



CARNet

HRVATSKA AKADEMSKA I ISTRAŽIVAČKA MREŽA
CROATIAN ACADEMIC AND RESEARCH NETWORK

Programski jezici (za web i još ponešto)

Ljubomir.Hrboka@CARNet.hr

O čemu pričamo?

Pitanje izbora:

- Želite naučiti novi jezik?
- Kako izabrati?
 - Popularnost
 - Potencijalna dobit
 - Svrha

```
int getRandomNumber()  
{  
    return 4; // chosen by fair dice roll.  
              // guaranteed to be random.  
}
```

http://en.wikipedia.org/wiki/List_of_programming_languages

659 programskih jezika

- plus BASIC izdvojen u 306 dijalekata
- plus ezoterični jezici

Ezoterični - <http://en.wikipedia.org/wiki/Brainfuck>

```
$ cat hello.bf
+++++ +++++
[
    > +++++ ++
    > +++++ +++++
    > +++
    > +
    <<<< -
]
> ++ .
> + .
+++++ ++ .
.
+++ .
> ++ .
<< +++++ +++++ +++++ .
> .
+++ .
----- .
----- .
> + .
> .
$ beef hello.bf
Hello World!
$
```

Popularnost jezika

Broj upita na tražilicama

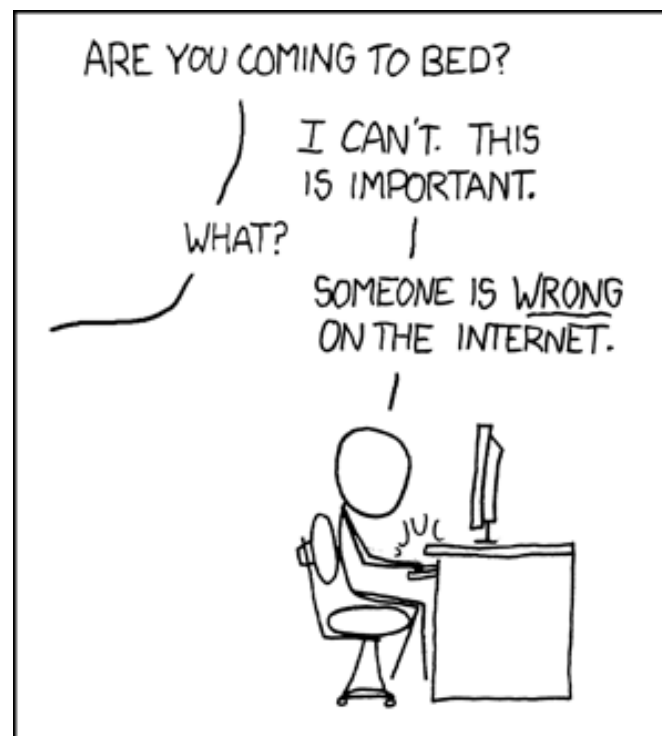
Broj pretplata na forumima

Broj pitanja na forumima

Broj projekata

Broj izdanih knjiga

...



<http://xkcd.com/386/>

ohloh.net - FOSS direktorij

~560000 projekata

Statistike i pretraživanje koda

Podrška 43 programska jezika

Podrška Subversion, Git, CVS,
Mercurial i Bazaar

Most Popular Projects



Most Active Projects

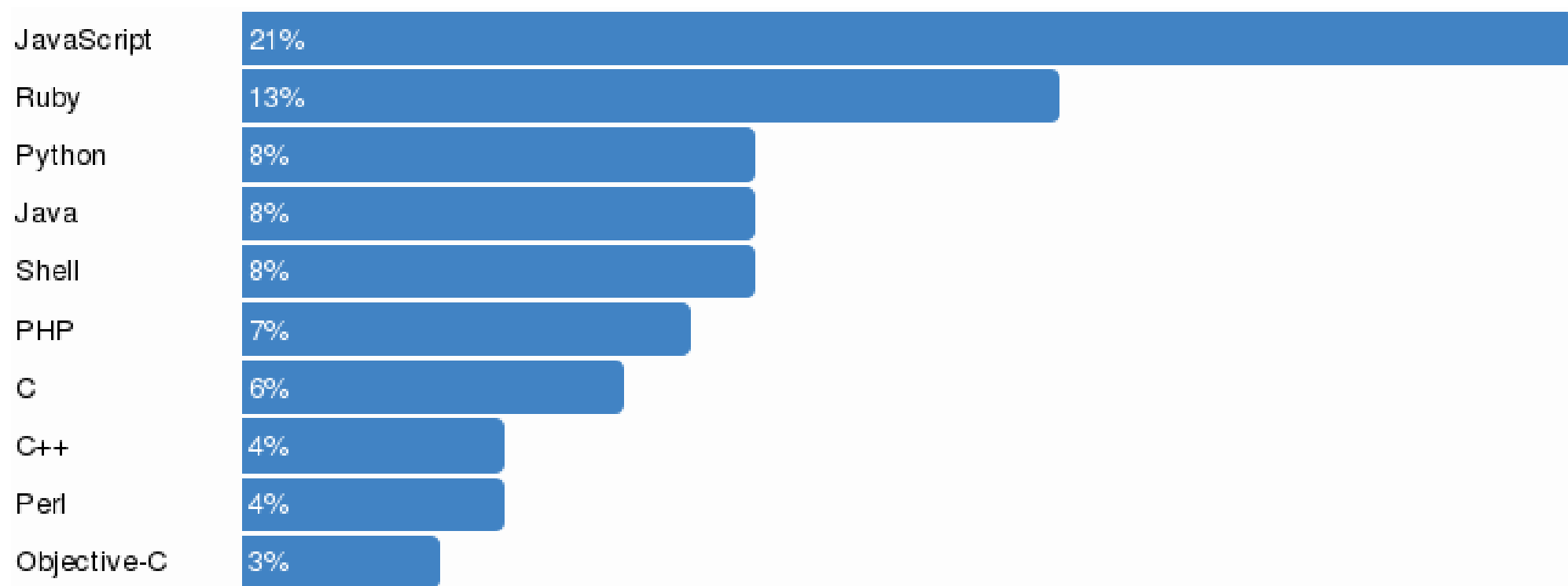


Linije koda i projekti

1. C	4,722,863,816
2. Java	2,388,796,289
3. C++	2,370,637,593
4. JavaScript	1,613,406,110
5. PHP	1,580,548,949
6. C#	521,841,118
7. Python	461,427,070
8. Ruby	319,620,320
9. Perl	242,303,380
10. Shell	241,534,280
11. Assembly	176,210,264
12. Pascal	113,406,830
13. ActionScript	81,050,806
14. Objective-C	61,974,878
15. Lua	56,687,777
16. Fortran	54,572,228
17. Ada	39,842,417
18. Visual Basic	34,970,664
19. Matlab	27,977,961
20. Lisp	19,952,572

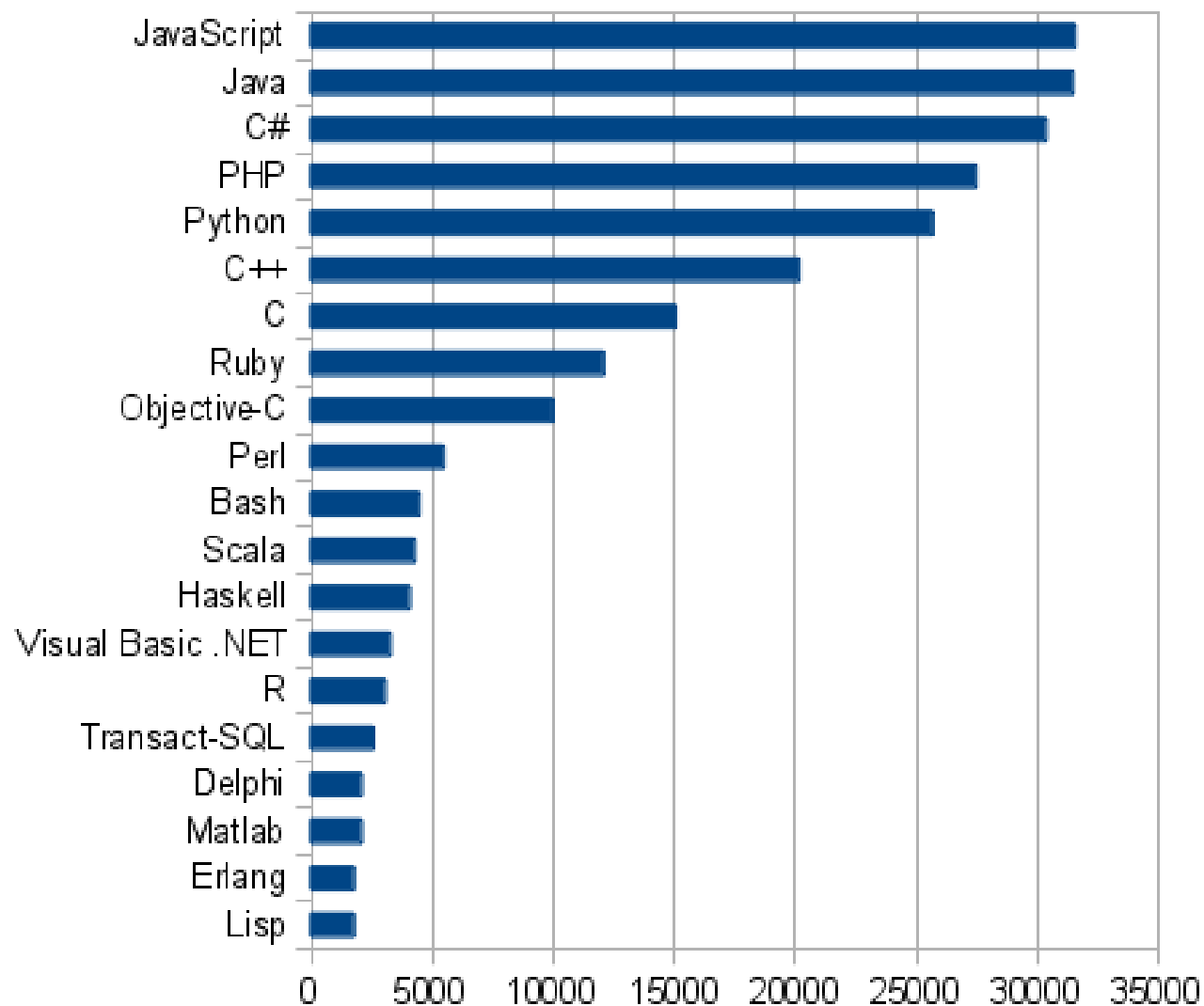
1. JavaScript	90,212
2. Java	68,570
3. Shell	63,718
4. C	57,779
5. Python	49,466
6. C++	47,041
7. PHP	40,213
8. Ruby	39,054
9. C#	30,356
10. Perl	27,661
11. Objective-C	9,606
12. ActionScript	8,066
13. Assembly	6,519
14. Visual Basic	5,015
15. Lua	4,085
16. Pascal	3,364
17. D	2,964
18. Matlab	2,580
19. Lisp	1,532
20. Ada	697

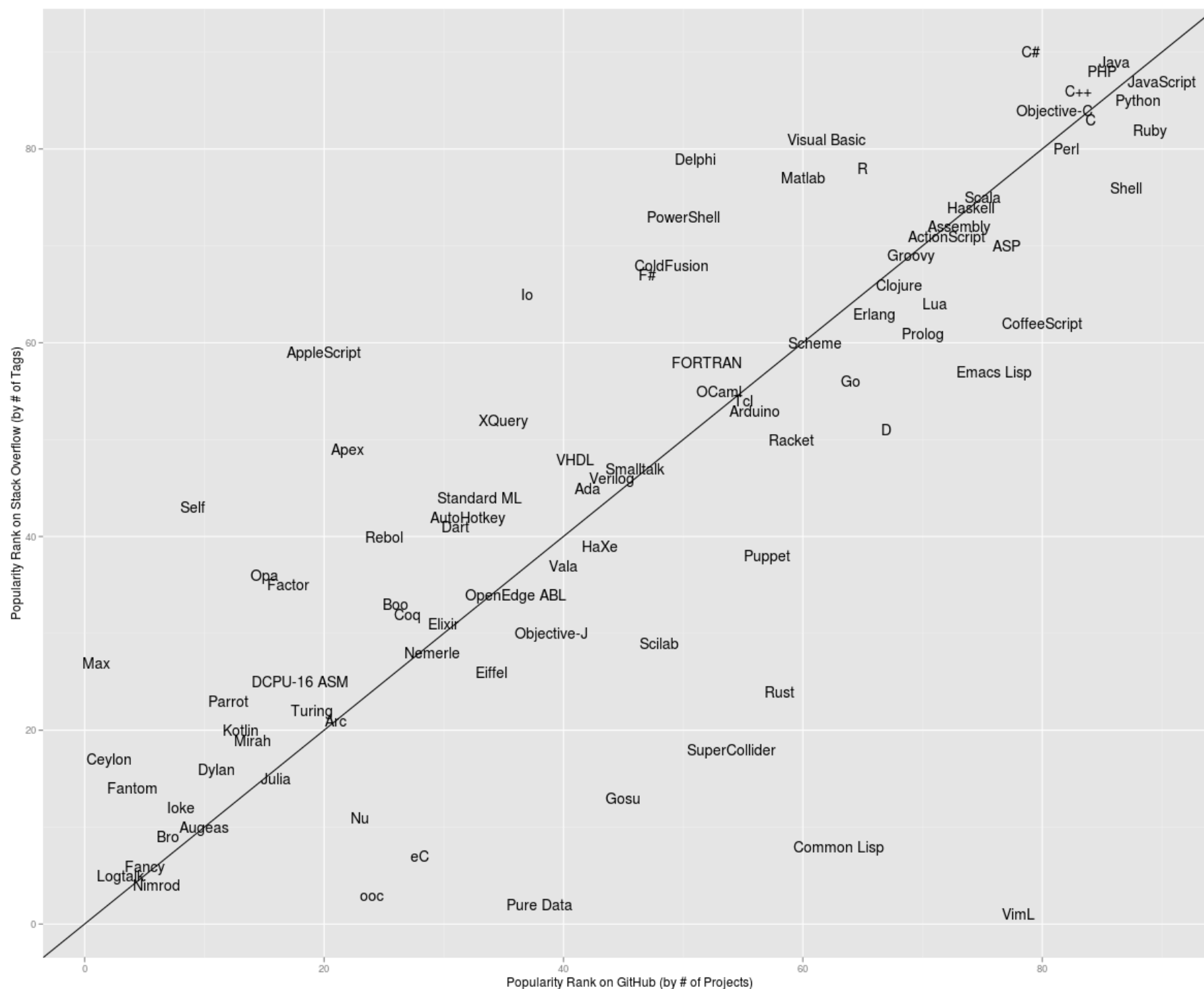
GitHub - popularnost



Izvor: <https://github.com/>

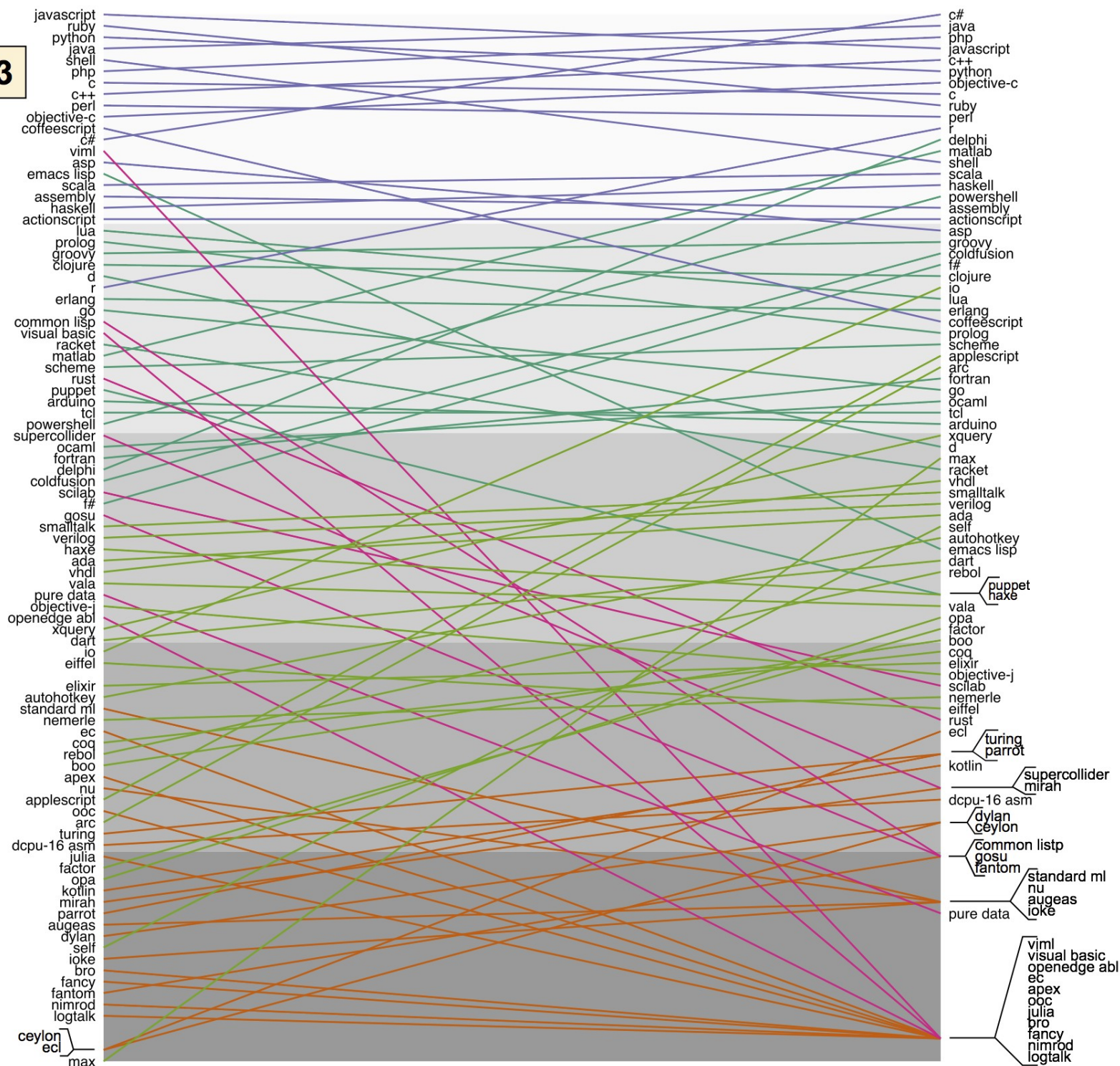
StackOverflow.com - pretplate





Github Rank (# projects)

$\rho = 0.73$



StackOverflow Rank (# questions tags)

TIOBE Programming Community Index

Uvjeti:

- Stranica na Wikipediji
- Touring complete

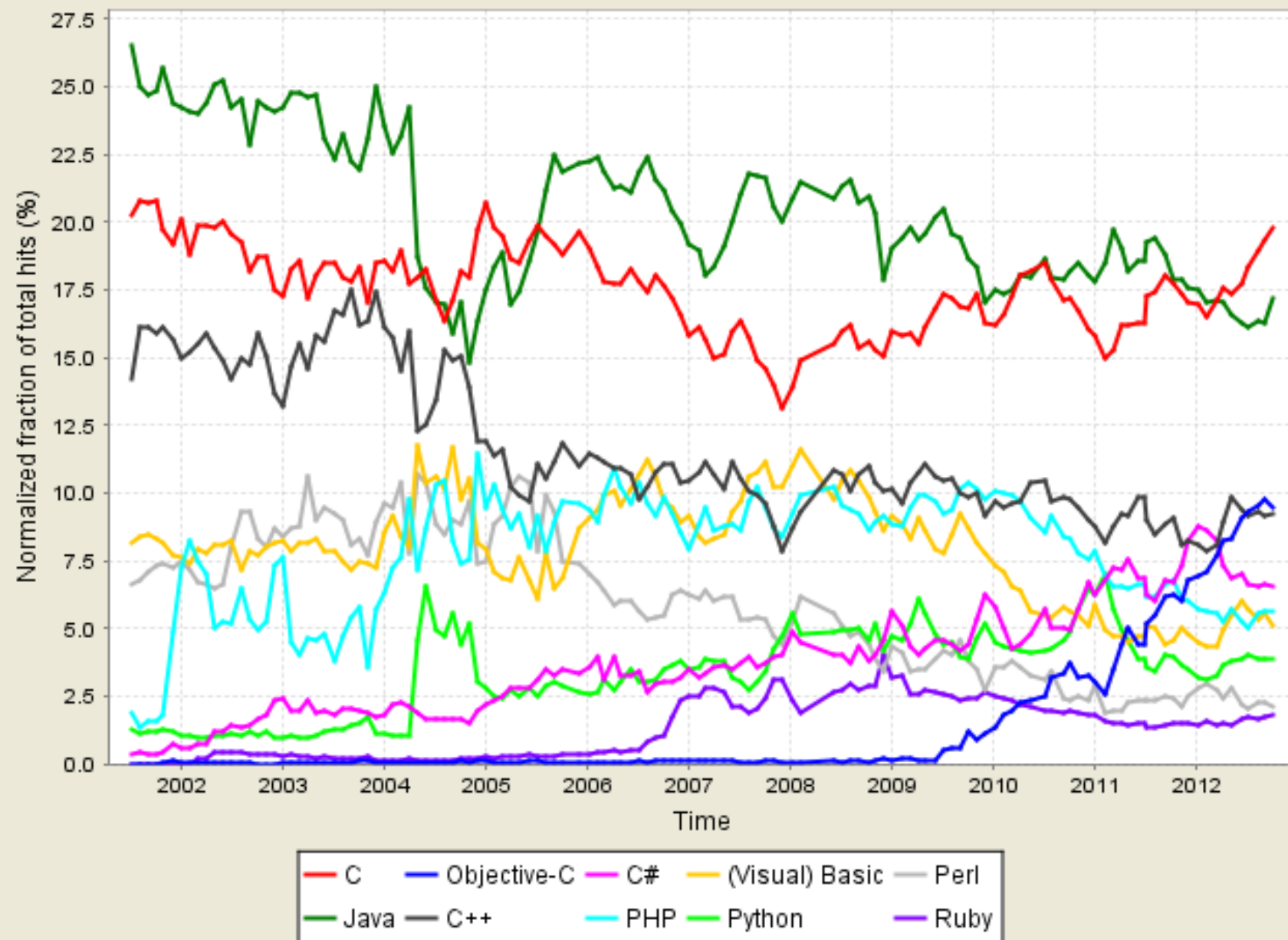
Izračunat po broju hitova na popularnim pretraživačima:

- Google: 30%
- Blogger: 30%
- Wikipedia: 15%
- YouTube: 9%
- Baidu: 6%
- Yahoo!: 3%
- Bing: 3%
- Amazon: 3%

Position Oct 2012	Position Oct 2011	Delta in Position	Programming Language	Ratings Oct 2012	Delta Oct 2011	Status
1	2	↑	C	19.822%	+2.11%	A
2	1	↓	Java	17.193%	-0.72%	A
3	6	↑↑↑	Objective-C	9.477%	+3.23%	A
4	3	↓	C++	9.260%	+0.19%	A
5	5	=	C#	6.530%	-0.19%	A
6	4	↓↓	PHP	5.669%	-1.15%	A
7	7	=	(Visual) Basic	5.120%	+0.57%	A
8	8	=	Python	3.895%	-0.05%	A
9	9	=	Perl	2.126%	-0.31%	A
10	11	↑	Ruby	1.802%	+0.28%	A
11	10	↓	JavaScript	1.261%	-0.93%	A
12	12	=	Delphi/Object Pascal	1.097%	-0.01%	A
13	13	=	Lisp	0.947%	-0.08%	A
14	18	↑↑↑↑	Pascal	0.839%	+0.12%	A
15	16	↑	Lua	0.728%	-0.07%	A
16	20	↑↑↑↑	Ada	0.654%	+0.04%	B
17	15	↓↓	PL/SQL	0.630%	-0.27%	B
18	25	↑↑↑↑↑↑	Visual Basic .NET	0.599%	+0.12%	A--
19	21	↑↑	MATLAB	0.591%	+0.02%	B
20	19	↓	Assembly	0.568%	-0.05%	B

Izvor: <http://www.tiobe.com/index.php/content/paperinfo/tpci/index.html>

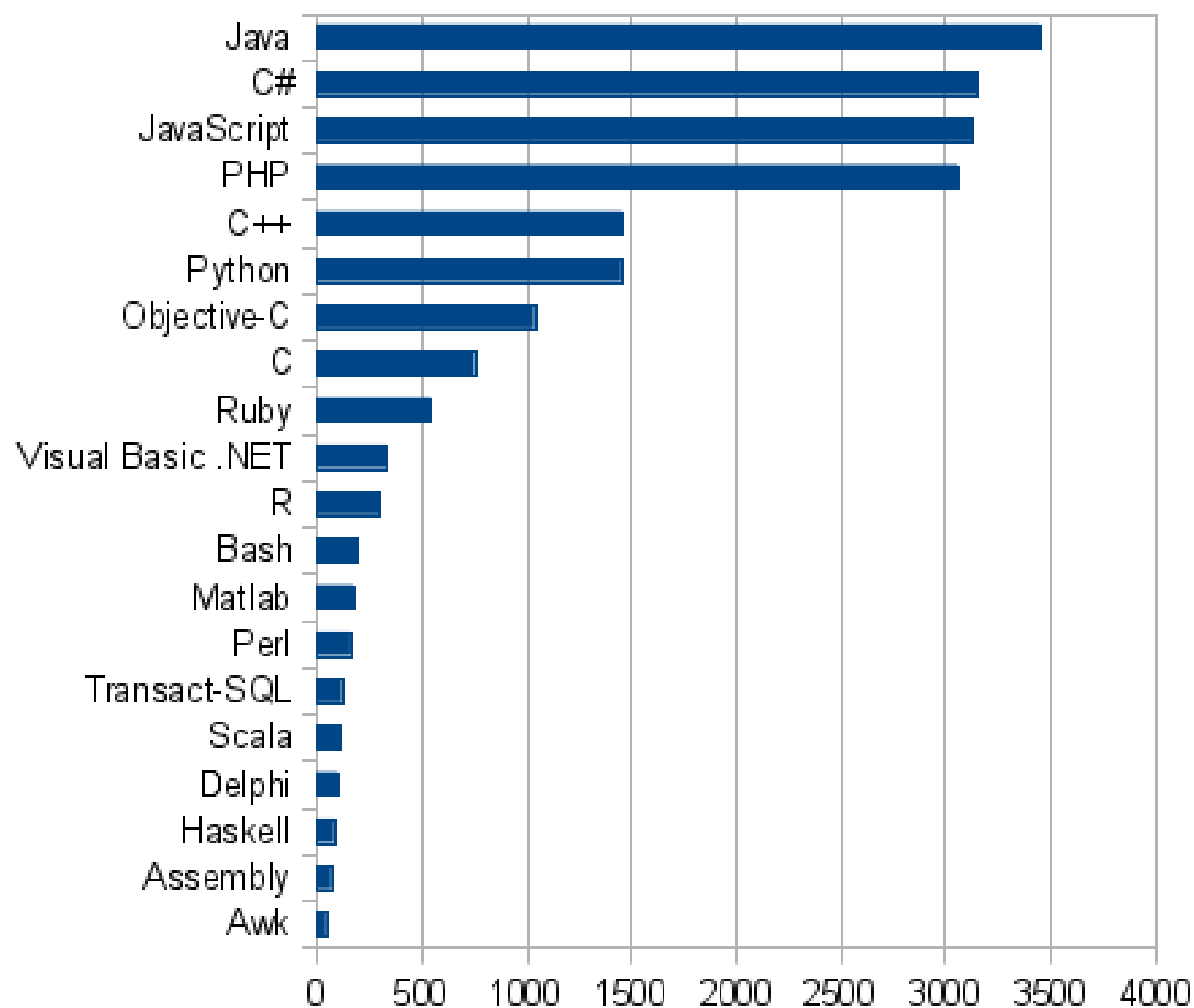
TIOBE Programming Community Index



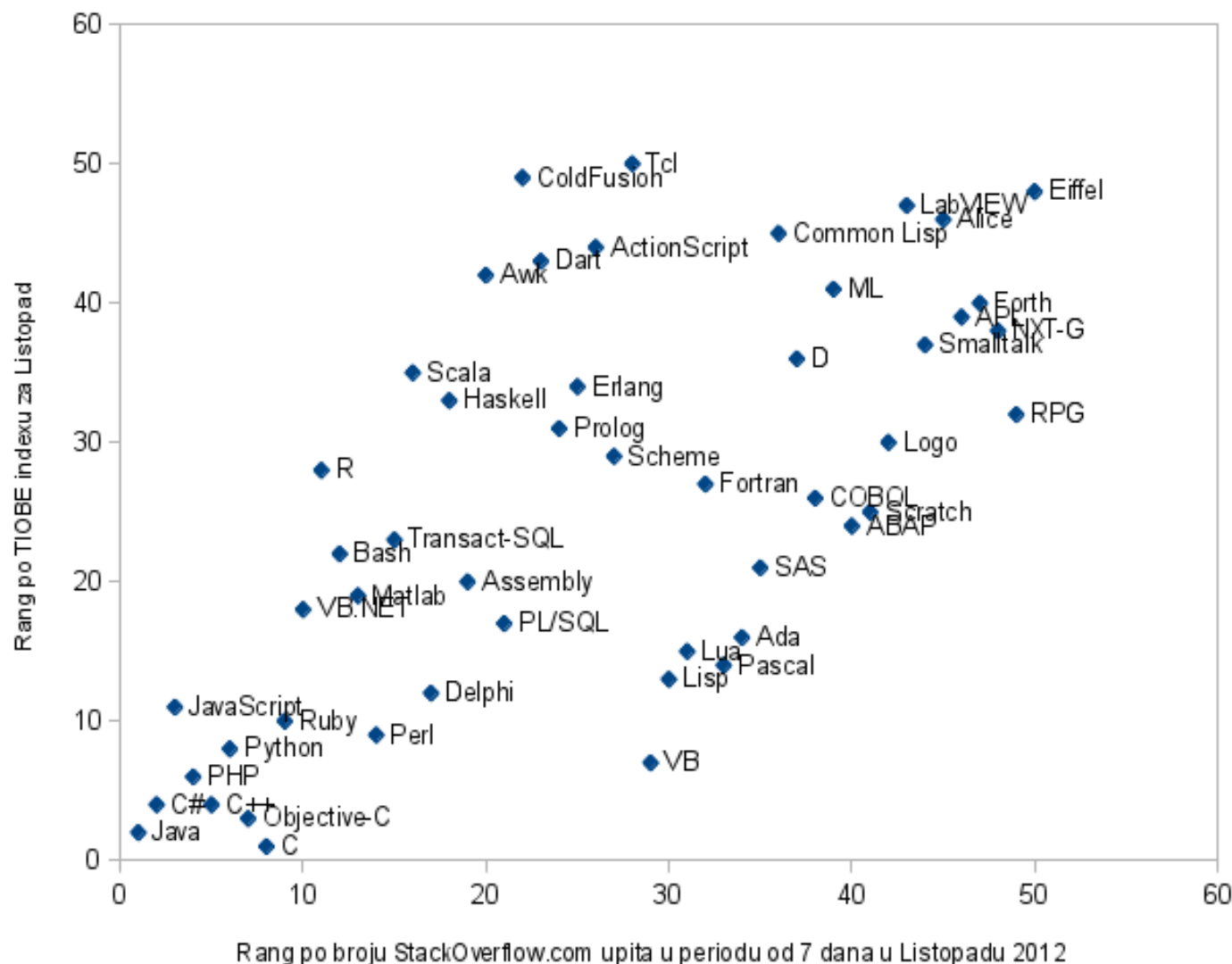
<http://lang-index.sourceforge.net/>

1. C
2. Java
3. Objective-C
4. C++
5. Basic
6. PHP
7. C#
8. Python
9. Perl
10. Ruby
11. JavaScript
12. R
13. Pascal
14. Ada
15. D
16. Bourne shell
17. Go
18. Delphi
19. COBOL
20. Logo
21. Fortran
22. SAS
23. Lua
24. Lisp/Scheme
25. MATLAB
26. Haskell
27. PL/SQL
28. Scratch
29. Prolog
30. APL

StackOverflow - tjedan (10. 2012.)



TIOBE vs StackOverflow



Top 10 popularnih - abecedno

C

Objective-C

C#

Perl

C++

PHP

Java

Python

JavaScript

Ruby

Slijede - abecedno

ActionScript

Assembly

Bash

D

Erlang

Haskell

Lisp

Lua

Matlab

Pascal/Delphi

PL/SQL

R

Scala

Transact-SQL

VB

VB.NET

Potencijalna dobit

<http://www.payscale.com> (2011.)

- UK prosjek: ~26000 £
- UK programiranje: ~40000 £
- US prosjek: ~42000 \$
- US programiranje: ~90000 \$

<http://www.dzs.hr> (1-8 2012.)

- prosjek: 5464 kn
- programiranje: 8480 kn

www.eurojobs.com

Keywords

Python

Search

Country

Austria	(6)
Bulgaria	(1)
Canada	(1)
France	(2)
Germany	(41)
Ireland	(53)
Malta	(10)
Netherlands	(37)
Norway	(17)
Outside Europe	(4)
Russian Federation	(1)
Sweden	(19)
Switzerland	(22)
United Kingdom	(379)

Updated

Past 24 hours	(8)
Past week	(64)
Past month	(278)

www.eurojobs.com

1. Objective-C	1538	11. Perl	271
2. C#	1501	12. Assembly	89
3. C/C++	1488	13. Matlab	87
4. PL/SQL	992	14. Tcl	87
5. Transact-SQL	990	15. Ruby	57
6. VB.NET	884	16. Bash	49
7. Java	865	17. Scala	23
8. JavaScript	545	18. ActionScript	18
9. PHP	357	19. COBOL	13
10. Python	278	20. Pascal/Delphi	9

www.dice.com

1. C/C++	8596	11. Objective-C	827
2. Java	8234	12. VB.NET	740
3. Perl	4996	13. Assembly	720
4. JavaScript	4592	14. COBOL	603
5. C#	4535	15. Matlab	418
6. PHP	3850	16. Transact-SQL	312
7. Python	3811	17. ActionScript	302
8. PL/SQL	3476	18. ColdFusion	270
9. Ruby	2281	19. Tcl	242
10. Bash	1023	20. Scala	205

Svrha?

29. 10. 1969. 22:30

"Uspostavili smo telefonsku vezu između nas i SRI tima" ...
ispričao je Kleinrock.

Utipkali smo L i pitali telefonom:

"Da li vidite L?"

"Da, vidimo L", stigao je odgovor.

Utipkali smo O i pitali:

"Da li vidite O?"

"Da, vidimo O"

Tada smo utipkali G i sustav se srušio.

Ali revolucija je već bila počela...

Linux administracija

Osnovni alati:

- Bash (1989.)
 - Bourne-again shell
 - Bashing together sh, csh, ksh
- Awk (1977.)
 - Aho, Weinberger, Kernighan
- Sed (1974.)
 - Stream editor

Linux administracija - Perl

Prva verzija - 1987. godine

Perl 5 - 1994. - danas

Perl 6 - projekt najavljen u 2000.

CPAN

The Comprehensive Perl Archive Network (CPAN) currently has [114,805 Perl modules](#) in 26,090 distributions, written by 10,159 authors, [mirrored](#) on 275 servers.

The archive has been online since October 1995 and is constantly growing.

Linux administracija - Python

Prva verzija - 1991. godine

Kompaktan, logičan, ...

Web frameworks

- Django, Zope

Popularne aplikacije

- GNU Mailman
- GNU Bazaar
- Plone
- Dropbox

Alati za upravljanje konfiguracijama

Ansible

Bcfg2

Chef

CFEngine

LCFG

OCS Inventory

Opsi

Puppet

Quattor

Salt

Spacewalk

STAF

Python

Python

Ruby

C

Perl

Perl, PHP, C++

Python, Java

Ruby

Perl, Python

Python

Java, Perl, Python, PL/SQL

C++

Web hosting alati

Alat	Frontend	Backend
cPanel	Perl	Perl
DirectAdmin	C++	C++, scripts, PHP
Gnupanel	PHP	PHP, PgSQL
H-Sphere	Java	Java
InterWorx	PHP	PHP, MySQL
ISPConfig	PHP	PHP, MySQL
Plesk	PHP	PHP/MySQL
Server Management Tool	PHP, Perl	PHP, Perl
Froxlор	PHP	PHP, MySQL
Virtualmin	Perl	Perl
Webmin	Perl	Perl
WebsitePanel	ASP.NET	ASP.NET, MSSQL
ZPanelX	PHP	PHP, MySQL

Zaključak

Peter Norvig

- Naučite programirati u 10 godina
- <http://norvig.com/21-days.html>

Pitanja?