



HTML5

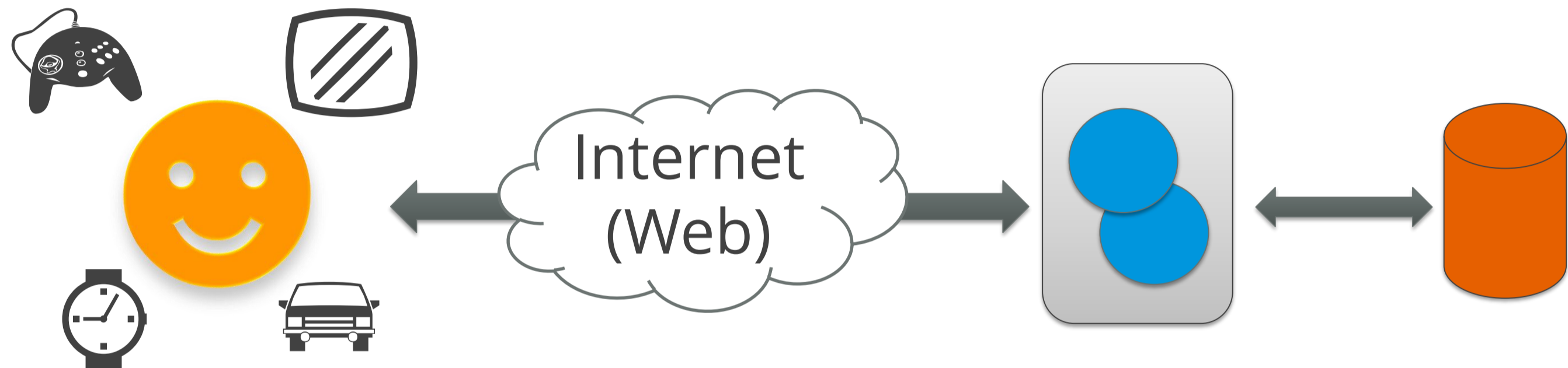
în `<abbr title="30">XXX</abbr>` de minute

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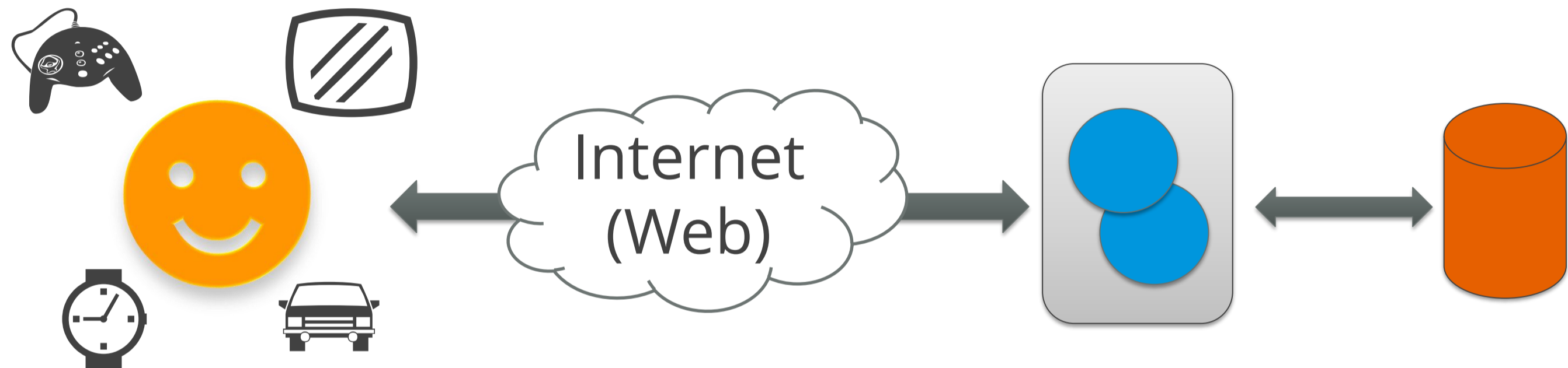
www.purl.org/net/busaco • [@busaco4web](https://twitter.com/busaco4web)

dezvoltarea aplicațiilor Web



aplicație Web = **interfață** + **program** + **conținut** (date)

dezvoltarea aplicațiilor Web



aplicație Web = **interfață** + **program** + **conținut** (date)

la nivel de **client** (*front-end*) și/sau **server** (*back-end*)

Cum publicăm pe Web?



Cum punem la dispoziția utilizatorilor
resurse de interes?

Recurgând la o modalitate
de structurare și de prezentare a datelor

Reprezentări (textuale) ale resurselor Web

date procesabile, disponibile în formate precum
HTML, SVG, RSS, JSON, CSV, TXT etc.

Reprezentări (textuale) ale resurselor Web

identificate pe baza unui **URL**
(*Uniform Resource Locator*)

<http://www.slideshare.com/busaco/presentations/>

<https://twitter.com/alecsandru>

Reprezentări (textuale) ale resurselor Web

accesate via un **protocol**

HTTP (*HyperText Transfer Protocol*)

Pentru Web, vom folosi
limbaj(e) de marcare (*mark-up languages*)

</>

H

hipsters'
hyper
hilarious

T

tax-free
text
tags

M

mesmerizing
markup
mystic

L


laugh
language
lure

World Wide Web

The WorldWideWeb (W3) is a wide-area [hypermedia](#) information retrieval initiative aiming to give universal access to a large universe of documents.

Everything there is online about W3 is linked directly or indirectly to this document, including an [executive summary](#) of the project, [Mailing lists](#) , [Policy](#) , November's [W3 news](#) , [Frequently Asked Questions](#) .

[What's out there?](#)

Pointers to the world's online information, [subjects](#) , [W3 servers](#), etc.

[Help](#)

on the browser you are using

[Software Products](#)

[Techn](#)

[Bibli](#)

[Peopl](#)

[Hist](#)

A summary of the history of the project.

[How can I help ?](#)

If you would like to support the web..

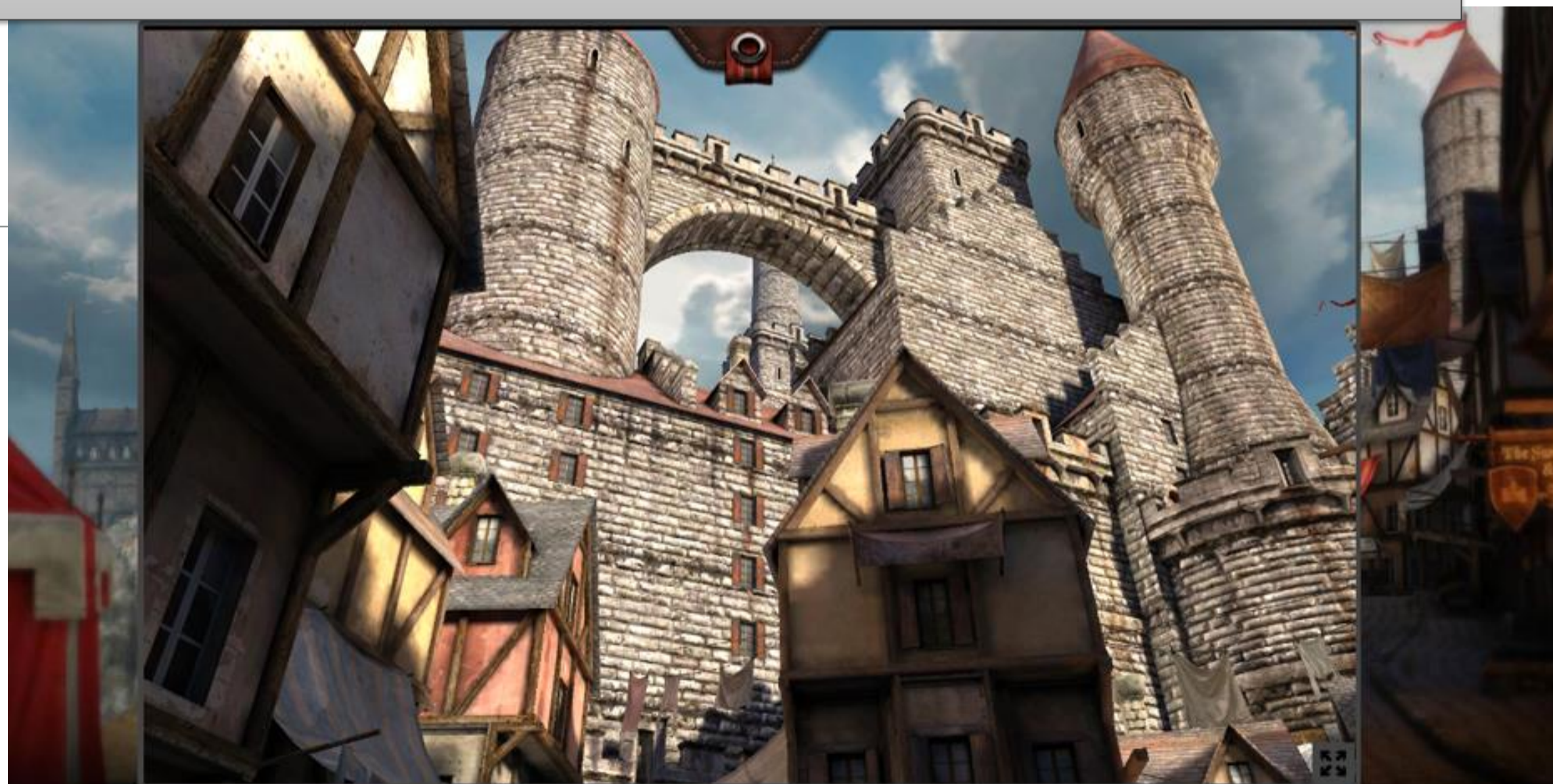
[Getting code](#)

Getting the code by [anonymous FTP](#) , etc.

lingua franca a Web-ului

SGML ▶ HTML 2.0 ▶ HTML 3.2 ▶

▶ HTML 4.01 ▶ XHTML 1.0 ▶ **HTML 5** ▶ HTML 5.1 ▶ ...



mozilla

documente HTML ≡ pagini Web

fișiere text **.html**

scrise manual de utilizator

editor de cod-sursă – exemple: **Atom, Sublime Text** etc.

mediu de dezvoltare Web – e.g., **Eclipse, Visual Studio**

aplicație *online* – exemplificări: **c9.io, Codepen, JS Bin,...**

documente HTML \equiv pagini Web

generate de un program

la **nivel de client** – cu JavaScript

eventual, folosind o bibliotecă:

Angular, D3.js, jQuery, React,...

documente HTML \equiv pagini Web

generate de un program

la **nivel de server**

uzual, via un **server de aplicații Web**

+ un **cadru de lucru** (*framework*) specific

limbaje: C#, Java, JavaScript, PHP, Python, Ruby, Scala,...

soluții: ASP.NET MVC, Laravel, Node.js, Play, Rails etc.

Format bazat pe **marcatori** (adnotări, *mark-ups*, elemente)

```
<!DOCTYPE html>
```

```
<html>      <!-- început de doc. (element obligatoriu) -->
```

```
  <!-- început de antet (tag de început) -->
```

```
  <head>
```

```
  ...      <!-- includere de stiluri CSS, meta-date etc. -->
```

```
  </head>   <!-- sfârșit de antet (tag de final) -->
```

```
  <!-- început de corp: date propriu-zise -->
```

```
  <body>
```

```
  ...      <!-- conținut redat de browser -->
```

```
  </body>   <!-- sfârșit de corp -->
```

```
</html>     <!-- sfârșit de document -->
```

Lista elementelor HTML

referitoare la antetul documentului (*head*):

html

head title base link

meta

style

script noscript

Lista elementelor HTML

vizând structura (*sections*):

body

article nav aside section

header footer

h1—h6

main

address

Lista elementelor HTML

grupare (*grouping*):

p

hr

pre blockquote

ol ul li

dl dt dd

figure figcaption

div

Lista elementelor HTML

tabele (*tables*):

table

caption

thead tbody tfoot

tr th td

col colgroup

Lista elementelor HTML

formulare (*Web forms*):

form

fieldset legend label

input button

select datalist optgroup option

textarea

keygen output

progress meter

Lista elementelor HTML

alte conținuturi inserate (*embedded*):

img

iframe

embed object param

video audio track source

canvas

map

area

Lista elementelor HTML

privind datele textuale (*text-level*):

a

em strong

abbr

q cite dfn

sub sup

Lista elementelor HTML

privind datele textuale (*text-level 2*):

time

code kbd samp var mark

bdi bdo

ruby rt rp

span

br

wbr

👑 Absolvenți LER și/sau FII

O listă de persoane (colaboratori) ce au absolvit [FII](#):



- [Elena Bârliba](#) (Amazon) – Iași
- [Emanuela Cerchez](#) (LER) – Iași
- [Teodor Dima](#) (East Vision Systems) – Iași
- [Bogdan Gâza](#) (Twitter) – San Francisco
- [Alecsandru Grigoriu](#) (Grapefruit & FII) – Iași
- [Anca-Paula Luca](#) (XWiki) – Paris
- [Ștefan Negru](#) (MSD) – Praga
- [Victor Porof](#) (Mozilla) – Toronto
- [Andreea-Diana Stanciu](#) (Endava) – Iași

Ultima actualiza: 3 aprilie 2015

```
<!DOCTYPE html>
<html>
<head>
  <meta charset="utf-8" />
  <title>Absolvenți LER și/sau FII</title>
  <style type="text/css">
    body { font-family: sans-serif; }
    .ler { color: green; }
    .fii { font-weight: bold; }
  </style>
</head>
<body>
  <h1>&#x265b; Absolvenți LER și/sau FII</h1>
```

```
<p>O listă de persoane (colaboratori) ce au absolvit <a href="http://www.info.uaic.ro/"
title="Facultatea de Informatică, UAIC">FII</a>:</p>
```

```
<ul>
  <li class="fii"><a href="http://www.linkedin.com/in/elenabarliba">Elena Bârliba</a> (Amazon)
&ndash; Iași</li>
  <li class="fii"><a href="http://ler.is.edu.ro/~ema">Emanuela Cerchez</a> (LER) &ndash; Iași</li>
  <li class="ler fii"><a href="http://twitter.com/teodordima">Teodor Dima</a> (East Vision
Systems) &ndash; Iași</li>
  <li class="fii"><a href="http://twitter.com/hurrycane">Bogdan Gâza</a> (Twitter) &ndash; San
Francisco</li>
  <li class="fii"><a href="https://pxdotpt.com/">Alecsandru Grigoriu</a> (Grapefruit & FII)
&ndash; Iași</li>
  <li class="fii"><a href="http://twitter.com/lucaaa">Anca-Paula Luca</a> (XWiki) &ndash; Paris</li>
  <li class="fii"><a href="http://twitter.com/bankdots">Ștefan Negru</a> (MSD) &ndash; Praga</li>
  <li class="ler fii"><a href="http://twitter.com/victorporof">Victor Porof</a> (Mozilla) &ndash;
Toronto</li>
  <li class="fii"><a href="https://ro.linkedin.com/in/andreeadiana">Andreea-Diana Stanciu</a>
(Endava) &ndash; Iași</li>
</ul>
<hr />
<h6>Ultima actualiza: 3 aprilie 2015</h6>
```

```
</body>
</html>
```

<http://jsbin.com/yurecuwuye/>

adresă Web (URL)

atribut

```
<a href="http://www.infoiasi.ro/" title="..">FII</a>
```

tag de început

tag de sfârșit

posibilitatea de a interacționa – via HTTP sau alte
protocoale de comunicație – cu resurse disponibile local
ori la distanță (oferite de alte situri/aplicații Web)

- ▶ „pânze” (*web-uri*) de resurse interconectate

spațiile albe nu au semnificație

marcatorii trebuie să fie închise
și să se împerecheze corect!

```
<div><q>We don't need no education</div></q>
```

A thought bubble with an orange gradient and a white outline, containing the word "greșit!" in white text.

greșit!

valorile atributelor trebuie încadrate de ghilimele sau apostrofuri

```
<form action=proc.php method="GET" >  
  <label for=căutare">Caută:</label>  
<input type=search placeholder= /></form>
```

eronat!

incorectitudinile sintactice/semantice
nu vor fi semnalate de navigatorul Web



HyperText Markup Language

versiunea actuală: **HTML5**

standard al Consorțiului Web (octombrie 2014)

<http://www.w3.org/html/>

a	data	iframe	output	sub
abbr	datalist	img	p	sup
address	dd	input	param	table
area	del	ins	pre	tbody
article	dfn	kbd	progress	td
aside	div	keygen	q	template
audio	dl	label	rb	textarea
b	dt	legend	rp	tfoot
base	em	li	rt	th
bdi	embed	link	rtc	thead
bdo	fieldset	main	ruby	time
blockquote	figcaption	map	s	title
body	figure	mark	samp	tr
br	footer	meta	script	track
button	form	meter	section	u
canvas	h1—h6	nav	select	ul
caption	head	noscript	small	var
cite	header	object	source	video
code	hr	ol	span	wbr
col	html	optgroup	strong	
colgroup	i	option	style	

elementele HTML5 – de consultat <http://html5doctor.com/>

Câteva detalii despre noile elemente HTML5?



Noi elemente de structurare (secțiuni)

article, nav, aside, section, header, footer

```
<!DOCTYPE html>
```

```
<html>
```

```
  <head>
```

```
    <title>Titlu glorios al paginii sau aplicației Web</title>
```

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

```
    <meta charset="utf-8" />
```

```
  </head>
```

```
  <body>
```

```
    <header>
```

```
      <h1>Titlu principal</h1>
```

```
      <p class="slogan">...</p>
```

```
    </header>
```

```
    <article>
```

```
      <nav class="menu">
```

```
        <a href="...">Undeva</a> * <a href="...">Altundeva</a>
```

```
      </nav>
```

```
      <section>
```

```
        <p>ceva aparent interesant?!</p>
```

```
        <aside>informații adiționale</aside>
```

```
      </section>
```

```
      <section>...</section>
```

```
    </article>
```

```
    <footer>
```

```
      <h6>Ultima actualizare, autorul, termeni legali,...</h6>
```

```
    </footer>
```

```
  </body>
```

```
</html>
```

vezi și <https://w3c.github.io/elements-of-html/>

„Scufundarea” altor tipuri de conținuturi într-un document HTML

conținut grafic – raster și/sau vectorial

conținut sonor

conținut video

Conținut grafic vectorial
specificat prin **SVG** (*Scalable Vector Graphics*)

un limbaj descriptiv bazat pe XML

<http://www.w3.org/Graphics/SVG/>

<https://developer.mozilla.org/docs/Web/SVG>

HTML ▾

```
<!DOCTYPE html>
<html xmlns="http://www.w3.org/1999/xhtml">
  <head>
    <title>HTML + SVG</title>
  </head>
  <body>
    <h1>O ilustratie SVG (grafica vectoriala)
      inclusa intr-o pagina Web</h1>

    <!-- Elemente si attribute SVG incluse
      in documentul HTML,
      recunoscute pe baza spatiului de nume SVG -->
    <svg width="500" height="200"
      xmlns="http://www.w3.org/2000/svg">
      <!-- zona rectangulara cu colturi rotunjite -->
      <rect x="50" y="50" rx="7" ry="7"
        width="450" height="150"
        style="fill: #6699FF; stroke: #3333CC;"/>
      <!-- continut textual -->
      <text x="70" y="90" style="stroke: navy;
        fill: white; font-size: 32pt;">
        SVG direct &icirc;n browser...
      </text>
      <!-- un cerc galben -->
      <circle cx="400" cy="150" r="33"
        style="fill: yellow; stroke: red;" />
    </svg>

    <p>De utilizat un navigator Web
      care ofera suport nativ pentru SVG.</p>
  </body>
</html>
```

Output

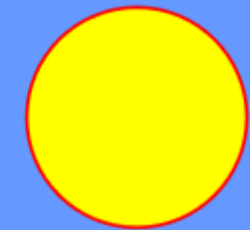
Run with JS

Auto-run JS



O ilustratie SVG (grafica vectoriala) inclusa intr-o pagina Web

SVG direct în browser...



De utilizat un navigator Web care ofera suport nativ pentru SVG.

un experiment de editare *on-line* cu instrumentul **JS Bin**
includerea de marcaje SVG direct în documentul HTML5

exemple demonstrative la <http://svg-wow.org/>

Alături de elementele **img**, **iframe**, **embed** și **object**,
sunt permise **audio**, **video**, **source** și **track**
pentru a încorpora resurse multimedia
într-o pagină Web

```
<!-- prezentarea lui Rufus Pollock despre datele deschise -->
<section id="tutorial">
  <p>Open Data: Where We Are and Where We're Going</p>
  <video src=
    "http://videlectures.net/dataforum2012_pollock_open_data/">
    <track kind="subtitles" src="..." srclang="en"
      label="English" />
    <track kind="captions" src="..." srclang="en"
      label="English for the Hard of Hearing" />
    <track kind="subtitles" src="..." srclang="ro"
      label="Românește" />
  </video>
</section>
```

codec-uri uzuale pentru facilitarea redării:

H.264 (MP4, comercial) – www.h264info.com

OGG (*open-source*) – www.xiph.org/ogg/

WebM (*open-source*) – www.webmproject.org

Opus (specificație liberă) – <http://tools.ietf.org/html/rfc6716>

canvas

generarea dinamică – via JavaScript –
de conținut grafic 2D
dependent de rezoluția curentă

Lines

- Line
- Line Width
- Line Color
- Line Cap

Curves

- Arc
- Quadratic Curve
- Bezier Curve

Paths

- Path
- Line Join
- Rounded Corners

Shapes

- Custom Shape
- Rectangle
- Circle
- Semicircle

Fill Styles

- Color Fill
- Linear Gradient
- Radial Gradient
- Pattern

Images

- Draw Image
- Image Size
- Image Crop
- Image Loader

HTML5 Canvas Bezier Curve Tutorial

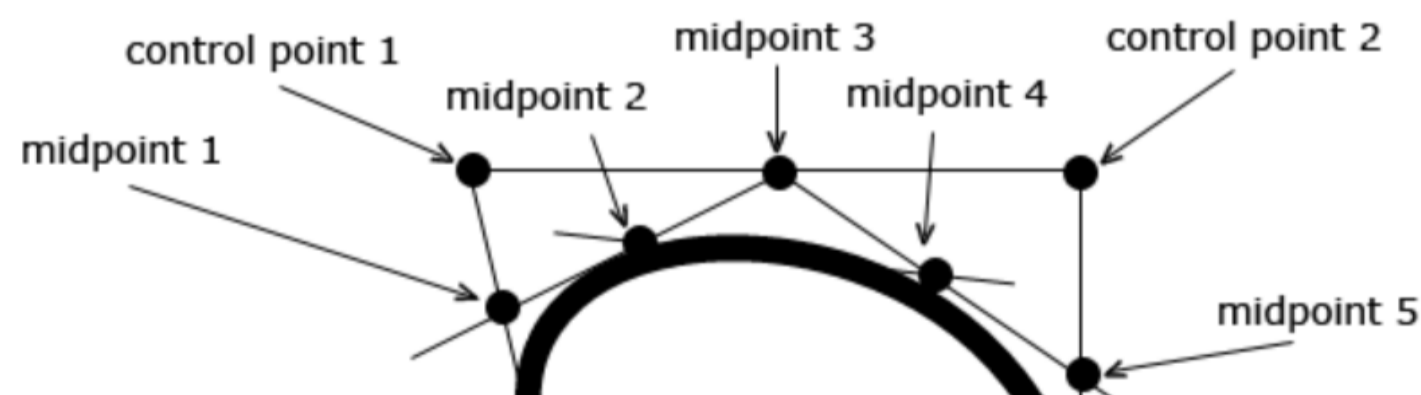
```
1 <!DOCTYPE HTML>
2 <html>
3   <head>
4     <style>
5       body {
6         margin: 0px;
7         padding: 0px;
8       }
9     </style>
10  </head>
11  <body>
12    <canvas id="myCanvas" width="578" height="200"></canvas>
13    <script>
14      var canvas = document.getElementById('myCanvas');
15      var context = canvas.getContext('2d');
16
17      context.beginPath();
18      context.moveTo(188, 130);
19      context.bezierCurveTo(140, 10, 388, 10, 388, 170);
20      context.lineWidth = 10;
21
22      // line color
23      context.strokeStyle = 'black';
24      context.stroke();
25    </script>
26  </body>
27 </html>
```



o suită de tutoriale:
www.html5canvastutorials.com

Discussion

To create a Bezier curve with HTML5 Canvas, we can use the `bezierCurveTo()` method. Bezier curves are defined with the context point, two control points, and an ending point. Unlike quadratic curves, Bezier curves are defined with two control points instead of one, allowing us to create more complex curvatures. Bezier curves can be styled with the `lineWidth`, `strokeStyle`, and `lineCap` properties.



Next Tutorial:

[Path](#)



vezi și https://developer.mozilla.org/docs/Web/API/Canvas_API

canvas

alternativă de redare:
conținut grafic 3D pe baza **WebGL**

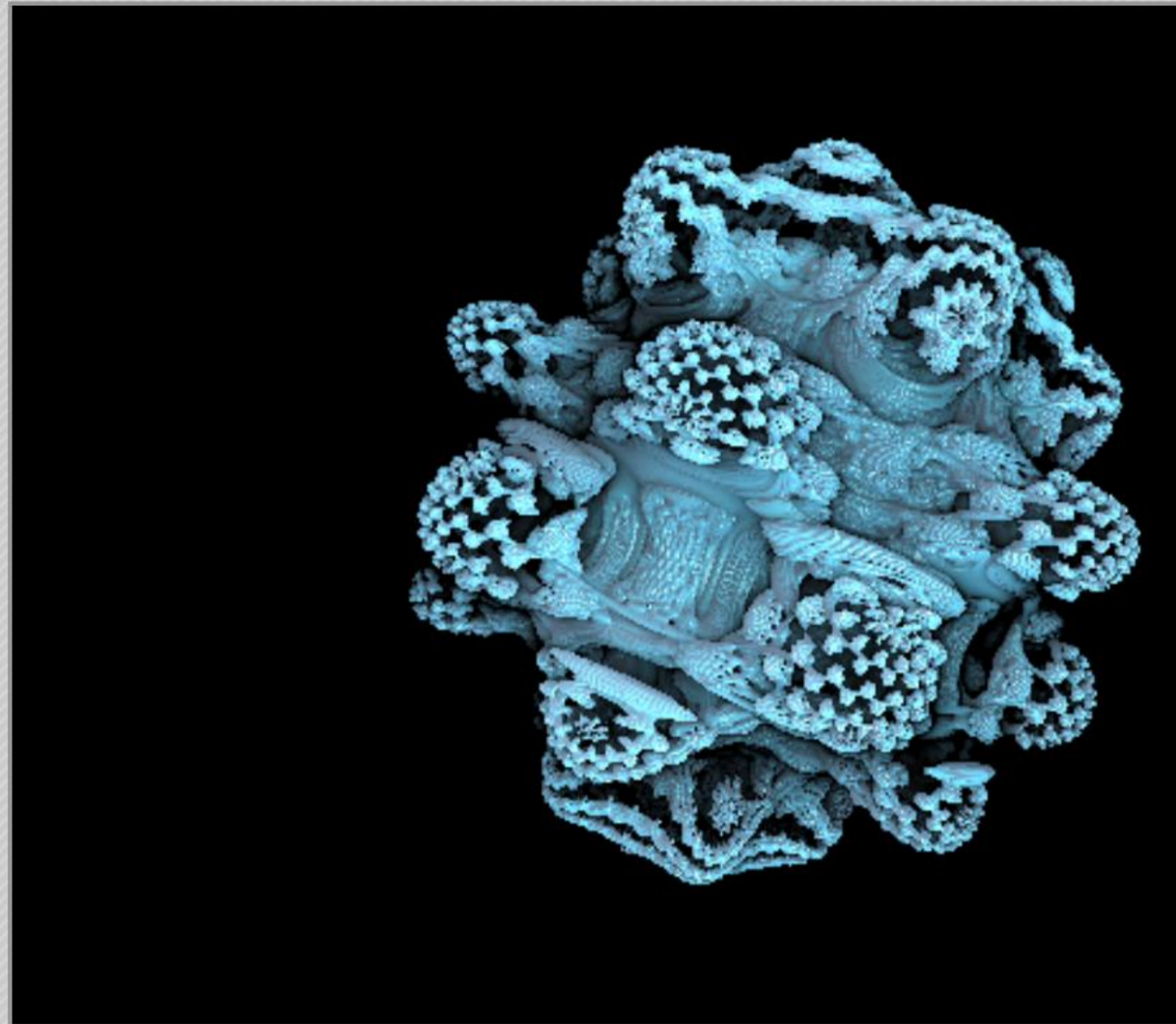
```
$(document).mouseup( function(event) {
    event.preventDefault();
    var key = event.which;
    Drag=false;
    if (key==1) {
        gl.uniform1i(program.mouseLeftUniform, 0);
    }
});

$(document).mouseleave( function(event) {
    event.preventDefault();
    gl.uniform2f(program.mouseUniform, 0, 0);
    Drag=false;
});

function createShaderProgram(vertexPositionsBuffer, textureCoordi
// create vertex shader
var vertexShader = gl.createShader(gl.VERTEX_SHADER);
gl.shaderSource(vertexShader, glsl_vs1);
gl.compileShader(vertexShader);
if (!gl.getShaderParameter(vertexShader, gl.COMPILE_STATUS)) {
    alert(gl.getShaderInfoLog(vertexShader));
}

// create fragment shader
var fragmentShader = gl.createShader(gl.FRAGMENT_SHADER);
gl.shaderSource(fragmentShader, glsl_fs1);
gl.compileShader(fragmentShader);
if (!gl.getShaderParameter(fragmentShader, gl.COMPILE_STATUS)) {
    alert(gl.getShaderInfoLog(fragmentShader));
}

// create and use program
var program = gl.createProgram();
gl.attachShader(program, vertexShader);
gl.attachShader(program, fragmentShader);
gl.linkProgram(program);
if (!gl.getProgramParameter(program, gl.LINK_STATUS)) {
    alert(gl.getProgramInfoLog(program));
}
```



Run

WebGL
în conjuncție cu jQuery

mediu Web de dezvoltare: <http://webglplayground.net/>
resurse: <https://developer.mozilla.org/docs/Web/WebGL>

Noi tipuri de câmpuri ale formularelor Web

alături de **text**, **password**, **checkbox**, **radio**, **file**,
hidden, **button**, **image**, **submit** se pot folosi
color, **email**, **tel**, **number**, **range**, **date**, **time**, **url**,...

```
<input type="date" max="2000-12-31" name="aniversare" />  
<input type="range" min="1" max="7" step="2"  
name="premiu" />  
<input type="color" name="culoare" />  
<input type="search" pattern="[A-Za-z]+"  
placeholder="Caută cadouri..." />
```

nu există încă suport complet pentru toate tipurile de controale de interacțiune

Instrumente software de interes?



☐ săptămâna 1

- **Prezentare generală**

evaluare

p | 665 x 26

detalii organizatorice: situl materiei, examinare, reguli, echipă

- **Curs: Spațiul World Wide Web – aspecte arhitecturale**

terminologie, model client/server, hipertext, resursă, URI, sit Web, aplicație Web

- **Resurse: 25 de ani de Web, Ce înseamnă a fi dezvoltator Web**

- **Laborator: Limbajul de marcare HTML – de studiat și Suita de tehnologii HTML5**

- **detalii:** [Web Development for Beginners](#), [tutoriale HTML \(MDN\)](#), [HTML5 Element Index](#)
- **instrumente:** [CodePen](#), [JS Bin](#), [Sublime Text](#) (vezi și [Package Control](#)), [W3C Validator](#)

☐ săptămâna 2

- **Curs: Programare Web – Protocolul HTTP. Cookie-uri. Sesiuni Web**

provocare: [CSS Diner](#)

server Web, HTTP, câmpuri-antet, mesaj, MIME, programare Web, CGI, cookie, sesiune

- **Demonstrații: Exemple de script-uri CGI** (arhivă zip, 17K)

- **Resurse: Câteva milisecunde de HTTP, HTTP Status Codes, Diagrama protocolului HTTP, Hurl.it, httpbin, Apache HTTP Server Documentation, IIS, Nginx Architecture, HTTP/2, Session Management Cheat Sheet, Arhitectura navigatorului Web, Web Brother Is Watching You, Do Not Track**

- **Laborator: Foi de stiluri în cascadă – CSS**

- **detalii:** [HTML & CSS](#), [Learn CSS \(MDN\)](#), [CSS Reference](#)

```

n#week1 > ul > li.lab > ul > li > p
<ul>
  <li></li>
  <li class="lecture">
    <p></p>
    <div class="terms"></div>
  </li>
  <li class="bib">
    <p></p>
  </li>
  <li class="lab">
    <p>
      Laborator:
      <a title="Detalii despre HTML (HyperText Markup Language)" href="http://www.w3.org/html/"></a>
      - de studiat și
      <a class="super" title="Prezentare: Programare Web. Suita de tehnologii HTML5" href="http://www.slideshare.net/busaco/cliw-20142015-1212"></a>
    </p>
    <ul>
      <li>
        <p>
          detalii:
          <a title="Resurse pentru începători" href="http://docs.webplatform.org/wiki/beginners"></a>
          ,
          <a title="Resurse despre HTML" href="https://developer.mozilla.org/docs/HTML"></a>
          (MDN) ,
          <a title="Detalii despre elementele HTML5" href="http://html5doctor.com/element-index/"></a>
        </p>
      </li>
    </ul>
  </li>
</ul>

```

inspectarea codului HTML via instrumentele pentru dezvoltatorii Web oferite de orice *browser* modern

✘ **Line 372, Column 99: value of attribute "align" cannot be "absmiddle"; must be one of "top", "middle", "bottom", "left", "right"**

```
...="RSS" target='_blank'></a>
```

validarea documentelor HTML5
(testarea corectitudinii la nivel de sintaxă)
validator.w3.org

✘ **Line 372, Column 102: required attribute "alt" not specified**

```
...="RSS" target='_blank'></a>
```

The attribute given above is required for an element that you've used, but you have omitted it. For instance, in most HTML and XHTML document types the "type" attribute is required on the "script" element and the "alt" attribute is required for the "img" element.

Typical values for `type` are `type="text/css"` for `<style>` and `type="text/javascript"` for `<script>`.

✘ **Line 409, Column 8: required attribute "type" not specified**

```
<script >
```

The attribute given above is required for an element that you've used, but you have omitted it. For instance, in most HTML and XHTML document types the "type" attribute is required on the "script" element and the "alt" attribute is required for the "img" element.

Typical values for `type` are `type="text/css"` for `<style>` and `type="text/javascript"` for `<script>`.

HTML5 offers some new elements, primarily for semantic purposes. The elements include: section, article, aside, header, footer, nav, figure, figcaption, time, mark, main.

Current aligned Usage relative Show all

IE	Firefox	Chrome	Safari	Opera	iOS Safari *	Opera Mini *	Android Browser *	Chrome for Android	Firefox for Android	IE Mobile
		31								
		36								
		37					1 4.1			
8		38					1 4.3			
1 9	31	39	7				4.4			
1 10	35	40	7.1		7.1		4.4.4			
1 11	36	41	8	27	8.1	1 8	37	41	36	1 11
TP	37	42		28						
	38	43		29						
	39	44								

- Notes
- Known issues (0)
- Resources (5)
- Feedback

- Specification [html.spec.whatwg.org] ref
- Article on structural elements [oli.jp] info
- Alternate workaround [blog.whatwg.org] polyfill
- Workaround for IE [blog.whatwg.org] polyfill
- has.js test [raw.github.com] info

caniuse.com – situația curentă vizând implementarea unor specificații de către navigatoarele Web

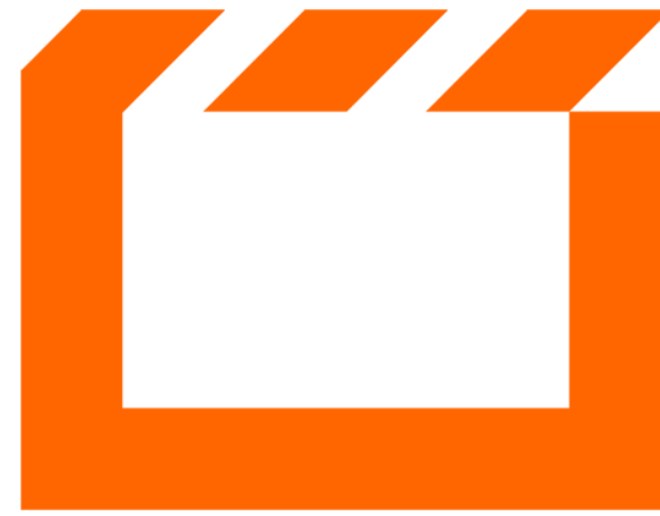
**Până la urmă,
ce înseamnă HTML5?**



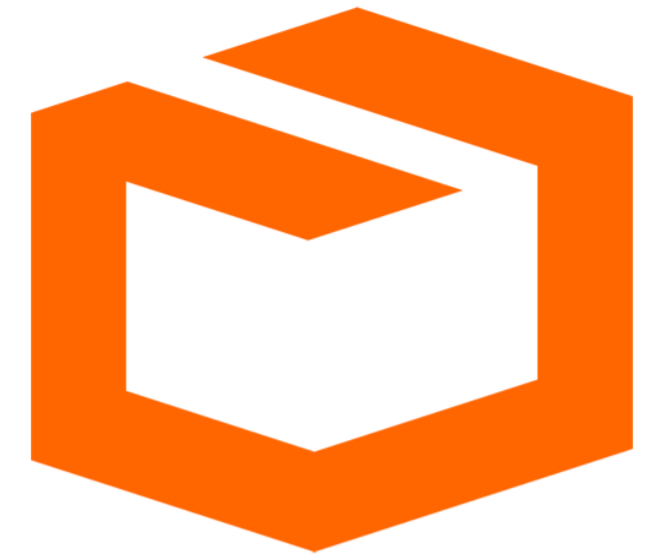
Semantics



CSS3



Multimedia



Graphics & 3D



Device Access



Performance



Offline & Storage



Connectivity

*"HTML5 should not be considered as a whole.
You should cherry-pick the technology
that suits the solution to your problem."*

Remy Sharp



vocabular (set de elemente + attribute)
folosit pentru **marcarea paginilor Web**

+

suită de **interfețe de programare (API)**
facilitând **procesarea documentelor**

la nivelul navigatorului Web – *desktop, mobil,...*



scop: dezvoltarea standardizată de aplicații Web

recurge la tehnologii înrudite referitoare la:
prezentare via foi de stiluri în cascadă – **CSS**

model conceptual – **DOM**

procesare la nivel de navigator Web – **JavaScript**

...și altele

Care-s posibilitățile de documentare privind HTML5?



▣ săptămâna 1

- Preambul

reamintire: [Tehnologii Web](#)

prezentarea materiei, examinare, organizare

- Curs: Interacțiune Web: concepte, context, studii de caz

concurs: [European AppCup 2015](#)

HCI, UI, UX, interacțiune Web, exemplificări

- Laborator: Web Development for Beginners, The Elements of HTML

- Resurse suplimentare: 25 de ani de Web, The End of Web Development, Punchcut: User Experience Design & Technology, Mozilla Developer Network

materiile vizând
tehnologiile Web
inițiate și predate
de Sabin Buraga

▣ săptămâna 3

- Curs: Arhitectura navigatorului Web

amuzament: [HTML5 Elements Quiz](#)

browser Web, arhitectură, rendering engine, protocoale de transfer, layout, extensie, exemple

- Laborator: Foi de stiluri CSS (reamintire) – vezi și Web Standards Curriculum, Learn CSS, CSS Reference, CSS Tricks, LESS, SASS, CSSDesk

- Resurse suplimentare: User-Agent String, How Browsers Work, Academic Research on Browsers, Frontend Development, and Debugging, Chromium, Firefox, Internet Explorer, Opera, Safari, The Web Platform: Browser Technologies, What HTTP/2.0 Will Do For You, Firebug, QuirksMode, Browser Shots, Browserscope

Facultatea de
Informatică, UAIC Iași

▣ săptămâna 4

- Curs: Design Web. Interacțiune, utilizabilitate & metodologii de proiectare

cursuri: [Interaction Design](#)

<http://profs.info.uaic.ro/~busaco/teach/>

HTML5

HTML5 is the latest evolution of the standard that defines [HTML](#). The term represents two different concepts:

- It is a new version of the *language* HTML, with new elements, attributes, and behaviors,
- and a larger set of **technologies** that allows more diverse and powerful Web sites and applications. This set is sometimes called *HTML5 & friends* and often shortened to just *HTML5*.

Designed to be usable by all Open Web developers, this reference page links to numerous resources about HTML5 technologies, classified into several groups based on their function.

- *Semantics*: allowing you to describe more precisely what your content is.
- *Connectivity*: allowing you to communicate with the server in new and innovative ways.
- *Offline & Storage*: allowing webpages to store data on the client-side locally and operate offline more efficiently.
- *Multimedia*: making video and audio first-class citizens in the Open Web.
- *2D/3D Graphics & Effects*: allowing a much more diverse range of presentation options.
- *Performance & Integration*: providing greater speed optimization and better usage of computer hardware.
- *Device Access*: allowing for the usage of various input and output devices.
- *Styling*: letting authors write more sophisticated themes.

HTML5 DEMOS

A [collection of demos](#) showing the latest HTML technologies in action.





Dive Into HTML5 elaborates on a hand-picked selection of features from the [HTML5](#) specification and other fine standards. We encourage you to [buy the printed work](#) — Mark Pilgrim’s artfully titled “HTML5: Up & Running” — published on paper by O’Reilly, under the Google Press imprint. Your kind and sincere [feedback is always welcome](#), and this work shall remain online under the [CC-BY-3.0 license](#).

This particular edition of Dive Into HTML5 is advanced by [the diveintomark team](#). We work hard to add and update content, links, APIs, and actively maintain this fine resource; refreshing and reflecting the relevant and current state of HTML5, just as Mark Pilgrim did during his tenure. We attribute this work in the manner specified by Mark, and we make modifications to the site's content. We do not in any way suggest that he endorses us or our use of his work. We hope you do.

TABLE OF CONTENTS

Introduction: Five Things You Should Know About HTML5	0
A Quite Biased History of HTML5	1
Detecting HTML5 Features: It’s Elementary, My Dear Watson	2
What Does It All Mean?	3
Let’s Call It a Draw(ing Surface)	4
Video in a Flash (Without That Other Thing)	5
You Are Here (And So Is Everybody Else)	6
A Place To Put Your Stuff	7
Let’s Take This Offline	8
A Form of Madness	9

Search...
DevDocs
Offline
About
News
Tips

- ▼ CSS
 - ▶ At-rules 40
 - ▶ Data Types 19
 - ▶ Functions 35
 - ▶ Properties 267
 - ▶ Pseudo-classes 41
 - ▶ Pseudo-elements 5
 - ▶ Selectors 9
 - ▶ Values 15
- ▶ DOM
- ▶ DOM Events
- ▼ HTML
 - ▶ Attributes 135
 - ▶ HTML5 38
 - ▶ Obsolete 20
 - ▶ Standard 77
- ▶ HTTP
- ▶ JavaScript
- ▼ DISABLED (58)
 - Angular.js 1.3.14
 - Backbone.js 1.1.2
 - Bower 1.4.1
- Select documentation

HTML

This page lists all the [HTML elements](#). They are grouped by function to help you find what you need to achieve what you have in mind. Although this guide is written for those who are new or newer to coding, we intend it to be a useful reference for anyone.

Basic elements

Basic elements are the backbone of any HTML document. You'll see these elements in the source code for all web pages after the doctype declaration on the first line of the page. The doctype specifies which version of (X)HTML that page is using. Page elements are placed between the opening `<html>` and closing `</html>` tags, also called the root element.

Element	Description
<code><html></code>	The <i>HTML root element</i> (<code><html></code>) represents the root of an HTML document. All other elements must be descendants of this element.

Document metadata

Metadata contains information about the page. This includes information about styles, scripts and data to help software (Search engines, [browsers](#), etc.) use and render the page. Metadata for styles and scripts may be defined in the page or link to another file that has the information.

Element	Description
<code><base></code>	The <i>HTML Base Element</i> (<code><base></code>) specifies the base URL to use for all relative URLs contained within a document. There can be only one <code><base></code> element in a document.

HTML

DevDocs – <http://devdocs.io/>

Pick an API

Search

- JavaScript APIs
- HTML
 - Audio Element
 - Video Element
 - Track Element
 - Canvas Element
 - Canvas Element 3d (WebGL)
 - Ruby Element
 - Semantic Markup
 - Form Fields
 - Selectors API
 - Inline SVG
 - Text inside SVG
 - Microdata
 - Link Relations
- CSS
 - Columns
 - Rounded Corners
 - Web Fonts
 - Text Wrapping
 - Text Stroke
 - Transitions
 - 2d Transforms
 - Animations

Edit JavaScript

CSS

HTML File

Related Links

Theme

```
17 <body style="font: 75% sans-serif;">
18   <header>
19     <h1>HTML5</h1>
20     <h2>Un exemple demonstrativ</h2>
21   </header>
22   <nav>
23     <ul>
24       <li><a href="#">Home</a></li>
25       <li><a href="#tutoriale">Tutoriale</a></li>
26       <li><a href="#despre-noi">Despre</a></li>
27       <li><a href="#">Contact</a></li>
28     </ul>
29   </nav>
30   <section id="articles">
31     <article>
32       <header>
33         <h2><a href="#">Un articol de interes</a></h2>
34       </header>
35     </section>
36
```

Output

Debug Code

Run Code

HTML5

Un exemple demonstrativ

[Home](#)[Tutoriale](#)[Despre](#)[Contact](#)[Un articol de interes](#)

Resurse

ONE e-mail each Wednesday. Easy to unsubscribe. No spam — your e-mail address is [safe](#).

Don't fear - we're aiming to be an April Fool's free zone. Let's hope no-one tricked us! ;-)

[A Closer Look At Project Spartan, Microsoft's IE Killer](#)

THE VERGE

The Verge takes a high level look at Microsoft's new browser-in-progress. It looks promising but there's a long way to go.

[A Primer To Background Positioning In CSS](#)

SARA SOUEIDAN

Many CSS properties exist that allow us to control different aspects of an element's background and its positioning.

[HTML-GL: Get As Many FPS As You Need by Rendering HTML/CSS in WebGL](#)

DENIS RADIN

Aims to solve the 'slow DOM problem' by rendering normal page elements to WebGL instead. An interesting idea but not something I'd put into production yet.

HTML5 Weekly – <http://html5weekly.com/>

Mult succes!



Dr. Sabin Buraga

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