

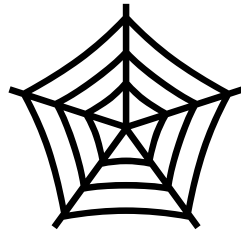
Dezvoltator Web?!



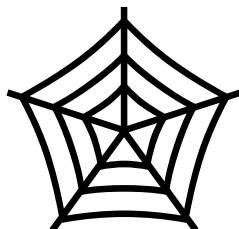
Dr. Sabin Buraga

Facultatea de Informatică, Universitatea „A. I. Cuza” – Iași, România

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



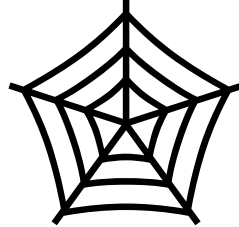
Ce este Web-ul?



World Wide Web

“a common information space
in which we communicate by sharing information”

Sir Tim Berners-Lee – a creat Web-ul în decembrie 1989



World Wide Web

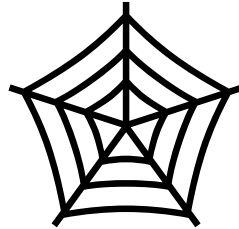
scopuri principale:

independența de dispozitiv

independența de software

scalabilitatea

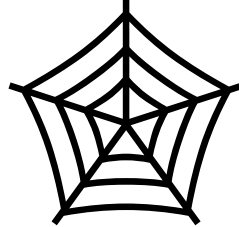
ubicuitatea



World Wide Web

bazat pe standarde deschise stipulate de **Consortiul Web**

www.w3.org



World Wide Web

un serviciu Internet

alături de poștă electronică, transfer de fișiere etc.

WWW \neq Internet

client
(realizează cereri)



client
(realizează cereri)



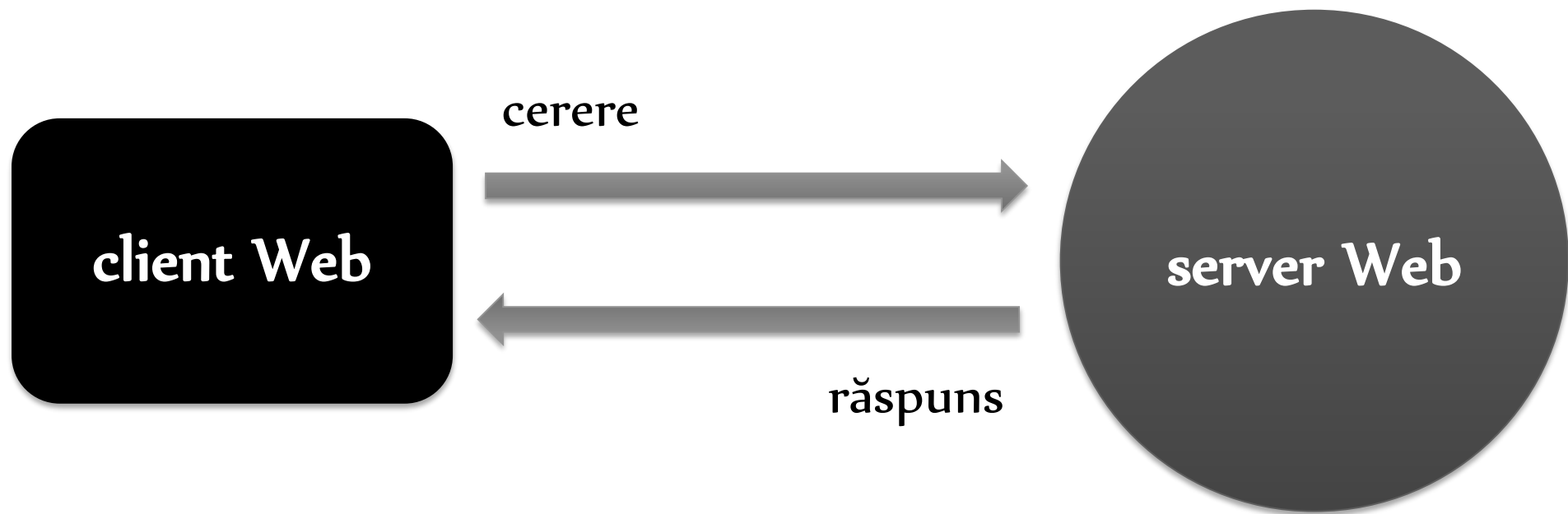
server
(oferă răspunsuri)



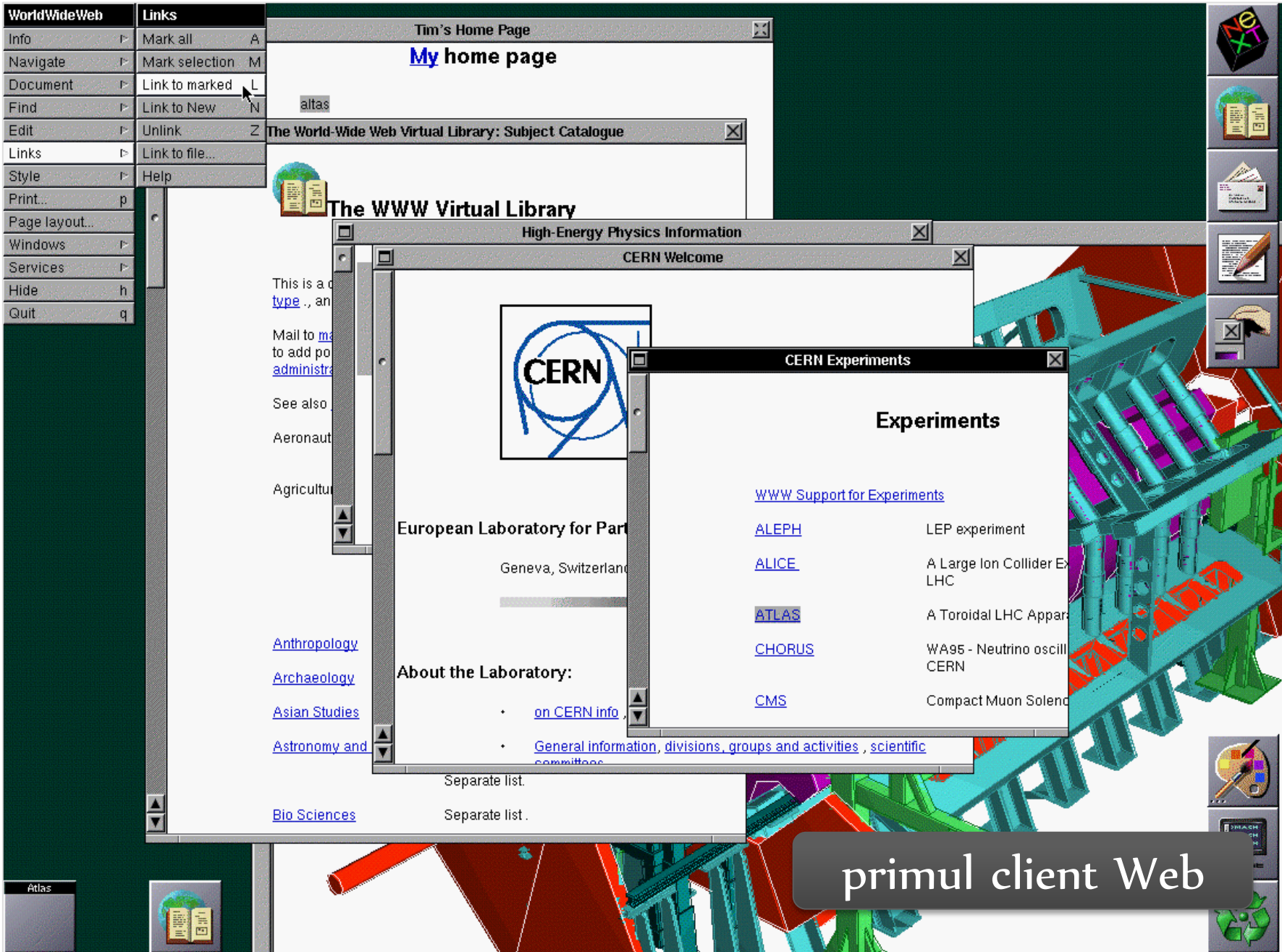
client
(realizează cereri)

protocol
(reguli de transfer de date)

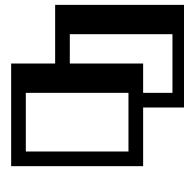
server
(oferă răspunsuri)



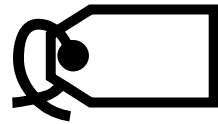
Web-ul e bazat pe modelul **client/server** al Internet-ului



primul client Web



clientul Web (browser, player multimedia,
aplicație desktop/mobilă, robot al unui motor de căutare,...)
procesează conținuturi – adică date – primite de la server

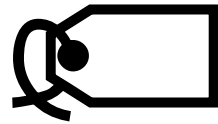


pentru a reprezenta aceste conținuturi,
se adoptă diverse **formate de date**

cel mai popular: **HTML** (**HyperText Markup Language**)

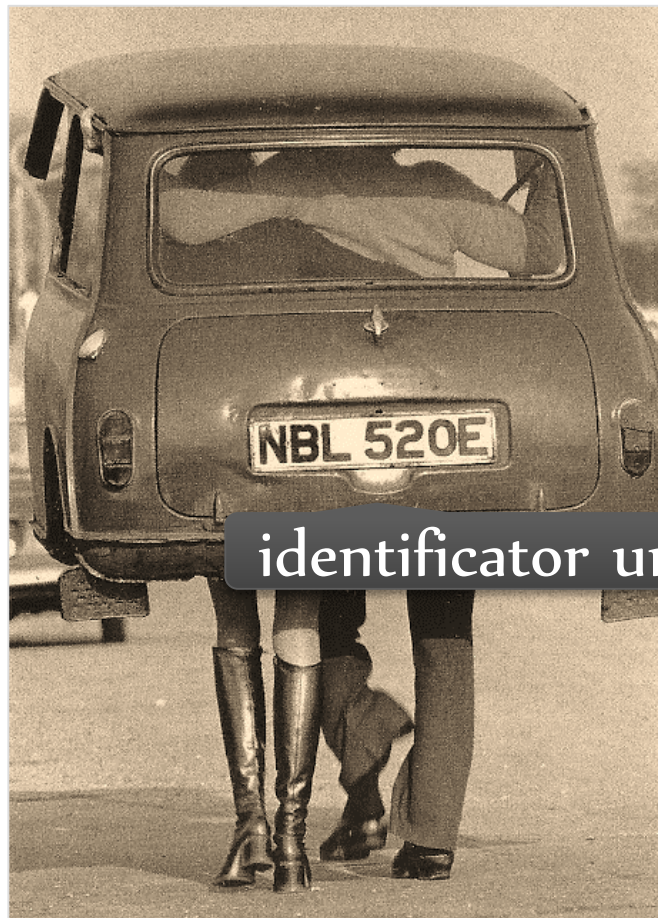


conținut \cong `<marcajeHTML versiune=5/>` +
{ foi de stiluri: **CSS3** } la modă



aceste conținuturi sunt stocate
în **documente (pagini) Web**

mai general, **resurse Web**



resursele vor fi identificate printr-o adresă Web
URL (Uniform Resource Locator)

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

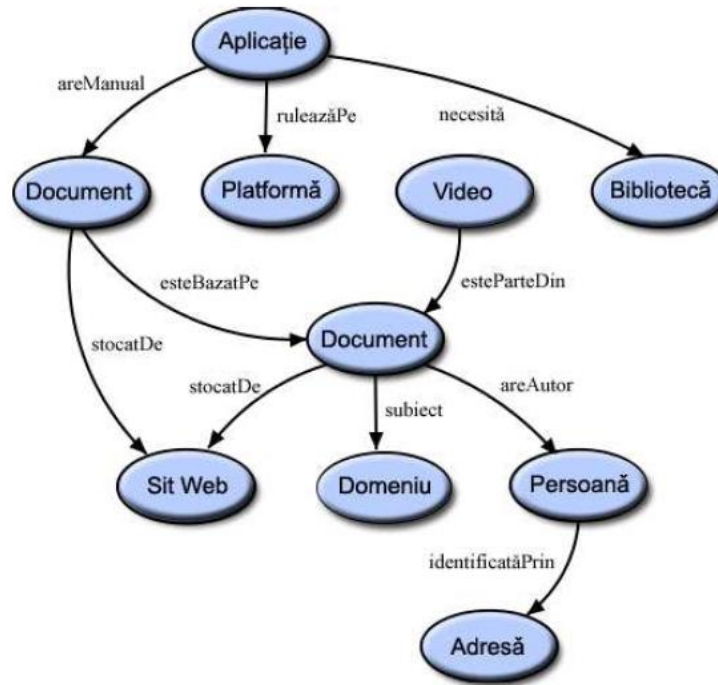
```
<li>
<p class="bib">Resurse suplimentare: <a href="http://www.slideshare.net/busaco/25-de-ani-de-web"
title="25 de ani de Web, o prezentare despre istoricul Web-ului">25 de ani de Web</a>, <a href="http://www.slideshare.net
/TechnicalMachine/tessel-the-end-of-web-development-as-we-know-it">The End of Web Development</a>, <a
href="http://punchcut.com/perspectives/" title="Detalii">Punchcut: User Experience Design & Technology</a>, <a
href="https://developer.mozilla.org/" title="Resurse pentru dezvoltatorii Web oferite de Mozilla">Mozilla Developer
Network</a></p>
</li>
</ul>
</section>

<section id="week3">
<h2>Săptămână 3</h2>
<ul>
<li><aside class="menu">amuzament: <a href="http://thehtml5quiz.com/" title="Detalii">HTML5 Elements Quiz</a></aside>
<p class="lecture">Curs: <a href="presentations/web02-AritecturaBrowserWeb.pdf" title="Prezentare în format
PDF">Arhitectura navigatorului Web</a></p>
<div class="terms">browsers, rendering engine, protocoale de transfer, layout, extensii, exemple</div>
</li>

<li>
<p class="lab">Laborator: <a href="http://www.w3.org/Style/CSS/" title="Detalii">Fișe de stiluri CSS</a> (reamintire)
&ndash; vezi <a href="http://www.w3.org/community/webbed/wiki/Main_Page" title="Detalii">Web Standards
Curriculum</a>, <a href="https://developer.mozilla.org/learn/css" title="Detalii">Learn CSS</a>, <a
href="http://docs.webplatform.org/wiki/css" title="Detalii">CSS Reference</a>, <a href="http://css-tricks.com/"
title="Diverse exemple">CSS Tricks</a>, <a href="http://lesscss.org/" title="Detalii">LESS</a>, <a href="http://sass-
lang.com/" title="Detalii">SASS</a>, <a href="http://cssdesk.com/" title="Detalii">CSSDesk</a></p>
</li>
```

paginile Web – la rândul lor – includ referințe
către alte resurse de interes via adrese (URL-uri)

► **hipertext (hipermedia)**

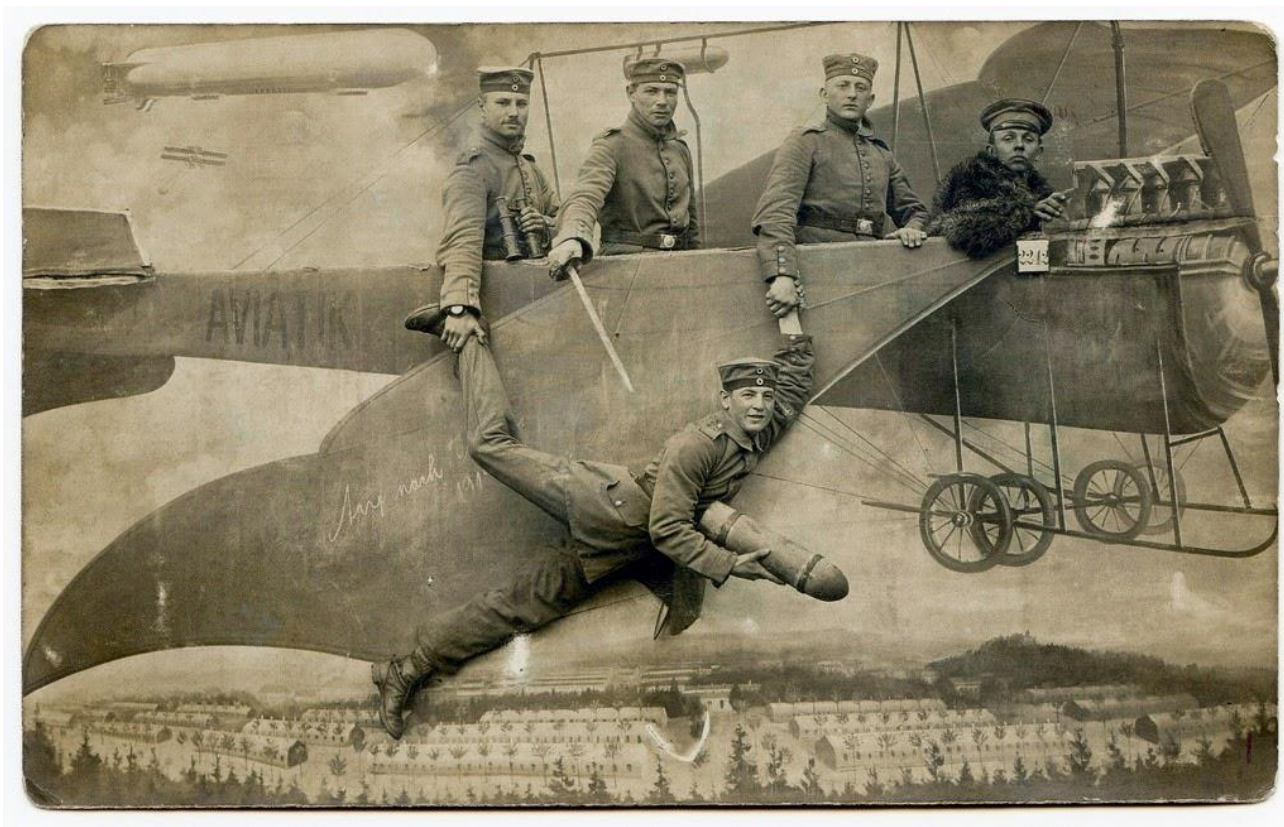


Web-ul reprezintă un graf hipermedia

explorat pe baza interacțiunii cu utilizatorul via URL-uri



la nivel de server Web, resursele (conținuturile)
solicitate de client – via un URL – sunt
fie stocate **static** (i.e. create manual), fie generate **dinamic**
– pe baza unor programe implementând diverși algoritmi



transferul datelor între client și server e stabilit
de un **protocol de comunicație**

pentru Web: **HTTP** (**HyperText Transfer Protocol**)

adrese Web
URI = URL + URN

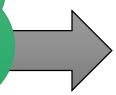
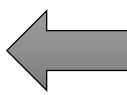
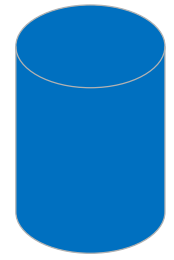
procoloale Web
HTTP, HTTPS, SPDY

codificarea
datelor **Unicode**

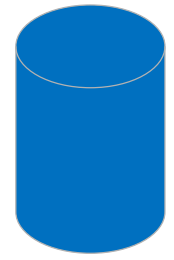
nume de domenii
DNS

procoloalele
Internet
TCP/IP

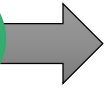
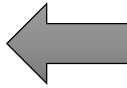
Client
interfață cu
utilizatorul



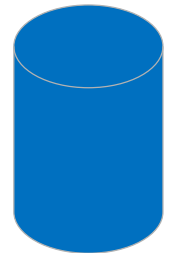
Client
interfață cu
utilizatorul



Server
sit/aplicație Web



Client
interfață cu
utilizatorul



Server
sit/aplicație Web

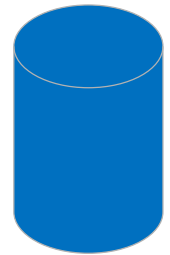
sit Web

sistem găzduind o serie de pagini (resurse) Web înrudite ale unei organizații, companii sau persoane

Client
interfață cu
utilizatorul



Internet
(Web)



Server
sit/aplicație Web

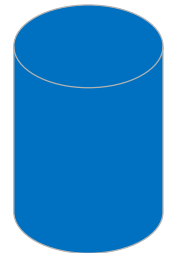
aplicație Web

colecție interconectată de pagini Web
cu conținut generat dinamic, oferind o funcționalitate specifică

Client
interfață cu
utilizatorul



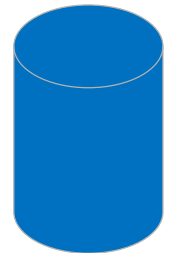
Server
sit/aplicație Web



interacțiune Web

„dialogul” dintre utilizator(i) și aplicație are loc via o **interfață Web**

Client
interfață cu
utilizatorul



Server
sit/aplicație Web

interacțiune Web

uzual, **sit Web = aplicație Web**



exemple de aplicații Web:

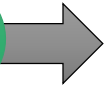
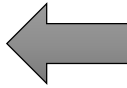
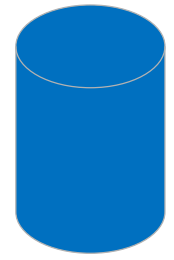
Amazon, Coursera, Facebook, Dropbox, Flickr, GitHub, info.uaic.ro,
Instagram, Medium, PHPMyAdmin, Reddit, Quora, SlideShare,
TED.com, Tumblr, Twitter, Vimeo, webmin, Wikipedia, WordPress
...și multe, multe, multe altele

Client
interfață cu
utilizatorul



Server
sit/aplicație Web

Date
stocate
persistent

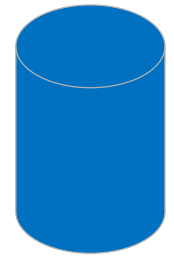


Client
interfață cu
utilizatorul

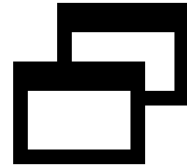


Server
sit/aplicație Web

Date
stocate
persistent



accesul la date poate fi realizat via **servicii Web**
software oferind o funcționalitate specifică
în urma căreia se obțin date de interes



Care sunt tipurile de aplicații Web?

Centrate pe documente

Interactive

Tranzacționale

Colaborative

Orientate spre portaluri

De tip ubicuu

Web social

Web semantic



evoluția în timp
a complexității

Centrate pe documente

conținut/pagini static(e):
situri de companii, personale

Dezvoltarea aplicațiilor Web la nivel de client

interacțiune, modelare & procesare de date în browser

materia

- ▣ [desfășurare](#)
- ♥ [examinare](#)
- ✿ [proiecte](#) – [propuneri](#)

[Google Anita Borg Scholarship](#)
[Ford-Mozilla Open Web Fellows](#)

resurse

- ↳ [bibliografie](#)
- ✓ [reguli](#)
- ✉ [contact](#)

Interactive

expoziții virtuale

situri de știri

sisteme de facilitare a călătoriilor

chioșcuri informative

...



Design Jam Iasi #3 (31 October—1 November 2014)

endirrilium

Several photos regarding Design Jam Iasi #3 (31 October—1 November 2014) co-organized by Andreea... [See more](#)

Edit cover photo

24
Photos

46
Views

View all albums

Photos

Edit

Make A Book

Several photos regarding Design Jam Iasi #3 (31 October—1 November 2014) co-organized by Andreea Popescu (Mozilla Rep) and Dr. Sabin Buraga (Faculty of Computer Science, UAIC Iasi, Romania). Details at designjami2014.eventbrite.com/



Tranzacționale

comerț electronic

soluții B2B (business-to-business)

fluxuri de activități

- Sources
 - Find First Site Feed +
 - Yahoo! Local +
 - XPath Fetch Page +
 - Fetch Feed +
 - YQL +
 - Item Builder +
 - Flickr +
 - Fetch CSV +
 - Fetch Data +
 - RSS Item Builder +
 - Feed Auto-Discover +
- User inputs
- Operators
 - Uri
 - String
 - Date
 - Location
 - Number
 - Favorites
 - My pipes
 - Deprecated

URL Builder

Base:

Port:

Path elements

- services/rest/

Query parameters

- api_key:
- method:
- per_page:
- extras:

Private String

This string will only be shown to the pipe owner

Private string

Fetch Data

URL:

Path to item list:

Split

Loop

For each in input feed

[open] flickr.photos.getAllContexts

API key:

Photo ID:

Path to item list:

emit all results

assign all results to

Regex

Use regular expression patterns here:

Rules

- In item.link replace with
- In item.description replace with
- In item.title replace with
- In item.media:group.me replace with
- In item.media:group.me replace with

Rename

Mappings

- item.id Copy As link
- item.title Copy As description
- item.accuracy Copy As media:group.media
- item.accuracy Copy As media:group.media

Colaborative

tele-conferințe Web
aplicații Web de tip wiki
servicii e-learning
aplicații Web peer-to-peer

Presentations

This page includes the proposals of the presentations to be delivered by the students — teams of **maximum 2 persons** — during the [lab classes](#). Duration of a presentation: **maximum 20 minutes**. A presentation could include demos, examples, multimedia resources, etc. Also, other **10 minutes of Q&A** are permitted.

If you have preferred topics to be discussed, propose them. They will be voted for the next labs.


List of current proposals

For this year, the list of proposed topics is closed.


Please, insert under each proposal the presentation, demo, source-code

Delivered presentation

1. [CSS files optimization](#) [Bogdan Gaza — for 20 minutes]
2. [Software programming](#) [Dinu Suman — for 28 minutes]
3. Practical uses of [SSI](#) [Ionuț Știrban — for 7 minutes]
Bogdan Gaza, Vlad Stoian
4. [Server-side Web programming](#) [Ana-Maria Daneliuc, Bogdan Gaza]
Vlad Stoian, Aurelian-Ioan
5. [Server-side Web development](#) (examples)
Victor Porof, Vlad Stoian
6. Building Web applications
Comanescu, Bogdan Gaza



 **Codrops**
Shared publicly · Sep 23, 2014

Animated Background Headers
<http://tympanus.net/codrops/2014/09/23/animated-background-headers/>

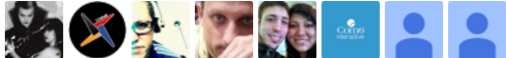


+54 23 Add a comment...

In their circles 2 people


 Manoela Ilic
 Pedro Botelho

Have them in circles 10,879 people




Build your following on Google+

Create new page

 **Codrops**
Shared publicly · Sep 18, 2014

Freebie: Jellycons iOS 8 App Icon Set
<http://tympanus.net/codrops/2014/09/18/freebie-jellycons-ios-8-app-icon-set/>



 **Codrops**
Shared publicly · Sep 22, 2014

Web Design & Development News: Collective #134
<http://tympanus.net/codrops/collective/collective-134/>



Orientate spre portaluri

localizare unitară a informațiilor
tehnice, de afaceri, guvernamentale,...

specie: **Web-ul cetățenesc**



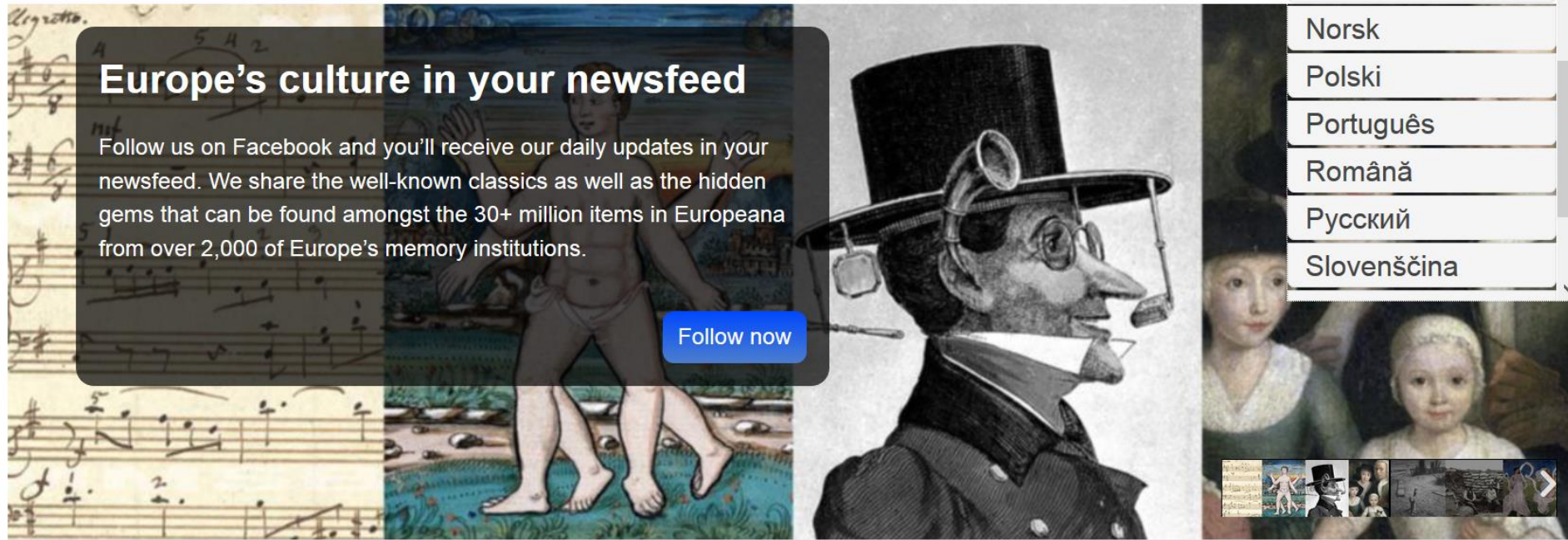
Search

- Lietuvių
- Latviešu
- Magyar
- Malti
- Nederlands
- Norsk
- Polski
- Português
- Română
- Русский
- Slovenščina

Europe's culture in your newsfeed

Follow us on Facebook and you'll receive our daily updates in your newsfeed. We share the well-known classics as well as the hidden gems that can be found amongst the 30+ million items in Europeana from over 2,000 of Europe's memory institutions.

Follow now



From the blog

Introducing the Tallinn Collector

The Tallinn Collector is a website that showcases Soviet-era tourism guides and brochures to the Estonian capital, Tallinn. It gives its readers a glimpse of what life was like in the 70's and 80's, and a taste of Soviet propaganda. ...



Claude Monet: Rejecting the Traditional Approach

On November 14 in 1840, one of the founders of the Impressionism movement was born on the fifth floor of 45 rue Laffitte, in the ninth arrondissement of Paris. Oscar-Claude Monet started this movement along



De tip ubicuu

servicii mobile bazate pe locația utilizatorului,
disponibile pe mai multe platforme:
desktop, dispozitive mobile, tabletă, ceas,...

Web-ul mobil

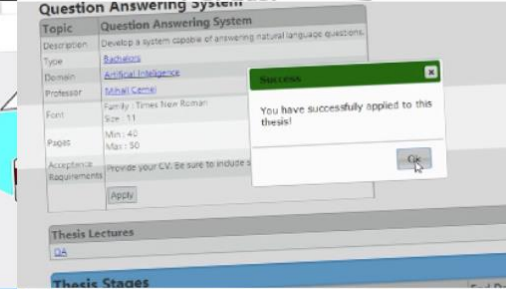
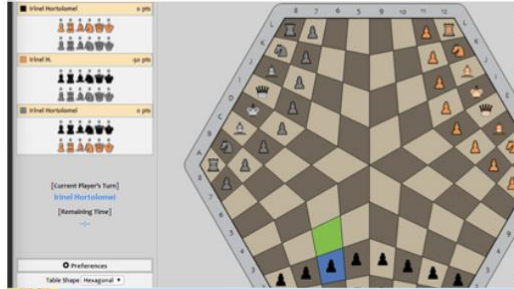
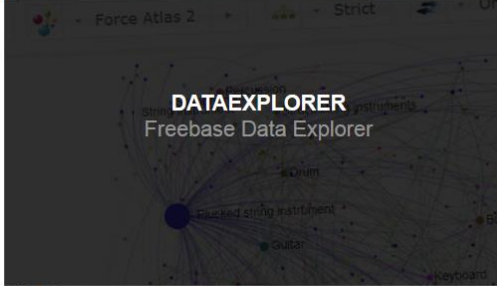
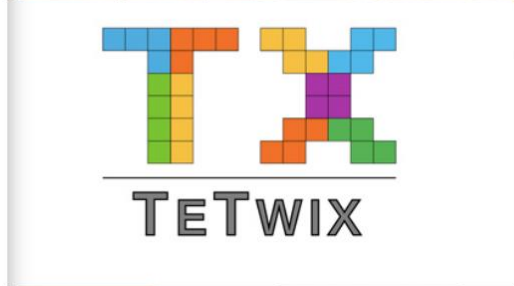
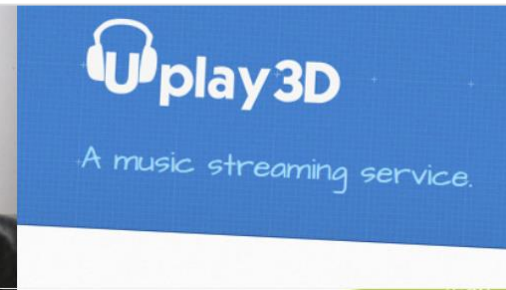
Student Projects Exhibition

Projects Exhibition

About the Exhibition

Filter Options

- All
- Web Technologies
- Client-side Web App Development
- Human-Computer Interaction
- Web Application Development
- ImagineCup



proiecte dezvoltate de studenții Facultății de Informatică
<http://profs.info.uaic.ro/~stefan.negru/studentprojects/>

Web social

mediatizare

filtrare colaborativă pe baza tagging-ului

spații de lucru virtuale

divertisment social

social (game) computing

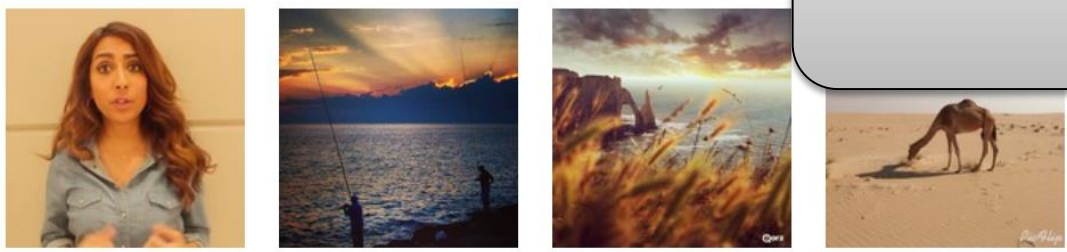
Popular Tags

632476 Tags

Sort RSS

cele mai populare tag-uri folosite de utilizatorii aplicației Instagram (octombrie 2014)

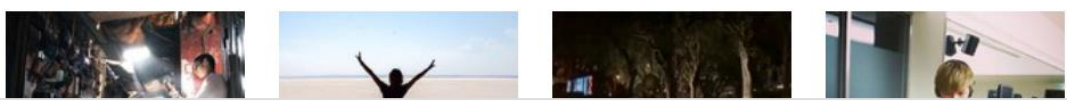
iphonesia 252649 Photos



photooftheday 231539 Photos



jj 202344 Photos

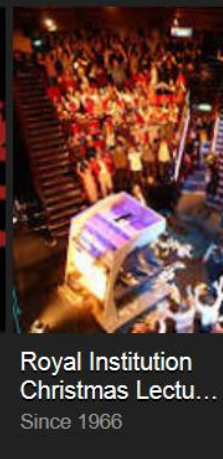
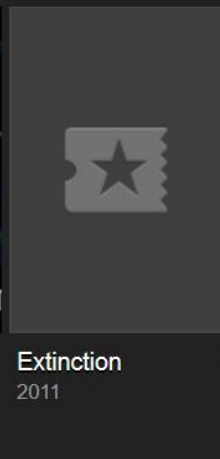
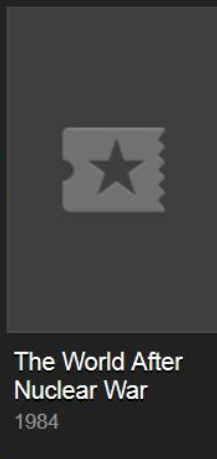


#iphonesia #photooftheday #jj
#iphoneography #instagood
#instagram #instagramhub
#iphoneonly #igers #instamood
#sky #gang_family
#bestoftheday #webstagram #ig
#iphone #all_shots

Web semantic (Web-ul datelor interconectate)

modelarea cunoștințelor
pentru a fi „înțelese” de calculatoare

date ▶ informații ▶ cunoștințe



[Cosmos: A Personal Voyage - Wikipedia, the free ...](#)
en.wikipedia.org/wiki/Cosmos:_A_Personal_Voyage ▼
Cosmos: A Personal Voyage is a thirteen-part television series written by Carl Sagan, Ann Druyan, and Steven Soter, with Sagan as presenter. It was ...
[Cosmos: A Spacetime Odyssey - Steven Soter - Heikegani - Tlingit](#)

[Cosmos: A Personal Voyage - Episode 1 \(Carl Sagan ...](#)
 www.youtube.com/watch?v=CIPShKs9Kr0 ▼
May 13, 2011 - Uploaded by SpoonHysteria
Episode 1: "The Shores of the Cosmic Ocean" English, Spanish, and Hebrew subtitles included ...

[Cosmos: A Personal Voyage - YouTube](#)
<https://www.youtube.com/playlist?list=PL474A7F1BA0FCEF8C> ▼
Cosmos: A Personal Voyage is a thirteen-part television series written by Carl Sagan, Ann Druyan, and Steven Soter, with Sagan as presenter. It covered a wid...

[Cosmos \(TV Series 1980– \) - IMDb](#)
www.imdb.com/title/tt0081846/ ▼
★★★★★ Rating: 9.3/10 - 14,437 votes
With Carl Sagan, Jaromír Hanzlík, Jonathan Fahn, Alan Belod. Astronomer Carl Sagan leads us on an engaging guided tour of the various elements and ...
[Awards](#) - [User Reviews](#) - [Plot Summary](#) - [Trivia](#)

Cosmos: A Personal Voyage

American Television Series

★★★★★ 9.3/10 - IMDb



Cosmos: A Personal Voyage is a thirteen-part television series written by Carl Sagan, Ann Druyan, and Steven Soter, with Sagan as presenter. [Wikipedia](#)

First episode date: September 28, 1980
Final episode date: December 21, 1980
Theme song: [Heaven and Hell, Part I](#)
Program creators: [Ann Druyan](#), [Steven Soter](#), [Carl Sagan](#)
Awards: [Peabody Award](#), more
Writers: [Carl Sagan](#), [Ann Druyan](#), [Steven Soter](#)

People also search for [View 5+ more](#)





open participation



open data



open software



open app development



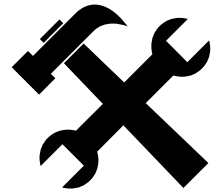
open web



open cloud

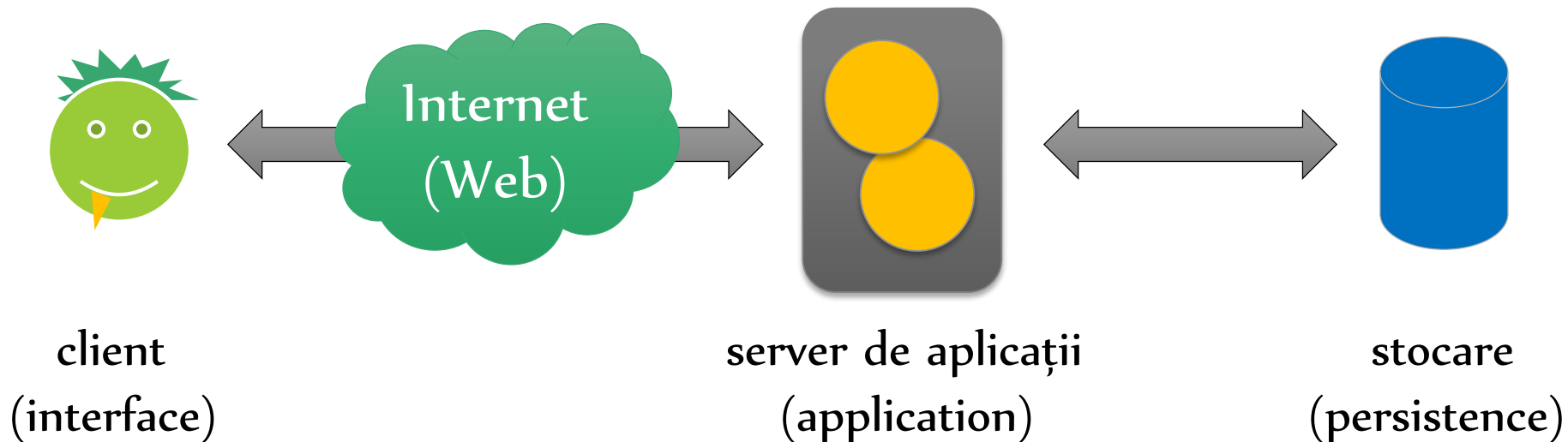


open (computing) hardware



**Care e arhitectura generică
a unei aplicații Web?**

uzual, o aplicație Web implică trei strate (3-tier)



A photograph of a glass jar containing a layered dessert. The layers, from top to bottom, are: white cream with a small white label on top, a yellow custard layer, a red jelly layer, a light-colored sponge layer, and a bottom layer of light-colored sponge. The jar is set against a background of various kitchen items, including a tin of 'Vital' rice cakes and a green jar.

Fruit / Presentation

Cream / Markup

Custard / Page Logic

Jelly / Business Logic

Sponge / Database



Fruit / Presentation

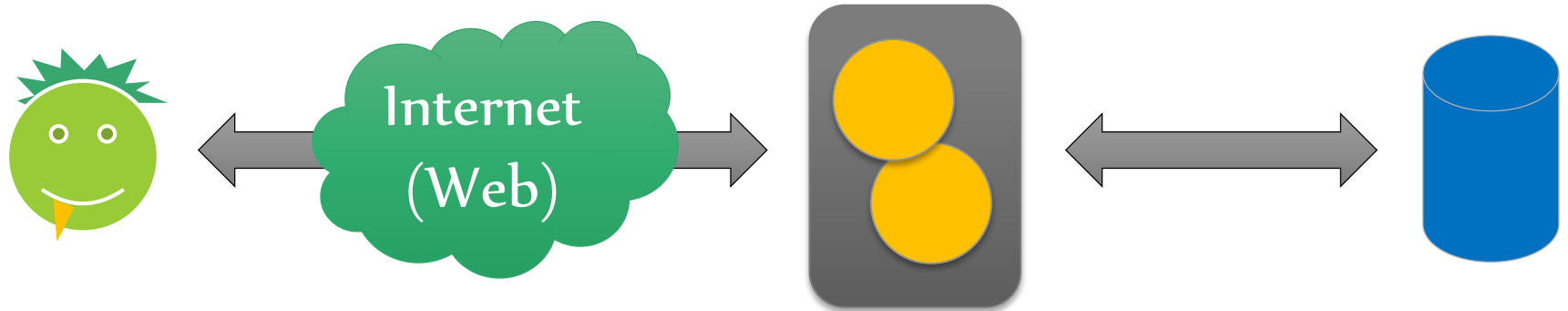
Cream / Markup

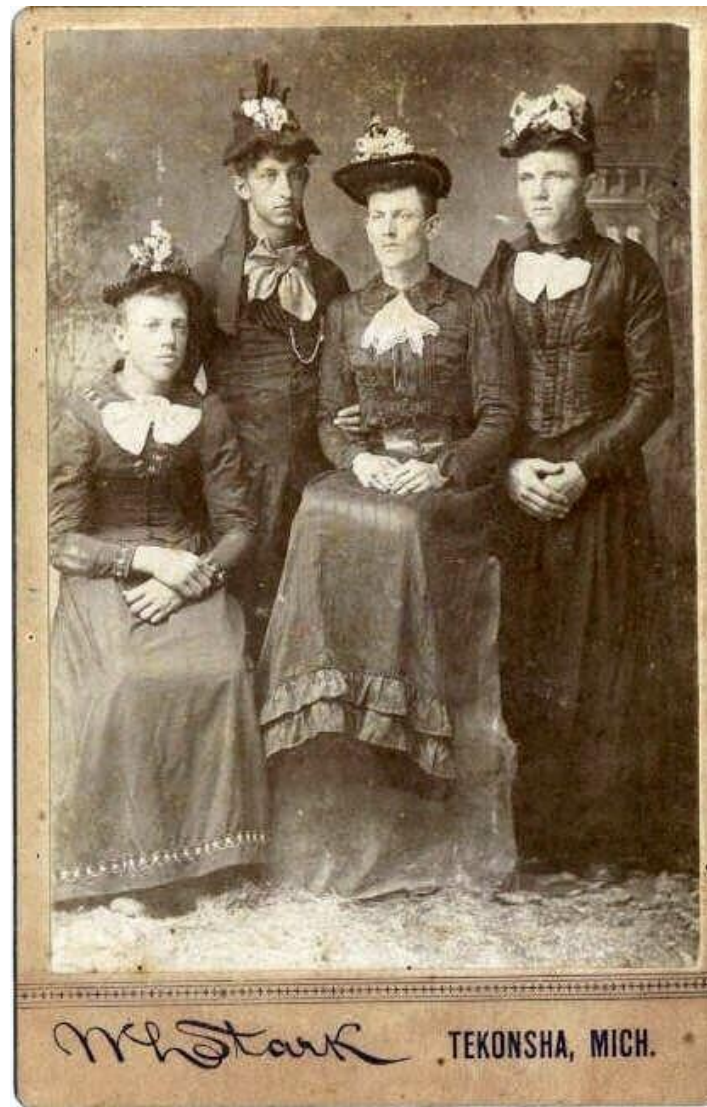
Custard / Page Logic

Jelly / Business Logic

Sponge / Database

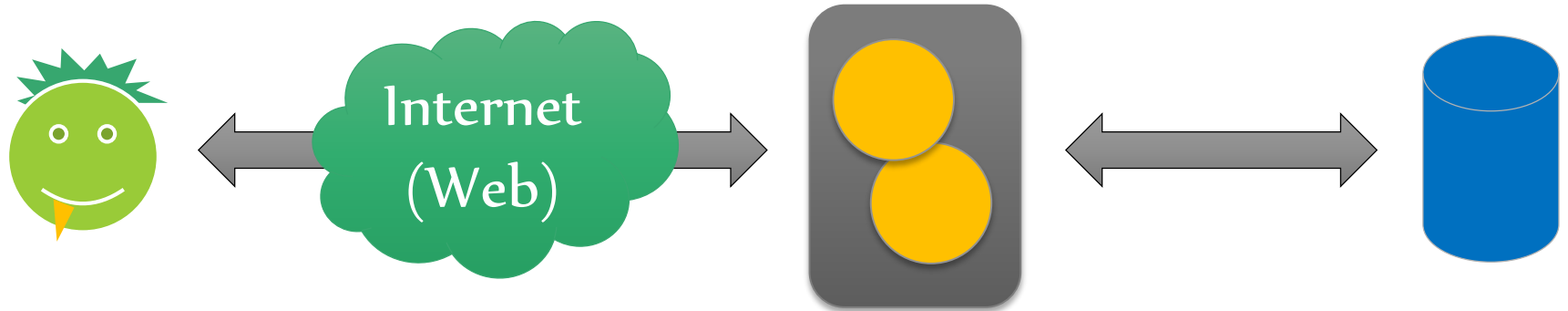
Aplicație Web = **Interfață** + Program + Conținut (Date)





mitul 1: cea mai importantă este interfața

Aplicație Web = **Interfață** + Program + Conținut (Date)



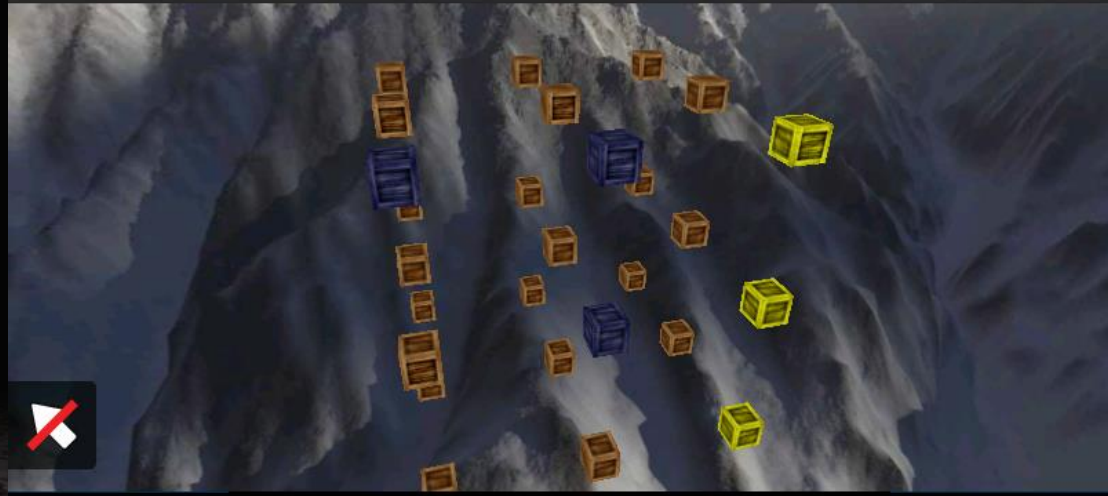
standarde deschise: **HTML, CSS, Ajax, SVG, WebGL,...**



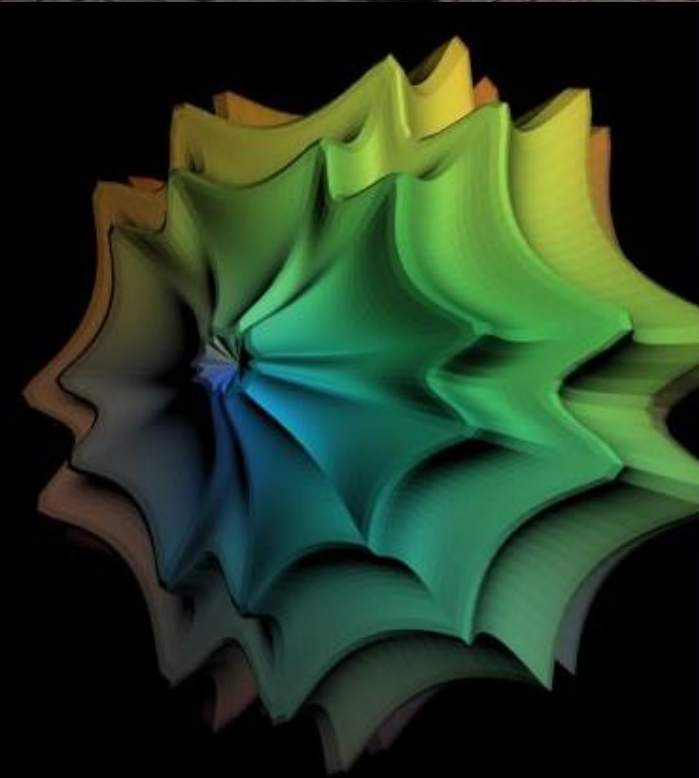
22:41



Match 3D ▾



<http://users.chal.sch.gr/pavlos/webgl>



3d Grapher

In equations can use predefined functions: sin, cos, tan, exp, pow, sqrt, abs, ln, sinh, acosh, atan and gradient pt.
Click and drag to rotate.
Mouse scroll to zoom in (zoom out).

SHOW ON FULL SCREEN

Shadows Texture Color

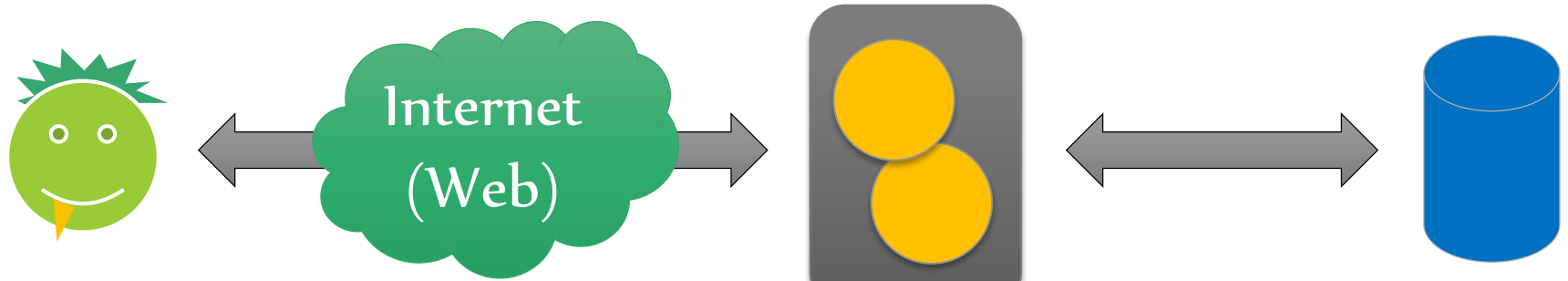
Function: Parametric: **Supershape**

1 1 11 7 19 3 1 1 15 16 12 6

Random supershape



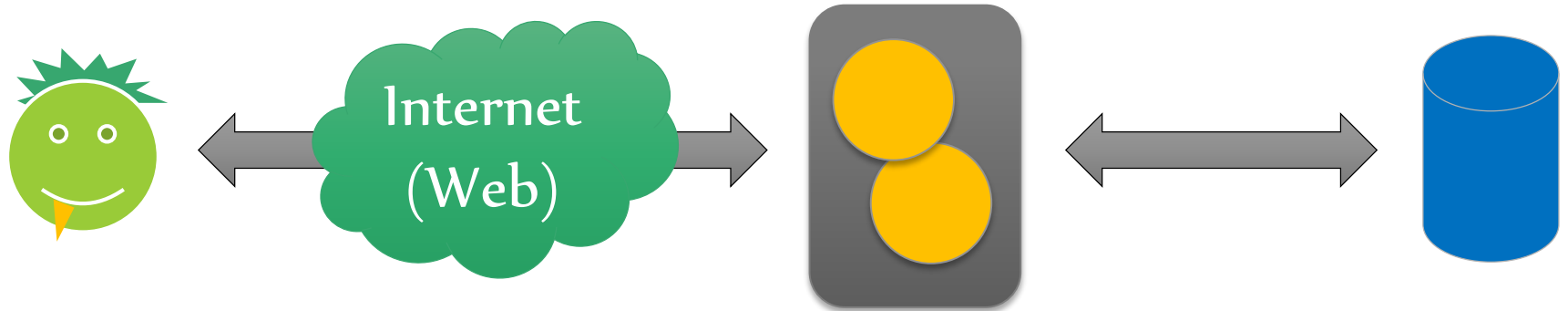
Aplicație Web = Interfață + **Program** + Conținut (Date)





mitul 2: cel mai important este programul

Aplicație Web = Interfață + **Program** + Conținut (Date)



server: **C#, Go, Java, JavaScript, PHP, Ruby, Scala** și multe altele

client: **JavaScript**

servere de aplicații Web, framework-uri, biblioteci, componente,...

Frameworks & Extensions

jQuery 1.8.3 ▼

 jQuery Mobile 1.2.0 jQuery UI 1.9.2

No wrap - in <head> ▼

Fiddle Options

External Resources

Languages

Ajax Requests

Legal, Credits and Links

```
1 <article>
2   <div id="imagini">
3     <!-- in cadrul acestui element vor fi incluse imaginile
4   -->
5   </div>
6 </article>
```

HTML

```
26 $.getJSON ("http://api.flickr.com/services/feeds
27 /photos_public.gne?jsoncallback=?", { // datele de intrare
28   trimise serviciului web
29   tags: "Iasi, informatica",
30   tagmode: "all",
31   format: "json" // dorim JSON (formatul implicit este Atom)
32 },
33 // functia anonima care va procesa datele JSON
34 // transmisa asincron de catre Flickr
35 function (data) {
36   // iteram fiecare informatie obtinuta de la serviciul web
37   $.each(data.items, function (numar, foto) {
38     // 'iesim' din iterator daca am depasit maximul dorit
39     if (numar >= MAX_IMG) return false;
40     // cream un element <img> avand ca valoare a
41     atributului "src"
42     // adresa web inclusa in datele JSON obtinute;
43     // acest <img> va fi adaugat la elementul cu
44     id="imagini"
45     $("<img/>")
46       .attr("src", foto.media.m)
47       .attr("title", foto.title)
48       .appendTo("#imagini");
```

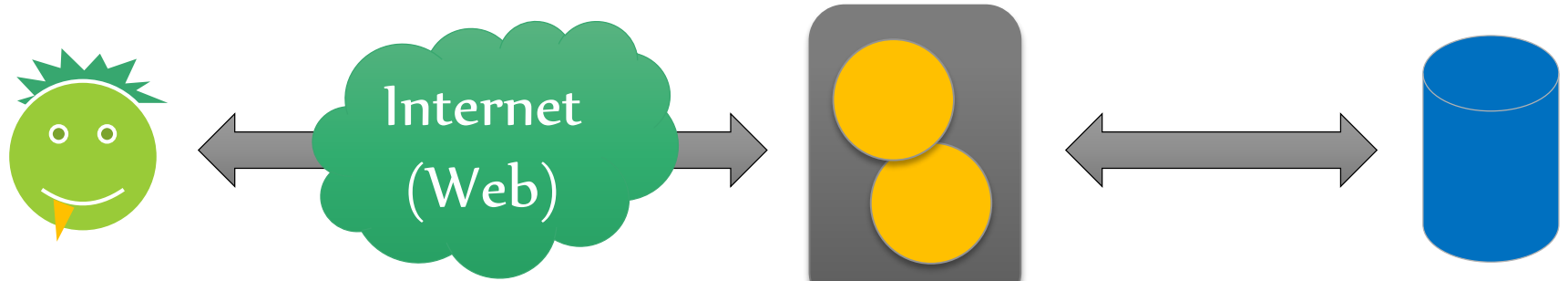
JavaScript ↕

```
1 img {
2   width: 300px;
3   padding: 0.2em;
4   margin: 0.2em;
5   float: left;
6   border: thin solid #ccc;
7 }
```

CSS



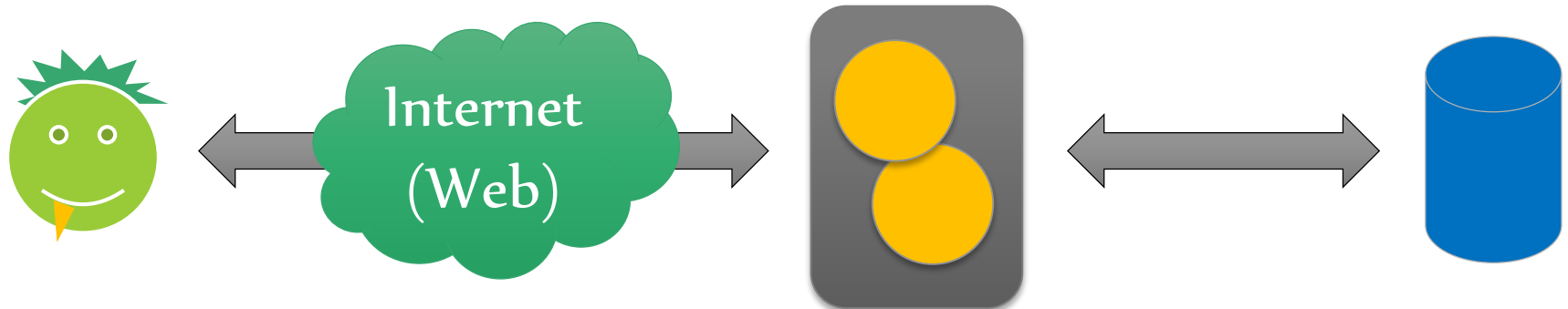
Aplicație Web = Interfață + Program + **Conținut** (Date)





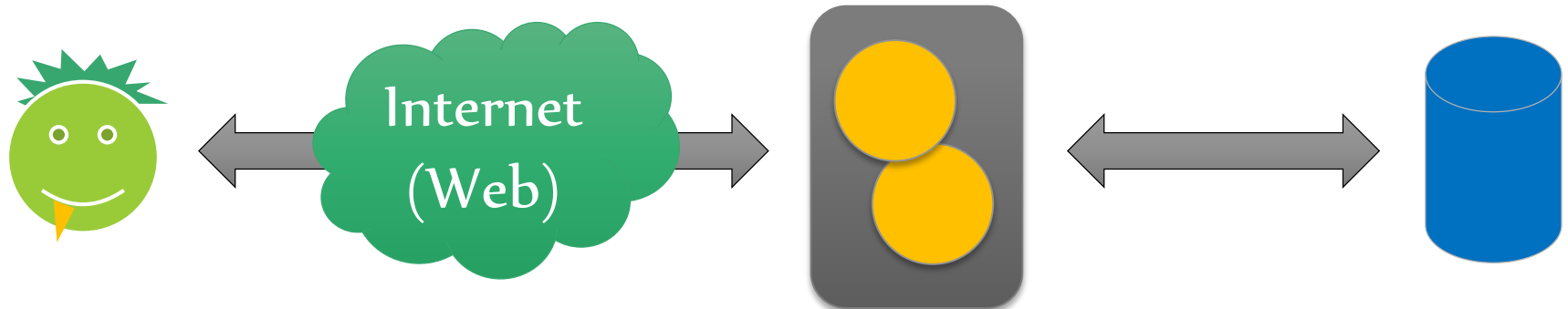
mitul 3: cele mai importante sunt datele

Aplicație Web = Interfață + Program + **Conținut** (Date)



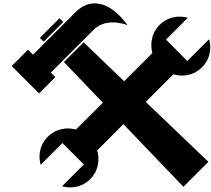
utilizarea diverselor modele:
relațional – interogare via **SQL**
bazat pe grafuri (**NoSQL**)
cheie-valoare – formatul **JSON**
arborescent – **XML**

Aplicație Web = **Interfață** + **Program** + **Conținut (Date)**



- mitul 1: cea mai importantă este interfața
- mitul 2: cel mai important este programul
- mitul 3: cele mai importante sunt datele

fapt: sunt importante toate!



Câteva exemplificări de aplicații Web?

client(i)

firewall

proxy

middleware

server(e) Web

server(e) de aplicații

framework-uri, biblioteci, alte componente

server(e) de stocare persistentă – e.g., baze de date

server(e) de conținut multimedia

server(e) de management al conținutului (CMS)

aplicații/sisteme tradiționale



Imagine Cup 2009

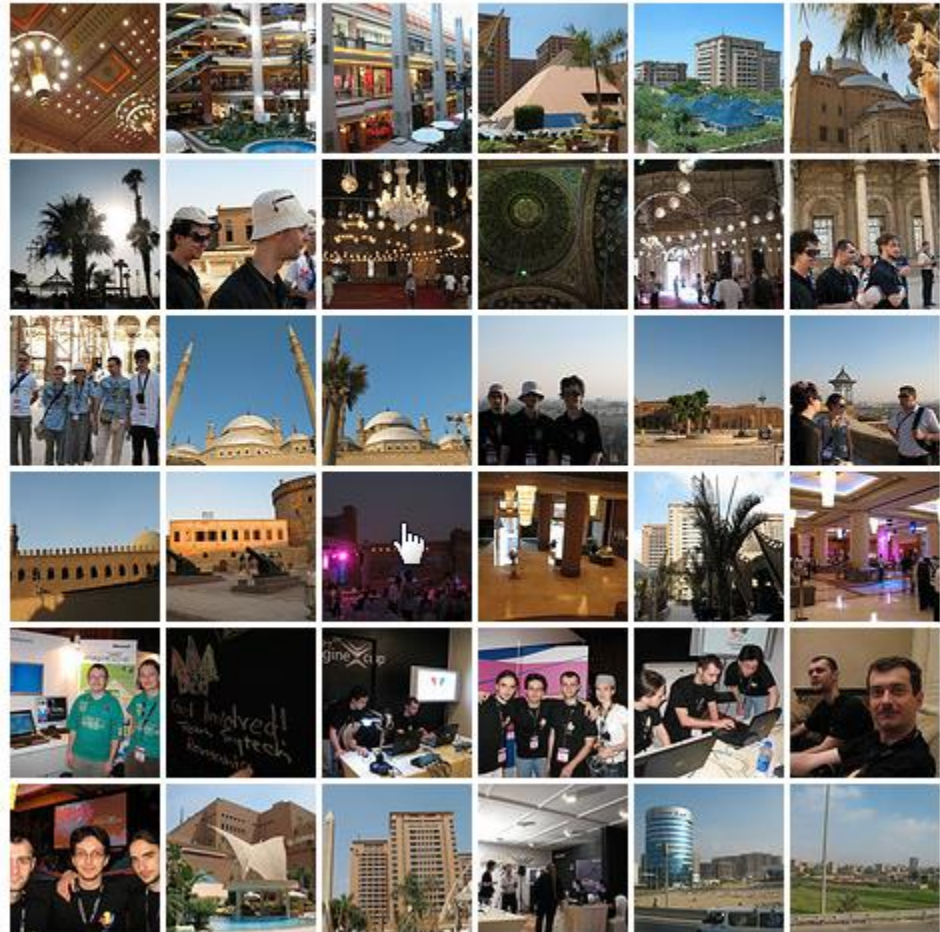
[Thumbnails](#) [Detail](#) [Comments](#)



Photos taken during the Imagine Cup 2009 competition, 02-08 July 2009, Cairo, Egypt.

110 photos | 384 views | [Add a comment?](#)

items are from 13 Jul 2009.



studiu de caz: **Flickr**

Flickr

scop: partajare a conținutului grafic (fotografii)

aplicație reprezentativă a Web-ului social

agregare de comunități – imaginea ca obiect social

adnotări via termeni de conținut (tagging) + comentarii

PHP (procesare – application logic, acces la API,
prezentare de conținut via **Smarty**, modul de e-mail)

Perl (validarea datelor)

Java (managementul nodurilor de stocare)

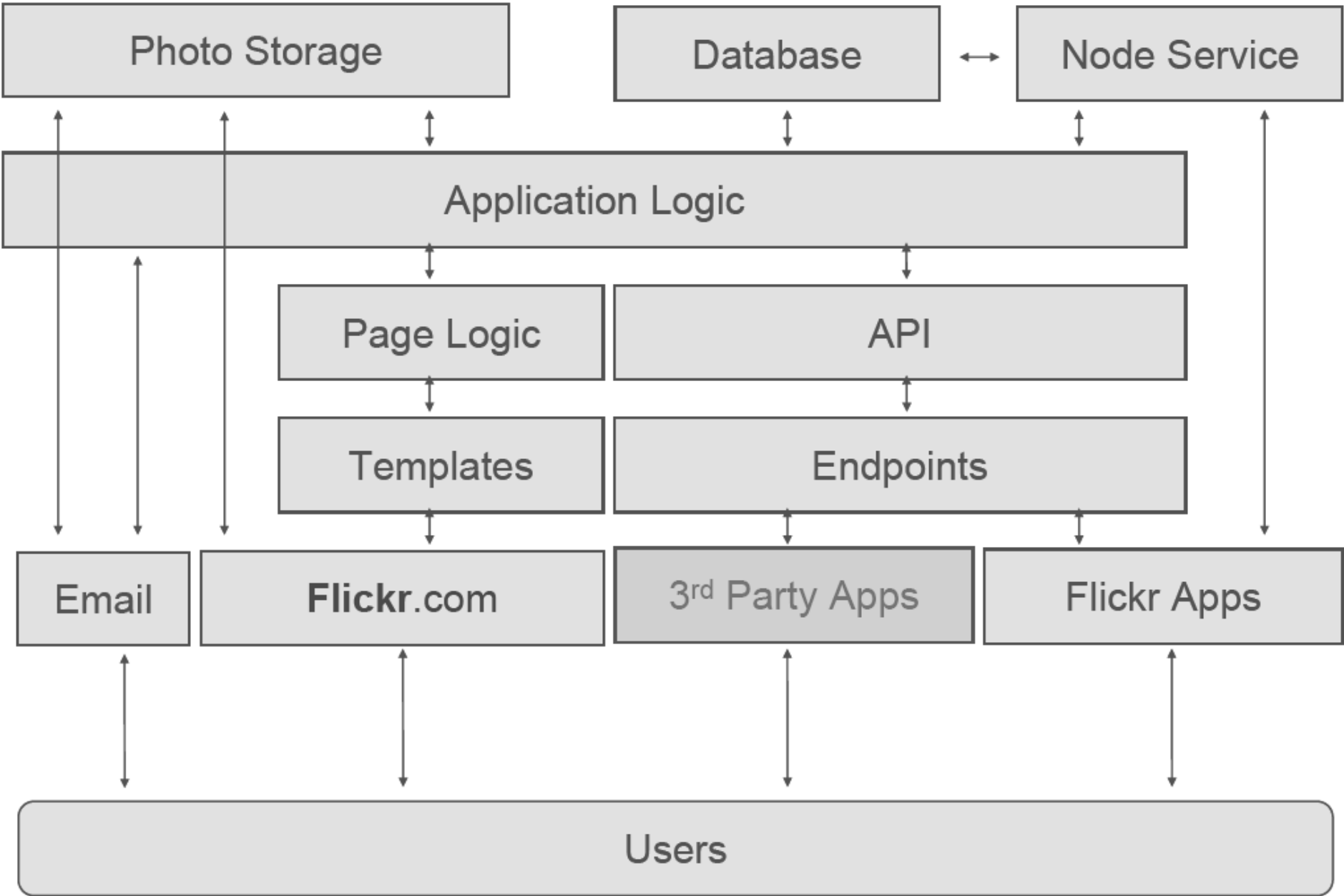
MySQL (stocare de date)

ImageMagick (bibliotecă C de prelucrare de imagini)

Ajax (interacțiune asincronă)

Linux (platformă de rulare)

alte detalii la <http://highscalability.com/flickr-architecture>



arhitectura inițială – conform (Cal Henderson, 2007)

API Kits

C

- [Flickcurl](#)

Cold Fusion

- [CFlickr](#)

Common Lisp

- [Clickr](#)

cUrl

- [Curlr](#)

Delphi

- [dFlickr](#)

Go

- [go-flickr](#)

Java

- [Flickr4Java](#)
- [flickr-jandroid](#)

.NET

- [Flickr.NET](#)

Node.js

- [node-flickrapi](#)

Objective-C

- [ObjectiveFlickr](#)
- [FlickrKit](#)

Perl

interfețe de programare (API-uri)
oferite de Flickr

facilitează accesul la serviciile Web
în cadrul aplicațiilor
eventual, rulând pe alte platforme

www.flickr.com/services/api/

Open Source Iasi

Open Source conference

15 MARCH
2014

 [Iasi](#)
in [Romania](#)

opensourceiasi.wordpress.com

[#opensourceiasi](#)

 [Save to iCal / iPhone / Outlook / GCal](#)

 lanyrd.com/cxgxd (short URL)

6 speakers



[Jakob Cosoroabă](#)

@jcsrb



[Sabin Buraga](#)



[Alex Lakatos](#)

@lakatos88
Mozilla Rep, JavaScript Dev



[Andreea Popescu](#)

@andreea_popescu
Mozilla Rep, Firefox user and
Firefox OS app reviewer



[Stefan Cosma](#)

@stefanbc
App builder extraordinaire,
community manager and developer



[Ioana Chiorean](#)

@ioana_cis

studiu de caz: **Lanyrd**

Lanyrd

scop: descoperire & management de evenimente
(de exemplu, conferințe cu caracter tehnologic)

agregare de comunități – evenimentul ca obiect social

suport pentru vorbitori & audiență, slide-uri, ...
+ calendare și locații geografice

Creat aproape complet în Python (folosind Django)
și întreținut de 6 persoane

2½ backend developers

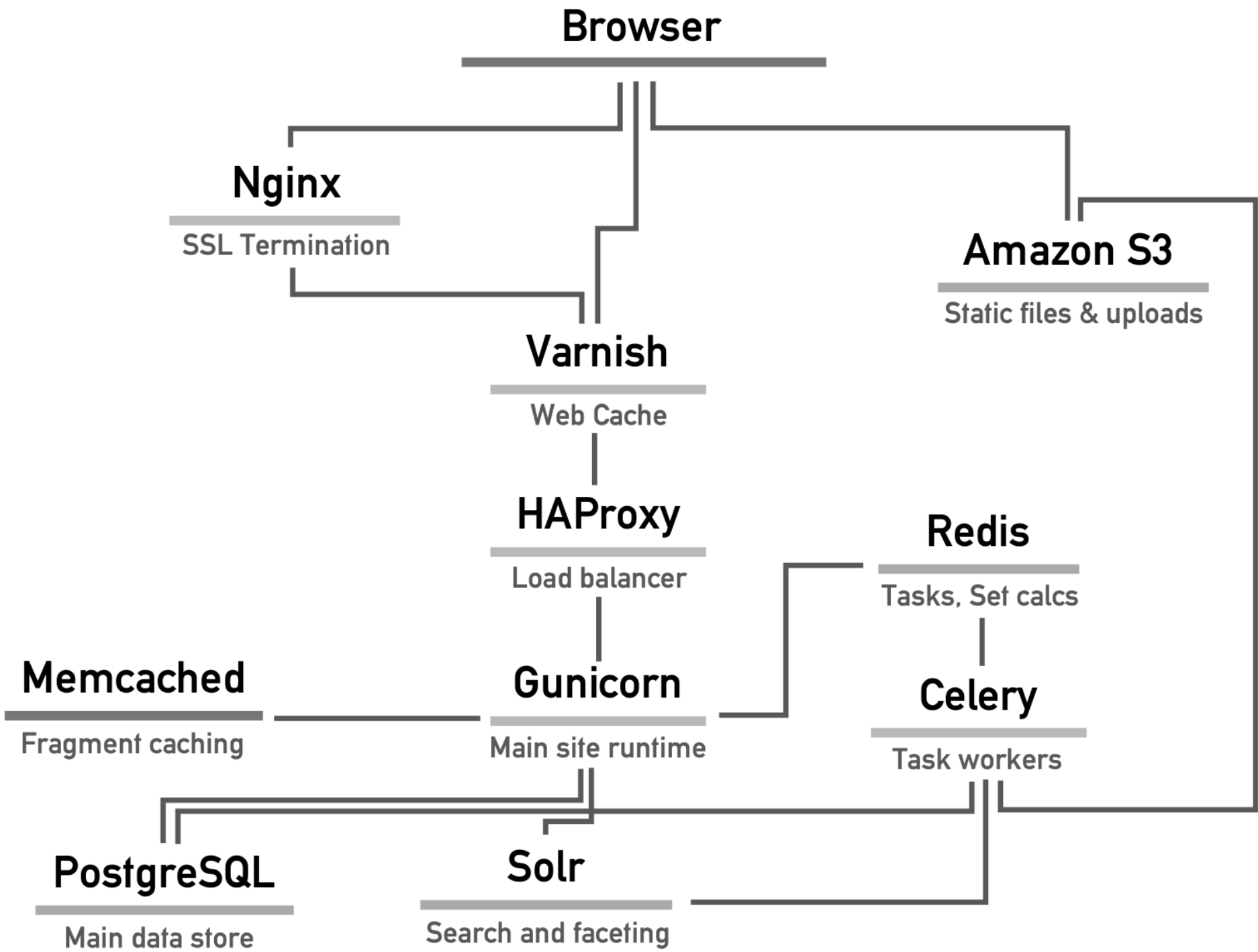
1¾ frontend developers

½ mobile developers

1½ designers

¾ system administrators

¾ business operations



Browser

Nginx

SSL Termination

Amazon S3

Static files & uploads

Varnish

Web Cache

HAProxy

Load balancer

Gunicorn

Main site runtime

Redis

Tasks, Set calcs

Celery

Task workers

Memcached

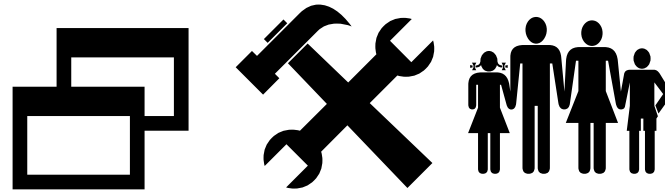
Fragment caching

PostgreSQL

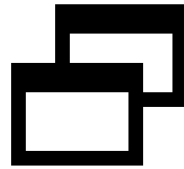
Main data store

Solr

Search and faceting



**Aspecte importante vizând
dezvoltarea de aplicații Web?**



aplicații Web \equiv sisteme software complexe,
în evoluție permanentă

mijloace multiple de **interacțiune Web** cu utilizatorul



mobil



laptop



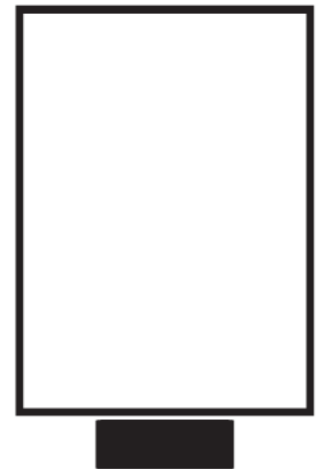
PC



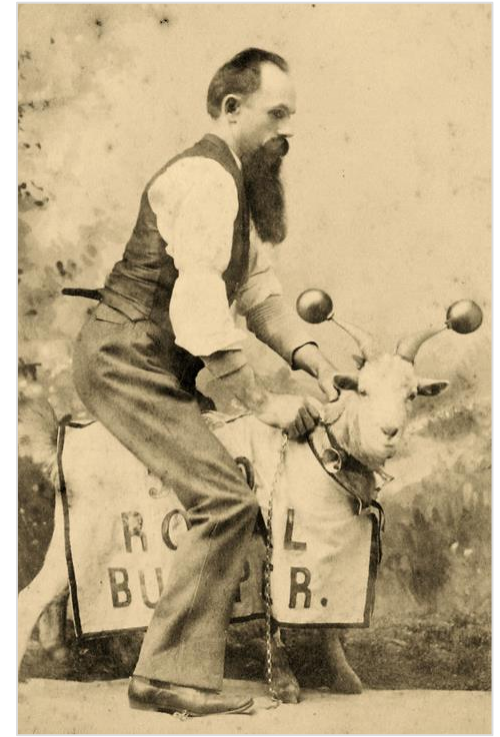
tabletă



(*smart*) TV



ecran urban



creșterea masei de **utilizatori**,
având așteptări tot mai mari din partea software-ului

de la conținut (hiper)textual
la aplicații Web sociale + interacțiune naturală



suportul variază privind dezvoltarea de aplicații
(limbaje, API-uri, SDK-uri, biblioteci, framework-uri,...)
oferit de platforma hardware/software
la nivel de server(e) și/sau de client(i)



neadaptarea la **cerințele economice** (de tip business)
development vs. marketing vs. management

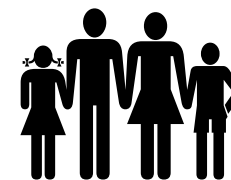
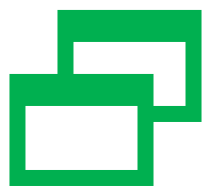
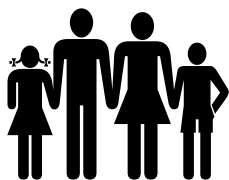
scopuri
psihologie
comportament

interacțiune
controale
limbi naturale

facilități
tehnologii
algoritmi

indexare
structurare
meta-date

instrumente
metodologii
stimuli



utilizatori

interfață

software

conținut

creatori

adaptare după Crumlish & Malone, 2009

Etape în dezvoltarea unei aplicații Web

Cerințe – *requirements*

Analiză și proiectare – *software design*

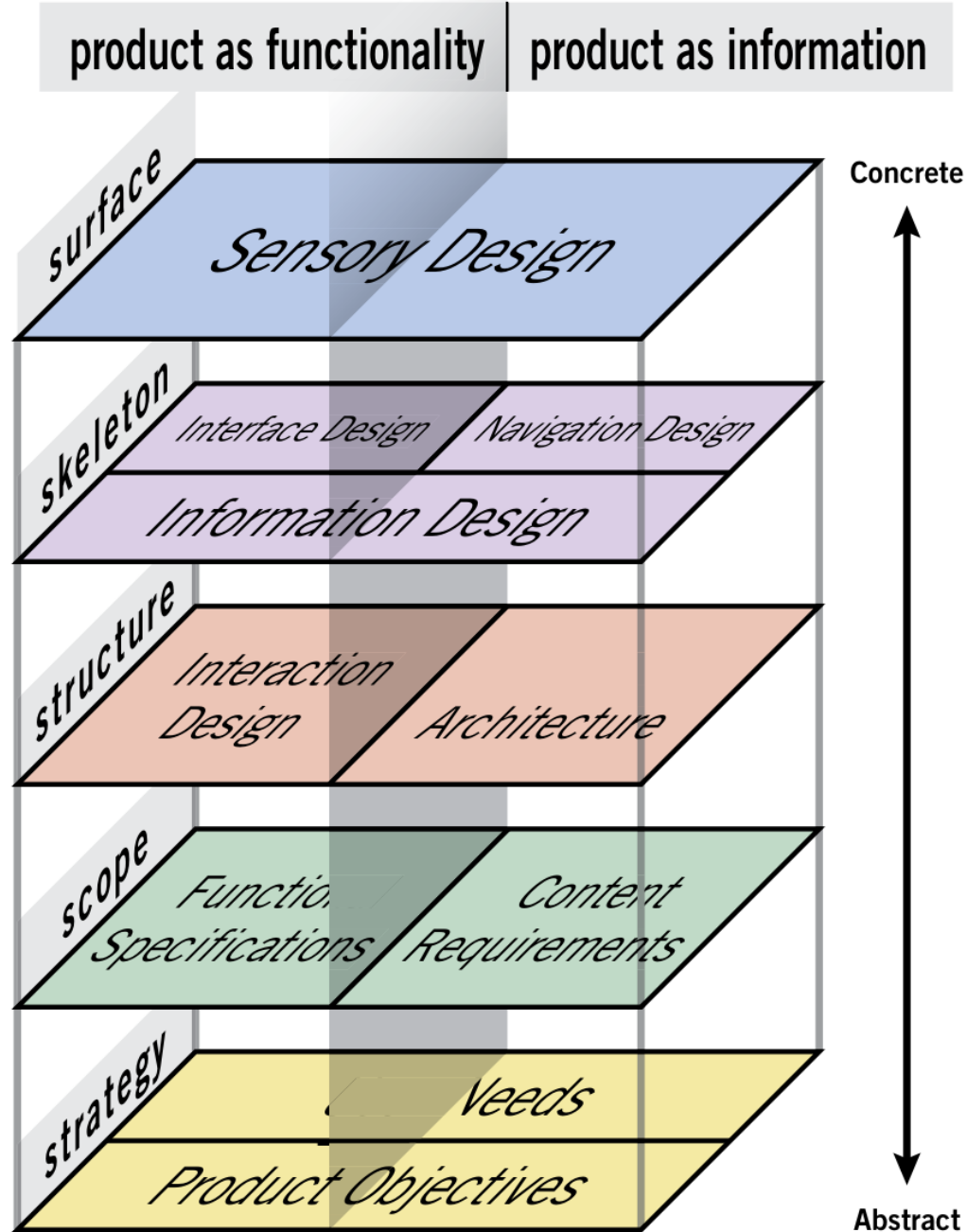
Implementare – *build*

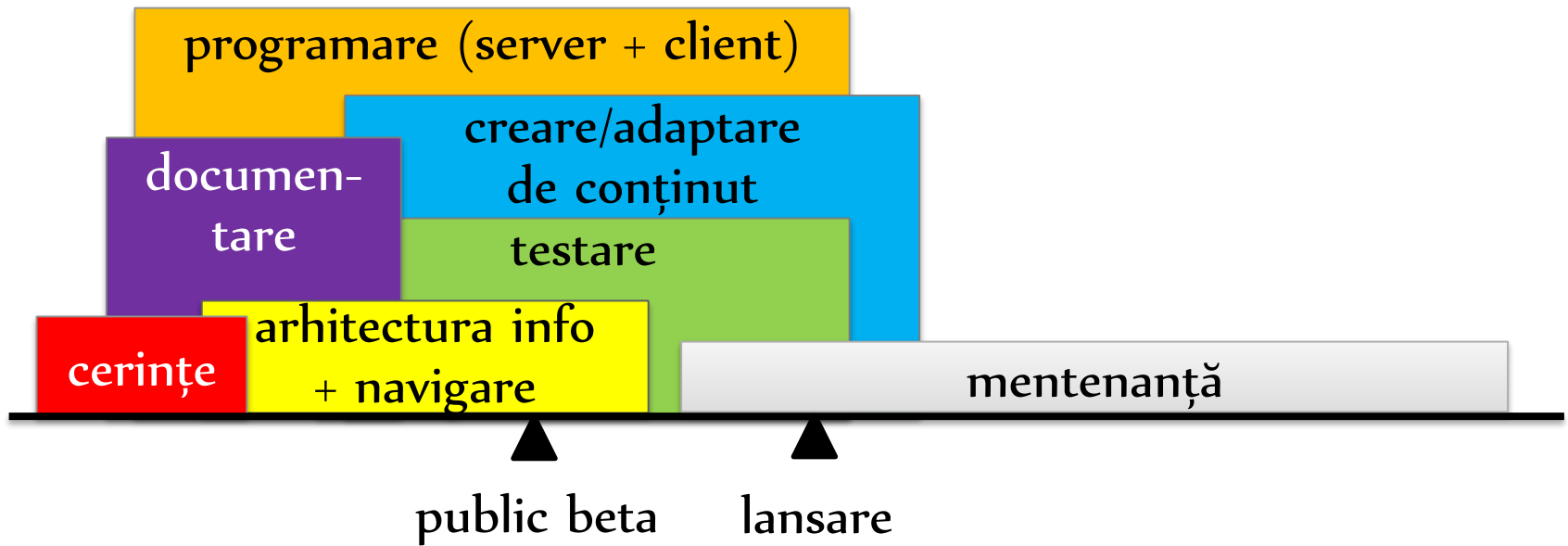
Testare – *testing*

Exploatare – *deployment*

Mentenanță – *maintenance*

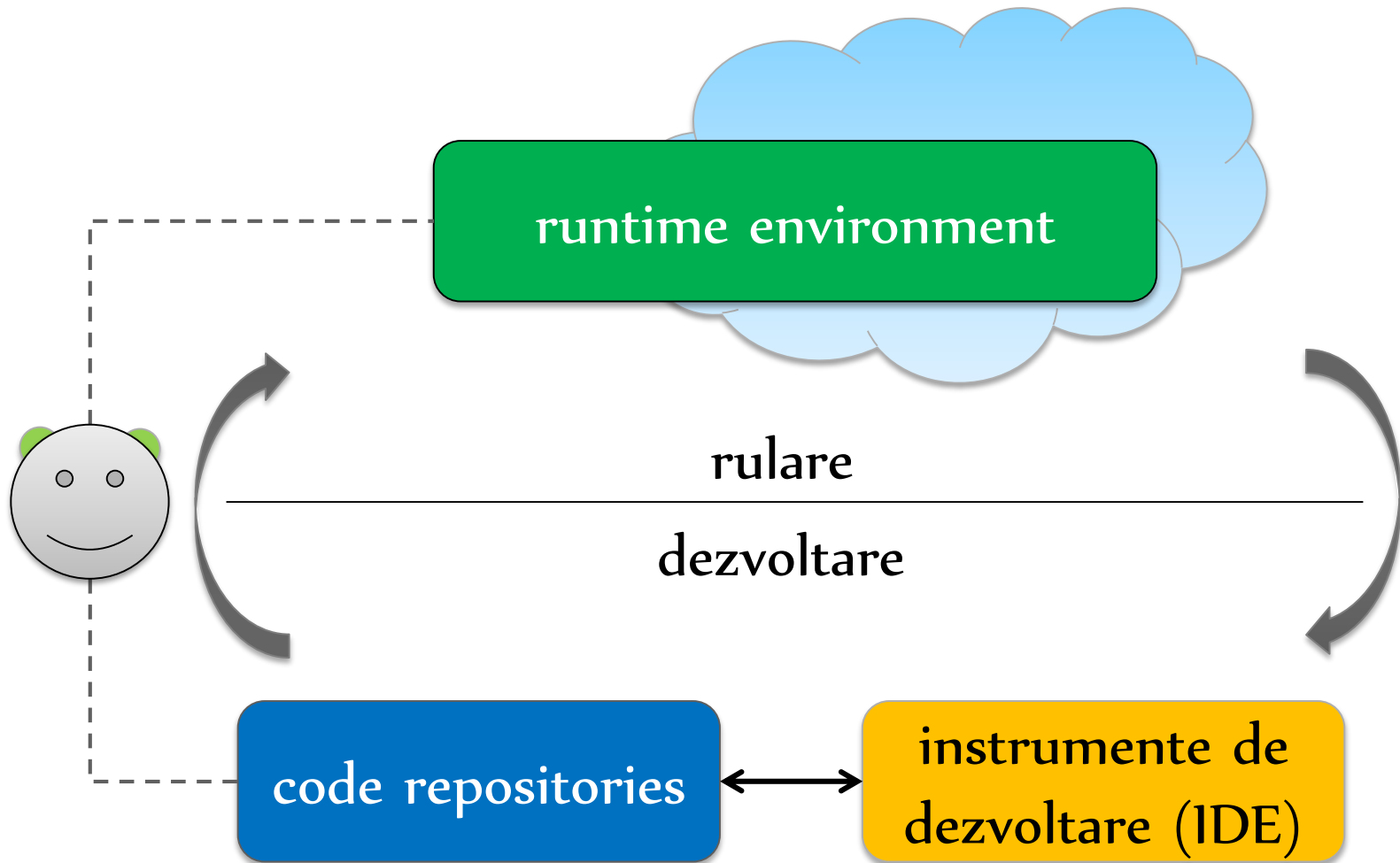
Evoluție – *evolution*





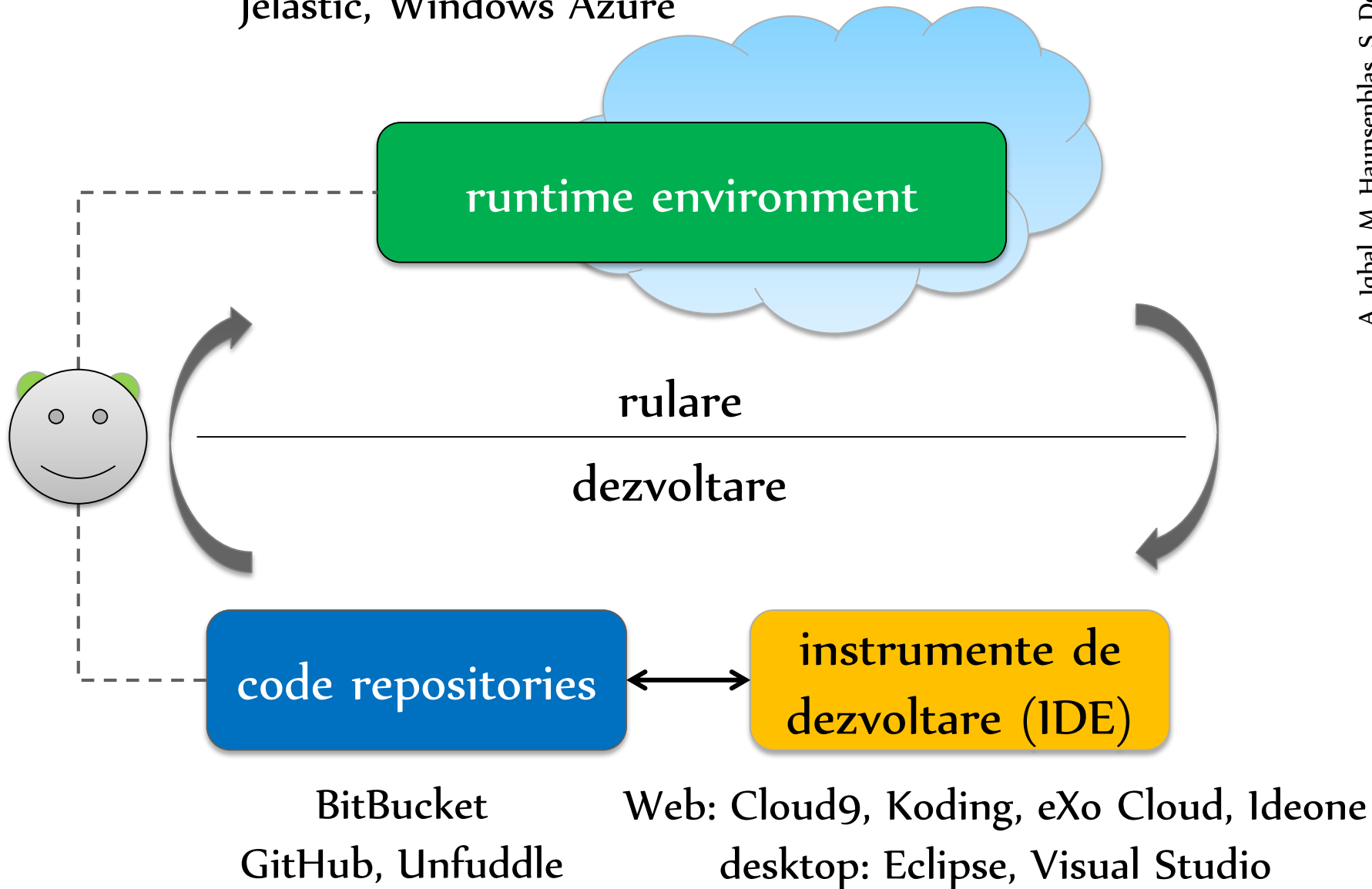


Vreau să dezvolt un proiect Web..



procesul actual de dezvoltare și exploatare
a aplicațiilor Web

Google App Engine, Heroku,
Jelastic, Windows Azure



Parametrii unui proiect Web

obiectiv principal

durată

cost

abordare

tehnologii

proces

rezultat

resurse umane

profilul echipei



obiectiv principal

crearea unui produs software utilizabil
în cât mai scurt timp posibil



durată

aproximativ 2—6 luni



cost

de ordinul miilor de Euro

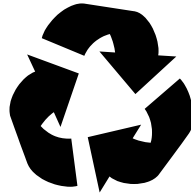


abordare

prototipizare – wireframe, mockup,...

metode agile

asamblare de componente reutilizabile



tehnologii

componente (servicii Web, API-uri publice,
framework-uri, biblioteci, plugin-uri, extensii etc.)

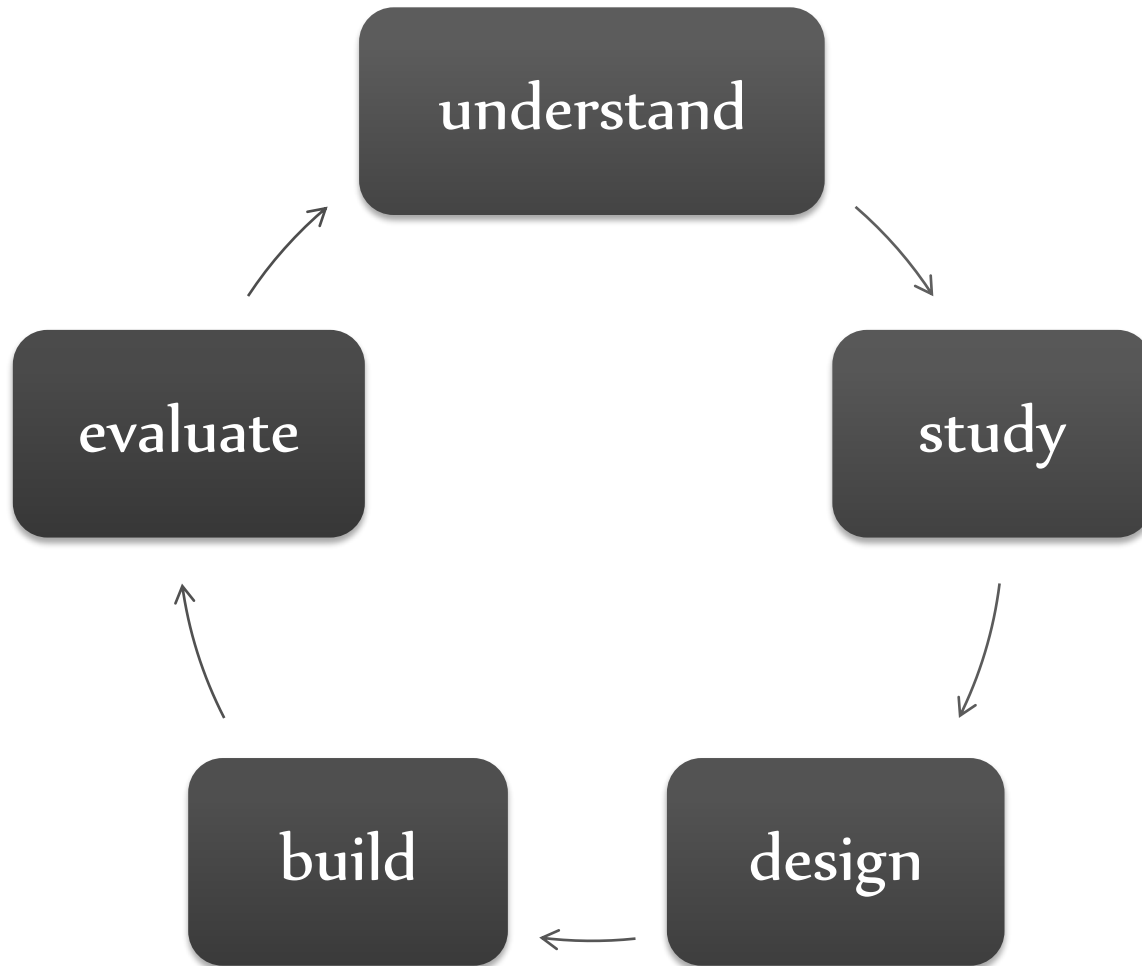
proiectare/programare „vizuală”

multimedia

...și altele

processe

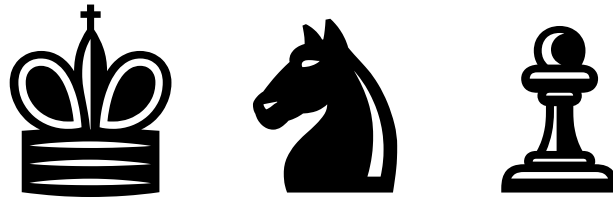
uzual, dezvoltarea aplicațiilor Web se realizează iterativ
„nu te aștepta să-ți iasă din prima...”





rezultat

reutilizabilitate mare a codului,
recurgerea la componente/limbaje/platforme standard
aplicații implementate uzual conform standardelor
designul vizual este, de cele mai multe ori, unicat

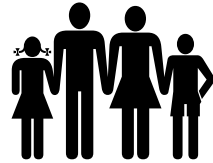


resurse umane

uzual, 3—9 persoane

“For the first version of your app, start with only 3 people.”

Getting Real – <https://gettingreal.37signals.com/>



profilul echipei

specialiști în interacțiune – uzual: designeri Web

+

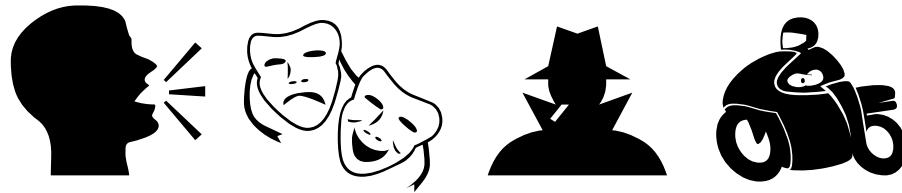
dezvoltatori (programatori) Web – la nivel client/server

+

arhitecți de baze de date

+

specialiști în marketing și/sau relații cu publicul



**Care-i echipa de dezvoltare
a unei aplicații Web de anvergură?**



management
site editor
project manager



dezvoltare (arhitectură)

system architect
data (content) architect
component architect
security architect

To help drive operational costs to the floor we are actively recruiting Systems Engineers to operate our existing fleets, analyze and tune hardware/software configurations, automate existing manual processes and identify improvements to our existing tools. This exciting and high impact role will involve working with a wide range of other technical and business groups within Amazon.

Do you:

- Calmly and quickly diagnose and fix critical failures in high pressure situations?
- Build innovative, production-quality tools to solve real operational problems in Perl, Ruby, Python or Java?
- Investigate complicated technical issues scientifically and thoroughly and fix them so they don't come back?
- Understand how a scalable, modern, cloud-hosted application stack works from top to bottom?

Basic Qualifications

- BA degree in Computer Science or other related field
- Some experience with performance analysis, systems software, and systems architecture
- Proficiency in shell, Perl, Ruby or Python
- Ability to operate in high pressure environment troubleshoot complex issues quickly
- Operational knowledge & experience of Linux

About the role

We're looking for a lead developer and evangelist to maintain and further develop OpenSpending and the Spending Stories project.

Some things we look for:

- Strong interest in open government and transparency
- Fluent in JavaScript, Python and HTML5/CSS (include links to any sites you built and code repositories, e.g. GitHub, BitBucket)
- Experience with data warehousing, ETL, data processing and management techniques a big plus.
- An appreciation of design and beautiful things
- Readiness to do travelling, some writing, public speaking and to promote OKFN projects

interacțiune cu utilizatorul

creative lead

Web interface designer(s)

graphic artist(s)

HCI engineer



Responsibilities:

- * Creating wire-frames, user flows, and storyboards that guide the design of our products
- * Designing prototypes to test ideas and identify shortcomings
- * Collaborating with visual designers and engineers to ensure a great user experience from design to implementation
- * Providing feedback and design critique

Qualifications:

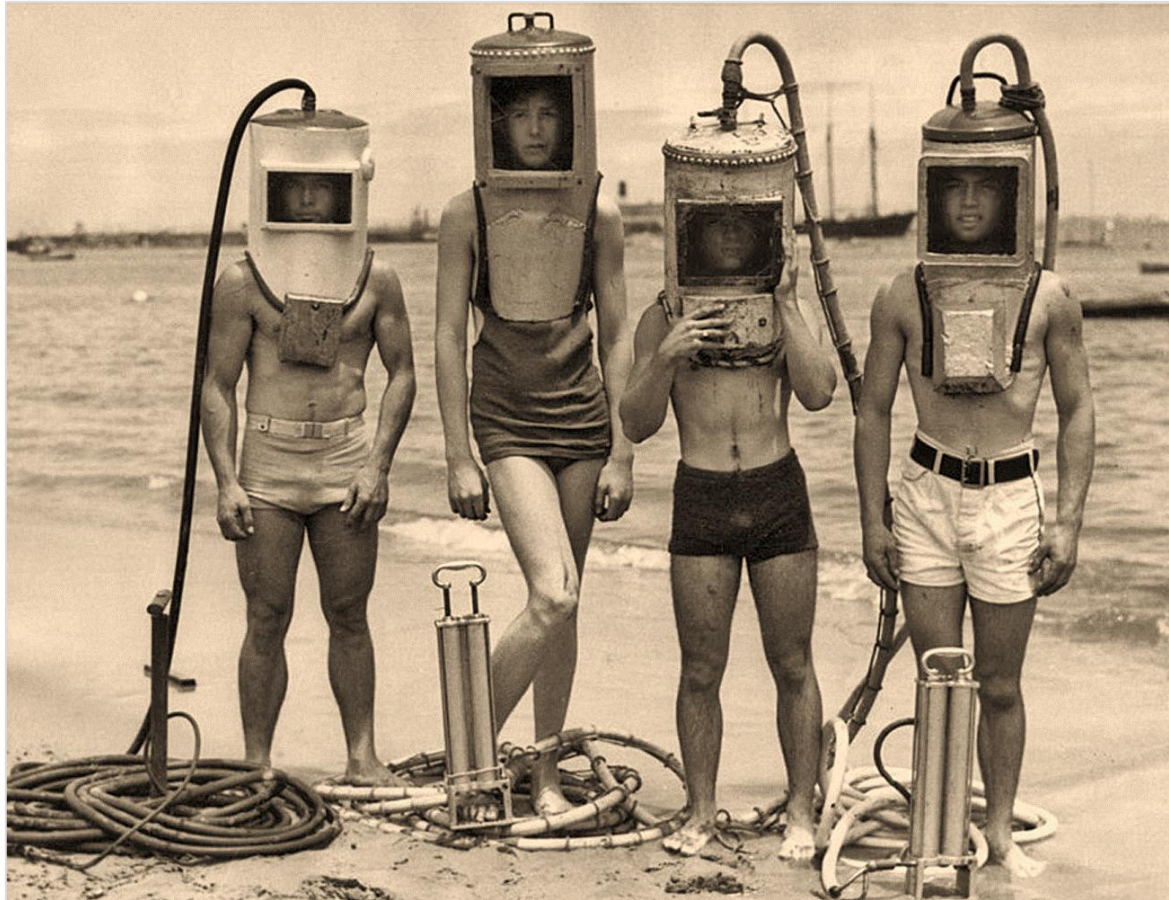
- * Advanced degree in interaction design, HCI or related field (or equivalent experience)
- * At least 2 years experience designing consumer-focused desktop applications
- * Problem framing and solving skills
- * Strong portfolio of interaction design, with examples of both process and final product.
- * Ability to rapidly generate, visualize and iterate design solutions in collaborative environment.
- * Great communication skills for working with cross-functional teams
- * Multi-disciplinary, always-learning mind set

Pluses:

- * Familiarity with modern web technologies (HTML/CSS/Javascript)
- * Skills in visual design and/or development
- * Localization and accessibility experience

Your activity:

- create user-centered design for web, desktop and mobile applications
- apply your vision and ideas through an interactive and iterative process
- take design decisions and create rapid prototypes and mock-ups
- strong collaboration with the development team



programmare

server-side programmers

client-side programmers

data/component integration programmers

- * We work closely with these newly formed development teams to embrace a culture of delivering high quality capabilities for users.
- * Prototype new test frameworks and tools to ensure that the emerging technologies are working according to engineering expectations.
- * Develop manual and automated testcases against mobile platforms like Android and B2G.
- * Work with the mobile team to deliver new functionality and products under a very tight weekly train model release.

Requirements:

- * Knowledge of internet and browser technologies
- * Understanding of test methodologies and test case development
- * Programming experience with C++, JavaScript, Python, and XML
- * Knowledge of Android / iOS / Windows / Mac / Linux environments
- * Strong verbal and written communication skills; Flexibility in dynamic software environments

Responsibilities

- Design and implement fully customized web applications based on the open source XWiki technology
- Work with our dev team on building prototypes, developing features and fixing bugs
- Work with our design team on interface design implementations for our customer projects
- Respect deadlines and deliver good quality projects to our customers

Required technical skills:

- **Excellent** understanding and working knowledge of **CSS** and **HTML**
- **Wide experience** in **Javascript** and in at least one modern **JS/Ajax framework**
- **Good knowledge** in some **server-side scripting languages** like velocity, groovy, ruby, smarty or others

Other expected skills:

- Ability to deliver **cross-browser implementations**
- **Database knowledge** (experience with MySql for example) is a plus; ORM/hql is even better
- Experience with **bug-tracking tools** (Jira, Bugzilla, etc.)
- **Spoken and written English skills** that allow a fluent communication with the international team



testare

testing lead

client-side tester(s)

server-side tester(s)

component tester(s)

integration tester(s)

Required technical skills

- Experience in manual testing and with bug-tracking tools (JIRA, Bugzilla etc)
- Good knowledge about Open Source technologies and products
- Good programming skills and good database knowledge
- Working knowledge of web technologies (HTML, XML, Javascript, CSS, HTTP)
- Familiarity with web server configuration (Apache Web server, Servlet containers)
- Knowledge of the software development cycle
- Ability of writing short and detailed descriptions of how our features work

Other expected skills

- Your verbal and written English skills allow a fluent communication with the international team
- French is not mandatory, but is considered a plus
- Ability to deliver on time, self-motivation and eagerness to learn

operații tehnice

Webmaster

hardware & network technicians

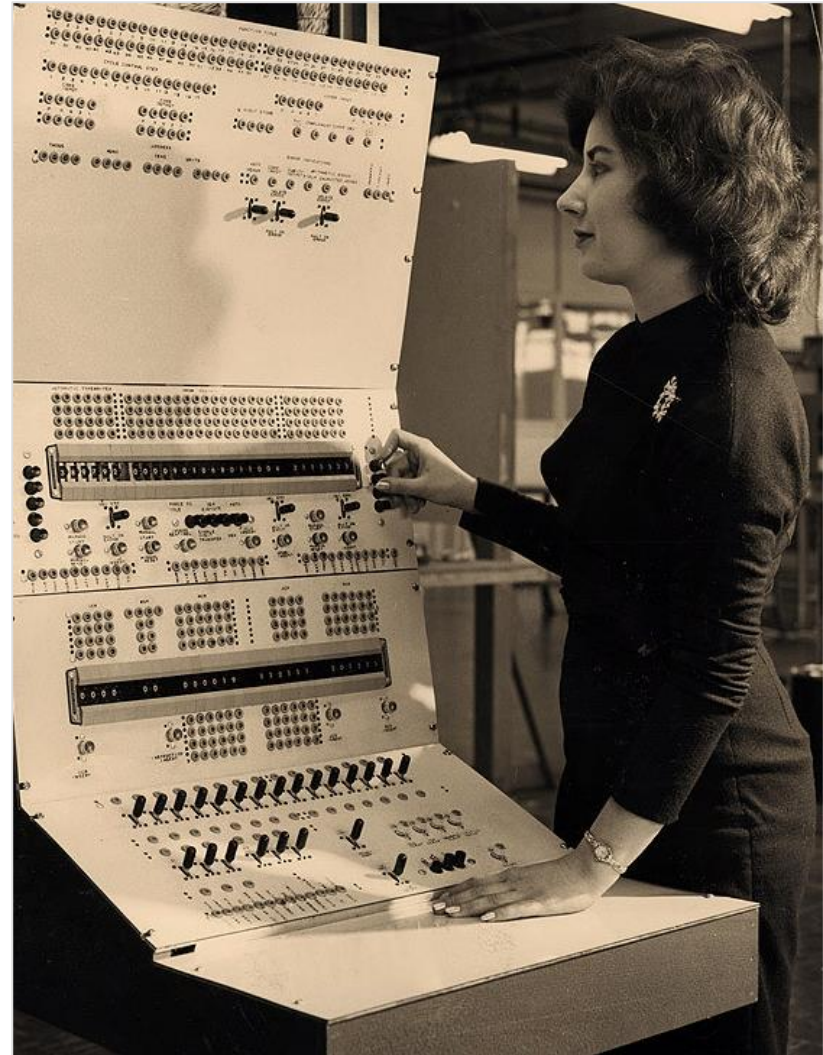
network administrator(s)

database administrator(s)

backup operator

uptime monitor

security monitor(s)





marketing

content producer(s)

copywriter(s)

content editor(s)

branding & advertising expert(s)

direct e-marketer

public relations personnel

echipa proiectului Web

```
graph TD; Root[echipa proiectului Web] --- M[management]; Root --- F[funcționalitate]; Root --- C[conținut (date)]; M --- WPM[Web Project Manager]; F --- SE[Software Engineer(s)]; F --- MD[Multimedia Designer(s)]; C --- DE[Domain Expert]; C --- BE[Business Expert];
```

management

Web Project
Manager

funcționalitate

Software
Engineer(s)

Multimedia
Designer(s)

conținut (date)

Domain
Expert

Business
Expert

Software Engineering



All

- All
- Artists
- Audio Designers
- Build Engineer
- Build Jobs
- Content Publishing
- Software Engineering: Game Designer
- International Project Engineering & Locations
- Product Planning
- Software Engineering: Program Manager
- Software Development Engineer**
- Testers
- Software Engineering: User Experience

EON Business Services Iasi SRL

★ Programator Web

Cerinte: Absol...

Iasi, Tirgu Mur..., 4 noiembrie

SoftHouse Global Outsourcing

★ WEB Developer for IBM

We are looking for talented we...

BUCURESTI, Iasi, 27 octombrie



VEO

★ Dezvoltator Web - Iasi

Veo este o companie care furni...

Iasi, 12 noiembrie



Confidential

★ Web Developer (PHP/MySQL)

Angajam PROGRAMATORI WEB cu st...

BUCURESTI, Bras..., acum 20 ore



Appsbroker Consulting

★ Frontend Web Developer - Google Cloud Platform

Appsbroker is looking for Fron...

Iasi, acum o zi



GIL CAFE

★ Grafician /freehand designer-realizator pagini web

Candidatul ideal: Persoanel...

Iasi, 4 noiembrie



TravelSale - Biz Pro Technologies

★ QA Engineer

Description: As a QA Engineer...

Iasi, 11 noiembrie



SC Everlight Solutions Srl

★ FRONT-END DEVELOPER

Cerinte: - studii superioare ...

BUCURESTI, Iasi, acum 5 zile



XWiki Software

★ Quality Assurance & Support Engineer

Fond of Open Source values? Ea...

Iasi, 14 noiembrie



ITPOSITIVE SRL

★ Frontend Developer

Daily Activities: S...

Iasi, 6 noiembrie



Appsbroker Consulting

★ Java Developer - Google Cloud Platform

Appsbroker is looking for Seni...

Iasi, acum o zi



Harte Hanks

★ Data Entry Clerk with Hebrew

Knowledge & Skills: Heb...

Iasi, acum 6 zile



Fortech SRL

★ Front-end Developer with .NET (Cluj Office)

We are looking for: Front...

BUCURESTI, Alba..., acum 16 ore



TELESOFT SRL

★ Magento Developer

Telesoft caută web developers ...

Iasi, acum 4 zile

Job Title

Web Developer

Web Design Sr. Advisor

Web Design Advisor

Web UI Designer

Web Design Consultant

Web Design Consultant

Dell SonicWALL Web Producer Web Design Advisor

SharePoint\Web Developer

Senior Web Developer\Design

Web Developer ASP.net

Web Developer (C#ASP.NET)

Software Development Engineer I .NET Web

Dell\KACE Web Application Engineer

Dell WYSE Back End Web Developer

Dell SonicWALL Internet Applications Developer Web Design

Iasi, acum 6 zile

Iasi, acum 16 ore



Web Designer

aplicații grafice raster/vectoriale, HTML (de dorit, HTML5), CSS, cunoștințe despre compatibilitate cu/între diverse navigatoare Web, experiență în design vizual + design responsiv, cunoștințe privind interacțiunea Web – inclusiv la nivel mobil, JavaScript (+biblioteci, precum jQuery), familiar cu paradigme de interacțiune naturală (tactilă, bazată pe gesturi, realitate virtuală/îmbogățită),...



Web Developer

cel puțin 1 limbaj obiectual – la nivel de server/client,
protocoale și standarde Internet + Web,
cunoștințe privind baze de date (inclusiv NoSQL și/sau XML),
familiaritate cu sisteme CMS/wiki, cunoștințe vizând servicii Web,
familiar cu alte paradigme de programare (e.g., funcțională,
distribuită), securitate & performanță Web,...

We are looking for software engineers with strong analytical and problem solving skills which will participate in full development cycle from design, development, implementation, testing, documentation, delivery and maintenance of robust, highly scalable distributed search system with stringent throughput/response times using Java, Unix-based systems, distributed programming and web technologies.

Basic Qualifications

- Bachelor's degree or equivalent in Computer Science or a related field
- Several years of experience as a Software Developer, Software Engineer, or a related occupation
- Strong development skills in Java (C++/C# experience is also acceptable) and object-oriented design
- In depth knowledge of data structures, algorithms and complexity analysis
- Knowledge of at least one scripting language and UNIX/Linux operating system with its command-line tools
- Good understanding of software architecture and design issues
- Strong sense of ownership, urgency and drive
- Reasonable knowledge of web technologies (HTML, CSS, Javascript, XML, JSON)



Web Technician

asistent (ajutor) al webmaster-ului,
designerului sau dezvoltatorului Web

poate efectua operații tehnice:
instalare, configurare, monitorizare,...

Web Maintainer

actualizează conținutul

uzual, via o interfață WYSIWYG

(de exemplu, recurgând la un sistem
de management al conținutului – CMS)





Bun... Şi eu ce fac?

fii **curios** & **iscoditor**



învață

(citește + experimentează + cere ajutor + reutilizează)



crează și **arată**

(design, cod-sursă, prototipuri, exemple demonstrative,...)



acumulează

experiență, „aură”, statut social etc. ▶ reputație



concurează

(...atât de multe oportunități)



ajută/instruiește pe ceilalți

Dezvoltator Web?!



Mult succes!

imagini de epocă furnizate de vintag.es