Client Side Programming
HTML & CSS

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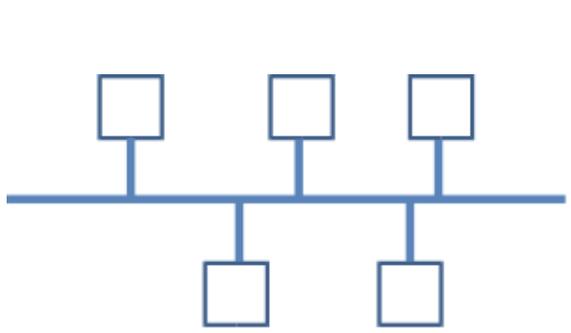
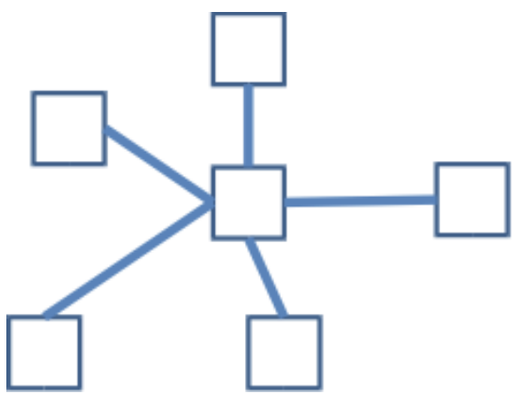
Introduzione

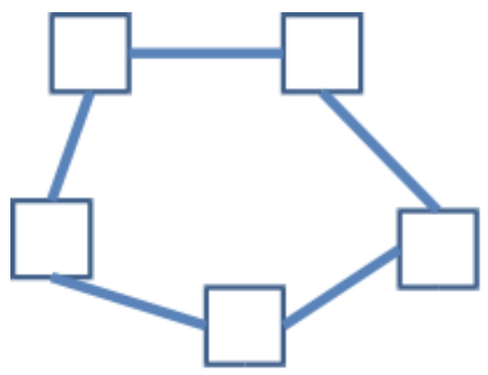
Cos'é il web:

Internet e il Web sono due cose diverse:

- Il world wide web è una rete mondiale di ipertesti che vengono trasmessi tra computer diversi attraverso il protocollo http. È una applicazione di Internet, ma ne esistono altre (reti di telefonia, mail)
- Internet è una rete mondiale di computer comunicanti tra loro attraverso connessioni fisiche.

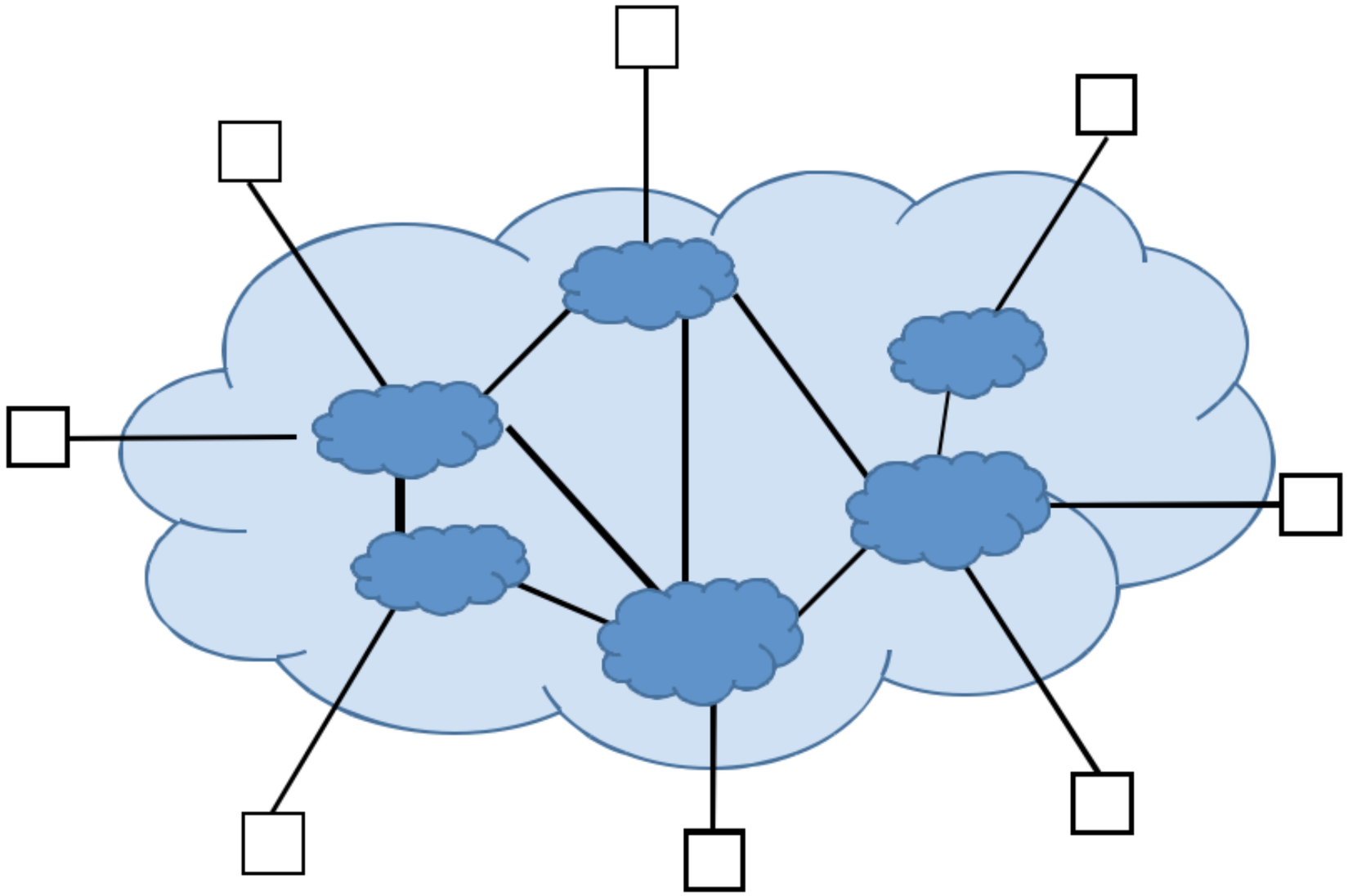






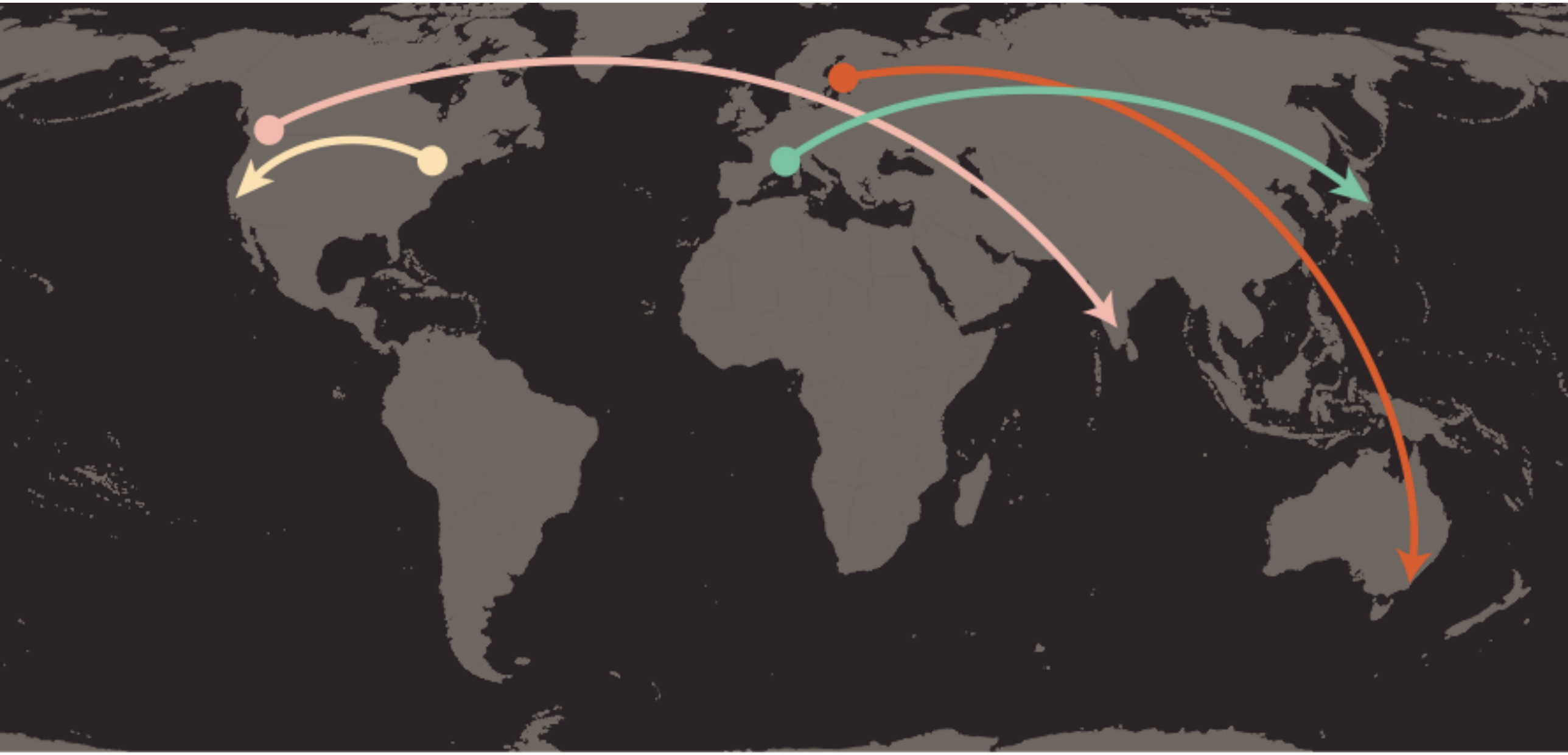
Introduzione

Tutti noi percepiamo Internet come un'unica rete virtuale.



Introduzione

Come funziona il web: diversi web clients contattano attraverso DNS (Domain Name System) i web servers.



Introduzione

Come funziona il web:

- Un client si connette al web attraverso un ISP (Internet Service Provider). L'utente digita un dominio nel web address (google.com)

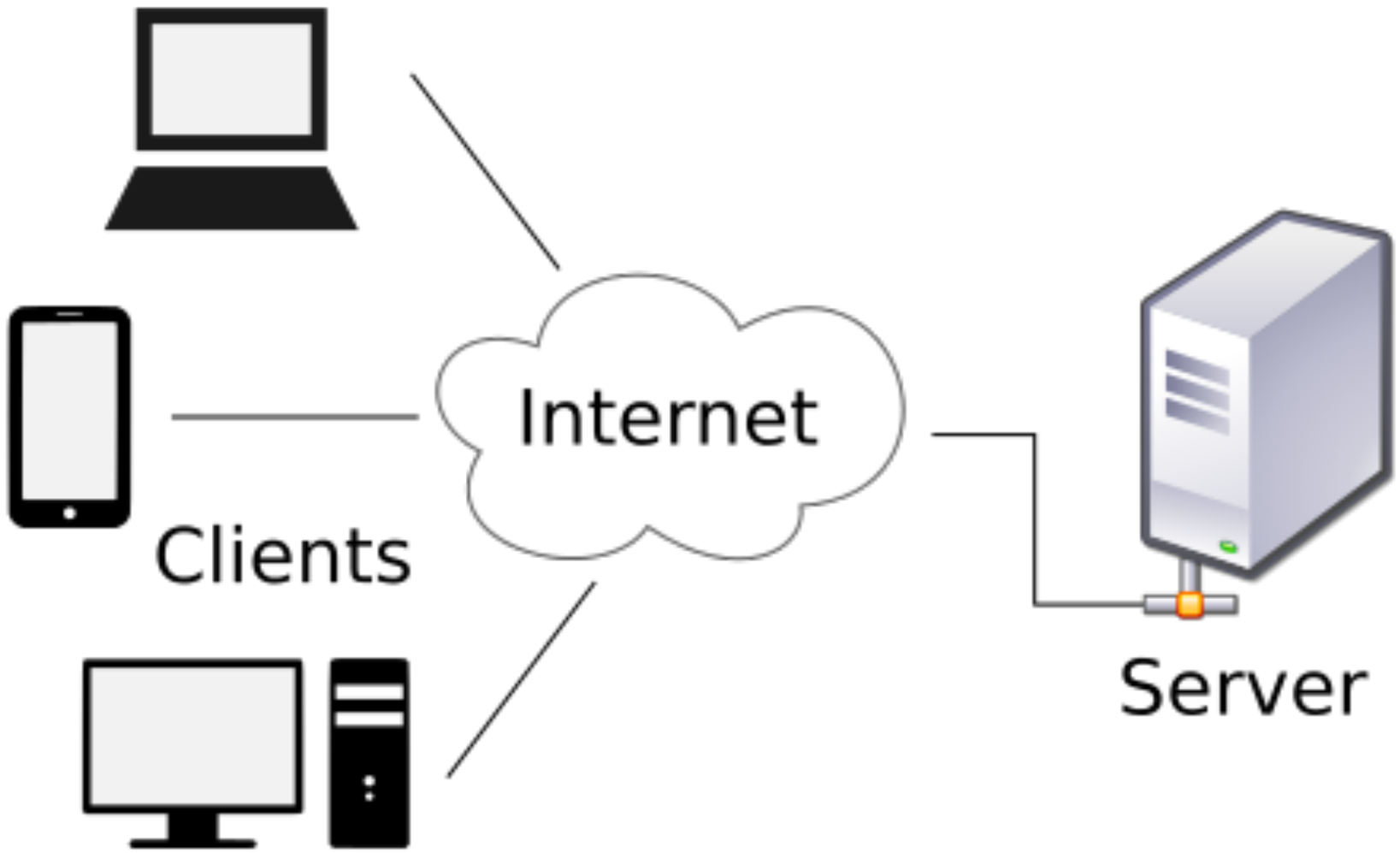
- Il DNS è come un phone book ed individua il computer che state contattando sulla rete attraverso un IP (150.217.35.77)

- Con questo numero il browser chiama il server

- Il server invia al browser la pagina html ed il css, linguaggi che è in grado di leggere e visualizzare

Introduzione

Come funziona il web:



Introduzione

Come funziona il web: comunicazione

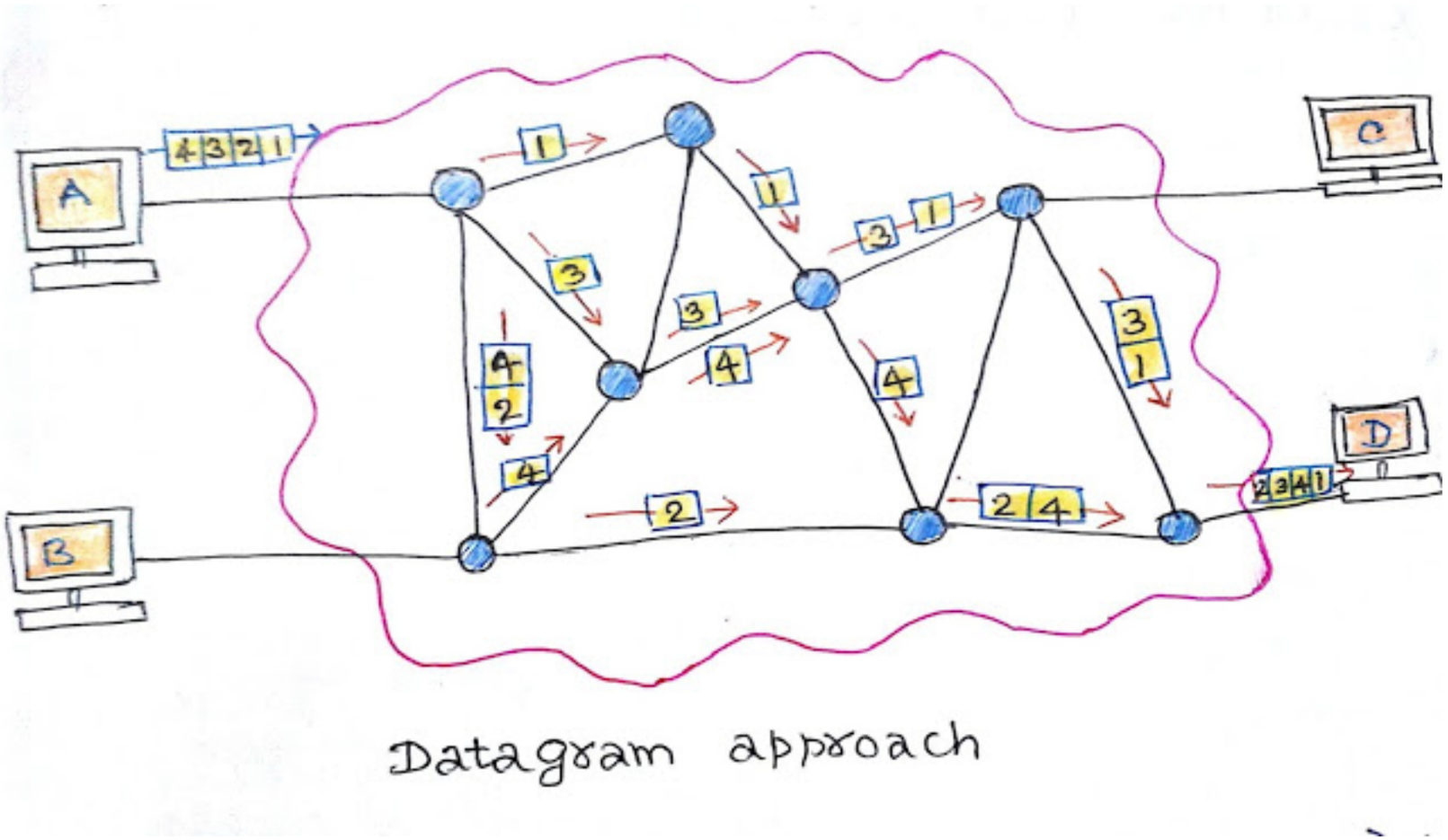
- Due computer connessi in rete comunicano attraverso un protocollo di comunicazione che specifica regole e formati per il trasferimento del messaggio.

- La comunicazione nel web avviene attraverso un protocollo che si chiama HTTP (hypertext transfer protocol): definisce qual'è la grammatica di riferimento della lingua in cui si parla: connectionless

- Un altro protocollo TCP/IP ha il compito stabilire e gestire questa comunicazione

Introduzione

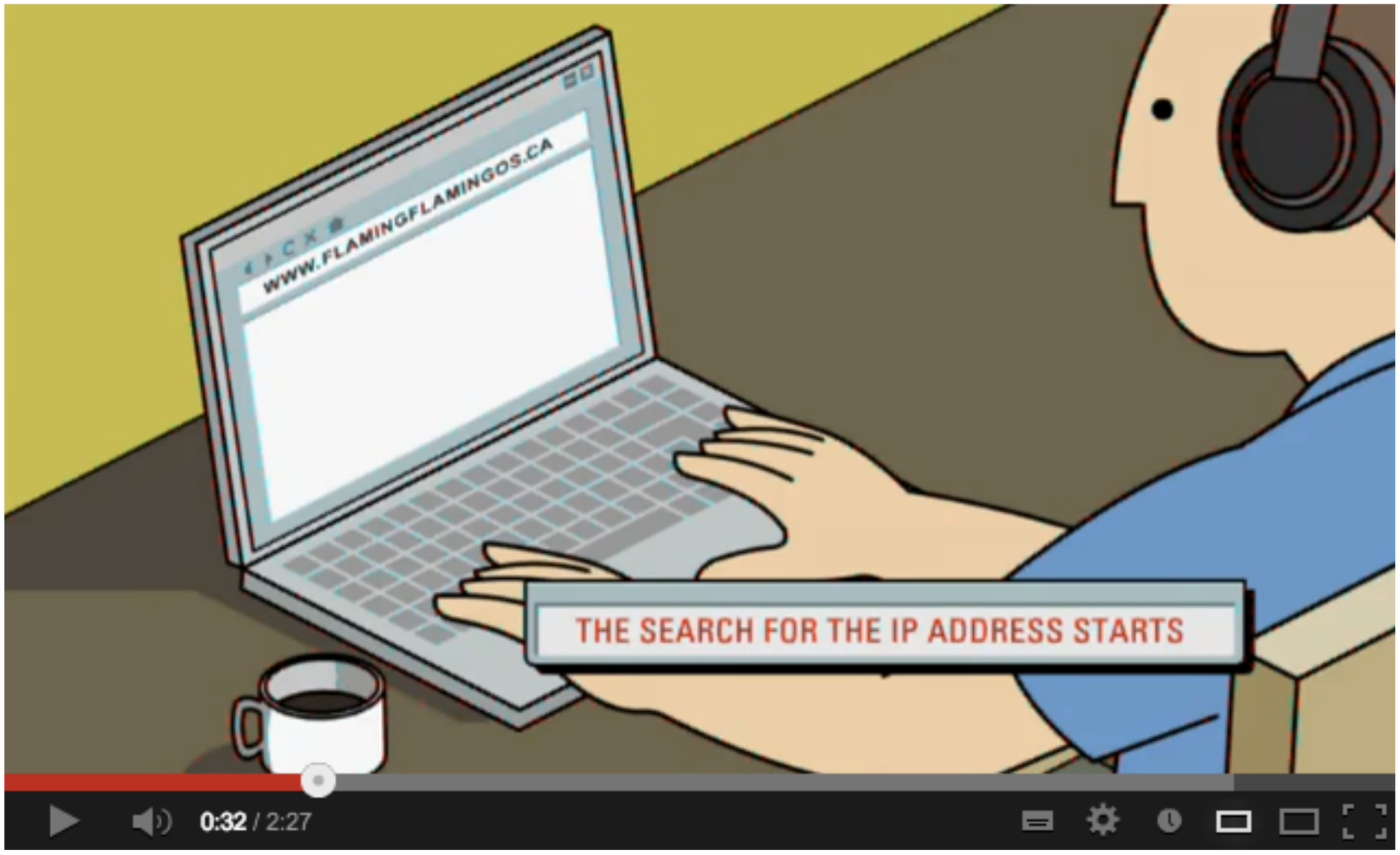
Come funziona il web: comunicazione



Introduzione

Come funziona il web: DNS (Domain Name System):

www.youtube.com/watch?v=2ZUxoi7YNgs



Introduzione

Sintesi

- Internet è una rete di reti
- Il protocollo TCP/IP suddivide il data stream in pacchetti che seguono strade diverse
- I computer sono individuati da un indirizzo IP
- Il DNS associa indirizzi IP a nomi mnemonici strutturati attraverso server distribuiti
- La grammatica di riferimento è l'HTTP

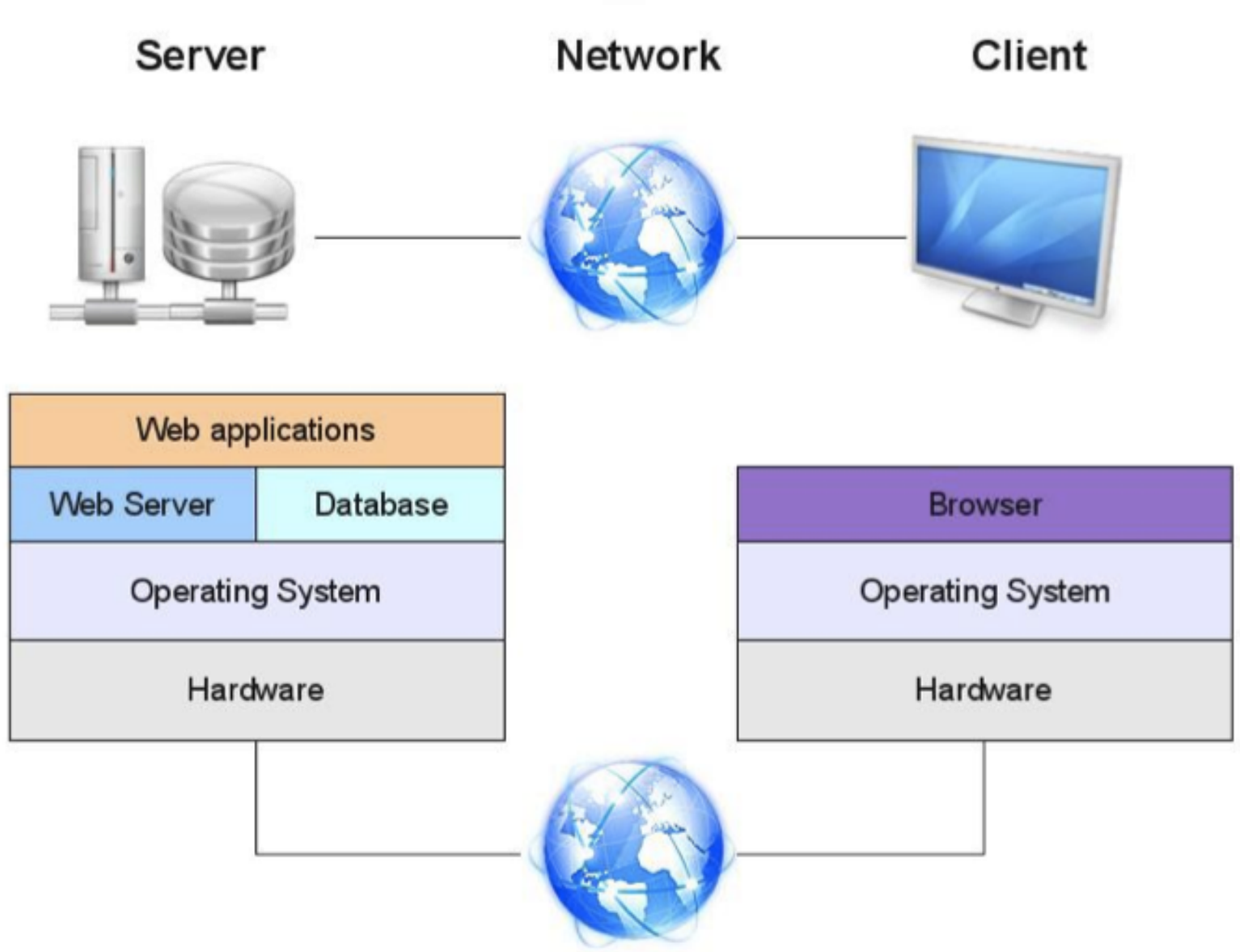
Introduzione

Come le persone accedono al web

- Devices: sono lo strumento fisico con cui le persone accedono: tablet, mobile phones, screen readers, tastiera braille
- Web browsers: Firefox, Chrome, Safari, Internet Explorer, Opera

Introduzione

Cosa c’è dietro



Introduzione

Come sono fatti i siti web

- HTML & CSS: linguaggi di markup per semantica ed aspetto
- Fash & Javascript: linguaggi di programmazione per l'interattività
- CMS: Content Management Systems
- HTML5 & CSS3: la novità

Introduzione

Web Apps: tecnologie e strumenti

Introduzione

Un po' di storia: il world wide web è una rete mondiale di ipertesti.

- L'esigenza di evidenziare visivamente riferimenti e connessioni tra testi esiste da sempre.
- Commentari a libri importanti (Omero, Bibbia, Talmud, Corano, Divina Commedia, etc.) esistono fin dal tardo impero romano ed utilizzano ogni sorta di trucco grafico e visivo per realizzare effetti di collegamento.
- Era inevitabile che la meccanizzazione prima, e l'informatizzazione dopo, cercassero di soddisfare quest'esigenza.

Introduzione

Gli anni ‘80: con il progredire della tecnologia, i sistemi ipertestuali escono dai laboratori e diventano un argomento ufficiale di ricerca e produzione software.

- Nel 1989 un gruppo di ricercatori del CERN, centro di ricerca in fisica nucleare a Ginevra, ricevette l’incarico di realizzare un meccanismo per la diffusione rapida di articoli, appunti e opinioni tra i fisici che ruotassero intorno al centro.

Introduzione

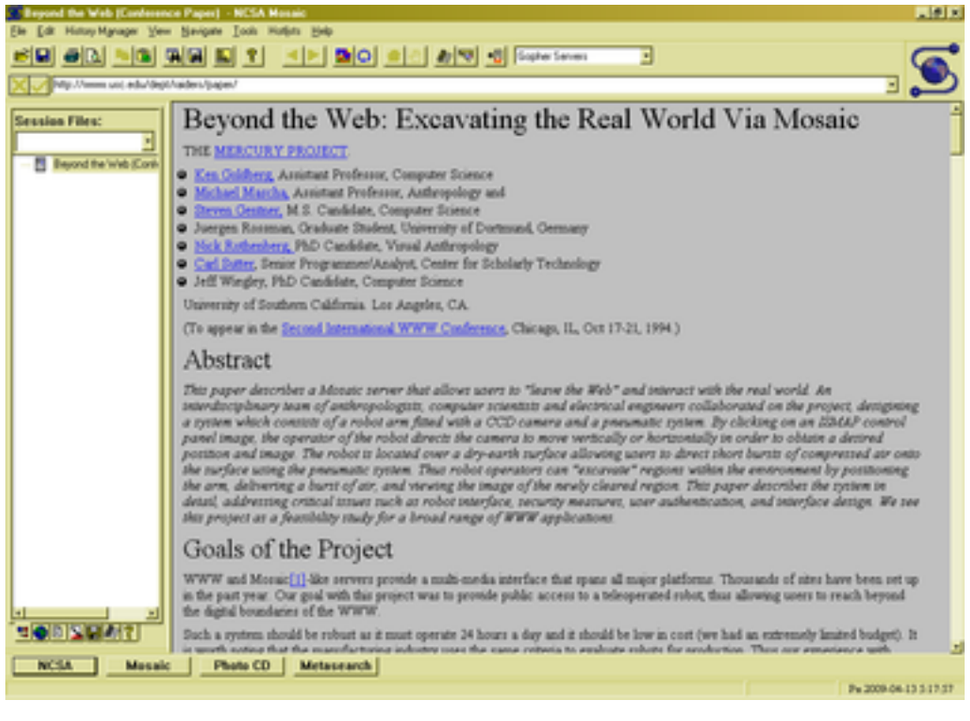
Nel 1991 Tim Berners-Lee e Robert Cailliau mostrarono (con poco successo) il primo prototipo client-server ed il primo browser chiamato: WorldWideWeb

Il prototipo era composto da:

- Un server che spediva documenti memorizzati localmente a chi lo richiedesse secondo il protocollo stabilito, e memorizzava documenti spediti da remoto

- Un editor di testi parzialmente WYSIWYG che permetteva di visualizzare documenti ipertestuali e di modificarli, creando link e blocchi di testo.

Introduzione



Nell'ottobre del 1992 il National Centre for Supercomputing Applications (NCSA) esaminò il prototipo di WWW e decise di realizzarne una versione propria.

Con la realizzazione del server NCSA e del primo browser WWW, chiamato Mosaic, l'NCSA decretò l'inizio del successo esplosivo del sistema.

Introduzione

Nel frattempo, Berners-Lee e Cailliau cercano di mantenere il controllo sull'evoluzione del World Wide Web e fondano il W3C, con fondi della ricerca e dell'università.

Diventerà il World Wide Web Consortium, l'istituzione regolatrice del Web.

Introduzione

I primi browsers: neel 1995 quando Netscape era diventato quasi monopolista dovette scontrarsi con un agguerrito concorrente: Internet Explorer della Microsoft.

Microsoft decise di distribuire il proprio browser Internet Explorer 3 incluso nel sistema operativo Windows 95, così che cambiarlo diventasse compito degli utenti, i quali spesso non lo facevano.

Sebbene gli utenti di Netscape fossero pochissimi già nel 2003, lo sviluppo di Netscape proseguì fino al 28 dicembre 2007, quando la AOL annunciò ufficialmente la fine del progetto.

Introduzione

Internet Explorer ha continuato lo sviluppo in maniera irregolare, senza introdurre cambiamenti importanti e senza rispettare le direttive del W3C.

A partire dal 2004 iniziarono ad affermarsi browser con caratteristiche innovative e maggiore rispetto degli standard.

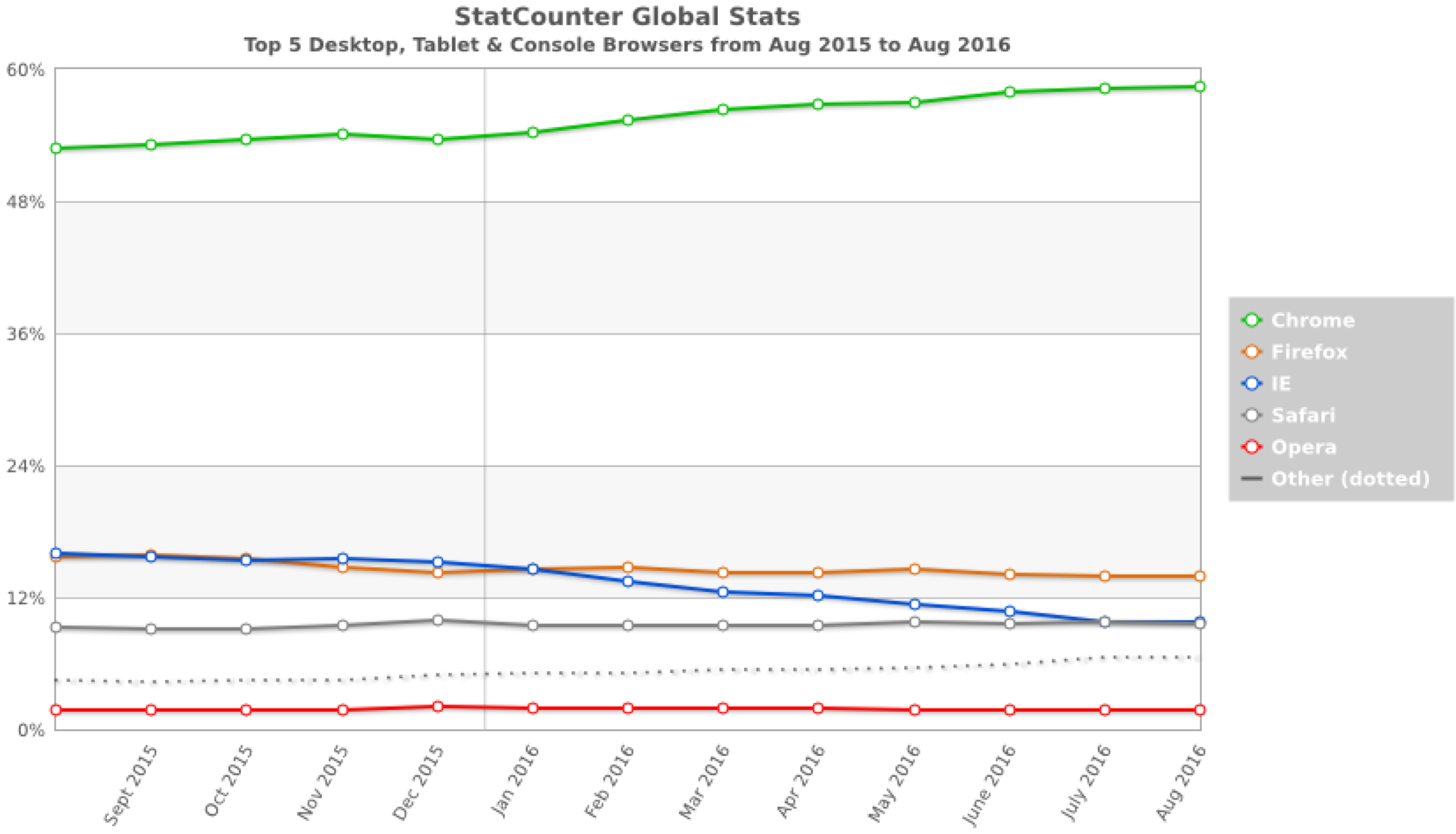
Quelli che hanno intaccato maggiormente l'egemonia Microsoft sono Mozilla Firefox, Opera, Safari e ultimo ma non ultimo Google Chrome.

Introduzione

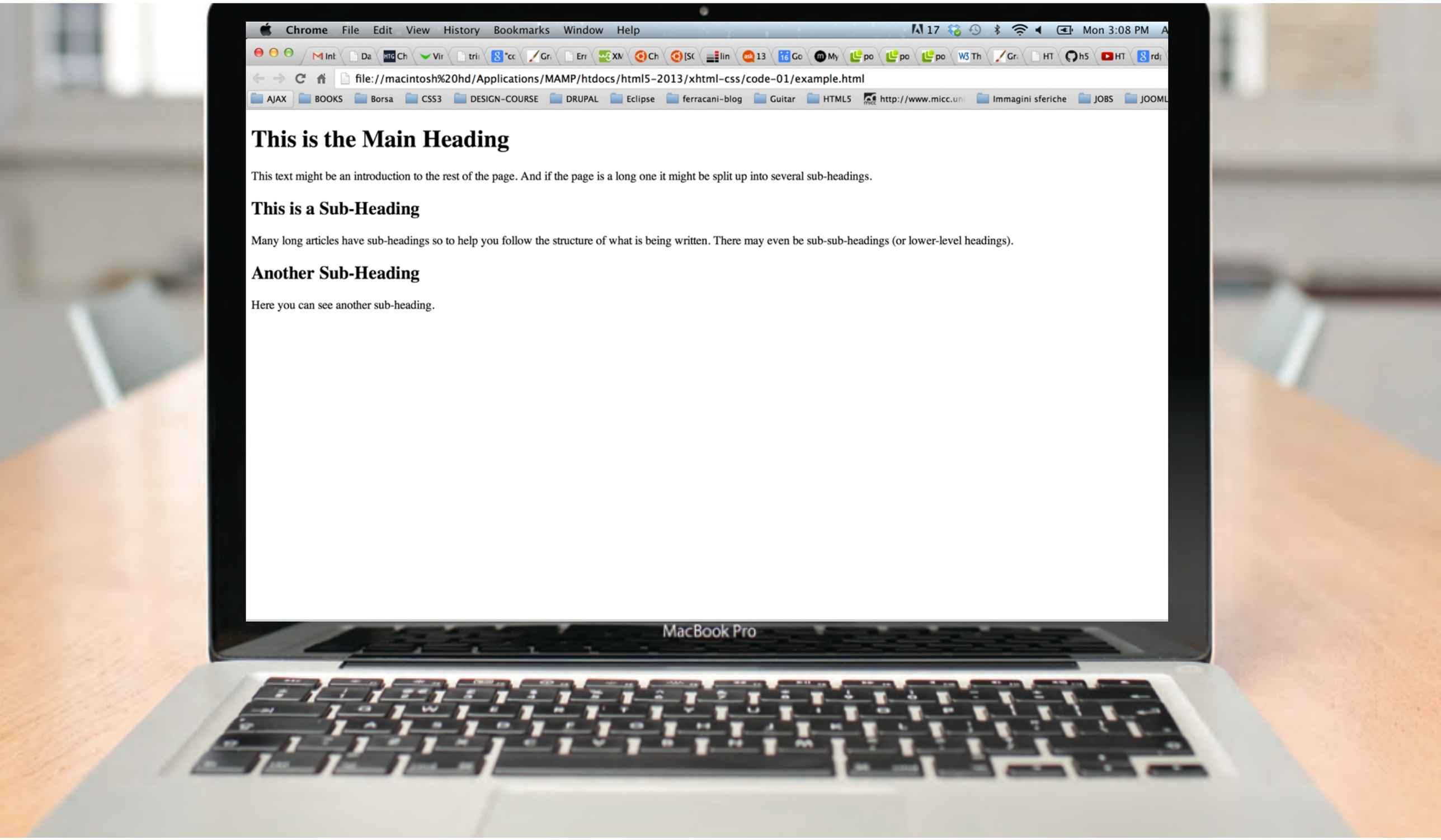
Browsers, alcuni punti: un problema molto sentito nell'ambito del web development è il rispetto degli standard web proposti dal W3C.

- risulta difficile, in alcuni casi, permettere una corretta visualizzazione del proprio lavoro su qualsiasi browser
- una volta progettato sito web è necessario controllarne la visualizzazione e le funzionalità su diversi browser in modo da assicurarti che tutti i visitatori possano usufruire del servizio
- credere che IE sia lo standard è un errore soprattutto oggi che l'accesso al web avviene dai dispositivi più diversi: Android, iPhone.

Introduzione



HTML & CSS


Chrome File Edit View History Bookmarks Window Help
Mon 3:08 PM
file://macintosh%20hd/Applications/MAMP/htdocs/html5-2013/xhtml-css/code-01/example.html
AJAX BOOKS Borsa CSS3 DESIGN-COURSE DRUPAL Eclipse ferracani-blog Guitar HTML5 Immagini sferiche JOBS
This is the Main Heading
This text might be an introduction to the rest of the page. And if the page is a long one it might be split up into several sub-headings.
This is a Sub-Heading
Many long articles have sub-headings so to help you follow the structure of what is being written. There may even be sub-sub-headings (or lower-level headings).
Another Sub-Heading
Here you can see another sub-heading.
MacBook Pro

HTML & CSS

La struttura dei contenuti sul web è molto simile a quella che conosciamo su altri canali, in particolare la stampa

Esiste una gerarchia delle informazioni: titoli, sottotitoli, paragrafi

HTML & CSS

La lingua: per definire cos'è XHTML possiamo iniziare con una semplice espressione: XML + HTML = XHTML

- HTML è l'acronimo di HyperText Markup Language.
- HTML è un linguaggio di marcatura per presentare i contenuti di una pagina web (per la descrizione di come appaiono documenti all'interno di un browser). La sua semplicità è la base dell'esplosione di Internet. Fornisce strumenti per presentare titoli, paragrafi, font, link, immagini.
- Con il termine marcatura (markup) si intende una sequenza di caratteri o altri simboli che si inseriscono all'interno di un documento per indicare come il contenuto deve apparire o per descrivere la struttura logica del documento.

HTML & CSS

L’HTML descrive la struttura della pagina:

```
<html>
    <body>
        <h1>This is the Main Heading</h1>
        <p>This text might be an introduction to the rest of the page. And if the page is a long one it might be split up into several sub-headings.<p>
        <h2>This is a Sub-Heading</h2>
        <p>Many long articles have sub-headings so to help you follow the structure of what is being written. There may even be sub-sub-headings (or lower-level headings).</p>
        <h2>Another Sub-Heading</h2>
        <p>Here you can see another sub-heading.</p>
    </body>
</html>
```

L’HTML è fatto di tag che prevedono un elemento di apertura ed uno di chiusura. Il tag definisce ciò che contiene a livello semantico.

HTML & CSS

XML è un metalinguaggio: "a common syntax for expressing structure in data" ovvero un linguaggio per definire nuovi linguaggi di markup. XML consente di crearsi i propri tipi di documenti.

Lo scopo di XML è quello di separare la definizione dei dati dalla rappresentazione, per favorire lo scambio di documenti strutturati.

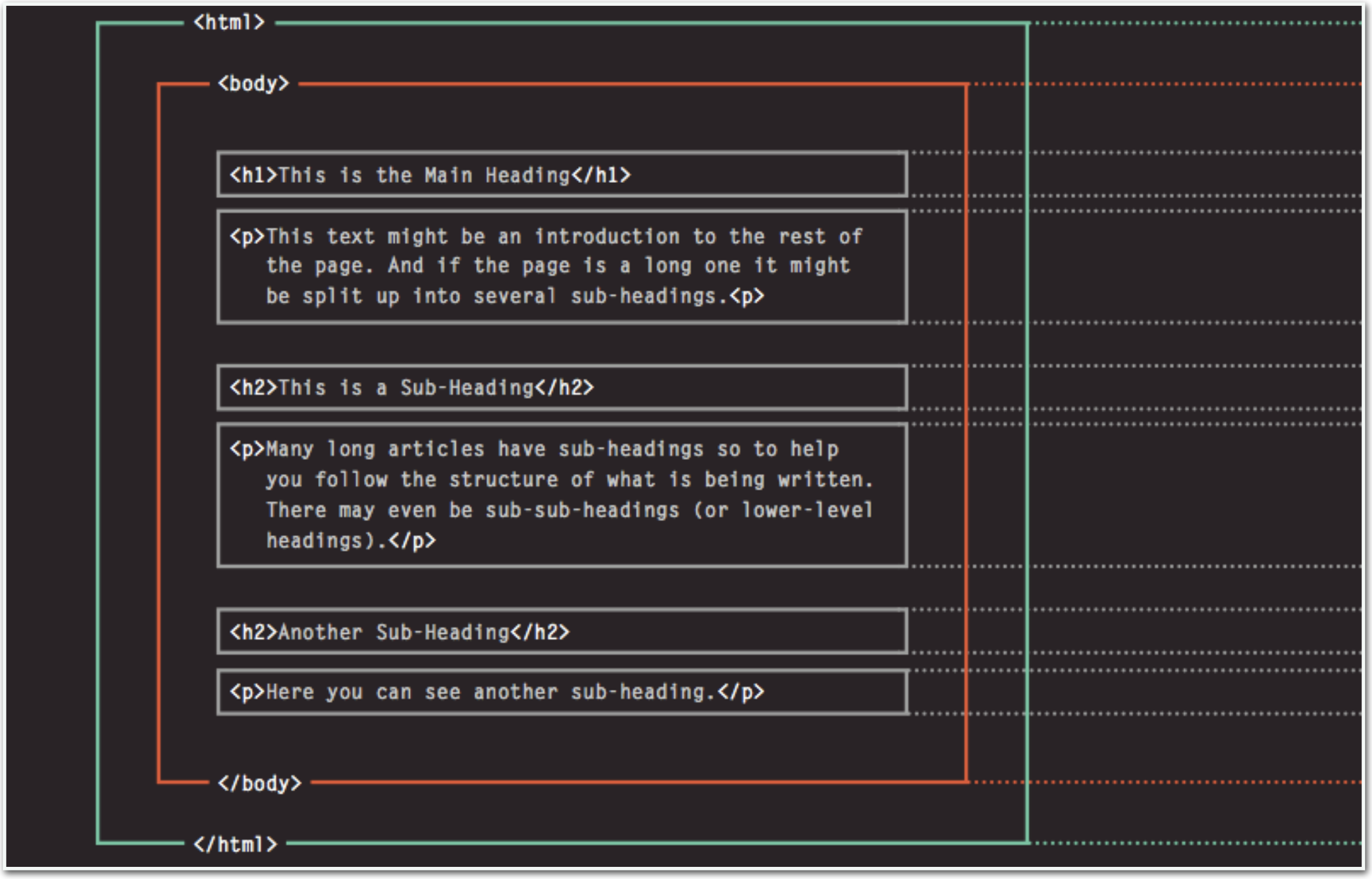
Principali obiettivi di XML, dichiarati nella prima specifica ufficiale (ottobre 1998), sono:

- utilizzo del linguaggio su Internet,
- facilità di creazione dei documenti,
- supporto di più applicazioni,
- chiarezza e comprensibilità.

```
<breakfast_menu>
  <food>
    <name>Belgian Waffles</name>
    <price>$5.95</price>
    <description>
      two of our famous Belgian Waffles with plenty of
      real maple syrup
    </description>
    <calories>650</calories>
  </food>

  <food>
    <name>French Toast</name>
    <price>$4.50</price>
    <description>
      thick slices made from our homemade s
      ourdough bread
    </description>
    <calories>600</calories>
  </food>

  <food>
    <name>Homestyle Breakfast</name>
    <price>$6.95</price>
    <description>
      two eggs, bacon or sausage, toast,
      and our ever-popular hash browns
    </description>
    <calories>950</calories>
  </food>
</breakfast_menu>
```


<html>
<body>
<h1>This is the Main Heading</h1>
This text might be an introduction to the rest of
the page. And if the page is a long one it might
be split up into several sub-headings.
<h2>This is a Sub-Heading</h2>
Many long articles have sub-headings so to help
you follow the structure of what is being written.
There may even be sub-sub-headings (or lower-level
headings).
<h2>Another Sub-Heading</h2>
Here you can see another sub-heading.
</body>
</html>

HTML & CSS

The opening <html> tag indicates that anything between it and a closing </html> tag is HTML code.

The <body> tag indicates that anything between it and the closing </body> tag should be shown inside the main browser window.

Words between <h1> and </h1> are a main heading.

A paragraph of text appears between these and tags.

Words between <h2> and </h2> form a sub-heading.

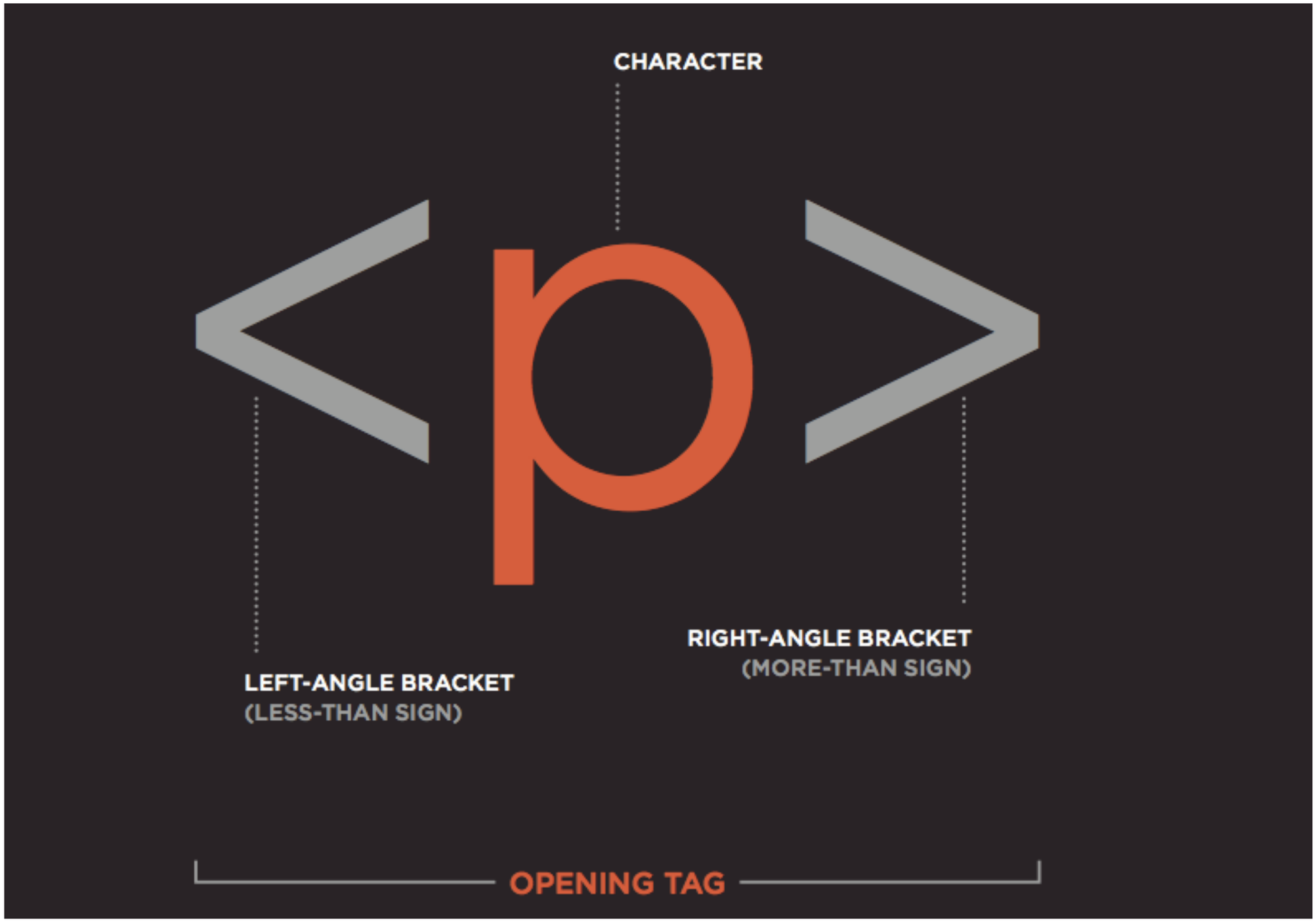
Here is another paragraph between opening and closing tags.

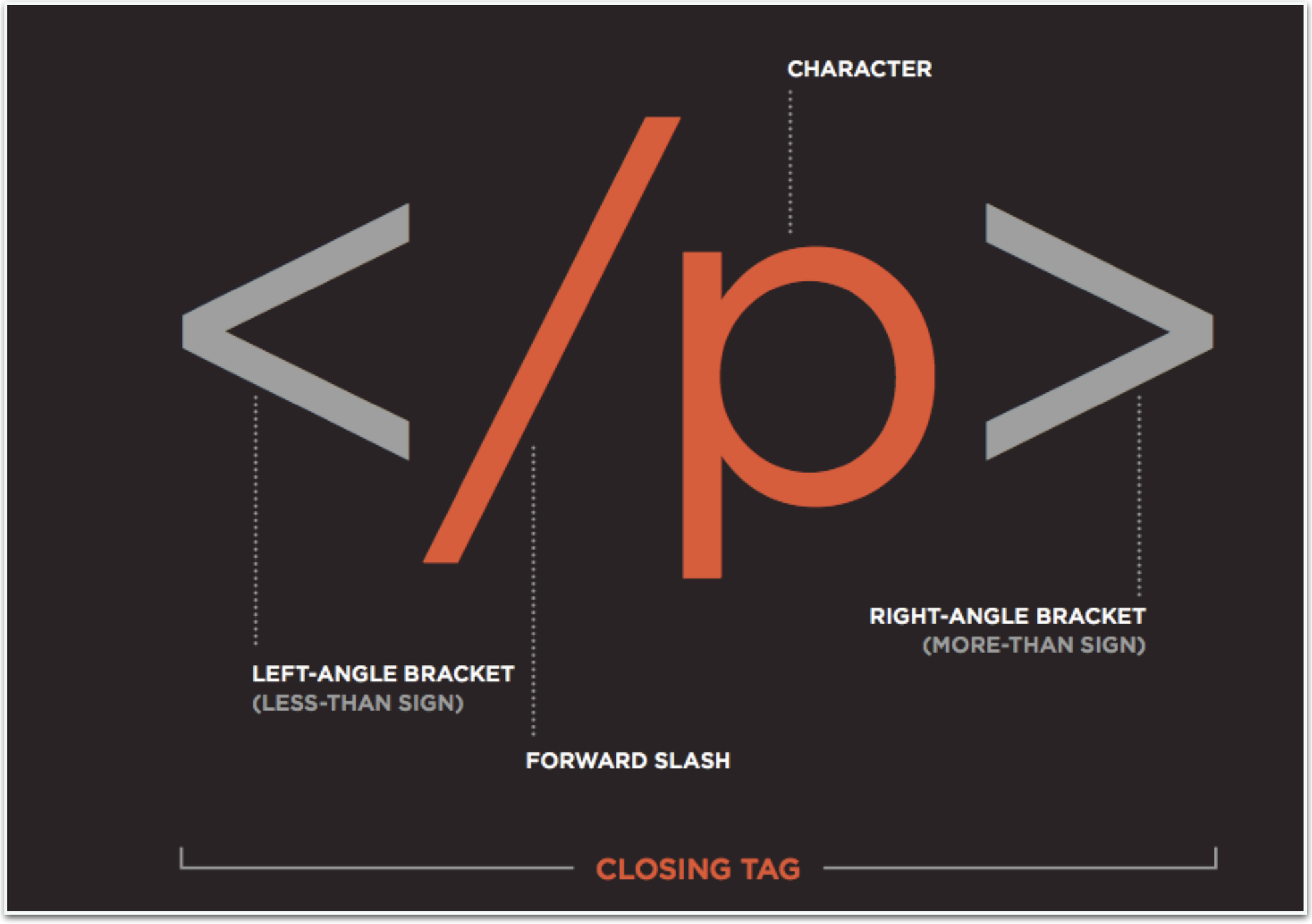
Another sub-heading inside <h2> and </h2> tags.

Another paragraph inside and tags.

The closing </body> tag indicates the end of what should appear in the main browser window.

The closing </html> tag indicates that it is the end of the HTML code.


CHARACTER
<p>
LEFT-ANGLE BRACKET
(LESS-THAN SIGN)
RIGHT-ANGLE BRACKET
(MORE-THAN SIGN)
OPENING TAG


CHARACTER
</p>
LEFT-ANGLE BRACKET
(LESS-THAN SIGN)
FORWARD SLASH
RIGHT-ANGLE BRACKET
(MORE-THAN SIGN)
CLOSING TAG

Si possono usare attributi per aggiungere semantica ai tag

/code-01/body-head-title.html

HTML

```
<html>
    <head>
        <title>This is the Title of the Page</title>
    </head>
<body>
<h1>This is the Body of the Page</h1>
    <p>Anything within the body of a web page is
displayed in the main browser window.
    </p> […]
```

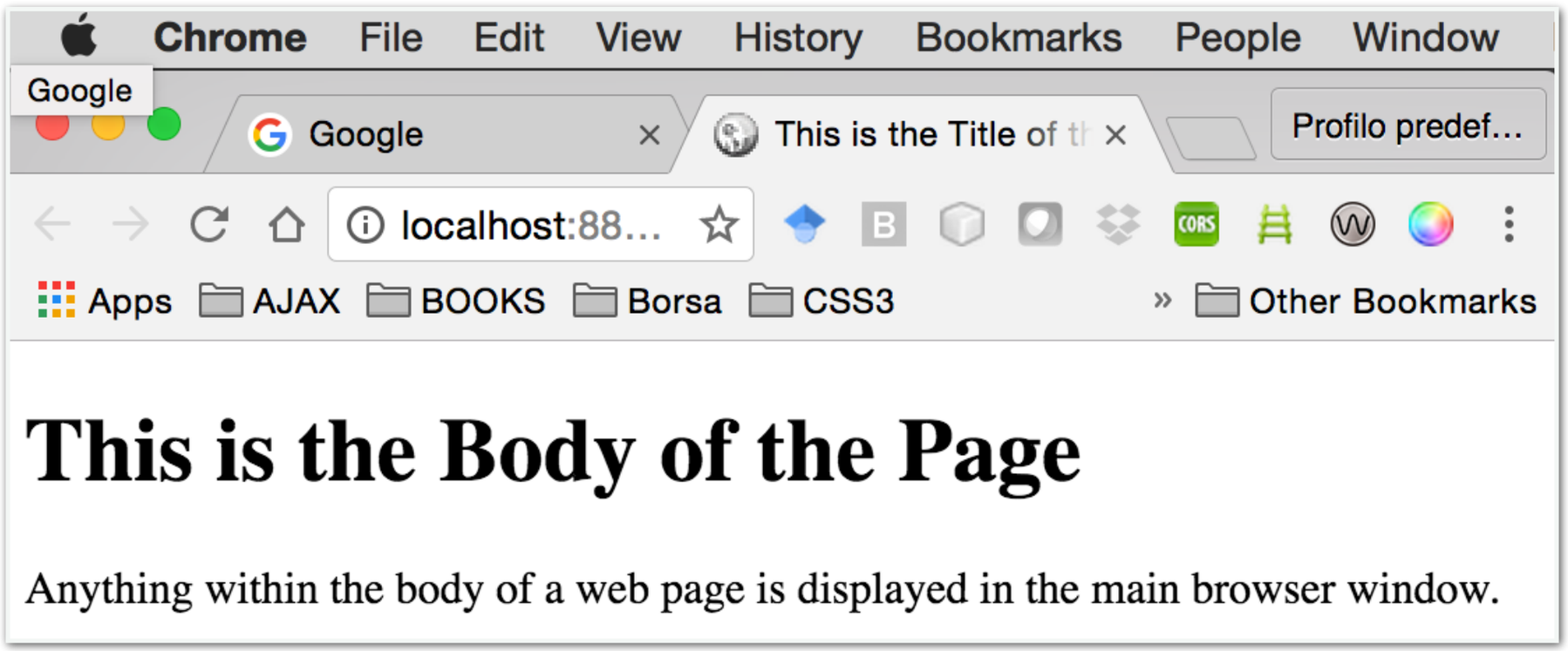
- <body>: ciò che è visibile nella finestra del browser
- <head>: meta-informazioni pagina
- <title>: ciò che appare nella tab del browser

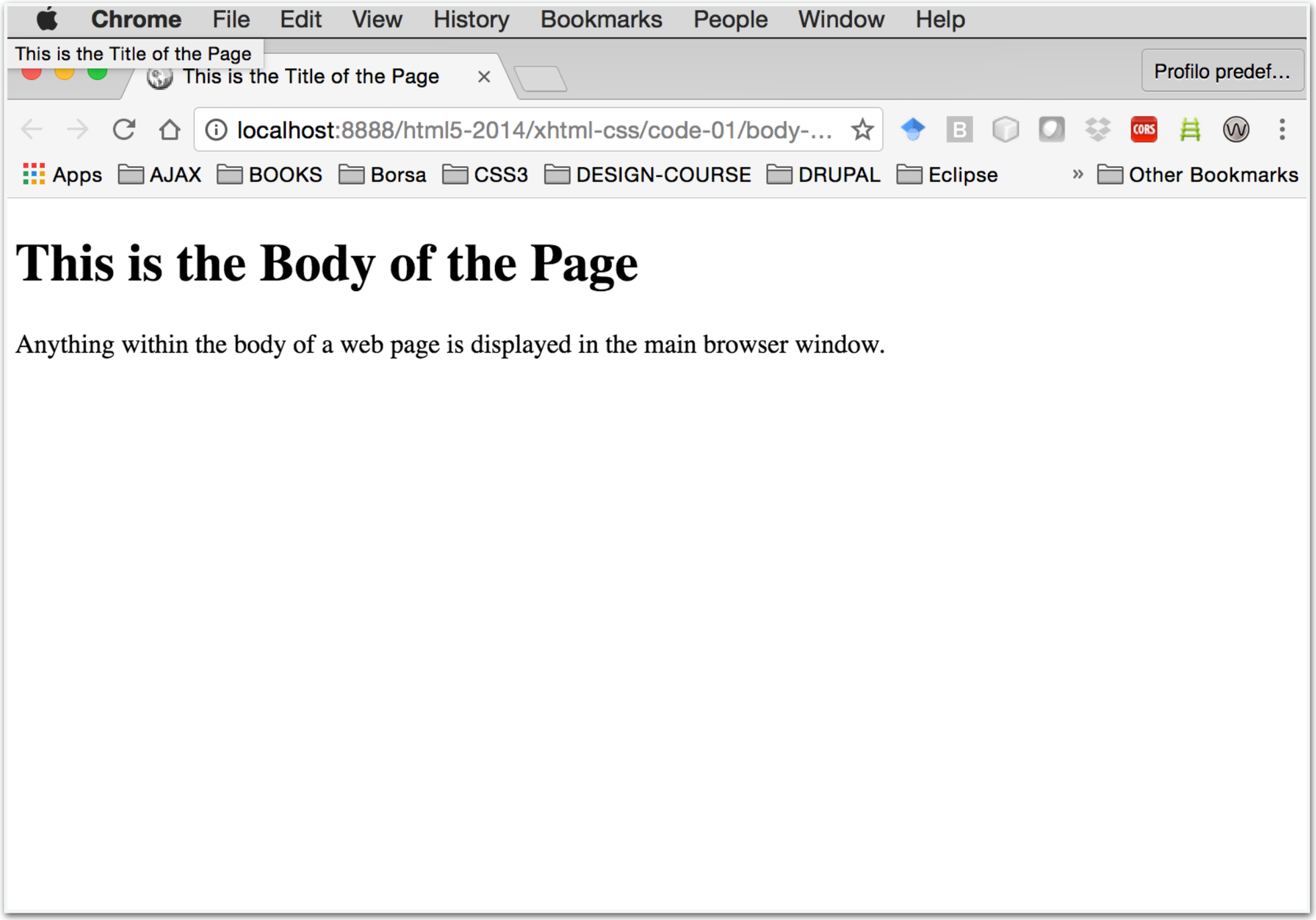
HTML & CSS

Un documento HTML è normalmente diviso in due sezioni principali:

- <head>: Contiene informazioni che riguardano il modo in cui il documento deve essere letto e interpretato. Questo è il luogo dove scrivere, ad esempio, i meta-tag (p.e. per i motori di ricerca), script JavaScript, fogli di stile

- <body>: ciò che è visibile nella finestra del browser




Chrome File Edit View History Bookmarks People Window Help
This is the Title of the Page
This is the Title of the Page
Profilo predef…
localhost:8888/html5-2014/xhtml-css/code-01/body-…
Apps AJAX BOOKS Borsa CSS3 DESIGN-COURSE DRUPAL Eclipse Other Bookmarks
This is the Body of the Page
Anything within the body of a web page is displayed in the main browser window.

HTML & CSS

Sintesi:

- Le pagine HTML sono documenti di testo
- L'HTML usa i tag per dare significato a parti del testo
- I tag si aprono e si chiudono
- I tag posso avere attributi
- Gli attributi sono coppie nome / valore
- Per scrivere HTML bisogna conoscere il significato dei tag

Esercizio: code-01/example.html

Attributi: ai TAG possono essere associati attributi e agli attributi un valore. Il contenuto va inserito tra l'apertura e la chiusura del TAG medesimo.

```
<body bgcolor="blue">
```
impostare un colore di sfondo è necessario impostare il relativo attributo del tag body

```
<body background="imgSfondo.gif">
```
inserire un'immagine come sfondo. L'immagine di sfondo verrà ripetuta in orizzontale e in verticale.

```
<body bgcolor="#0000ff" background="imgSfondo.gif">
```
combinare sullo sfondo il colore con l'immagine

```
<body bgcolor="#0000FF">
```
per scegliere il colore è comunque più opportuno utilizzare la corrispondente codifica esadecimale

Codifica colori esadecimali

colore	parola chiave	notazione esadecimale
arancione	orange	#FFA500
blu	blue	#0000FF
bianco	white	#FFFFFF
giallo	yellow	#FFFF00
grigio	gray	#808080
marrone	brown	#A52A2A
nero	black	#000000
rosso	red	#FF0000
verde	green	#008000
viola	violet	#EE82EE

Un altro esempio

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN"
"http://www.w3.org/TR/html4/loose.dtd">
<html>
    <head>
        <title>title</title>
    </head>
    <body
        leftmargin="0”
        topmargin="0"
        bgcolor="#66CCFF"
        lang="it”>
            Testo di prova
    </body>
</html>
```

HTML

I TAG possono essere annidati l'uno dentro l'altro:

```
<TAG1 attributi>contenuto 1
    <TAG2>contenuto 2</TAG2>
</TAG1>
```

Ad esempio, per attribuire formattazioni successive al testo che stiamo inserendo, attraverso attributi:

```
<P align="right">testo 1</P>
<P align="left">testo 2</P>
```

HTML & CSS

HTML è case unsensitive, è del tutto indifferente se scrivere i TAG in maiuscolo o in minuscolo:

```
<P ALIGN="RIGHT">
```

e

```
<p align="right">
```

vengono letti allo stesso modo dal browser

XHTML è invece case sensitive

HTML - Commenti

Per rendere il codice più leggibile è opportuno inserire "commenti" nei punti più significativi: in modo da mantenere l'orientamento anche in file molto complessi e lunghi.

La sintassi è la seguente:

```
<!-- questo è un commento -->
```

HTML & CSS

XHTML: è la riformulazione di HTML come applicazione XML. Ciò significa essenzialmente una cosa: un documento XHTML deve essere valido e ben formato.

Una pagina XHTML può essere sottoposta ad un validatore:

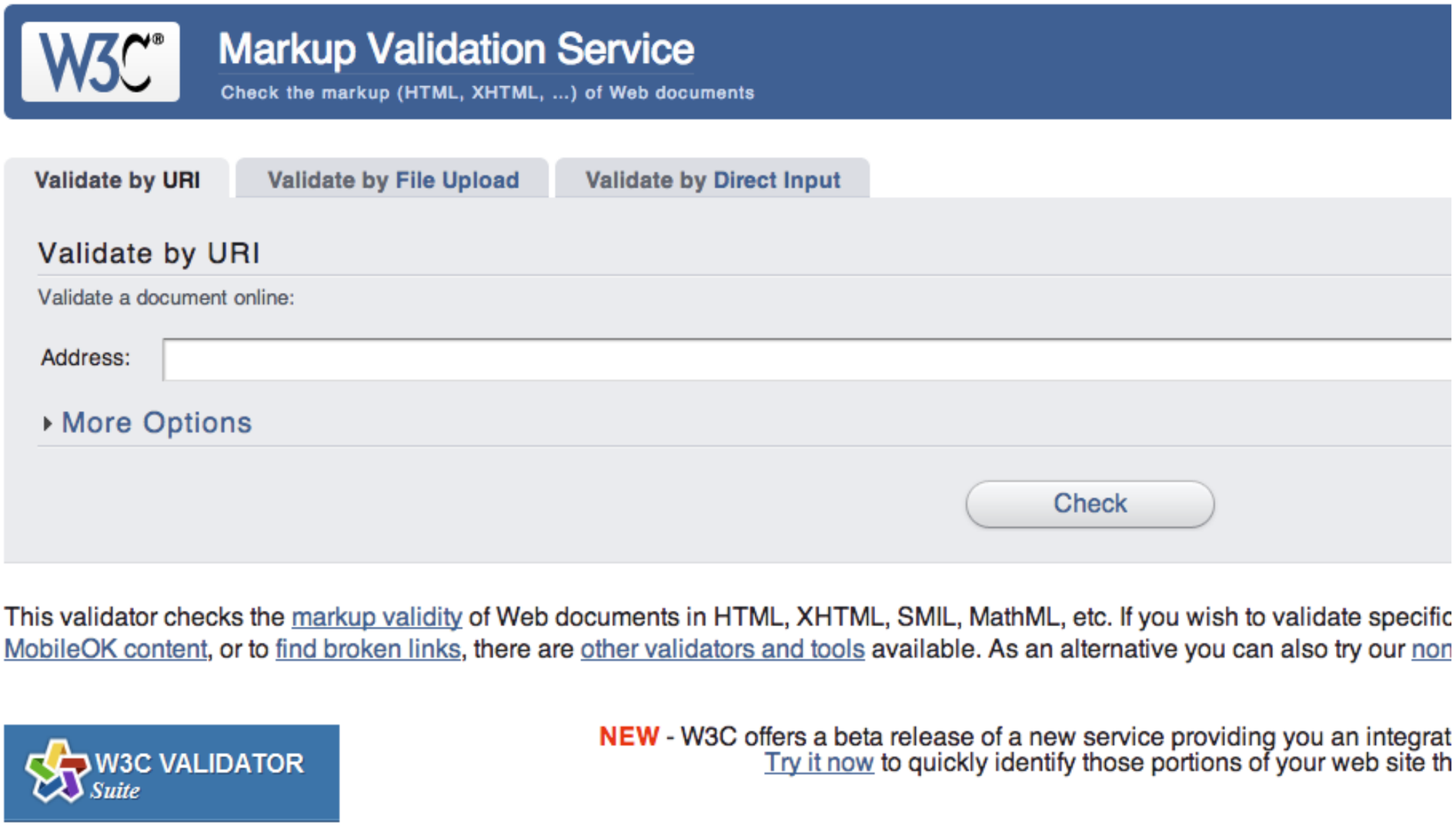
Il validatore controlla:

- che il codice sia ben formato, ovvero rispetti la corretta grammatica e sequenza di tag
- che il codice sia valido, ovvero che sia conforme ai tipi di dato definiti nel DTD.

Il W3C definisce quale tipo di dato deve essere definito all'interno di un documento XHTML 1 Strict
http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd

W3C Markup validation service

http://validator.w3.org



HTML & CSS

Con l'introduzione di XHTML, piuttosto che sfornare una nuova versione del linguaggio il W3C ha compiuto un'opera di ridefinizione:

- Niente nuovi tag, attributi o metodi (HTML 4.0)
- Il vocabolario rimane uguale, ma cambiano le regole sintattiche. Se vengono inseriti elementi non supportati (font, larghezza per le celle di tabelle o margini per il body, per citare solo alcuni esempi) il documento non è valido.
- Con XHTML, almeno nella sua versione Strict, si torna ad un linguaggio che definisce solo la struttura. La formattazione si fa con i CSS.

HTML vs XHTML

- In HTML è possibile omettere gli elementi html, head, body e DOCTYPE. In XHTML sono obbligatori

- Con HTML è possibile omettere alcuni TAG di chiusura. In XHTML sono obbligatori, anche con i TAG vuoti.

- Con HTML è possibile omettere le virgolette per i valori degli attributi che non contengono spazi, o caratteri speciali. In XHTML sono obbligatorie.

- HTML non fa differenze tra minuscole e maiuscole (case unsensitive). In XHTML impone che gli elementi, gli attributi e i valori predefiniti siano scritti in minuscolo.

XHTML - DTD

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">

<html xmlns="http://www.w3.org/1999/xhtml">
    <head>
    <meta http-equiv="Content-Type" content="text/html;
charset=UTF-8" />
    <title>Untitled Document</title>
</head>
```

La dichiarazione DOCTYPE indica che tipo di XHTML è usato, in questo modo i browser sanno come interpretare il codice e i validatori sanno come verificare la sintassi.

HTML5

- HTML5 è il nuovo standard di HTML.
- La versione precedente, HTML 4.01, è nata nel 1999. Il web è cambiato enormemente da allora
- HTML5 è ancora un work in progress. Comunque, i browser principali supportano molte delle nuove HTML5 elements and APIs

HTML5 è nato da una cooperazione fra il World Wide Web Consortium (W3C) ed il Web Hypertext Application Technology Working Group (WHATWG)

WHATWG lavorava su web forms and applications, ed il W3C stava lavorando con XHTML 2.0. Nel 2006, decisero di cooperare e creare una nuova versione di HTML.

HTML5: www.youtube.com/watch?v=6BAfIsaNRnk

HTML & CSS

HTML5: alcune regole osservate nella formulazione

- Le nuove funzionalità sono basate su HTML, CSS, DOM, and JavaScript
- Ridurre l'uso di plugin esterni (Flash)
- Miglior gestione degli errori
- Più markup invece che scripting
- HTML5 deve essere indipendente dai device
- Il processo di sviluppo deve essere pubblico

HTML & CSS

HTML5: alcune delle nuove funzionalità

- <canvas> tag per il disegno 2D
- <video> e <audio> tags per media playback
- Supporto per local storage
- Nuovi elementi per il contenuto <article>, <footer>, <header>, <nav>, <section>
- Nuovi controlli nelle Form: calendar, date, time, email, url, search

HTML & CSS

HTML5: HTML5 non è ancora uno standard ufficiale, e nessuno dei browsers ha un supporto completo.

Ma tutti i maggiori browsers (Safari, Chrome, Firefox, Opera, Internet Explorer) continuano ad aggiungere nuove funzionalità HTML5 alle loro ultime versioni.

HTML5: pagina di base

```
<!DOCTYPE html>
<html>
    <head>
        <title>Title of the document</title>
    </head>

    <body>
        The content of the document.....
    </body>
</html>
```

HTML5 — HTML

```
<!DOCTYPE html>
```

HTML 4

```
<!DOCTYPE html PUBLIC
  "-//W3C//DTD HTML 4.01 Transitional//EN"
  "http://www.w3.org/TR/html4/loose.dtd">
```

Transitional XHTML 1.0

```
<!DOCTYPE html PUBLIC
  "-//W3C//DTD XHTML 1.0 Transitional//EN"
  "http://www.w3.org/TR/xhtml1/DTD/
   xhtml1-transitional.dtd">
```

Strict XHTML 1.0

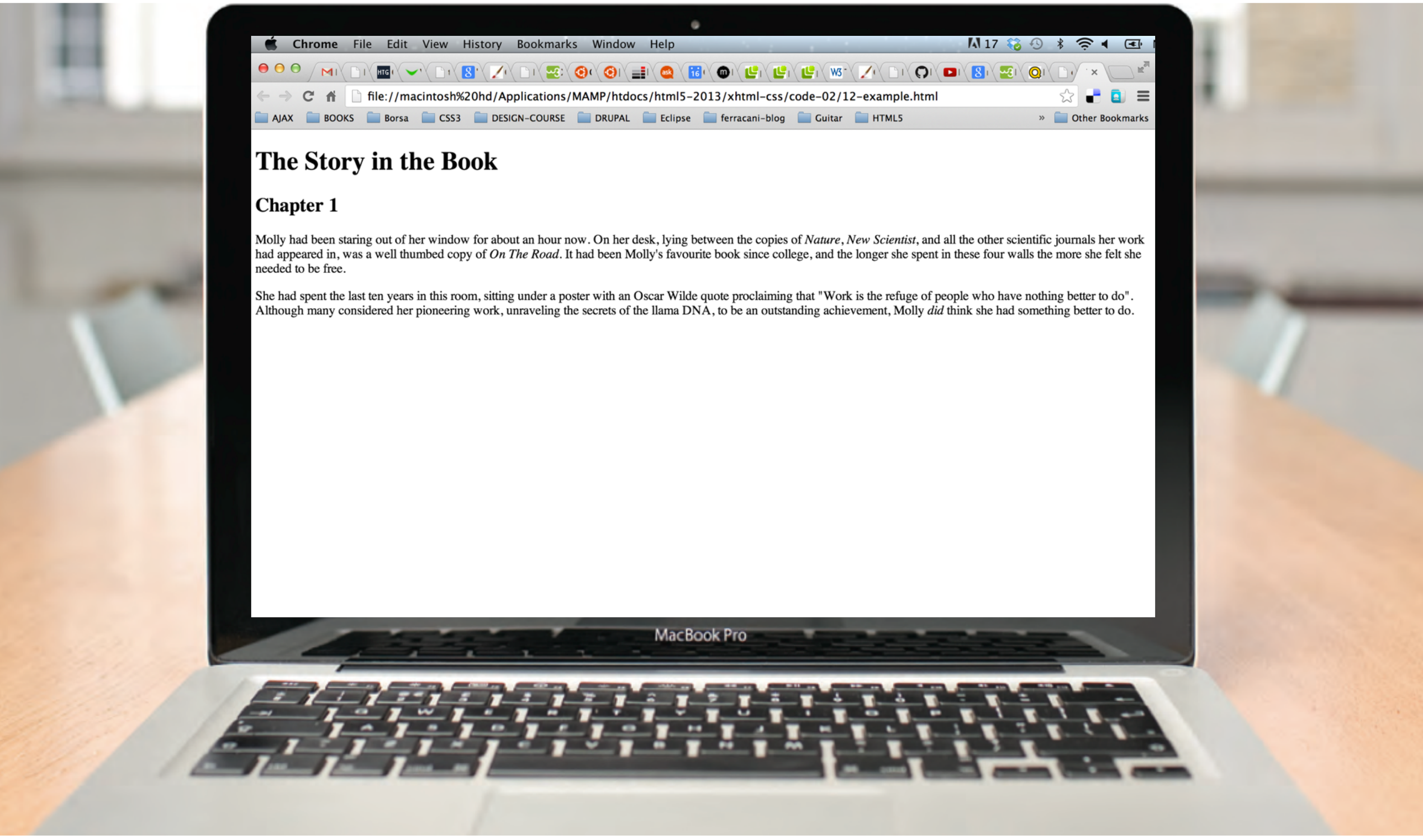
```
<!DOCTYPE html PUBLIC
  "-//W3C//DTD XHTML 1.0 Strict//EN"
  "http://www.w3.org/TR/xhtml1/DTD/
   xhtml1-strict.dtd">
```

XML Declaration

```
<?xml version="1.0" ?>
```

HTML5: sintesi

HTML & CSS


Chrome File Edit View History Bookmarks Window Help
file://macintosh%20hd/Applications/MAMP/htdocs/html5-2013/xhtml-css/code-02/12-example.html
AJAX BOOKS Borsa CSS3 DESIGN-COURSE DRUPAL Eclipse ferracani-blog Guitar HTML5 Other Bookmarks
The Story in the Book
Chapter 1
Molly had been staring out of her window for about an hour now. On her desk, lying between the copies of Nature, New Scientist, and all the other scientific journals her work had appeared in, was a well thumbed copy of On The Road. It had been Molly's favourite book since college, and the longer she spent in these four walls the more she felt she needed to be free.
She had spent the last ten years in this room, sitting under a poster with an Oscar Wilde quote proclaiming that "Work is the refuge of people who have nothing better to do". Although many considered her pioneering work, unraveling the secrets of the llama DNA, to be an outstanding achievement, Molly did think she had something better to do.
MacBook Pro

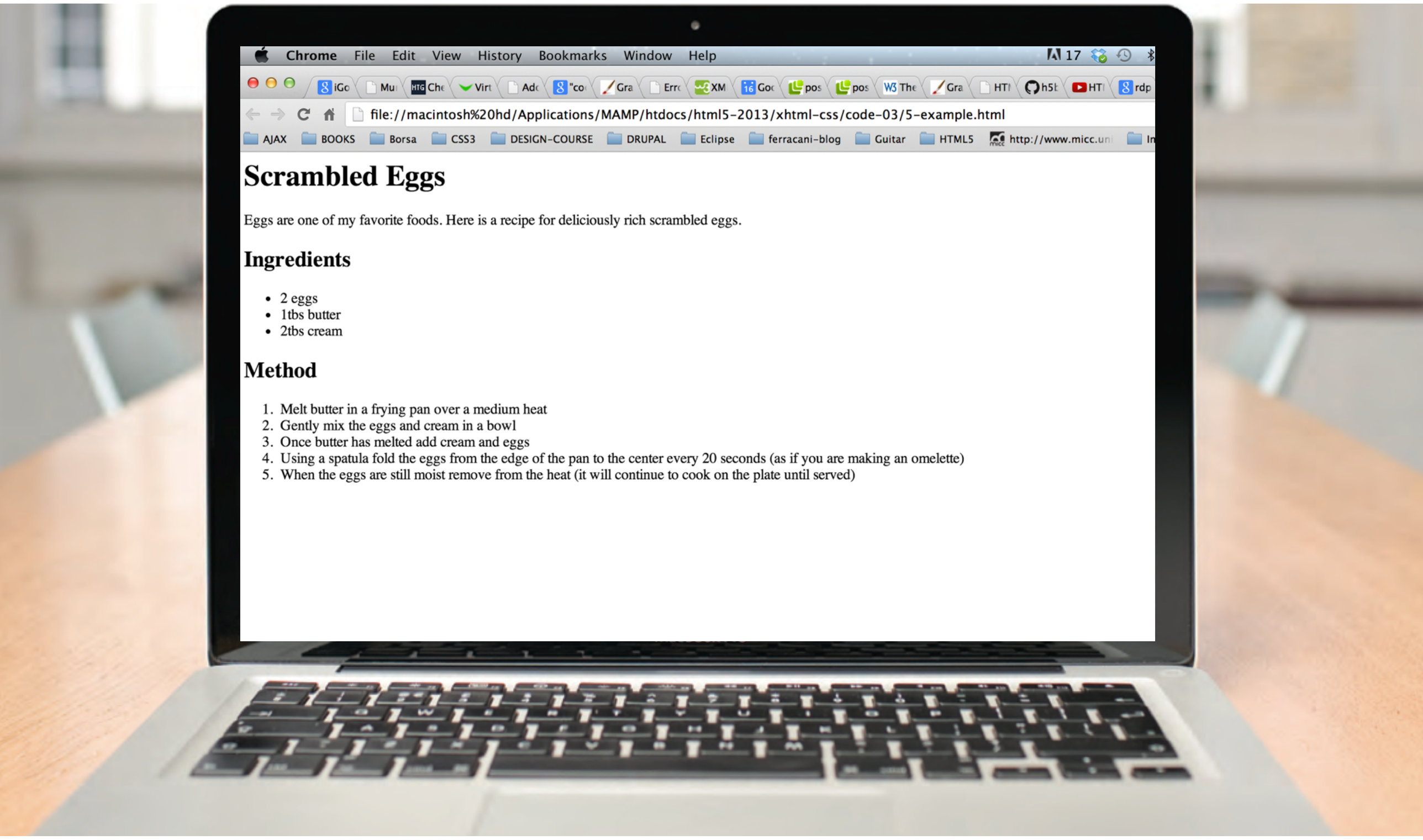
HTML & CSS

HTML5: markup testo

```
<html>
    <head>
        <title>Text</title>
    </head>
    <body>
        <h1>The Story in the Book</h1>
        <h2>Chapter 1</h2>
        <p>Molly had been staring out of her window for about
an hour now. On her desk, lying between the copies of <em>Nature</em>, <em>New
Scientist</em>, and all the other scientific journals her work had appeared in, was a well
thumbed copy of <cite>On The Road</cite>. It had been Molly's favorite book since college,
and the longer she spent in these four walls the more she felt she needed to be free.</p>
<p>She had spent the last ten years in this room, sitting under a poster with an Oscar Wilde
quote proclaiming that <q>Work is the refuge of people who have nothing better to do</q>.
Although many considered her pioneering work, unraveling the secrets of the llama <abbr
title="Deoxyribonucleic acid">DNA</abbr>, to be an outstanding achievement, Molly
<em>did</em> think she had something better to do.</p>
    </body>
</html>
```

Esercizio: code-02/12-example.html

HTML & CSS


Chrome File Edit View History Bookmarks Window Help
file://macintosh%20hd/Applications/MAMP/htdocs/html5-2013/xhtml-css/code-03/5-example.html
AJAX BOOKS Borsa CSS3 DESIGN-COURSE DRUPAL Eclipse ferracani-blog Guitar HTML5
Scrambled Eggs
Eggs are one of my favorite foods. Here is a recipe for deliciously rich scrambled eggs.
Ingredients
2 eggs
1tbs butter
2tbs cream
Method
1. Melt butter in a frying pan over a medium heat
2. Gently mix the eggs and cream in a bowl
3. Once butter has melted add cream and eggs
4. Using a spatula fold the eggs from the edge of the pan to the center every 20 seconds (as if you are making an omelette)
5. When the eggs are still moist remove from the heat (it will continue to cook on the plate until served)

HTML5: markup liste

```
<html>
    <head>
        <title>Lists</title>
    </head>
    <body>
        <h1>Scrambled Eggs</h1>
        <p>Eggs are one of my favourite foods. Here is a recipe for deliciously rich scrambled eggs.</p>
        <h2>Ingredients</h2>

        <ul>
            <li>2 eggs</li>
            <li>1tbs butter</li>
            <li>2tbs cream</li>
        </ul>

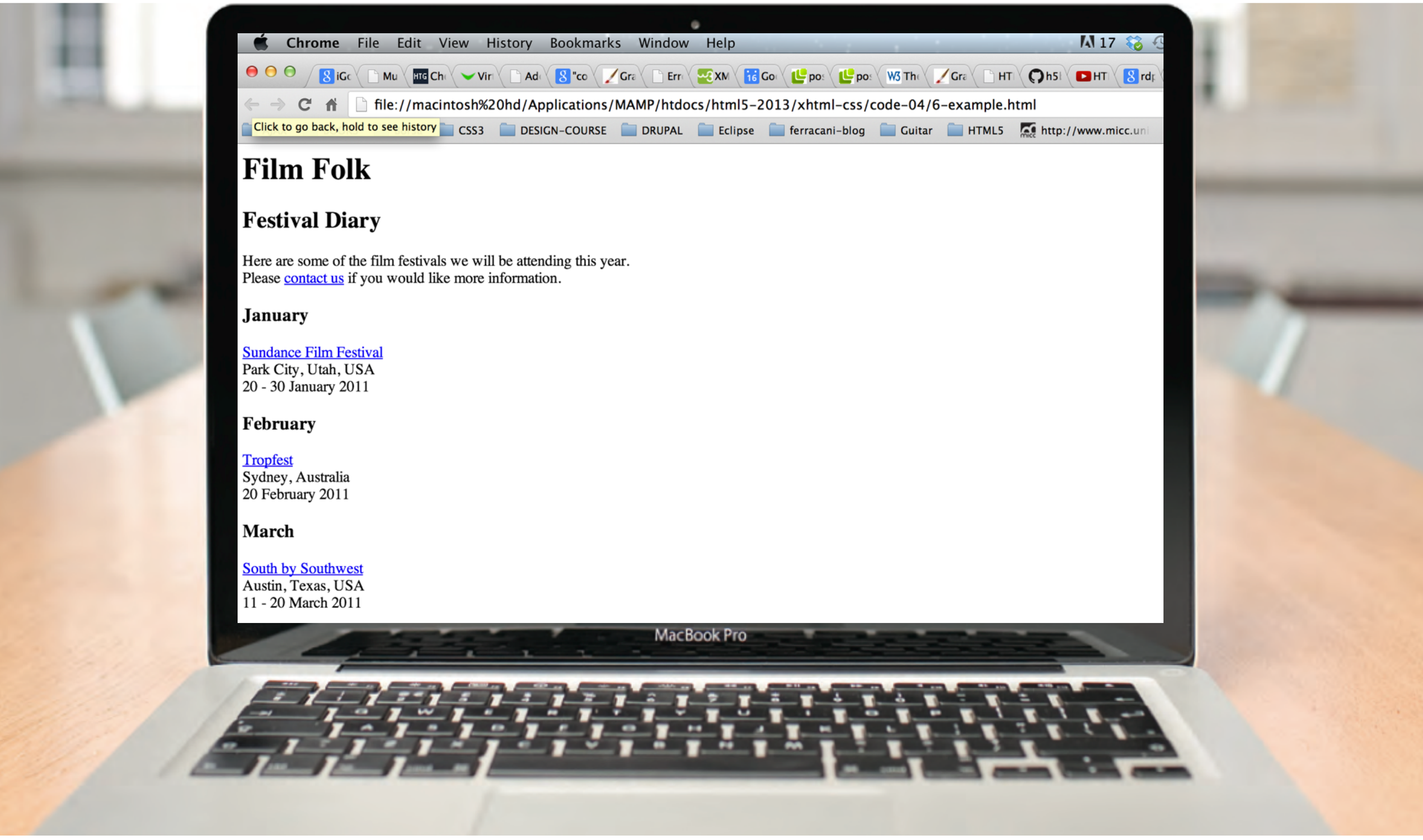
        <h2>Method</h2>

            <ol>
                <li>Melt butter in a frying pan over a medium heat</li>
                <li>Gently mix the eggs and cream in a bowl</li>
                <li>Once butter has melted add cream and eggs</li>
                <li>Using a spatula fold the eggs from the edge of the pan to the center every 20 seconds (as if you are making an
omelette)</li>
                <li>When the eggs are still moist remove from the heat (it will continue to cook on the plate until served)</li>
            </ol>

    </body>
</html>
```

Esercizio: code-03/5-example.html

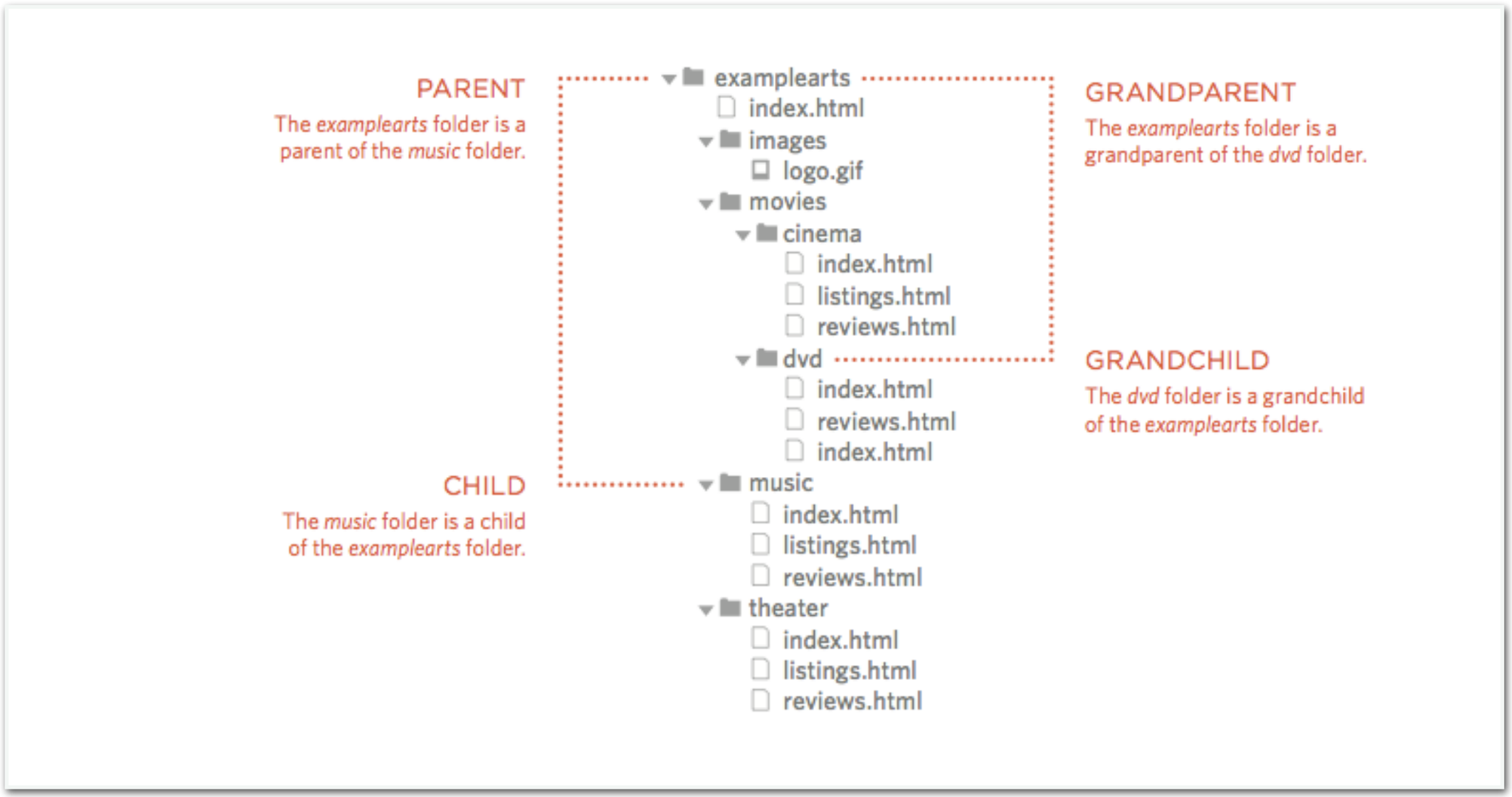
HTML & CSS


Chrome File Edit View History Bookmarks Window Help
file://macintosh%20hd/Applications/MAMP/htdocs/html5-2013/xhtml-css/code-04/6-example.html
Click to go back, hold to see history
CSS3
DESIGN-COURSE
DRUPAL
Eclipse
ferracani-blog
Guitar
HTML5
Film Folk
Festival Diary
Here are some of the film festivals we will be attending this year.
Please contact us if you would like more information.
January
Sundance Film Festival
Park City, Utah, USA
20 - 30 January 2011
February
Tropfest
Sydney, Australia
20 February 2011
March
South by Southwest
Austin, Texas, USA
11 - 20 March 2011
MacBook Pro

HTML5: links


THIS IS THE PAGE THE LINK TAKES YOU TO
THIS IS THE TEXT THE USER CLICKS ON
IMDB
OPENING LINK TAG
CLOSING LINK TAG

HTML5: struttura delle cartelle di un sito web



HTML5: URL relative

RELATIVE LINK TYPE	EXAMPLE (from diagram on previous page)
SAME FOLDER To link to a file in the same folder, just use the file name. (Nothing else is needed.)	To link to music reviews from the music homepage: `<a href="reviews.html">Reviews</a>`
CHILD FOLDER For a child folder, use the name of the child folder, followed by a forward slash, then the file name.	To link to music listings from the homepage: `<a href="music/listings.html">Listings</a>`

GRANDCHILD FOLDER
Use the name of the child folder, followed by a forward slash, then the name of the grandchild folder, followed by another forward slash, then the file name.
	To link to DVD reviews from the homepage:
	`<a href="movies/dvd/reviews.html">`
	`Reviews</a>`

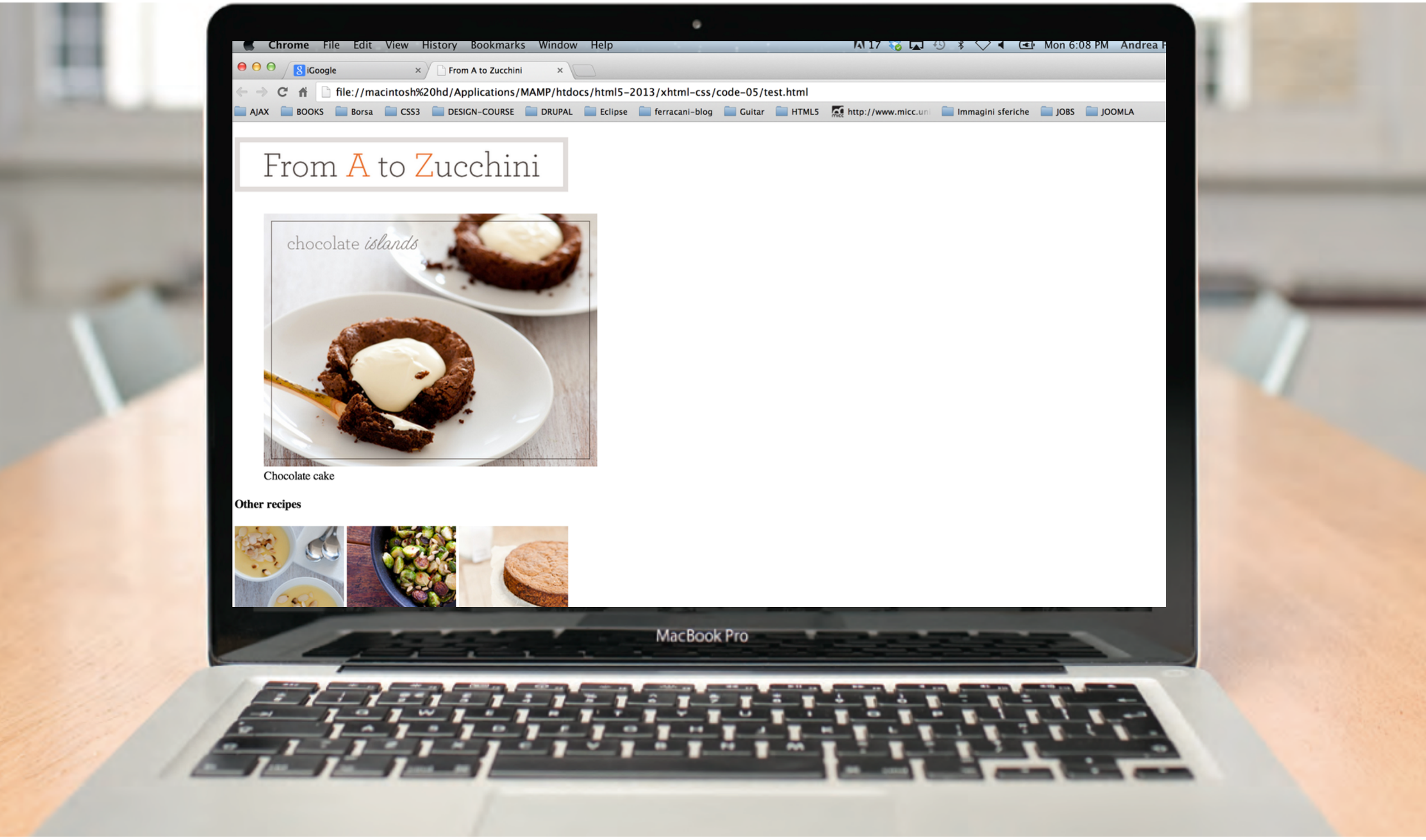
PARENT FOLDER Use `../` to indicate the folder above the current one, then follow it with the file name.	To link to the homepage from the music reviews: `<a href="../index.html">Home</a>`
GRANDPARENT FOLDER Repeat the `../` to indicate that you want to go up two folders (rather than one), then follow it with the file name.	To link to the homepage from the DVD reviews: `<a href="../../index.html">Home</a>`

HTML5: markup links

```
<html>
    <head>
        <title>Links</title>
    </head>
    <body>
    <h1 id="top">Film Folk</h1>
    <h2>Festival Diary</h2>
    <p>Here are some of the film festivals we will be attending this year.<br />Please <a
href="mailto:filmfolk@example.org">contact us</a> if you would like more information.</p>
    <h3>January</h3>
    <p><a href=“http://www.sundance.org" target=“_blank”>Sundance Film Festival</a><br /> Park
City, Utah, USA<br /> 20 - 30 January 2011</p>
    <h3>February</h3>
    <p><a href="http://www.tropfest.com">Tropfest</a><br /> Sydney, Australia<br /> 20 February
2011</p>
    <!-- additional content -->
    <p><a href=“../../about/about.html”>About Film Folk</a></p>
    <p><a href="#top">Top of page</a></p>
</body>
</html>
```

Esercizio: code-04/6-example.html

HTML & CSS


Chrome File Edit View History Bookmarks Window Help
Mon 6:08 PM
iGoogle
From A to Zucchini
file://macintosh%20hd/Applications/MAMP/htdocs/html5-2013/xhtml-css/code-05/test.html
AJAX BOOKS Borsa CSS3 DESIGN-COURSE DRUPAL Eclipse ferracani-blog Guitar HTML5 Immagini sferiche JOBS JOOMLA
From A to Zucchini
chocolate islands
Chocolate cake
Other recipes
MacBook Pro

HTML5: immagini per il web

OTHER SOFTWARE
Adobe Fireworks
Pixelmator
PaintShop Pro
Paint.net

ONLINE EDITORS
www.photoshop.com
www.pixlr.com
www.splashup.com
www.ipiccy.com

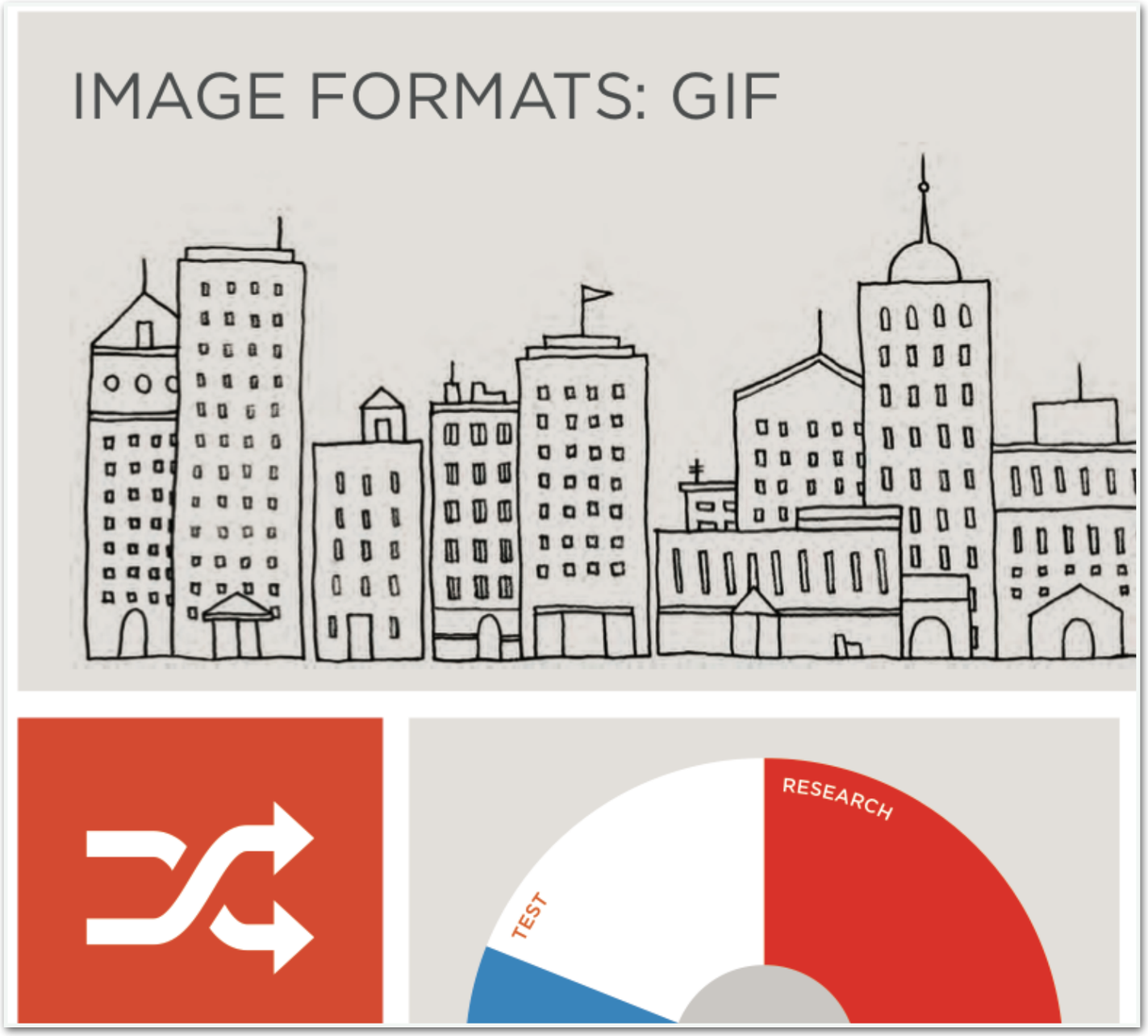
Photoshop: File > Save for web

Online image editor

- http://www.photoshop.com/
- https://pixlr.com/
- https://ipiccy.com/
- https://vectr.com/

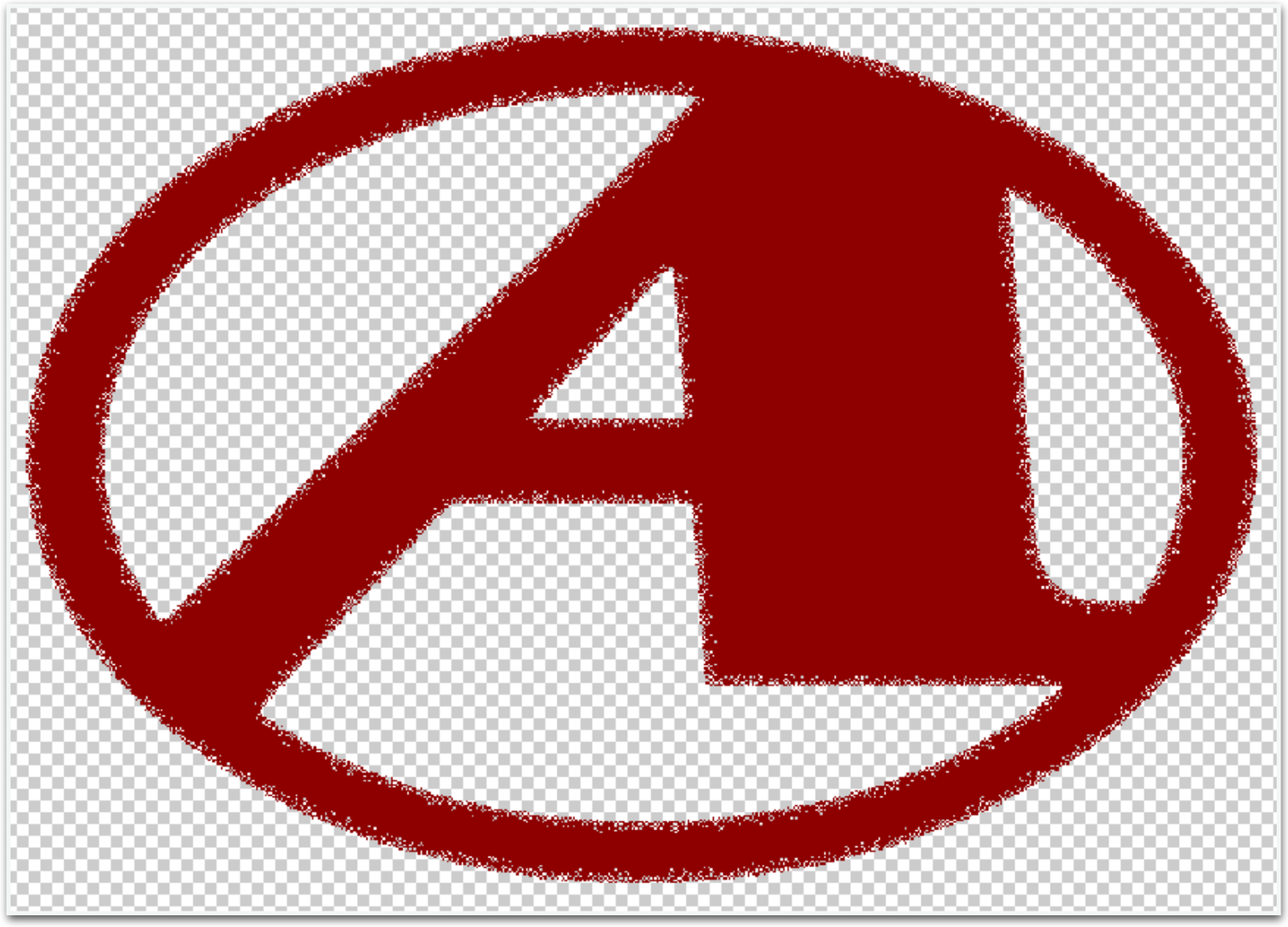
HTML5: immagini per il web

HTML5: immagini per il web



HTML5: immagini per il web

HTML5: immagini per il web - trasparenza



HTML5: immagini per il web - trasparenza

HTML5: immagini per il web - immagini vettoriali

Possono essere visualizzate dai browser, la risoluzione non dipende dal pixel ma da formule matematiche

Illustrator > SVG, SWF

HTML5: immagini per il web - immagini raster

I display dei computer visualizzano le immagini a 72ppi

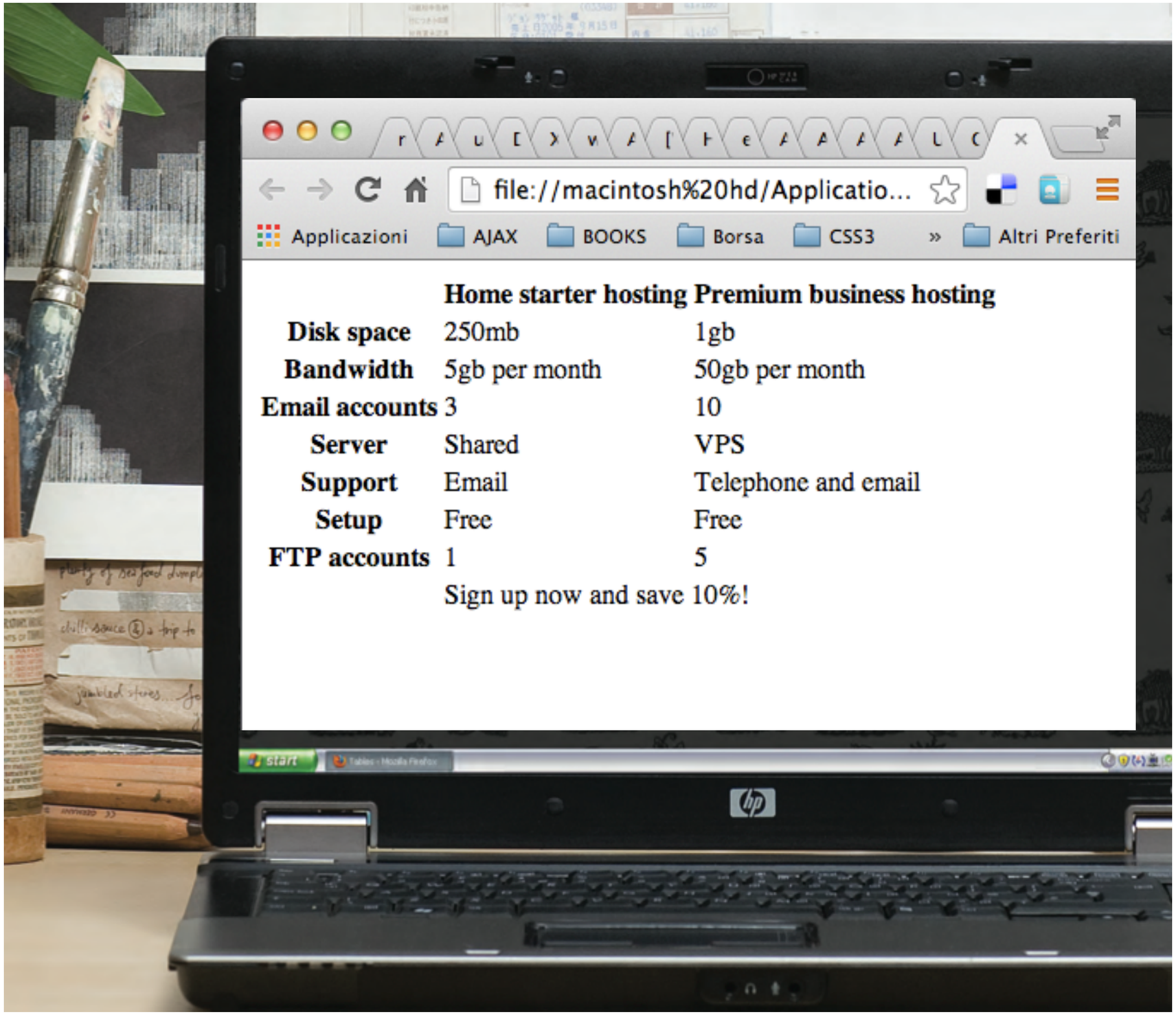
Stampa: 300ppi

HTML5: markup immagini

```
<html>
	<head>
		<title>Images</title>
	</head>
	<body>
		<h1><img src="images/logo.gif" alt="From A to Zucchini" /></h1>
		<figure>
			<img src="images/chocolate-islands.jpg" alt="Chocolate Islands" title="Individual Chocolate Cakes" />
			<p>
				<figcaption>
					This recipe for individual chocolate cakes is so simple and so delectable!
				</figcaption>
			</p>
		</figure>
		<h4>More Recipes:</h4>
		<p>
			<img src="images/lemon-posset.jpg" alt="Lemon Posset" title="Lemon Posset" />
			<img src="images/roasted-brussel-sprouts.jpg" alt="Roasted Brussel Sprouts" title="Roasted Brussel
Sprouts" />
			<img src="images/zucchini-cake.jpg" alt="Zucchini Cake" title="Zucchini Cake" />
		</p>
	</body>
</html>
```

Esercizio: code-05/6-example.html

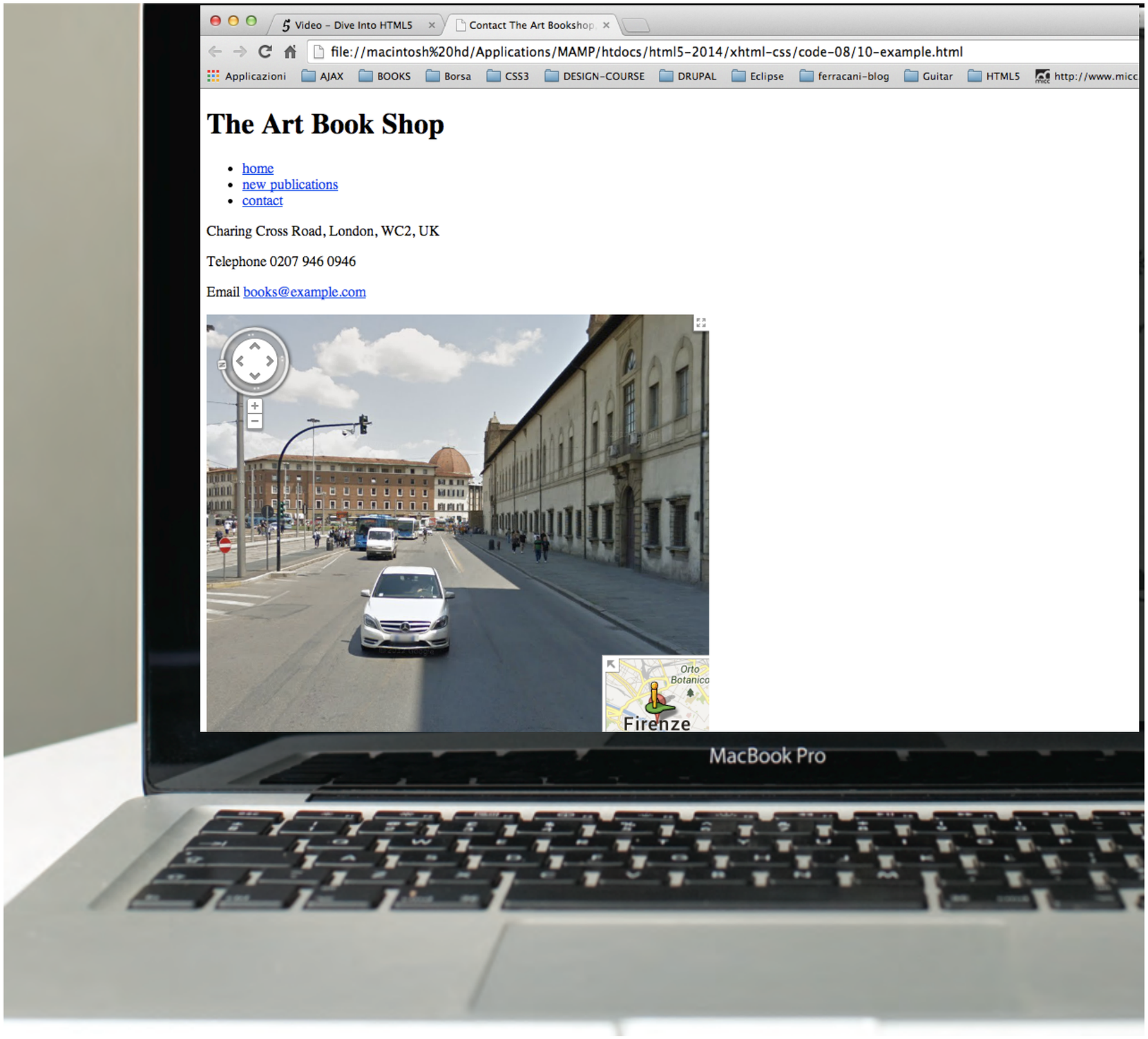
HTML & CSS


file://macintosh%20hd/Applicatio...
Applicazioni
AJAX
BOOKS
Borsa
CSS3
Altri Preferiti
Home starter hosting Premium business hosting
Disk space 250mb 1gb
Bandwidth 5gb per month 50gb per month
Email accounts 3 10
Server Shared VPS
Support Email Telephone and email
Setup Free Free
FTP accounts 1 5
Sign up now and save 10%!

HTML5: markup tabelle

```
<html>
    <head>
        <title>Tables</title>
    </head>
    <body>
        <table>
            <thead>
                <tr>
                    <th></th>
                    <th scope="col">Home starter hosting</th>
                     <th scope="col">Premium business hosting</th>
                </tr>
            </thead>
            <tbody>
                <tr>
                    <th scope="row">Disk space</th>
                    <td>250mb</td>
                    <td>1gb</td>
                </tr>
                <!-- more rows like the two above here -->
            </tbody>
            <tfoot>
                    <tr><td></td><td colspan="2">Sign up now and save 10%!</td></tr>
            </tfoot>
        </table>
    </body>
</html>
```

Esercizio: code-06/8-example.html

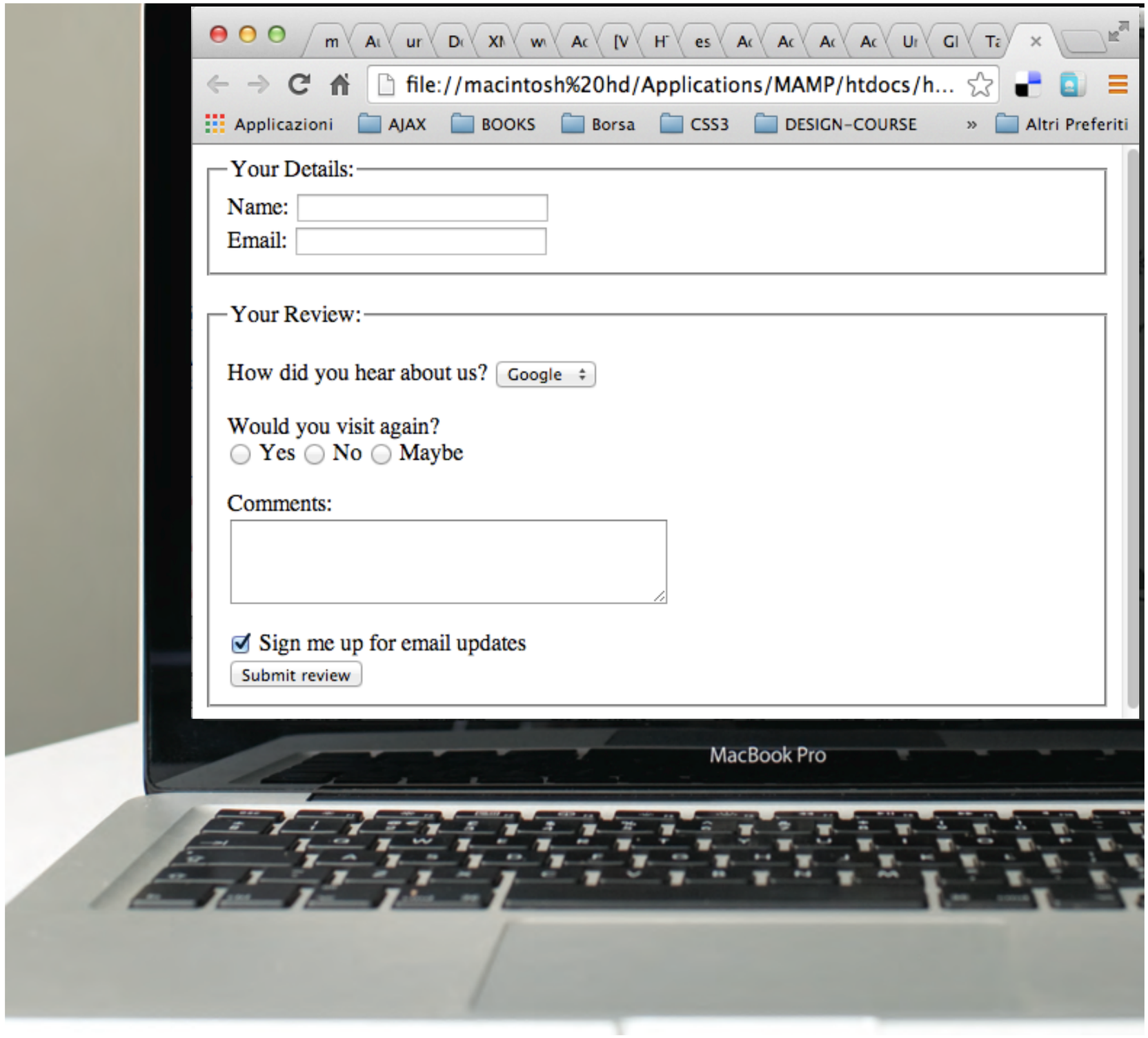

Video – Dive Into HTML5
Contact The Art Bookshop
file://macintosh%20hd/Applications/MAMP/htdocs/html5-2014/xhtml-css/code-08/10-example.html
Applicazioni
AJAX
BOOKS
Borsa
CSS3
DESIGN-COURSE
DRUPAL
Eclipse
ferracani-blog
Guitar
HTML5
The Art Book Shop
home
new publications
contact
Charing Cross Road, London, WC2, UK
Telephone 0207 946 0946
Email books@example.com
Orto Botanico
Firenze
MacBook Pro

HTML5: struttura

```
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN" "http://www.w3.org/TR/html4/loose.dtd">
<html>
	<head>
		<meta name="description" content="Telephone, email and directions for The Art Bookshop, London, UK" />
		<title>Contact The Art Bookshop, London UK</title>
	</head>
	<body>
		<div id="header">
			<h1>The Art Book Shop</h1>
			<ul>
				<li><a href="../code-08/index.html">home</a></li>
				<li><a href="../code-08/index.html">new publications</a></li>
				<li class="current-page"><a href="../code-08/index.html">contact</a></li>
			</ul>
		</div><!-- end header -->
		<div id="content">
			<p>Charing Cross Road, London, WC2, UK</p>
			<p><span class="contact">Telephone</span> 0207 946 0946</p>
			<p><span class="contact">Email</span> <a href="mailto:books@example.com">books@example.com</a></p>
			<iframe width="425" height="275" frameborder="0" scrolling="no" marginheight="0" marginwidth="0" src="http://
maps.google.co.uk/maps?
f=q&amp;source=s_q&amp;hl=en&amp;geocode=&amp;q=charing+cross+road+london&amp;output=embed">
			</iframe>
		</div><!-- end content -->
		<p>&copy; The Art Bookshop</p>
	</body>
</html>
```

Esercizio: code-08/8-example.html

HTML & CSS


file://macintosh%20hd/Applications/MAMP/htdocs/h...
Applicazioni
AJAX
BOOKS
Borsa
CSS3
DESIGN-COURSE
Altri Preferiti
Your Details:
Name:
Email:
Your Review:
How did you hear about us?
Google
Would you visit again?
Yes
No
Maybe
Comments:
Sign me up for email updates
Submit review
MacBook Pro

HTML5: tipi di Form

ADDING TEXT:

Text input (single-line)
Used for a single line of text such as email addresses and names.

Username:

Password input
Like a single line text box but it masks the characters entered.

Password: ••••••••

Text area (multi-line)
For longer areas of text, such as messages and comments.

Enter your comments...

MAKING CHOICES:

Radio buttons
For use when a user must select one of a number of options.

Rock Pop Jazz

Checkboxes
When a user can select and unselect one or more options.

iTunes Last.fm Spotify

Drop-down boxes
When a user must pick one of a number of options from a list.

iPod

SUBMITTING FORMS:

Submit buttons
To submit data from your form to another web page.

Subscribe

Image buttons
Similar to submit buttons but they allow you to use an image.

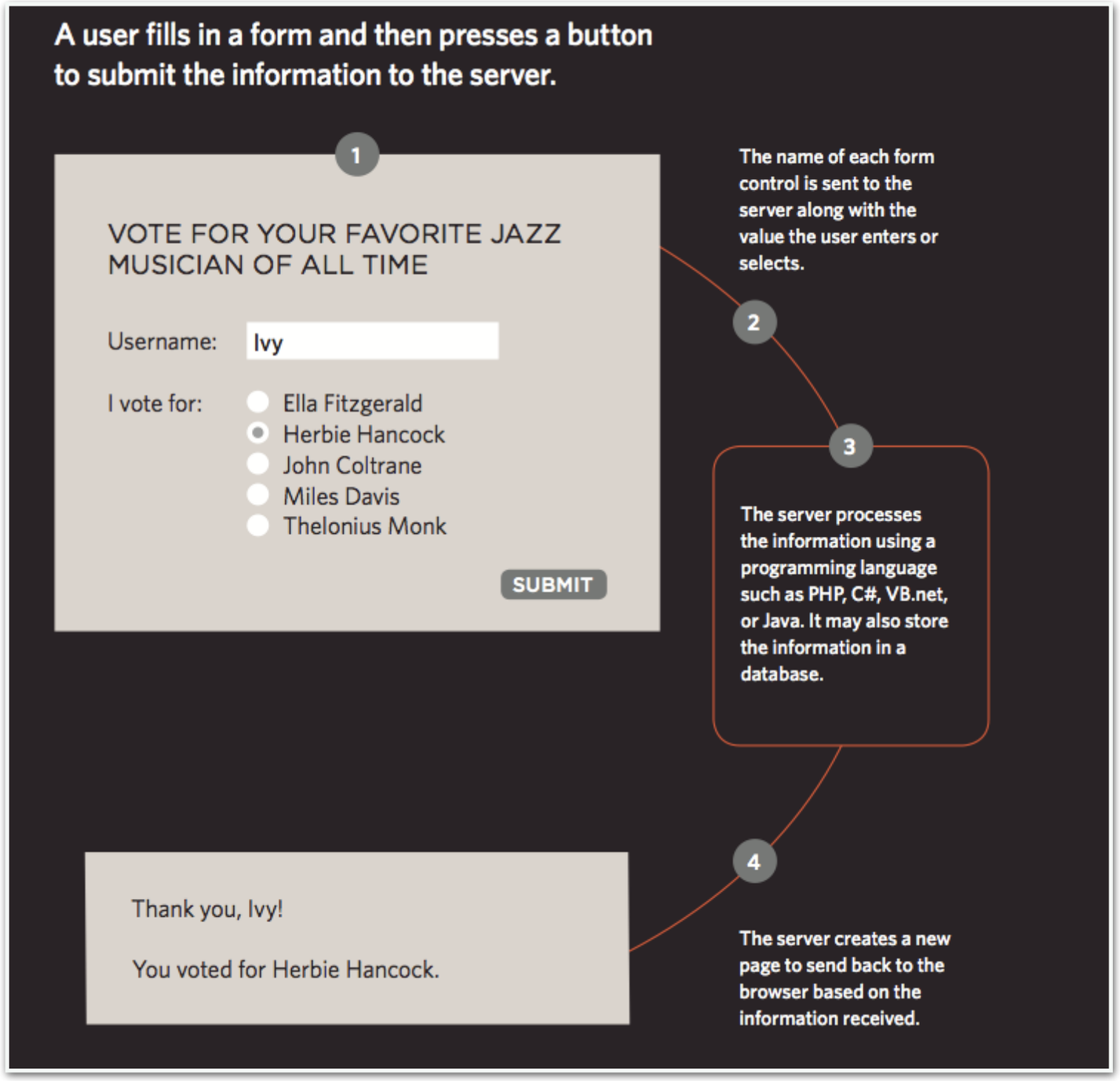
SUBSCRIBE

UPLOADING FILES:

File upload
Allows users to upload files (e.g. images) to a website.

Choose File No file chosen

HTML5: come funzionano le form

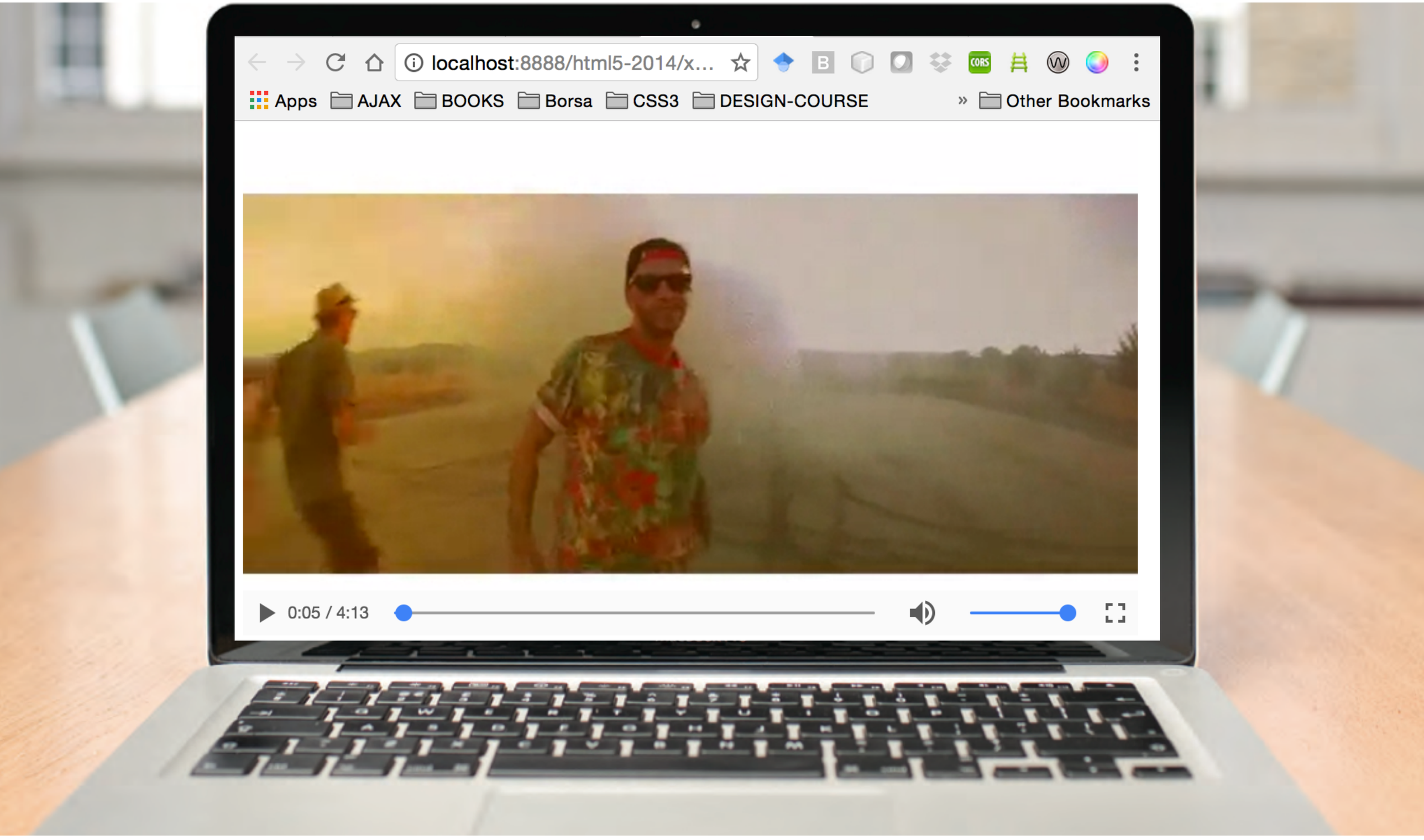


HTML5: markup forms

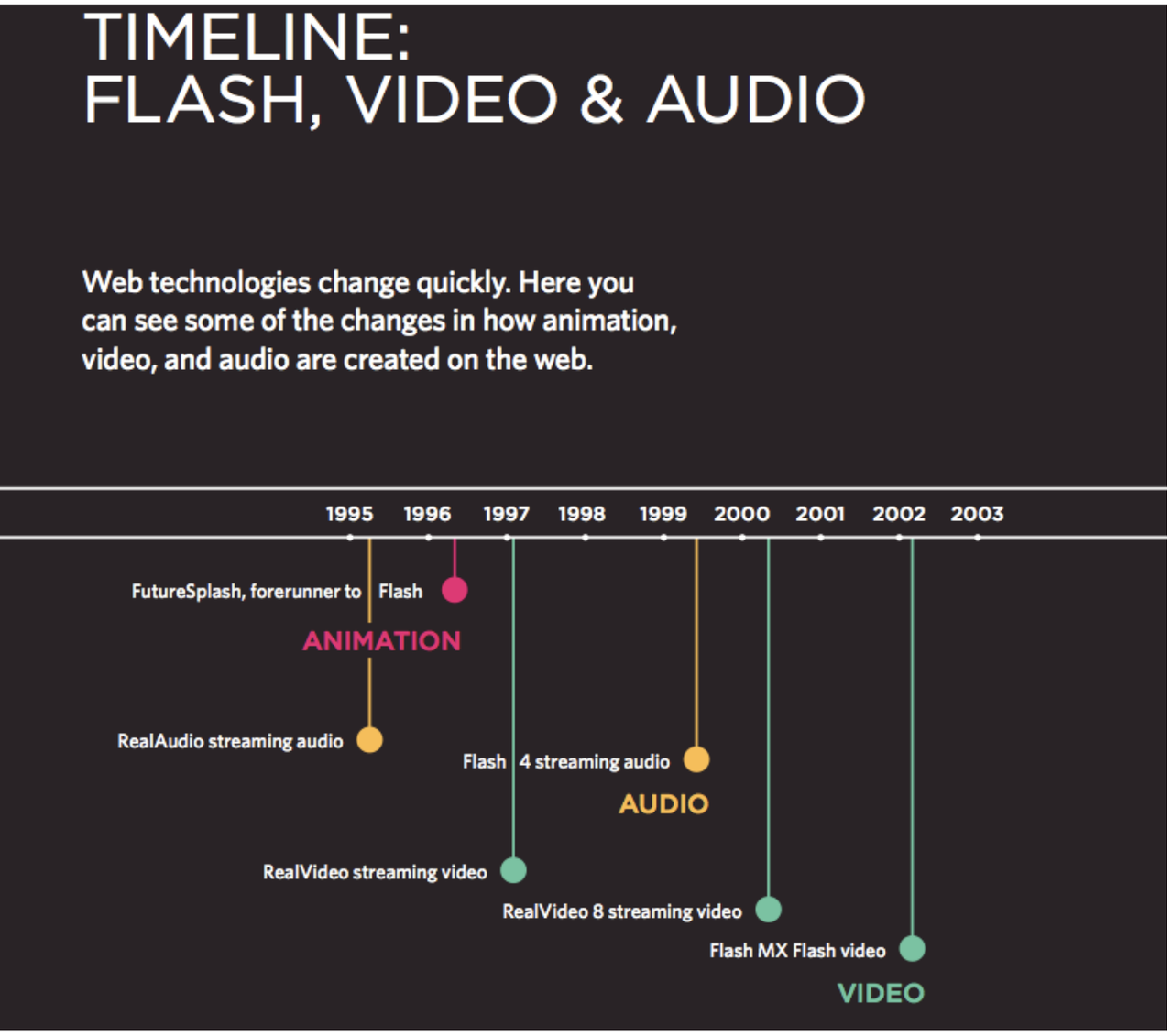
```
<html>
	<head>
		<title>Forms</title>
	</head>
	<body>
		<form action="http://www.example.com/review.php" method="get">
			<fieldset>
				<legend>Your Details:</legend>
				<label>Name: <input type="text" name="name" size="30" maxlength="100"></label><br />
				<label>Email: <input type="email" name="email" size="30" maxlength="100"></label><br />
			</fieldset>
			<fieldset>
				<legend>Your Review:</legend>
				<p>
					<label for="hear-about">How did you hear about us?</label>
					<select name="referrer" id="hear-about">
						<option value="google">Google</option>
						<option value="friend">Friend</option>
						<option value="advert">Advert</option>
						<option value="other">Other</option>
					</select>
				</p>
				<p>
					Would you visit again?<br />
					<label><input type="radio" name="rating" value="yes" /> Yes</label>
					<label><input type="radio" name="rating" value="no" /> No</label>
					<label><input type="radio" name="rating" value="maybe" /> Maybe</label>
				</p>
				<p>
					<label for="comments">Comments:</label><br />
					<textarea rows="4" cols="40" id="comments"></textarea>
				</p>
				<label><input type="checkbox" name="subscribe" checked="checked" /> Sign me up for email updates</label><br />
				<input type="submit" value="Submit review" />
			</fieldset>
		</form>
	</body>
</html>
```

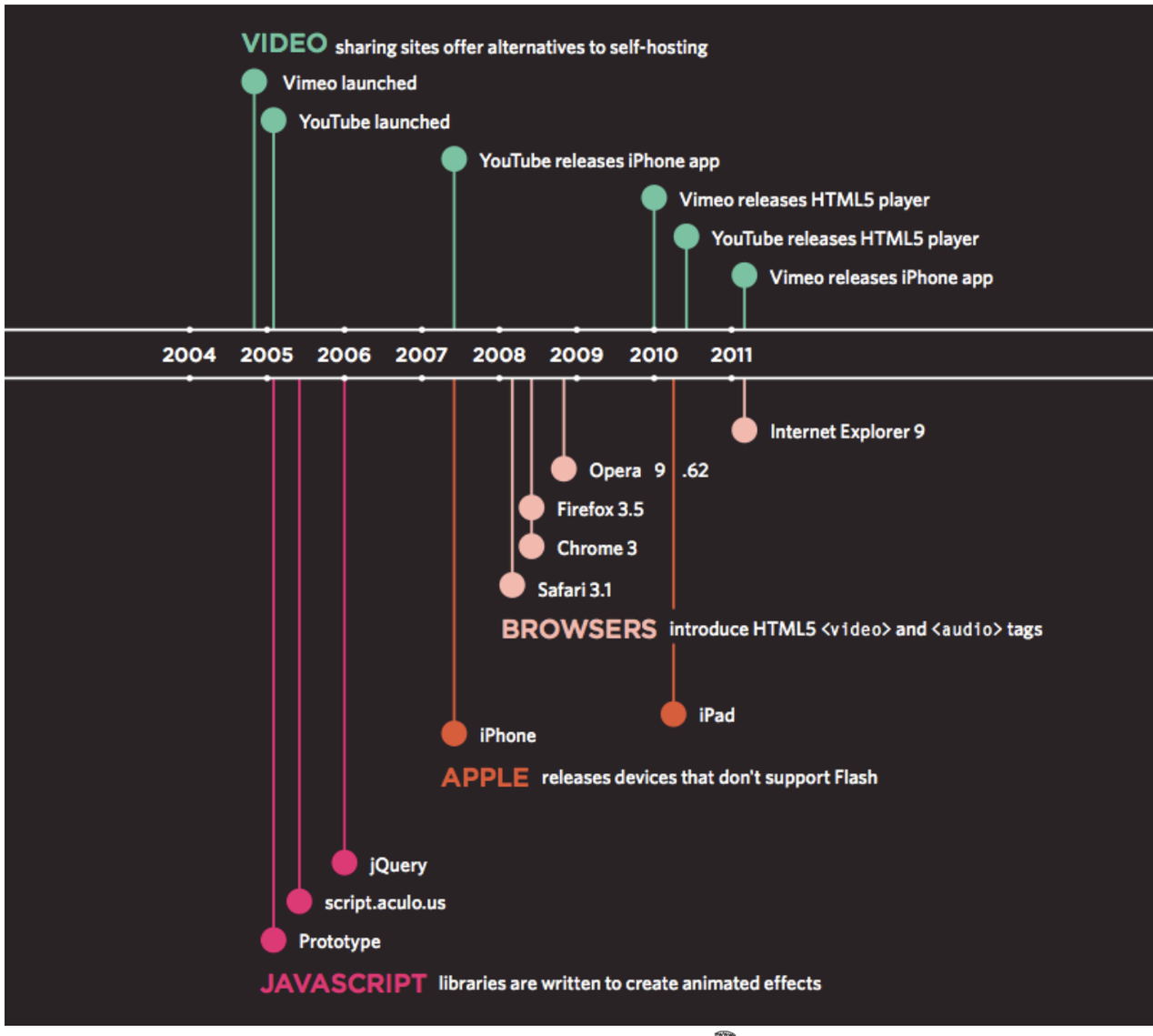
Esercizio: code-07/20-example.html

HTML & CSS


localhost:8888/html5-2014/x...
Apps
AJAX
BOOKS
Borsa
CSS3
DESIGN-COURSE
Other Bookmarks
0:05 / 4:13

HTML5: multimedia timeline





HTML5: supporto video nei browser

VIDEO CODEC SUPPORT IN SHIPPING BROWSERS

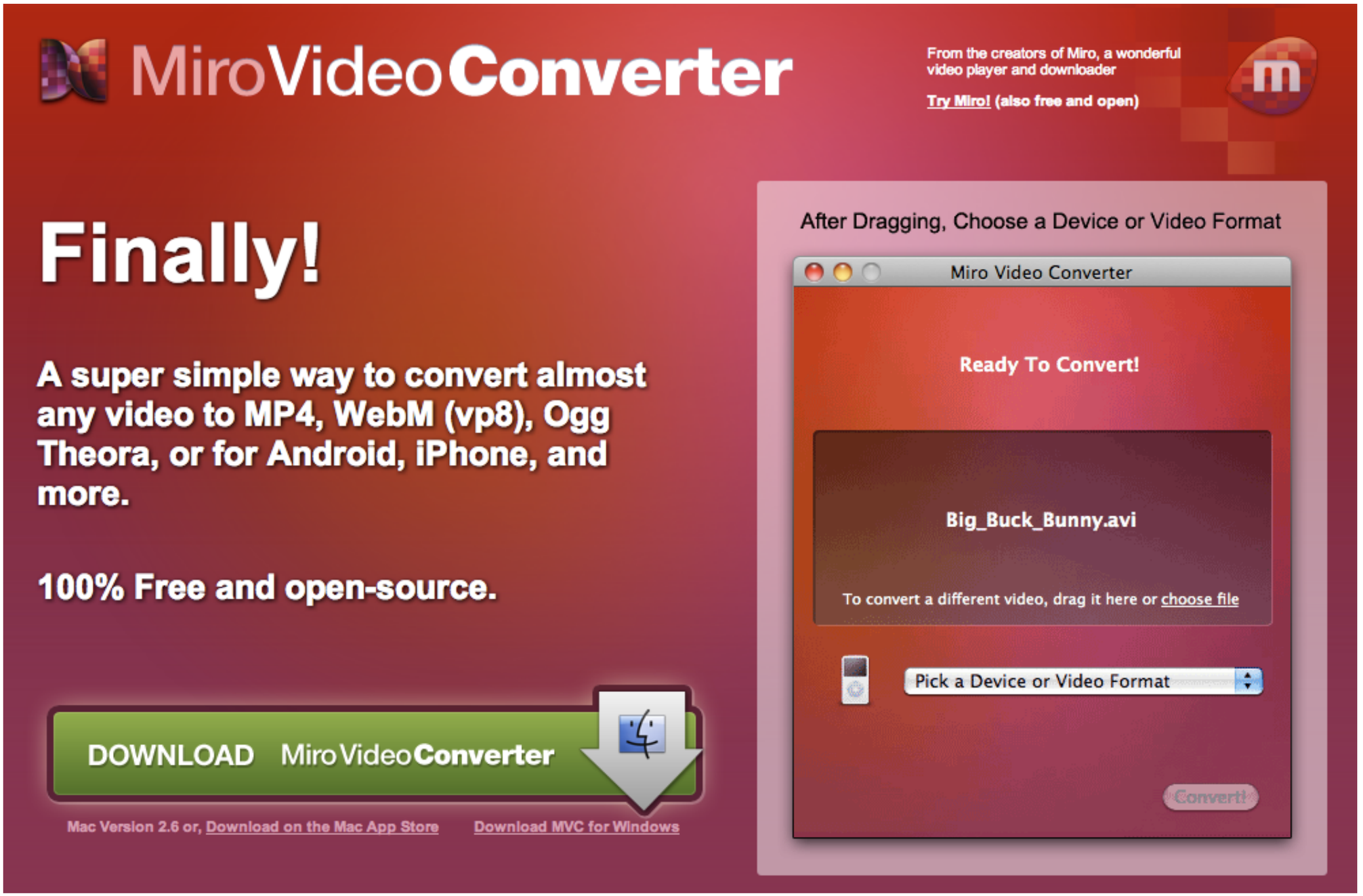
CODECS/CONTAINER	IE	FIREFOX	SAFARI	CHROME	OPERA	IPHONE	ANDROID
Theora+Vorbis+Ogg	·	3.5+	†	5.0+	10.5+	·	·
H.264+AAC+MP4	9.0+	·	3.0+	5.0+‡	·	3.0+	2.0+
WebM	9.0+*	4.0+	†	6.0+	10.6+	·	2.3+

* Internet Explorer 9 will only support WebM "when the user has installed a VP8 codec".

† Safari will play anything that QuickTime can play. QuickTime comes pre-installed with H.264/AAC/MP4 support. There are installable third-party plugins that add support for Theora and WebM, but each user needs to install these plugins before Safari will recognize those video formats.

‡ Google Chrome promised to drop support for H.264 in 2011, but it never happened.

HTML5: multimedia - formati [www.getmiro.com/download/for-osx/]



HTML5: esempio video

```
<!DOCTYPE html>
<html>
    <head>
        <title>Flash, Video and Audio</title>
        <script type="text/javascript" src="http://ajax.googleapis.com/ajax/libs/swfobject/2.2/swfobject.js"></script>
        <script type="text/javascript">
            var flashvars = {};
            var params = {movie: "../video/puppy.flv"};
swfobject.embedSWF("flash/osplayer.swf", "snow", "400", "320", "8.0.0", flashvars, params);
        </script>
    </head>
<body>
    <video poster="images/puppy.jpg" width="400" height="320" controls autoplay loop>
        <source src="video/puppy.mp4" type='video/mp4; codecs="avc1.42E01E, mp4a.40.2"' />
        <source src="video/puppy.webm" type='video/webm; codecs="vp8, vorbis"' />
        <source src="video/puppy.ogv" type="video/ogg; codecs=theora,vorbis">
        <div id="snow">
            <p>You cannot see this video of a puppy playing in the snow because this browser does not support our
video formats.</p>
        </div>
    </video>
</body>
</html>
```

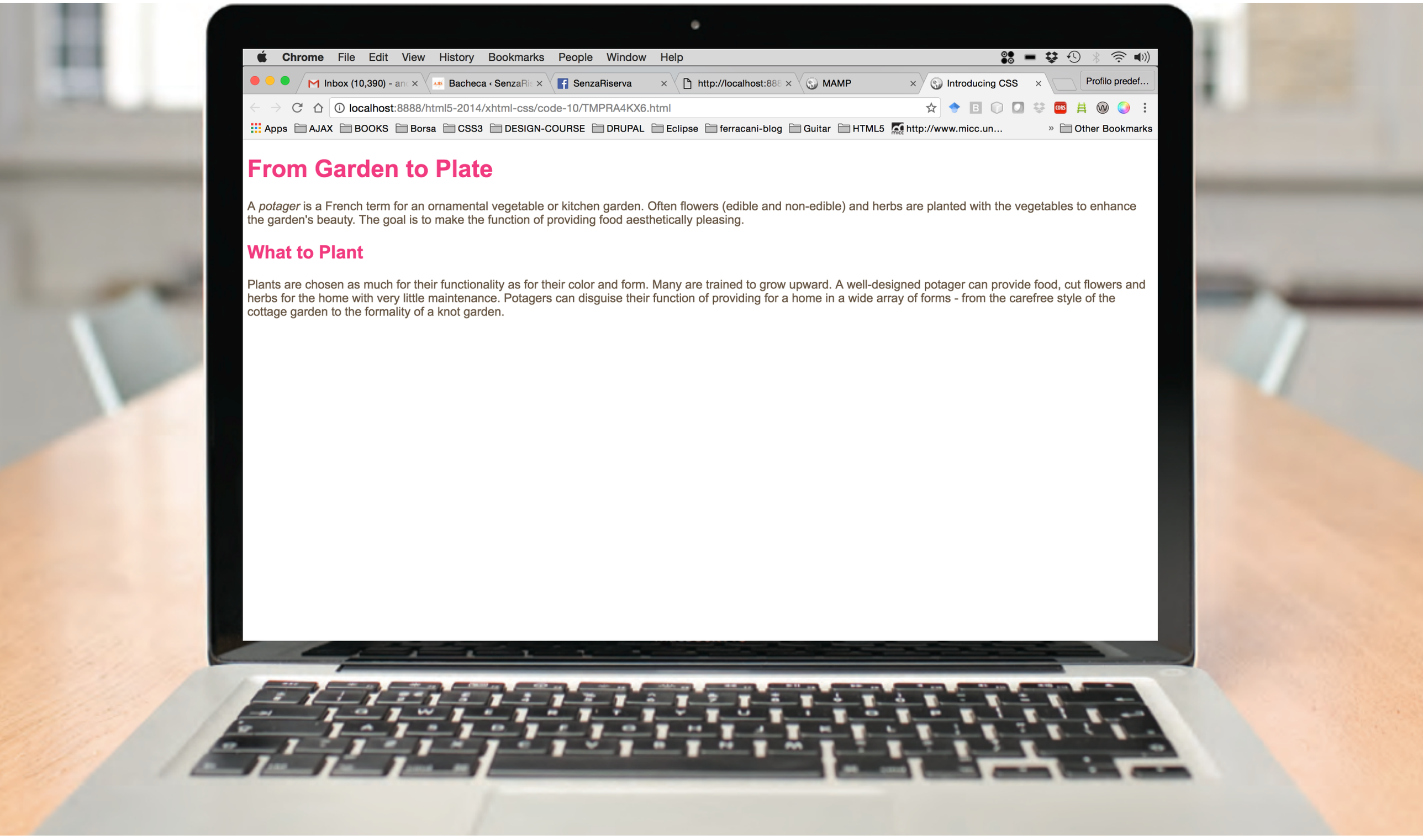
Esercizio: code-09/9-example.html

HTML5: esempio audio

```
<!DOCTYPE html>
<html>
    <head>
        <title>Multiple Audio Sources</title>
    </head>
    <body>
        <audio controls autoplay>
            <source src="audio/test-audio.ogg" />
            <source src="audio/test-audio.mp3" />
            <p>This browser does not support our audio format.</p>
        </audio>
    </body>
</html>
```

Esercizio: code-09/7-multiple-audio-sources.html

HTML & CSS


Chrome File Edit View History Bookmarks People Window Help
Inbox (10,390) - an
Bacheca ‹ SenzaRi
SenzaRiserva
http://localhost:88
MAMP
Introducing CSS
Profilo predef…
localhost:8888/html5-2014/xhtml-css/code-10/TMPRA4KX6.html
Apps AJAX BOOKS Borsa CSS3 DESIGN-COURSE DRUPAL Eclipse ferracani-blog Guitar HTML5 http://www.micc.un… Other Bookmarks
From Garden to Plate
A potager is a French term for an ornamental vegetable or kitchen garden. Often flowers (edible and non-edible) and herbs are planted with the vegetables to enhance the garden's beauty. The goal is to make the function of providing food aesthetically pleasing.
What to Plant
Plants are chosen as much for their functionality as for their color and form. Many are trained to grow upward. A well-designed potager can provide food, cut flowers and herbs for the home with very little maintenance. Potagers can disguise their function of providing for a home in a wide array of forms - from the carefree style of the cottage garden to the formality of a knot garden.

HTML & CSS

CSS: esempio CSS

```
<!DOCTYPE html>
<html>
<head>
   <title>Introducing CSS</title>
   <link href="css/example.css" type="text/css" rel="stylesheet" />
</head>
<body>
   <h1>From Garden to Plate</h1>
   <p>A <em>potager</em> is a French term for an ornamental vegetable or kitchen garden ... </p>
   <h2>What to Plant</h2>
   <p>Plants are chosen as much for their functionality as for their color and form ... </p>
</body>
</html>
```

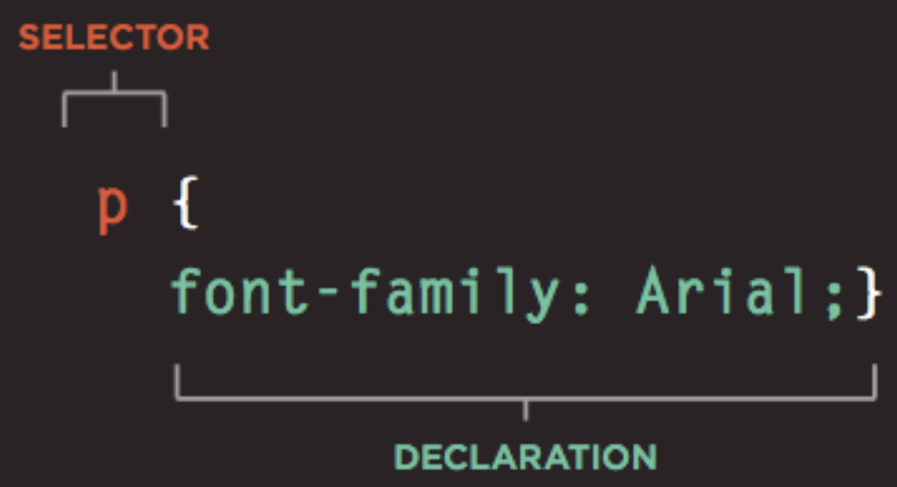
example.css:

```
body {
   font-family: Arial, Verdana, sans-serif;
}
h1, h2 {
   color: #ee3e80;
}
p {
   color: #665544;
}
```

Esercizio: code-10/example.html

CSS ASSOCIATES STYLE RULES WITH HTML ELEMENTS

CSS works by associating rules with HTML elements. These rules govern how the content of specified elements should be displayed. A CSS rule contains two parts: a selector and a declaration.



CSS PROPERTIES AFFECT HOW ELEMENTS ARE DISPLAYED

CSS declarations sit inside curly brackets and each is made up of two parts: a property and a value, separated by a colon. You can specify several properties in one declaration, each separated by a semi-colon.

```
h1, h2, h3 {
        font-family: Arial;
        color: yellow;}
```

PROPERTY VALUE

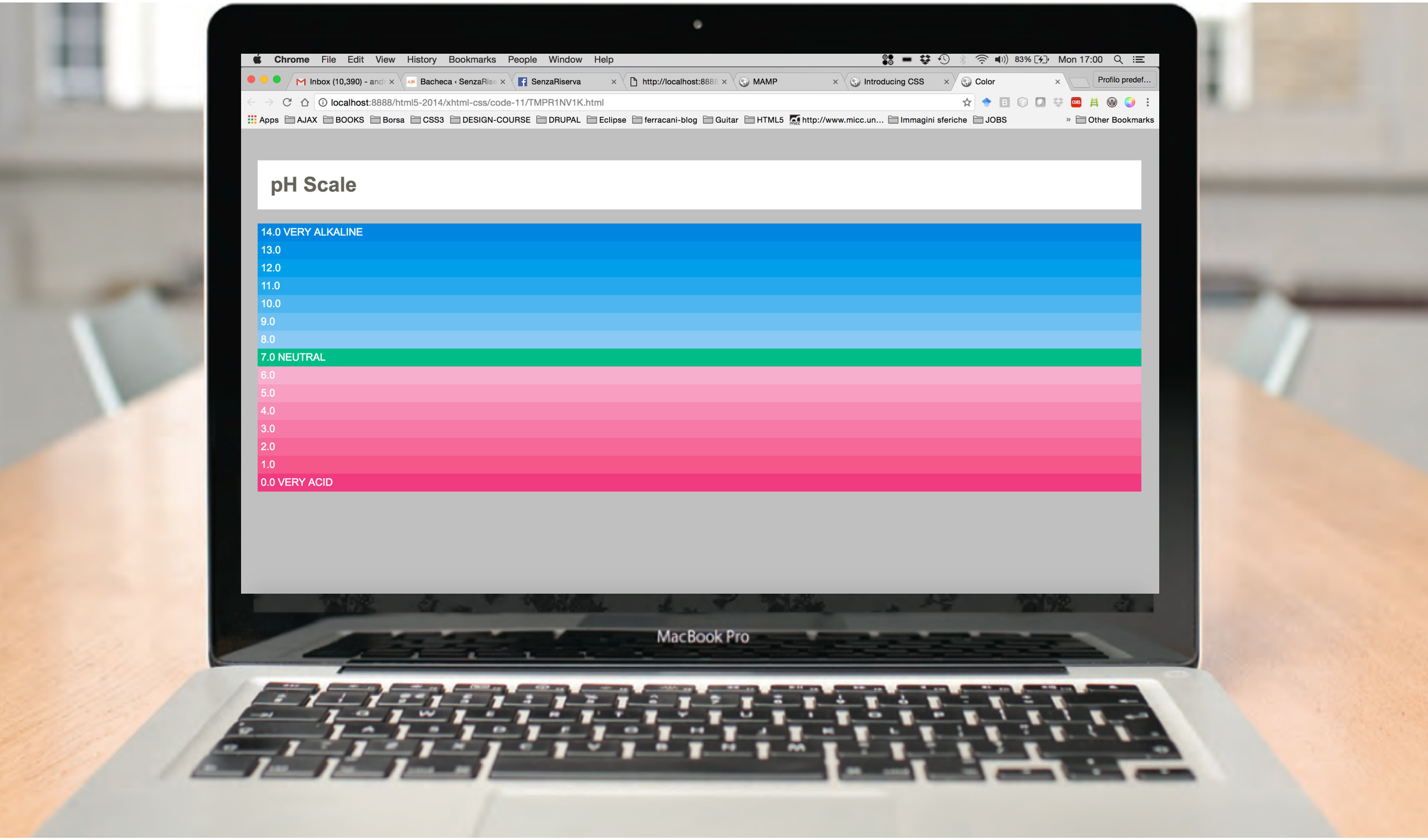
UNIVERSAL SELECTOR	Applies to all elements in the document	`* {}` Targets all elements on the page
TYPE SELECTOR	Matches element names	`h1, h2, h3 {}` Targets the <h1>, <h2> and <h3> elements

CLASS SELECTOR	Matches an element whose `class` attribute has a value that matches the one specified after the period (or full stop) symbol	`.note {}`
		Targets any element whose `class` attribute has a value of `note`
		`p.note {}`
		Targets only <p> elements whose `class` attribute has a value of `note`

ID SELECTOR	Matches an element whose `id` attribute has a value that matches the one specified after the pound or hash symbol	`#introduction {}` Targets the element whose `id` attribute has a value of `introduction`
CHILD SELECTOR	Matches an element that is a direct child of another	`li>a {}` Targets any <a> elements that are children of an element (but not other <a> elements in the page)
DESCENDANT SELECTOR	Matches an element that is a descendent of another specified element (not just a direct child of that element)	`p a {}` Targets any <a> elements that sit inside a <p> element, even if there are other elements nested between them
ADJACENT SIBLING SELECTOR	Matches an element that is the next sibling of another	`h1+p {}` Targets the first <p> element after any <h1> element (but not other <p> elements)
GENERAL SIBLING SELECTOR	Matches an element that is a sibling of another, although it does not have to be the directly preceding element	`h1~p {}` If you had two <p> elements that are siblings of an <h1> element, this rule would apply to both

SELECTOR	MEANING	EXAMPLE
EXISTENCE	`[]` Matches a specific attribute (whatever its value)	`p[class]` Targets any <p> element with an attribute called `class`
EQUALITY	`[=]` Matches a specific attribute with a specific value	`p[class="dog"]` Targets any <p> element with an attribute called `class` whose value is `dog`
SPACE	`[~=]` Matches a specific attribute whose value appears in a space-separated list of words	`p[class~="dog"]` Targets any <p> element with an attribute called `class` whose value is a list of space-separated words, one of which is `dog`
PREFIX	`[^=]` Matches a specific attribute whose value begins with a specific string	`p[attr^"d"]` Targets any <p> element with an attribute whose value begins with the letter "d"
SUBSTRING	`[*=]` Matches a specific attribute whose value contains a specific substring	`p[attr*"do"]` Targets any <p> element with an attribute whose value contains the letters "do"
SUFFIX	`[$=]` Matches a specific attribute whose value ends with a specific string	`p[attr$"g"]` Targets any <p> element with an attribute whose value ends with the letter "g"

HTML & CSS


Chrome File Edit View History Bookmarks People Window Help
Inbox (10,390) - and
Bacheca ‹ SenzaRise
SenzaRiserva
http://localhost:888
MAMP
Introducing CSS
Color
Profilo predef...
localhost:8888/html5-2014/xhtml-css/code-11/TMPR1NV1K.html
Apps AJAX BOOKS Borsa CSS3 DESIGN-COURSE DRUPAL Eclipse ferracani-blog Guitar HTML5 http://www.micc.un... Immagini sferiche JOBS Other Bookmarks
pH Scale
14.0 VERY ALKALINE
13.0
12.0
11.0
10.0
9.0
8.0
7.0 NEUTRAL
6.0
5.0
4.0
3.0
2.0
1.0
0.0 VERY ACID
MacBook Pro

HTML & CSS

CSS: esempio CSS

```
<!DOCTYPE html>
<html>
   <head>
      <title>Color</title>
         <style type="text/css">
            body {
               background-color: silver;
               color: white;
               padding: 20px;
               font-family: Arial, Verdana, sans-serif;}

               h1 {
                  background-color: #ffffff;
                  background-color: hsla(0,100%,100%,0.5);
                  color: #64645A;
                  padding: inherit;}

               p {
                  padding: 5px;
                  margin: 0px;}

                  div p span.notice {}

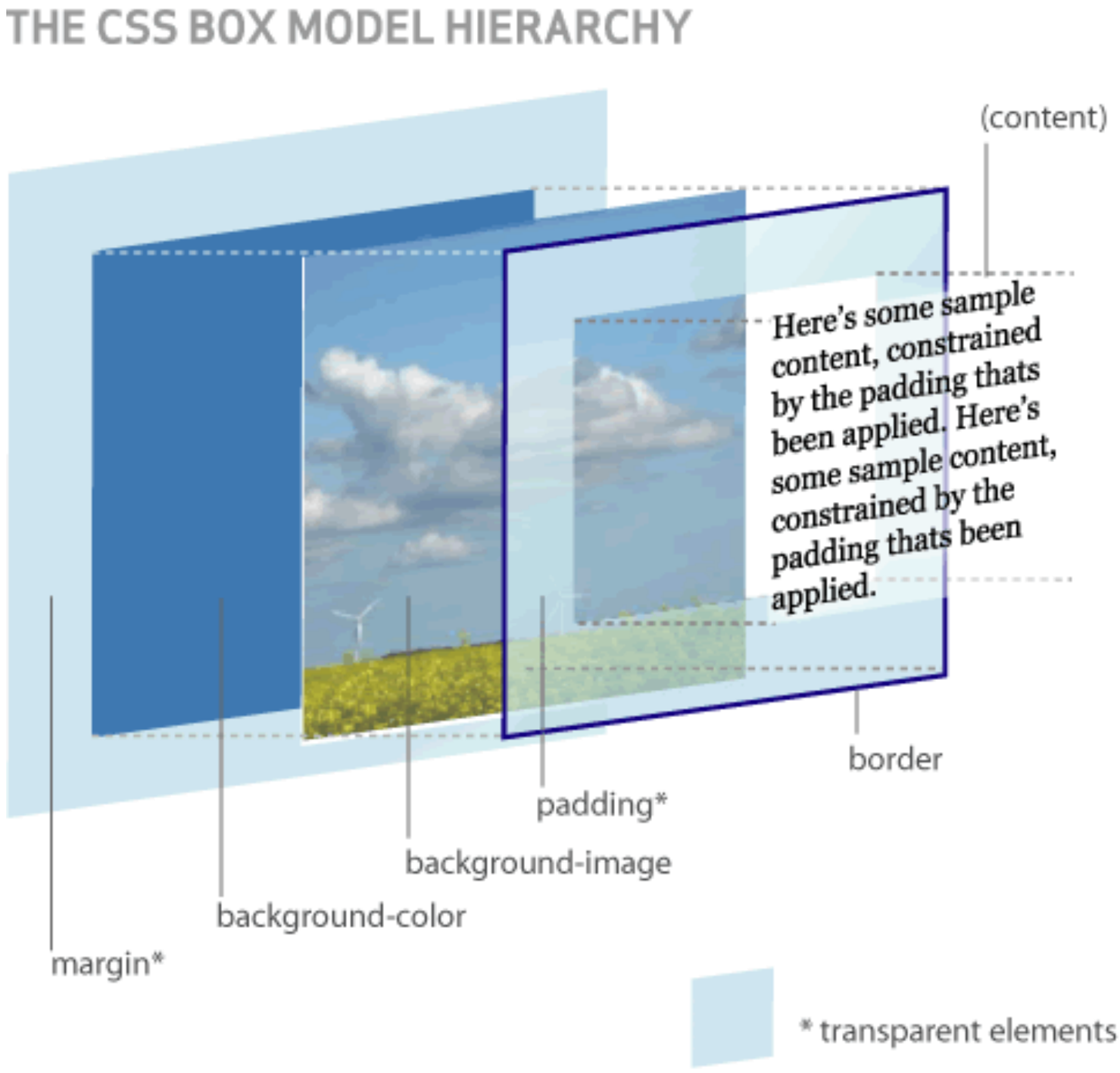
               p.zero {
                  background-color: rgb(238,62,128);}

                  #zero {color:#FF0000;}

               p   .one {
                  background-color: rgb(244,90,139);} […]
         </style>
   </head>
```

```
<body>
      <h1>pH Scale</h1>
      <p class="fourteen">14.0 VERY
ALKALINE</p>
      <p class="thirteen">13.0</p>
      <p class="twelve">12.0</p>
      <p class="eleven">11.0</p>
      <p class="ten">10.0</p>
      <p class="nine">9.0</p>
      <p class="eight">8.0</p>
      <p class="seven">7.0 NEUTRAL</p>
      <p class="six">6.0</p>
      <p class="five">5.0</p>
      <p class="four">4.0</p>
      <p class="three">3.0</p>
      <p class="zero">2.0</p>
      <p class="zero">1.0</p>
      <p id="zero">0.0 VERY ACID</p>
   </body>
</html>
```

CSS: boxmodel



CSS: boxmodel

Every box has three available properties that can be adjusted to control its appearance:

1

BORDER

Every box has a border (even if it is not visible or is specified to be 0 pixels wide). The border separates the edge of one box from another.

2

MARGIN

Margins sit outside the edge of the border. You can set the width of a margin to create a gap between the borders of two adjacent boxes.

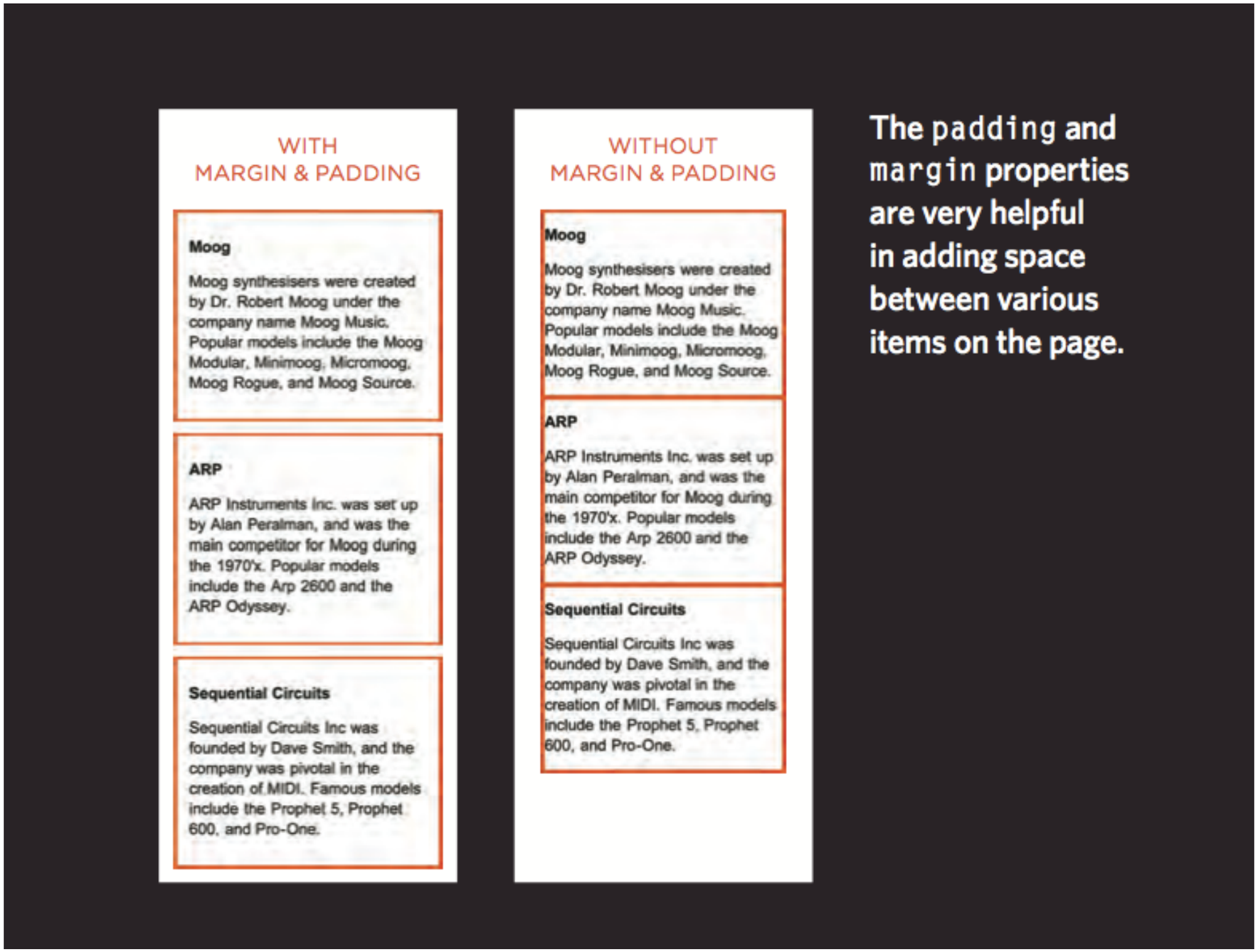
3

PADDING

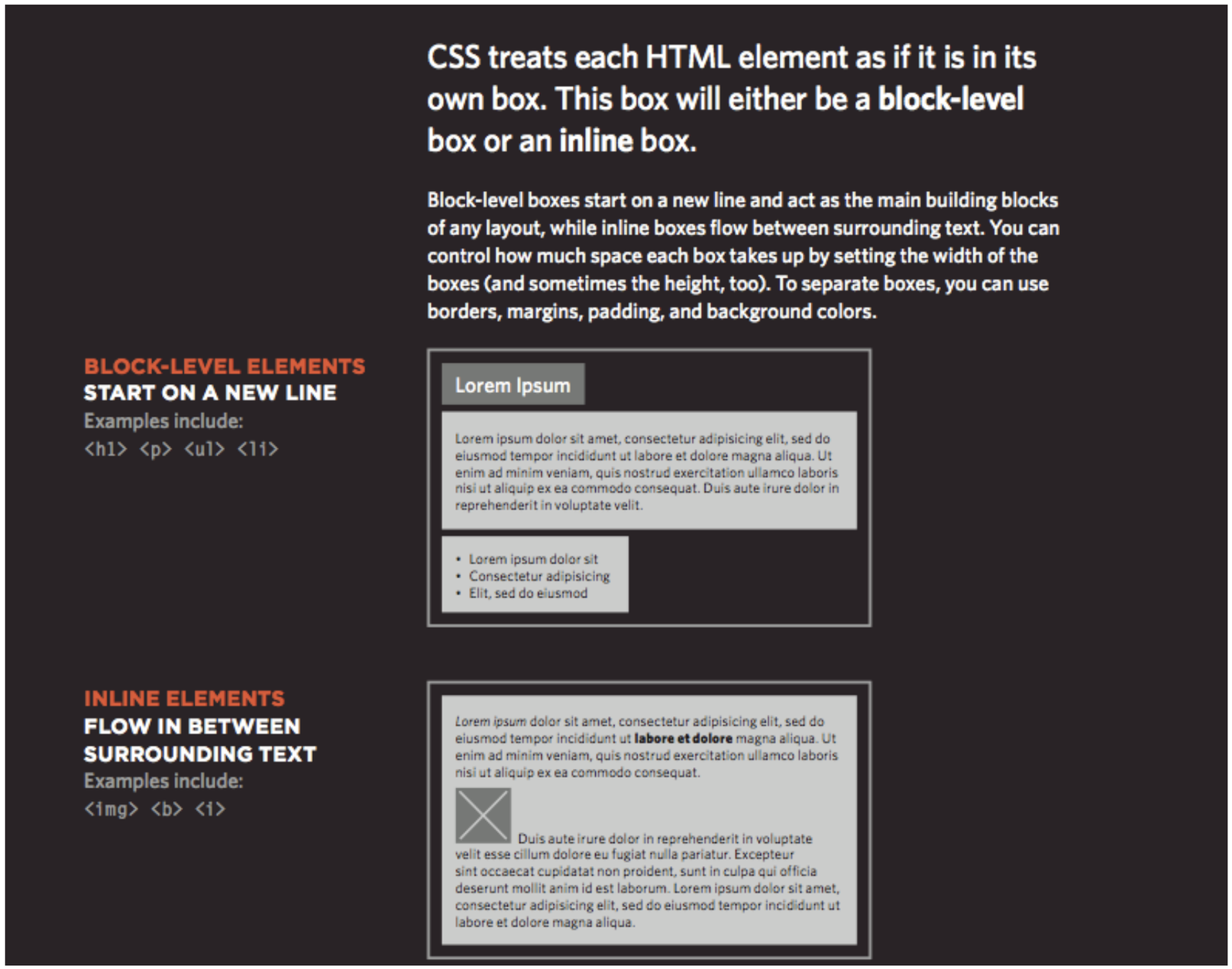
Padding is the space between the border of a box and any content contained within it. Adding padding can increase the readability of its contents.

If you specify a width for a box, then the borders, margin, and padding are added to its width and height.

CSS: boxmodel



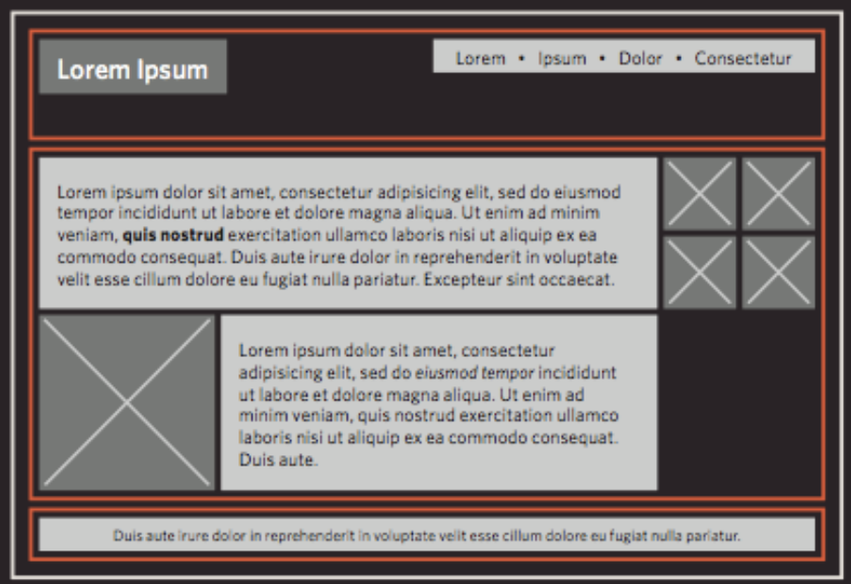
CSS: flusso della pagina html



CSS: flusso della pagina html

If one block-level element sits inside another block-level element then the outer box is known as the containing or parent element.

It is common to group a number of elements together inside a `<div>` (or other block-level) element. For example, you might group together all of the elements that form the header of a site (such as the logo and the main navigation). The `<div>` element that contains this group of elements is then referred to as the containing element.



A box may be nested inside several other block-level elements. The containing element is always the direct parent of that element.

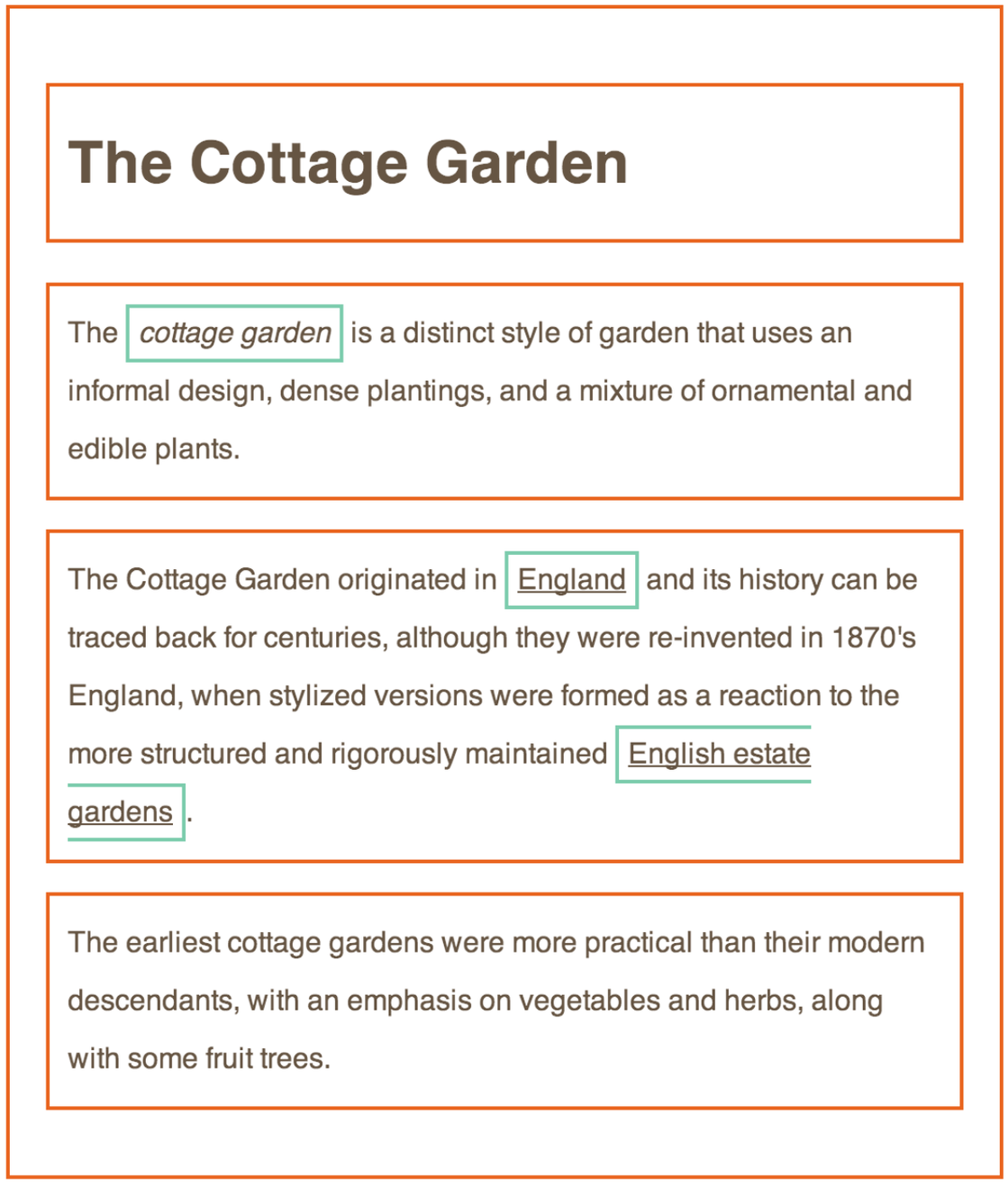
The orange lines in this diagram represent `<div>` elements. The header (containing the logo and navigation) are in one `<div>` element, the main content of the page is in another, and the footer is in a third. The `<body>` element is the containing element for these three `<div>` elements. The second `<div>` element is the containing element for two paragraphs of Latin text and images (represented by crossed squares).

CSS: esercizio

font: Helvetica
colore del testo: #665544;
colore bordo box: #e7642c;
distanza box principale altri box: 20px;

distanza box secondari testo/bordo: 20px;

colore bordo corsivi e link: #7fcbae;
distanza corsivi e link dal bordo: 5px;



CSS: esercizio - soluzione

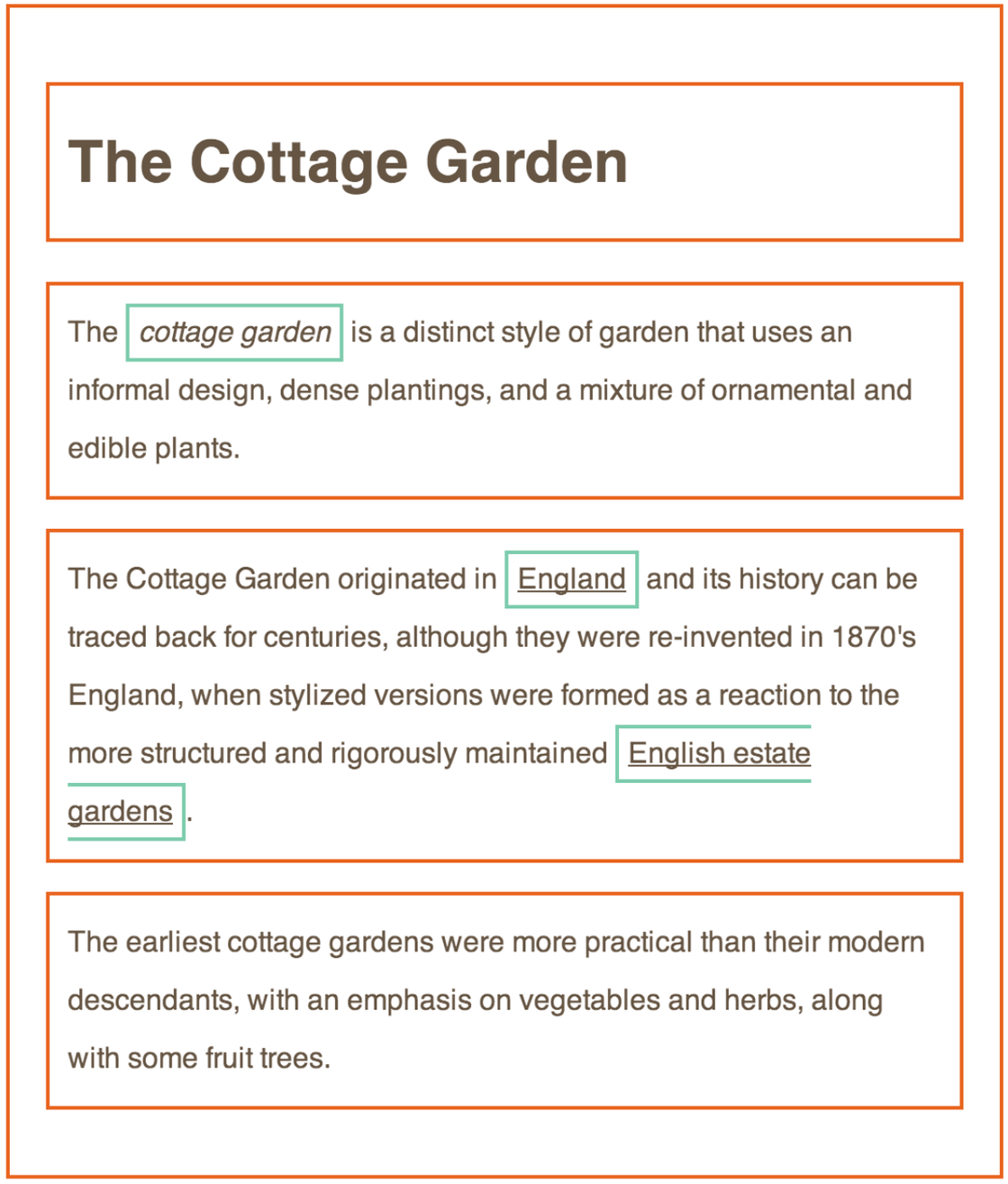
```
<style type="text/css">

  body {
    font-family: Helvetica, Arial, sans-serif;
    color: #665544;
    border: 2px solid #e7642c;
    padding: 20px;
  }

h1, h2, p {
    border: 2px solid #e7642c;
    padding: 10px;
    line-height: 2em;
}

i, a, a:hover, a:visited {
    color: #665544;
    border: 2px solid #7fcbae;
    padding: 5px;}

</style>
```

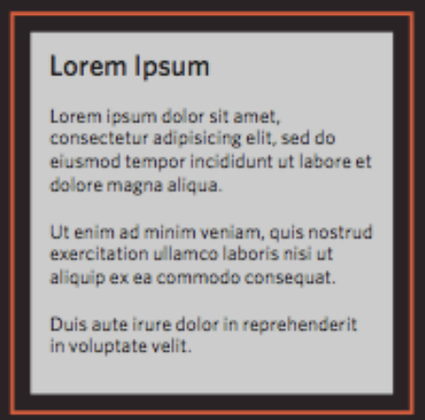


CSS: posizionamenti

CSS has the following positioning schemes that allow you to control the layout of a page: normal flow, relative positioning, and absolute positioning. You specify the positioning scheme using the `position` property in CSS. You can also float elements using the `float` property.

NORMAL FLOW

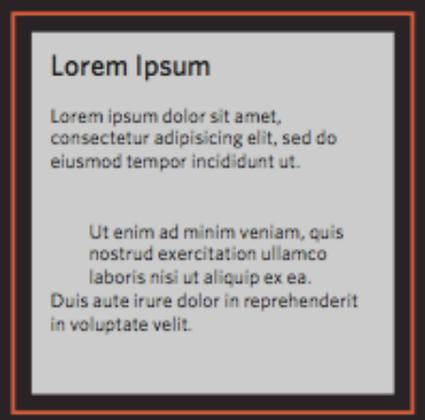
Every block-level element appears on a new line, causing each item to appear lower down the page than the previous one. Even if you specify the width of the boxes and there is space for two elements to sit side-by-side, they will not appear next to each other. This is the default behavior (unless you tell the browser to do something else).



The paragraphs appear one after the other, vertically down the page.

RELATIVE POSITIONING

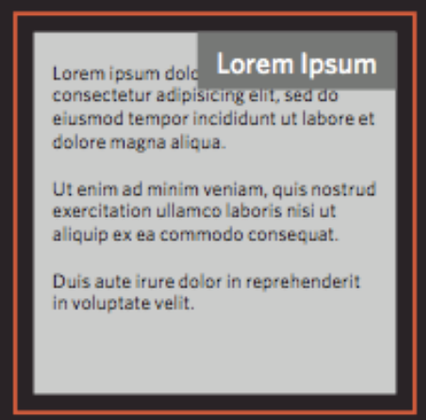
This moves an element from the position it would be in normal flow, shifting it to the top, right, bottom, or left of where it would have been placed. This does not affect the position of surrounding elements; they stay in the position they would be in in normal flow.



The second paragraph has been pushed down and right from where it would otherwise have been in normal flow.

ABSOLUTE POSITIONING

This positions the element in relation to its containing element. It is taken out of normal flow, meaning that it does not affect the position of any surrounding elements (as they simply ignore the space it would have taken up). Absolutely positioned elements move as users scroll up and down the page.



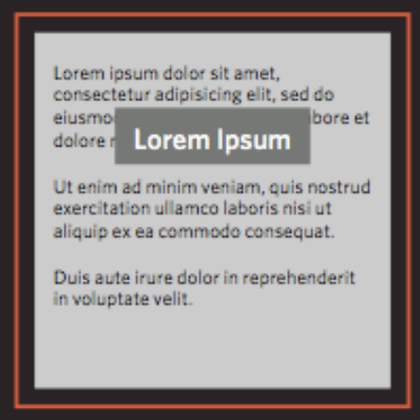
The heading is positioned to the top right, and the paragraphs start at the top of the screen (as if the heading were not there).

CSS: posizionamenti

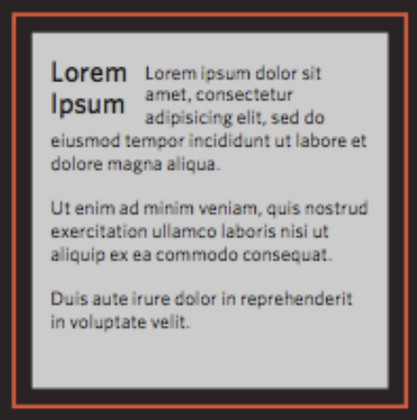
To indicate where a box should be positioned, you may also need to use box offset properties to tell the browser how far from the top or bottom and left or right it should be placed. (You will meet these when we introduce the positioning schemes on the following pages.)

FIXED POSITIONING
This is a form of absolute positioning that positions the element in relation to the browser window, as opposed to the containing element. Elements with fixed positioning do not affect the position of surrounding elements and they do not move when the user scrolls up or down the page.

FLOATING ELEMENTS
Floating an element allows you to take that element out of normal flow and position it to the far left or right of a containing box. The floated element becomes a block-level element around which other content can flow.



The heading has been placed in the center of the page and 25% from the top of the screen. (The rest appears in normal flow.)



The heading has been floated to the left, allowing the paragraphs of text to flow around it.

When you move any element from normal flow, boxes can overlap. The `z-index` property allows you to control which box appears on top.

CSS: posizionamenti

Posizionamenti in 10 passi

Proprietà CSS per i posizionamenti: position:static, position:relative, position:absolute, float.

1 2 3 4 5 6 7 8 9

1. position:static

La posizione di default di tutti gli elementi è *position:static*, che significa che l'elemento non è posizionato e segue il normale flusso della pagina

Normalmente non si specifica se non per sovrascrivere una regola precedentemente applicata

```
#div-1 {
 position:static;
}
```

id = div-before

id = div-1

id = div-1a

Lorem ipsum dolor sit amet, consectetuer adipiscing elit. Integer pretium dui sit amet felis. Integer sit amet diam. Phasellus ultrices viverra velit.

id = div-1b

Lorem ipsum dolor sit amet, consectetuer adipiscing elit. Integer pretium dui sit amet felis. Integer sit amet diam. Phasellus ultrices viverra velit. Nam mattis, arcu ut bibendum commodo, magna nisi tincidunt tortor, quis accumsan augue ipsum id lorem.

id = div-1c

id = div-after

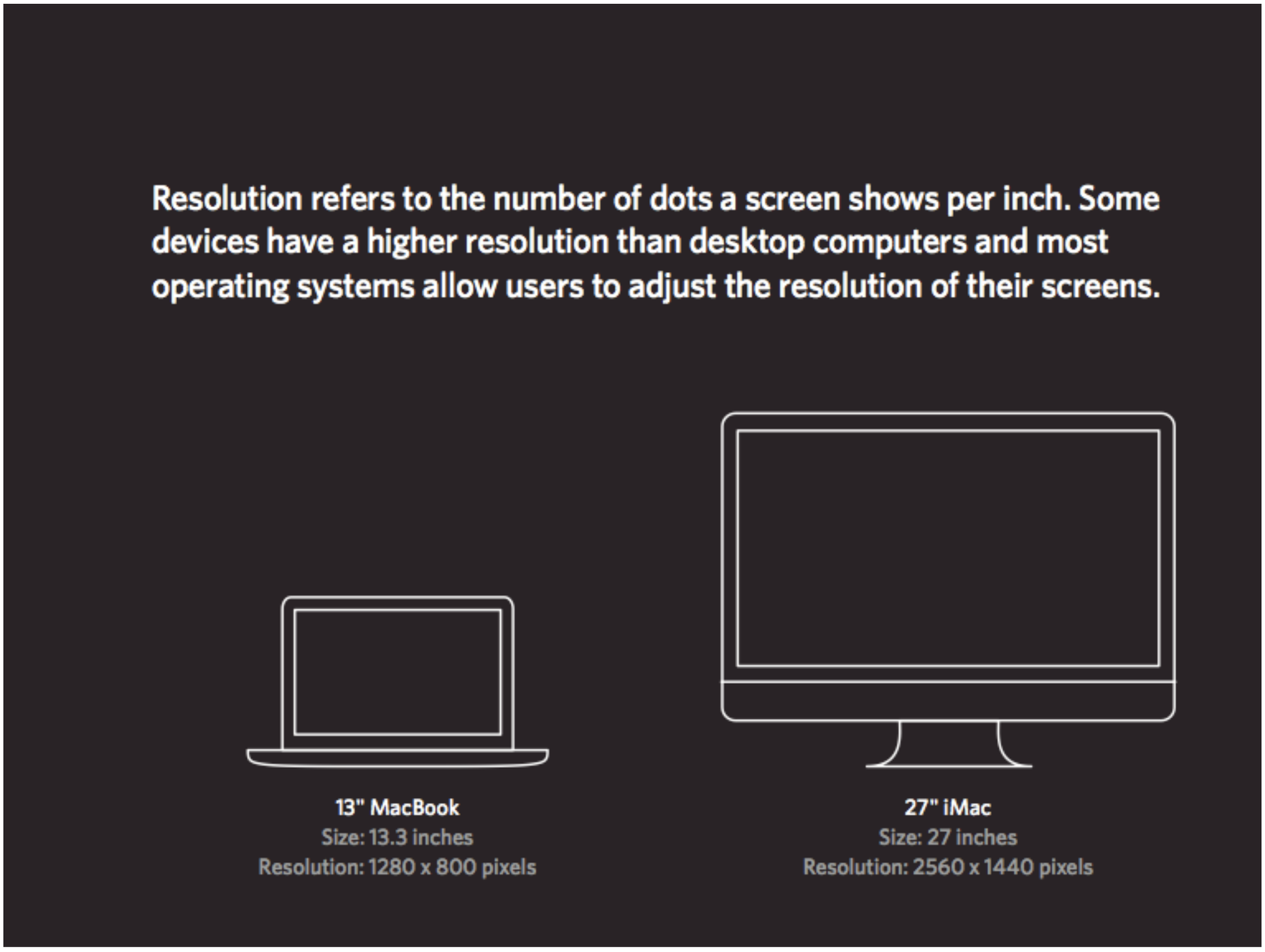
Risoluzioni

Different visitors to your site will have different sized screens that show different amounts of information, so your design needs to be able to work on a range of different sized screens.

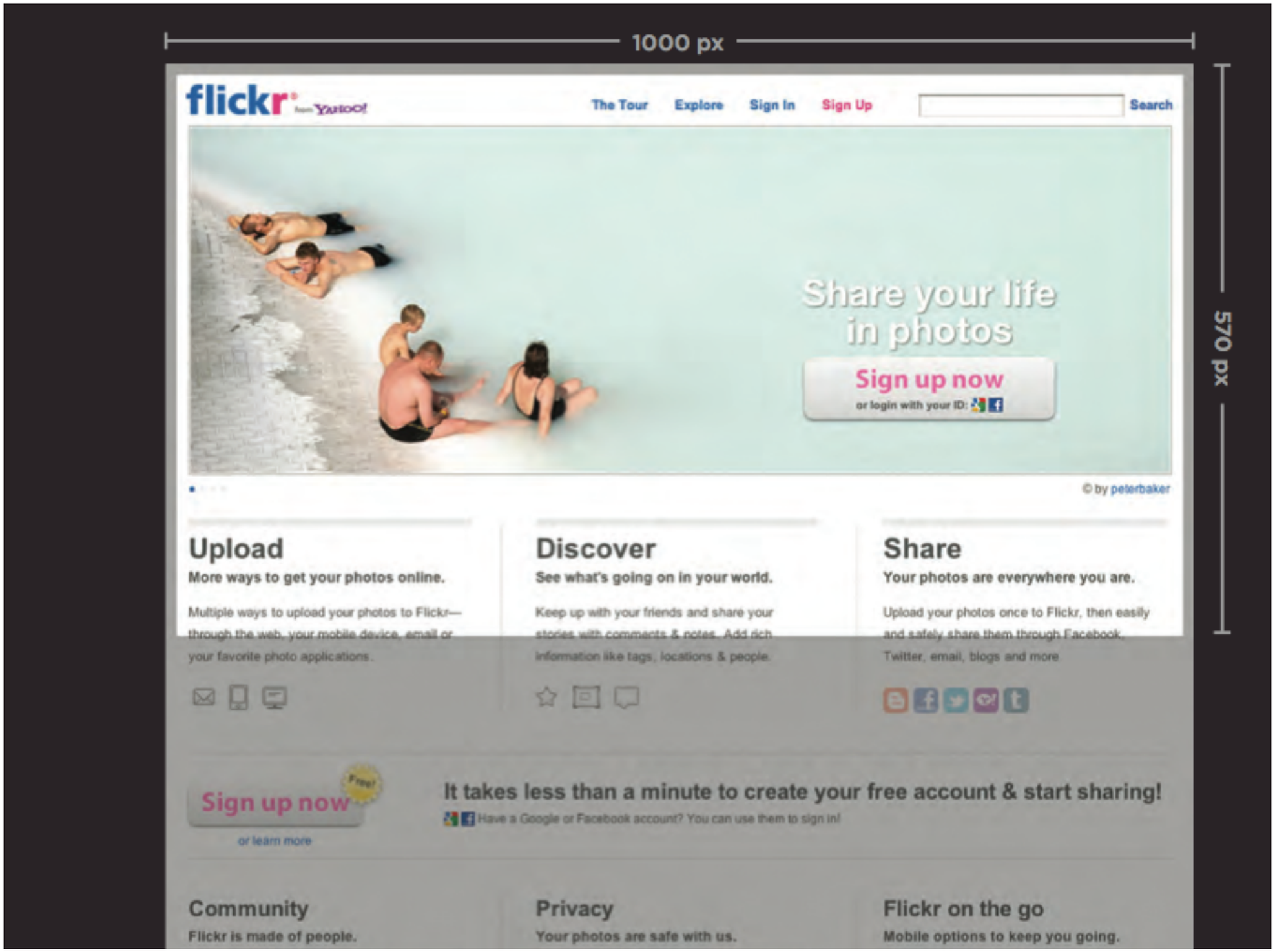
iPhone 4
Size: 3.5 inches
Resolution: 960 x 640 pixels

iPad 2
Size: 9.7 inches
Resolution: 1024 x 768 pixels

Risoluzioni



Risoluzioni



Risoluzioni

Fixed width layout designs do not change size as the user increases or decreases the size of their browser window. Measurements tend to be given in pixels.

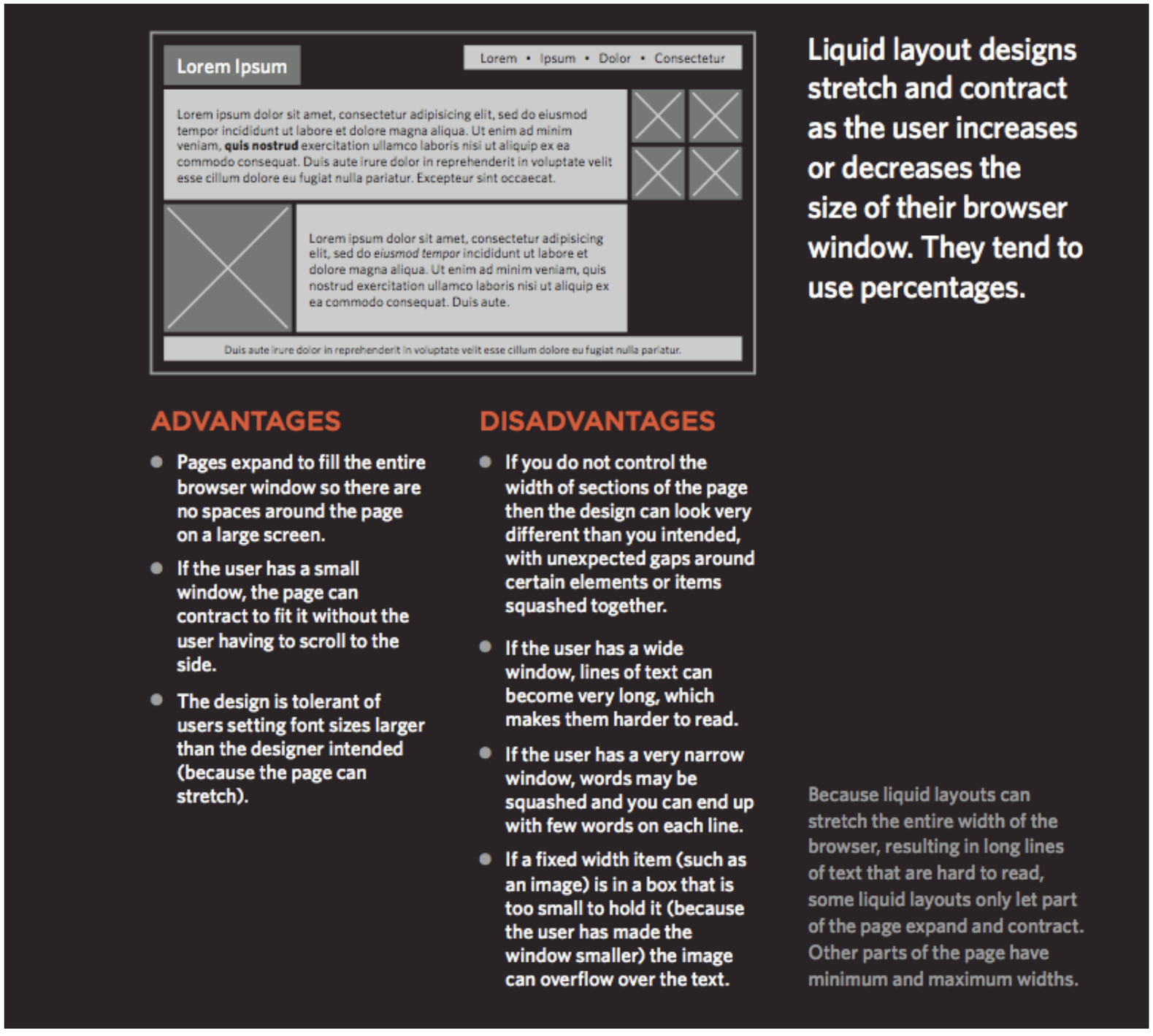
ADVANTAGES

- Pixel values are accurate at controlling size and positioning of elements.
- The designer has far greater control over the appearance and position of items on the page than with liquid layouts.
- You can control the lengths of lines of text regardless of the size of the user's window.
- The size of an image will always remain the same relative to the rest of the page.

DISADVANTAGES

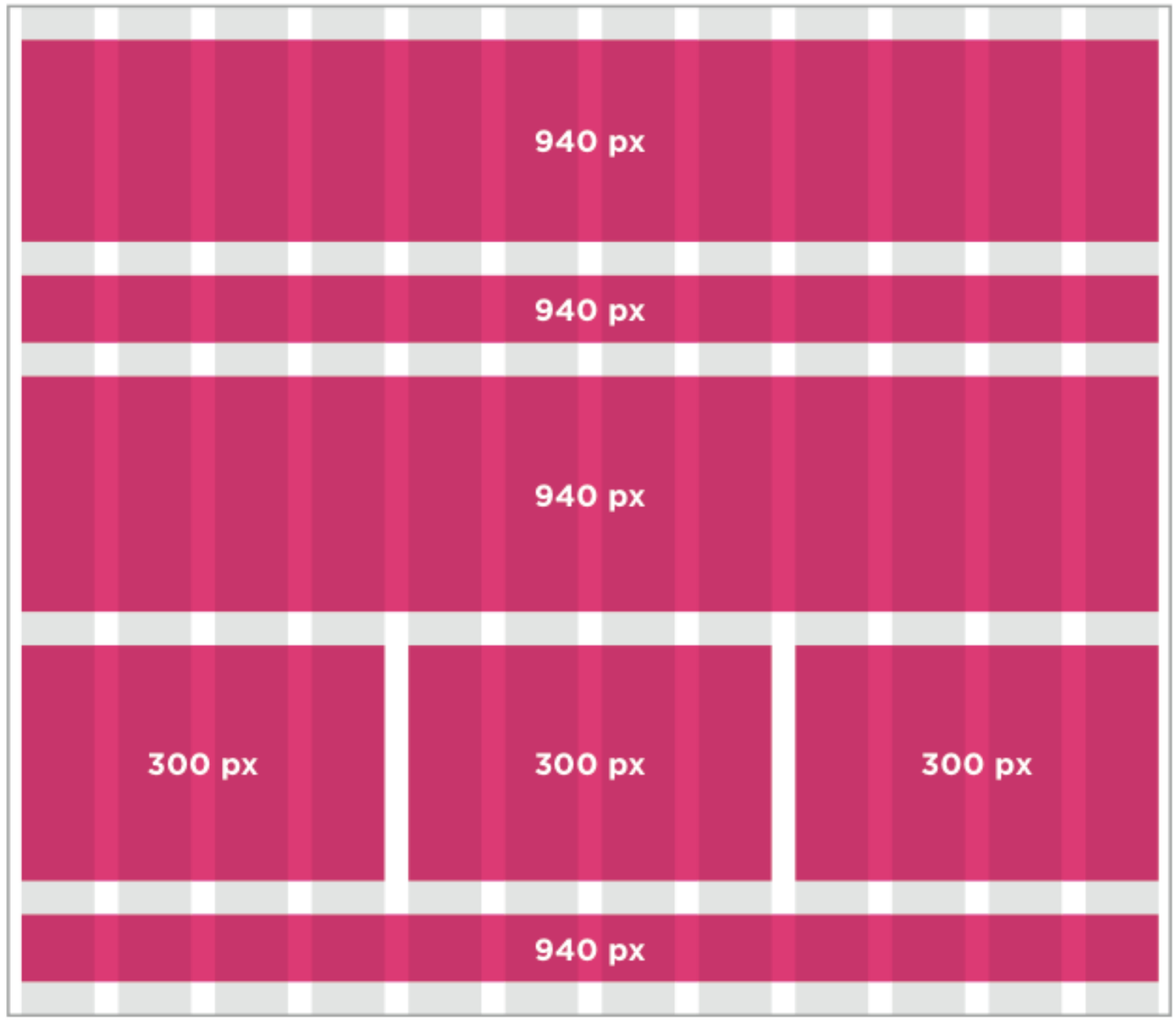
- You can end up with big gaps around the edge of a page.
- If the user's screen is a much higher resolution than the designer's screen, the page can look smaller and text can be harder to read.
- If a user increases font sizes, text might not fit into the allotted spaces.
- The design works best on devices that have a site or resolution similar to that of desktop or laptop computers.
- The page will often take up more vertical space than a liquid layout with the same content.

Risoluzioni



Risoluzioni

Below you can see a sample layout of a page just like the fixed width page example. On the next page, we will recreate this using the 960.gs stylesheet. Instead of writing our own CSS to control layout, we will need to add classes to the HTML indicating how wide each section should be.



HTML & CSS


Chrome File Edit View History Bookmarks People Window Help
Tue 17:51
localhost:8888/html5-2014/html5/fonts/TMP89H216.html
3Dumb Regular
SPECIMEN
SAMPLE LAYOUT
GLYPHS & LANGUAGES
INSTALLING WEBFONTS
AaBb
ABCDEFGHIJKLMNOP
QRSTUVWXYZabcdef
MacBook Pro

HTML & CSS

CSS: webfonts

www.fontsquirrel.com
www.fontex.org
www.openfontlibrary.org

www.typekit.com
www.kernest.com
www.fontspring.com

CSS chapter-12/understanding-font-formats.html

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

BROWSER	FORMAT			
	eot	woff	ttf / otf	svg
Chrome (all)				●
Chrome 6+		●	●	●
Firefox 3.5			●	
Firefox 3.6+		●	●	
IE 5 - 8	●			
IE 9+	●	●	◗	
Opera 10+			●	●
Safari 3.1+			●	●
iOS <4.2				●
iOS 4.2+			●	●

HTML & CSS

HTML5: semantica

TABLE 1.1 Class Names

POPULARITY	VALUE	FREQUENCY
1	footer	179,528
2	menu	146,673
3	style1	138,308
4	msonormal	123,374
5	text	122,911
6	content	113,951
7	title	91,957
8	style2	89,851
9	header	89,274
10	copyright	86,979
11	button	81,503
12	main	69,620
13	style3	69,349
14	small	68,995
15	nav	68,634
16	clear	68,571
17	search	59,802
18	style4	56,032
19	logo	48,831
20	body	48,052

TABLE 1.2 ID Names

POPULARITY	VALUE	FREQUENCY
1	footer	288,061
2	content	228,661
3	header	223,726
4	logo	121,352
5	container	119,877
6	main	106,327
7	table1	101,677
8	menu	96,161
9	layer1	93,920
10	autonumber1	77,350
11	search	74,887
12	nav	72,057
13	wrapper	66,730
14	top	66,615
15	table2	57,934
16	layer2	56,823
17	sidebar	52,416
18	image1	48,922
19	banner	44,592
20	navigation	43,664

2009 Opera MAMA crawler statistiche su id e classi (2,148,723 url scelte a caso)

HTML & CSS

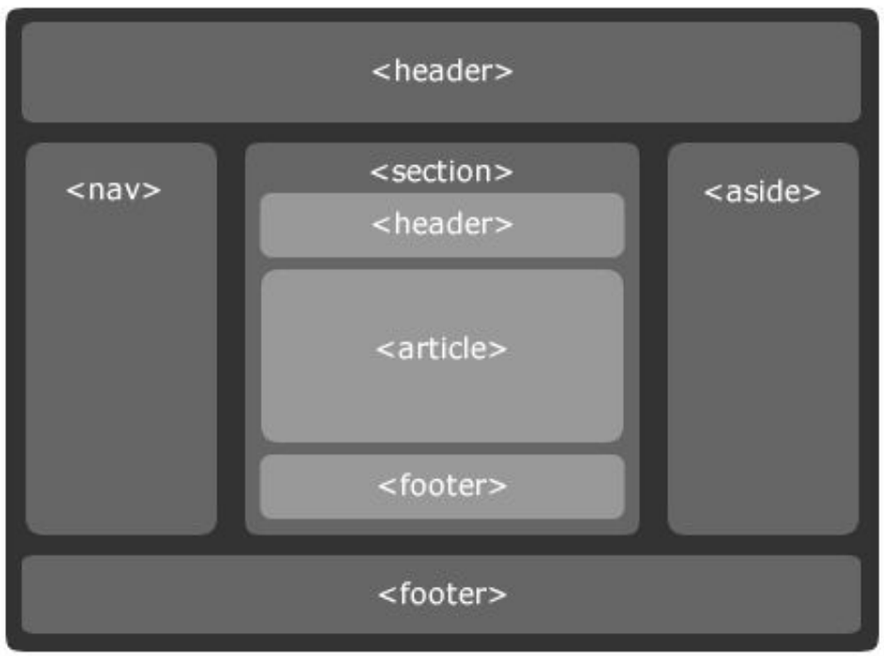
L'HTML 5 mette a disposizione una nuova serie di elementi semantici di struttura. In teoria migliore per motori di ricerca e screen readers.

Nuovo doctype:

```
<!DOCTYPE html>
    <!-- Everything else goes in here -->
    <!-- Ending with the closing tag: -->
</html>
```

HTML5 offre tre nuovi tipi di elementi: sectioning elements, inline elements and interactive elements. Nuovi elementi di sectioning:

- <section>
- <article>
- <nav>
- <aside>
- <hgroup>
- <header>
- <footer>



<section> - rappresenta una partizione generica dell'applicazione che raggruppa contenuti tematicamente.
(capitoli, gruppi di tabs, una introduzione, news items, contact information)

<nav> - contiene gruppi di links che puntano a sezioni del sito anche in pagina. Di solito la navigazione principale del sito.

<article> - un contenuto autosufficiente della pagina eleggibile per syndication.
(Il post di un forum, l'articolo di un magazine, un post di un blog, un commento, un widget/gadget interattivo).

.

<aside> - rappresenta una partizione accessoria della pagina.
(sidebars, advertising, gruppi di links)

<hgroup> - contiene gli heading di una pagina o sezione.
(sottotitoli, taglines, titoli alternativi)

<header> - contiene di solito la sezione di testa di una section ma anche una search form, un logo.

<footer> - è la parte con i metadati di una sezione (chi l'ha scritta, copyright, links collegati)

.

Elementi Inline

<time> - rappresenta l'ora nelle 24 ore.
<time datetime="2009-10-22" pubdate>October 22, 2009</time>

Tag costituito da tre parti
- machine-readable timestamp
- testo leggibile
- pubdate flag opzionale

L'attributo pubdate è booleano:
<time datetime="2009-10-22T13:59:47-04:00"
pubdate="pubdate">October 10, 2009</time>

Significa due cose:
- se <time> in un <article> allora data articolo
- se <time> no in <article> allora data documento.

HTML & CSS

Semantica / layout a due colonne

```
<!DOCTYPE html>

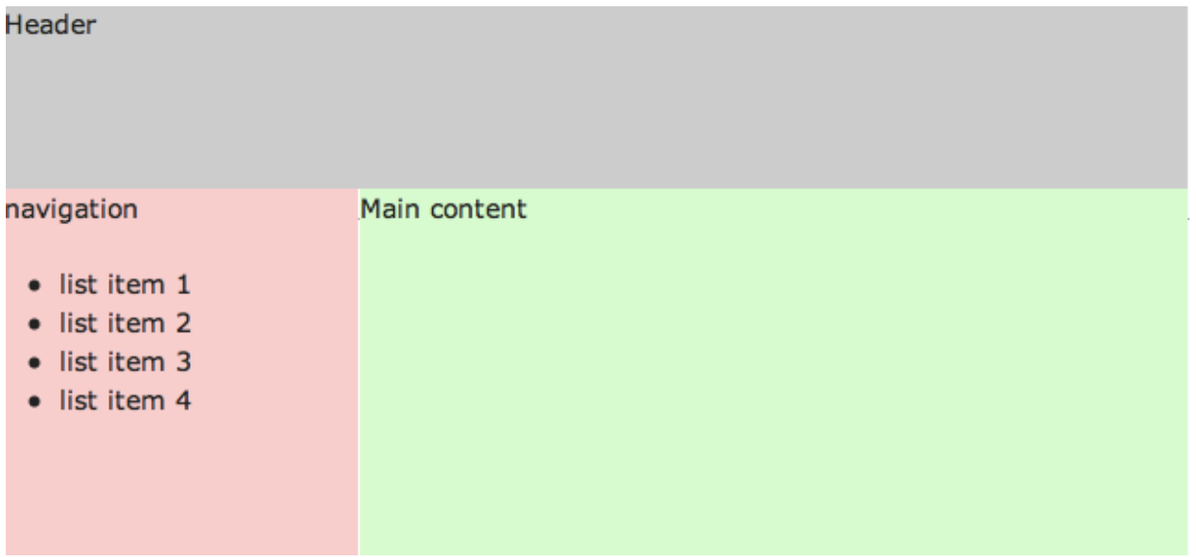
<html>
   <head>
      <title><!-- Your Title --></title>
   </head>

   <body>
      <header>
         <!-- ... -->
      </header>

      <nav>
         <!-- ... -->
      </nav>

      <div id="main">
         <!-- ... -->
      </div>

      <footer>
         <!-- ... -->
      </footer>
   </body>
</html>
```



http://rendera.herokuapp.com/

```
section, header, footer, aside, nav, article{
  display: block;
}

header {width:100%; height: 100px; background:#ccc;}
nav {float:left; width: 30%; background:#fcc; min-height:200px;}
#main {width:70%; background:#cfc; float:right; min-height:200px;}
```

Semantica / layout a due colonne

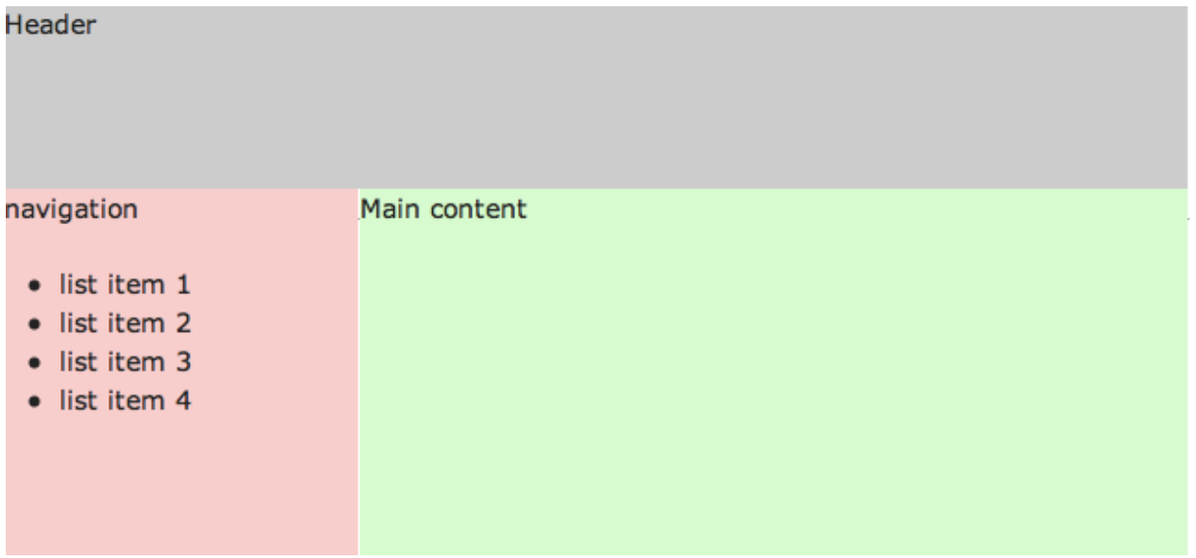
```
<!DOCTYPE html>

<html>
   <head>
      <title><!-- Your Title --></title>
   </head>

   <body>
      […]

      <div id="main">
         <article>
            <hgroup>
               <h2>Title</h2>
               <h3>Subtitle</h3>
            </hgroup>
            <p>
            <!-- --->
            </p>
         </article>
      </div>

      <footer>
         <!-- ... -->
      </footer>
   </body>
</html>
```

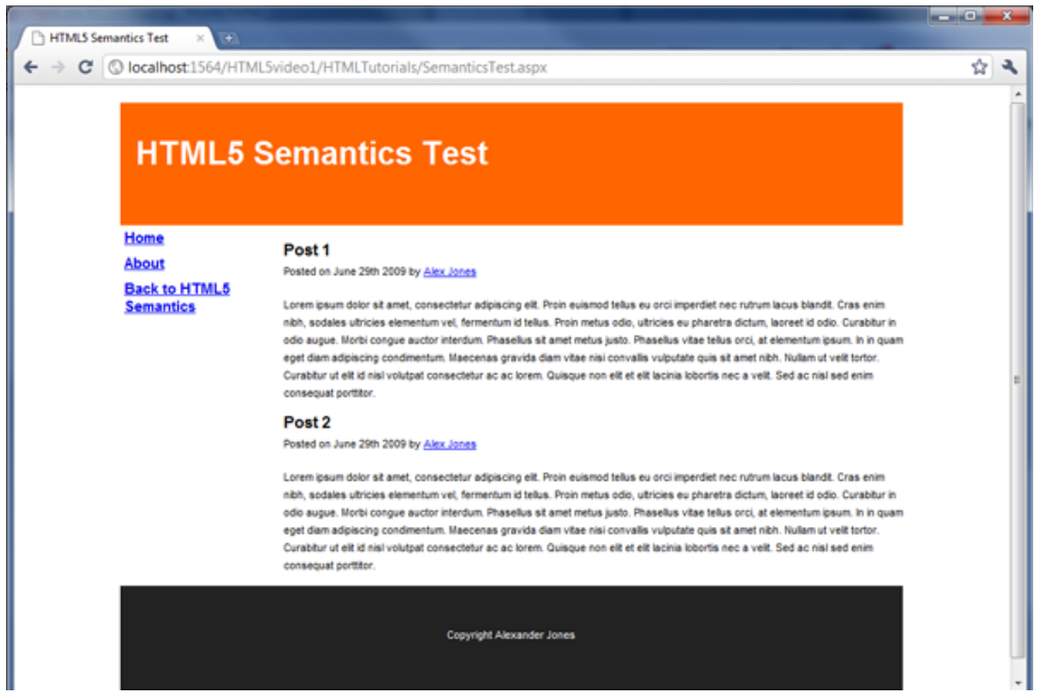


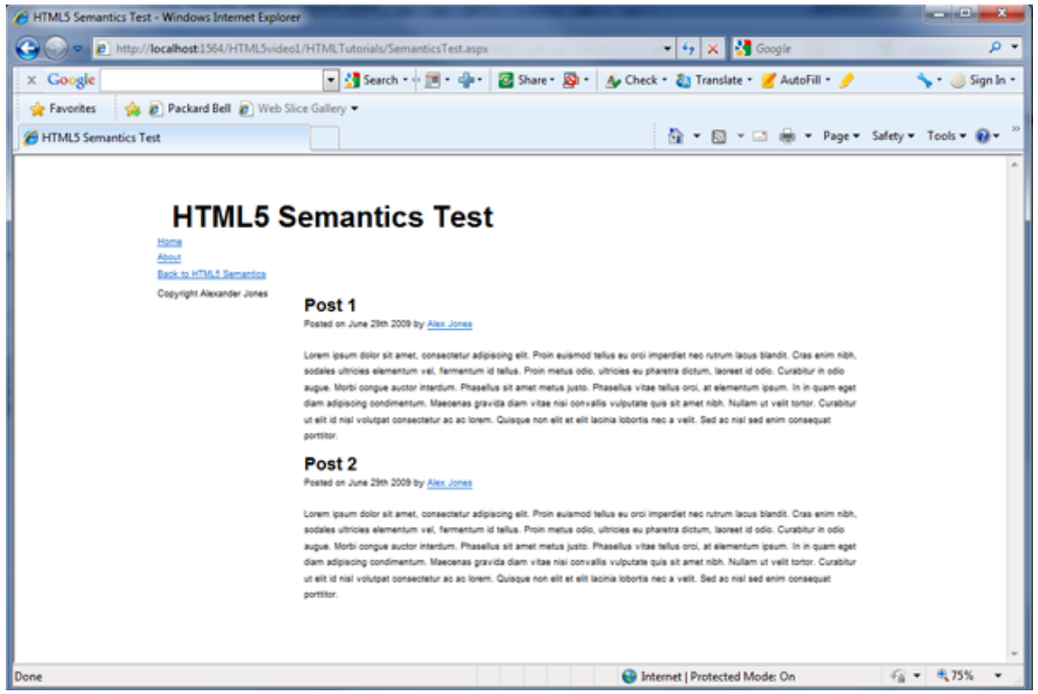
rendera.heroku.com/examples/html5_layout

```
section, header, footer, aside, nav, article{
  display: block;
}

header {width:100%; height: 100px; background:#ccc;}
nav {float:left; width: 30%; background:#fcc; min-height:200px;}
#main {width:70%; background:#cfc; float:right; min-height:200px;}
```

HTML & CSS

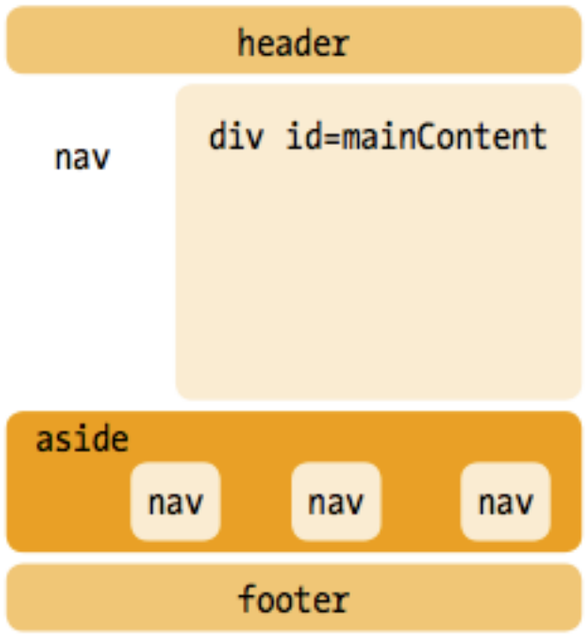




IE (minore di v. 8) non riconosce elementi HTML5

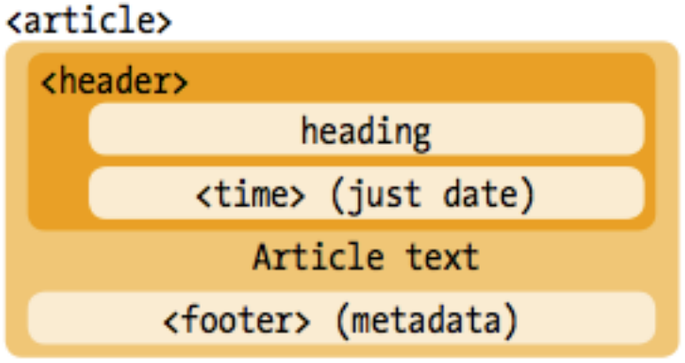
Si può ovviare con una soluzione messa a punto da John Resig (HTML5shiv) - funziona attraverso document.createElement()

Oppure: http://remysharp.com/2009/01/07/html5-enabling-script/



Evitare un footer troppo grasso:

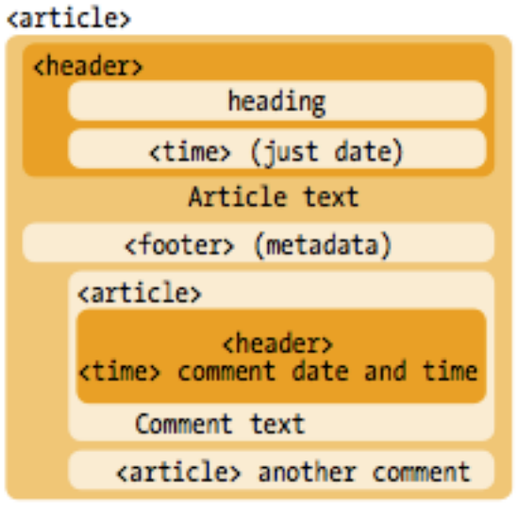
Infondo spesso <aside> contiene link to altre pagine che sono in relazione con il contenuto della pagina in generale piuttosto che col contenuto del footer.



Singolo articolo:

Titolo e data sono caratteristiche introduttive: in <header>

Autore, link relativi, copyright data, likes: in <footer> (<p class="postmetadata"> di solito)



Struttura di post con commenti:

Si raccomanda l'uso di nested <article> per blog entries che prevedono user generated content

```
<article>
  <header>
    <h1>Come to my party on <time datetime="2010-12-01">1
    December</time><h1>
    <p>Published on <time datetime="2010-06-20" pubdate>20
    June 2010</time></p>
  </header>

  <p>I'm throwing a party at Dr Einstein's Cabaret Roller-disco
  Bierkeller Pizza-parlour-a-gogo</p>

  <footer>Published in the Parrtay!! category by Bruce ¬ </footer>

  [comments here]

</article>
```

```
<article>
  <!-- comment -->
  <header>
    Comment from <a href="http://
    remysharp.com">Remy Sharp</a> at <time
    datetime="2010-05-01T08:45Z"> 8.45 on 1 May
    2010</time>
  </header>

  <p>I'll be there. I very much enjoy a bit of Rusty
  Trombone.</p>
</article>
<!-- end comment -->
```

HTML5 prevede un algoritmo di outline che consente agli user-agents di produrre una outline della pagina web (struttura)

- utile per syndacation
- <article>, <section>, <aside> producono nuove sezioni della struttura - http://gsnedders.html5.org/outliner/ (outliner)

```
<h1>Hello</h1>
<div>
  <h1>World</h1>
</div>
```

1. Hello
2. World

```
<h1>Hello</h1>
<article>
  <h1>World</h1>
</article>
```

1. Hello
   1. World

<h1> in <article> è un <h2> logico

Non è importante il livello di heading che si usa (<h1>-<h6>)>

- esistono <h7> dal punto di vista logico, se hai una struttura ad albero complessa

```
<h3>Hello</h3>
<article>
    <h6>World</h6>
</article>

==

<h1>Hello</h1>
<article>
    <h2>World</h2>
</article>
```

Un altro vantaggio riguarda la syndacation

Supponendo di avere un articolo sul proprio blog

```
<article>
  <h1>What I did on my holiday</h1>
  <p>I went to Narnia. I was bitten by a trilobite. Then I came home.</p>
</article>
```

Potrebbe essere inserito in un newspaper online automaticamente

```
<h1>The Monotonous Times</h1>
  <section>
  <h2>Breaking news</h2>
  <article>
    <h1>What I did on my holiday</h1>
    <p>I went to Narnia. I was bitten by a trilobite. Then I came home.</p>
</article>
```

```
1. The Monotonous Times
   1. Breaking news
      1. What I did on my holiday
```

Se l'outliner trova elementi di sezioni senza header li riporta come "Untitled Section"

```
<article>
  <p>I have no heading</p>
</article>
```

Ma si tratta di uno warning in particolare per <nav> e <aside> dove si può anche omettere ("Most popular posts, Recent comments")

Sezioni radice: alcuni elementi - <body>, <blockquote>, <details>, <fieldset>, <figure>, <td>

- sono sezioni con outline propria di un solo livello
- non contribuiscono all'outline degli ancestors

```
<h1>Unicorns and butterflies</h1>
  <nav>
    <h2>Main nav</h2>
  </nav>
  <article>
    <h2>Fairies love rainbows!</h2>
    <p>According to Mr Snuggles the fluffy kitten, fairies  like:</p>
    <blockquote>
      <h3>Pretty dainty things</h3>
      <p>Fairies love rainbows, ribbons, and ballet shoes</p>
      <h3>Weaponry</h3>
      <p>Fairies favour Kalashnikovs, flick knives, and depleted uranium missiles</p>
    </blockquote>
  </article>
```

```
1. Unicorns and butterflies
   1. Main nav
   2. Fairies love rainbows!
```

Styling: proliferazione di strutture simili nella pagina e selettori

- <article><section><h1>...</h1></section></article>
- <article><article><h1>...</h1></article></article>
- <section><section><h1>...</h1></section></section>
- <section><aside><h1>...</h1></aside></section>
- <h3>…</h3>

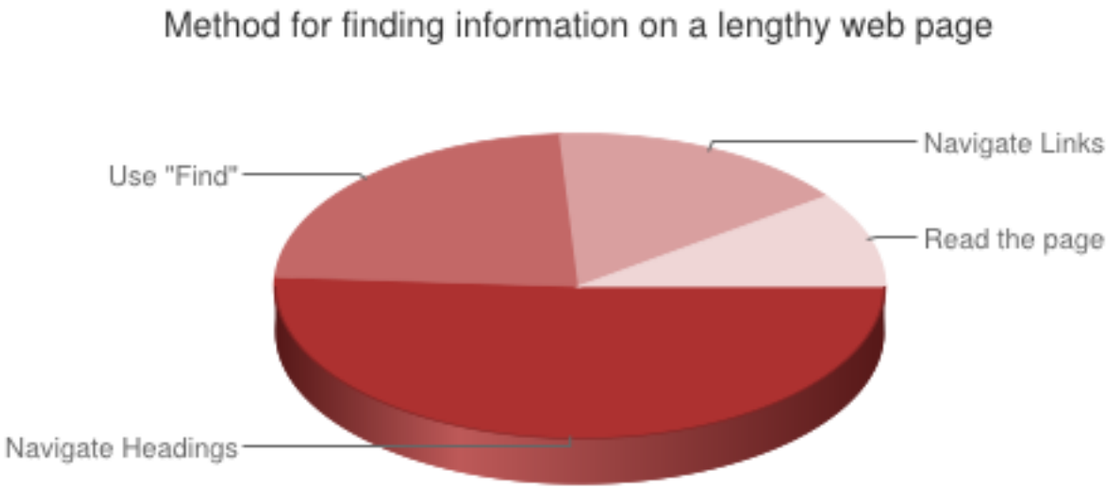
Sono state proposte pseudo-classi logiche:

```
*:heading(1) {font-size: 2.5em;} /* a logical <h1> */
*:heading(2) {font-size: 2em;} /* a logical <h2> */
```

Regola: le sezioni possono contenere titoli di ogni ‘rank’ ma si incoraggia l’uso o di soli <h1> oppure di un rank appropriato al nesting level

Problemi per l’accessibilità!

HTML5 accessibilità: la maggior parte dei disabili naviga attraverso i titoli



Response	# of Respondents	% of Respondents
Navigate through the headings on the page	321	50.8%
Use the "Find" feature	145	22.9%
Navigate through the links of the page	102	16.1%
Read through the page	64	10.1%

http://webaim.org/projects/screenreadersurvey2/

Gli screen reader usano shortcut da tastiera per muoversi fra gli heading

JAWS screen reader usa “H” per muoversi, “1” per raggiungere <h1>, “2” per il prossimo <h2>.

HTML5 outline: al momento nessun browser supporta in maniera consistente l'algoritmo di outline

Usare solo <h1> rompe l'accessibilità della pagina

Consiglio: usare intestazioni appropriate al livello logico

Nel caso di contenuti sindacati:

- livelli non logici con nested sections con intestazioni più importanti di quelli delle sezioni contenitore è meglio di headings allo stesso livello

<article>: un articolo è un contenuto quindi indipendente - blog post, news item, email, story

```
<article>
  <h1>Bruce Lawson is World's Sexiest Man</h1>

  <p>Legions of lovely ladies voted luscious lothario Lawson ¬as the World's Sexiest
  Man today.</p>

  <h2>Second-sexiest man concedes defeat</h2>

  <p>Remington Sharp, jQuery glamourpuss and Brighton roister-doister, was grac
  defeat. "It's cool being the second sexiest man when number one is Awesome La
  he said from his swimming pool-sized jacuzzi full of  supermodels.
  </p>
</article>
```

<article>: anche i commenti di un blog, o il transcript di un video

```
<article>
  <h1>Stars celebrate Bruce Lawson</h1>
  <video>...</video>
  <article class="transcript">
    <h1>Transcript</h1>
    <p>Supermodel #1: "He's so hunky!"</p>
    <p>Supermodel #2: "He's a snogtabulous bundle of gorgeous
    ¬manhood! And I saw him first, so hands off!"</p>
  </article>
</article>
```

<section>: partizione non pensata per essere estraibile e riusabile, ma per rappresentare una parte specifica caratterizzata di un contenuto completo

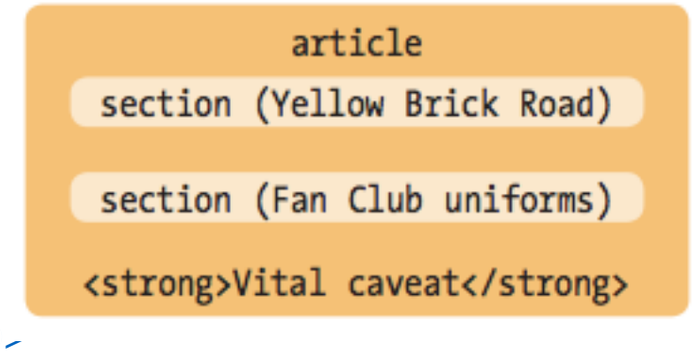
```
<article>

  <h1>Rules for Munchkins</h1>
  <section>
    <h2>Yellow Brick Road</h2>
    <p>It is vital that Dorothy follows it so no selling bricks as “souvenirs”</p>
  </section>

  <section>
    <h2>Fan Club uniforms</h2>
    <p>All Munchkins are obliged to wear their “I’m a friend of Dorothy!” t-shirt when representing the club</
    p>
   </section>

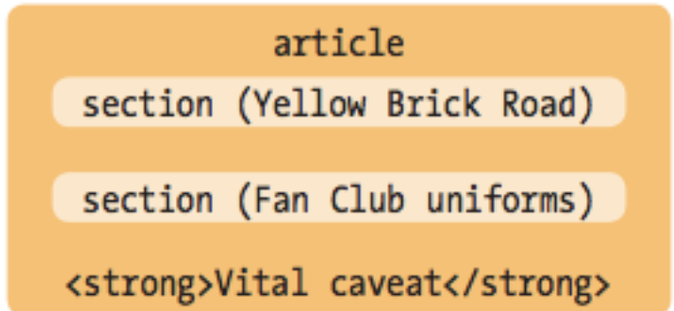
  <p><strong>Vital caveat about the information above: ¬does not apply on the first Thursday of the month.
  ¬ </strong></p>

</article>
```



<section>: partizione non pensata per essere estraibile e riusabile, ma per rappresentare una **parte specifica caratterizzata** di un contenuto completo

```
<article>
   <section>
      <h2>Fan Club uniforms</h2>
      <p>All Munchkins are obliged to wear their “I’m a friend of Dorothy!” t-shirt when representing the club</p>
      <p><strong>Vital caveat about the information above: does not apply on the first Thursday of the month</strong></p>
   </section>
</article>
```

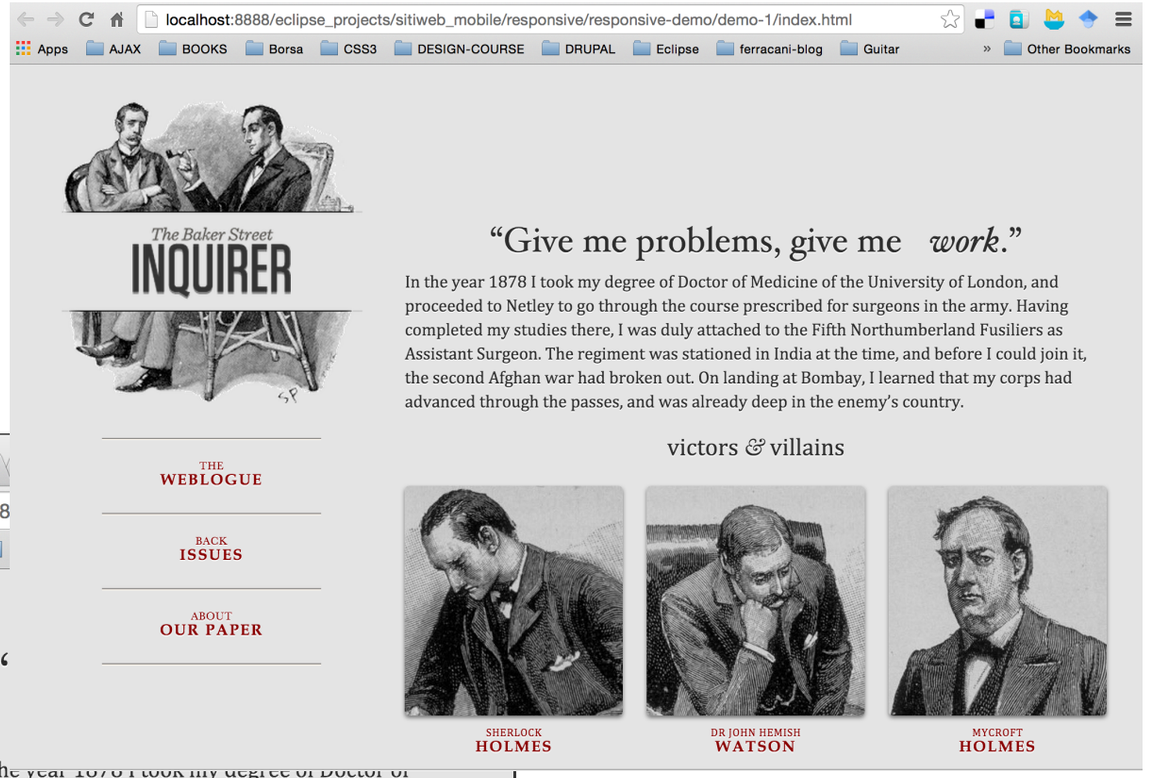


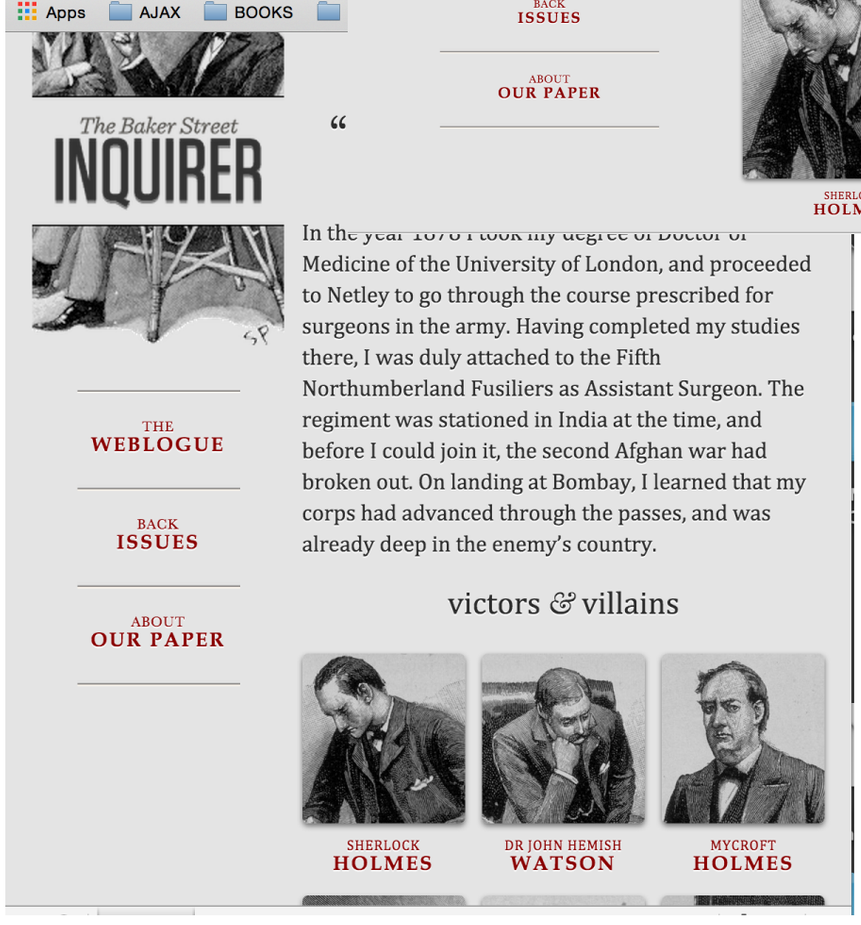
In HTML e XHTML la distinzione sarebbe difficile (a chi si riferisce il caveat?)

```
<div>
   <h1>Rules for Munchkins</h1>
   <h2>Yellow Brick Road</h2>
   <p>It is vital that Dorothy follows it so no selling bricks ¬as “souvenirs”</p>
   <h2>Fan Club uniforms</h2>
   <p>All Munchkins are obliged to wear their “I’m a friend of Dorothy!” t-shirt when representing the club</p>
   <p><strong>Vital caveat about the information above: does not apply on the first Thursday of the month. </strong></p>
</div>
```

Responsive Web Design: demo 1

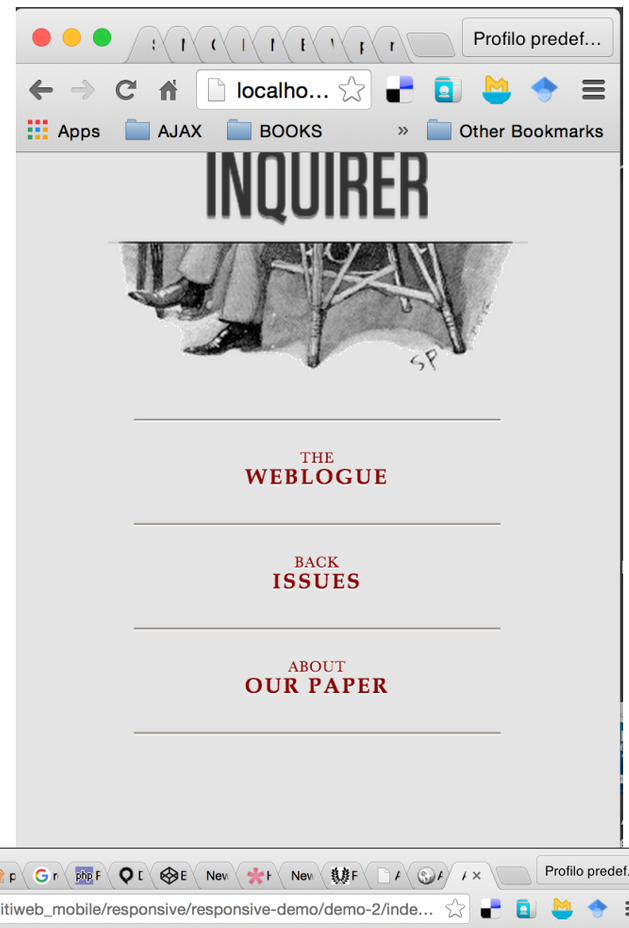
- non c'è nessuna media query
- si usano valori in percentuale per il layout
- si impiega la proprietà max-width per ridimensionare le immagini in base allo spazio disponibile

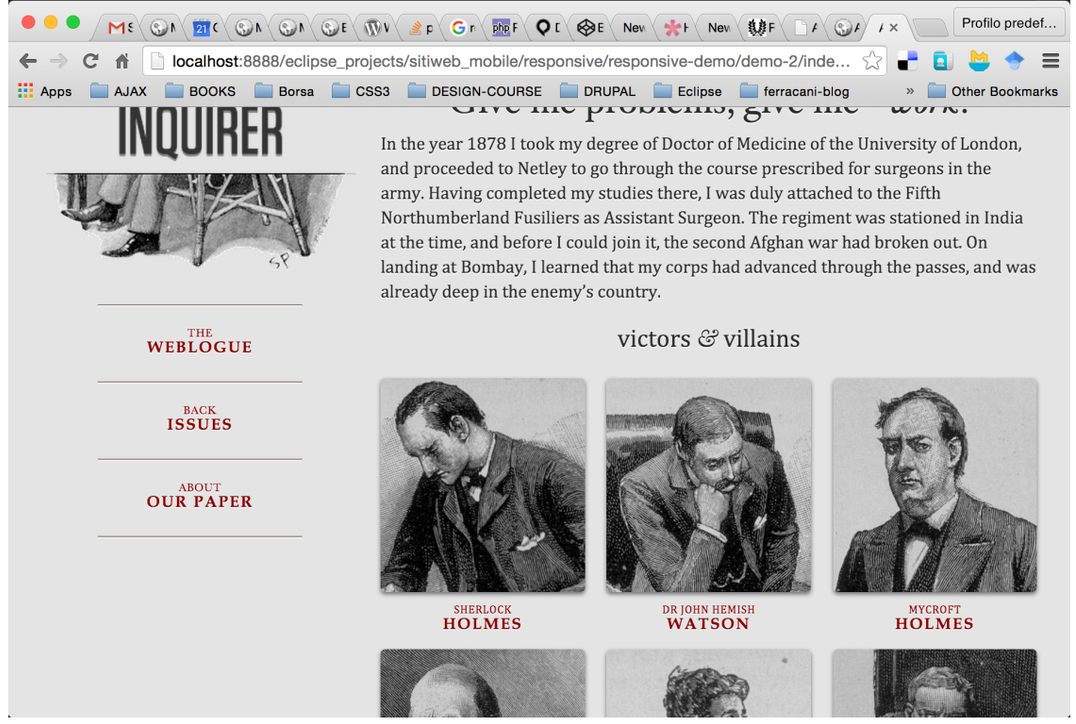




Responsive Web Design: demo 2

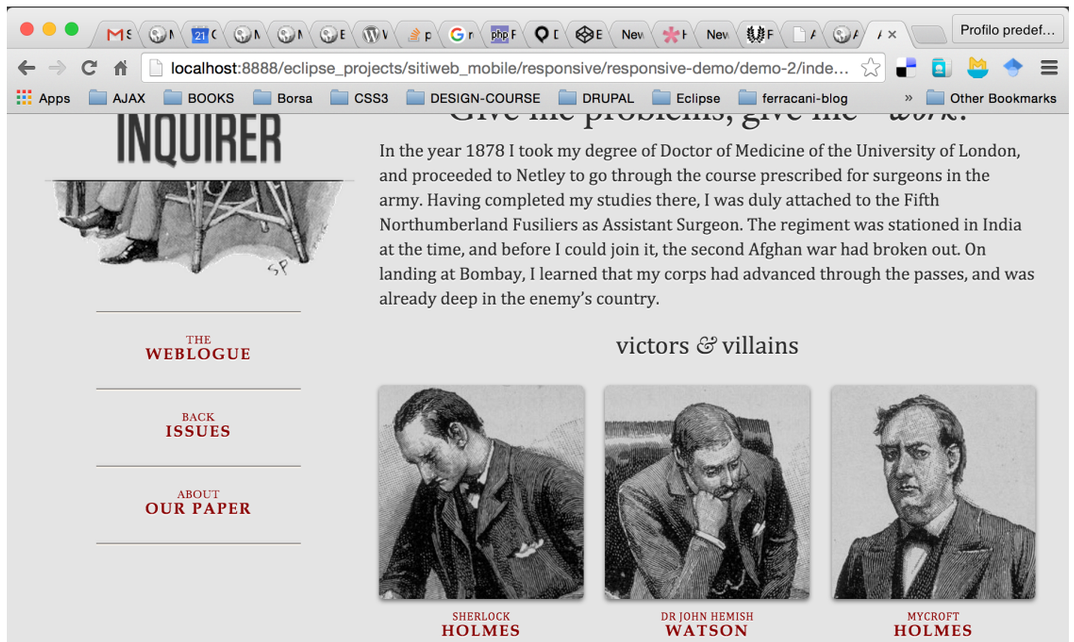
- si usano le media media query
- @media screen and (max-device-width: 480px {.column {float: none;}}
- oppure @import url("shetland.css") screen and (max-device-width: 480px);

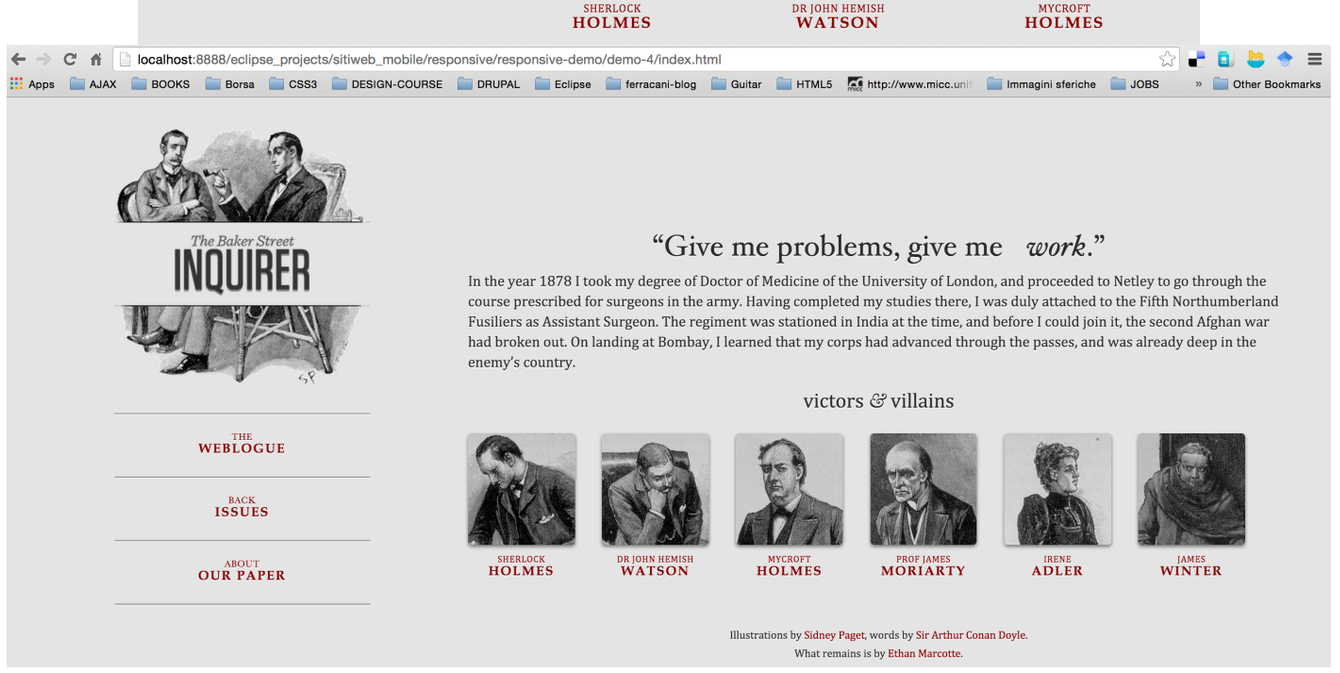




Responsive Web Design: demo 3

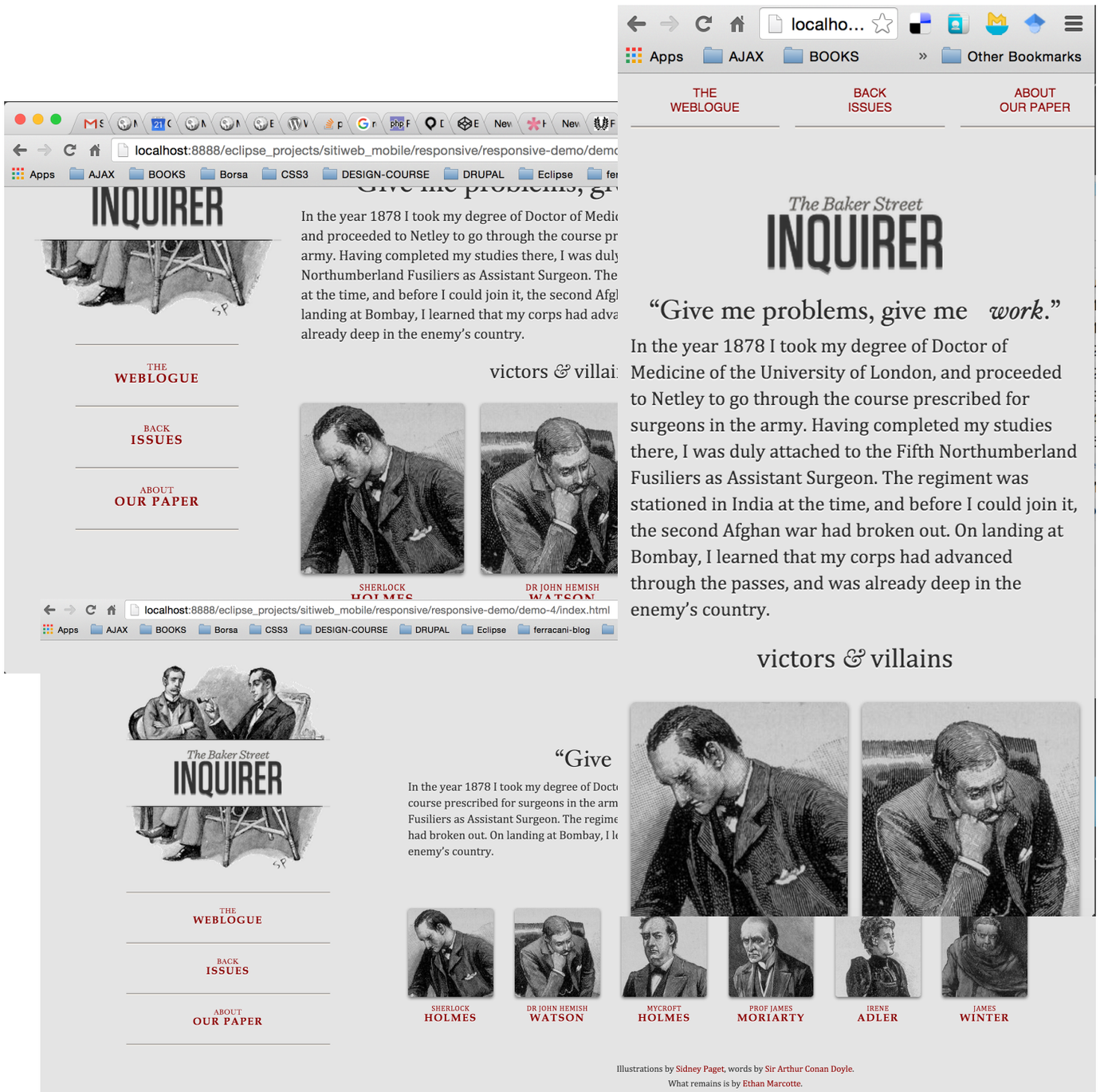
- si usano le media media query
- @media screen and (max-device-width: 480px {.column {float: none;}}
- oppure @import url("shetland.css") screen and (max-device-width: 480px);





Responsive Web Design: demo 4

- cambia maggiormente il layout nella versione smartphone
- da considerare sempre legge di Fitt (velocità = distanza / grandezza) e responsive typesetting
- ul.nav { margin: 0 auto; position: absolute; top: 0; width: 100%;}
- ul.nav li { float: left; width: 31.121642969842022 11%; / * 197px / 633px */}



Media Queries: sono una feature CSS3 che consente di specificare quando certe regole CSS vengono applicate: per esempio per ridefinire il layout su mobile, oppure per la stampa.

```
// normal style
#header-image {
    background-repeat: no-repeat;
    background-image:url('image.gif'); }

// show a larger image when you're on a big screen
@media screen and (min-width: 1200px) {
    #header-image { background-image:url('large-image.gif'); }
}

// remove header image when printing.
@media print {
    #header-image { display: none; }
}
```

Media Queries: tutti i browser moderni supportano le Media Queries. Internet Explorer le supporta dalla versione 9. Blackberry dalla 7.

Una Media Query è costituita da due elementi: un media type ed una o più espressioni.

Media Types

- all: tutti i device
- braille: device tattili in linguaggio braille
- handheld: device handeld, no smartphones e tablet

- print : print preview mode e stampa
- projection : per presentazioni a proiettore
- screen : per computer screens e smartphones
- speech : per sintetizzatori vocali
- tty : teletypes o terminali con display limitati
- tv : televisione

Espressioni

- width: larghezza della window corrente
- height: altezza della window corrente
- device-width: larghezza del dispositivo
- device-height: altezza del dispositivo
- orientation: portrait o landscape
- aspect-ratio: l’aspect ratio della finestra corrente

Espressioni

- device-aspect-ratio: l'aspect-ratio del device
- color: il numero di color bits per componente
- color-index: il numero di colori supportati dal device
- monochrome: il numero di bits per pixel in uno spazio monocromo
- resolution: la risoluzione del dispositivo
- scan: progressivo o interlacciato
- grid: se il device è grid-based

Esempi

```
@media all and (color) { ... }
```

```
@media all and (min-color: 4) { ... }
```

```
<link rel="stylesheet" media="all and (min-color-index: 256)" href="http://foo.b
```

```
@media screen and (min-aspect-ratio: 1/1) { ... }
```

```
@media screen and (device-aspect-ratio: 16/9), screen and (device-aspect-ratio:
```

```
<link rel="stylesheet" media="screen and (max-device-height: 799px)" />
```

Esempi

```
@media handheld and (grid) and (max-width: 15em) { ... }
```

```
@media all and (monochrome) { ... }
```

```
@media print and (min-resolution: 300dpi) { ... }
```

```
@media screen and (min-resolution: 2dppx) { ... }
```

```
@media tv and (scan: progressive) { ... }
```

```
<link rel="stylesheet" media="print and (min-width: 8.5in)"
    href="http://foo.com/mystyle.css" />
```

Metadata per mobile: viewport.

```
<!-- Browsers -->
{* Mobile Viewport Fix j.mp/mobileviewport & davidbcalhoun.com/2010/viewport-metatag
  - device-width: Full width of the screen
  - initial-scale = 1.0 retains dimensions instead of zooming out if page height > devic
  - maximum-scale = 1.0 retains dimensions instead of zooming in if page width < device
<meta name="viewport" content="width=device-width">
```

- viewport : metatag che regola la visualizzazione dell'applicazione nella viewport del device
- width=device-width: dice al browser di renderizzare la dimensione della pagina web alla larghezza del device
- initial-scale = 1.0 : zoom iniziale
- maximum-scale = 1.0 : impedisce lo zoom

Metadata per **mobile**: espressioni condizionali.

```
<!--[if IE]><script src="http://html5shiv.googlecode.com/svn/trunk/html5.js"></script><!
<!--[if IE 6]><link href="/css/plugin/bootstrap/bootstrap-ie6.css" rel="stylesheet"><![e
<!--[if IE 8]><meta http-equiv="X-UA-Compatible" content="IE=edge,chrome=1"><meta http-e
```

- html5shiv: è un JavaScript workaround, creato da Sjoerd Visscher, per consentire lo styling di elementi HTML5 nelle versioni di Internet Explorer precedenti alla 9, che non consentono lo styling senza JavaScript
- X-UA-Compatible: per forzare il motore di rendering, per il W3C chrome=1 è non consentito, abilita il Google Chrome Frame plugin in IE

Metadata per **mobile**: panoramica.

```
<link rel="apple-touch-icon" sizes="57x57" href="/apple-touch-icon-57x57.png">
<link rel="apple-touch-icon" sizes="60x60" href="/apple-touch-icon-60x60.png">
<link rel="apple-touch-icon" sizes="72x72" href="/apple-touch-icon-72x72.png">
<link rel="apple-touch-icon" sizes="76x76" href="/apple-touch-icon-76x76.png">
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https://en.wikipedia.org/wiki/Favicon