



CSS

- با تگهای اچ تی ام ال ساختار (structure) یک سایت را مشخص می کنیم
 - Style sheet نحوه نمایش (presentation) یک سایت مشخص می شود
 - می توانیم بگوییم عناصر html لایه ساختاری (structural layer) و style sheet لایه نمایش (presentation layer) یک سایت را تشکیل می دهند .
-

شیوه نامه ها از یک یا یک مجموعه قوانین تشکیل شده اند که نحوه نمایش یک یا مجموعه ای از عناصر را مشخص می کند هر قانون از دو قسمت تشکیل شده است

- قسمتی که عنصر را انتخاب می کند
 - قسمتی که نحوه نمایش عنصر را مشخص می کند
- قانون مقابل به ما می گوید تمام `h1` ها با رنگ سبز نمایش داده شوند `h1 { color: green; }`
پ `p { font-size: small; font-family: sans-serif; }`

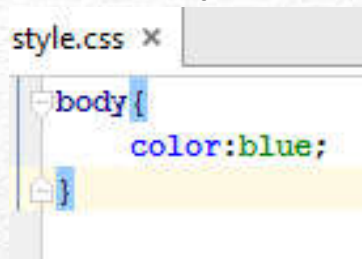
declaration
selector { property: value; }

declaration block
selector {
property1: value1;
property2: value2;
property3: value3;
}

- External Style Sheet

شیوه نامه خارجی

ایجاد یک فایل CSS



و اتصالش به یک صفحه html با استفاده از کد زیر

```
<head>
  <meta charset="UTF-8">
  <link rel="stylesheet" href="style.css" type="text/css">
  <title>my home page with css</title>
</head>
```

- Embedded Style Sheet شیوه نامه داخل فایل اچ تی ام ال

```
<head>
  <title>my home page with embeded style</title>
  <style>
    body {
      color:red;
    }
  </style>
</head>
```

- Internal Style Sheet

شیوه داخل تگ

```
<h1 style="color:green"> inline style sheet </h1>
```

style.css ×

```
body{  
    color:blue;  
}
```

شیوه نامه خارجی style.css

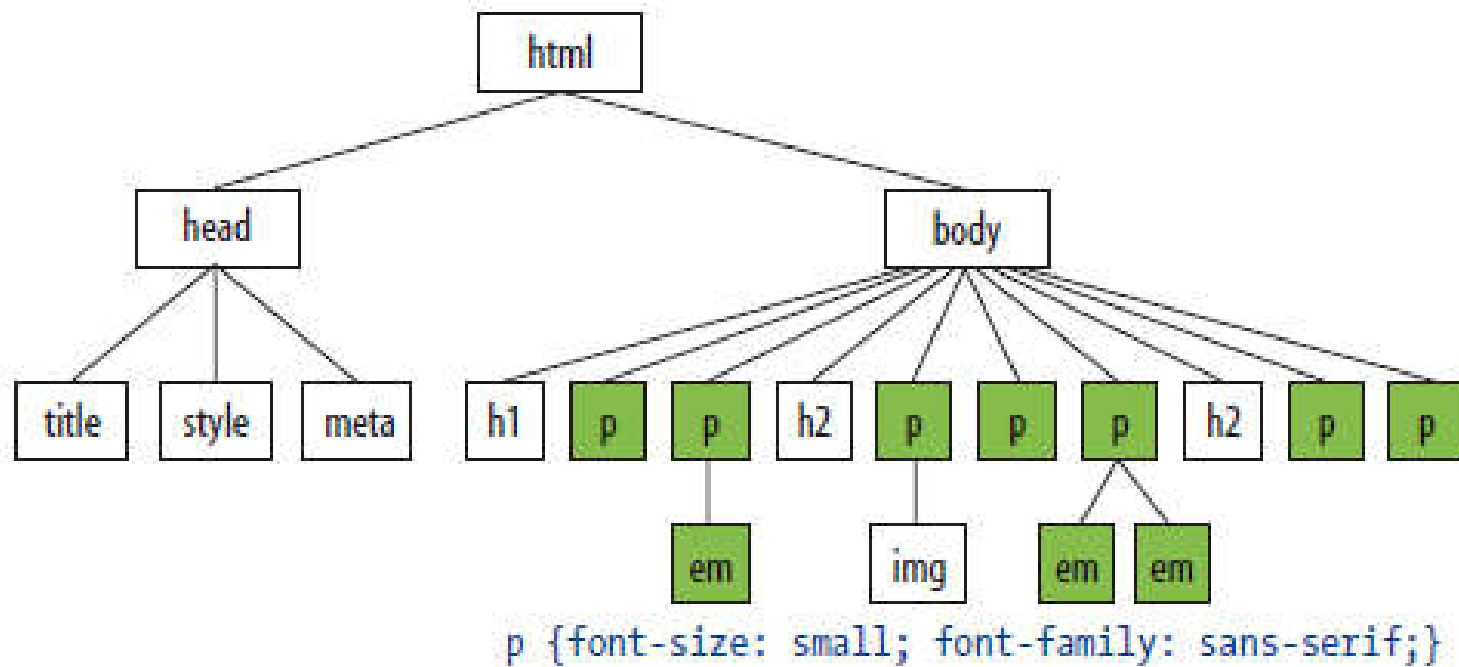
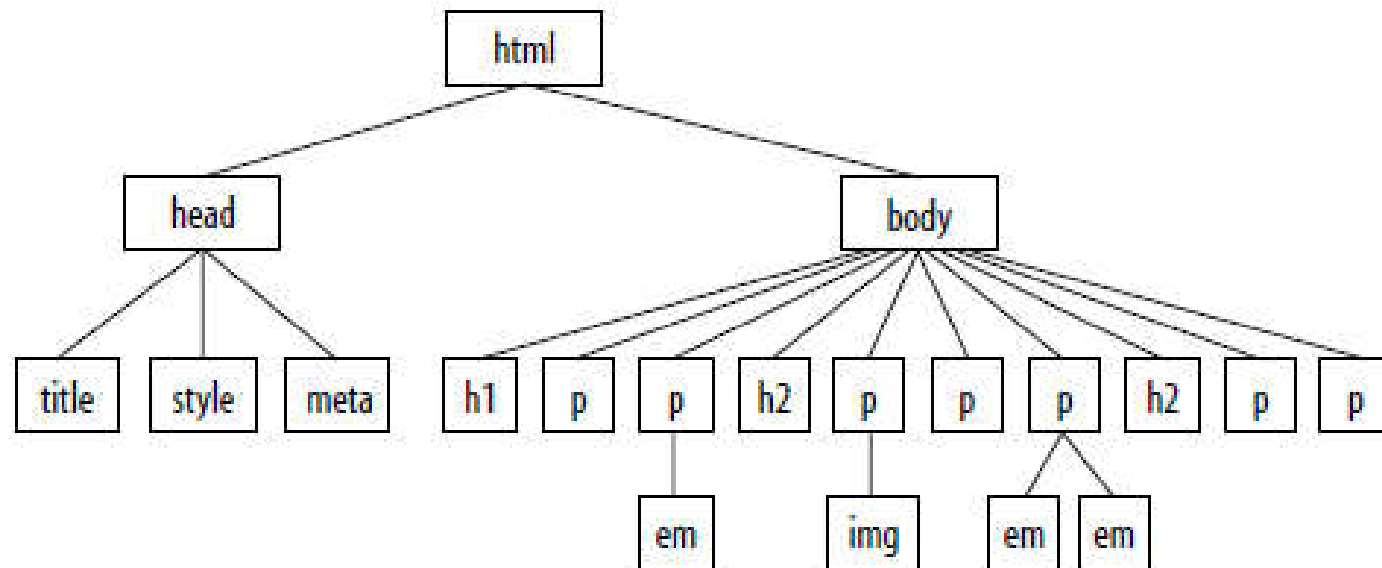
```
<!DOCTYPE html>  
<html>  
<head>  
    <title>home page</title>  
    <link rel="stylesheet" href="style.css" type="text/css">  
    <style>  
        P {  
            color:red;  
        }  
    </style>  
</head>  
<body>  
    text with external stylesheet  
    <h1 style="color:green"> inline style sheet </h1>  
    <p> text with embede style sheet</p>  
</body>  
</html>
```

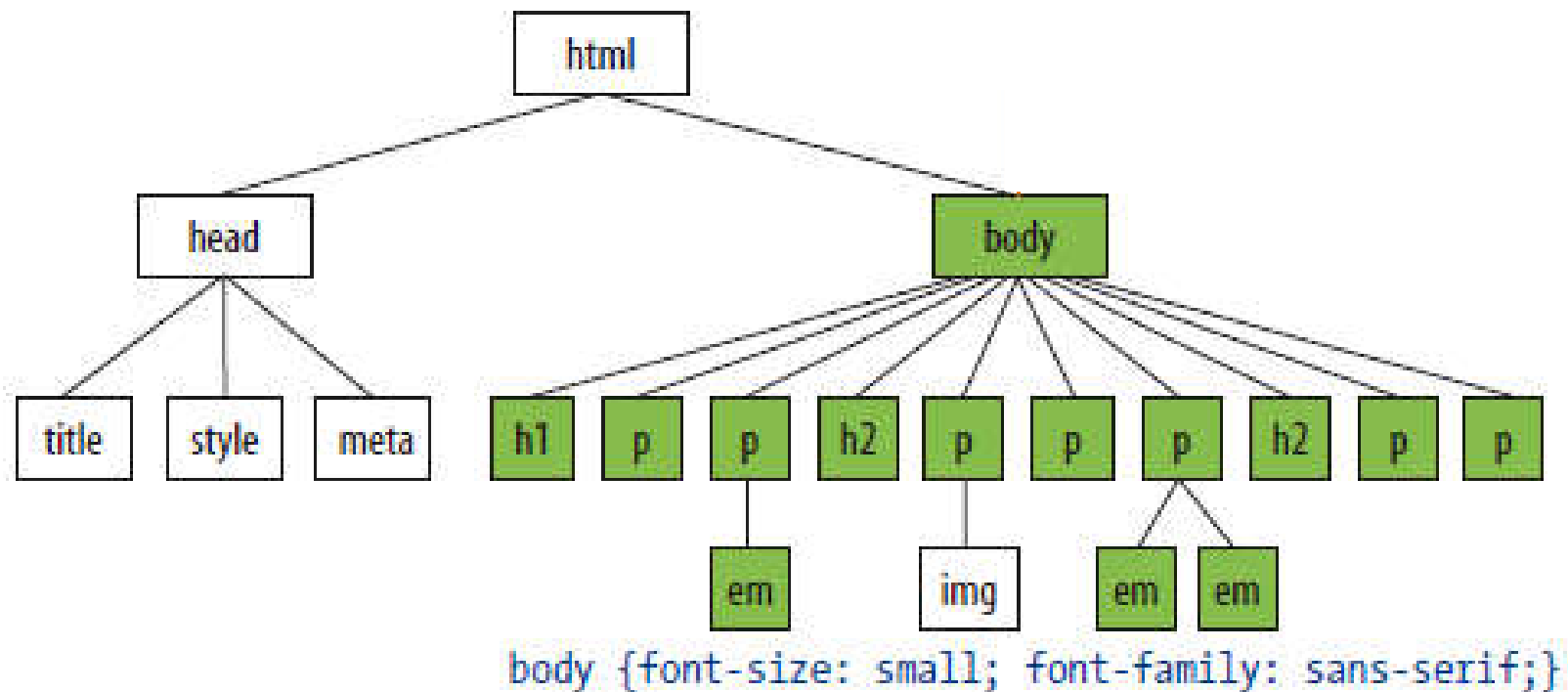
استفاده از هر سه نوع
شیوه نامه در یک سند
html

text with external stylesheet

inline style sheet

text with embede style sheet





در مثال بالا تمام عناصر فرزند و نوه تگ `body` که خصوصیت فونت برایشان قابل تعریف بوده این خصوصیت را از تگ `body` به ارث برده اند ولی تگ `img` که خصوصیت فونت برایش قابل تعریف نیست چنین خصوصییتی را به ارث نبرده است.

- پیش فرض مرورگر اینترنت
 - شیوه نامه خارجی (external style sheet css)
 - شیوه نامه داخلی (embedded style sheet)
 - شیوه نامه داخل تگ (inline style)
 - استفاده از Important! در تگ
-

style.css x

```
h1 {  
    color:blue;  
}
```

شیوه نامه خارجی style.css

```
<!DOCTYPE html>  
<html>  
<head>  
    <title>home page</title>  
    <link rel="stylesheet" href="style.css" type="text/css">  
    <style>  
        h1 {  
            color:red;  
        }  
    </style>  
</head>  
<body>  
<h1 style="color:green"> war of stylesheets </h1>  
</body>  
</html>
```

سند html که در آن
سه شیوه نامه
- خارجی
- داخلی فایل
- داخل تگ
به نزاع پرداخته اند

war of stylesheets

برنده نبرد

style.css ×

```
h1{  
    color:blue !important;  
}
```

شیوه نامه خارجی style.css
همراه با !important

```
<!DOCTYPE html>  
<html>  
<head>  
    <title>home page</title>  
    <link rel="stylesheet" href="style.css" type="text/css">  
    <style>  
        h1 {  
            color:red;  
        }  
    </style>  
</head>  
<body>  
<h1 style="color:green"> war of stylesheets </h1>  
</body>  
</html>
```

سند html که در آن
سه شیوه نامه

- خارجی + !important
 - داخلی فایل
 - داخل تگ
- به نزاع پرداخته اند

war of stylesheets

برنده نبرد

- ID selectors : به یک تگ منحصر بفرد اشاره می کند

```
<p id="abi"> p with id 'abi'</p>
```

```
#abi{color: blue;} = p#abi{color: blue;}
```

- Class selectors : به مجموعه ای از تگها که نام کلاس یکسانی دارند اشاره

می کند

```
<h1 class="sabz"> h1 with class 'sabz' </h1>  
<p class="sabz"> p with class 'sabz'</p>  
<p> p without class</p>
```

```
.sabz{ color:green;} <> p.sabz{ color:green;}
```

همه عناصر می توانند خصوصیت کلاس و شناسه داشته باشند

```
<head>
  <title>home page</title>
  <style>
    p.sabz{ color:green;}
    #abi{color: blue;}
  </style>
</head>
<body>
<h1 class="sabz"> h1 with class 'sabz' </h1>
<p class="sabz"> p with class 'sabz'</p>
<p> p without class</p>
<p id="abi"> p with id 'abi'</p>
</body>
```

خروجی

h1 with class 'sabz'

p with class 'sabz'

p without class

p with id 'abi'

```
<head>
  <title>home page</title>
  <style>
    .sabz{ color:green;}
    #abi{color: blue;}
  </style>
</head>
<body>
<h1 class="sabz"> h1 with class 'sabz' </h1>
<p class="sabz"> p with class 'sabz'</p>
<p> p without class</p>
<p id="abi"> p with id 'abi'</p>
</body>
```

خروجی

h1 with class 'sabz'

p with class 'sabz'

p without class

p with id 'abi'

جنگ شیوه نامه ها بین id,class,inline style

```
<style>
  .sabz{ color:green;}
  #abi{color: blue;}
</style>
```

در نبرد بین شیوه نامه ها بین class و id پیروز میدان id است

```
<p id="abi" class="sabz"> p with id 'abi' and class 'sabz'</p>
```

p with id 'abi' and class 'sabz'

خروجی

```
h1 { border: 1px solid blue; }  
h2 { border: 1px solid blue; }  
p { border: 1px solid blue; }  
em { border: 1px solid blue; }  
img { border: 1px solid blue; }
```

دستورات بالا معادل تک دستور زیر است

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

خانواده فونت متن با خاصیت font-family

تنظیم می شود.

اگر مرورگر فونت اول را پشتیبانی نکند، فونت بعدی را امتحان می کند.

با فونتی که می خواهید شروع کنید ، و با یک خانواده Generic پایان دهید ، تا اگر هیچ فونت دیگری در دسترس نباشد به مرورگر اجازه انتخاب یک قلم مشابه در خانواده Generic را داده باشید.

توجه : در صورتی که نام یک خانواده فونت بیش از یک کلمه است، باید آن را در علامت کوتیشن ، مانند "Times New Roman" قرار دهید.

• خانواده فونت یا font-family

• انواع فونت :

• Serif

• Sans – serif

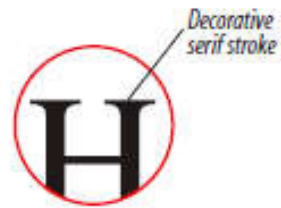
• Monospace

• Cursive

• fantasy

```
p{font-family:"Times New Roman", Times, serif;}
```

Serif



Hello
Times

Hello
Georgia

Hello
Times New Roman

Hello
Lucida (Mac)

Sans-serif



Hello
Verdana

Hello
Trebuchet MS

Hello
Arial

Hello
Arial Black

Monospace

W i
Monospace font
(equal widths)

W i
Proportional font
(different widths)

Hello
Courier

Hello
Courier New

Hello
Andale Mono

Cursive

Hello
Apple Chancery

Hello
Comic Sans

Hello
Snell

Fantasy

Hello
Impact

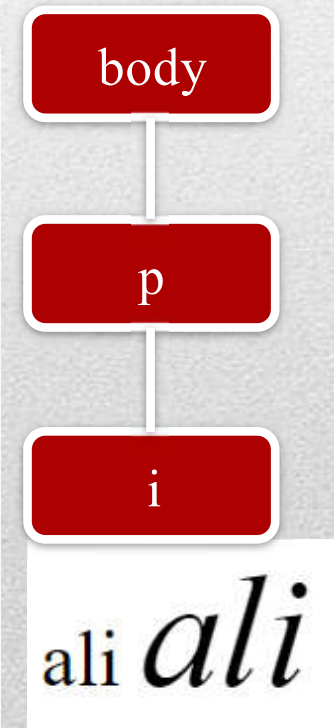
HELLO
Stencil

HELLO
Mojo

- اندازه فونت font-size
- اندازه های مطلق (px, mm, cm)
- اندازه های نسبی (em , %)

1em برابر اندازه فونت فعلی است. اندازه پیش فرض متن در مرورگرها 16px است. بنابراین، اندازه پیش فرض 1em، 16px است. در مثال زیر اندازه فونت تگ <i> 2 برابر اندازه فونت تگ والدش می باشد در نتیجه فونت سایزش برابر $2 * 16 = 32$ پیکسل می باشد.

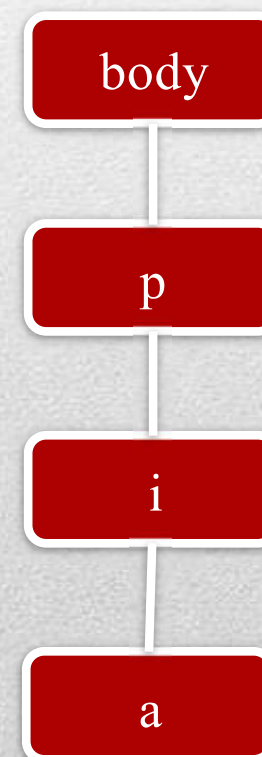
```
<body>
  <p style="font-size:16px">
    ali
    <i style="font-size:2em">
      ali
    </i>
  </p>
</body>
```



```
<body>
  <p style="font-size:16px">
    ali
    <i style="font-size:2em">
      hamid
      <a href="http://google.com"
        style="font-size:200%"> google</a>
    </i>
  </p>
</body>
```

در مثال مقابل Ali با اندازه 16 پیکسل و hamid با اندازه 32 و google با اندازه 64 پیکسل نمایش داده می شود

ali hamid google



font-weight

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

Default: normal

font-style

Values: normal | italic | oblique | inherit

Default: normal

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

text-align: left

Paragraph 1. The text-align property controls the horizontal alignment of the text within an element. It does not affect the alignment of the element on the page. The resulting text behavior of the various values should be fairly intuitive.

text-align: right

Paragraph 2. The text-align property controls the horizontal alignment of the text within an element. It does not affect the alignment of the element on the page. The resulting text behavior of the various values should be fairly intuitive.

text-align: center

Paragraph 3. The text-align property controls the horizontal alignment of the text within an element. It does not affect the alignment of the element on the page. The resulting text behavior of the various values should be fairly intuitive.

text-align: justify

Paragraph 4. The text-align property controls the horizontal alignment of the text within an element. It does not affect the alignment of the element on the page. The resulting text behavior of the various values should be fairly intuitive.

Figure 12-15. Examples of text-align values.

text-decoration

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

Default: none

I've got laser eyes.

text-decoration: underline

I've got laser eyes.

text-decoration: overline

~~I've got laser eyes.~~

text-decoration: line-through

Figure 12-16. Examples of text-decoration values.

list-style-type

Values: none | disc | circle | square | decimal | decimal-leading-zero | lower-alpha | upper-alpha | lower-latin | upper-latin | lower-roman | upper-roman | lower-greek | inherit

Default: disc

Applies to: ul, ol, and li (or elements whose display value is list-item)

Inherits: yes

disc

- crimson
- cobalt
- veridian
- umber
- ultramarine

circle

- crimson
- cobalt
- veridian
- umber
- ultramarine

square

- crimson
- cobalt
- veridian
- umber
- ultramarine

list-style-image




Values: url | none | inherit

Default: none

Applies to: ul, ol, and li (or elements whose display value is list-item)

Inherits: yes

```
list-style-image: url(/images/happy.gif);
```

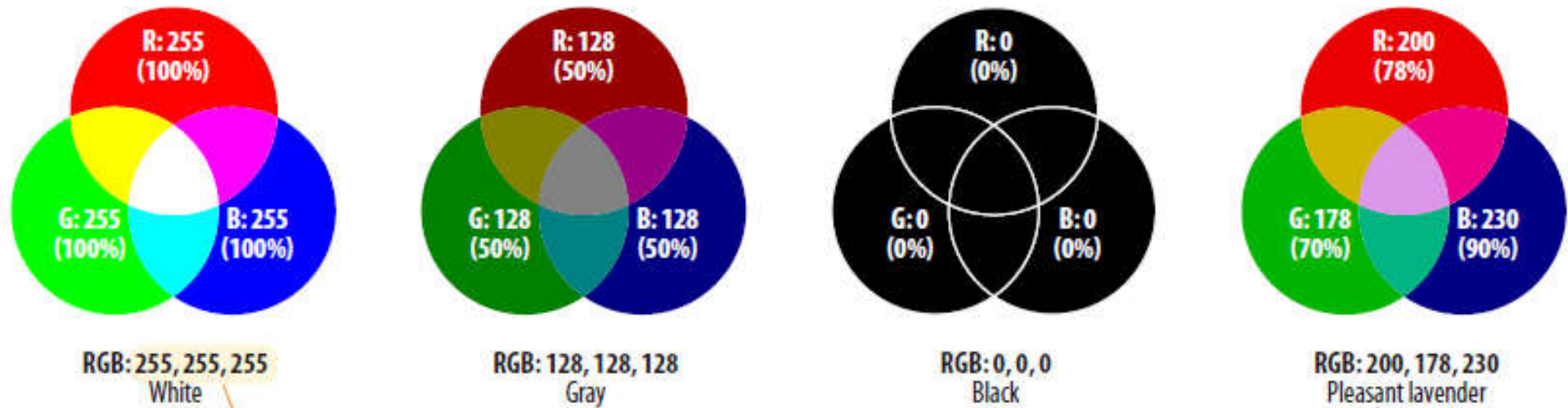
-  Puppy dogs
-  Sugar frogs
-  Kitten's baby teeth

			
Black #000000	Gray #808080	Silver #C0C0C0	White #FFFFFF
			
Maroon #800000	Red #FF0000	Purple #800080	Fuchsia #FF00FF
			
Green #008000	Lime #00FF00	Olive #808000	Yellow #FFFF00
			
Navy #000080	Blue #0000FF	Teal #008080	Aqua #0080FF
			
Orange (CSS 2.1) #FFA500			

Figure 13-1. The 17 standard color names in CSS2.1.

RGB

The RGB color model



Why 255?

In true RGB color, 8 bits of information are devoted to each color channel. 8 bits can describe 256 shades ($2^8=256$), so colors are measured on a scale from 0 to 255.

Hexadecimal RGB values must be preceded by the # (octophorpe or hash) symbol.

#RRGGBB

hex RED value hex GREEN value hex BLUE value

rgb (255, 255, 255)
rgb (100%, 100%, 100%)
#FFFFFF
#FFF

color

Values: color value (name or numeric) | inherit

• رنگ

background-color

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

Default: transparent

• رنگ پیش زمینه

```
a { text-decoration: none; } /* turns underlines off for all links */  
a:link { color: maroon; }  
a:visited { color: gray; }  
a:focus { color: maroon; background-color: #ffd9d9; }  
a:hover { color: maroon; background-color: #ffd9d9; }  
a:active { color: red; background-color: #ffd9d9; }
```

• شبه کلاس

- Pen and Ink Illustrations
- Paintings
- Collage

- Pen and Ink Illustrations
- Paintings
- Collage

- Pen and Ink Illustrations
- Paintings
- Collage

- Pen and Ink Illustrations
- Paintings
- Collage

background-image

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

Default: none

Applies to: all elements

Inherits: no

- تصویر زمینه

background-repeat

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

Default: repeat

Applies to: all elements

Inherits: no

- تکرار شونده‌گی تصویر
زمینه

background-position

Values: length measurement | percentage | left | center | right | top | bottom | inherit

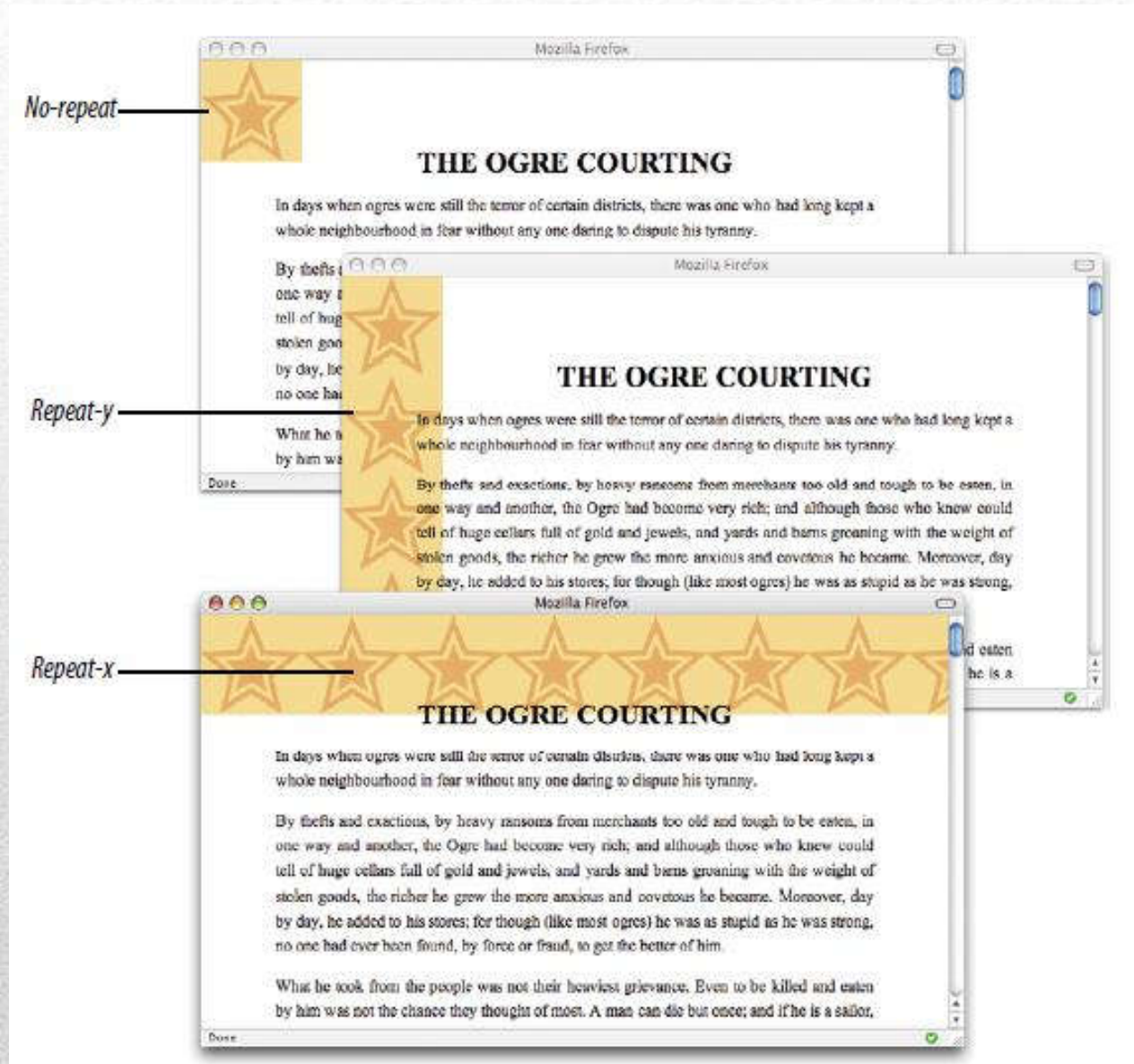
Default: 0% 0% (same as left top)

Applies to: all elements

Inherits: no

- موقعیت
تصویر زمینه

• تکرار شونده تصویر زمینه



• موقعیت

تصویر زمینه

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

`background-position: left bottom;`

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

`background-position: right center;`

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

`background-position: 200px 50px;`

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

`background-position: 15% 100%;`

- ثابت یا لغزان بودن تصویر زمینه

background-attachment

Values: scroll | fixed | local (new in CSS3) | inherit

Default: scroll

Applies to: all elements

Inherits: no

background

Values: background-color background-image background-repeat background-attachment background-position | inherit

Default: see individual properties

Applies to: all elements

Inherits: no

- همه خواص زمینه
ها در یک خاصیت

```
body {  
  background-color: white;  
  background-image: url(arlo.png);  
  background-repeat: no-repeat;  
  background-position: right top;  
  background-attachment: fixed;  
}
```



```
body { background: white url(arlo.png) no-repeat right top fixed; }
```

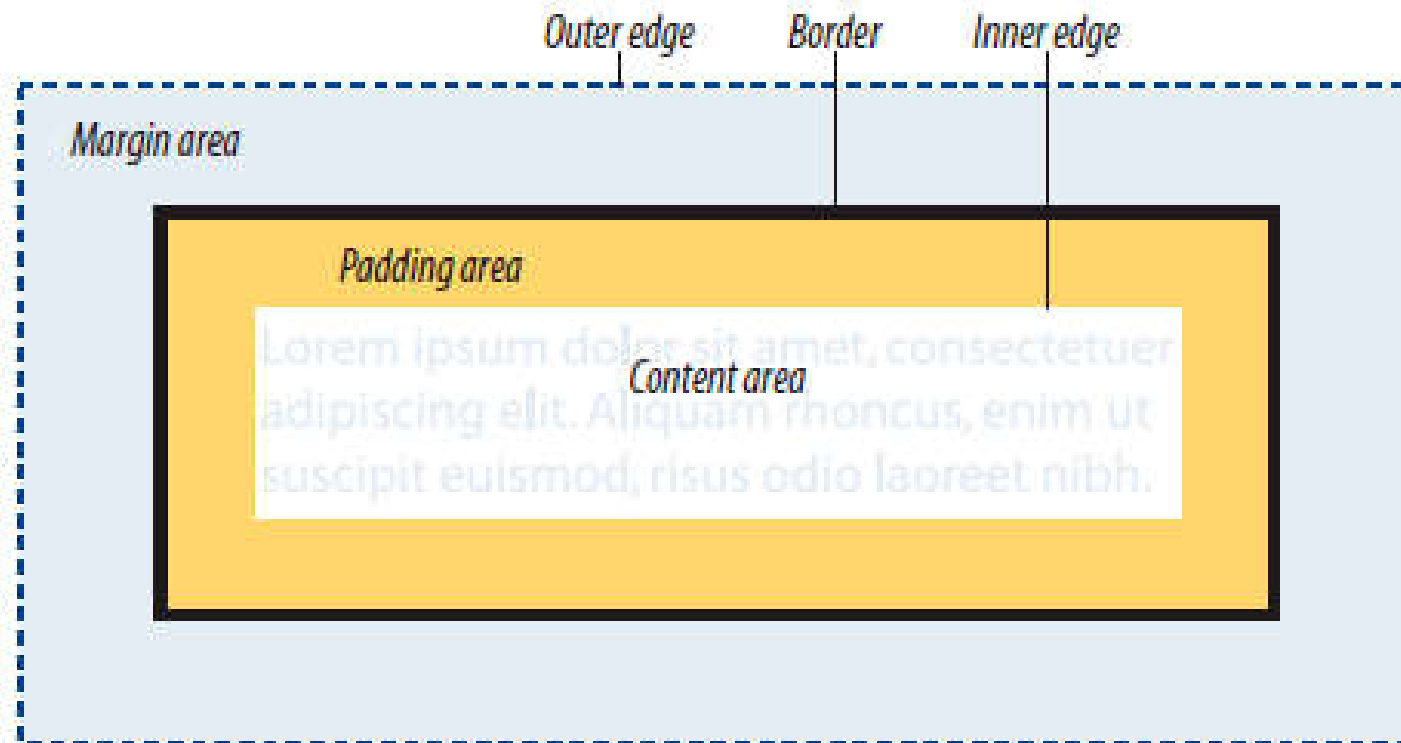


Figure 14-1. The parts of an element box according to the CSS box model.

تعيين عرض و ارتفاع جعبه

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*

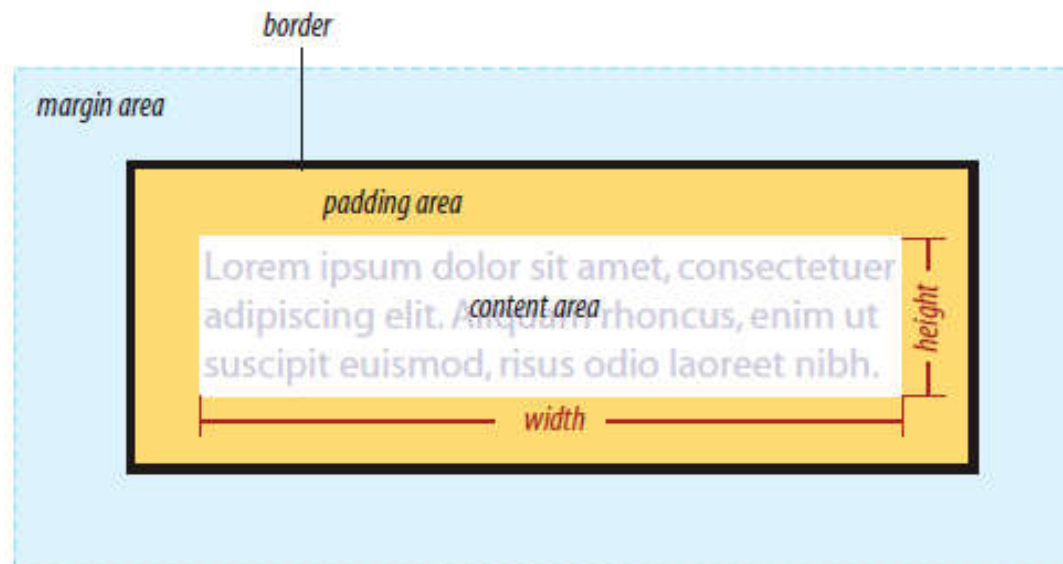
Default: auto

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

Inherits: no

```
p {  
  background: #c2f670;  
  width: 500px;  
  height: 150px;  
  padding: 20px;  
  border: 2px solid gray;  
  margin: 20px;  
}
```

$20\text{px} + 2\text{px} + 20\text{px} + 500\text{px width} + 20\text{px} + 2\text{px} + 20\text{px} = 584 \text{ pixels}$



overflow

Values: visible | hidden | scroll | auto | inherit

Default: visible

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

Inherits: no

visible

Applying the masks to the glasses is the most labor-intensive part of the process. Not only do you have to measure, place, and burnish on each mask, but you also need to completely cover the remainder of the glass in heavy paper. Any exposed areas (even inside) will get scratched by the flying sand, so it has to be a good seal.

hidden

Applying the masks to the glasses is the most labor-intensive part of the process. Not only do you have to measure, place, and burnish on each mask, but you also need to completely

scroll

Applying the masks to the glasses is the most labor-intensive part of the process. Not only do you have to measure, place, and burnish on each mask, but you also

auto (short text)

Applying the masks to the glasses is the most labor-intensive part of the process.

auto (long text)

Applying the masks to the glasses is the most labor-intensive part of the process. Not only do you have to measure, place, and burnish on each mask, but you also

padding ایجاد فاصله بین محتوا تا خط حاشیه

padding-top, padding-right, padding-bottom, padding-left

Values: *length measurement | percentage | inherit*

Default: 0

Applies to: *all elements except table-row, table-row group, table-header-group, table-footer-group, table-column, and table-column-group*

Inherits: *no*

padding

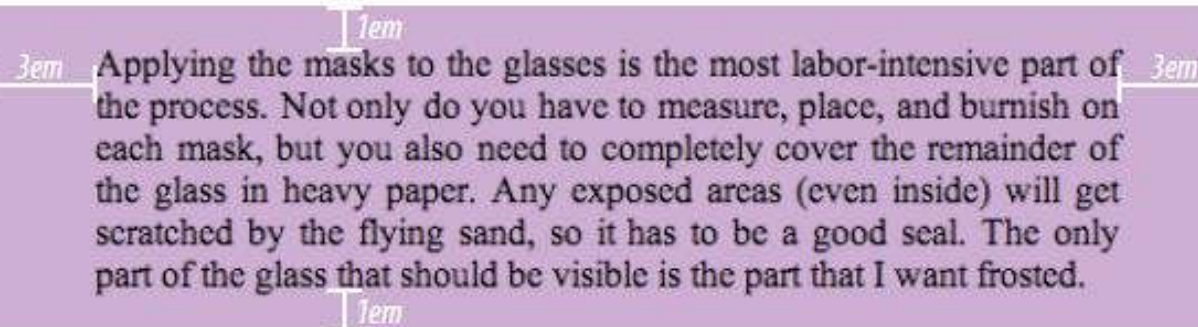
Values: *length measurement | percentage | inherit*

Default: 0

Applies to: *all elements*

Inherits: *no*

```
blockquote {  
  padding-top: 1em;  
  padding-right: 3em;  
  padding-bottom: 1em;  
  padding-left: 3em;  
  background-color: #D098D4;  
}
```



1 value

padding: 10px;

Applied to all sides.

2 values

padding: 10px 6px;

First is top and bottom;

Second is left and right.

3 values

padding: 10px 6px 4px;

First is top;

Second is left and right;

Third is bottom.

4 values

padding: 10px 6px 4px 10px;

Applied clockwise to top, right, bottom, and left edges consecutively (TRBL).

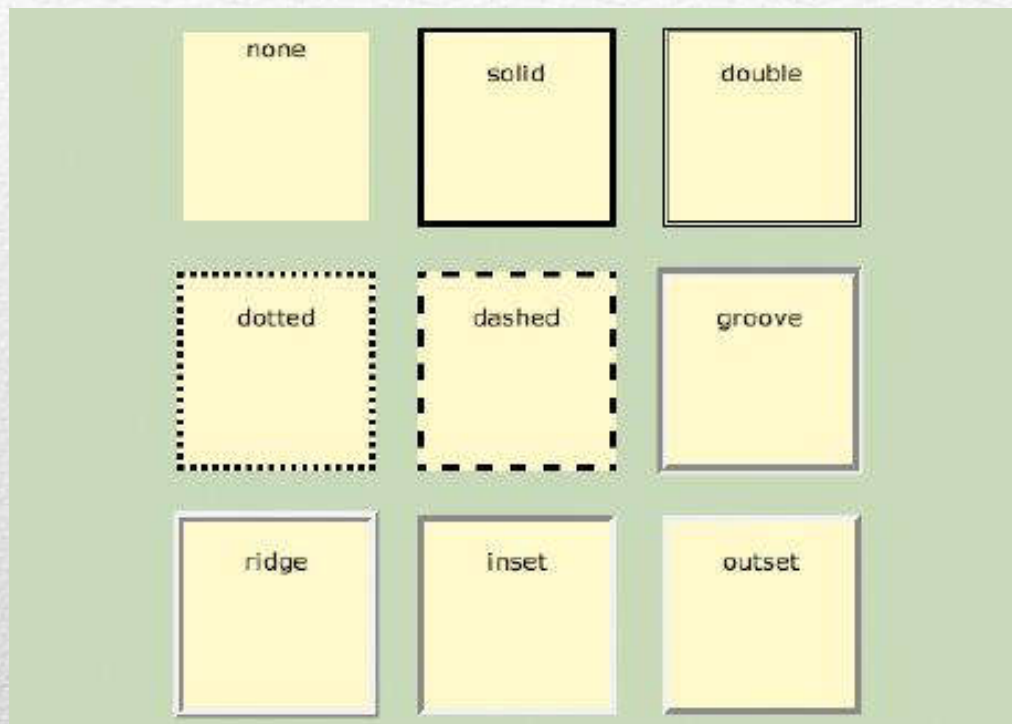
border-style

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

Default: none

Applies to: all elements

Inherits: no



ایجاد فاصله بین جعبه های مختلف با margin

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

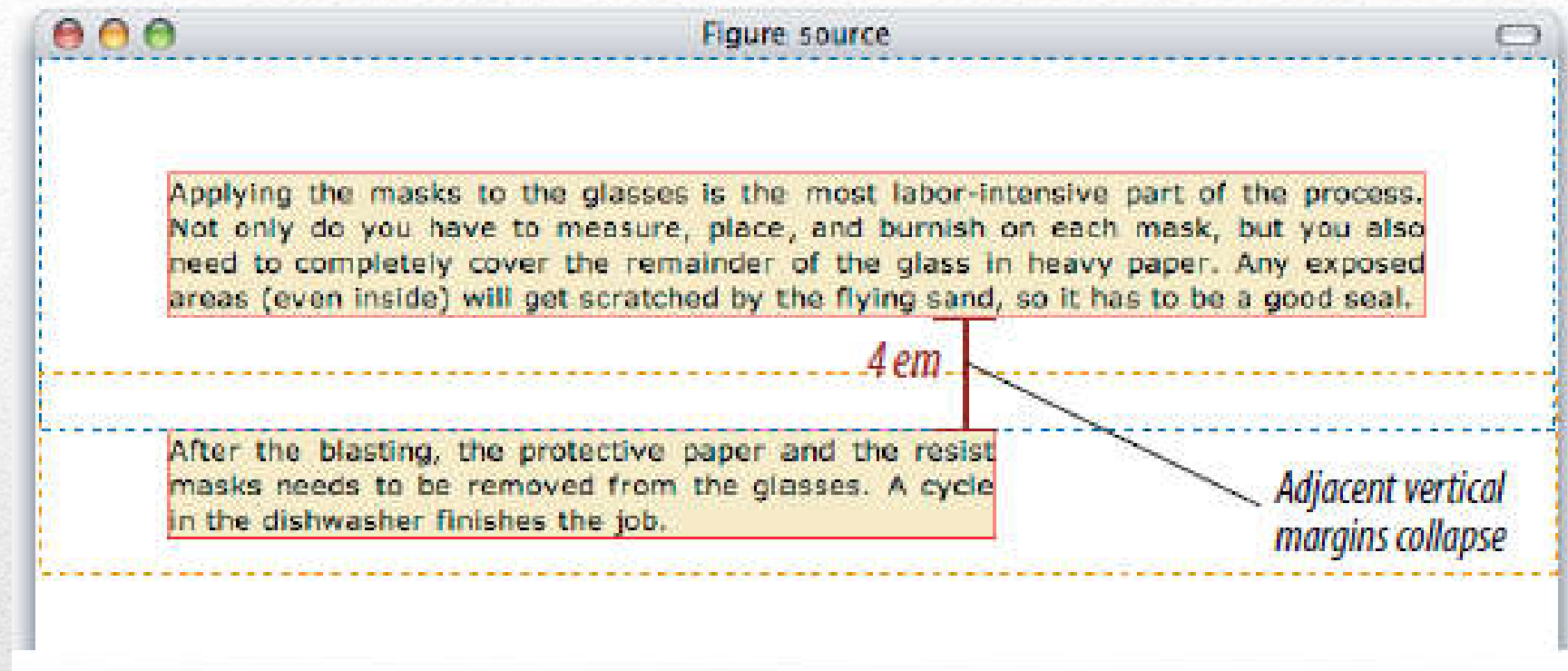
Applies to: *all elements except elements with table display types other than table-caption, table, and inline-table*

Inherits: no

```
p#A {  
  margin: 4em;  
  border: 1px solid red;  
  background: #FCF2BE;  
}
```

Applying the masks to the glasses is the most labor-intensive part of the process. Not only do you have to measure, place, and burnish on each mask, but you also need to completely cover the remainder of the glass in heavy paper. Any exposed areas (even inside) will get scratched by the flying sand, so it has to be a good seal.

margin: 4em;



Floating and positioning

float

Values: left | right | none | inherit

Default: none

Applies to: all elements

Inherits: no

Inline image in the normal flow



space next to the image is held clear

They went down, down, down, till at last they came to a passage with a door at one end, which was only fastened with a latch. The eldest Princess opened it, and they found themselves immediately in a lovely little wood, where the leaves were spangled with drops of silver which shone in the brilliant light of the moon. They next crossed another wood where the leaves were sprinkled with gold, and after that another still, where the leaves glittered with diamonds.

- قرار گرفتن متن در کنار
عکس بدون استفاده از float

Inline image floated to the right.

They went down, down, down, till at last they came to a passage with a door at one end, which was only fastened with a latch. The eldest Princess opened it, and they found themselves immediately in a lovely little wood, where the leaves were spangled with drops of silver which shone in the brilliant light of the moon. They next crossed another wood where the leaves were sprinkled with gold, and after that another still, where the leaves glittered with diamonds.



image moves over and text wraps around it

- قرار گرفتن
متن در کنار
عکس با استفاده
از float

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


- برای خنثی کردن اثر float از این دستور استفاده می شود

clear

Values: left | right | both | none | inherit

Default: none

Applies to: block-level elements only

Inherits: no



The following day, to the great astonishment of all the village, about two o'clock in the afternoon a voice was heard singing: 'Raleo, raleo, How the cattle go!'

The Star Gazer Packs Up and Leaves

```
img {  
  float: left;  
  margin-right: 10px;  
}  
h2 {  
  clear: left;  
  margin-top: 2em;  
}
```

position

Values: static | relative | absolute | fixed | inherit

Default: static

Applies to: all elements

Inherits: no

• تنظيم موقعيت صفحه

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

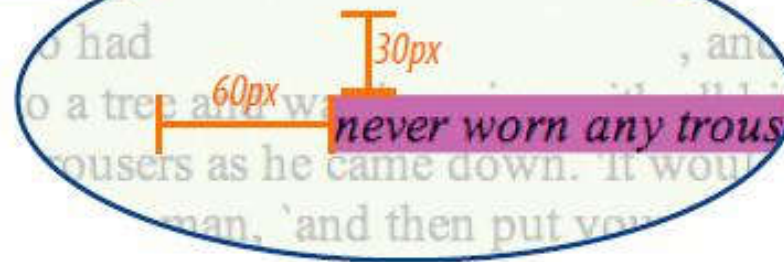
• offset

```

em {
  position: relative;
  top: 30px;
  left: 60px;
  background-color: fuchsia;
}

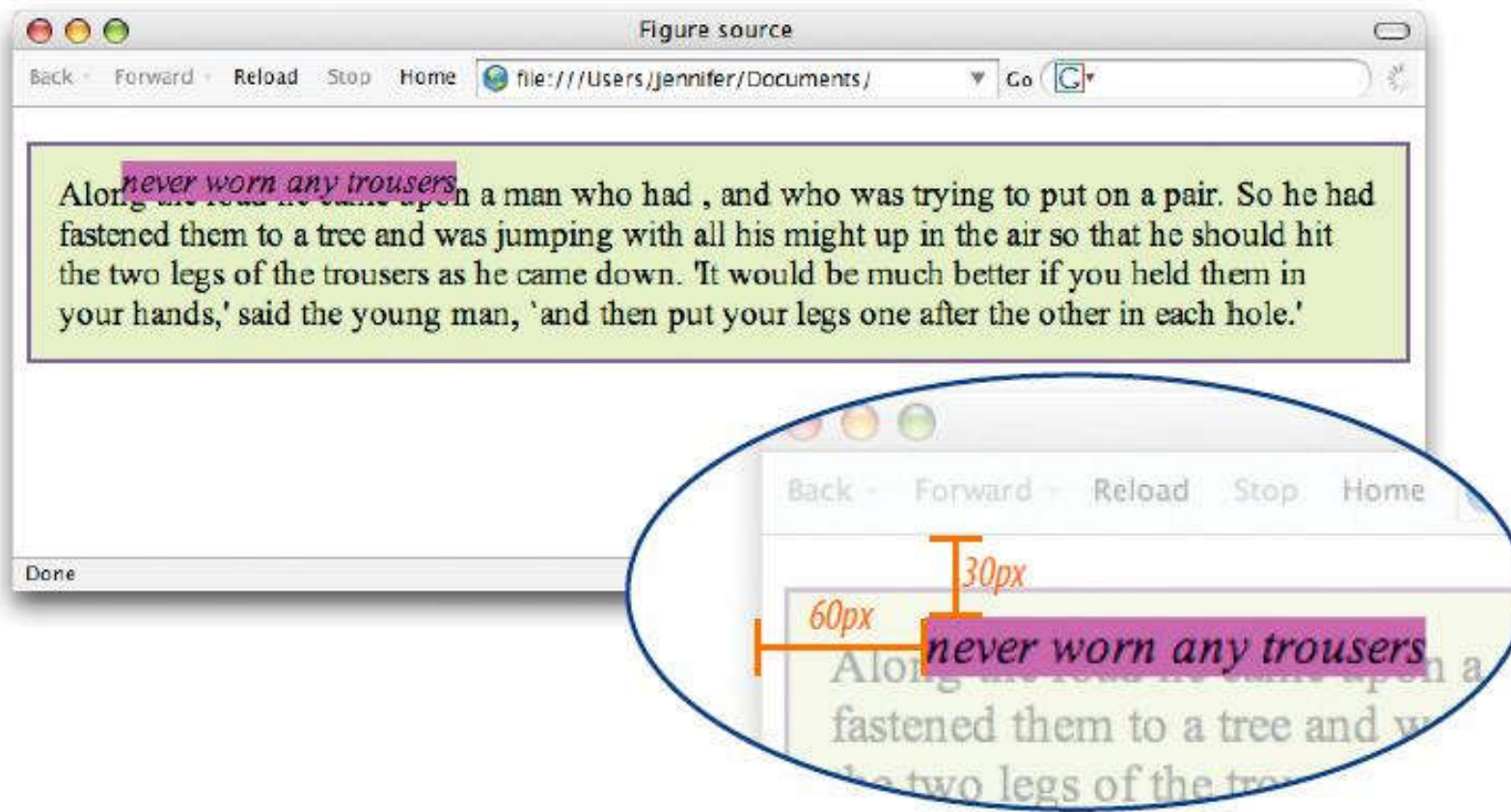
```

Along the road he came upon a man who had , and who was trying to put on a pair. So he had fastened them to a tree and wa *never worn any trousers* right up in the air so that he should hit the two legs of the trousers as he came down. 'It would be much better if you held them in your hands,' said the young man, 'and then put your legs one after the other in each hole.'



• نسبى

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



• مطلق