



CORSO DI LAUREA IN INFORMATICA

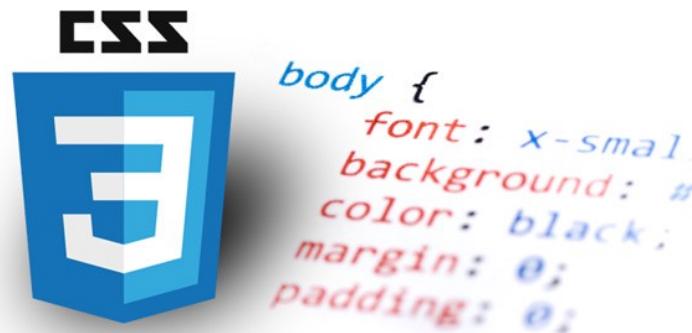
Tecnologie Software per il Web

CSS – Part 1

a.a. 2019-2020

CSS

- **CSS** stands for **Cascading Style Sheets**



- CSS describes **how HTML elements are to be displayed on screen, paper, or in other media**
 - Esempio: HTML+CSS+JAVASCRIPT (<https://html-css-js.com>)
- CSS **saves a lot of work**. It can control the layout of multiple web pages all at once
- External stylesheets are stored in **CSS files**

Altri vantaggi

- Lo stesso contenuto diventa **riusabile** in più contesti
- Basta cambiare il CSS e può essere presentato correttamente in modo ottimale su **dispositivi diversi** (es. PC e palmari) o addirittura su media diversi (es. video e carta)
 - Rendere le pagine visualizzabili con **dispositivi non convenzionali**: palmari, smartphone, ecc.
- Si può **dividere il lavoro** fra chi gestisce il contenuto e chi si occupa della parte grafica
- **Ridurre i tempi di download delle pagine**: una pagina che usa i CSS è meno della metà di una pagina che usa la formattazione con tag HTML, inoltre se il file CSS è condiviso da più pagine viene scaricato una volta sola
- **Ripulire il codice HTML**: eliminare l'uso di estensioni non proprietarie

La struttura...in HTML

```
<html>  
  <head>...</head>  
  <body>  
    <h1>title</h1>  
    <div>  
      <p> uno </p>  
      <p> due </p>  
    </div>  
    <p> tre  
      <a href="link.html">link</a>  
    </p>  
  </body>  
</html>
```

Un documento HTML può essere visto come un insieme di blocchi (contenitori) sui quali si può agire con stili diversi.

Ogni tag HTML definisce un blocco.

Un esempio: Hello World

- Creiamo una pagina HTML - denominata "hello.html" - che mostra la scritta Hello World! *Usiamo i CSS...*

```
<!doctype html>
<html>
  <head>
    <title>Hello World</title>
  </head>
  <body>
    <h1>Hello World!</h1>
    <p>Usiamo i CSS</p>
  </body>
</html>
```

- Non abbiamo dato alcuna indicazione su come rappresentare la pagina
- Abbiamo solo specificato che si tratta di un titolo di primo livello e di un paragrafo
- *Il browser userà gli stili standard*

Hello World con CSS

- Creiamo un secondo file di testo – denominato “hello.css” - che contiene queste due righe:

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

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

- Colleghiamo i due file inserendo il link al CSS nella testata della pagina "hello.html":

```
<!DOCTYPE HTML>
<HTML>
  <HEAD>
    <TITLE>Hello World con CSS</TITLE>
    <LINK rel="stylesheet" href="hello.css" type="text/css">
  </HEAD>
  <BODY>
    <H1>Hello World!</H1>
    <p>Usiamo i CSS</p>
  </BODY>
</HTML>
```

Il risultato

- Ecco il risultato nei due casi:

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.0//EN">
<HTML>
  <HEAD>
    <TITLE>Hello World</TITLE>
  </HEAD>
  <BODY>
    <H1>Hello World!</H1>
    <p>Usiamo i CSS</p>
  </BODY>
</HTML>
```

hello.html

Hello World!

Usiamo i CSS

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.0//EN">
<HTML>
  <HEAD>
    <TITLE>Hello World con CSS</TITLE>
    <LINK rel="stylesheet" href="hello.css" type="text/css">
  </HEAD>
  <BODY>
    <H1>Hello World!</H1>
    <p>Usiamo i CSS</p>
  </BODY>
</HTML>
```

hello.html

BODY { color: red }
H1 { color: blue }

hello.css

Hello World!

Usiamo i CSS

Applicare gli stili ad una pagina

- Abbiamo due possibilità:
 - Inserire gli stili nella pagina stessa
 - Mettere gli stili in uno o più file separati (stili esterni)
- Di seguito due differenti sintassi:

```
<HTML>
  <HEAD>
    <TITLE>Hello World</TITLE>
    <link rel="stylesheet"
          href="hello.css"
          type="text/css">
  </HEAD>
  <BODY>
    <H1>Hello World!</H1>
    <p>Usiamo i CSS</p>
  </BODY>
</HTML>
```

```
<HTML>
  <HEAD>
    <TITLE>Hello World</TITLE>
    <style type="text/css">
      @import url(hello.css);
    </style>
  </HEAD>
  <BODY>
    <H1>Hello World!</H1>
    <p>Usiamo i CSS</p>
  </BODY>
</HTML>
```

Applicare gli stili ad una pagina (2)

- Se invece si sceglie di mettere gli stili nella pagina si può procedere in due modi:
 - Mettere tutti gli stili nell'header in un tag **<style>** (stili interni)
 - Inserirli nei singoli elementi, attributo **style** (stili inline)

```
<HTML>
<HEAD>
    <TITLE>Hello World</TITLE>
    <style type="text/css">
        BODY { color: red }
        H1 { color: blue }
    </style>
</HEAD>
<BODY>
    <H1>Hello World!</H1>
    <p>Usiamo i CSS</p>
</BODY>
</HTML>
```

```
<HTML>
<HEAD>
    <TITLE>Hello World</TITLE>
</HEAD>
<BODY style="color: red">
    <H1 style="color: blue">
        Hello World!
    <H1>
    <p>Usiamo i CSS</p>
</BODY>
</HTML>
```

Qual è la scelta migliore?

- È sicuramente preferibile usare gli **stili esterni**:
 - È facile applicare diversi stili alla stessa pagina
 - Si ottimizza il trasferimento delle pagine perché il foglio stile rimane nella cache del browser
 - L'uso degli **stili inline** è da evitare
 - Rendono molto basso il livello di separazione fra contenuto e presentazione
 - Le modifiche sono molto complicate
 - *Gli stili interni sono una via di mezzo...*
- Fra le due sintassi per gli stili esterni:
 - Quella con **<link>** è più diffusa
 - Quella con **@import** è meno critica per la compatibilità con i vecchi browser

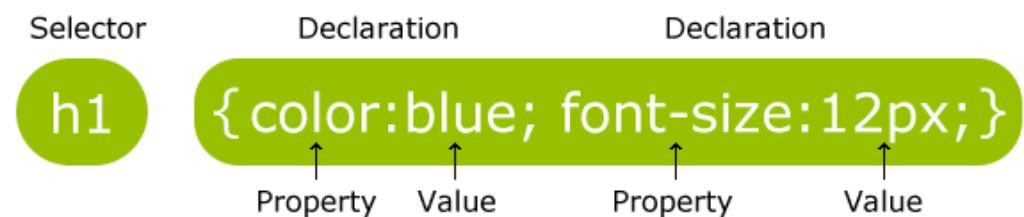
Regole e loro struttura

- Un'espressione come **h1 { color: blue }** prende il nome di **regola CSS**
- Una regola CSS è composta da due parti:
 - **Selettore:** **h1**
 - **Dichiarazione:** **color: blue**
- La dichiarazione a sua volta si divide in due parti
 - **Proprietà:** **color**
 - **Valore:** **blue**
- La sintassi generale si può quindi esprimere così

selettore { proprietà: valore }

- o più in generale:

```
selettore {  
    proprietà1 : valore1;  
    proprietà2 : valore2, valore3;  
}
```



Selettori

- Il selettore serve per collegare uno stile agli elementi a cui deve essere applicato
- **Selettore universale:** identifica qualunque elemento
 - * {...}
- **Selettori di tipo:** si applicano a tutti gli elementi di un determinato tipo (ad es. tutti i <p>, <h1>)
 - tipo_elemento { ... }**
- **Classi:** si applicano a tutti gli elementi che presentano l'attributo **class=“nome_class”**
 - .nome_classe { ... }**
- **Identifieri:** si applicano agli elementi che presentano l'attributo **id=“nome_id”**
 - #nome_id { ... }**

The id/class attribute

- **id** is an identifier (in the HTML file)
- **class** is an identifier (in the HTML file)

ID's are unique
CLASSES are NOT unique

Similar to a class; just add the attribute "id" and choose a unique id name.

Unlike a class, you can only have one element in your page with an id of "footer".

```
<p id="footer">Please steal this page, it isn't copyrighted in any way</p>
```

Each element can have only one id.

No spaces or special characters are allowed in id names.

Combinazione di selettori

- I selettori di tipo si possono combinare con quelli di classe e di identificatore:

tipo_elemento.nome_classe { ... }

tipo_elemento#nome_id { ... }

- In effetti negli esempi precedenti la mancanza di un tipo_elemento prima di . / # sottintendeva la presenza del selettore universale *

.nome_classe → ***.nome_classe**

#nome_id → ***.#nome_id**

CSS selectors

```
p.specials {  
    color: red;  
}
```

This selects only paragraphs that are in the specials class.

```
.specials {  
    color: red;  
}
```

This selects all elements in the specials class.

```
#footer {  
    color: red;  
}
```

This selects any element that has the id "footer".

```
p#footer {  
    color: red;  
}
```

This selects a <p> element if it has the id "footer".

Remember that an id selector should
match only one element in a page

Selettori (2)

- **Pseudoclassi**: si applicano ad un sottoinsieme degli elementi di un tipo identificato da una proprietà

tipo_elemento:proprietà { ... }

- Es. stato di un'ancora: link, visited, active

a:link { ... }, a:visited { ... }, a:active { ... }

- Es. condizione di un elemento: active, focus e hover

p:active { ... }, h1:hover { ... }, input:hover { ... }

- **Pseudoelementi**: si applicano ad una parte di un elemento

tipo_elemento:parte { ... }

- Es. solo la prima linea o la prima lettera di un paragrafo:

p:first-line { ... }

p:first-letter { ... }

Selettori (3)

- **Selettori gerarchici:** si applicano a tutti gli elementi di un dato tipo che hanno un determinato legame gerarchico (discendente, figlio, fratello) con elementi di un altro tipo

Carattere: spazio

tipo1 tipo2 { ... }

tipo2 discende da tipo1

tipo1>tipo2 { ... }

tipo2 è figlio di tipo1

tipo1+tipo2 { ... }

tipo2 è fratello di tipo1

- Ad esempio: **ul>li { ... }** si applica solo agli elementi contenuti direttamente in liste non ordinate:

```
<UL>
  <LI>Riga 1</LI>
</UL>
```

SI

```
<UL>
  <OL>
    <LI>Riga 1</LI>
  </OL>
</UL>
```

NO

More than one class

```
p.center {text-align: center; color: red; }
```

```
p.large {font-size: 300%; }
```

```
<p class="center large">This paragraph refers to two classes.</p>
```

- CSS Comments:

```
p { color: red;  
  /* This is a single-line comment */  
  text-align: center;  
}
```

```
h1 { color: yellow;  
  /* This is  
   a multi-line  
   comment */  
  font-family: sans-serif;  
}
```

Raggruppamenti

- Se la stessa dichiarazione si applica a più tipi di elemento si scrive una regola in forma raggruppata

```
H1 { font-family: sans-serif }  
H2 { font-family: sans-serif }  
H3 { font-family: sans-serif }
```

equivale a

```
H1, H2, H3 { font-family: sans-serif }
```

Proprietà

- Nelle dichiarazioni è possibile far uso di **proprietà singole** o in forma abbreviata (**shorthand properties**)
 - Le **proprietà singole** permettono di definire un singolo aspetto di stile
 - Le **shorthand properties** consentono invece di definire un insieme di aspetti, correlati fra di loro usando una sola proprietà
- Per esempio, ogni elemento permette di definire un margine rispetto a quelli adiacenti usando quattro proprietà: **margin-top**, **margin-right**, **margin-bottom**, **margin-left**
- Utilizziamo le proprietà singole applicandole ad un paragrafo:

```
p { margin-top: 10px; margin-right: 8px; margin-bottom: 10px; margin-left: 8px; }
```
- Lo stesso risultato si può ottenere usando la proprietà in forma abbreviata **margin**:

```
p {margin: 10px 8px 10px 8px;}
```

Shorthand properties for margin

- If the margin property has **four** values:
- **margin: 25px 50px 75px 100px;**
 - top margin is 25px
 - right margin is 50px
 - bottom margin is 75px
 - left margin is 100px
- If the margin property has **three** values:
- **margin: 25px 50px 75px;**
 - top margin is 25px
 - right and left margins are 50px
 - bottom margin is 75px
- If the margin property has **two** values:
- **margin: 25px 50px;**
 - top and bottom margins are 25px
 - right and left margins are 50px
- If the margin property has **one** value:
- **margin: 25px;**
 - all four margins are 25px

Valori

- Numeri interi e reali: “.” come separatore decimale
- Grandezze: usate per lunghezze orizzontali e verticali
 - un numero seguito da una unità di misura
- Unità di misura relative
 - **em**: è relativa alla dimensione del font in uso (es. se il font ha corpo 12pt, 1em varrà 12pt, 2em varranno 24pt)
 - **px**: pixel, sono relativi al dispositivo di output e alle impostazioni del computer dell'utente
- Unità di misura assolute
 - **in**: pollici; (1 in = 2.54 cm)
 - **cm**: centimetri
 - **mm**: millimetri
 - **pt**: punti tipografici (1/72 di pollice)
 - **pc**: pica = 12 punti

Valori (2)

- **Percentuali:** percentuale del valore che assume la proprietà stessa nell'elemento padre; un numero seguito da %
- **URL** assoluti o relativi; si usa la notazione **url(percоро)**
- **Stringhe:** testo delimitato da apici singoli o doppi
- **Colori:** possono essere identificati con tre metodi differenti:
 - In forma esadecimale #RRGGBB
 - Tramite la funzione **rgb(rosso, verde, blu)**
 - Usando una serie di parole chiave che possono indicare colori assoluti o dipendenti dall'impostazione del PC (proprietà di sistema)

Colori: parole chiave

▪ Colori assoluti:

█ black - nero	█ green - verde
█ silver - argento	█ lime - verde chiaro
█ gray - grigio	█ olive - oliva
█ white - bianco	█ yellow - giallo
█ maroon - marrone	█ navy - blu scuro
█ red - rosso	█ blue - blu
█ purple - viola	█ teal - verde acqua scuro
█ fuchsia - fucsia	█ aqua - verde acqua

▪ Colori dipendenti dalle proprietà di sistema:

█ background - il colore di sfondo del desktop
█ buttonFace - il colore di sfondo dei pulsanti
█ buttonText - testo dei pulsanti
█ captionText - testo delle etichette
█ grayText - testo disabilitato

CSS in HTML

```
<!doctype html>
<html>
  <head>
    <meta charset="utf-8">
    <title>Head First Lounge</title>
    <style>
      ...
    </style>
  </head>
```

Here's what we're interested in: the `<style>` element.

To add CSS style directly to your HTML, add opening and closing style tags in the `<head>` element.

And your CSS rules are going to go right in here.

```
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="utf-8">
    <title>Head First Lounge</title>
    <style>
```

Here's the rule that
is going to specify
the font color of the
paragraphs.

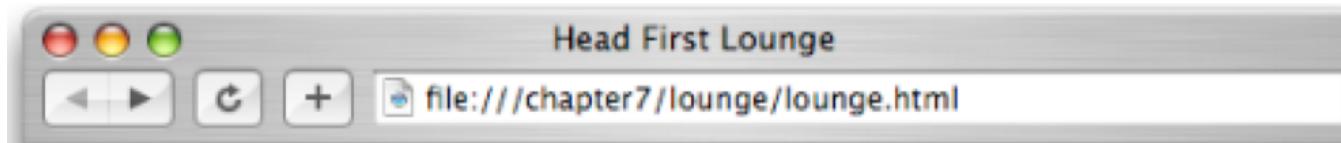
We're selecting just
the `<p>` element to
apply this style to.

```
p {
  color: maroon;
}
```

The property to change the font color is
named "color" (you might think it would be
"font-color" or "text-color", but it's not).

We're setting the text to a
lovely maroon color that happens
to match the lounge couches.

```
  </style>
</head>
```



Welcome to the Head First Lounge



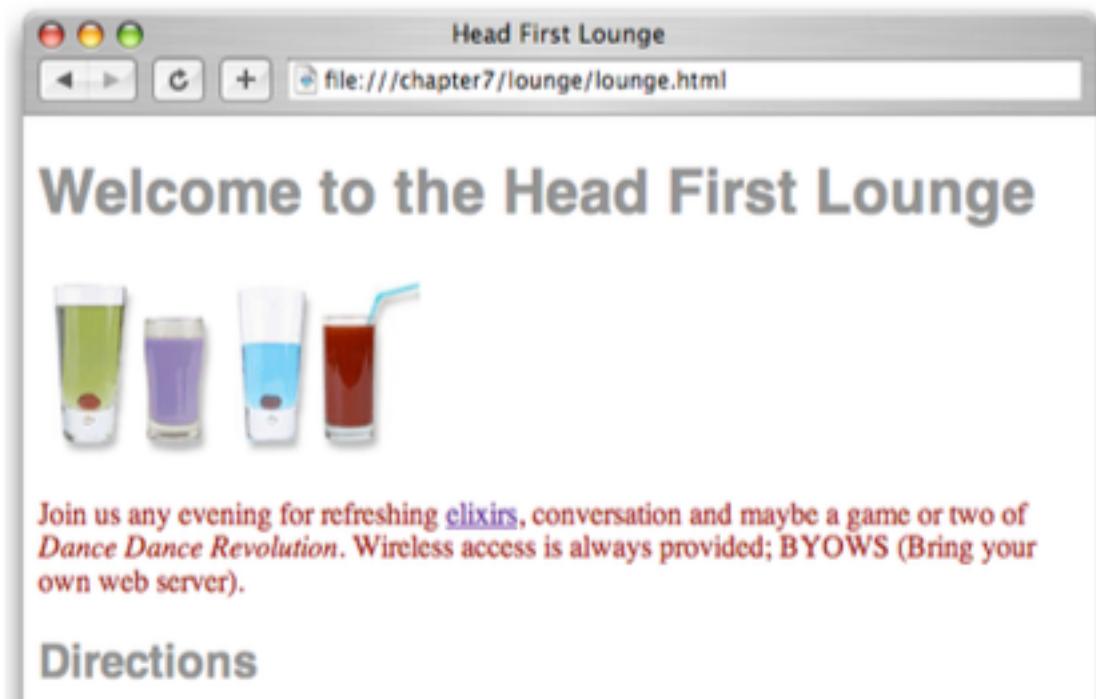
Join us any evening for refreshing [elixirs](#), conversation and maybe a game or two of *Dance Dance Revolution*. Wireless access is always provided; BYOWS (Bring your own web server).



Style the heading

```
h1, h2 {  
    font-family: sans-serif;  
    color: gray;  
}
```

```
p {  
    color: maroon;  
}
```



```
h1, h2 {  
    font-family: sans-serif;  
    color: gray;  
}
```

The first rule stays the same. We're still going to use a combined rule for the font-family and color for both `<h1>` and `<h2>`.

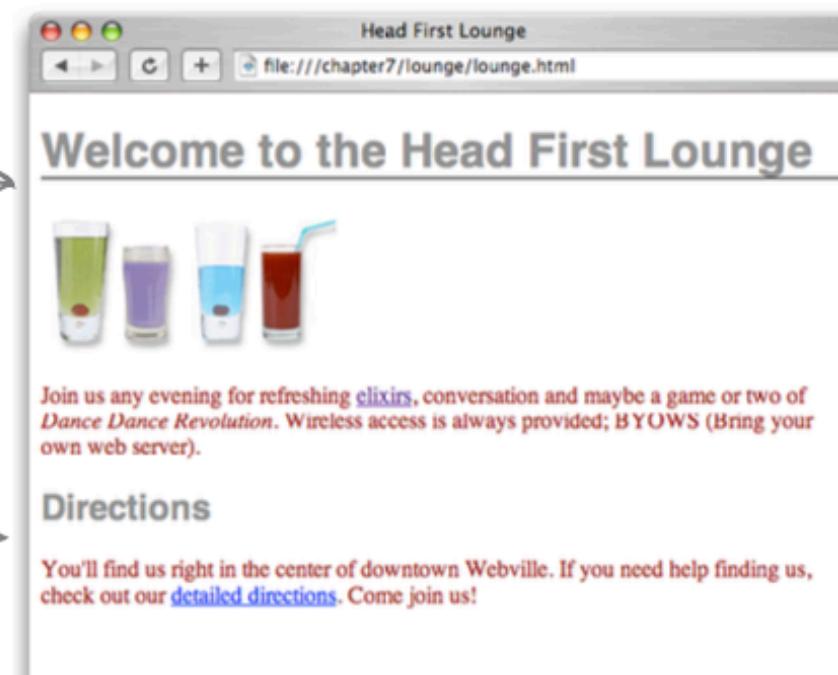
```
h1 {  
    border-bottom: 1px solid black;  
}
```

But now we're adding a second rule that adds another property just to `<h1>`: the `border-bottom` property.

```
p {  
    color: maroon;  
}
```

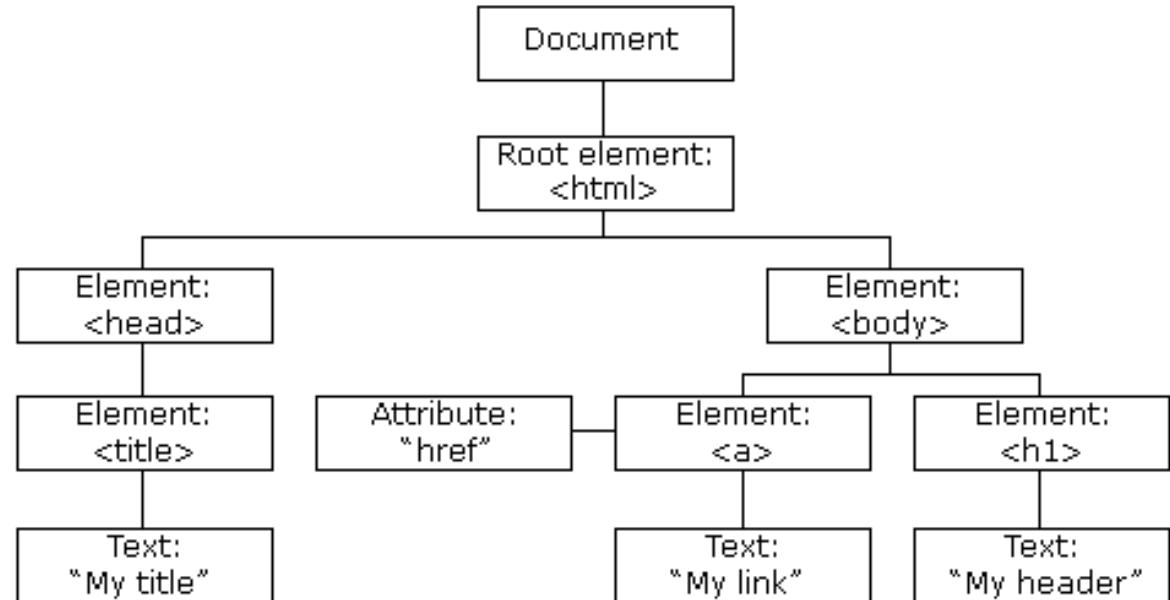
Here's the bottom border in black.

And no border here—just what we wanted.



The HTML DOM (Document Object Model)

```
<html>
  <head>
    <title>My title</title>
  </head>
  <body>
    <a href="...">MyLink</a>
    <h1>My header</h1>
  </body>
</html>
```



- When a web page is loaded, the browser creates a **Document Object Model** of the page
 - The HTML DOM model is constructed as a tree of Objects
- With the DOM, JavaScript gets all the power it needs to create dynamic HTML:
 - *JavaScript can add/change/remove all the HTML elements/attributes/events in the page*
 - *JavaScript can change all the CSS styles in the page*

Attribuzione di uno stile ad un elemento

- Per poter rappresentare una pagina HTML il browser deve riuscire ad applicare ad ogni elemento uno stile
- Un elemento privo di stile non può essere rappresentato:
 - Anche se nella pagina non c'è nessuna regola CSS (interna o esterna) ogni browser ha un foglio stile di default che contiene stili per ogni tipologia di elemento HTML (tag)
- L'attribuzione può essere **diretta**:
 - L'elemento contiene uno stile inline
 - Esistono una o più regole il cui selettore rimanda all'elemento
- Oppure può essere **indiretta**:
 - L'elemento “eredita” lo stile dall'elemento che lo contiene

Ereditarietà

- È un meccanismo di tipo differenziale simile per certi aspetti all'ereditarietà nei linguaggi ad oggetti
- Si basa sui blocchi annidati di un documento HTML
 - **Uno stile applicato ad un blocco esterno si applica anche ai blocchi in esso contenuti**
- In un blocco interno:
 - Si possono definire stili aggiuntivi
 - Si possono ridefinire stili definiti in un blocco più esterno (è una sorta di *overriding*)
- Lo stesso ragionamento si può esprimere in termini di **DOM**
 - **Un nodo figlio eredita gli stili dei nodi che si trovano sul ramo da cui discende**

Esempio di ereditarietà

- L'elemento `<p>Usiamo i CSS</p>` non ridefinisce il colore del testo e quindi eredita da `<body>` (viene mostrato in rosso)
- L'elemento `<h1>Hello World</h1>` ridefinisce lo stile e quindi appare in blu

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML  
4.0//EN">  
<HTML>  
  <HEAD>  
    <TITLE>Hello World con CSS</TITLE>  
    <LINK rel="stylesheet"  
          href="hello.css" type="text/css">  
  </HEAD>  
  <BODY>  
    <H1>Hello World!</H1>  
    <p>Usiamo i CSS</p>  
  </BODY>  
</HTML>
```

```
BODY { color: red }  
H1 { color: blue }
```

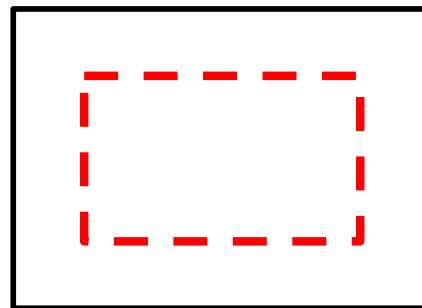
hello.css

Hello World!

Usiamo i CSS

Limitazioni dell'ereditarietà

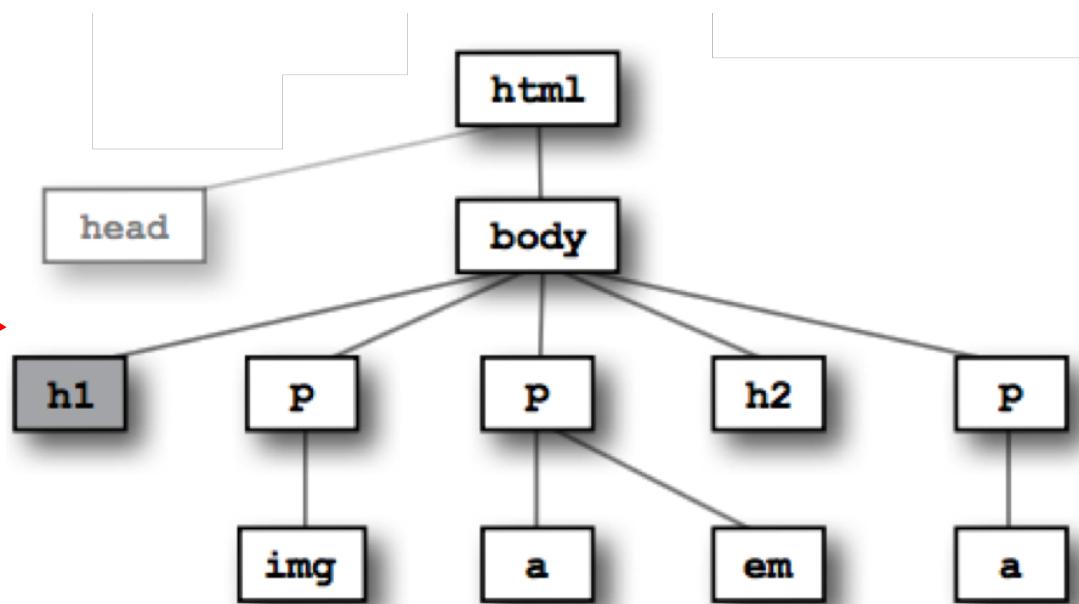
- Non tutte le proprietà sono soggette al meccanismo dell'ereditarietà
- In generale non vengono ereditate quelle che riguardano la formattazione del **box model**
 - Il box è il riquadro che circonda ogni elemento



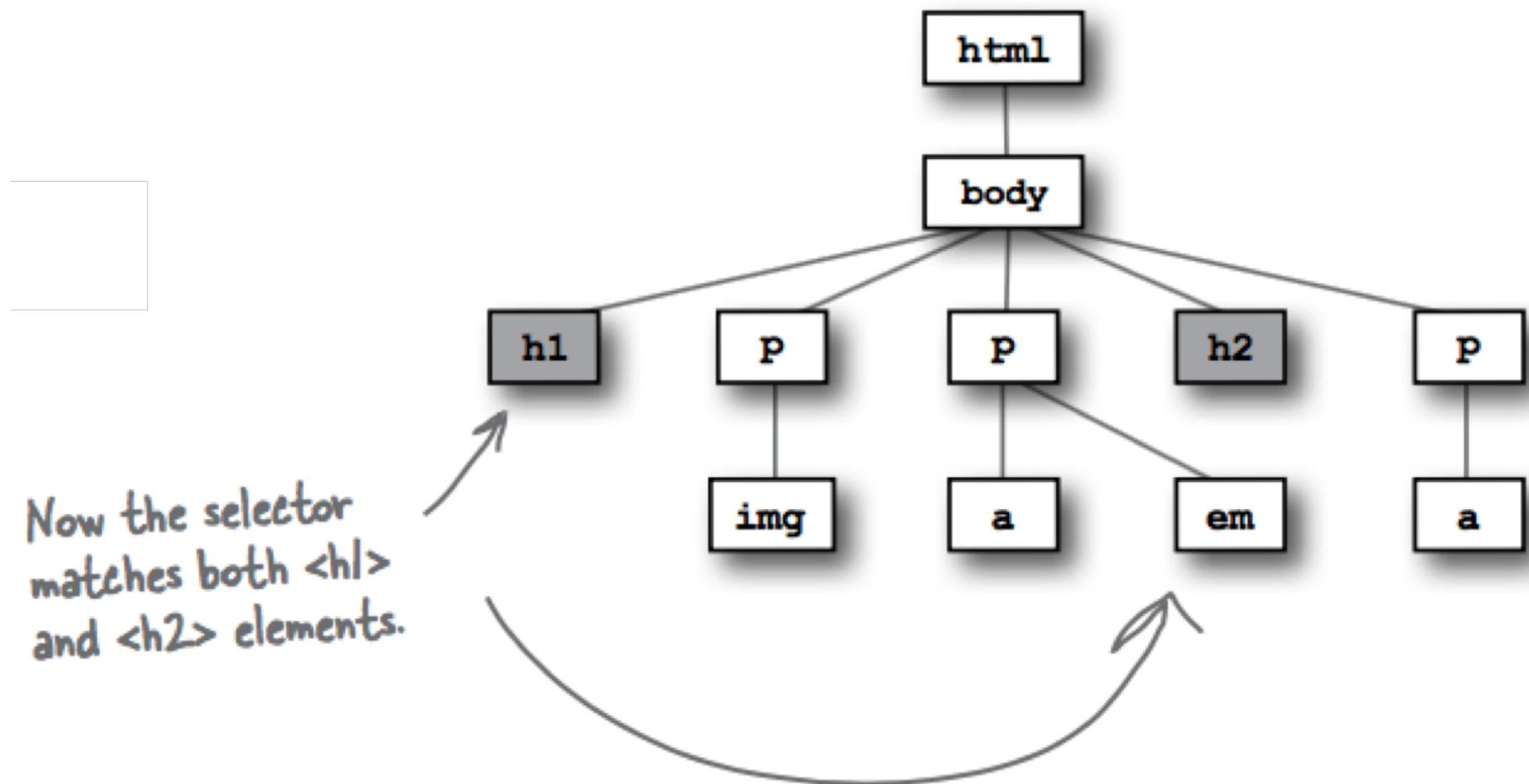
- La motivazione è abbastanza intuitiva: se ogni elemento interno ereditasse le proprietà dell'elemento che lo contiene avremmo un effetto grafico tipo "scatole cinesi" assolutamente indesiderato

Seeing selectors visually

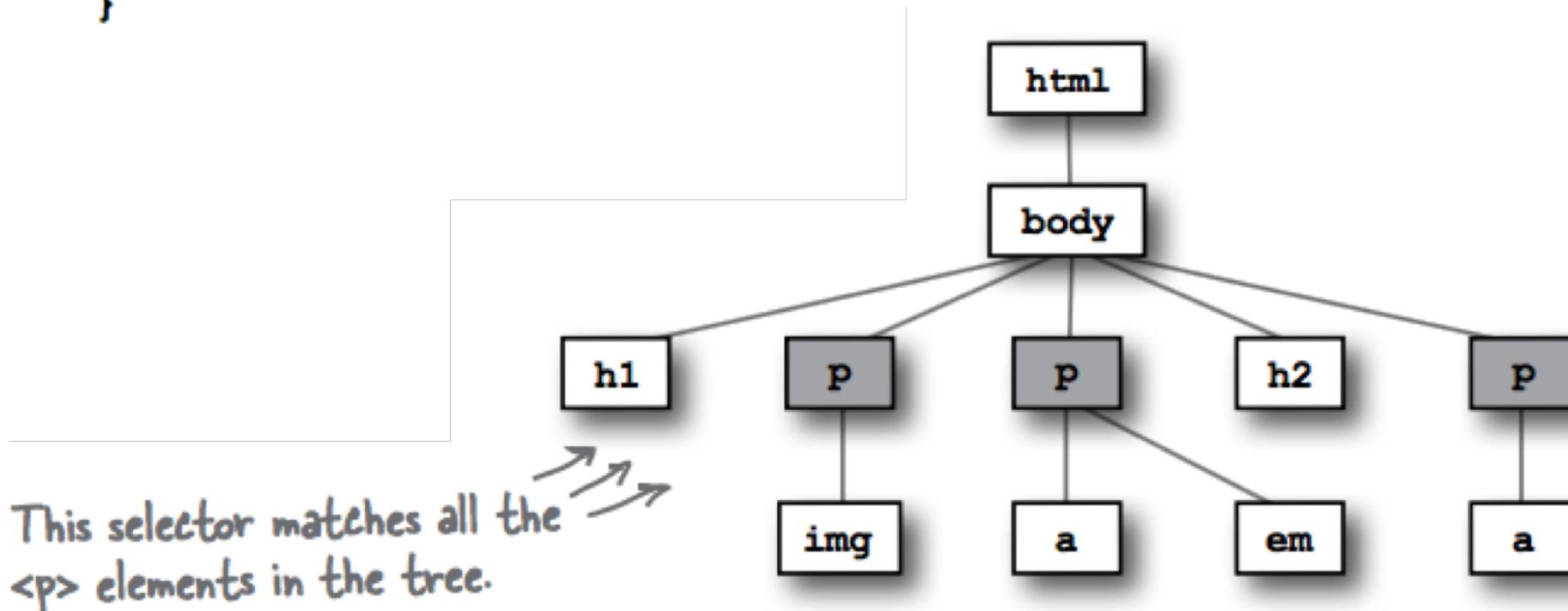
```
h1 {  
    font-family: sans-serif;  
}
```



```
h1, h2 {  
    font-family: sans-serif;  
}
```



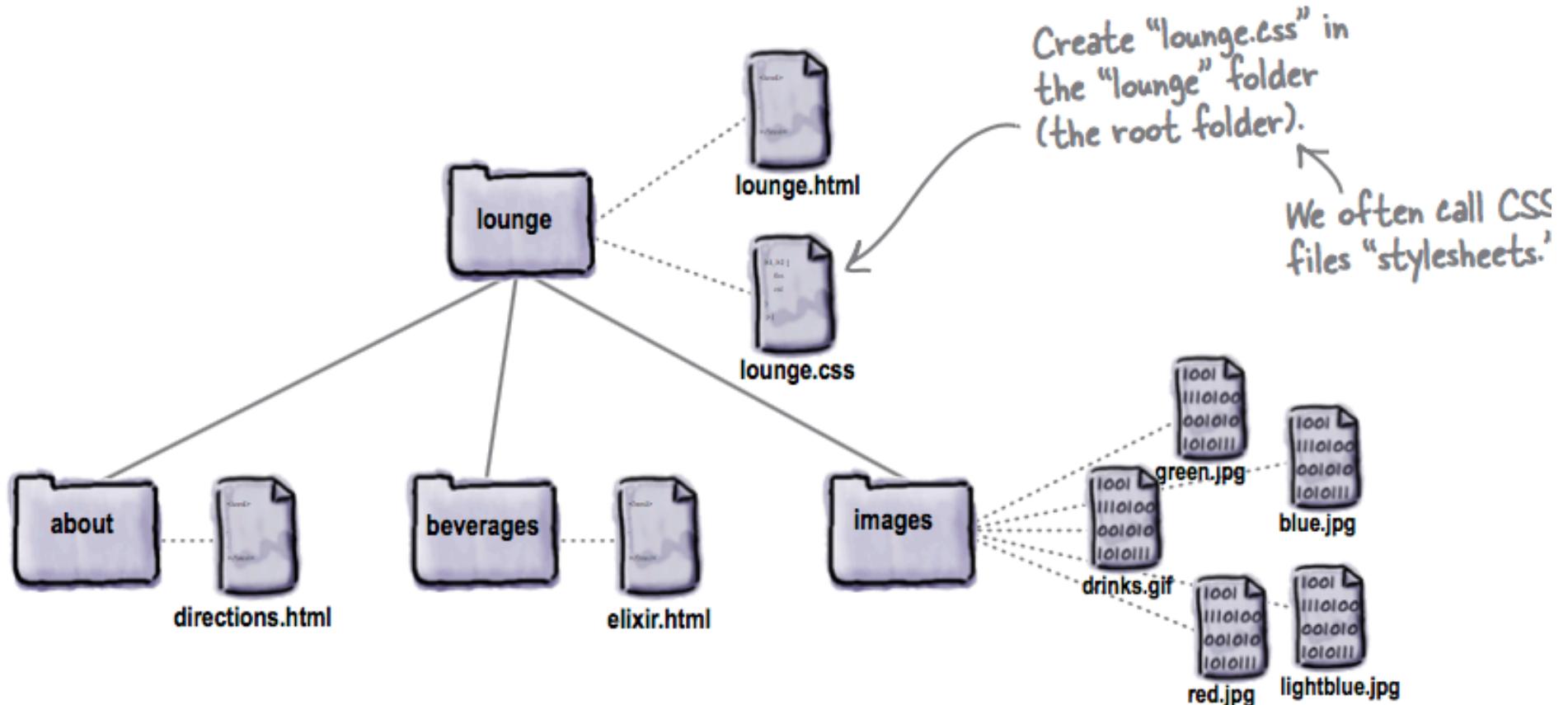
```
p {  
    font-family: sans-serif;  
}
```



CSS in an external file

1. Take the rules in “lounge.html” and place them in a file called “lounge.css”
2. Create an **external link** to this file from your “lounge.html” file
3. Create the same external links in “elixir.html” and “directions.html”
4. Give all three files a good test drive

Creating lounge.css



`lounge.css`

```
h1, h2 {  
    font-family: sans-serif;  
    color: gray;  
}  
  
h1 {  
    border-bottom: 1px solid black;  
}  
  
p {  
    font-family: sans-serif;  
    color: maroon;  
}
```

lounge.html

```
<!doctype html>
<html>
  <head>
    <meta charset="utf-8">
    <title>Head First Lounge</title>
    <link type="text/css" rel="stylesheet" href="lounge.css">
    <style>
    </style>
  </head>
```

Use the link element to "link in" external information.

The type of this information is "text/css"—in other words, a CSS stylesheet. As of HTML5, you don't need this anymore (it's optional), but you may see it on older pages.

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

The rel attribute specifies the relationship between the HTML file and the thing you're linking to. We're linking to a stylesheet, so we use the value "stylesheet".

Here's the HTML that links to the external stylesheet.

You don't need the <style> element anymore—just delete it.

And the stylesheet is located at this href (in this case, we're using a relative link, but it could be a full-blown URL).

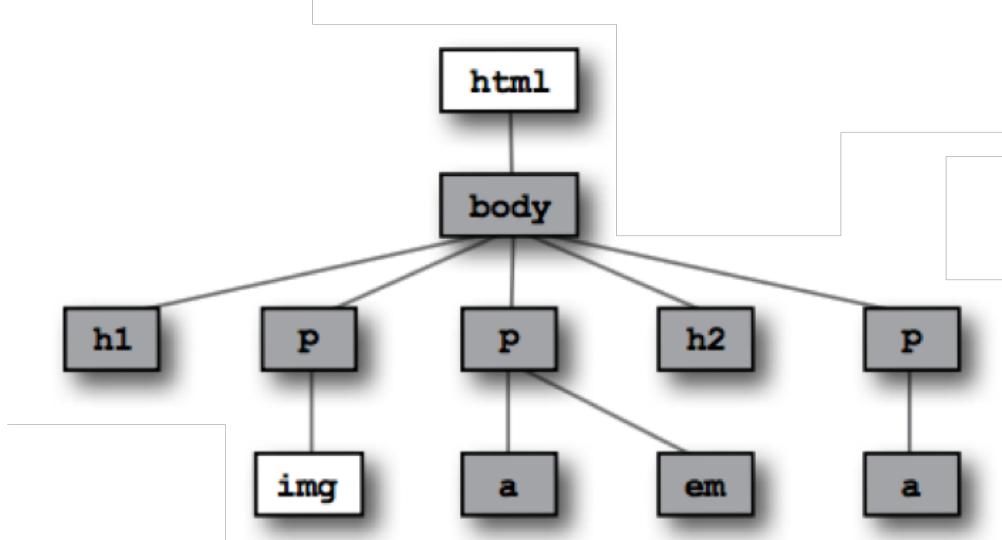
<link> is a void element. It has no closing tag.

elixirs.html and directions.html

- Now you're going to link the “elixir.html” and “directions.html” files just as you did with “lounge.html”
- Save each of these files and then open “lounge.html” with the browser. You should see no changes in its style, even though the styles are now coming from an external file. Now click on the “elixirs” and “detailed directions” links
- Add the style reference in each file. We have a whole new style for the Elixirs and Directions pages ***with only a one-line change to the HTML in each file!***
- ***This is the power of CSS!***

Move the font up the family tree

- Move element property in the body
- That should have the effect of changing the font for all the <body> element's children, and children's children



```
body {  
    font-family: sans-serif;  
}  
  
h1, h2 {  
    font-family: sans-serif;  
    color: gray;  
}  
  
h1 {  
    border-bottom: 1px solid black;  
}  
  
p {  
    font-family: sans-serif;  
    color: maroon;  
}
```

Overriding inheritance

```
body {  
    font-family: sans-serif;  
}  
  
h1, h2 {  
    color: gray;  
}  
  
h1 {  
    border-bottom: 1px solid black;  
}  
  
p {  
    color: maroon;  
}  
  
em {  
    font-family: serif;  
}
```



Join us any evening for refreshing [elixirs](#), co
two of *Dance Dance Revolution*. Wireless acce
(Bring ;~ own web server).

To override the font-family property
inherited from body, add a new rule
selecting em with the font-family
property value set to serif.

Using classes

- In an HTML document, CSS class selectors match an element based on the contents of the element's class attribute
- Open up the “elixir.html” file and locate the “Green Tea Cooler” paragraph

```
<!DOCTYPE html>
<html>
  <head>
    <meta charset="utf-8">
    <title>Head First Lounge Elixirs</title>
    <link type="text/css" rel="stylesheet" href="../lounge.css">
  </head>
  <body>
    <h1>Our Elixirs</h1>
    <h2>Green Tea Cooler</h2>
    <p class="greentea">
      
      Chock full of vitamins and minerals, this elixir
      combines the healthful benefits of green tea with
      a twist of chamomile blossoms and ginger root.
    </p>
```

To add an element to a class, just add the attribute “class” along with the name of the class, like “greentea”.

Using classes (2)

- To create a class in CSS and select an element in that class, you write a **class selector**

Select the element in the class first—in this case, p.

Then use a ":" to specify a class.

Last is the class name.

The selector p.greentea selects all paragraphs in the greentea class.

And here's the rule...make any text in a paragraph in the greentea class the color green.

```
p.greentea {  
    color: green;  
}
```

- Open your “lounge.css” file and add the p.greentea class selector to it

The screenshot shows a web browser window titled "Head First Lounge Elixirs" displaying the URL "file:///chapter7/lounge/beverages/elixir.html". The page content includes a section titled "Our Elixirs" with two items: "Green Tea Cooler" and "Raspberry Ice Concentration". Each item has a small image of a drink glass and a descriptive paragraph.

Green Tea Cooler



Chock full of vitamins and minerals, this elixir combines the healthful green tea with a twist of chamomile blossoms and ginger root.

Raspberry Ice Concentration



Combining raspberry juice with lemon grass, citrus peel and rosehips, this drink will make your mind feel clear and crisp.

```
body {  
    font-family: sans-serif;  
}  
  
h1, h2 {  
    color: gray;  
}  
  
h1 {  
    border-bottom: 1px solid black;  
}  
  
p {  
    color: maroon;  
}  
  
p.greentea {  
    color: green;  
}
```

- If you wanted to do the same to all <blockquote>

```
blockquote greentea, p greentea {  
    color: green;  
}
```

- and in your HTML file

```
<blockquote class="greentea">
```

Example

```
<!DOCTYPE html>
<html>
  <head>
    <style>
      p.hometown {
        background: yellow;
      }
    </style>
  </head>
  <body>
    <p>My name is Donald.</p>
    <p class="hometown">I live in Ducksburg.</p>

    <p>My name is Dolly.</p>
    <p class="hometown">I also live in Ducksburg.</p>
  </body>
</html>
```

My name is Donald.

I live in Ducksburg.

My name is Dolly.

I also live in Ducksburg.

More on Pseudo-classes

- Pseudo-classes can be combined with CSS classes:

```
a.highlight:hover {background-color: #ff0000;}
```

```
<a class="highlight" href="https://www.w3schools.com">w3schools</a>
<a href="https://www.unisa.it">Unisa</a>
```

w3schools Unisa



w3schools Unisa



- The **:first-child** pseudo-class matches a specified element that is the first child of another element:

```
p:first-child {color: blue;}
```

```
<body>
  <p>This paragraph is the first child of its parent (body).</p>

  <h1>Welcome to My Homepage</h1>
  <p>This paragraph is not the first child of its parent.</p>

  <div>
    <p>This paragraph is the first child of its parent (div).</p>
    <p>This paragraph is not the first child of its parent.</p>
  </div>
</body>
```

This paragraph is the first child of its parent (body).

Welcome to My Homepage

This paragraph is not the first child of its parent.

This paragraph is the first child of its parent (div).

This paragraph is not the first child of its parent.

CSS Pseudo Classes/Pseudo Elements

Selector	Example	Example description
<u>:checked</u>	input:checked	Selects every checked <input> element
<u>:disabled</u>	input:disabled	Selects every disabled <input> element
<u>:empty</u>	p:empty	Selects every <p> element that has no children
<u>:enabled</u>	input:enabled	Selects every enabled <input> element
<u>:not(selector)</u>	:not(p)	Selects every element that is not a <p> element
<u>:optional</u>	input:optional	Selects <input> elements with no "required" attribute
<u>:required</u>	input:required	Selects <input> elements with a "required" attribute specified
<u>:valid</u>	input:valid	Selects all <input> elements with a valid value

...

https://www.w3schools.com/css/css_pseudo_classes.asp

A CSS pseudo-element is used to style specified parts of an element.
For example, it can be used to:

- Style the first letter, or line, of an element
- Insert content before, or after, the content of an element
- The **::first-line** pseudo-element is used to add a special style to the first line of a text.

https://www.w3schools.com/css/css_pseudo_elements.asp

CSS Pseudo Classes/Pseudo Elements

```
:not(p) {  
    color: #ff0000;  
    border: 1px dotted black;  
}
```

https://www.w3schools.com/cssref/tryit.asp?filename=trycss3_not

```
<style>  
input:valid {  
    background-color: yellow;  
}  
</style>
```

francese@unisa.it

francese@unisa.

https://www.w3schools.com/cssref/tryit.asp?filename=trycss_sel_valid

```
p::before {  
    content: "Read this -";  
    background-color: yellow;  
    color: red;  
    font-weight: bold;  
}
```

<p>My name is Donald</p>
<p>I live in Ducksburg</p>

Read this -My name is Donald

Read this -I live in Ducksburg

Conflitti di stile

- Nell'applicare gli stili possono nascere **conflitti** di competenza per diversi motivi:
 - Esiste un'intersezione tra regole che utilizzano selettori di tipo diverso, ad esempio **id** e **class** come in questo caso:

```
p#myID {color: red;}
```

```
p.myClass {color: blue;}
```

...

```
<p id="myID" class="myClass">
```

- Una pagina usa più fogli di stile oppure combina fogli di stile esterni e regole interne o inline
- Nello stesso foglio di stile ci sono regole con lo stesso selettore e dichiarazioni diverse: banale errore o gestione disordinata dei CSS

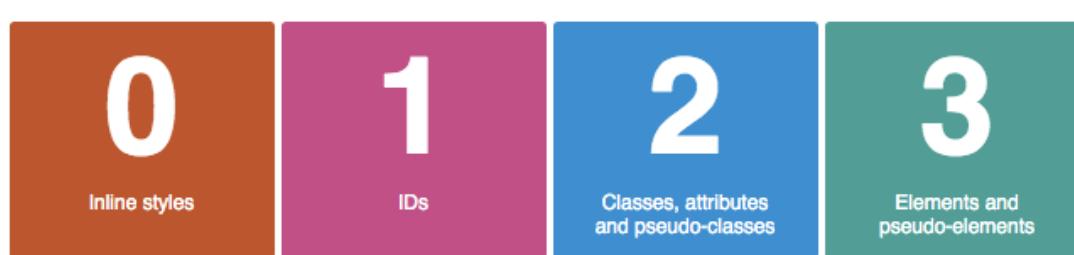
Cascade

- Lo standard CSS definisce un insieme di regole di risoluzione dei conflitti che prende il nome di **cascade**
- La logica di risoluzione si basa su tre elementi
 1. **Origine** del foglio stile:
 - **Autore:** stile definito nella pagina
 - **Browser:** foglio stile predefinito
 - **Utente:** in alcuni browser si può editare lo stile
 2. **Specificità:** esiste una **formula** che misura il grado di specificità attribuendo, ad es., un punteggio maggiore ad un selettore di ID rispetto ad uno di CLASSE
 3. **Dichiarazione !important:** è possibile aggiungere al valore di una dichiarazione la clausola **!important**

`p.myClass {color: red !important}`

Regole di risoluzione dei conflitti

- Il CSS assegna un **peso** a ciascun blocco di regole
- In **caso di conflitto** vince quella con peso maggiore
- Per determinare il peso si applicano in sequenza una serie di regole:
 - **Origine:** l'ordine di prevalenza è *autore* > *utente* > *browser*
 - **Specificità del selettore:** ha la precedenza il selettore con specificità maggiore (c'è una formula di calcolo della specificità) `#id ul > li:first-child h2 .title`



- **Ordine di dichiarazione:** se esistono due dichiarazioni con ugual specificità e origine vince quella fornita per ultima
- **Le dichiarazioni esterne sono considerate come precedenti a qualsiasi dichiarazione interna**

L'effetto della clausola !important

- Una regola marcata come **!important** ha sempre precedenza sulle altre, indipendentemente da origine, specificità e ordine di apparizione

CSS validator

- <http://jigsaw.W3.Org/css-validator/>

 CSS Validation Service
Check Cascading Style Sheets (CSS) and (X)HTML documents with style sheets

[By URI](#) [By file upload](#) [By direct input](#)

Validate by direct input

Enter the CSS you would like validated:

```
body {font-family: sans-serif; }
```

▶ More Options

[Check](#)



The W3C validators are developed with assistance from the Mozilla Foundation, and supported by community donations.

[Donate](#) and help us build better tools for a better web.

6088

 Flattr

Note: If you want to validate your CSS style sheet embedded in an (X)HTML document, you should first [check that the \(X\)HTML you use is valid](#).

Proprietà

- CSS definisce una sessantina di **proprietà** che ricadono grosso modo nei seguenti gruppi:
 - Colori e sfondi
 - Caratteri e testo
 - Box model
 - Display e gestione degli elementi floating
 - Posizionamento
 - *Tabelle*
 - *Liste*
 - *Form*

Gestione del testo

- Una parte consistente di CSS tratta la gestione del testo
- Esistono proprietà per definire tutti gli elementi classici della tipografia
- **Aspetto** dei caratteri:
 - Tipo di carattere (font)
 - Dimensione
 - Peso
 - Varianti di stile (normale, corsivo)
- **Formattazione** del testo:
 - Interlinea
 - Allineamento
 - Rientri
 - Decorazioni (sottolineato, barrato, ecc.)

font-family property

- In CSS, fonts are divided into “**font families**” from which you can specify the fonts you’d like used in each element of your page
- Only certain fonts are commonly installed on most computers, so you need to be careful in your font choices

```
body {  
    font-family: Verdana, Geneva, Arial, sans-serif;  
}
```

font-family property (2)

- **font-family** che prende come valore il nome di un font:

```
p { font-family: Verdana; }
```

- I font pongono un problema di compatibilità piuttosto complesso
- Su piattaforme diverse (Windows, Mac, Linux...) sono disponibili caratteri diversi e ogni utente può avere un proprio set personalizzato
- Per gestire questa situazione CSS mette a disposizione due meccanismi:
 - La definizione di famiglie generiche
 - La possibilità di dichiarare più font in una proprietà

font-family property (3)

- Each font-family contains a set of fonts that share common characteristic
 - There are five font families: **sans-serif**, **serif**, **monospace**, **cursive**, and **fantasy**
 - Each family includes a large set of fonts

Serif family

Times
Times New Roman
Georgia

Sans-serif family

Verdana **Arial Black**
Trebuchet MS
Geneva Arial

Monospace family

Courier

Courier New

Andale Mono

Cursive family

Comic Sans

Apple Chancery

Fantasy family

LAST NINJA

Impact

font-family property (4)

- Le 5 famiglie generiche sono e hanno una corrispondenza specifica che dipende dalla piattaforma (fra parentesi i valori utilizzati da Windows):
 - **serif** (Times New Roman)
 - **sans-serif** (Arial)
 - **cursive** (Comic Sans)
 - **fantasy** (Allegro BT)
 - **monospace** (Courier)
- Una dichiarazione multipla è fatta in questo modo:
p { font-family: Verdana, Helvetica, sans-serif; }
- Il browser procede per ordine:
 - cerca prima il font Verdana, altrimenti cerca Helvetica e se manca anche questo ricorre all'ultimo tipo sans-serif
 - sans-serif è una famiglia generica e quindi si trova sempre una corrispondenza
 - Conviene quindi mettere sempre per ultima una famiglia generica

Con grazie o senza grazie?

- Le grazie sono piccole decorazioni che sporgono dal corpo della lettera (in rosso nella figura a lato), es. **Times New Roman (serif)**
- Nei testi stampati ad alta risoluzione i caratteri con grazie risultano molto più leggibili (le grazie “guidano” l’occhio)
- Quando però si lavora a bassa risoluzione (i video dei computer sono tutti a bassa risoluzione) i caratteri senza grazie risultano molto più leggibili
- Esistono alcuni font senza grazie, per esempio il **Verdana (sans-serif)**, che sono stati pensati per essere molto leggibili anche a video e con caratteri di piccola dimensione



LEGIBILITY

*High Quality for Screen Typography
NEVER COMPROMISED*
Designed by Matthew Carter, hinted by Tom Rickner

ABCDEFGHIJKLMNOPqrstuvwxyz12345
ABCDEFGHIJKLMNOPqrstuvwxyz12345
ABCDEFGHIJKLMNOPqrstuvwxyz12
ABCDEFGHIJKLMNOPqrstuvwxyz12

Example: journal

We've also gone ahead and updated Tony's journal.html file to be official HTML5, adding in the doctype and the <meta> tag.

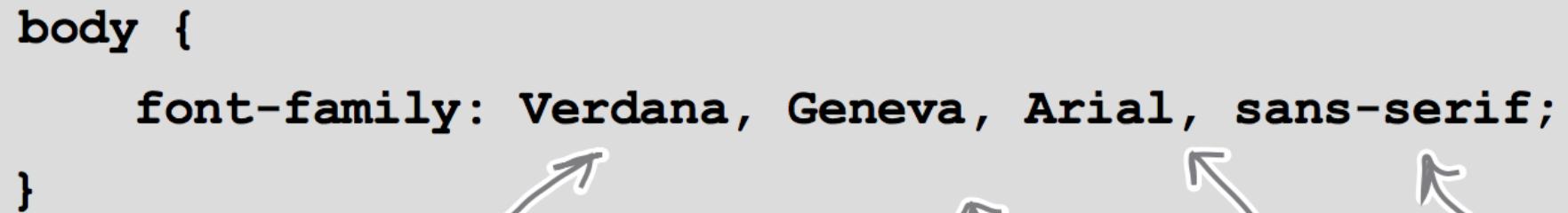


```
<!doctype html>
<html>
  <head>
    <meta charset="utf-8">
    <link type="text/css" rel="stylesheet" href="journal.css">
    <title>My Trip Around the USA on a Segway</title>
  </head>
  <body>
    .
    .
    .
  </body>
</html>
```

Here's where we're linking in the new "journal.css" file.

journal.css

```
body {  
    font-family: Verdana, Geneva, Arial, sans-serif;  
}
```



font-size properties

```
body {  
    font-size: 14px;  
}
```

body is 14px

h1 is 21px

p is 14px

h2 is 17px

font-size property

- La proprietà **font-size** permette di definire le **dimensioni** del testo (in tipografia: corpo del carattere)
- La dimensione può essere espressa **in forma assoluta**:
 - con una serie di parole chiave
xx-small, x-small, small, medium, large, x-large, xx-large
 - con unità di misura assolute, tipicamente pixel (**px**) e punti (**pt**)
- oppure **in forma relativa**:
 - con le parole chiave **smaller** e **larger**
 - con l'unità **em**: proporzione rispetto al valore del font corrente (basato sulla **M maiuscola**) es. **1.5em** = una volta e mezzo
 - con l'unità **ex**: proporzione rispetto all'altezza della **x minuscola** del font corrente
 - in percentuale (%) rispetto al valore corrente: **75%**

font-size property (2)

- Use pixels

```
body {  
    font-size: 14px;  
}
```

Here we've specified a body font size in pixels, and a level-one heading as 150%.

- A font size specified as a percentage tells the font how big it should be relative to another font size

```
body {  
    font-size: 14px;  
}  
h1 {  
    font-size: 150%;  
}
```



- **em**, a scaling factor

```
font-size: 1.2em;
```

font-size property (3)

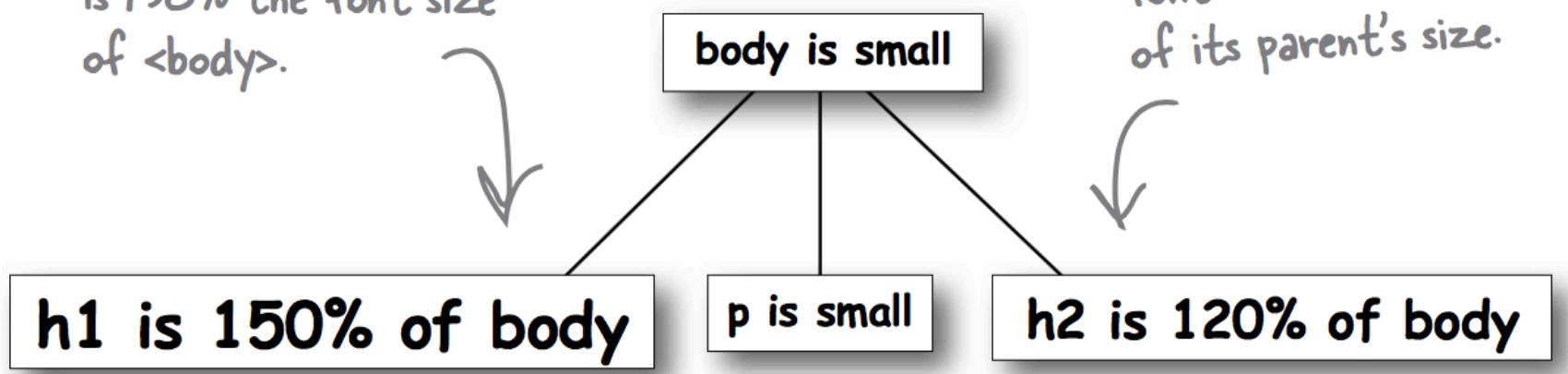
- First, you set a size for your `<body>` element. Then, you set all the other font sizes relative to that size:

```
body { font-size: small; }
h1 { font-size: 150%; }
h2 { font-size: 120%; }
```

xx-small
x-small
small
medium
large
x-large
xx-large

The font size of `<h1>` is 150% the font size of `<body>`.

We've set `<h2>`'s font size to 120% of its parent's size.



The `<p>` doesn't have a `font-size` value set, so by default, it inherits the `<body>` font size.

```
body { font-size: large; }
```

Now let's say you decide to make your font size bigger, OR the user makes the font size bigger using the browser.

All your other elements automatically get bigger too, without you having to do a thing.

body is large

h2 is still 120% the size of the body font size. In this case, it's 120% of "large."

h1 is 150% of body

p is large

h2 is 120% of body

font-size e compatibilità

- Qual è il miglior modo di definire il corpo (altezza) di un carattere?
 - In teoria sullo schermo sarebbe bene usare i pixel, ma IE non consente all'utente di ridimensionare un testo espresso in pixel
- La scelta migliore (consigliata da W3C) è quella di utilizzare l'**em**
- **Esprimere in % la dimensione del testo nel body (tipicamente 100%) e poi usare gli em per gli elementi interni**

```
body {font-size:100%}
h1    {font-size:2.5em}
p     {font-size:0.875em}
```

font-weight property

- La proprietà **font-weight** definisce il peso del carattere (la grossezza dei tratti che lo compongono)
 - L'esempio più noto è normale/neretto (impropriamente chiamato grassetto) ma è possibile avere una gamma più ampia di pesi
- Il peso si può esprimere in diversi modi:
 - Valori numerici: **100, 200, ... 800, 900**
 - Parole chiave assolute: **normal, bold**
 - Parole chiave relative: **bolder, lighter**
 - **normal** corrisponde a 400, **bold** a 700

Avenir Next Ultralight

Avenir Next Regular

Avenir Next Medium

Avenir Next Demi

Avenir Next Bold

Avenir Next Heavy

100 · why pangolins dream of quiche

200 · why pangolins dream of quiche

300 · why pangolins dream of quiche

400 · why pangolins dream of quiche

500 · why pangolins dream of quiche

600 · why pangolins dream of quiche

700 · why pangolins dream of quiche

800 · why pangolins dream of quiche

900 · why pangolins dream of quiche

font-weight property (2)

```
body {  
    font-weight: bold;  
}
```

lighter

normal

bold

bolder

Segway'n USA

Documenting my trip around the US on my very own

August 20, 2012



```
h2 {  
    font-size: 130%;  
    font-weight: normal;  
}
```

Here we're changing the font-weight
of the <h2> headings to normal.

Well I made it 1200 miles already, and I passed through
interesting places on the way:

1. Walla Walla, WA
2. Magic City, ID
3. Bountiful, UT
4. Last Chance, CO
5. Truth or Consequences, NM
6. Why, AZ

July 14, 2012

I saw some Burma Shave style signs on the side of the road.

Passing cars,

font-style property

- La proprietà **font-style** permette di definire varianti del testo rispetto al normale (tondo nel linguaggio tipografico)

- **normal**: valore di default (**tondo**)
- **italic**: testo in corsivo
- **oblique**: testo obliquo, simile a italic

- **font-style: italic;**

not italic
italic

- **font-style: oblique;**

not oblique
oblique

font-variant property

- La proprietà **font-variant** è simile a font-style e permette di impostare un'altra variante del testo: **il maiuscoleto (small-caps)**
- Ammette due valori: **normal** e **small-caps**

```
<head>
<style>
    p.normal {
        font-variant: normal;
    }

    p.small {
        font-variant: small-caps;
    }
</style>
</head>
<body>
    <p class="normal">This Is a Simple Paragraph.</p>
    <p class="small">This Is a Simple Paragraph.</p>
</body>
```

This Is a Simple Paragraph.
THIS IS A SIMPLE PARAGRAPH.

Example: journal

- Add this new CSS rule to the CSS in your “journal.css” file:

```
blockquote {  
    font-style: italic;  
}
```

I saw some Burma Shave style signs on the side of the road today:

*Passing cars,
When you can't see,
May get you,
A glimpse,
Of eternity.*



La proprietà font

- La proprietà **font** è una proprietà sintetica che consente di definire tutti gli attributi dei caratteri in un colpo solo, nell'ordine:

font-style font-variant font-weight font-size font-family font di sistema

p { font: italic normal bold 10px Arial, Serif; }

line-height property

- **line-height** permette di definire l'altezza di una riga di testo all'interno di un elemento blocco
 - In pratica consente di definire *'l'interlinea* (lo spazio fra le righe)
- Si usano i seguenti valori:
 - **normal**: spaziatura di default stabilita dal browser
 - **valore numerico**: moltiplicatore applicato al corpo del carattere (es. 1.5 = una volta e mezza il corpo)
 - **valore con unità di misura**: altezza esatta della riga
 - **percentuale**: altezza riga pari ad una % del corpo
- La scelta migliore è il valore numerico

```
p {line-height: 1.5; }  
p {line-height: 15px; }
```

line-height property (2)

- Increasing the line height of your text can improve readability

```
body {  
    font-size: small;  
    font-family: Verdana, Helvetica, Arial, sans-serif;  
    line-height: 1.6em;  
}
```

Here we're changing the space between each line to 1.6em—
in other words, 1.6 times the font size.



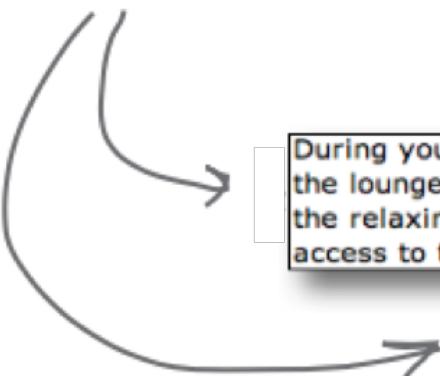
Using the line-height property, we've increased the space between each line of text from the default to 1.6em.

Before



During your stay at the lounge, you'll enjoy a smooth mixture of ambient and mystic sounds, filling the lounge and adding an extra dimension to your dining experience. The decor surrounds you with the relaxing sentiments of sights from eras past. And, don't forget, the lounge offers free wireless access to the

During your stay at the lounge, you'll enjoy a smooth mixture of ambient and mystic sounds, filling the lounge and adding an extra dimension to your dining experience. The decor surrounds you with the relaxing sentiments of sights from eras past. And, don't forget, the lounge offers free wireless access to the Internet, so bring your laptop.



Allineamento e decorazione del testo

- Con **text-align** possiamo definire l'allineamento di un paragrafo scegliendo fra 4 opzioni:
 - **left**: allineamento a sinistra (**bandiera a sinistra**)
 - **right**: allineamento a destra (**bandiera a destra**)
 - **center**: centratura (**epigrafe**)
 - **justify**: giustificazione
.....(blocchetto)
- **text-decoration** permette invece di definire alcune decorazioni (sottolineato, barrato ecc.):
 - **none**: nessuna decorazione
 - **underline**: sottolineato
 - **overline**: linea sopra il testo
 - **line-through**: ~~barrato~~

text-decoration property

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

none

underline

overline

line-through

text-indent e text-transform

- **text-indent** definisce l'indentazione della prima riga in ogni elemento contenente del testo
 - Può essere espressa in due modi:
 - valore numerico con unità di misura
 - valore in percentuale rispetto alla larghezza del blocco di testo (**giustezza**)
- **text-transform** serve a cambiare gli attributi del testo relativamente a maiuscole e minuscole
 - **none**: nessuna trasformazione
 - **capitalize**: La Prima Lettera Di Ogni Parola In Maiuscolo, Le Altre Tutte In Minuscolo
 - **uppercase**: TUTTO IL TESTO È MAIUSCOLO
 - **lowercase**: tutto il testo è minuscolo
- Utile, ad esempio, per dare un aspetto accettabile a pezzi di testo tutti in maiuscolo

text-transform and font-variant

```
<head>
<style>
  p.normal {
    font-variant: normal;
    text-transform: capitalize;
  }

  p.small {
    font-variant: small-caps;
    text-transform: capitalize;
  }
</style>
</head>
<body>
  <p class="normal">this is a simple paragraph.</p>
  <p class="small">this is a simple paragraph.</p>
</body>
```

This Is A Simple Paragraph.
THIS IS A SIMPLE PARAGRAPH.

Color

- Per ogni elemento si possono definire almeno tre colori:
 - **il colore di primo piano (foreground color)**
 - **il colore di sfondo (background color)**
 - **il colore del bordo (border color)**
- La proprietà **color** definisce esclusivamente:
 - il colore di primo piano, ovvero quello del testo
 - il colore del bordo di un elemento quando non venga impostato esplicitamente con **border-color**
- La sintassi di color è:
selettore { color: <valore> }
- dove il valore è definito con le modalità parola chiave, #RRGGBB, ecc.

```
• color: coral;  
• background-color: coral;  
• border-color: coral;
```

Add color to your text

```
body {  
    color: silver;  
}
```



Aqua



Black



Blue



Fuchsia



Gray



Green



Lime



Maroon



Navy



Olive



Purple



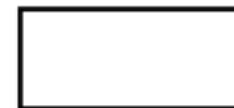
Red



Silver



Teal



White



Yellow

Background

initial Sets this property to its default value.

Inherit Inherits this property from its parent element.

- Proprietà singole e valori:
 - **background-color:** colore oppure **transparent**
 - **background-image:** url di un'immagine o **none**
 - **background-repeat:** {repeat | repeat-x | repeat-y | no-repeat}
 - **background-attachment:** {scroll | fixed}
 - **background-size:** width height
 - **background-position:** x, y in % o assoluti o parole chiave (top | left | center | bottom | right)
- Proprietà in forma breve (**background**):
selettore {background: background-color background- image background-repeat background-attachment background- position;}

Inherit

```
<head>
<style>
em {
  color: blue;
  border: 1px solid black;
}

.extra em {
  color: inherit;
}
</style>
</head>
<body>
<p>
  An <em>em element</em> which is blue, as em elements are set to be.
</p>

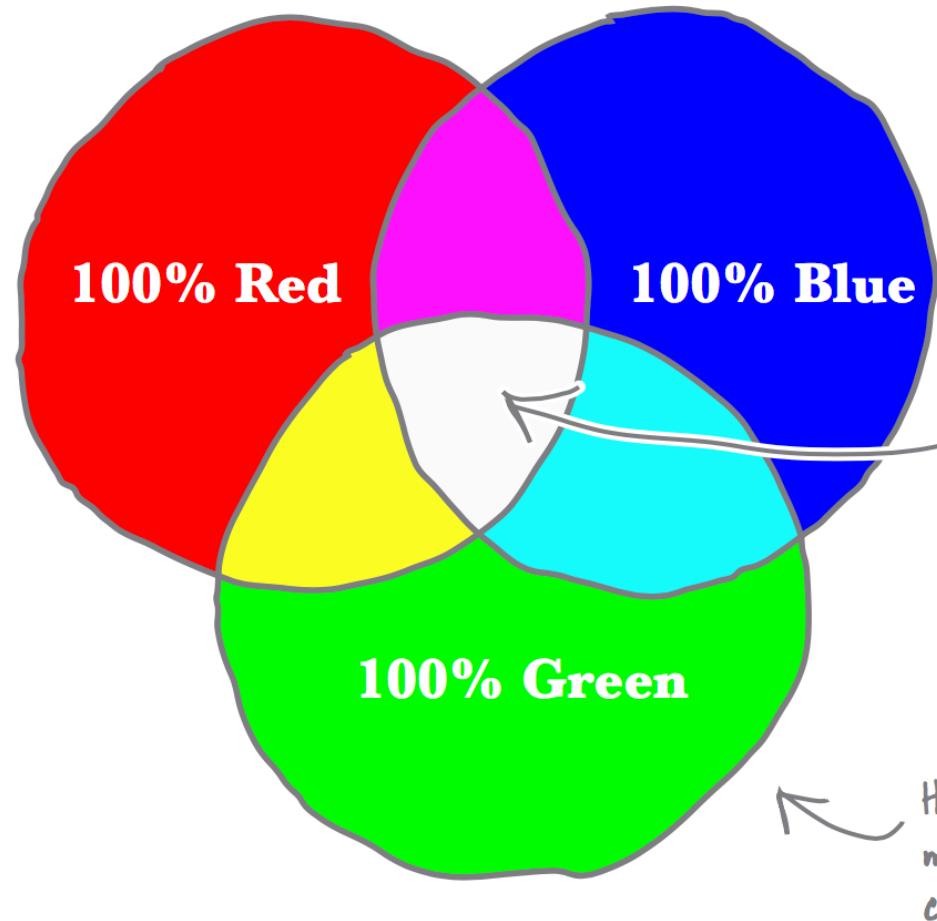
<p class="extra" style="color:green">
  An <em>em element</em> which is green, because it inherits from its parent.
</p>
</body>
```

An **em element** which is blue, as em elements are set to be.

An **em element** which is green, because it inherits from its parent.

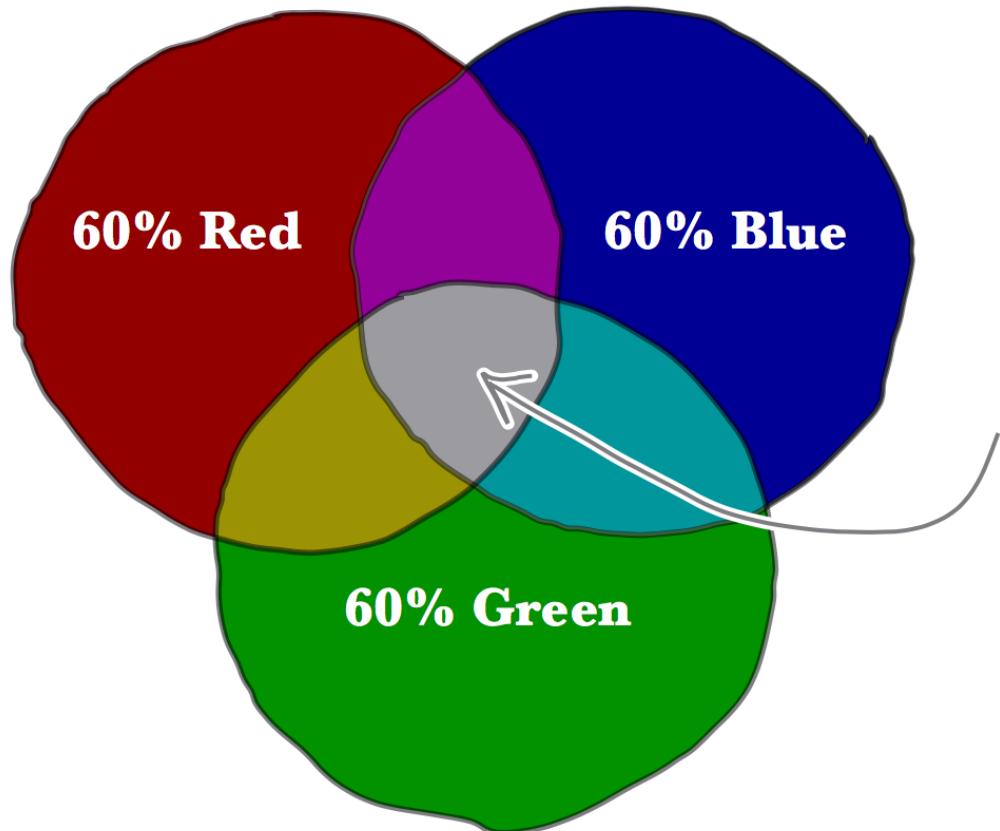
Web colors

- Web colors are specified in terms of how much red, green, and blue make up the color



100% Red + 100%
Blue + 100% Green =
White

Grey



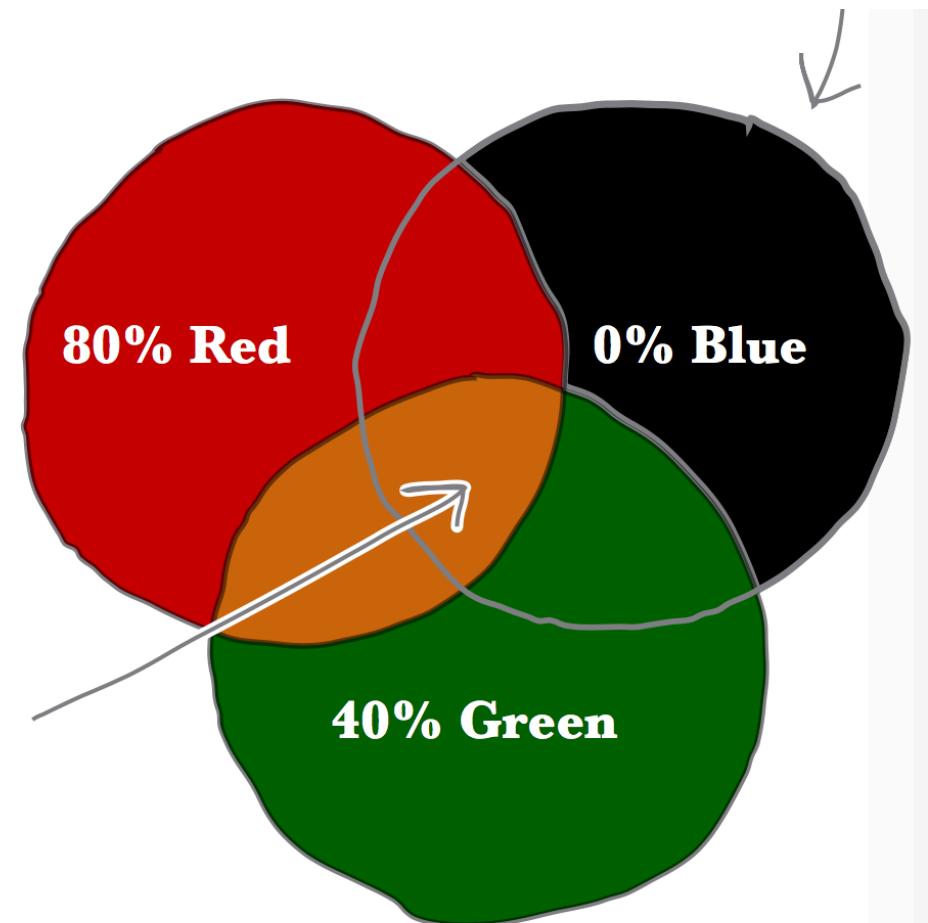
But if you add, say, only 60% of each component (red, green, and blue), then what would you expect? Less white, right? In other words, you get a gray color, because we're adding equal amounts of the three colors, but not as much light to the screen.

Orange

Or, say you mix together 80% red and 40% green. You'd expect an orange color, right?

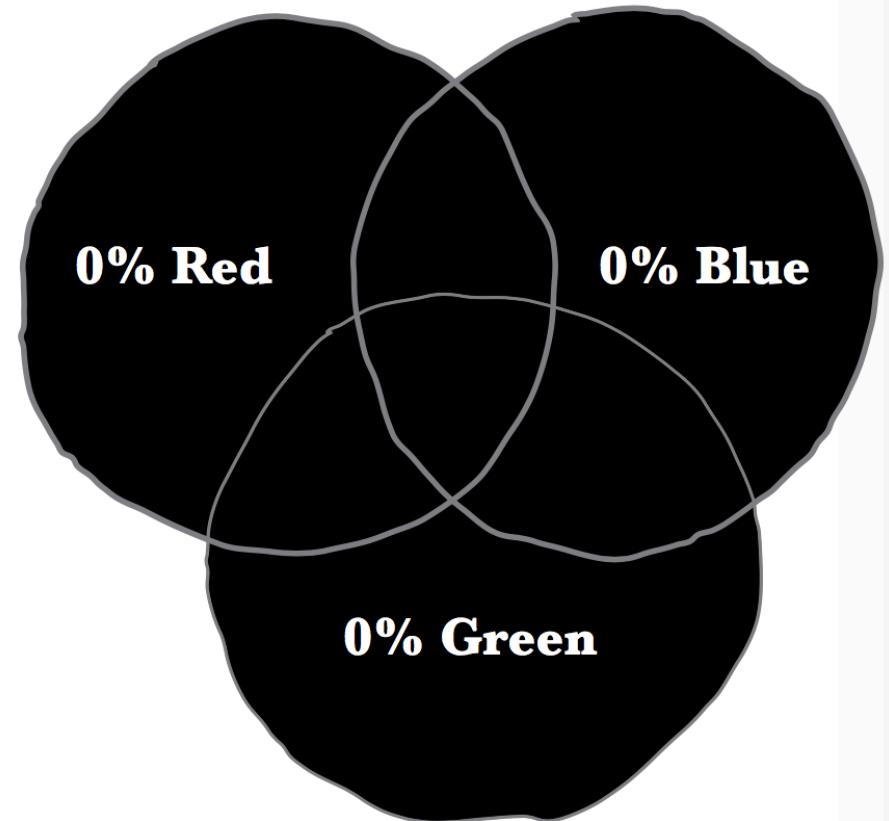
Well, that's exactly what you'll get. Notice that if a color is contributing zero, then it doesn't affect the other two colors. Again, this is because there is no blue light being mixed with red and green.

Mixing 80% red and 40% green, we get a nice orange color.



Black

And what if you mix 0% of red, green, and blue, then what do you get? That means you're sending no light of any kind to the screen, so you get black.



Specify color by name

150 colors in new browsers!!

body {

Here's the body rule.

background-color: silver;

And the background-color
property.

And the color
written as a name.



Aqua



Black



Navy



Olive



Blue



Fuchsia



Purple



Red



Gray



Green



Silver



Teal



Lime



Maroon



White



Yellow

Specify colors by RGB

```
body {  
    background-color: rgb(80%, 40%, 0%);  
}
```

↑
Begin with "rgb", short
for red, green, blue.

↑ ↑
And then specify the percentages for
red, green, and blue within parentheses,
and with a % sign after each one.

- You can also specify the red, green, and blue values as a numeric value between 0 and 255

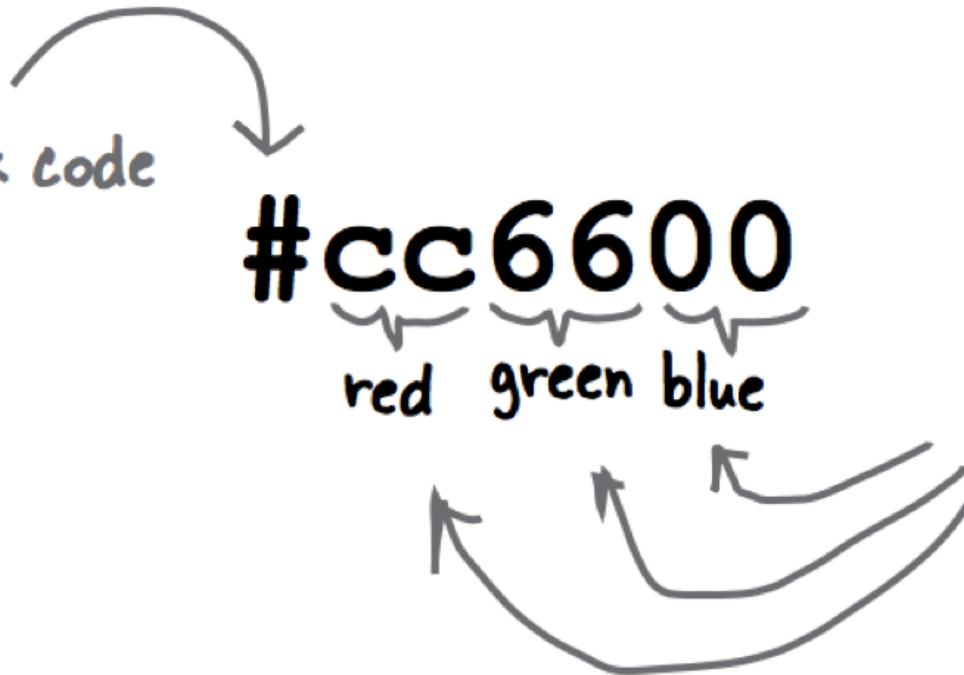
```
body {  
    background-color: rgb(204, 102, 0);  
}
```

↑
We still start with "rgb".

↑ ↑
To specify numeric values and not
percentages, just type in the value
and don't use a %.

Specify color using hex codes

Always start a hex code with the # sign.



Then specify the red, green, and blue components, using two digits for each.

Online color chart

- http://en.wikipedia.org/wiki/Web_colors



The screenshot shows a web browser displaying the Wikipedia page for "Web colors". The page features a large table with color names, their corresponding HTML and Hex codes, and Decimal RGB values. The table is organized into several sections based on color categories: Red colors, Green colors, Brown colors, Pink colors, Orange colors, Yellow colors, Blue/Cyan colors, and White colors.

HTML name		Hex code		Decimal code	
	R G B		R G B		R G B
Red colors					
IndianRed	CD 5C 5C	205 92 92			
LightCoral	F0 80 80	240 128 128			
Salmon	FA 80 72	250 128 114			
DarkSalmon	E9 96 7A	233 150 122			
LightSalmon	FF A0 7A	255 160 122			
Red	FF 00 00	255 0 0			
Crimson	DC 14 3C	220 20 60			
FireBrick	B2 22 22	178 34 34			
DarkRed	8B 00 00	139 0 0			
Pink colors					
Pink	FF C0 CB	255 192 203			
LightPink	FF B6 C1	255 182 193			
HotPink	FF 69 B4	255 105 180			
DeepPink	FF 14 93	255 20 147			
MediumVioletRed	C7 15 85	199 21 133			
PaleVioletRed	DB 70 93	219 112 147			
Orange colors					
LightSalmon	FF A0 7A	255 160 122			
Coral	FF 7F 50	255 127 80			
Tomato	FF 63 47	255 99 71			
OrangeRed	FF 45 00	255 69 0			
DarkOrange	FF 8C 00	255 140 0			
Orange	FF A5 00	255 165 0			
Yellow colors					
Gold	FF D7 00	255 215 0			
Yellow	FF FF 00	255 255 0			
LightYellow	FF FF E0	255 255 224			
LemonChiffon	FF FA CD	255 250 205			
LightGoldenrodYellow	FA FA D2	250 250 210			
PapayaWhip	FF EF D5	255 239 213			
Moccasin	FF E4 B5	255 228 181			
PeachPuff	FF D1 C2	255 213 188			
Green colors					
GreenYellow	AD FF 2F	173 255 47			
Chartreuse	7F FF 00	127 255 0			
LawnGreen	7C FC 00	124 252 0			
Lime	00 FF 00	0 255 0			
LimeGreen	92 CD 32	50 205 50			
PaleGreen	98 FB 98	152 251 152			
LightGreen	90 EE 90	144 238 144			
MediumSpringGreen	00 FA 9A	0 250 154			
SpringGreen	00 FF 7F	0 255 127			
MediumSeaGreen	3C B3 71	60 179 113			
SeaGreen	2E 8B 57	46 139 87			
ForestGreen	22 8B 22	34 139 34			
Green	00 80 00	0 128 0			
DarkGreen	00 64 00	0 100 0			
YellowGreen	9A CD 32	154 205 50			
OliveDrab	6B 8E 23	107 142 35			
Olive	80 80 00	128 128 0			
DarkOliveGreen	55 6B 2F	85 107 47			
MediumAquamarine	66 CD AA	102 205 170			
DarkSeaGreen	8F BC 8F	143 188 143			
LightSeaGreen	20 B2 AA	32 178 170			
DarkCyan	00 8B 8B	0 139 139			
Teal	00 80 80	0 128 128			
Blue/Cyan colors					
Aqua	00 FF FF	0 255 255			
Cyan	00 FF FF	0 255 255			
LightCyan	E0 FF FF	224 255 255			
PaleTurquoise	AF EE EE	175 238 238			
Aquamarine	7F FF D4	127 255 212			
Turquoise	40 E0 D0	64 224 208			
MediumTurquoise	48 D1 CC	72 209 204			
Brown colors					
Cornsilk	FF F8 DC	255 248 220			
BlanchedAlmond	FF EB CD	255 235 205			
Bisque	FF E4 C4	255 228 196			
NavajoWhite	FF DE AD	255 222 173			
Wheat	F5 DE B3	245 222 179			
BurlyWood	DE B8 87	222 184 135			
Tan	D2 B4 8C	210 180 140			
RosyBrown	BC 8F 8F	188 143 143			
SandyBrown	F4 A4 60	244 164 96			
Goldenrod	DA A5 20	218 165 32			
DarkGoldenrod	B8 86 0B	184 134 11			
Peru	CD 85 3F	205 133 63			
Chocolate	D2 69 1E	210 105 30			
SaddleBrown	8B 45 13	139 69 19			
Sienna	A0 52 2D	160 82 45			
Brown	A5 2A 2A	165 42 42			
Maroon	80 00 00	128 0 0			
White colors					
White	FF FF FF	255 255 255			
Snow	FF FA FA	255 250 250			
Honeydew	F0 FF F0	240 255 240			
MintCream	F5 FF FA	245 255 250			
Azure	F0 FF FF	240 255 255			
AliceBlue	F0 F8 FF	240 248 255			
GhostWhite	F8 F8 FF	248 248 255			
WhiteSmoke	F5 F5 F5	245 245 245			
Seashell	FF F5 EE	255 245 238			
Beige	F5 F5 DC	245 245 220			
OldLace	FD F5 E6	253 245 220			
FloralWhite	FF FA F0	255 250 240			
Ivory	FF FF FA	255 255 255			

Example: journal

We're going to make both `<h1>` and `<h2>` orange, so we're putting the color property in a shared rule.

```
h1, h2 {  
  color: #cc6600;  
  text-decoration: underline;  
}
```

Here's the hex code for the orange color Tony wants, otherwise known as `rgb(80%, 40%, 0%)`.

And here's the way we create an underline. We use the `text-decoration` property and set it to `underline`.

Segway'n USA

Documenting my trip around the US on my very

August 20, 2012



Well I made it 1200 miles already, and I passed interesting places on the way:

1. Walla Walla, WA
2. Magic City, ID
3. Bountiful, UT
4. Last Chance, CO
5. Truth or Consequences, NM
6. Why, AZ

```
h1, h2 {  
    color: #cc6600;  
    border-bottom: thin dotted #888888;  
    text-decoration: underline;  
}  
}
```



Example

The screenshot shows a web browser window titled "Head First Lounge" displaying the URL "file:///chapter9/lounge/lounge.html". The page features a large graphic of a blue martini glass filled with a greenish-yellow liquid and garnished with a cherry. To the right of the graphic, the word "Lounge" is written in a large, bold, red sans-serif font, with "Head First" in smaller black text above it. A handwritten-style annotation with a curved arrow points from the left side of the slide towards this graphic area.

There's a new graphic for the header of the page.

Welcome to the Head First Lounge

The Head First Lounge is, no doubt, the biggest trendsetter in Webville. Stop in to sample the eclectic offering of elixirs, teas, and coffees, or, stay a bit longer and enjoy the multicultural culinary menu that combines a harmony of taste, texture, and color with the best in fresh and healthy ingredients.

During your stay at the lounge, you'll enjoy a smooth mixture of ambient and mystic sounds, filling the lounge and adding an extra dimension to your dining experience. The decor surrounds you with the relaxing sentiments of sights from eras past. And, don't forget, the lounge offers free wireless access to the Internet, so bring your laptop.

Our guarantee: at the lounge, we're committed to providing you, our guest, with an exceptional experience every time you visit. Whether you're just stopping by to check in on email over an elixir, or are here for an out-of-the-ordinary dinner, you'll find our knowledgeable service staff pay attention to every detail. If you're not fully satisfied, have a Blueberry Bliss Elixir on us.

But that's not all; at night, join us in the backroom as our resident DJ spins a choice selection of trance and drum&bass beats across our spacious tiki-themed dance floor. Or just hang out in one of our comfy white vinyl booths at the dance bar. You can have your elixirs delivered from the main lounge right to the dance floor. If you've had enough of the beat, just head back to the lounge area to relax. And, no matter where you find yourself in the lounge, you'll always be connected with our wireless Internet access.

Now that you've experienced the lounge *virtually*, isn't it time to check us out *for real*? We're located right in the heart of Webville, and we've created some [detailed directions](#) to get you here in record time. No reservations necessary; come and join us anytime.

Weekly Elixir Specials



The lounge guys have supplied a lot of new text describing the lounge and what it offers.

They've included a set of elixir specials for the week.



Lemon Breeze

The ultimate healthy drink, this elixir combines herbal botanicals, minerals, and vitamins with a twist smooth citrus wonder that will keep your immune system going all day and all night.



Chai Chiller

Not your traditional chai, this elixir mixes maté with chai spices and adds an extra chocolate kick for sensation on ice.



Black Brain Brew

And they even let visitors sample some of the music that is played in the lounge each week, a common request of customers.

Finally, they've got some legalese in the footer of the page with a copyright.

Black Brain Brew

Want to boost your memory? Try our Black Brain Brew elixir, made with black oolong tea. Your brain will thank you for the boost.

Join us any evening for these and all our other wonderful [elixirs](#).

What's playing at the Lounge

We're frequently asked about the music we play at the lounge, and no wonder, it's great stuff here on the site, updated weekly. Enjoy.

- Buddha Bar, Claude Challe
- When It Falls, Zero 7
- Earth 7, L.T.J. Bukem
- Le Roi Est Mort, Vive Le Roi!, Enigma
- Music for Airports, Brian Eno

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Improvements...

The screenshot shows a web browser window titled "Head First Lounge" displaying the URL "file:///chapter10/lounge/lounge.html". The page features a large, stylized logo for "Head First Lounge" with a blue martini glass icon. Below the logo is a section titled "Welcome to the Head First Lounge" with a paragraph of text. A callout box contains a quote about the lounge's commitment to providing exceptional service. At the bottom, there is a paragraph about the lounge's music selection. To the right, a sidebar titled "Weekly Elixir Specials" lists two drink offerings: "Lemon Breeze" and "Chai Chiller", each accompanied by a small image of the drink.

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Weekly Elixir Specials

Lemon Breeze

The ultimate healthy drink, this elixir combines herbal botanicals, minerals, and vitamins with a twist of lemon into a smooth citrus wonder that will keep your immune system going all day and all night.

Chai Chiller

Not your traditional chai, this elixir mixes maté with chai spices and adds an extra chocolate kick for a caffeinated taste sensation

We've got headings that match the site's color theme, an aquamarine. The fonts are also a very readable sans-serif.

This paragraph has been highly stylized, which helps set it off from the text and gives the page an attractive look. It also looks like the font is a serif font, which is different from the main text.

The elixirs have been dramatically restyled into an appetizing display of drinks.

dance floor. Or just hang out in one of our comfy white vinyl booths at the dance bar. You can have your elixirs delivered from the main lounge right to the dance floor. If you've had enough of the beat, just head back to the lounge area to relax. And, no matter where you find yourself in the lounge, you'll always be connected with our wireless Internet access.

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- *Buddha Bar*, Claude Challe
- *When It Falls, Zero 7*
- *Earth 7*, L.T.J. Buhem
- *Le Roi Est Mort, Vive Le Roi!*, Enigma
- *Music for Airports*, Brian Eno

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The music CDs and artists are styled now too.

And the footer is centered and displayed in a small font.

→ The elixirs have also been moved over to the side. How did that happen?

caffeinated taste sensation on ice.



Black Brain Brew

Want to boost your memory? Try our Black Brain Brew elixir, made with black oolong tea and just a touch of espresso. Your brain will thank you for the boost.

Join us any evening for these and all our other wonderful [elixirs](#).

lounge.css

- lounge.html contains

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

- Create new lounge.css in the L09 code folder containing:

```
body {  
    font-size: small;  
    font-family: Verdana, Helvetica, Arial, sans-serif;  
}  
  
h1, h2 {  
    color: #007e7e;  
}  
  
h1 {  
    font-size: 150%;  
}  
  
h2 {  
    font-size: 130%;  
}
```

Here's the default font size for the page.

We're going to go with a sans-serif font family for the lounge. We've picked a few font alternatives, and ended the declaration with the generic sans-serif font.

We're going to set the color of the `<h1>` and `<h2>` elements to an aquamarine to match the glass in the logo.

Now let's get some reasonable heading sizes for `<h1>` and `<h2>`. Since we're setting two different sizes for these, we need separate rules and can't add them to the combined rule for `<h1>` and `<h2>`.

Head First Lounge

file:///chapter9/lounge/lounge.html



Head First Lounge

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Weekly Elixir Specials



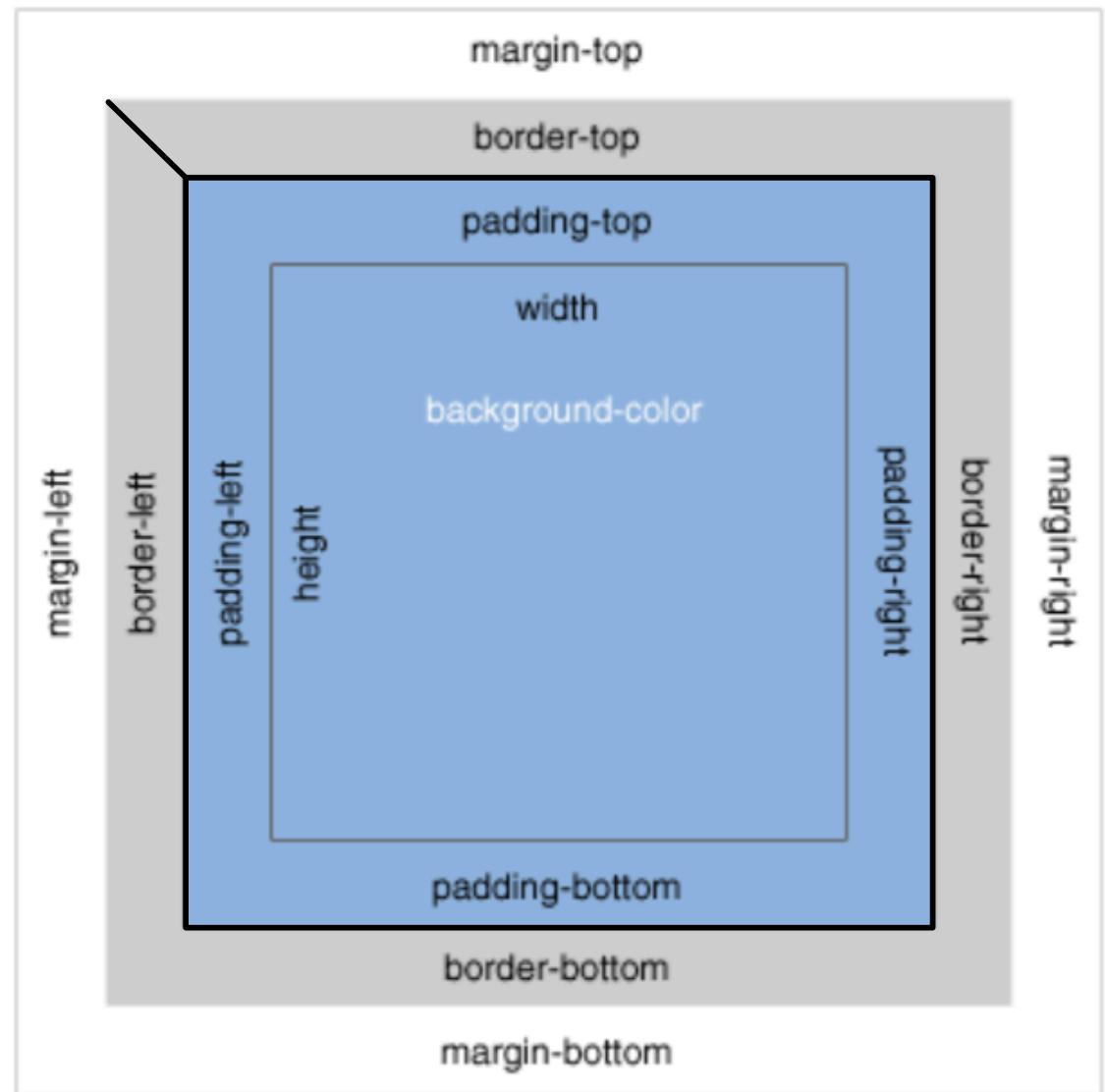
Lemon Breeze

The ultimate healthy drink, this elixir combines herbal botanicals, minerals, and vitamins with a twist of lemon into a smooth citrus wonder that will keep your immune system doing all day and all

This link looks oddly out of place with its default blue color. We'll have to fix that (later).

Box model

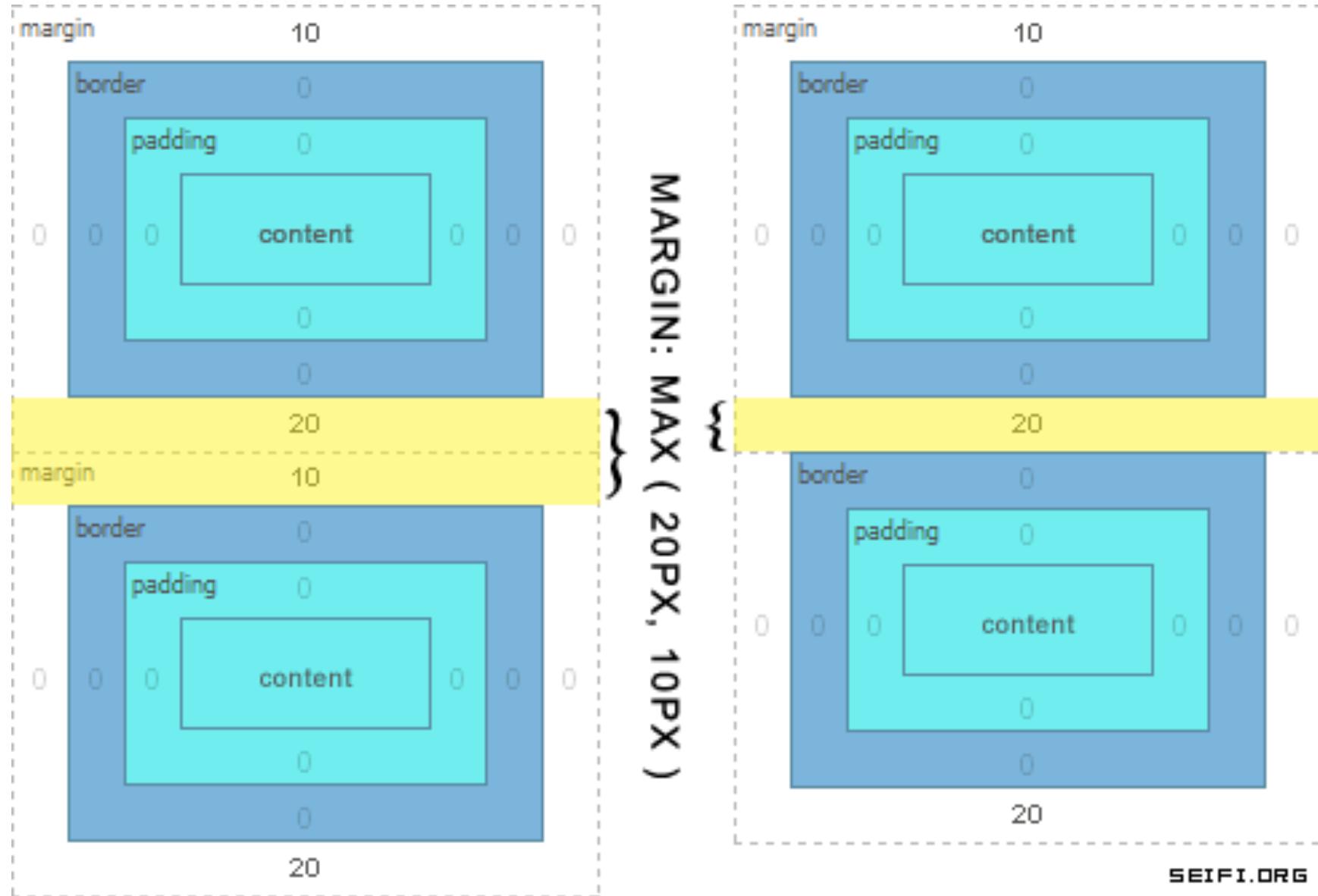
- Per box model si intende l'insieme delle regole per la definizione degli stili per gli elementi blocco



Box model: elementi

- **Area del contenuto:** testo, immagine, ecc. di cui è possibile definire altezza e larghezza (**width e height**)
- **Padding (cuscinetto):** spazio vuoto tra il contenuto e il bordo dell'elemento
- **Bordo (border):** di cui possiamo definire colore, stile e spessore
- **Margine (margin):** spazio tra l'elemento e gli altri elementi adiacenti
 - Nel caso di due box allineati in orizzontale, la loro distanza è la somma dei due margini
 - Se sono allineati verticalmente, si ha il cosiddetto **margin collapsing**:
 - la distanza è pari al massimo fra il margine inferiore del primo e il margine superiore del secondo

Margin collapsing



Larghezza ed altezza dei box

- La larghezza complessiva è data dalla formula:

margine sx + bordo sx + padding sx + width + padding dx + bordo dx + margine dx

- Se non si imposta specificamente il valore width (o si specifica il valore auto) la dimensione del contenuto viene stabilita automaticamente dal browser
- Per l'altezza complessiva vale un ragionamento analogo ma bisogna tener conto del margin collapsing per cui il valore dipende anche da cosa c'è vicino

Box model: dimensioni del contenuto

- **height**: altezza, si applica a tutti gli elementi blocco escluse le colonne delle tavelle
 - **min-height** e **max-height**: permettono di fissare l'altezza minima o quella massima anziché un valore esatto (**min-height** non funziona con IE)
- **width**: larghezza
 - **min-width** e **max-width**: permettono di fissare la larghezza minima o quella max anziché quella esatta
- Valori ammessi:
 - **auto**: dimensione determinata dal contenuto (solo per **width** e **height**)
 - valore numerico con unità di misura
 - valore percentuale
- *Le proprietà del box model non vengono ereditate*

Margin

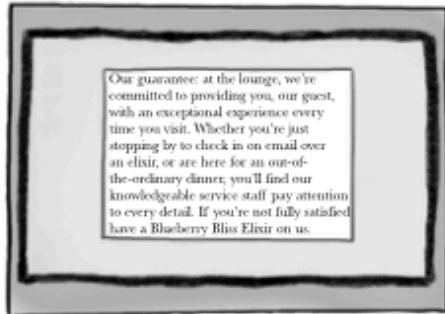
- I margini consentono di definire la spaziatura fra elementi
 - Quattro proprietà singole:**margin-top, margin-right, margin-bottom, margin-left**
 - Una proprietà sintetica: **margin** (con i valori nell'ordine esposto sopra)
- Valori:
 - valore numerico con unità di misura
 - valore in percentuale
 - **auto**: distanza automaticamente calcolata rispetto alla larghezza dell'elemento contenitore

```
div {  
margin-top: 8px;  
margin-right: 16px;  
margin-bottom: 8px;  
margin-left: 24px; }
```

Padding

- Il padding consente di definire lo spazio intorno ad un elemento (internamente al bordo)
 - Quattro proprietà singole:
padding-top, padding-right, padding-bottom, margin-left
 - Una proprietà sintetica: **padding** (con i valori nell'ordine esposto sopra)
- Valori:
 - valore numerico con unità di misura
 - valore in percentuale
 - **auto**: distanza automaticamente calcolata rispetto alla larghezza dell'elemento contenitore

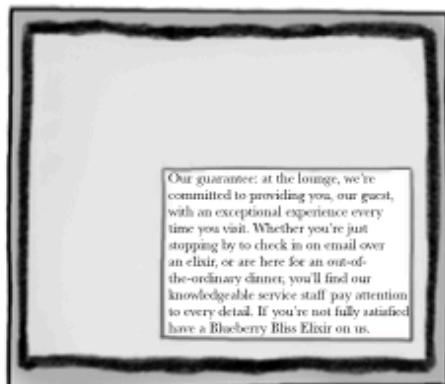
Padding



With CSS, you can control padding on any side of the content area. Here we've got a lot of left and right padding.



And here there's a lot of top and bottom padding.

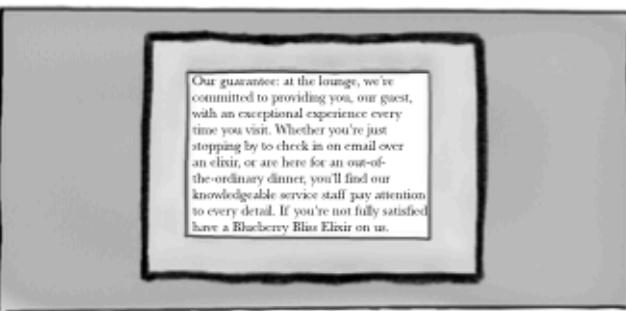


And here the content is offset to the bottom right with padding on the top and left.

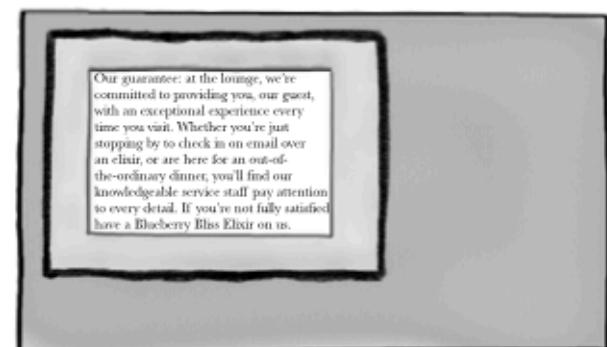
Margins



You have the same level of control over the margins. Here there's a lot of top and bottom margin.



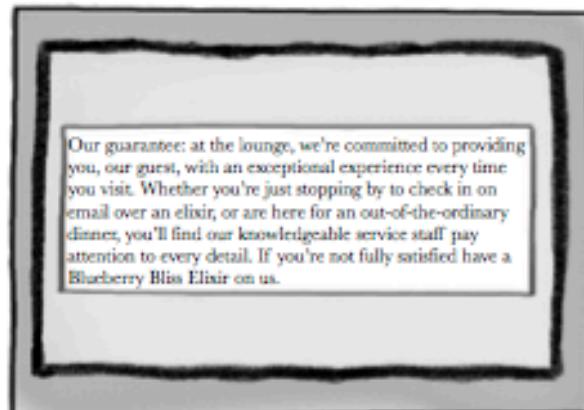
And here's a lot of left and right margin.



And as with padding, you can specify all sides independently to create margins like this.

Content Area

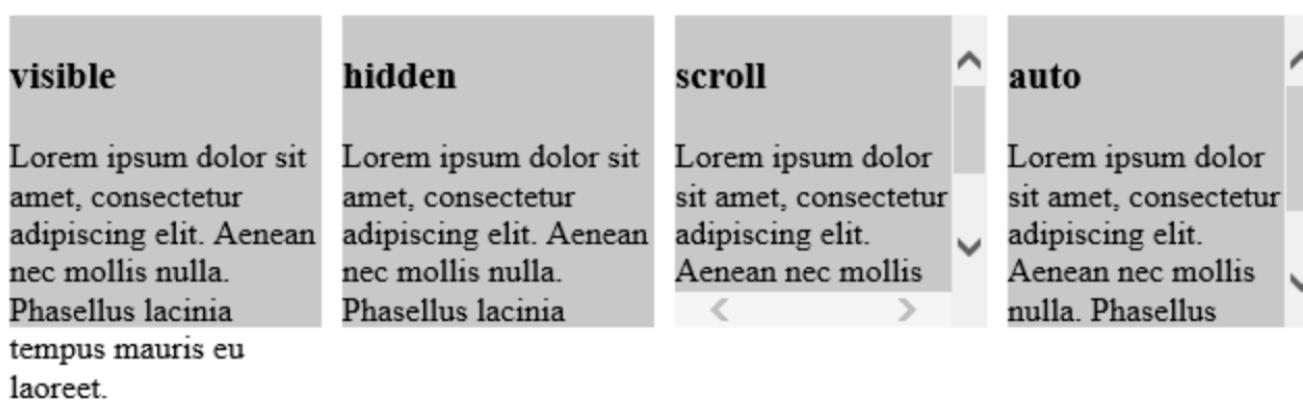
You can even control width and height in a variety of ways. Here, the content area has been made wide.



And here the content area is tall but thin.

Overflow

- La proprietà **overflow** permette di definire il comportamento da adottare quando il contenuto (tipicamente testo) deborda dalle dimensioni fissate
- Valori:
 - **visible** (default): il contenuto eccedente viene mostrato, i browser si comportano *in modi diversi!*
 - **hidden**: il contenuto eccedente non viene mostrato
 - **scroll**: vengono mostrate barre di scorrimento che consentono di accedere al contenuto eccedente
 - **auto**: Il browser tratta il contenuto eccedente secondo le sue impostazioni predefinite (di solito barre di scorrimento)
- *In condizioni normali non conviene definire l'altezza in modo fisso: si creano effetti imprevedibili*



```
p {  
    width: 100px;  
    height: 100px;  
    overflow: scroll;  
}
```

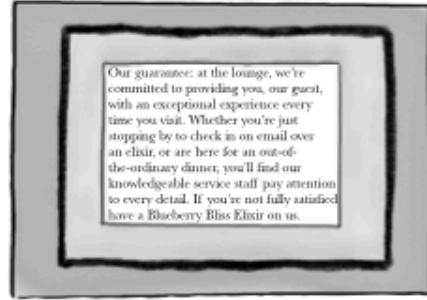
Bordi

- Le proprietà di bordo permettono di definire: stile, colore e spessore di ognuno dei quattro bordi
- Dodici proprietà singole (3 per ogni bordo):
 - **border-top-color**, **border-top-style**, **border-top-width**
 - **border-right-color**, **border-right-style**, **border-right-width**
 - ...
- Proprietà sintetiche di tre tipi:
 - **border-top**, **border-right**, **border-bottom**, **border-left**
 - **border-color**, **border-width**, **border-style**
 - **border**: si può usare solo quando i 4 bordi hanno le stesse caratteristiche

Valori per i bordi

- Colore:
 - **colore** (espresso nei vari modi possibili)
- Stile:
 - **none** o **hidden**: nessun bordo e spessore pari a 0
 - **dotted**, **dashed**: a puntini, a trattini
 - **solid**: intero
 - **double**: doppio
 - **groove**, **ridge**, **inset**, **outset**: effetti tridimensionali
- Spessore:
 - valore numerico con unità di misura
 - **thin**: bordo sottile
 - **medium**: bordo di medio spessore
 - **thick**: bordo molto spesso

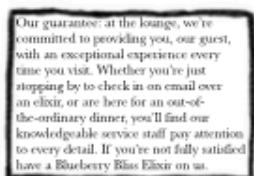
Boxes



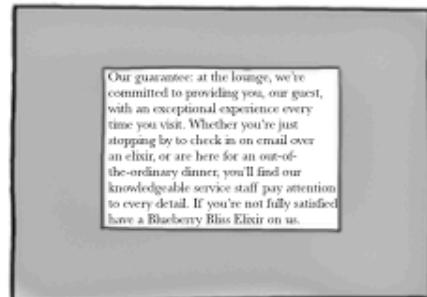
You can style a box to have padding, a border and a margin.



Or just padding and a border



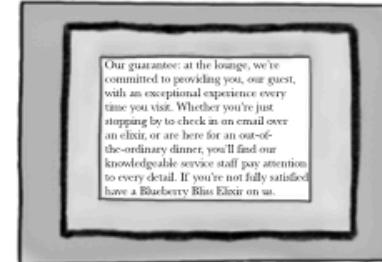
Or just a border



Or a margin with no border and no padding

D
ir,

You can have solid borders, thick or thin.



Or no border at all



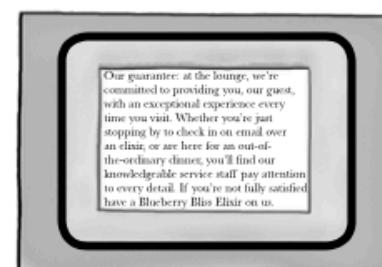
Or choose from eight different styles of borders, like dashed



Or color your borders



Or even create rounded corners on your borders



Borders

Borders

The solid style is just what it sounds like: a solid border.

Go with **solid**, the original.

The double style uses two lines.

Go with **double**; I'm twice the fun.

A groove style looks like a groove in the page (difficult to see in a book).

I'm the border that's got the **groove**.

The dotted style looks like a series of dots.

And the dashed style is just a set of dashes around the border.

The inset style looks like an inset that sinks into the page.

Once you go **dotted**, you'll never go back.

Ignore dotted; use **dashed**.

I'm the only "in" style: **inset**.

Borders (2)

The outset style looks like an outset that rises from the page.

Go with me; I've been better since the **outset**.

The ridge style looks like a raised ridge on the page.

I'm more fun; I've got **ridges**.

Border Width

The **border-width** property controls the width of the border. You can use keywords or pixels to specify the width.

border-width: thin;

border-width: 5px;

You can specify widths using the keywords thin, medium, or thick, or by the number of pixels.

_____	1px
_____	2px
_____	3px
thin	4px
medium	5px
thick	6px

Border Color

The border-color property sets the color of the border. This works just like setting font colors; you can use color names, rgb values, or hex codes to specify color.

```
border-color: red;  
border-color: rgb(100%, 0%, 0%);  
border-color: #ff0000;
```

↑
Use border-color
to specify the color
of a border. You
can use any of the
common ways to
specify color.



Specifying Border Sides

border-top-color
border-top-style
border-top-width

border-right-color
border-right-style
border-right-width

border-bottom-color
border-bottom-style
border-bottom-width

border-left-color
border-left-style
border-left-width

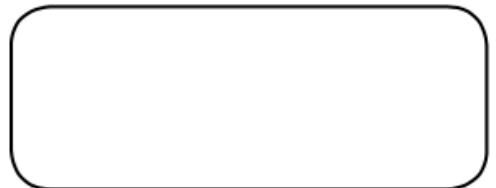
Just as with margins and padding, you can specify border style, width, or color on any side (top, right, bottom, or left):

`border-top-color: black;`
`border-top-style: dashed;`
`border-top-width: thick;`

↑
These properties are for the top border only. You can specify each side of the border independently.

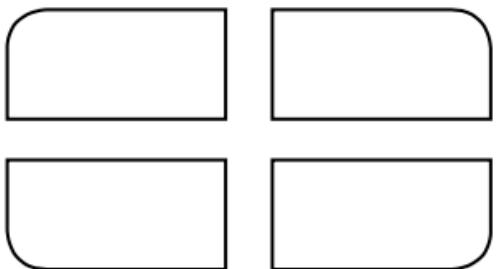
Specifying Border Corners

You can create rounded corners on all four corners, or just one corner, or any combination.



You can specify all four corners with one number.

`border-radius: 15px;`



Or you can specify each corner separately. Notice that you can use px or em to specify the radius size.

{
`border-top-left-radius: 3em;`
`border-top-right-radius: 3em;`
`border-bottom-right-radius: 3em;`
`border-bottom-left-radius: 3em;`

If you use em, the measurement of the border radius is relative to the font size of the element, just like when you use em for font-size.



`border-top-left-radius: 15px;`
`border-top-right-radius: 0px;`
`border-bottom-right-radius: 0px;`
`border-bottom-left-radius: 15px;`

You can get all kinds of interesting shapes using border-radius.

The paragraph has a aquamarine background.

The text looks serif, not sans-serif, and it's italic.

There's even a graphic in the paragraph.

Notice the paragraph looks indented a bit.

There's a stylish, ragged-looking border.

Our guarantee: at the lounge, we're committed to providing you, our guest, with an exceptional experience every time you visit. Whether you're just stopping by to check in on email over an elixir, or are here for an out-of-the-ordinary dinner, you'll find our knowledgeable service staff pay attention to every detail. If you're not fully satisfied, have a Blueberry Bliss Elixir on us.



But that's not all; at night, join us in the backroom as our resident DJ spins a choice selection of trance and drum&bass beats across our spacious tiki-themed dance floor. Or just hang out in one of our comfy white vinyl booths at the dance bar. You can have your elixirs delivered from the main lounge right to the dance floor. If you've had enough of the beat, just head back to the lounge area to relax. And, no matter where you find yourself in the lounge, you'll always be connected with our wireless Internet access.

Now that you've experienced the lounge virtually, isn't it time to check us out for real? We're located right in the heart of Webville, and we've created some [detailed directions](#) to get you here in record time. No reservations necessary.

- Open your “lounge.html” file and locate the paragraph that starts “Our guarantee”. Add a class attribute “guarantee” to the element:

```
<p class="guarantee">  
    Our guarantee: at the lounge, we're committed to providing  
    you, our guest, with an exceptional experience every time you  
    visit. Whether you're just stopping by to check in on email  
    over an elixir, or are here for an out-of-the-ordinary dinner,  
    you'll find our knowledgeable service staff pay attention to ever  
    detail. If you're not fully satisfied, have a Blueberry Bliss  
    Elixir on us.  
</p>
```

- Save lounge.html and open lounge.css

```
.guarantee {  
    border-color: black;  
    border-width: 1px;  
    border-style: solid;  
    background-color: #a7cece;  
}
```

The first three properties add a border to any element that is in the guarantee class. So far, that's just this paragraph.

We're making the color of the border black...

...and one pixel thick...

...and solid.

We're also giving the element a background color, which will help you see the difference between padding and margins, and make the guarantee look good.

It doesn't look like the paragraph has any padding around the content—there is no space between the text and the border.

the lounge and adding an extra dimension to the relaxing sentiments of sight, from e access to the Internet, so bring your lap

Our guarantee: at the lounge, we're con experience every time you visit. When we're here for an elixir, or are here for an out-of-the-ordin attention to every detail. If you're not fu

Adding some padding

```
.guarantee {  
    border-color: black;  
    border-width: 1px;  
    border-style: solid;  
    background-color: #a7cece;  
    padding: 25px;  
}
```

We're adding 25 pixels of padding to all sides of the content (top, right, bottom, and left).

Now you can see 25 pixels of space between the edge of the text content and the border.

the relaxing sentiments of sights from eras past. And, don't forget, the lounge offers free wireless access to the Internet, so bring your laptop.

Our guarantee: at the lounge, we're committed to providing you, our guest, with an exceptional experience every time you visit. Whether you're just stopping by to check in on email over an elixir, or are here for an out-of-the-ordinary dinner, you'll find our knowledgeable service staff pay attention to every detail. If you're not fully satisfied, have a Blueberry Bliss Elixir on us.

But that's not all: at night, join us in the backroom as our resident DJ spins a choice selection of

Adding some margins

```
.guarantee {  
    border-color: black;  
    border-width: 1px;  
    border-style: solid;  
    background-color: #a7cece;  
    padding: 25px;  
    margin: 30px;}
```

We're adding 30 pixels of margin to all sides of the content (top, right, bottom, and left).

Now we have 30 pixels of margin on all sides.

the relaxing sentiments of sights from eras past. And, don't forget, the lounge offers free wireless access to the Internet, so bring your laptop.

Our guarantee: at the lounge, we're committed to providing you, our guest, with an exceptional experience every time you visit. Whether you're just stopping by to check in on email over an elixir, or are here for an out-of-the-ordinary dinner, you'll find our knowledgeable service staff pay attention to every detail. If you're not fully satisfied, have a Blueberry Bliss Elixir on us.

Adding a background image

- If you look in the “L09 css code/lounge2/images” folder, you’ll find a GIF image called “background.gif ”



- In lounge.css add to .guarantee, save and reload the page

```
background-image: url(images/background.gif) ;
```

Our guarantee: at the lounge, we're committed to providing you, our guest, with an exceptional experience every time you visit. Whether you're just stopping by to check in on email over an elixir, or are here for an out-of-the-ordinary dinner, you'll find our knowledgeable service staff pay attention to every detail. If you're not fully satisfied, have a Blueberry Bliss Elixir on us.

Fixing the background image

- Add to .guarantee

```
background-repeat: no-repeat;  
background-position: top left;
```

And we want it in
the top-left corner.

You've got two new
properties to add.

We want the
background image
to not repeat.

This is much better. Now
the image isn't repeated.

But we'd really like for
the text not to run over
the top of the image.

and adding an extra dimension to your dining experience. The decor surrounds you with the relaxing sentiments of sights from eras past. And, don't forget, the lounge offers free wireless access to the Internet, so bring your laptop.

Our guarantee: at the lounge, we're committed to providing you, our guest, with an exceptional experience every time you visit. Whether you're just stopping by to check in on email over an elixir, or are here for an out-of-the-ordinary dinner, you'll find our knowledgeable service staff pay attention to every detail. If you're not fully satisfied, have a Blueberry Bliss Elixir on us.

But that's not all; at night, join us in the backroom as our resident DJ spins a choice selection of trance and drum&bass beats across our spacious tiki-themed dance floor. Or just hang out in one of our comfy white vinyl booths at the dance bar. You can have your elixirs delivered from the main lounge right to the dance floor. If you've had enough of the beat, just head back to the lounge area to relax. And, no matter where you find yourself in the lounge, you'll always be connected with our wireless Internet access.

Now that you've experienced the lounge virtually, isn't it time to check us out for real? We're located right in the heart of Webville, and we've created some [detailed directions](#) to get you here in record time. No reservations necessary; come and join us anytime.

Add padding only on the left

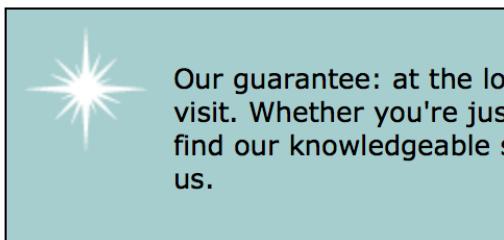
- Add padding to the left side

```
.guarantee {  
    line-height: 1.9em;  
    font-style: italic;  
    font-family: Georgia, "Times New Roman", Times, serif;  
    color: #444444;  
    border-color: black;  
    border-width: 1px;  
    border-style: solid;  
    background-color: #a7cece;  
    padding: 25px;  
    padding-left: 80px;           ← We're using the padding-left property to  
    margin: 30px;                increase the padding on the left..  
    background-image: url(images/background.gif);  
    background-repeat: no-repeat;  
    background-position: top left;  
}
```

← Notice that we first set the padding on all sides to 25 pixels, and then we specify a property for the left side.

↑

Order matters here—if you switch the order, then you'll set the padding for the left side first, and then the general padding property will set all sides back to 25 pixels, including the left side!



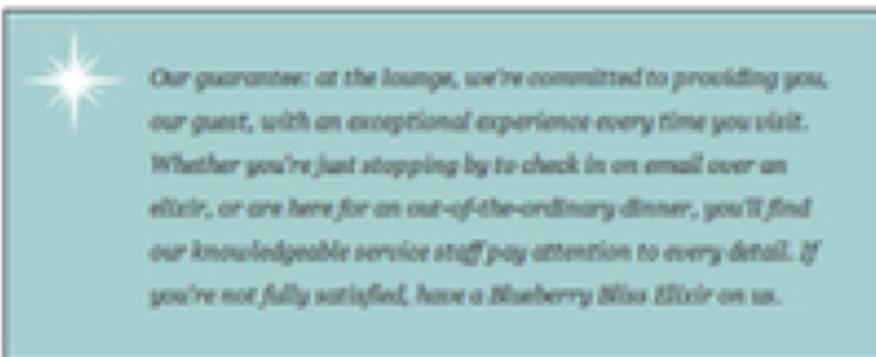
Increase the margin just on the right

```
background-color: #a7cece;  
padding: 25px;  
padding-left: 80px;  
margin: 30px;  
margin-right: 250px;  
background-image: url(images/background.gif);
```

Remember, we're already setting the margins to be 30 pixels.

And now we're going to override that setting for the right side, and set it to 250 pixels.

or signs from afar past. And, don't forget, the lounge offers free wireless access to the internet, so bring your laptop.



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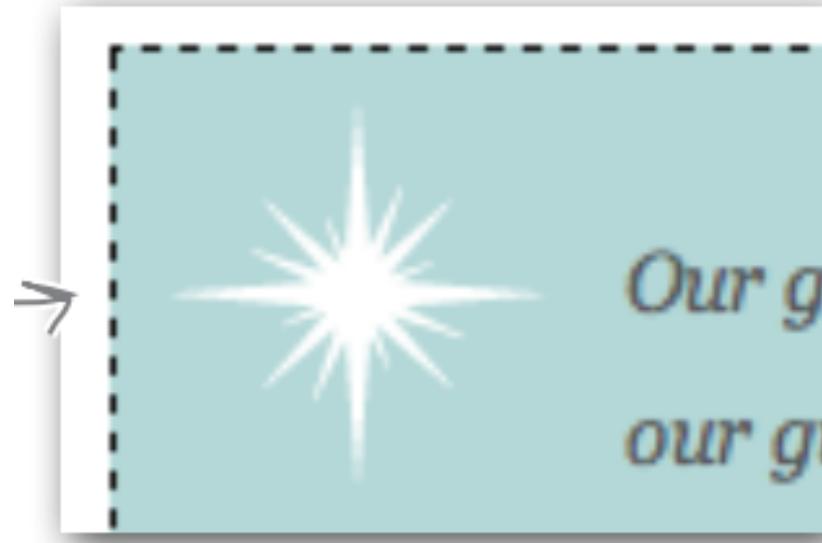
250 pixels



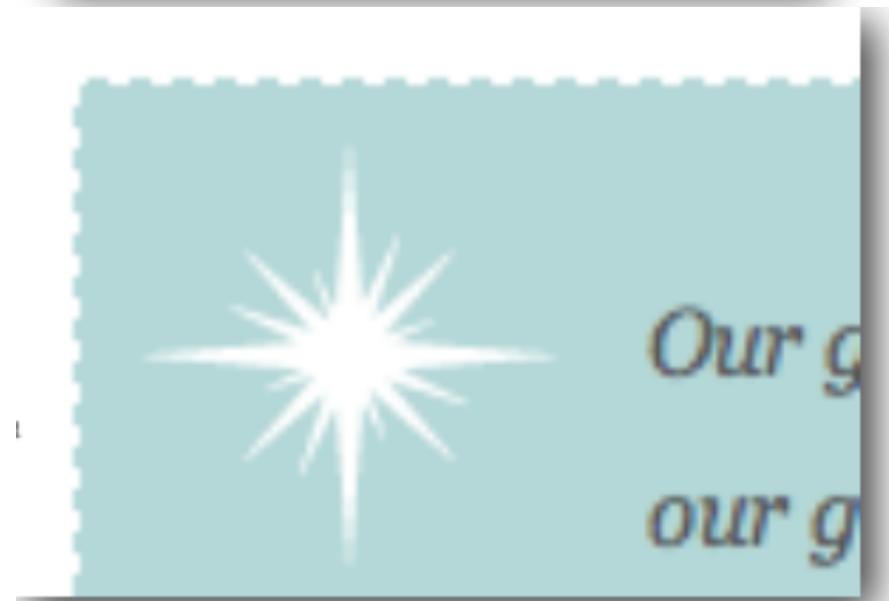
But that's not all; at night, join us in the backroom as our resident DJ spins a choice selection of trance and drum & bass beats across our spacious tiki-themed dance floor. Or just have a nice cup of our creamy white choco-

lounge.css

- **border-style: dashed;**



- **border-color: white;**



Congratulations!



Welcome to the Head First Lounge

The Head First Lounge is, no doubt, the biggest trendsetter in Webville. Stop in to sample the eclectic offerings longer and enjoy the multicultural culinary menu that combines a harmony of taste, texture, and color in every dish.

During your stay at the lounge, you'll enjoy a smooth mixture of ambient and mystic sounds, filling the atmosphere with a sense of mystery and wonder. The decor surrounds you with the relaxing sentiments of sights from eras past. And, we offer free access to the Internet, so bring your laptop.



Our guarantee: at the lounge, we're committed to providing you, our guest, with an exceptional experience every time you visit. Whether you're just stopping by to check in on email over an elixir, or are here for an out-of-the-ordinary dinner, you'll find our knowledgeable service staff pay attention to every detail. If you're not fully satisfied, have a Blueberry Bliss Elixir on us.

lounge.css

- Just change the . to a # in the selector.

```
#guarantee {  
    line-height: 1.9em;  
    font-style: italic;  
    font-family: Georgia, "Times New Roman", Times, serif;  
    color: #444444;  
    border-color: white;  
    border-width: 1px;  
    border-style: dashed;  
    background-color: #a7cece;  
    padding: 25px;  
    padding-left: 80px;  
    margin: 30px;  
    margin-right: 250px;  
    background-image: url(images/background.gif);  
    background-repeat: no-repeat;  
    background-position: top left;  
}
```

<p id="guarantee">

Just change the class attribute to an id.

Our guarantee: at the lounge, we're committed to providing you, our guest, with an exceptional experience every time you visit. Whether you're just stopping by to check in on email over an elixir, or are here for an out-of-the-ordinary dinner, you'll find our knowledgeable service staff pay attention to every detail. If you're not fully satisfied, have a Blueberry Bliss Elixir on us.

</p>

```
#footer {  
    font-size: 50%;  
    text-align: center;  
    line-height: normal;  
    margin-top: 30px;  
}  
  
.cd {  
    font-style: italic;  
}  
  
.artist {  
    font-weight: bold;  
}  
  
a:link {  
    color: #007e7e;  
}  
  
a:visited {  
    color: #333333;  
}
```

Complete the example

Now that you've experienced the lounge *virtually*, isn't it time to check us out *for real*? We're located right in the heart of Webville, and we've created some [detailed directions](#) to get you here in record time. No reservations necessary; come and join us anytime.

What's playing at the Lounge

We're frequently asked about the music we play at the lounge, and no wonder, it's great stuff. Just for you, we keep a list here on the site, updated weekly. Enjoy.

- *Buddha Bar*, **Claude Challe**
- *When It Falls*, **Zero 7**
- *Earth 7*, **L.T.J. Bukem**
- *Le Roi Est Mort, Vive Le Roi!*, **Enigma**
- *Music for Airports*, **Brian Eno**

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```
...  
<ul>  
    <li><span class="cd">Buddha Bar</span>, <span class="artist">Claude Challe</span></li>  
    <li><span class="cd">When It Falls</span>, <span class="artist">Zero 7</span></li>  
    <li><span class="cd">Earth 7</span>, <span class="artist">L.T.J. Bukem</span></li>  
    <li><span class="cd">Le Roi Est Mort, Vive Le Roi!</span>, <span class="artist">Enigma</span></li>  
    <li><span class="cd">Music for Airports</span>, <span class="artist">Brian Eno</span></li>  
</ul>  
  
<div id="footer">  
    <small>  
        © 2012, Head First Lounge<br>  
        All trademarks and registered trademarks appearing on this site are  
        the property of their respective owners.  
    </small>  
</div>
```

Using multiple stylesheets

- They go top to bottom, with the stylesheets on the bottom taking precedence

```
<!DOCTYPE html>
<html>
  <head>
    <meta charset="utf-8">
    <title>Head First Lounge</title>
    <link type="text/css" href="corporate.css" rel="stylesheet">
    <link type="text/css" href="beverage-division.css" rel="stylesheet">
    <link type="text/css" href="lounge-seattle.css" rel="stylesheet">
  </head>
  <body>
    .
    .
    .
  </body>
</html>
```

And the lounge in Seattle has its own tweaks in its stylesheet.

Order matters! A stylesheet can override the styles in the stylesheets linked above it.

we've got three.

One stylesheet for the entire corporation.

The beverage division can add to the corporate style a little, or even override some of the corporate styles.

Different devices...



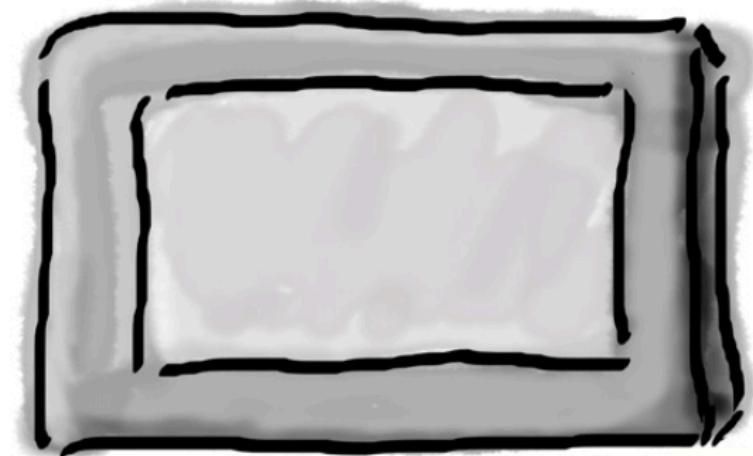
Smartphone:
480 by 640
pixels



Tablet, portrait,
or landscape:
1,024 by 768
pixels



Desktop PC: 1,280
by 960 pixels



Internet TV: 2,650 by 1,600
pixels, landscape

Tailor your page's style to the type of device

- There is a **media** attribute you can add to the **<link>** element that lets you use only the style files that are appropriate for your device

The media attribute allows you to specify the type of device this stylesheet is for.

You specify the type of device by creating a "media query," which is matched with the device.

```
<link href="lounge-mobile.css" rel="stylesheet" media="screen and (max-device-width: 480px)">
```

Here our query specifies anything with a screen (as opposed to, say, a printer, or 3D glasses, or a braille reader)...

...and any device that has a width of at most 480 pixels.

Tailor your page's style to the type of device (2)

- We could create a query that matches the device if it is a printer

```
<link href="lounge-print.css" rel="stylesheet" media="print">
```

The lounge-print.css
file is only going to
be used if...

...the media type is "print",
which means we're viewing
it on a printer.

Use: min-width

Use: max-width

- Properties you can use in your queries: **min-device-width**, **max-device-width** and the **orientation** of the display (**landscape** or **portrait**),
- You can add as many **<link>** tags to your HTML as necessary to cover all the devices you need to

media: CSS Syntax

```
@media not|only mediatype and (mediafeature and|or|not mediafeature) {  
    CSS-Code;  
}
```

Value	Description	Mediatype
all	Default. Used for all media type devices	
print	Used for printers	
screen	Used for computer screens, tablets, smart-phones etc.	
speech	Used for screenreaders that "reads" the page out loud	

Value	Description	Mediafeature
aspect-ratio	The ratio between the width and the height of the viewport	
color	The number of bits per color component for the output device	
max-height	The maximum height of the display area, such as a browser window	
max-width	The maximum width of the display area, such as a browser window	
min-height	The minimum height of the display area, such as a browser window	
min-width	The minimum width of the display area, such as a browser window	
orientation	The orientation of the viewport (landscape or portrait mode)	
width	The viewport width	
height	The viewport height	

Media query in CSS

```
<meta name="viewport" content="width=device-width, initial-scale=1">
```

Use the @media rule...

...followed by your query.



And then put all the rules that apply to devices matching this query within curly braces.

min-width

```
@media screen and (min-device-width: 481px) {  
    #guarantee {  
        margin-right: 250px;  
    }  
}
```



max-width

```
@media screen and (max-device-width: 480px) {  
    #guarantee {  
        margin-right: 30px;  
    }  
}
```



So, these rules will be used if the screen is wider than 480px...

```
@media print {  
    body {  
        font-family: Times, "Times New Roman", serif;  
    }  
}
```

...these rules will be used if the screen is 480px or less...

...and these rules will be used if you're printing the page.

```
p.specials {  
    color: red;  
}
```



All other rules apply to all pages because they aren't contained within a @media rule.

The @media Rule

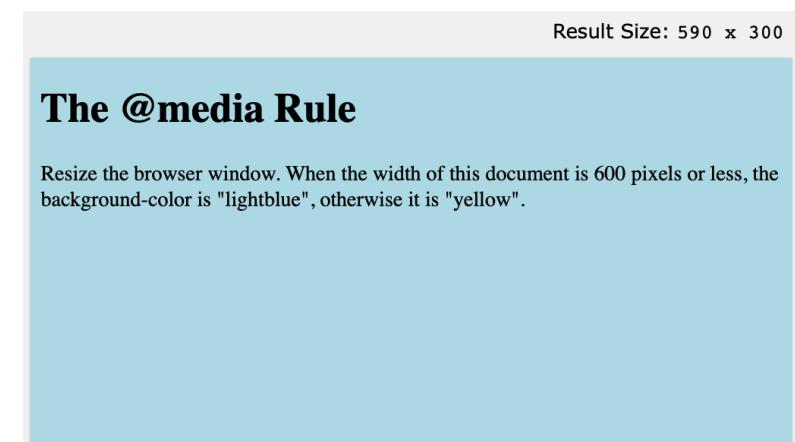
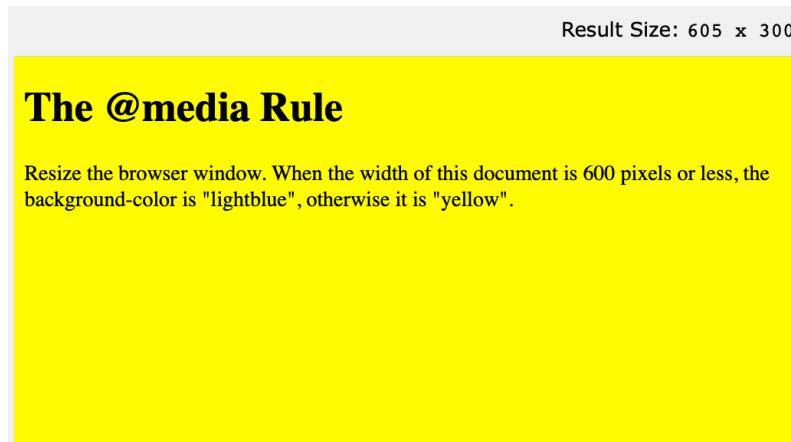
```
<!DOCTYPE html>
<html>
<head>
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<style>
body {
    background-color: yellow;
}

@media only screen and (max-width: 600px) {
    body {
        background-color: lightblue;
    }
}
</style>
</head>
<body>

<h1>The @media Rule</h1>

<p>Resize the browser window. When the width of this document is 600 pixels or less, the background-color is "lightblue", otherwise it is "yellow".</p>

</body>
</html>
```



Exercize



```
<link rel="stylesheet" href="lounge-smartphone.css"  
      media=">  
  
<link rel="stylesheet" href="lounge-tablet-portrait.css"  
      media=">  
  
<link rel="stylesheet" href="lounge-tablet-landscape.css"  
      media=">  
  
<link rel="stylesheet" href="lounge-pc.css"  
      media=">  
  
<link rel="stylesheet" href="lounge-tv.css"  
      media=">
```

Solution



```
<link rel="stylesheet" href="lounge-smartphone.css"  
      media=" screen and (max-device-width: 480px)"      ">  
  
<link rel="stylesheet" href="lounge-tablet-portrait.css"  
      media=" screen and (max-device-width: 1024px) and (orientation:portrait)">  
  
<link rel="stylesheet" href="lounge-tablet-landscape.css"  
      media=" screen and (max-device-width: 1024px) and (orientation:landscape)">  
  
<link rel="stylesheet" href="lounge-pc.css"  
      media=" screen and (max-device-width: 1280px)"      ">  
  
<link rel="stylesheet" href="lounge-tv.css"  
      media=" screen and (max-device-width: 2650px)"      ">
```

Display

- HTML classifica gli elementi in 4 categorie: **blocco**, **inline**, **tabella**, e **lista**
- Ogni elemento appartiene per default ad una di queste categorie ma la proprietà **display** permette di cambiare questa appartenenza
- I valori più comuni sono:
 - **inline**: l'elemento diventa di tipo inline
 - **block**: l'elemento diventa di tipo blocco
 - **list-item**: l'elemento diventa di tipo lista
 - **table**: l'elemento diventa di tipo table
 - ...
 - **none**: l'elemento viene trattato come se non ci fosse (non viene mostrato e non genera alcun box)
- **Attenzione: dire che l'elemento è trattato come non presente è diverso da dire che è nascosto!**

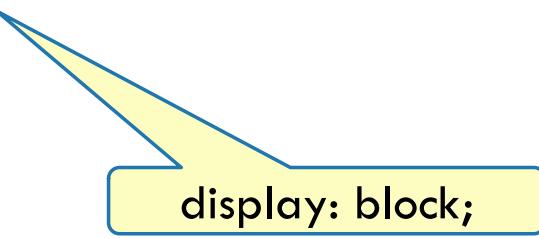
Display: Case 1

```
<h1>Welcome to the Head First Lounge</h1>
<p>
    The Head First Lounge is, no doubt, the biggest trendsetter in Webville.
    Stop in to sample the eclectic offering of elixirs, teas, and coffees,
    or, stay a bit longer and enjoy the multicultural culinary menu that
    combines a harmony of taste, texture, and color with the best in fresh
    and healthy ingredients.
</p>
```

```
h1 {
    background-color: yellow;
}
```

Welcome to the Head First Lounge

The Head First Lounge is, no doubt, the biggest trendsetter in Webville. Stop in to sample the eclectic offering of elixirs, teas, and coffees, or, stay a bit longer and enjoy the multicultural culinary menu that combines a harmony of taste, texture, and color with the best in fresh and healthy ingredients.



```
display: block;
```

```
h1 {
    display: inline;
    background-color: yellow;
}
```

Welcome to the Head First Lounge

The Head First Lounge is, no doubt, the biggest trendsetter in Webville. Stop in to sample the eclectic offering of elixirs, teas, and coffees, or, stay a bit longer and enjoy the multicultural culinary menu that combines a harmony of taste, texture, and color with the best in fresh and healthy ingredients.

Display: Case 2

```
<h1>Welcome to the Head First Lounge</h1>
```

The Head First Lounge is, no doubt, the biggest trendsetter in Webville. Stop in to sample the eclectic offering of elixirs, teas, and coffees, or, stay a bit longer and enjoy the multicultural culinary menu that combines a harmony of taste, texture, and color with the best in fresh and healthy ingredients.

```
h1 {  
    display: inline;  
    background-color: yellow;  
}
```

```
h1 {  
    display: inline;  
    background-color: yellow;  
}
```

```
h1::after {  
    content: "\A";  
    white-space: pre;  
}
```

Welcome to the Head First Lounge The Head First Lounge is, no doubt, the biggest trendsetter in Webville. Stop in to sample the eclectic offering of elixirs, teas, and coffees, or, stay a bit longer and enjoy the multicultural culinary menu that combines a harmony of taste, texture, and color with the best in fresh and healthy ingredients.

Welcome to the Head First Lounge The Head First Lounge is, no doubt, the biggest trendsetter in Webville. Stop in to sample the eclectic offering of elixirs, teas, and coffees, or, stay a bit longer and enjoy the multicultural culinary menu that combines a harmony of taste, texture, and color with the best in fresh and healthy ingredients.

Float

- Con **float** è possibile estrarre un elemento dal normale flusso del documento e spostarlo su uno dei lati (destro o sinistro) del suo elemento contenitore
- Il contenuto che circonda l'elemento scorre intorno ad esso sul lato opposto rispetto a quello indicato come valore di float
 - La proprietà non è ereditata
- In HTML questa possibilità era riservate alle immagini marcate con l'attributo align
 - CSS lo estende a *tutti gli elementi*
- Valori
 - **left:** l'elemento viene spostato sul lato sinistro del box contenitore, il contenuto scorre a destra
 - **right:** L'elemento viene spostato sul lato destro, il contenuto scorre a sinistra
 - **none:** l'elemento mantiene la sua posizione normale (default)
- **Attenzione: le immagini hanno una dimensione intrinseca e quindi non ci sono problemi ma se si usa questa proprietà con elementi che non hanno una dimensione naturale (es. un paragrafo) bisogna definire anche la proprietà width**

Esempio: img non float

```
<html>
<head>
</head>
<body>
<p>Domenica 27 dicembre
2009 alle ore 15.30, il Museo del Patrimonio Industriale propone su prenotazione (massimo
25 partecipanti) il laboratorio "Making toons" dedicato ai bambini dai 7...<p>
</body>
</html>
```



Domenica 27 dicembre 2009 alle ore 15.30, il Museo del Patrimonio Industriale propone su prenotazione (massimo 25 partecipanti) il laboratorio "Making toons" dedicato ai bambini dai 7 ai 10 anni. Dai personaggi di Walt Disney ai cartoni animati che affascinano i ragazzi di tutte le età, ma ancora più affascinante è poter diventare e scoprendo i segreti dell'animazione.

Esempio: img float

```
<html>
<head>
<style type="text/css">
    img.sx { border-width: none; float: left}
    img.dx { border-width: none; float: right}
</style>
</head>
<body>


Domenica 27 dicembre 2009 alle ore 15.30, il Museo del Patrimonio Industriale propone su prenotazione (massimo 25 partecipanti) il laboratorio "Making toons" dedicato ai bambini dai 7...</p>


Domenica 27 dicembre 2009 alle ore 15.30, il Museo del Patrimonio Industriale propone su prenotazione (massimo 25 partecipanti) il laborator...</p>


</body>
</html>


```



Domenica 27 dicembre 2009 alle ore 15.30, il Museo del Patrimonio Industriale propone su prenotazione (massimo 25 partecipanti) il laboratorio "Making toons" dedicato ai bambini dai 7 ai 10 anni. Dai personaggi di Walt Disney ai Gormiti, dalle Winx a Ben 10, sono tanti i cartoni animati che affascinano i ragazzi di tutte le età, ma ancora più affascinante è poter diventare per un giorno un disegnatore, creando i propri personaggi e scoprendo i segreti dell'animazione. Tutto questo sarà possibile al Museo del Patrimonio industriale con "Making Toons", un laboratorio dedicato ai ragazzi per imparare a fare semplici cartoni animati, approfondendone la scienza e la storia.

Domenica 27 dicembre 2009 alle ore 15.30, il Museo del Patrimonio Industriale propone su prenotazione (massimo 25 partecipanti) il laboratorio "Making toons" dedicato ai bambini dai 7 ai 10 anni. Dai personaggi di Walt Disney ai Gormiti, dalle Winx a Ben 10, sono tanti i cartoni animati che affascinano i ragazzi di tutte le età, ma ancora più affascinante è poter diventare per un giorno un disegnatore, creando i propri personaggi e scoprendo i segreti dell'animazione. Tutto questo sarà possibile al Museo del Patrimonio industriale con "Making Toons", un laboratorio dedicato ai ragazzi per imparare a fare semplici cartoni animati, approfondendone la scienza e la storia.



Esempio: paragrafo float

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN">
<html>
<head>
<style type="text/css">
    img.sx { border-width: none; float: left}
    div.dx {background: #F0F0F0; padding: 4px; float: right; width: 200px}
</style>
</head>
<body>
<p><div
class=dx>Come si arriva al museo: prendere l'autobus n. 11 e scendere alla fermata di via
Darwin </div>Domenica 27 dicembre 2009 alle ore 15.30, il Museo del Patrimonio Industriale
propone su prenotazione (massimo 25 partecipanti) il laboratorio "Making toons" dedicato ai
bambini dai 7 ai 10 anni. Dai personaggi di Walt Disney ai Gormiti, dalle Winx a Ben 10,
sono tanti i cartoni animati che affascinano i ragazzi di tutte le età, ma ancora più
affascinante è poter diventare per un giorno un disegnatore, creando i propri personaggi e
scoprendo i segreti dell'animazione.</p>
</html>
```



Domenica 27 dicembre 2009 alle ore 15.30, il Museo del Patrimonio Industriale propone su prenotazione (massimo 25 partecipanti) il laboratorio "Making toons" dedicato ai bambini dai 7 ai 10 anni. Dai personaggi di Walt Disney ai Gormiti, dalle Winx a Ben 10, sono tanti i cartoni animati che affascinano i ragazzi di tutte le età, ma ancora più affascinante è poter diventare per un giorno un disegnatore, creando i propri personaggi e scoprendo i segreti dell'animazione.

Come si arriva al museo:
prendere l'autobus n. 11 e
scendere alla fermata di via
Darwin

Clear

- La proprietà **clear** serve a disattivare l'effetto della proprietà **float**, ovvero a impedire che al fianco di un elemento float compaiano altri elementi
- Il float toglie infatti un elemento dal flusso normale del documento e può quindi capitare che esso venga a trovarsi a fianco di elementi successivi
- Si applica solo agli elementi blocco e non è ereditata
- Valori:
 - **none**: gli altri elementi float possono stare sia a destra che a sinistra dell'elemento
 - **left**: impedisce il posizionamento a sinistra
 - **right**: impedisce il posizionamento a destra
 - **both**: impedisce il posizionamento su entrambi i lati

```
<p>Dai personaggi di Walt Disney ai Gormiti, dalle Winx a Ben 10, sono tanti i cartoni animati che affascinano i ragazzi di tutte le età, ma ancora più affascinante è poter diventare per un giorno un disegnatore, creando i propri personaggi e scoprendo i segreti dell'animazione. </p>
</html>
```



Domenica 27 dicembre 2009 alle ore 15.30, il Museo del Patrimonio laboratorio "Making toons" dedicato ai bambini dai 7 ai 10 anni.

Dai personaggi di Walt Disney ai Gormiti, dalle Winx a Ben 10, sono tanti i cartoni animati che affascinano i ragazzi di tutte le età, ma ancora più affascinante è poter diventare per un giorno un disegnatore, creando i propri personaggi e scoprendo i segreti dell'animazione.

```
p.cl { clear: left }
```

```
<p class=cl>Dai personaggi di Walt Disney ai Gormiti, dalle Winx a Ben 10, sono tanti i cartoni animati che affascinano i ragazzi di tutte le età, ma ancora più affascinante è poter diventare per un giorno un disegnatore, creando i propri personaggi e scoprendo i segreti dell'animazione. </p>
</html>
```

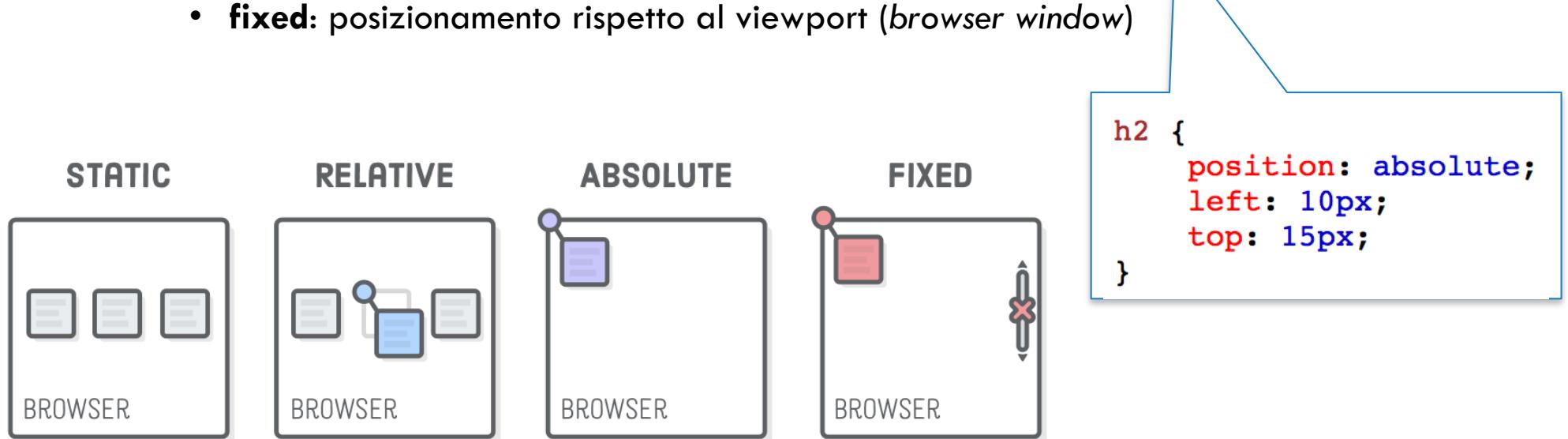


Domenica 27 dicembre 2009 alle ore 15.30, il Museo del Patrimonio laboratorio "Making toons" dedicato ai bambini dai 7 ai 10 anni.

Dai personaggi di Walt Disney ai Gormiti, dalle Winx a Ben 10, sono tanti i cartoni animati che affascinano i ragazzi di tutte le età, ma ancora più affascinante è poter diventare per un giorno un disegnatore, creando i propri personaggi e scoprendo i segreti dell'animazione.

Posizionamento: position

- **position** è la proprietà fondamentale per la gestione della posizione degli elementi, di cui determina la modalità di presentazione sulla pagina
- Non è ereditata e ammette i seguenti valori:
 - **static** (default): posizionamento naturale nel flusso
 - **absolute**: il box dell'elemento viene rimosso dal flusso ed è posizionato rispetto al box contenitore del primo elemento antenato non static (al limite <html>)
 - **relative**: l'elemento viene posizionato relativamente al box che l'elemento avrebbe occupato nel normale flusso del documento
 - **fixed**: posizionamento rispetto al viewport (browser window)



Altre proprietà di posizionamento

- **left, top, right, bottom:** coordinate del posizionamento (assoluto o relativo)
- **visibility** determina la visibilità e ammette 2 valori:
 - **visible:** l'elemento è visibile
 - **hidden:** l'elemento è invisibile ma il suo posto rimane visibile, anche se appare vuoto
- **z-index:** CSS gestisce gli elementi come se fossero fogli di carta e questa proprietà permette di stabilire quale sta sopra e quale sta sotto
- Valori ammessi:
 - **auto:** lascia al browser la decisione di che ordine attribuire agli elementi
 - **valore numerico:** più è alto e più l'elemento è in cima al “mucchio di fogli”

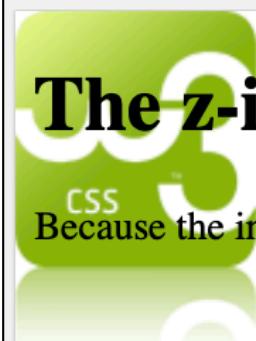
https://www.w3schools.com/cssref/tryit.asp?filename=trycss_position_absolute

z-index

```
<head>
<style>
img {
    position: absolute;
    left: 0px;
    top: 0px;
    z-index: -1;
}
</style>
</head>
<body>
    <h1>The z-index Property</h1>

    <p>Because the image has a z-index of -1, it will be placed behind the heading.</p>
</body>
```



The z-index Property

Because the image has a z-index of -1, it will be placed behind the heading.

Riferimenti

- Specifiche ufficiali W3C:

<http://www.w3.org/TR/CSS2/>

- Ottimo riferimento, con possibilità di fare esercizi:

<http://www.w3schools.com/css/default.asp>

- Un sito di “CSS estremo” che permette di cambiare radicalmente l’aspetto delle pagine applicando diversi stili:

<http://www.csszengarden.com/tr/italiano/>