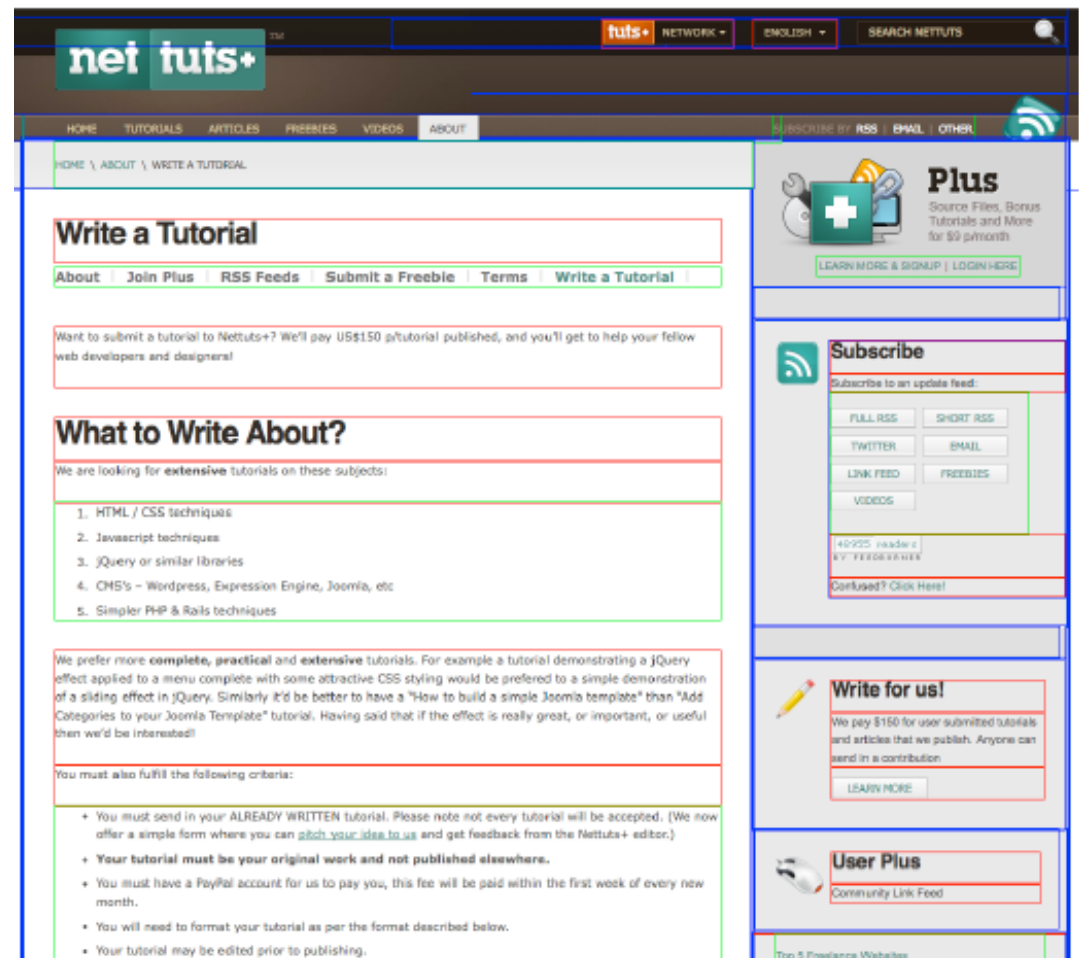
CSS

Cascading Style Sheets

The Box Model:

Browsers see every element on the page (both block and inline) as being contained in a little rectangular box.

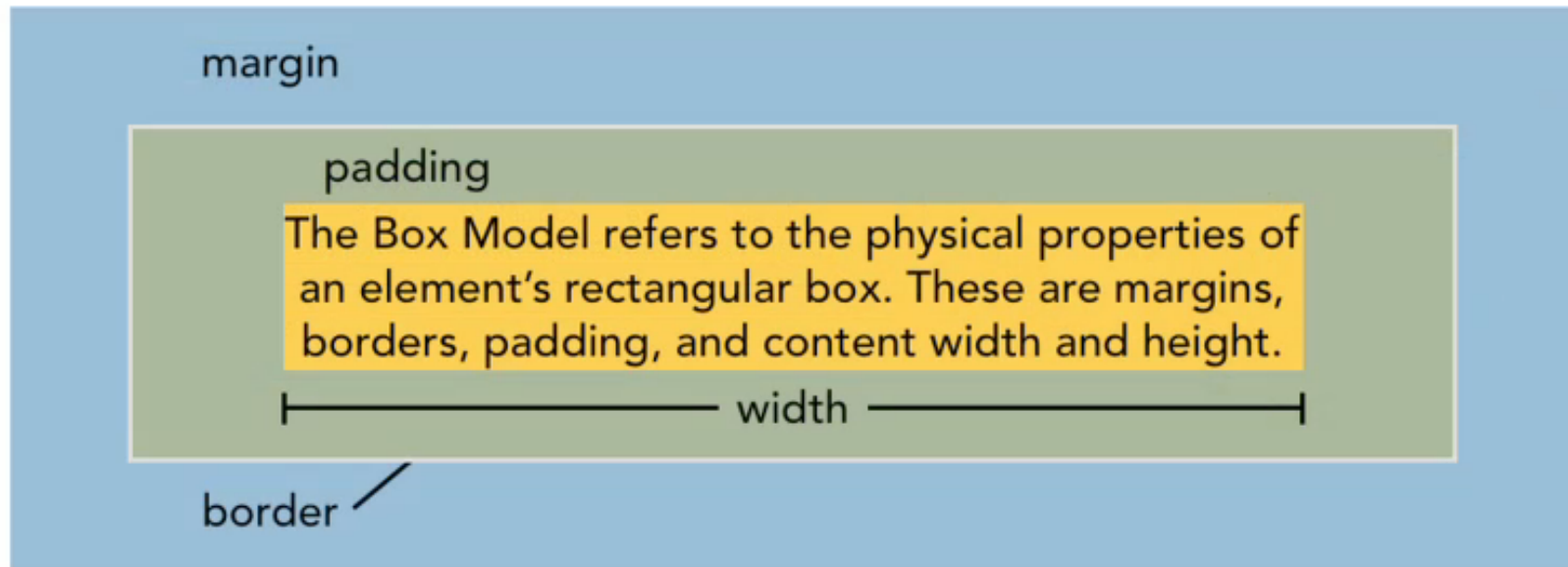
***It is useful to put a border on your elements when starting your layout so you can visualize how your elements interact with each other.**



CSS

Cascading Style Sheets

THE BOX MODEL

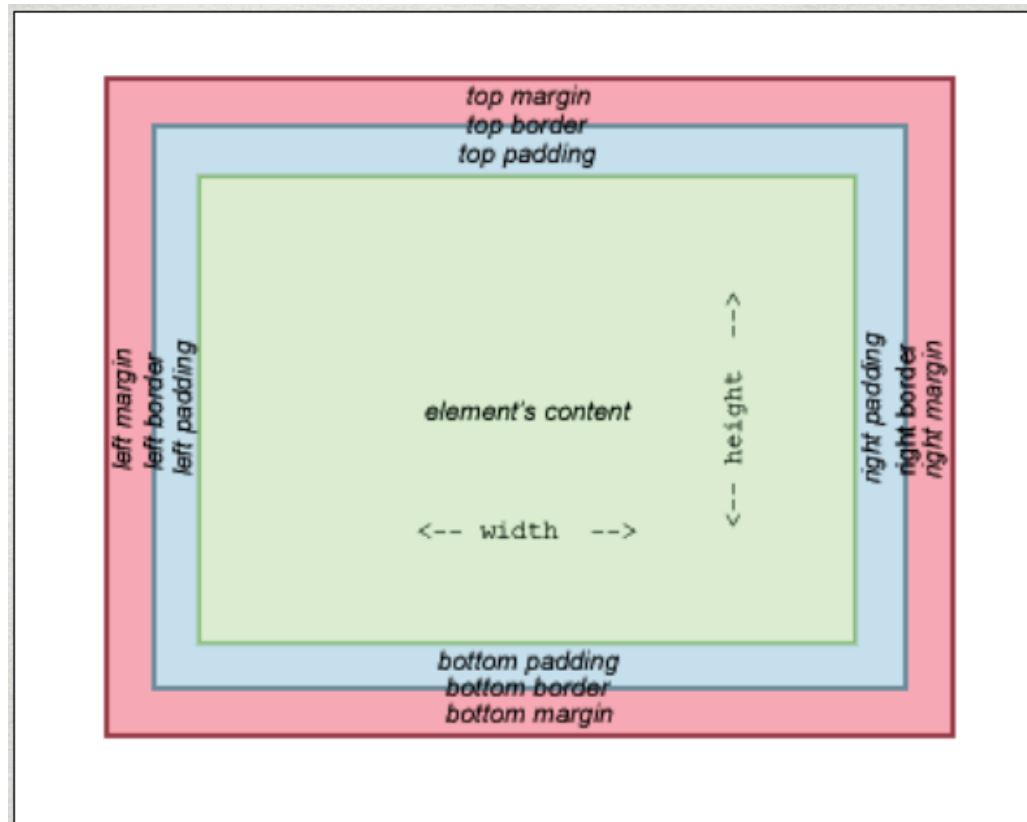


CSS

Cascading Style Sheets

The Element Box

According to the box model, every element in a document generates a box to which properties such as width, height, padding, borders, and margins can be applied.



CSS

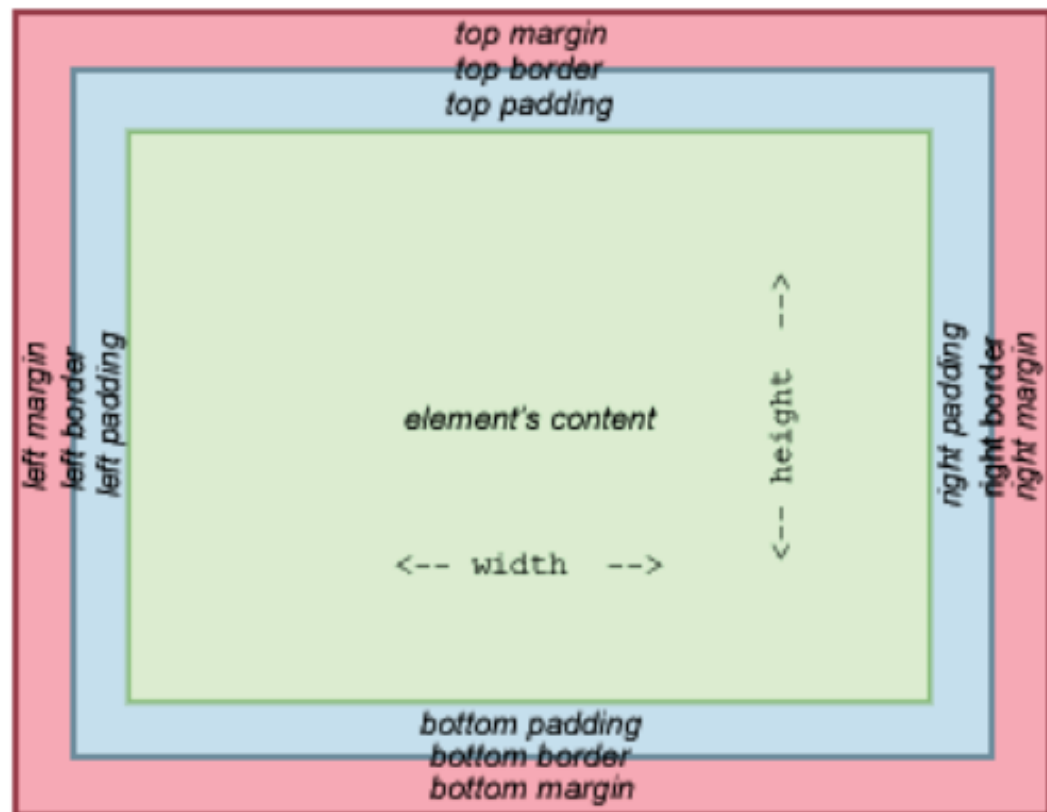
Cascading Style Sheets

The Green Box

This is the content area where the element's content would be

The Green Border

The edges of the content area are referred to as the inner edges of the element box. This is what gets sized when you apply width and height properties.



CSS

Cascading Style Sheets

Setting the Content Dimensions

Setting the width and height properties ONLY work on block level elements
AND non-text inline elements such as images.

width

Values: length measurement | percentage | auto | inherit

Default: auto

Applies to: block-level elements and replaced inline elements (such as images)

Inherits: no

height

Values: length measurement | percentage | auto | inherit

Default: auto

Applies to: block-level elements and replaced inline elements (such as images)

Inherits: no

CSS

Cascading Style Sheets

Width and Height

It's important to keep in mind when specifying the width and height that it applies to the *content area ONLY*. Any *padding*, border, and margins you apply to the element will be added to the width and height values.

```
p#A{ width: 400px; height: 100px; background-color: #C2F670; }  
p#B{ width: 150px; height: 300px; background-color: #C2F670; }
```

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Sed pellentesque, dui non auctor convallis, tellus felis convallis risus, ut auctor ligula mi a elit. Ut quis tellus magna, ut placerat ipsum. Proin adipiscing quam quis lectus aliquet euismod imperdiet ante consequat. Nulla in congue mauris.

ullamcorper eros et tortor iaculis bibendum. Proin non ipsum diam, malesuada posuere nulla. Morbi ipsum arcu, luctus vel pretium sit amet, pharetra ac arcu. Sed mattis pharetra hendrerit. Integer mollis ante ut massa blandit ut venenatis sapien iaculis. Phasellus blandit

CSS

Cascading Style Sheets

Max and Min Dimensions

max-height, min-height, max-width, min-width

Values: *length measurement | percentage | none | inherit*

Default: *none*

Applies to: *block-level elements and replaced inline elements (such as images)*

Inherits: *no*

CSS

Cascading Style Sheets

Specifying Height

Generally the height of content is not usually specified but rather led to be calculated automatically, based on the size of the text and other contents. If you do specify a height, min-height, or max-height you have to consider what would happen if the content overflowed the height?

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Sed pellentesque, dui non auctor convallis, tellus felis convallis risus, ut auctor ligula mi a elit. Ut quis tellus magna, ut placerat ipsum. Proin adipiscing quam quis lectus aliquet euismod imperdiet ante consequat. Nulla in congue mauris. Aliquam erat volutpat. Nunc vitae imperdiet dolor. Morbi ullamcorper eros et tortor iaculis bibendum. Proin non ipsum diam, malesuada posuere nulla. Morbi ipsum arcu, luctus vel pretium sit amet, pharetra ac arcu. Sed mattis pharetra hendrerit. Integer mollis ante ut massa blandit ut venenatis sapien iaculis. Phasellus blandit neque eget urna mollis convallis. Integer facilisis faucibus libero vitae congue. Aenean sit amet mi quam. Nulla facilisi. Fusce convallis ligula eget est pellentesque hendrerit.

CSS

Cascading Style Sheets

Handling Overflow

When an element is set to a size that is too small for its contents, it is possible to specify what to do with the content that doesn't fit, using the overflow property.

overflow

Values: visible | hidden | scroll | auto | inherit

Default: visible

Applies to: block-level elements and replaced inline elements (such as images)

Inherits: no

CSS

Cascading Style Sheets

Handling Overflow

visible	hidden	scroll	auto
ullamcorper eros et tortor iaculis bibendum. Proin non ipsum diam, malesuada posuere nulla. Morbi ipsum arcu, luctus vel pretium sit amet, pharetra ac arcu. Sed mattis pharetra hendrerit. Integer mollis ante ut massa blandit ut venenatis sapien iaculis. Phasellus blandit neque eget urna mollis convallis. Integer facilisis faucibus libero vitae congue. Aenean sit amet mi quam. Nulla facilisi. Fusce convallis ligula eget est pellentesque hendrerit.	ullamcorper eros et tortor iaculis bibendum. Proin non ipsum diam, malesuada posuere nulla. Morbi ipsum arcu, luctus vel pretium sit amet, pharetra ac arcu. Sed mattis pharetra hendrerit. Integer mollis ante ut massa blandit ut venenatis sapien iaculis. Phasellus blandit	ullamcorper eros et tortor iaculis bibendum. Proin non ipsum diam, malesuada posuere nulla. Morbi ipsum arcu, luctus vel pretium sit amet, pharetra ac arcu. Sed mattis pharetra hendrerit. Integer mollis ante ut massa blandit ut venenatis sapien iaculis.	ullamcorper eros et tortor iaculis bibendum. Proin non ipsum diam, malesuada posuere nulla. Morbi ipsum arcu, luctus vel pretium sit amet, pharetra ac arcu. Sed mattis pharetra hendrerit. Integer mollis ante ut massa blandit ut venenatis sapien iaculis. Phasellus blandit

CSS

Cascading Style Sheets

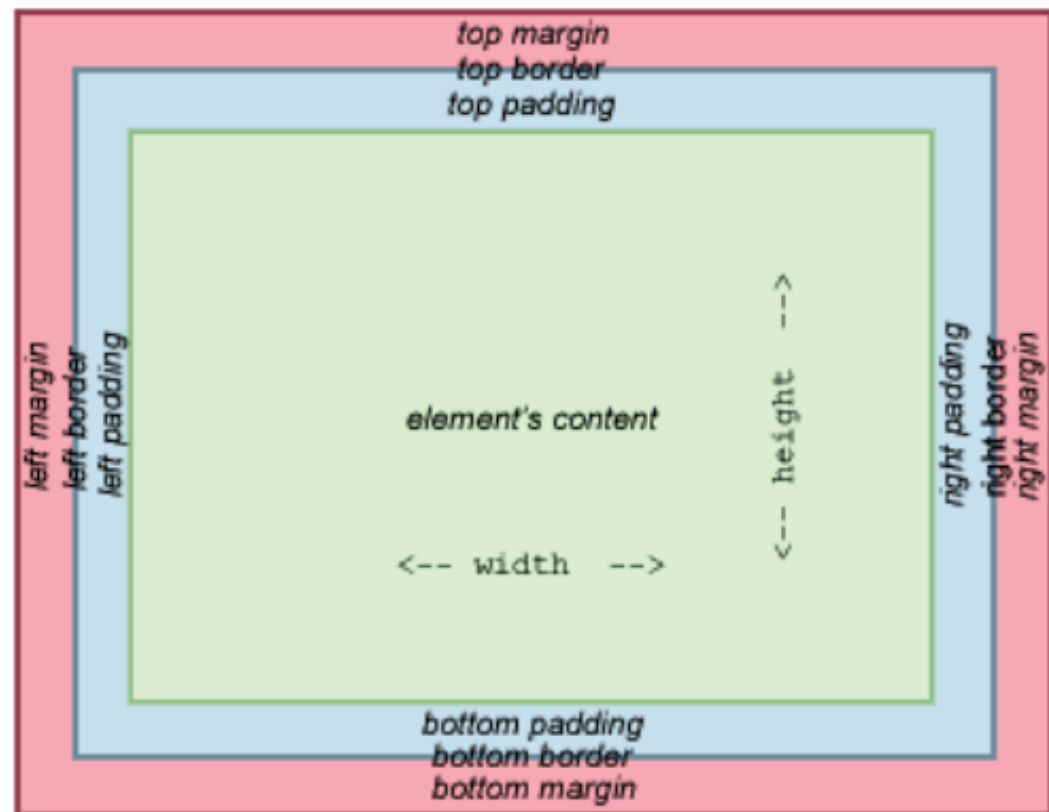
The Blue Box

This is the padding area – the area between the content area and the optional border.

By default there is some padding depending on your browser.

The Blue Border

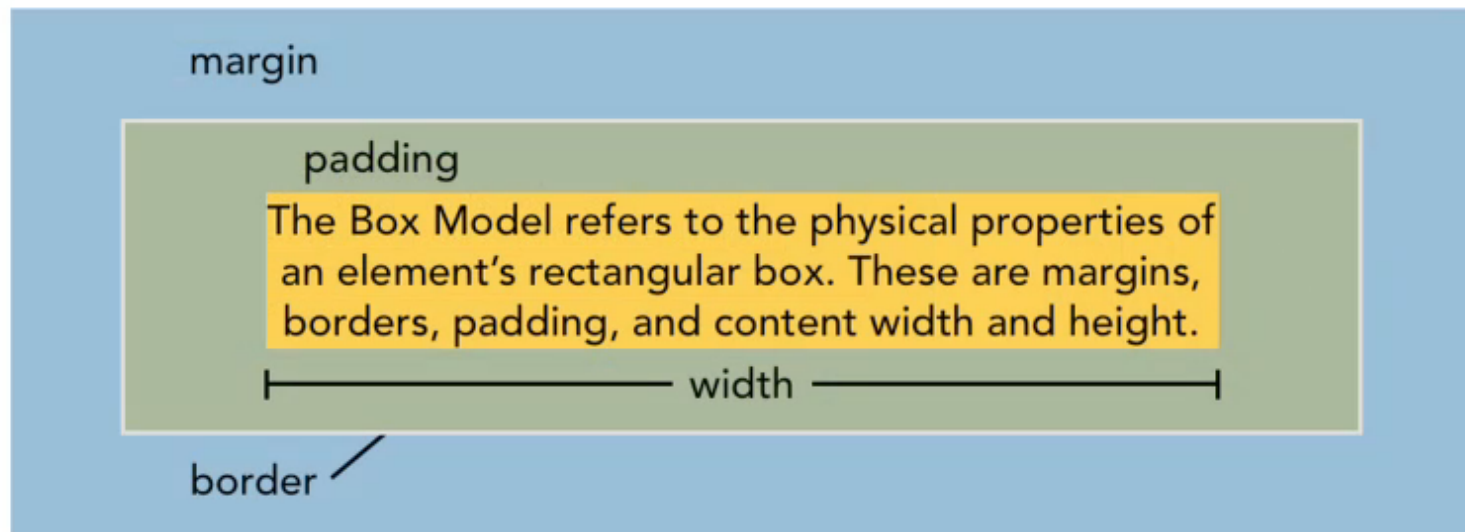
The border is a line (or stylized line) that surrounds the element and its padding. By default there is no border.



CSS

Cascading Style Sheets

PADDING



CSS

Cascading Style Sheets

Padding Individual Sides

With the padding-top, padding-right, padding-bottom, and padding-left properties, you can specify an amount of padding of each side of an element:

```
blockquote {  
  padding-top: 1em;  
  padding-right: 3em;  
  padding-bottom: 1em;  
  padding-left: 3em;  
}
```

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CSS

Cascading Style Sheets

PADDING SYNTAX

individual properties

`padding-top: //values;`

`padding-right://values;`

`padding-bottom://values;`

`padding-left://values;`

shorthand notation

`padding: 10px 20px 15px 10px;`

`padding: 10px 20px 15px;`

CSS

Cascading Style Sheets

PADDING CONSIDERATIONS

parent element

If the width property of a block-level element is not set, the element will expand to fill the parent, and allow padding to define the content width.

Padding counts as part of the elements total size so take that into account when making your layout.

CSS

Cascading Style Sheets

PADDING USAGE

"This is a single element with a background color and border applied. Padding is used to keep the text away from the edge of the element, creating a pull quote"

- ★ The bullets used for this list are background images.
- ★ Padding helps move the text away from the bullets.
- ★ Without the left padding, the text would overlap the bullets.

CSS

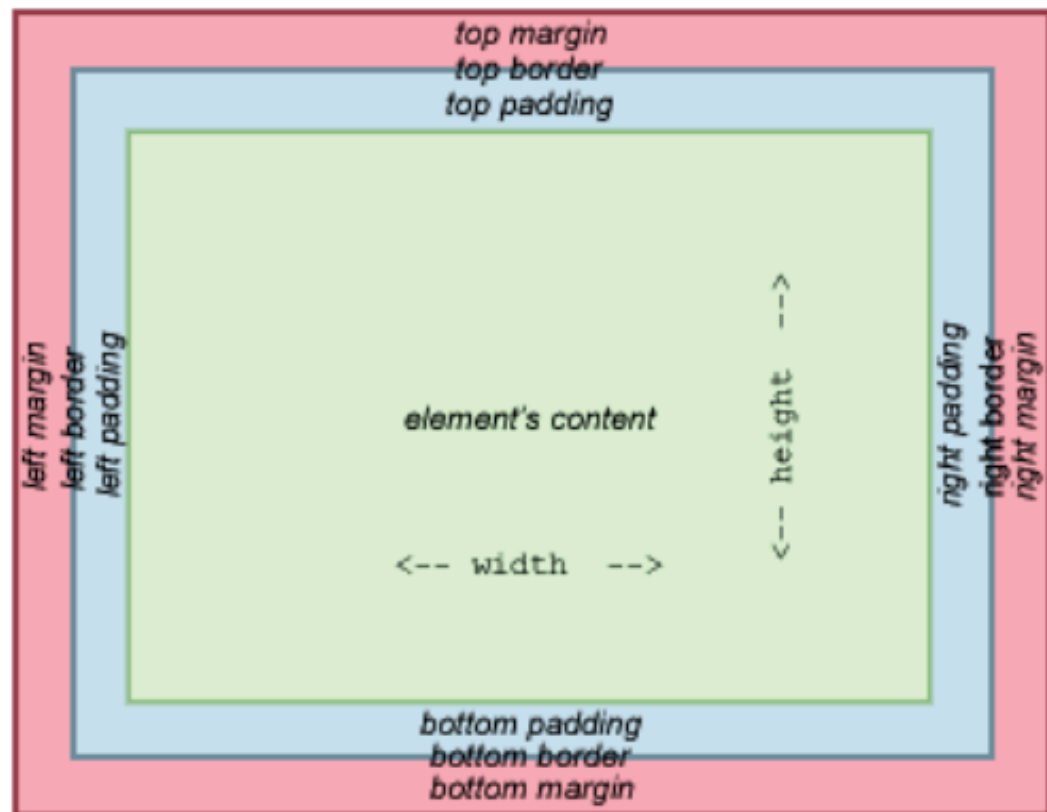
Cascading Style Sheets

The Red Box

The red area is called the margin and is added to the *outside of the border*. By default there is some margin depending on your browser.

The Red Border

The outside edges of the margin area make up the outer edges of the element box.



CSS

Cascading Style Sheets

MARGINS

- Margins represent the space between elements
- Margin values are not calculated as part of an element's total width
- Most elements have a default margin that you must account for

CSS

Cascading Style Sheets

Margins

Margins are an optional amount of space that you can add on the outside of the border. The side-specific and shorthand margin properties work much like the padding properties we've looked at already, however, margins have some special behaviors to be aware of.

margin-top, margin-right, margin-bottom, margin-left

Values: length measurement | percentage | auto | inherit

Default: auto

Applies to: all elements

Inherits: no

margin

Values: length measurement | percentage | auto | inherit

Default: auto

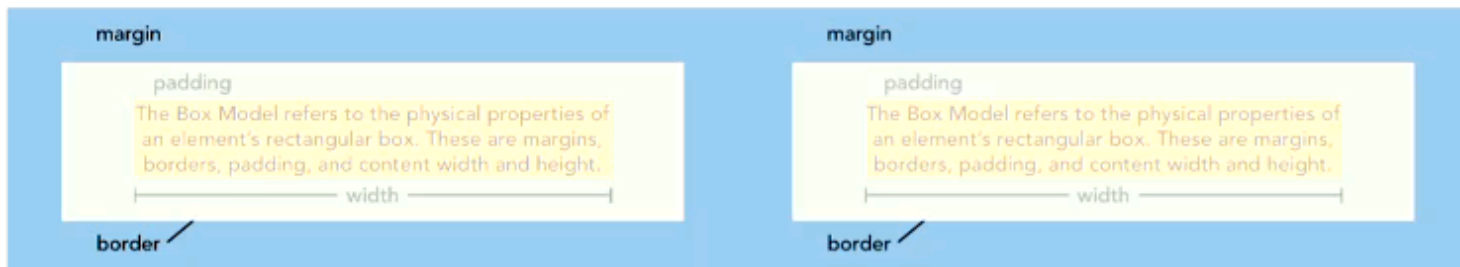
Applies to: all elements

Inherits: no

CSS

Cascading Style Sheets

MARGINS



CSS

Cascading Style Sheets

Margin Properties

Margin properties work much like the padding properties: using the margin shorthand margins are applied in a clockwise directions.

As with padding you can apply percentage values for the margin, however the percentage value is calculated based on the *width of the parent element* – if the parent's width changes, so will the margins on all four sides of the child element.

The auto keyword allows the browser to fill in the amount of margin necessary to fit or fill the available space.

```
body {  
    width: 800px;  
    margin: 0 auto;  
}
```


CSS

Cascading Style Sheets

MARGIN SYNTAX

individual properties

`margin-top: //values;`

`margin-right://values;`

`margin-bottom://values;`

`margin-left://values;`

shorthand notation

`margin: 10px 20px 15px 10px;`

`margin: 10px 20px 15px;`

`margin: 10px 20px;`

`margin: 10px;`

CSS

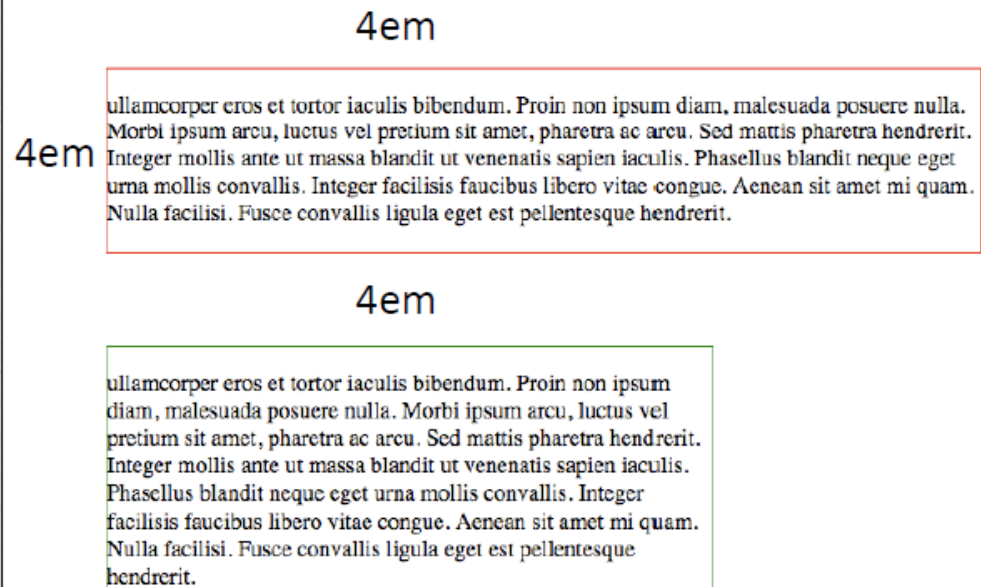
Cascading Style Sheets

Margin Behavior

Collapsing margins – The most significant margin behavior is that the top and bottom margins of neighboring elements collapse. This means that instead of accumulating, adjacent margins overlap, and only the largest value will be used.

(Left and right side margins never collapse).

```
#B {  
    margin: 4em;  
    border: red solid 1px;  
}  
  
#C {  
    margin-top: 2em;  
    margin-right: 250px;  
    margin-bottom: 1em;  
    margin-left: 4em;  
    border: green solid 1px;  
}
```



CSS

Cascading Style Sheets

VERTICAL MARGIN COLLAPSE

Vertical margins collapse, with the larger of the top or bottom margin values used to calculate the amount of space between elements.

Margins only collapse vertically, horizontal margins combine to create the total amount of spacing between elements.

VERTICAL MARGIN COLLAPSE

Vertical margins collapse, with the larger of the top or bottom margin values used to calculate the amount of space between elements.

Margins only collapse vertically, horizontal margins combine to create the total amount of spacing between elements.

The margins will collapse so that the margin will not double-
Which ever margin is bigger will win
If they both have 16px margins it will be 16 px- not 32 px

CSS

Cascading Style Sheets

Margin Behavior

Negative margins – It is possible to specify negative values for margins. When you apply a negative margin, the content, padding, and border are moved in the opposite direction that would have resulted from a positive margin value.

```
#B {  
    margin: 4em;  
    border: red solid 1px;  
}  
  
#C {  
    margin-top: -6em;  
    margin-right: 250px;  
    margin-bottom: 1em;  
    margin-left: 4em;  
    border: green solid 1px;  
}
```

-2em

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ullamcorper eros et tortor iaculis bibendum. Proin non ipsum diam, malesuada posuere nulla. Morbi ipsum arcu, luctus vel pretium sit amet, pharetra ac arcu. Sed mattis pharetra hendrerit. Integer mollis ante ut massa blandit ut venenatis sapien iaculis. Phasellus blandit neque eget urna mollis convallis. Integer facilisis faucibus libero vitae congue. Aenean sit amet mi quam. Nulla facilisi. Fusce convallis ligula eget est pellentesque hendrerit.

CSS

Cascading Style Sheets

Borders - Border Style

A border is simply a line drawn around the content area and its (optional) padding. You can apply the border all around the element or just a particular side or sides.

You can even apply different border styles to sides of the same element.

border-top-style, border-right-style, border-bottom-style, border-left-style

Values: none | dotted | dashed | solid | double | groove | ridge | inset | outset | inherit

Default: none

Applies to: all elements

Inherits: no

border-style

Values: none | dotted | dashed | solid | double | groove | ridge | inset | outset | inherit

Default: none

Applies to: all elements

Inherits: no

CSS

Cascading Style Sheets

BORDER STYLES

solid

dotted

dashed

double

groove

ridge

inset

outset

CSS

Cascading Style Sheets

BORDER SYNTAX

individual properties

```
border-top-style: solid;  
border-right-style: solid;  
border-bottom-style: solid;  
border-left-style: solid;
```

```
border-top-weight: 1px;  
border-right-weight: 1px;  
border-bottom-weight: 1px;  
border-left-weight: 1px;
```

```
border-top-color: black;  
border-right-color: black;  
border-bottom-color: black;  
border-left-color: black;
```

shorthand notation

```
border-top: 1px solid black;  
border-right: 1px solid black;  
border-bottom: 1px solid black;  
border-left: 1px solid black;
```

```
border: 1px solid black;
```

CSS

Cascading Style Sheets

Border width (thickness)

Once again you can target each side of the element with a single-side property, or several sides at once in a clockwise order with the shorthand border-width property.

border-top-width, border-right-width, border-bottom-width, border-left-width

Values: *length units* | **thin** | **medium** | **thick** | **inherit**

Default: **medium**

Applies to: *all elements*

Inherits: *no*

border-width

Values: *length units* | **thin** | **medium** | **thick** | **inherit**

Default: **medium**

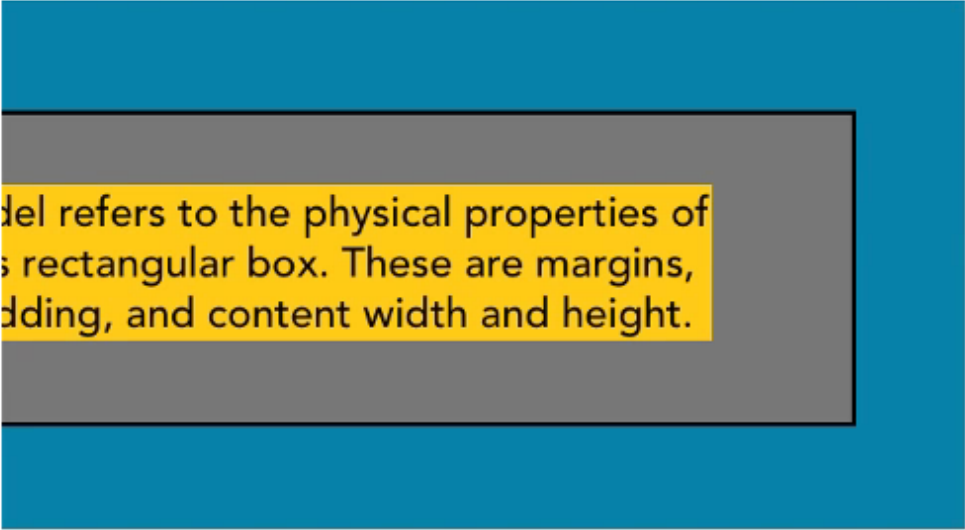
Applies to: *all elements*

Inherits: *no*

CSS

Cascading Style Sheets

BORDER WIDTH



Model refers to the physical properties of a rectangular box. These are margins, padding, and content width and height.

```
p { padding: 20px;  
    border: 1px solid black;  
    width: 200px;}
```

Total Width:

$$1\text{px} + 20\text{px} + 200\text{px} + 20\text{px} + 1\text{px} = 242\text{px}$$

CSS

Cascading Style Sheets

Border color

Border colors are specified in the same way: using the side specific properties or the border-color shorthand property.

When you specify a border color, it overrides the foreground

border-top-color, border-right-color, border-bottom-color, border-left-color

Values: *color name or RGB value* | transparent | inherit

Default: *the value of the color property for the element*

Applies to: *all elements*

Inherits: *no*

border-color

Values: *color name or RGB value* | transparent | inherit

Default: *the value of the color property for the element*

Applies to: *all elements*

Inherits: *no*

CSS

Cascading Style Sheets

Combining Style, Width, Color

The border shortcut lets you specify the style, width, and color values in one declaration. Again, you can specify the appearance of specific sides, or use the border property to change all four sides at once.

border-top, border-right, border-bottom, border-left

Values: border-style border-width border-color or inherit

Default: defaults for each property

Applies to: all elements

Inherits: no

border

Values: border-style border-width border-color or inherit

Default: defaults for each property

Applies to: all elements

Inherits: no

CSS

Cascading Style Sheets

BORDER USAGE

Borders can be used to help define elements and set them apart from other elements, as it is here with this paragraph.

BORDERS | CAN | HELP | DEFINE | NAVIGATION

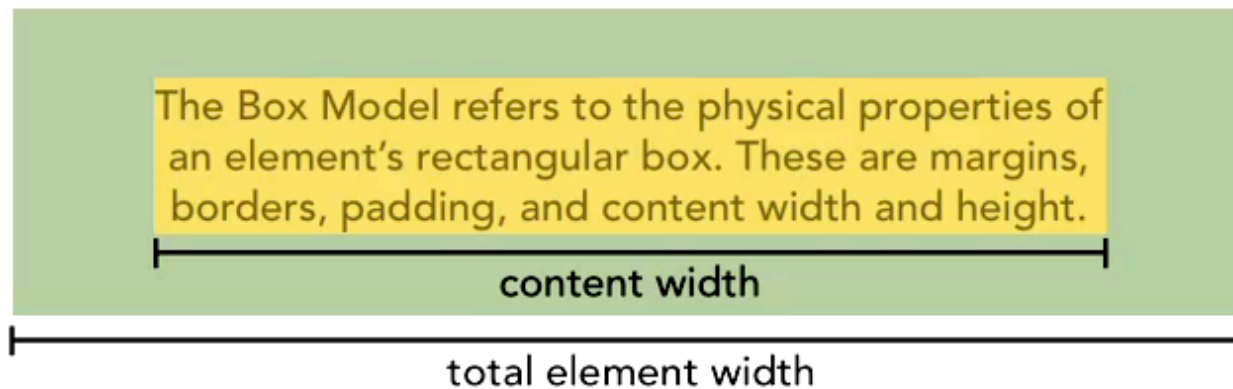
Borders can also provide text rules

between elements

CSS

Cascading Style Sheets

WIDTH & HEIGHT



{ left border + left padding + content width + right padding + right border = total width }

CSS

Cascading Style Sheets

Display Characteristics

The display property defines the type of element box an element generates in the layout.

In general, the W3C discourages the random reassigning of display roles for HTML elements. However, in certain scenarios it is benign and commonplace:

It is common practice to make li elements (which usually display as block elements) display as inline elements to turn a list into a horizontal bar.

You can also make an otherwise inline a (anchor) element display as a block in order to give it a specific width and height.

It is useful to use the display property of none to remove the content from the normal flow entirely. Unlike visibility: hidden, which just makes the element invisible, but holds the space it would have occupied, display: none removes the content, and the space it would have occupied is closed up.

CSS

Cascading Style Sheets

Floating

The float property moves an element as far as possible to the left or right, allowing the following content to wrap around it.

float

Values: left | right | none | inherit

Default: none

Applies to: all elements

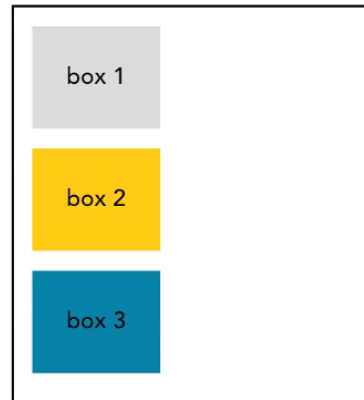
Inherits: no

CSS

Cascading Style Sheets

FLOATING AN ELEMENT

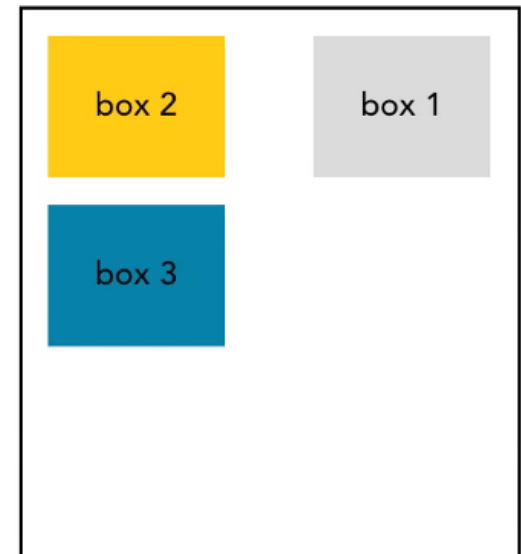
*How it would normally appear without floating



FLOATING AN ELEMENT

```
.box 1 { float: right;}
```

Float to right or left and then it takes it out of the normal flow of the document- Other elements move to fill in the space that it used to occupy.

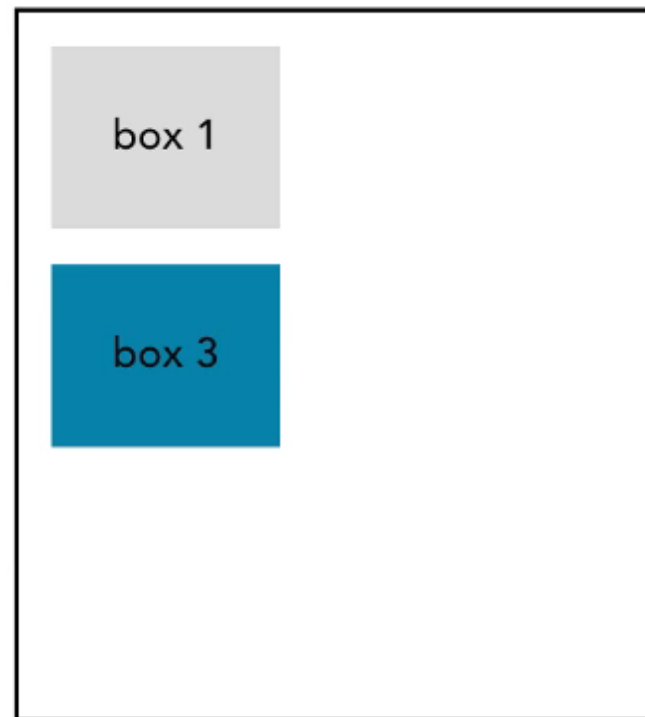


CSS

Cascading Style Sheets

FLOATING AN ELEMENT

```
.box 1 { float: left;}
```



If you were to have floated it to the left it would be hidden- box 2 would move to be underneath box 1 because it reads as no longer part of the document flow and that space is considered empty.

CSS

Cascading Style Sheets

Key Behaviors of Floats

A floated element is like an island in a stream – They are not in the flow, but the stream has to flow around them.

This behavior is unique to floated elements.

CSS

Cascading Style Sheets

Floats stay in the content area of the containing element – Note the floated image in the following example is placed within the content area (the inner edges) of the paragraph that contains it. It does not extend into the padding area of the paragraph.

Margins are maintained –

The entire element box, from outer edge to outer edge, is floated.

```
img{  
  float: right;  
  margin: 10px;  
}
```

If we cut vertically through the middle of the head, we shall find it made up of successive layers of leaves, which grow smaller and smaller, almost *ad infinitum*. Now, if we take a fruit bud from an apple-tree and make a similar section of it, we shall find the same structure. If we observe the development of the two, as



CSS

Cascading Style Sheets

FLOATS AND INLINE BOXES

```
img { float: left;}
```



In CSS Fundamentals, author James Williamson gives web authors a high level overview of the basic concepts of CSS, its syntax, and how find online resources that will help write CSS as well as deepen their understanding of it.

FLOATS AND INLINE BOXES

```
img { float: left;}
```



In CSS Fundamentals, author James Williamson gives web authors a high level overview of the basic concepts of CSS, its syntax, and how find online resources that will help write CSS as well as deepen their understanding of it.

CSS

Cascading Style Sheets

Floating an Inline Text Element

```
span.tip{  
  float: right;  
  margin: 10px;  
  width: 150px;  
  color: #FFF;  
  background-color: #9D080D;  
  padding: 4px;  
  font-size: smaller;  
}
```

```
p{  
  padding: 15px;  
  background-color: #FFF799;  
  border: 2px solid #6C4788;  
}
```

```
<p><span class="tip">I have used all of these, and found them all  
good when rightly applied.</span> Any manure but hog manure for  
cabbage,&mdash;barn manure, rotten kelp, night-soil, guano,  
fertilizers, wood ashes, fish, salt, glue waste, hen manure,  
slaughter-house manure. My own practice is to use all my rich  
compost broadcast, and depend on guano, fertilizers, or hen manure  
in the hill.  
</p>
```

Any manure but hog manure for cabbage,—barn manure, rotten kelp, night-soil, guano, fertilizers, wood ashes, fish, salt, glue waste, hen manure, slaughter-house manure. My own practice is to use all my rich compost broadcast, and depend on guano, fertilizers, or hen manure in the hill.

I have used all of these, and found them all good when rightly applied.

CSS

Cascading Style Sheets

Floating Block Elements

Let's see what happens when you float a block within the normal flow.

```
p#float{  
  float: left;  
  width: 200px;  
  margin-top: 0px;  
  background: #A5D3DE;  
}  
p{  
  border: 1px solid red;  
}
```

<p>Lorem ipsum dolor sit amet, consectetur adipiscing
<p id="float">Morbi euismod laoreet ligula ut pellent
<p>Sed nec eros nec sapien posuere mattis. Pellentesq
<p>Aliquam eu nisl eu purus pharetra condimentum. Nun

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Sed lacinia varius purus sit amet sollicitudin. Aenean a tellus sed elit ornare dignissim consequat a felis. Donec vel quam et tortor egestas fringilla ut ut nunc. Quisque id felis id quam porta varius in eu elit. Morbi et feugiat tortor. Vivamus justo erat, convallis in convallis in, pellentesque nec magna. Cras eleifend euismod mattis. Sed dignissim elementum enim. Donec nec libero arcu, ut molestie elit. In nunc quam, ultricies sed pharetra eu, tempus ut ligula. Sed pulvinar dignissim sagittis.

Morbi euismod laoreet ligula ut pellentesque. Phasellus vel sem turpis, vel rutrum nisi. Integer nulla risus, feugiat sed accumsan ut, interdum in turpis. Ut interdum, arcu nec convallis elementum, est neque iaculis erat, at facilisis eros leo vitae nibh. Sed facilisis sapien et felis aliquam ullamcorper. Sed congue tellus in risus vehicula gravida. Nunc facilisis lectus in ante varius facilisis malesuada velit porta. Aliquam pharetra, mauris id mollis adipiscing, mauris elit auctor erat, eu dictum urna dui nec nulla. Sed vehicula fringilla massa, non malesuada augue venenatis rutrum. Nam metus ligula, mattis eget fringilla eu, scelerisque ac nisl. Etiam cursus pulvinar nunc, eu bibendum sem iaculis at. Praesent vitae augue velit.

Sed nec eros nec sapien posuere mattis. Pellentesque adipiscing nisi et nulla egestas molestie. Curabitur sem dui, scelerisque ut tincidunt non, tincidunt vel nunc. Morbi eget mi odio. Nam eget tellus ac erat rhoncus tempus. Vestibulum vitae nisl justo. Nam mattis consequat auctor. Proin at turpis diam. Nullam euismod augue egestas metus tempor id feugiat nunc volutpat. Nulla porttitor lacus nec elit malesuada ac convallis metus tempus. Aenean nec ligula eget lorem porttitor tristique. Nulla luctus vehicula nunc, vel lacinia erat interdum eu. Etiam sed eros ac ipsum tincidunt congue. Cras nibh nulla, luctus eget tincidunt euismod, tincidunt quis tortor. Sed magna tortor, consequat eget dapibus non, facilisis eleifend ante.

Aliquam eu nisl eu purus pharetra condimentum. Nunc rhoncus cursus ipsum, nec posuere justo accumsan eget. Vestibulum laoreet leo quis nibh vulputate non tempor urna laoreet. Maecenas ut nibh ut leo pharetra tristique ut sed lectus. Donec diam purus, elementum eu consectetur vel, rhoncus vel orci. Duis fringilla pharetra porta. In mauris ipsum, accumsan et suscipit at, sodales a nisl. Proin non felis non tortor tincidunt sollicitudin sed pretium turpis. Donec mollis ante a erat elementum non scelerisque risus dignissim. Phasellus porttitor pretium elit a condimentum. Nulla augue dui, viverra vitae gravida ac, ultricies vitae magna.

CSS

Cascading Style Sheets

When floating block elements...

You must provide a width – If you don't, the width of the floated block will be set to auto, which fills the available width of the browser window or other containing element.

Elements do not float higher than their reference in the source

A floated block will float to the left or right relative to where it occurs in the source allowing the following elements in the flow to wrap around it.

It will stay below any block element that precedes it in the flow.

CSS

Cascading Style Sheets

Floating Multiple Elements

In general, floated elements will be placed as far left or right (as specified) and as high up as space allows.

```
<p id="float">Lorem ipsum dolor sit amet, consectetur adipiscing elit.  
<p id="float">Morbi euismod laoreet ligula ut pellentesque. Phasellus v  
<p id="float">Sed nec eros nec sapien posuere mattis. Pellentesque adip  
<p id="float">Aliquam eu nisl eu purus pharetra condimentum. Nunc rhonc
```

```
p#float{  
  float: left;  
  width: 200px;  
  margin-top: 0px;  
}  
p{  
  border: 1px solid red;  
}
```

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Sed lacinia varius purus sit amet sollicitudin. Aenean a tellus sed elit ornare dignissim consequat a felis. Donec vel quam et tortor egestas fringilla ut ut nunc. Quisque id felis id quam porta varius in eu elit. Morbi et feugiat tortor. Vivamus justo erat, convallis in convallis in, pellentesque nec magna. Cras eleifend euismod mattis. Sed dignissim elementum enim.

Morbi euismod laoreet ligula ut pellentesque. Phasellus vel sem turpis, vel rutrum nisi. Integer nulla risus, feugiat sed accumsan ut, interdum in turpis. Ut interdum, arcu nec convallis elementum, est neque iaculis erat, at facilisis eros leo vitae nibh. Sed facilisis sapien et felis aliquam ullamcorper. Sed congue tellus in risus vehicula gravida. Nunc facilisis malesuada ac convallis metus malesuada velit porta. Aliquam pharetra, mauris id mollis adipiscing, mauris elit auctor erat, eu dictum urna dui nec nulla. Sed vehicula fringilla massa, non malesuada augue venenatis rutrum. Nam metus ligula, mattis eget fringilla eu, scelerisque ac nisi. Etiam cursus pulvinar nunc, eu bibendum sem iaculis at. Praesent vitae augue velit.

Sed nec eros nec sapien posuere mattis. Pellentesque adipiscing nisi et nulla egestas molestie. Curabitur sem dui, scelerisque ut tincidunt non, tincidunt vel nunc. Morbi eget mi odio. Nam eget tellus ac erat rhoncus tempus. Vestibulum vitae nisi justo. Nam mattis consequat auctor. Proin at turpis diam. Nullam euismod augue egestas metus tempor id feugiat nunc volutpat. Nulla porttitor lacus nec elit malesuada ac convallis metus tempus. Aenean nec ligula eget lorem porttitor tristique. Nulla lacinia erat interdum eu. Etiam sed eros ac ipsum tincidunt congue. Cras nibh nulla, lacinia eget tincidunt euismod, tincidunt quis tortor. Sed magna tortor, consequat eget dapibus non, facilisis eleifend ante.

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Morbi euismod laoreet ligula ut pellentesque. Phasellus vel sem turpis, vel rutrum nisi. Integer nulla risus, feugiat sed accumsan ut, interdum in turpis. Ut interdum, arcu nec convallis elementum, est neque iaculis erat, at facilisis eros leo vitae nibh. Sed facilisis sapien et felis aliquam ullamcorper. Sed congue tellus in risus vehicula gravida. Nunc facilisis malesuada ac convallis metus malesuada velit porta. Aliquam pharetra, mauris id mollis adipiscing, mauris elit auctor erat, eu dictum urna dui nec nulla. Sed vehicula fringilla massa, non malesuada augue venenatis rutrum. Nam metus ligula, mattis eget fringilla eu, scelerisque ac nisi. Etiam cursus pulvinar nunc, eu bibendum sem iaculis at. Praesent vitae augue velit.

Sed nec eros nec sapien posuere mattis. Pellentesque adipiscing nisi et nulla egestas molestie. Curabitur sem dui, scelerisque ut tincidunt non, tincidunt vel nunc. Morbi eget mi odio. Nam eget tellus ac erat rhoncus tempus. Vestibulum vitae nisi justo. Nam mattis consequat auctor. Proin at turpis diam. Nullam euismod augue egestas metus tempor id feugiat nunc volutpat. Nulla porttitor lacus nec elit malesuada ac convallis metus tempus. Aenean nec ligula eget lorem porttitor tristique. Nulla lacinia erat interdum eu. Etiam sed eros ac ipsum tincidunt congue. Cras nibh nulla, lacinia eget tincidunt euismod, tincidunt quis tortor. Sed magna tortor, consequat eget dapibus non, facilisis eleifend ante.

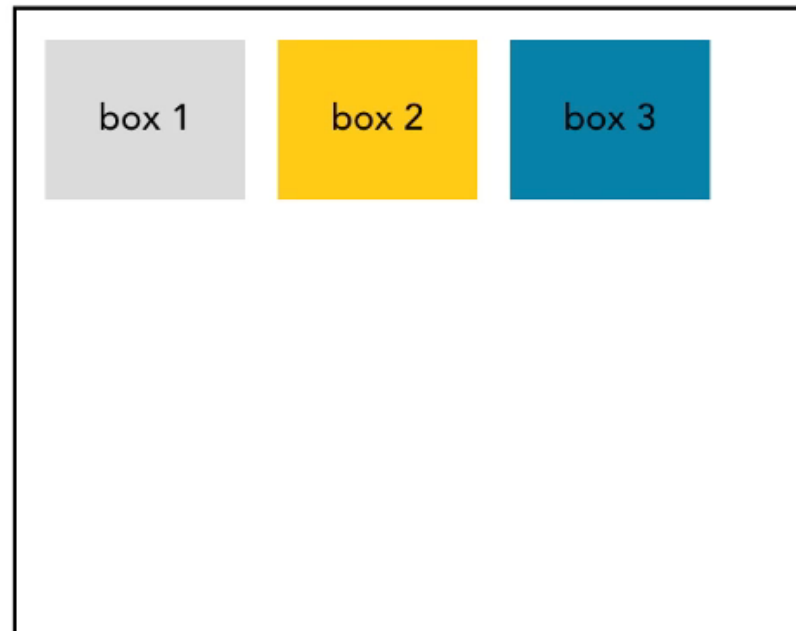
Aliquam eu nisl eu purus pharetra condimentum. Nunc rhoncus cursus ipsum, nec posuere justo accumsan eget. Vestibulum laoreet leo quis nibh vulputate non tempor urna laoreet. Maecenas ut nibh ut leo pharetra tristique ut sed lectus. Donec diam purus, elementum eu consectetur vel, rhoncus vel orci. Duis fringilla pharetra porta. In mauris ipsum, accumsan et suscipit ut, sodales a nisl. Proin non felis non tortor tincidunt sollicitudin sed pretium turpis. Donec mollis ante a erat elementum non scelerisque risus dignissim. Phasellus porttitor pretium elit a condimentum. Nulla augue dui, viverra vitae gravida ac, ultricies vitae magna.

CSS

Cascading Style Sheets

FLOATING TECHNIQUES

```
div {float: left;}
```



If float all to the same side Can use this to create horizontal display of elements
Horizontal menu

CSS

Cascading Style Sheets

Clear

Keep in mind you apply the clear property to the element you want to start below the floated element, not the floated element itself!

```
p#float{
  float: left;
  width: 200px;
  margin-top: 0px;
}

p.clear{
  clear: both;
}

p{
  border: 1px solid red;
}
```

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Sed lacinia varius purus sit amet sollicitudin. Aenean a tellus sed elit ornare dignissim consequat a felis. Donec vel quam et tortor egestas fringilla ut ut nunc. Quisque id felis id quam porta varius in eu elit. Morbi et feugiat tortor. Vivamus justo erat, convallis in convallis in, pellentesque nec magna. Cras eleifend euismod mattis. Sed dignissim elementum enim. Donec nec libero arcu, ut molestie elit. In nunc quam, ultricies sed pharetra eu, tempus ut ligula. Sed pulvinar dignissim sagittis.

Morbi euismod laoreet ligula ut turpis, vel rutrum nisi. Integer nulla risus, feugiat sed accumsan ut, interdum in turpis. Ut interdum, arcu nec convallis elementum, est neque iaculis erat, at facilisis eros leo vitae nibb. Sed facilisis sapien et felis aliquam ullamcorper. Sed congue tellus in risus vehicula gravida. Nunc facilisis malesuada velit porta. Aliquam pharetra, mauris id mollis adipiscing, mauris elit auctor erat, eu dictum urna dui nec nulla. Sed vehicula fringilla massa, non malesuada augue venenatis rutrum. Nam menis ligula, mattis eget fringilla eu, scelerisque ac nisi. Etiam cursus pulvinar nunc, eu bibendum sem iaculis at. Praesent vitae augue velit.

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Aliquam eu nisl eu purus pharetra condimentum. Nunc rhoncus cursus ipsum, nec posuere justo accumsan eget. Vestibulum laoreet leo quis nibb vulputate non tempor urna laoreet. Maecenas ut nibb ut leo pharetra tristique ut sed lectus. Donec diam purus, elementum eu consectetur vel, rhoncus vel orci. Duis fringilla pharetra porta. In mauris ipsum, accumsan et suscipit at, sodales a nisl. Proin sem felis nec tortor tincidunt sollicitudin sed pretium turpis. Donec mollis ante a erat elementum non scelerisque risus dignissim. Phasellus portitor pretium elit a condimentum. Nulla augue dui, viverra vitae gravida ac, ultricies vitae magna.

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Morbi euismod laoreet ligula ut turpis, vel rutrum nisi. Integer nulla risus, feugiat sed accumsan ut, interdum in turpis. Ut interdum, arcu nec convallis elementum, est neque iaculis erat, at facilisis eros leo vitae nibb. Sed facilisis sapien et felis aliquam ullamcorper. Sed congue tellus in risus vehicula gravida. Nunc facilisis lectus in ante varius facilisis malesuada velit porta. Aliquam pharetra, mauris id mollis adipiscing, mauris elit auctor erat, eu dictum urna dui nec nulla. Sed vehicula fringilla massa, non malesuada augue venenatis rutrum. Nam metus ligula, mattis eget fringilla eu, scelerisque ac nisi. Etiam cursus pulvinar nunc, eu bibendum sem iaculis at. Praesent vitae augue velit.

Sed nec eros nec sapien posuere mattis. Pellentesque adipiscing nisi et nulla egestas molestie. Curabitur sem dui, scelerisque ut tincidunt non, tincidunt vel nunc. Morbi eget mi odio. Nam eget tellus ac erat rhoncus tempus. Vestibulum vitae nisl justo. Nam mattis consequat auctor. Proin at turpis diam. Nullam euismod augue egestas metus tempor id feugiat nunc vulputat. Nulla portitor lacus nec elit malesuada ac convallis metus tempus. Aenean nec ligula eget lorem portitor tristique. Nulla lacinia erat interdum eu. Etiam sed eros ac ipsum tincidunt congue. Cras nibb nulla, lacinia eget tincidunt euismod, tincidunt quis tortor. Sed magna tortor, consequat eget dapibus non, facilisis eleifend ante.

Aliquam eu nisl eu purus pharetra condimentum. Nunc rhoncus cursus ipsum, nec posuere justo accumsan eget. Vestibulum laoreet leo quis nibb vulputate non tempor urna laoreet. Maecenas ut nibb ut leo pharetra tristique ut sed lectus. Donec diam purus, elementum eu consectetur vel, rhoncus vel orci. Duis fringilla pharetra porta. In mauris ipsum, accumsan et suscipit at, sodales a nisl. Proin sem felis non tortor tincidunt sollicitudin sed pretium turpis. Donec mollis ante a erat elementum non scelerisque risus dignissim. Phasellus portitor pretium elit a condimentum. Nulla augue dui, viverra vitae gravida ac, ultricies vitae magna.

CSS

Cascading Style Sheets

Clearing Floated Elements

The last thing you need to know about floated elements is how to turn the text wrapping *off and get back to layout as usual*. This is done by clearing the element that you want to start below the float. Applying the clear property to an element prevents it from appearing next to a floated element, and forces it to start against the next available “clear” space below the float.

clear

Values: left | right | both | none | inherit

Default: none

Applies to: block-level elements only

Inherits: no

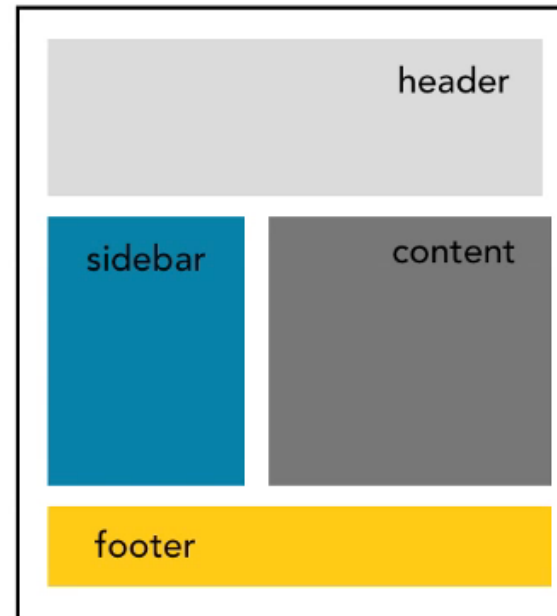
CSS

Cascading Style Sheets

CLEARING FLOATS

```
.content { float: right; }
```

```
.sidebar{ float: left; }
```



This is what you want

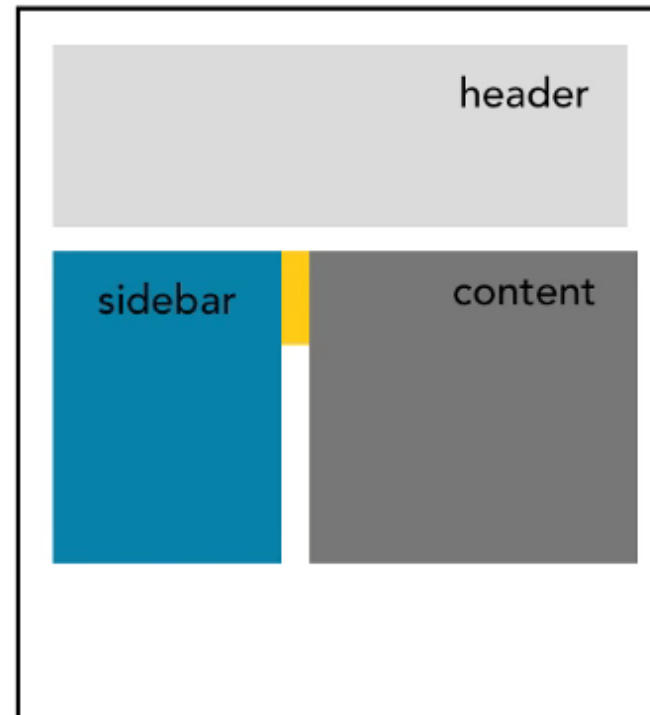
CSS

Cascading Style Sheets

CLEARING FLOATS

```
.content { float: right; }
```

```
.sidebar{ float: left; }
```



This is what you get if don't clear so clear

CSS

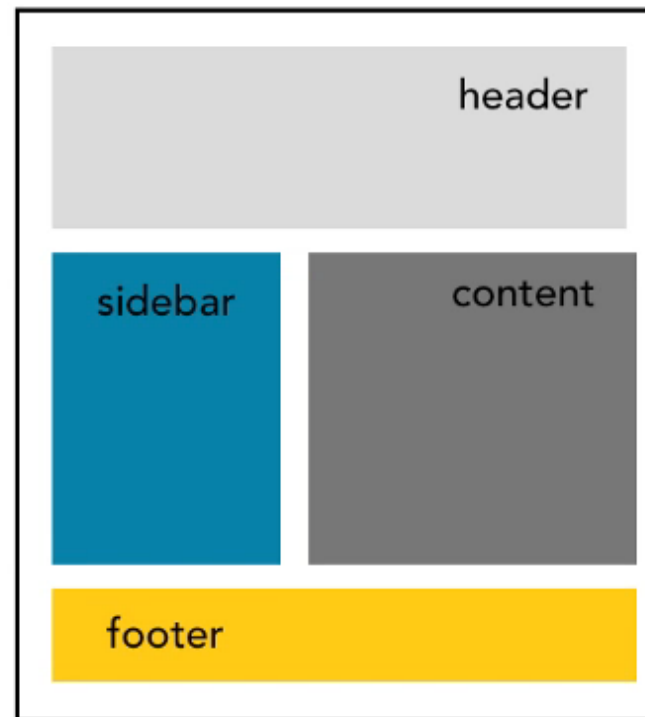
Cascading Style Sheets

CLEARING FLOATS

```
.content { float: right; }
```

```
.sidebar{ float: left; }
```

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



This is what you want- achieved by both floating & clearing

CSS

Cascading Style Sheets

Types of Positioning

Static

This is the normal positioning scheme in which elements are positioned as they occur in the document flow.

Relative

Relative positioning moves the box relative to its original position in the flow. *The distinctive behavior of relative positioning is that the space the element would have occupied in the normal flow is preserved.*

Absolute

Absolutely positioned elements are removed from the document flow entirely and positioned relative to a containing element. Unlike relative positioning the space they would have occupied is closed up. *In fact they have no influence at all on the layout of surrounding elements.*

Fixed

Fixed positioned elements stay in one position in the window even when the document scrolls. Fixed elements are removed from the document flow and positioned relative to the browser window (or viewpoint) rather than another element in the document.

CSS

Cascading Style Sheets

NORMAL DOCUMENT FLOW

Welcome to lynda.com!

CSS Fundamentals

James Williamson

In CSS Fundamentals, author James Williamson gives web authors a high level overview of the basic concepts of CSS, its syntax, and how find online resources that will help write CSS as well as deepen their understanding of it.

Course topics include basic CSS concepts and syntax, a look at the history of CSS and its current state, an overview of common CSS properties and terms, and a look at online CSS resources designed specifically for web authors.

Skill level: All

Normal just stacks one on top of the other in order like blocks- this is Static.

CSS

Cascading Style Sheets

Relative Positioning

```
em{  
  position: relative;  
  top: 30px;  
  left: 60px;  
  background-color: #DBB3EF;  
}
```

Notice the space the element would have occupied is preserved and continues to influence the layout of the surrounding content.

>Lorem ipsum dolor sit amet, tellus sed elit ornare dignissim consequat a felis. Donec vel quam et tortor egestas fringilla ut ut nunc. Quisque id felis id quam porta varius in eu elit. Morbi et augiat tortor. Vivamus justo erat, convallis in convallis in, pellentesque nec magna. Cras eleifend euismod mattis. Sed dignissim elementum enim. Donec nec libero arcu, ut molestie elit. In nunc quam, ultricies sed pharetra eu, tempus ut ligula. Sed pulvinar dignissim sagittis.

Sed lacinia varius purus sit amet sollicitudin. Aenean a

The original space in the document flow is preserved.

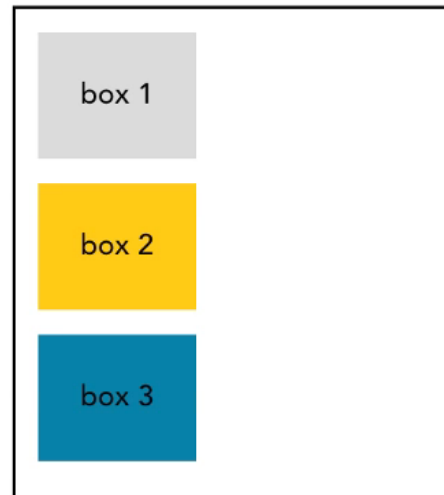
Overlap happens.

CSS

Cascading Style Sheets

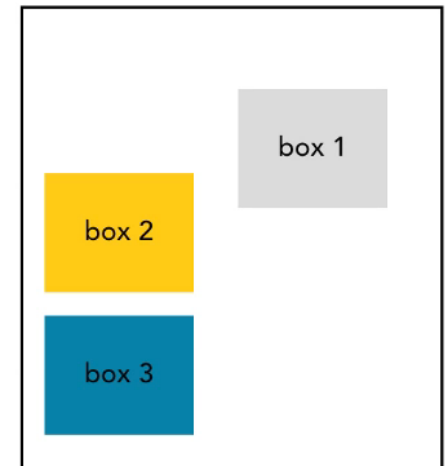
RELATIVE POSITIONING

```
.box1 {position: relative;  
  left: 100px;  
  top: 50px;  
}
```



RELATIVE POSITIONING

```
.box1 {position: relative;  
  left: 100px;  
  top: 50px;  
}
```

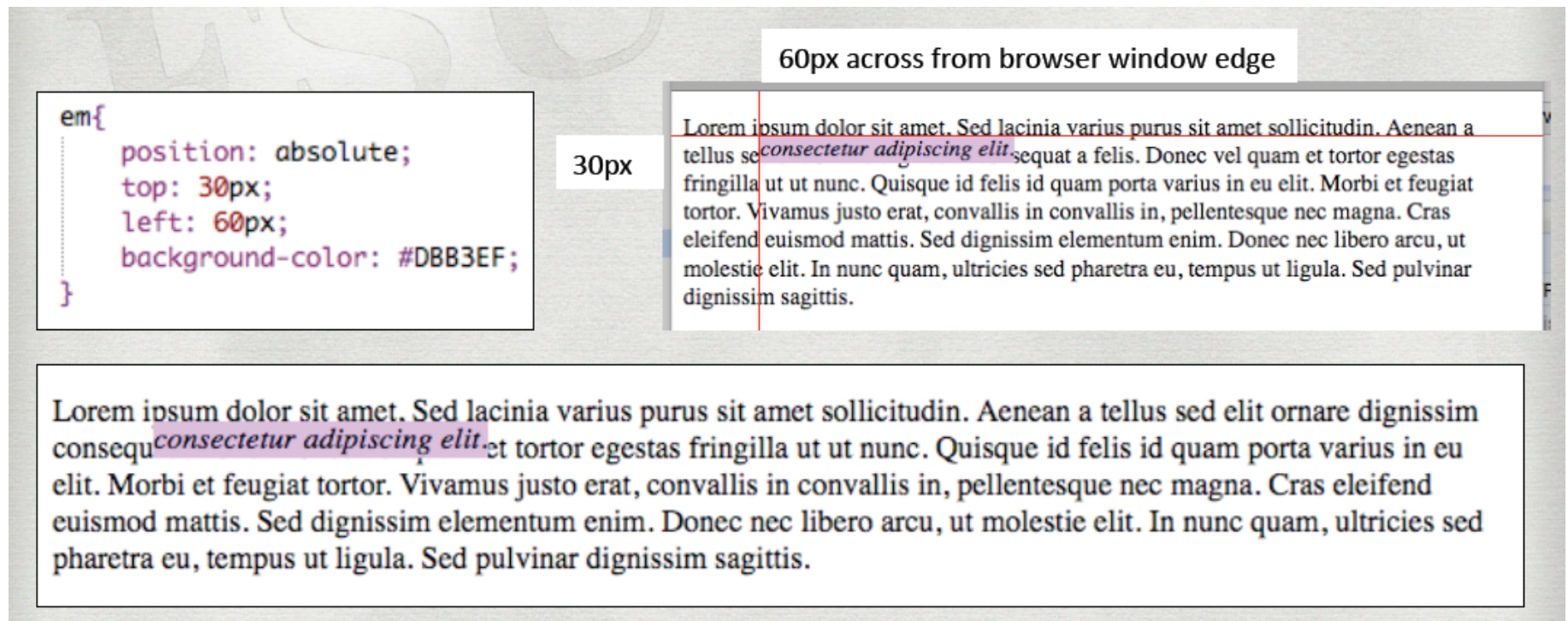


Leaves a hole where it was.

CSS

Cascading Style Sheets

Absolute Positioning



What actually happens in absolute positioning is that the elements are positioned relative to its nearest *containing block*. In this example the nearest containing block is the root (html) element (also known as the *initial containing block*).

CSS

Cascading Style Sheets

ABSOLUTE POSITIONING

Elements are removed from normal document flow, and repositioned based on top, right, left, or bottom offset values. Elements are placed relative to the nearest positioned ancestor.

CSS

Cascading Style Sheets

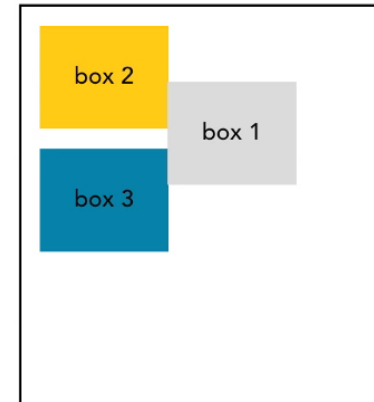
ABSOLUTE POSITIONING

```
.box1 {position: absolute;  
  left: 100px;  
  top: 50px;  
}
```



ABSOLUTE POSITIONING

```
.box1 {position: absolute;  
  left: 100px;  
  top: 50px;  
}
```



Now other elements move up to fill in the hole

CSS

Cascading Style Sheets

Containing Blocks

The position and size of an element's box(es) are sometimes calculated relative to a certain rectangle, called the *containing block of the element*.

If the positioned element is *not contained within another positioned* element, then it will be placed relative to the initial containing block (created by the html element).

If the element has an ancestor (i.e. is contained within an element) that has its position set to relative, absolute, or fixed, the element will be positioned relative to the edges of ***that element instead***.

```
p{
  position: relative;
  padding: 15px;
  background-color: #DBFDBA;
  border: 2px solid #6C4788;
}

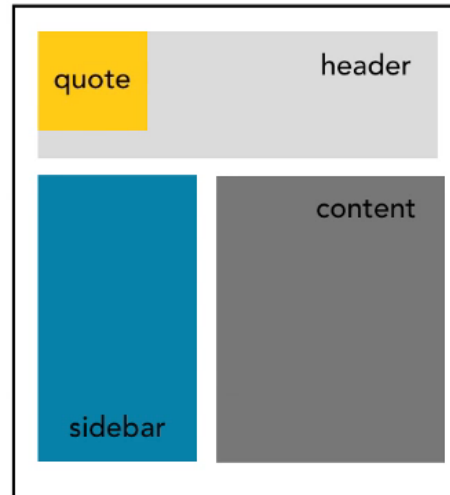
em{
  position: absolute;
  top: 30px;
  left: 60px;
  background-color: #DBB3EF;
}
```

CSS

Cascading Style Sheets

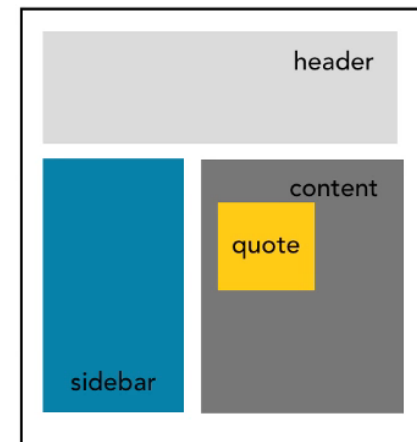
ABSOLUTE POSITIONING

```
.content {  
  
}  
  
.quote {  
  position: absolute;  
  top: 20px;  
  left: 40px;  
}
```



ABSOLUTE POSITIONING

```
.content {  
  position: relative;  
}  
  
.quote {  
  position: absolute;  
  top: 20px;  
  left: 40px;  
}
```



It looks for the nearest containing element that has positioning- so must position parent element if want it nested inside.

Give parent element a relative position- and the child element a absolute position.

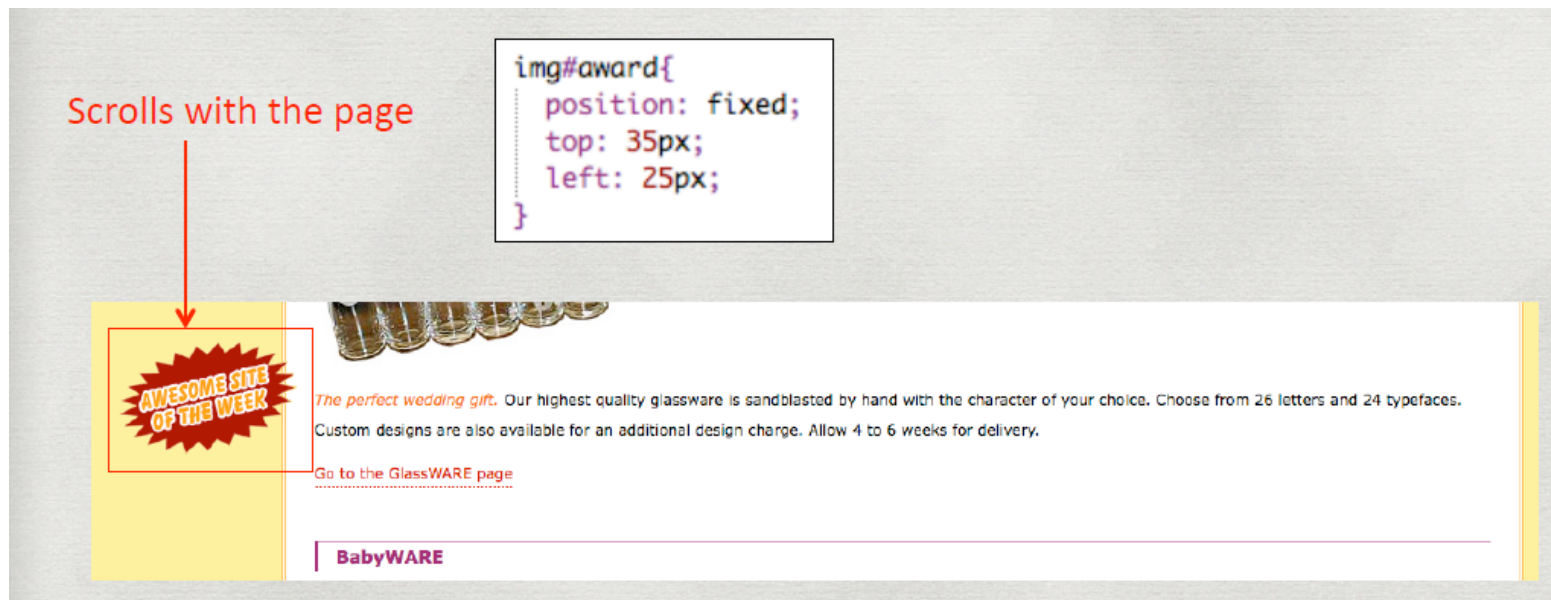
CSS

Cascading Style Sheets

Fixed Positioning

For the most part fixed positioning works just like absolute positioning. The significant difference is that the offset values for fixed elements are ***always relative to the browser window***.

This important difference means that the positioned element stays put even when the rest of the page scrolls.

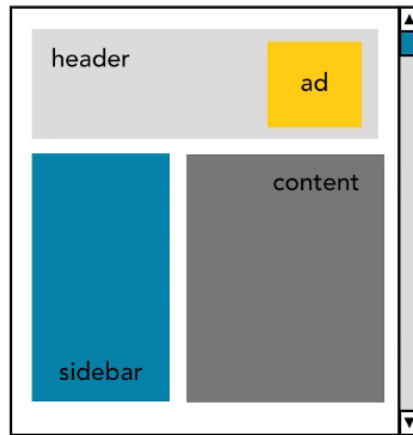


CSS

Cascading Style Sheets

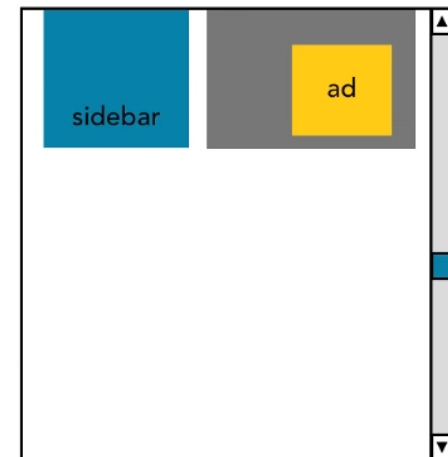
FIXED POSITIONING

```
.ad {  
  position: fixed;  
  top: 50px;  
  right: 100px;  
}
```



FIXED POSITIONING

```
.ad {  
  position: fixed;  
  top: 50px;  
  right: 100px;  
}
```



Does not move even when you scroll

CSS

Cascading Style Sheets

Stacking Order

As we've seen, absolutely positioned elements overlap other elements, so it follows that multiple positioned elements have the potential to stack up on one another.

By default, elements stack up in the order which they appear in the document, but you can change the stacking order with the z-index property.

z-index

Values: *(number)* | auto | inherit

Default: auto

Applies to: positioned elements

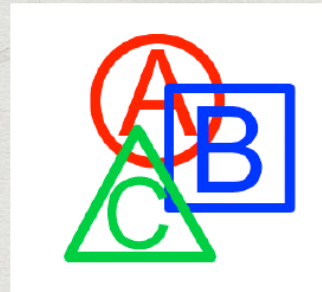
Inherits: no

CSS

Cascading Style Sheets

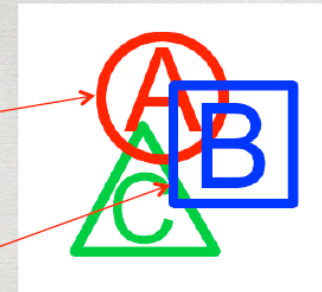
Stacking

```
<head>
  <title>Shapes</title>
  <style type="text/css">
    #first{
      position: absolute;
      top: 30px;
      left: 80px;
    }
    #second{
      position: absolute;
      top: 80px;
      left: 150px;
    }
    #third{
      position: absolute;
      top: 120px;
      left: 50px;
    }
  </style>
</head>
<body>
  <div id="first">
    
  </div>
  <div id="second">
    
  </div>
  <div id="third">
    
  </div>
</body>
```



In order of appearance
in markup

```
<style type="text/css">
  #first{
    position: absolute;
    top: 30px;
    left: 80px;
    z-index: 3;
  }
  #second{
    position: absolute;
    top: 80px;
    left: 150px;
    z-index: 10;
  }
  #third{
    position: absolute;
    top: 120px;
    left: 50px;
  }
</style>
```



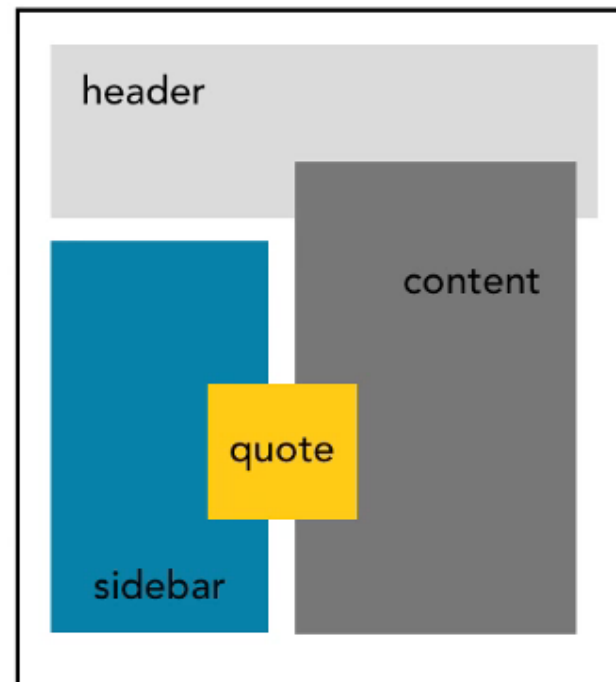
In order specified
by z-index rule

CSS

Cascading Style Sheets

ELEMENT STACKING

```
.content {  
    z-index: 1;  
}  
.quote {  
    z-index: 2;  
}
```



Use the z-index to overlap elements.

*Positioned elements will appear on top of non positioned elements if those element overlap.

CSS

Cascading Style Sheets

Specifying Position

Once you've established the positioning method, the actual position is specified with four offset properties.

TROUBLE: Top Right Bottom Left

top, right, bottom, left

Values: *length measurement* | *percentage* | **auto** | **inherit**

Default: **auto**

Applies to: *Positioned elements (where position value is **relative**, **absolute**, or **fixed**)*

Inherits: *no*

The values provided for each of the offset properties defines the distance the element should be moved *away from the* respective edge.

CSS

Cascading Style Sheets

Absolute V. Relative

ABSOLUTE VALUES

in	inches
cm	centimeters
mm	millimeters
pt	points
pc	picas

RELATIVE VALUES

em	ems	vw	viewport width
ex	exes	vh	viewport height
px	pixels	vm	viewport minimum
gd	grids	ch	character
rem	root ems		

CSS

Cascading Style Sheets

FIXED UNITS VS. RELATIVE UNITS

- Fixed units are displayed at the requested size, regardless of device or context
- Relative units are displayed relative to the environment in which they are found

Designed with multiple
uses in mind, his
website looks great on
all devices and screens.



16px

Designed with multiple
uses in mind, his
website looks great on
all devices and screens.

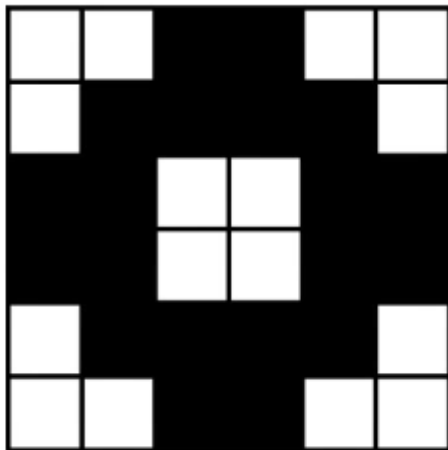


1em

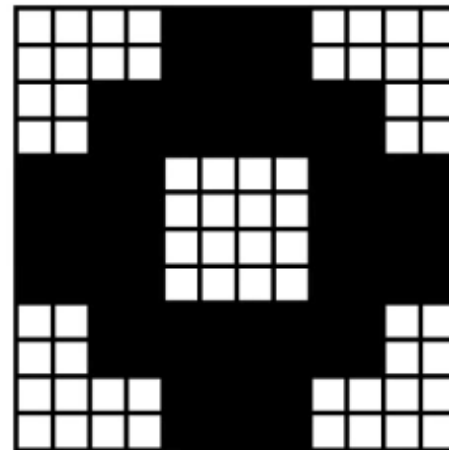
CSS

Cascading Style Sheets

PIXELS



1024 x 768



1440 x 900

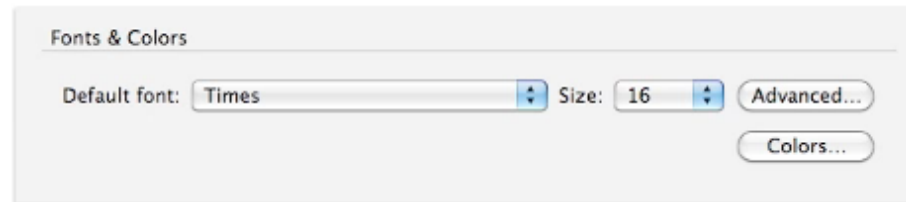
The size of the pixels change not the size of the monitor

CSS

Cascading Style Sheets

EMS

When used with font-size, 1em is equal to the default font size for the device



For example, based on the browser setting shown above:

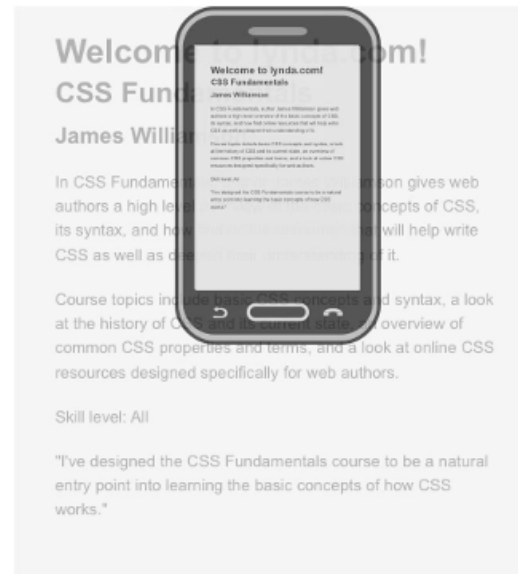
1em = 16px

CSS

Cascading Style Sheets

EMS

```
body {font-size: 100%;}  
h1 {font-size: 1.6em;}  
h2 {font-size: 1.4em;}  
h3 {font-size: 1.2em;}  
p {font-size: 1em;}
```



The text will get bigger or smaller depending on the device it is being used on – but the size relationship will stay the same.

Also text is inherited from the parent element.

CSS

Cascading Style Sheets

EX & REM

- Ex is based on the “x-height” of a font
- Root Ems are like ems, only they’re relative to the root unit (body, html), not the element’s immediate parent
- Root Ems are not fully supported yet

CSS

Cascading Style Sheets

PERCENTAGES

Percentage values are calculated relative to their parent element. A div with a width of 80% would use 80% of its parent element, while a paragraph with its font-size set to 80% would size the text at 80% of the size of its parent text.

CSS

Cascading Style Sheets

Lots of Possibilities Using same Structural html and different CSS
<http://www.csszengarden.com>



CSS Zen Garden
The Beauty of CSS Design

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- [Make 'em Proud](#) by Michael McLaughlin and Scotty Reifmeyer
- [Orchid Beauty](#) by Kevin Addison
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- [CSS Co., Ltd.](#) by Benjamin Klemm
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The Road to Enlightenment

So What is This About?

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Sources

Used For this Presentation

www.w3schools.com

Lynda.com- *XHTML and HTML Essential Training* with Bill Weinman

Lynda.com -*CSS Fundamentals* with James Williamson

Florida State University's Applied Web Design with Ken Baldauf

Learning Web Design by Jennifer Niederst Robbins

<http://www.html.net/tutorials/css/>

Stylin' with CSS- A Designer's Guide 2nd edition by Charles Wyke-Smith