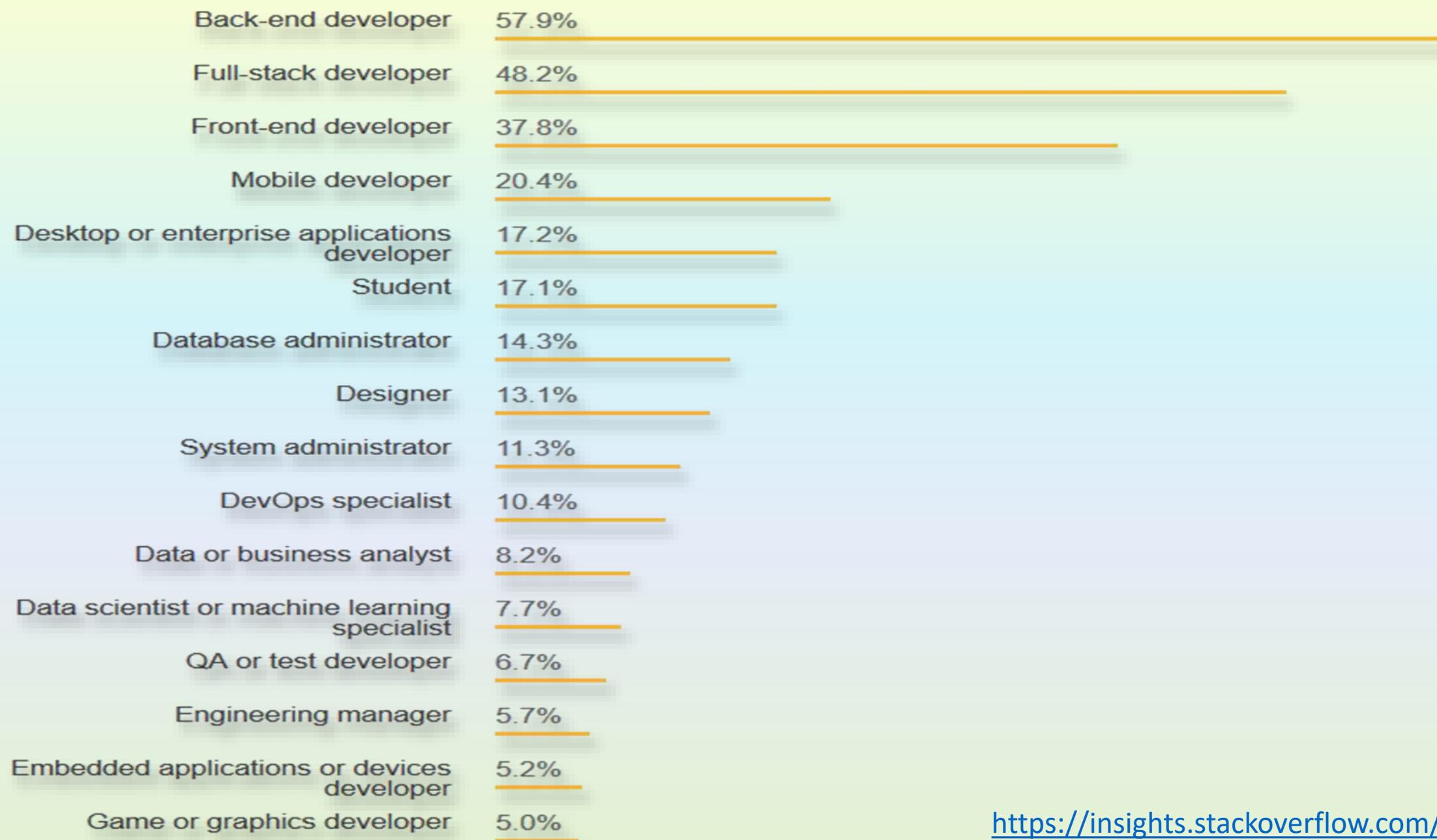


Projects -> Engineering Thesis ?



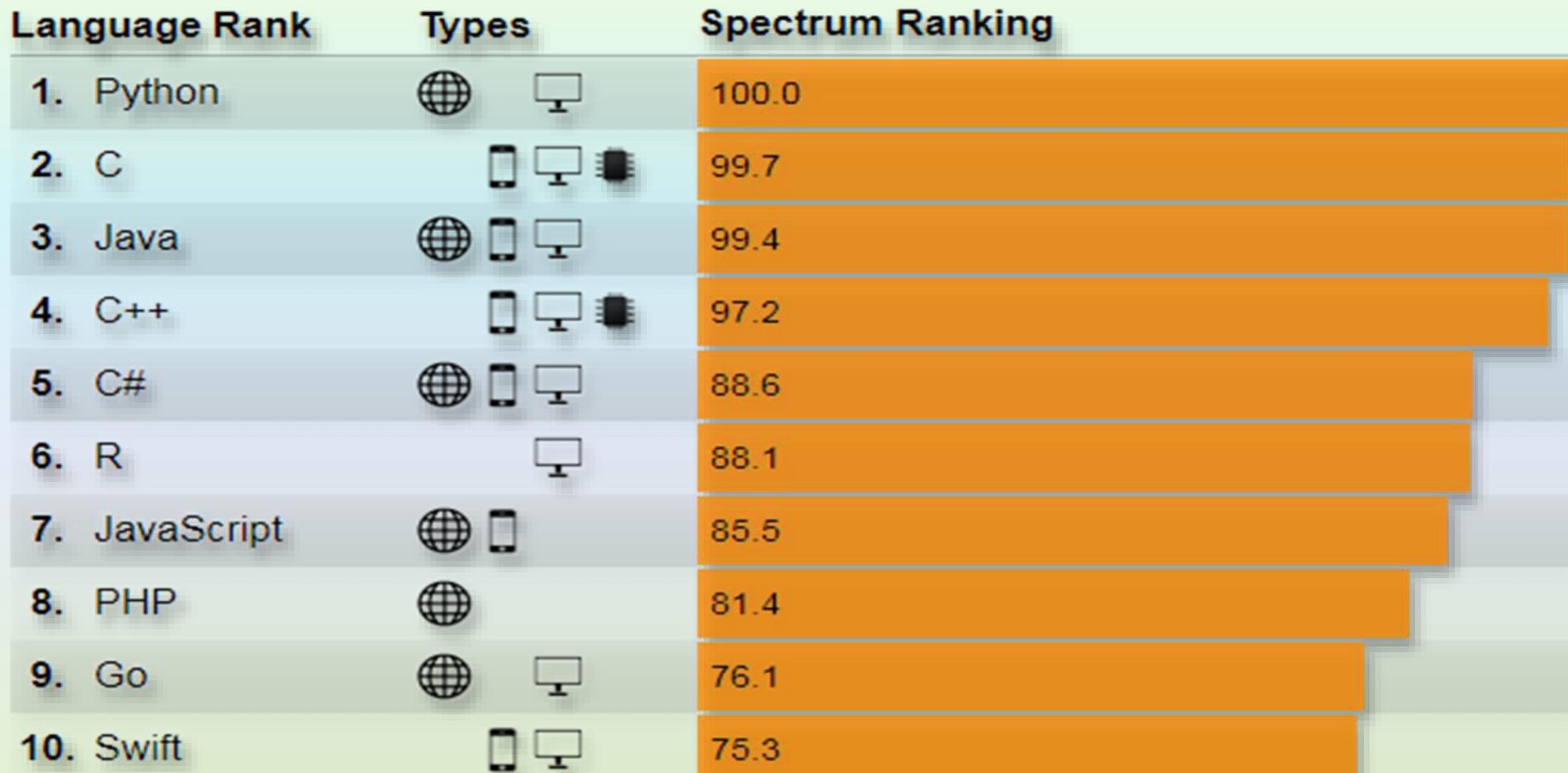
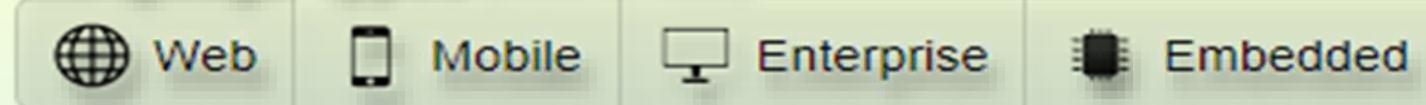
Developer Types – Getting ready for real work



Applications of programming technologies

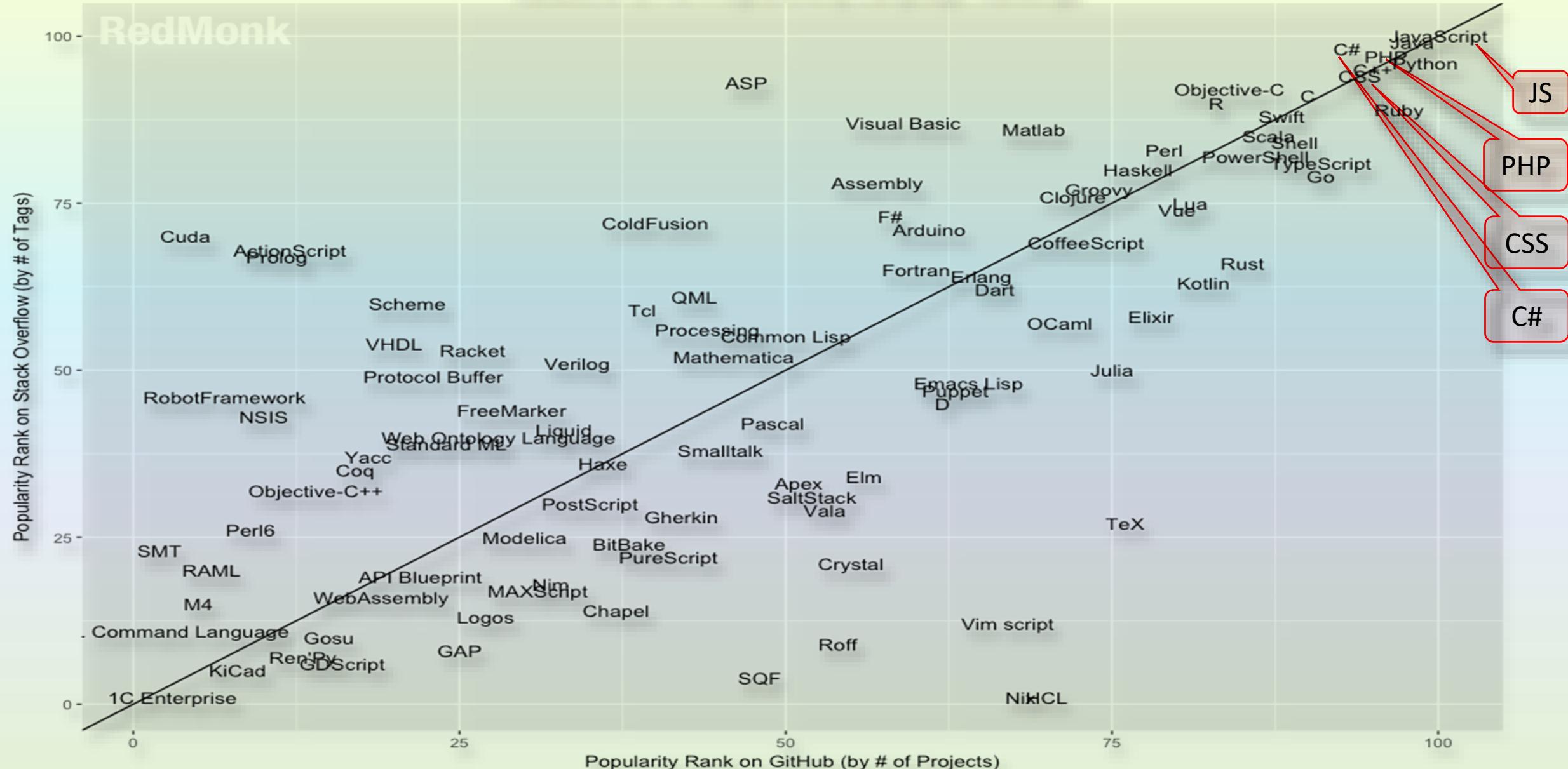
Language Types (click to hide)

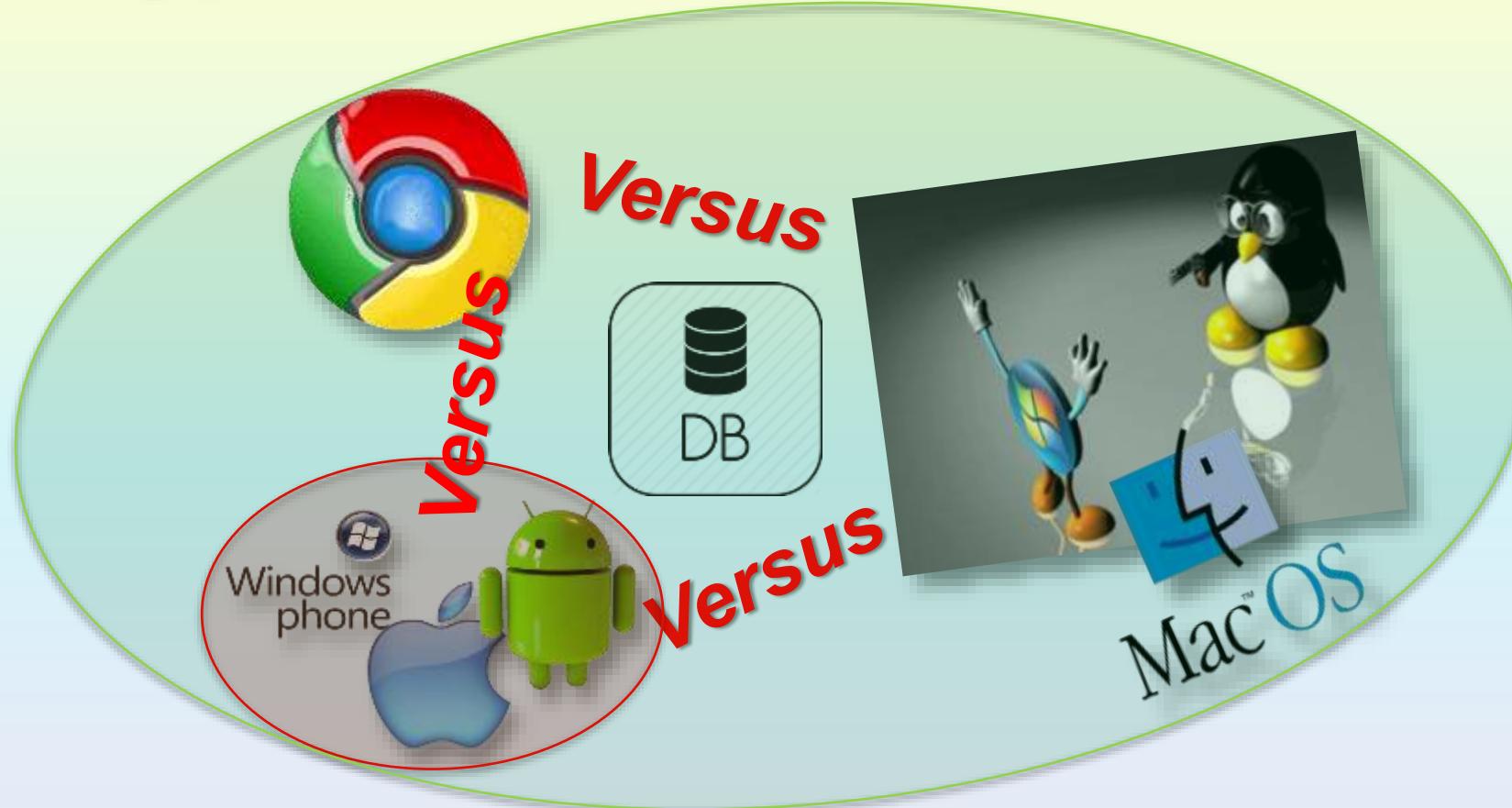
<https://www.chip.pl/2018/08/top-10-jezykow-programowania-python-liderem/>



Support in Github

RedMonk Q118 Programming Language Rankings





1,840 **mln** webpages online February 2021r.
<http://internetlivestats.com/total-number-of-websites>



Front-end vs Back-end

The "Front-end"

css

HTML

Javascript

(Client-side presentation code)

css & Javascript

HTML

Java, python, etc...

(Server-side presentation code)

The "Back-end"

Services, Database, etc.

(Server-side business logic)

FRONT END



BACK END



Web Front End



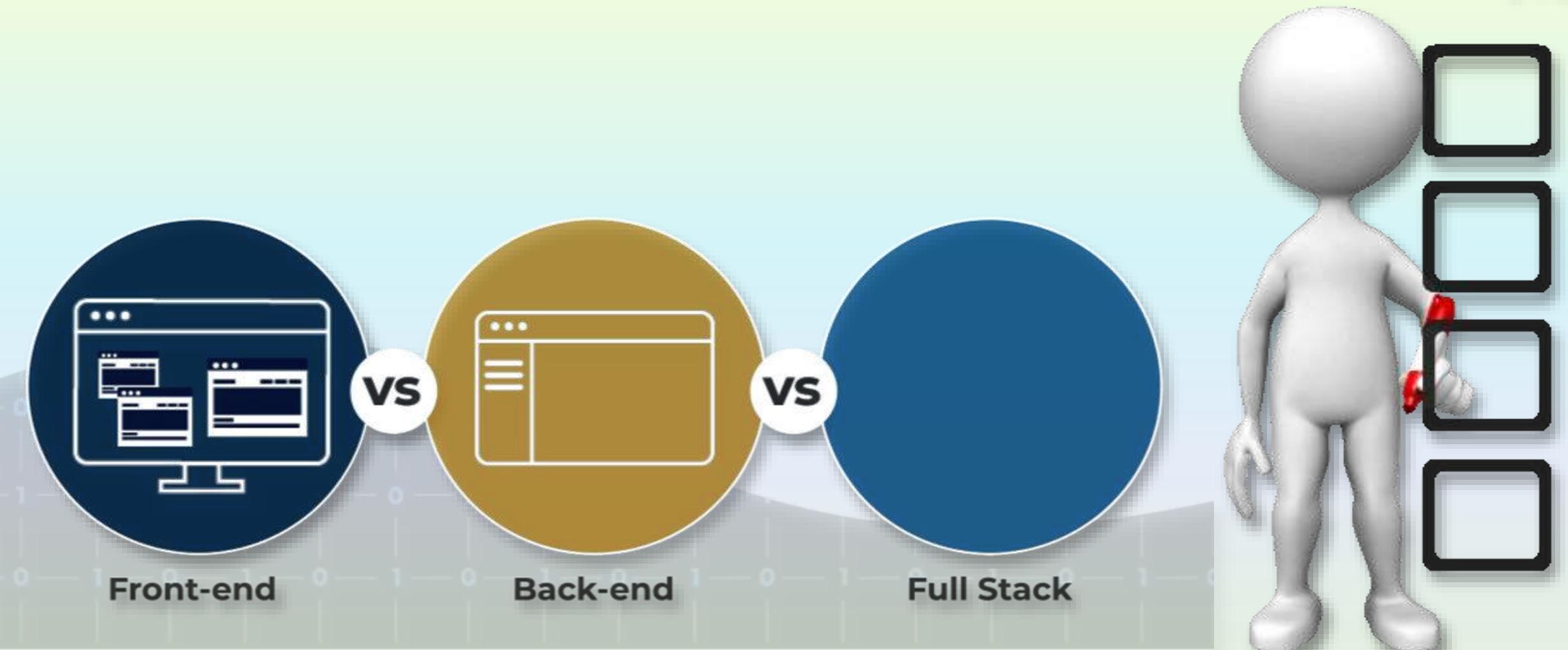
Front-end
The code comming to the Internet Browser



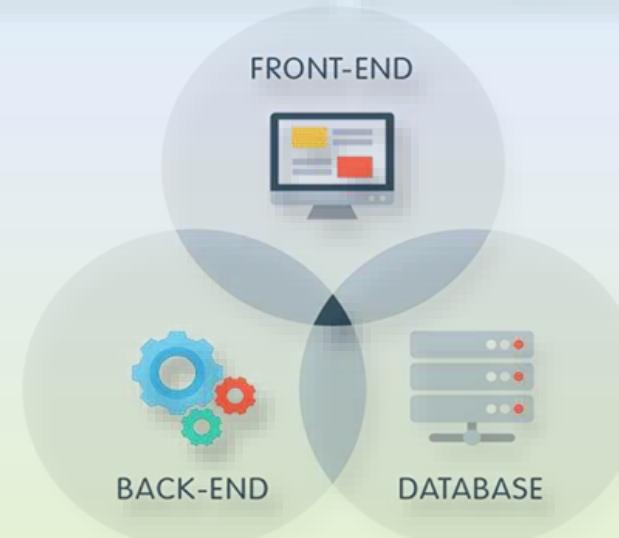
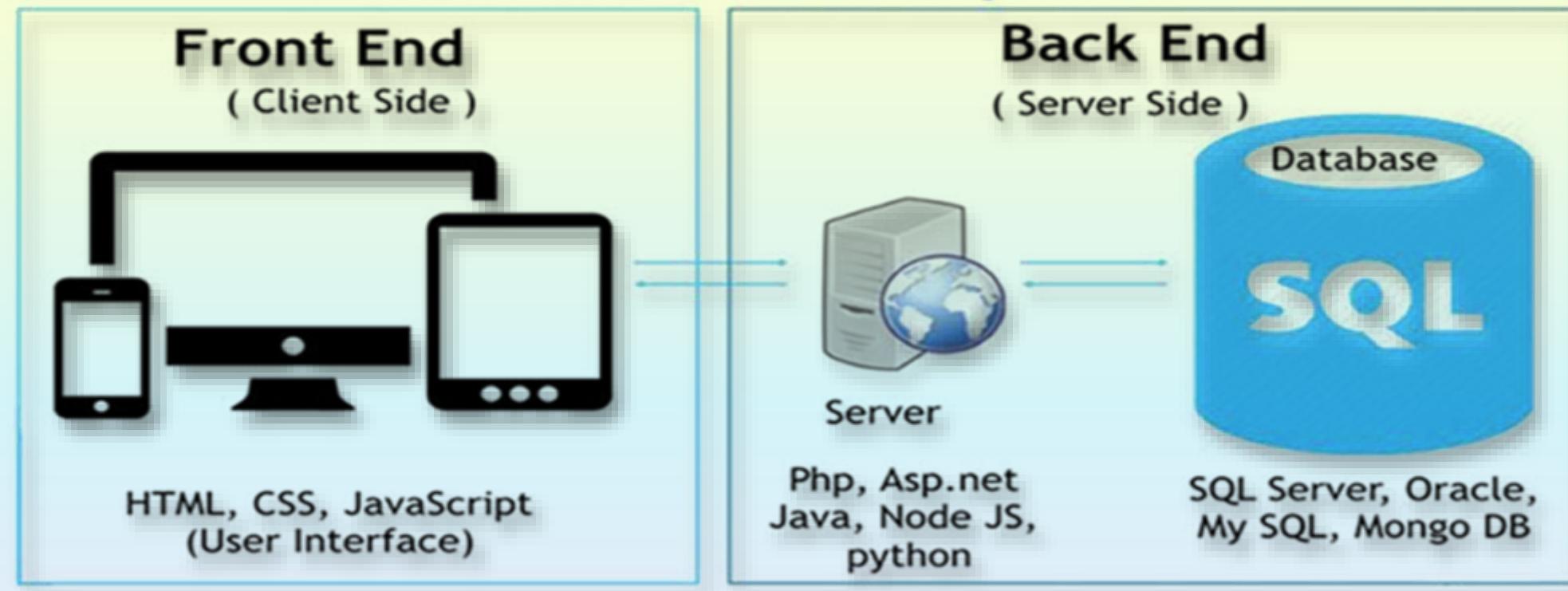
Back-end
The code that is on server only



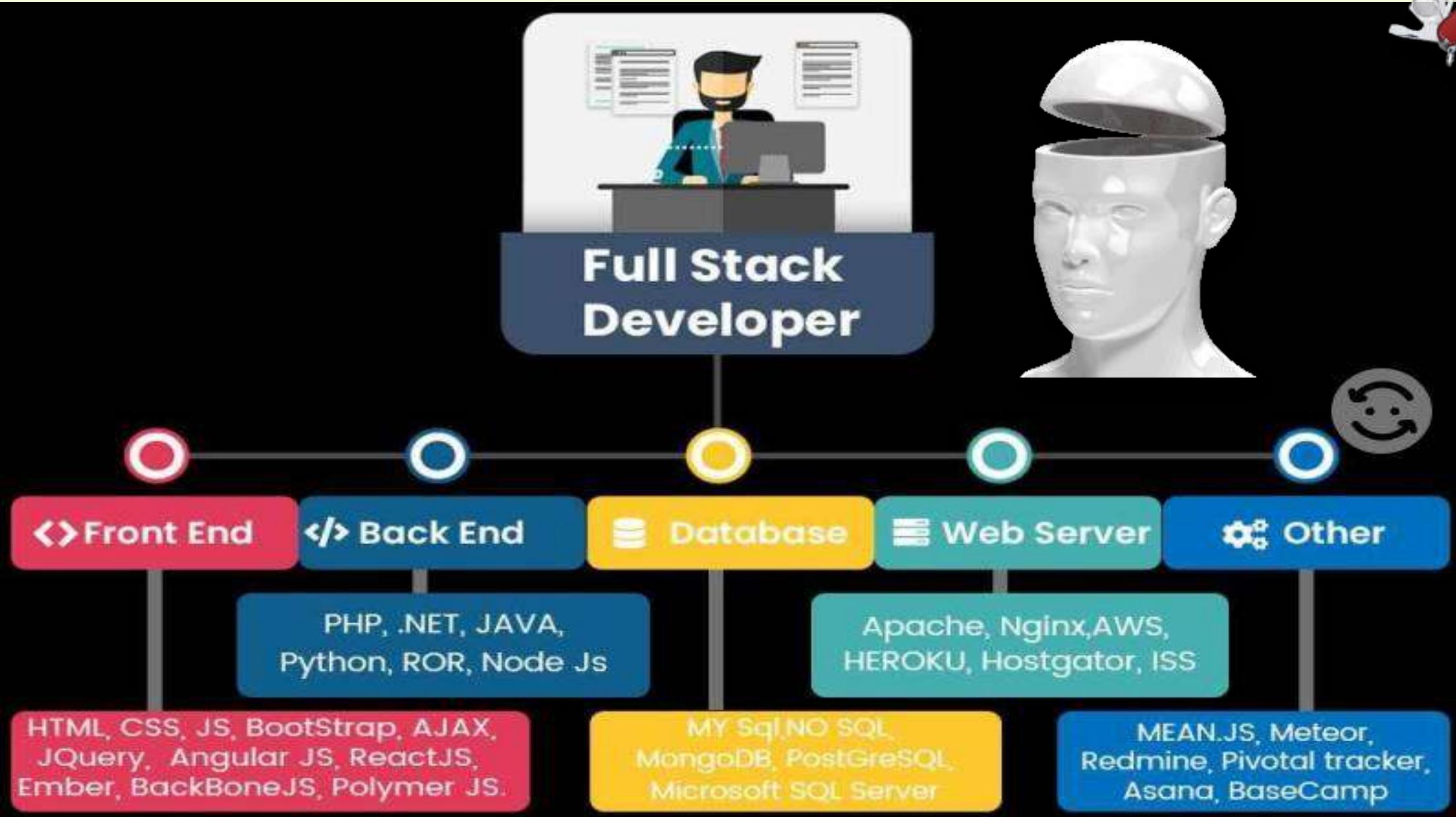
Full Stack Developer (n in 1)



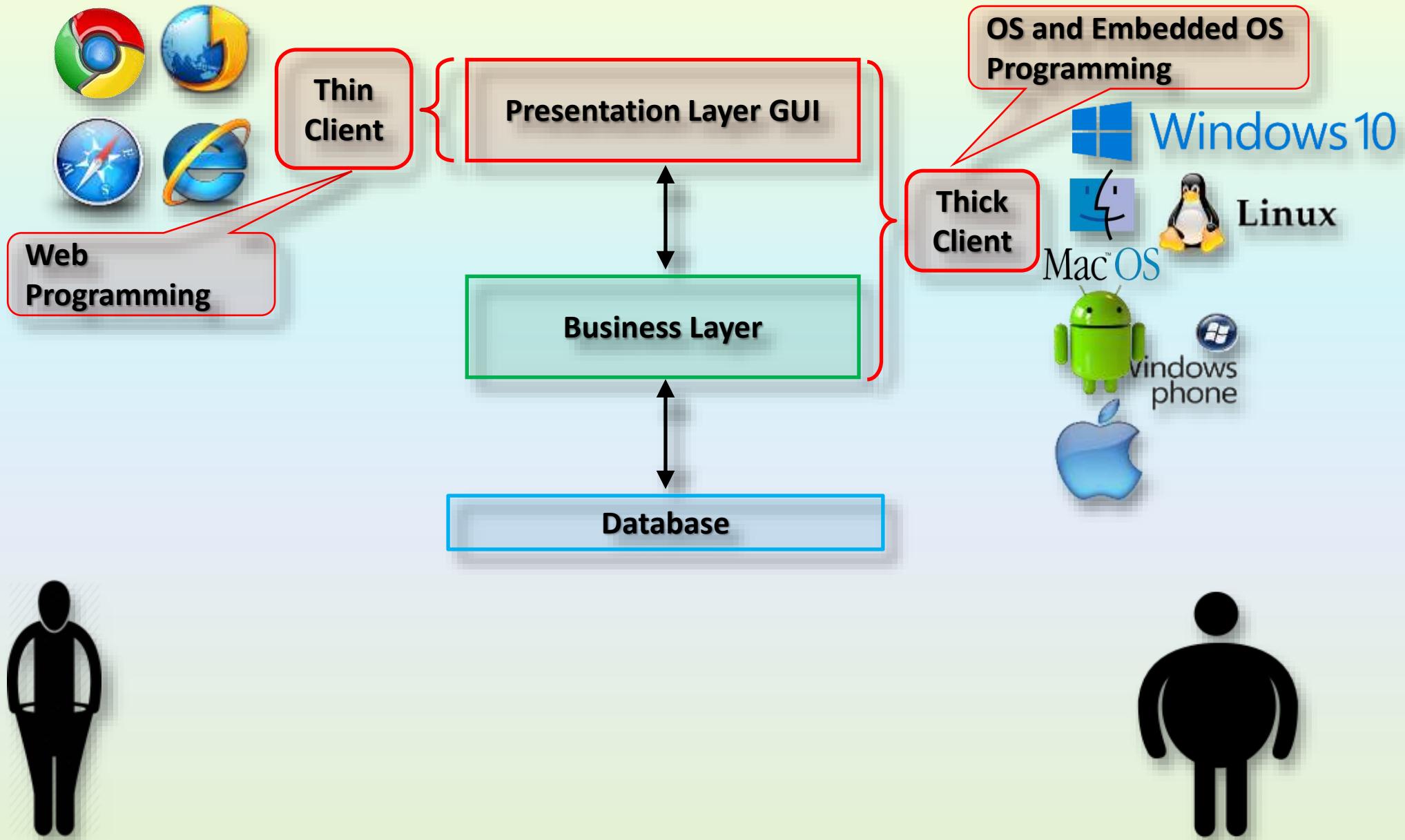
Full Stack Developer (n in 1)



Full Stack Developer (n in 1)



Architecture client-server – Layers



Architecture client-server – Layers



Thin Client

Presentation Layer GUI

front end

Presentation Layer GUI

Business Layer

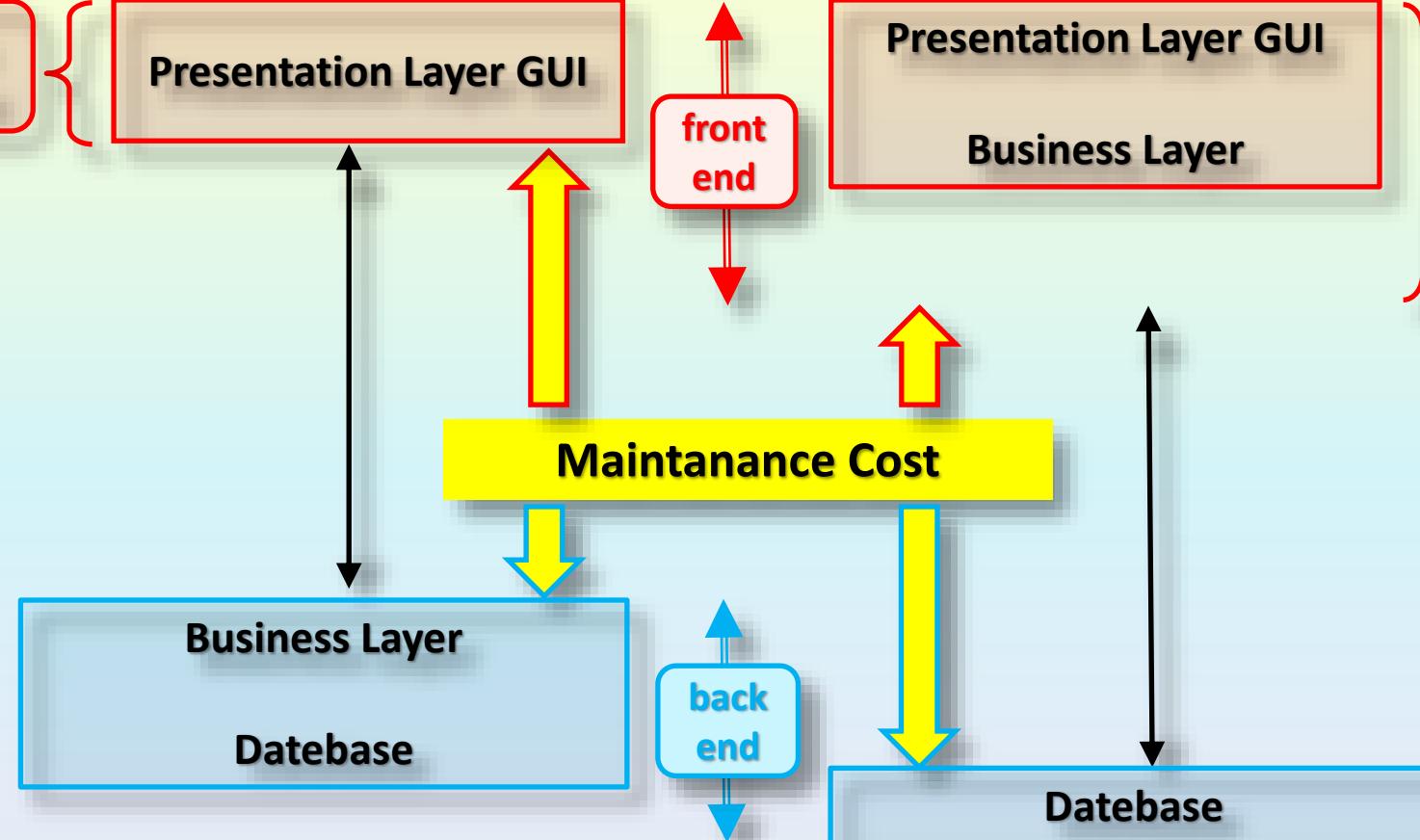
Thick Client

Windows 10

Linux

Mac OS

Windows phone



COST







Sponsored Ranks

<http://hostingranking.pl/>

<http://www.hostingrank.pl/>

<https://jakihosting.top/hosting-www-ranking/>

<http://rankinghost.pl/>

<http://top100.wht.pl/>

<http://www.webhostingtalk.pl/opinie>

<http://host-ranking.pl/ranking-2/>



Independent Ranks

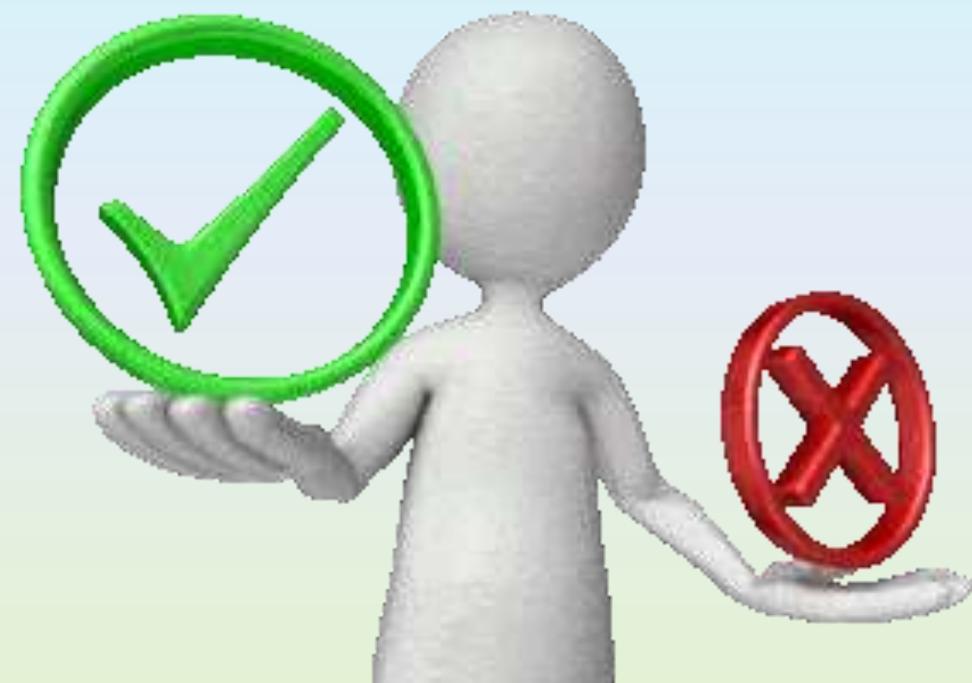
<https://www.pcworld.pl/news/Ranking-najlepszy-hosting-wspoldzielony-2017,408787.html>

<http://www.komputerswiat.pl/tematy/hosting.aspx>

<https://itporady.pl/pozostale/ktory-hosting-wybrac-porownanie-platnych-ofert-hostingowych/>



- **SSL** -> padlock in the Address input line
- **DNSSEC** protection,
- **CAA** protection for SSL,
- **SFTP** for upload of files,
- **No limits of transfer**,
- Warranty of working 99,9%,
- PHP: 5.6, **7.0, 7.1, 7.2, 7.3, 7.4**
- **DDoS**,
- **MySQL/MariaDB/PostgreSQL**,
- Security backups





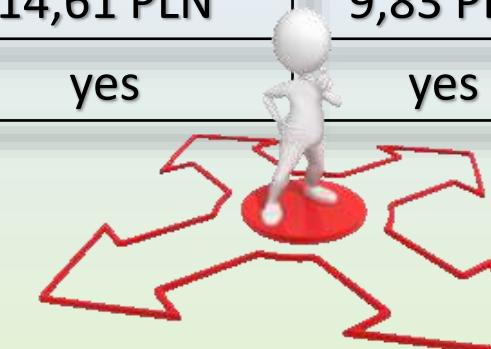
Functions	nazwa.pl	home.pl	ovh.pl	az.pl	linuxpl.com
Space	50 GB	100 GB	100 GB	50 GB	4 GB
Transfer	no limit	no limit	no limit	no limit	100 GB/mc
Number of MySQL	no limit	50	1x200MB	25	no limit
Amount of WWW	no limit	no limit	5	no limit	no limit
Amount of emails	no limit	no limit	10x5GB	no limit	no limit
SSL for emails	yes	yes	?	yes	yes
Free of charge domain	name.nazwa.pl	name.home.pl		name.online.pro	
Cost for a year	7,23PLN	14,61 PLN	9,83 PLN	9,80 PLN	49 PLN
Free of charge for 14d	yes	yes	yes	yes	yes

cloud.pionier.net.pl

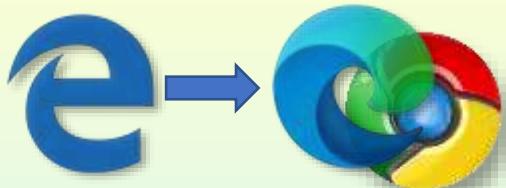
remotemysql.com

www.000webhost.com

www.biz.nf



Browsers Problems



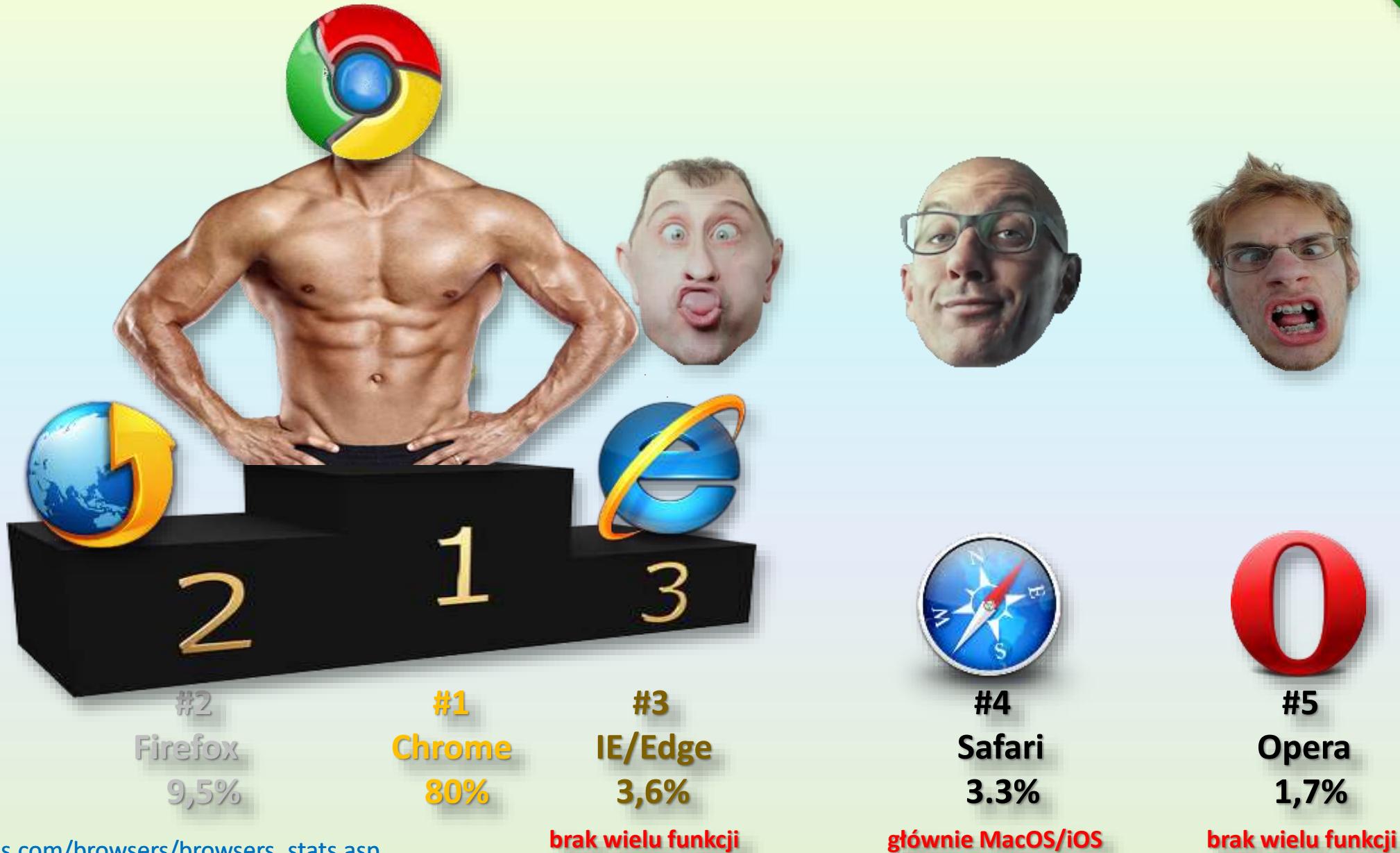
MS Edge transformation into Google Chrom

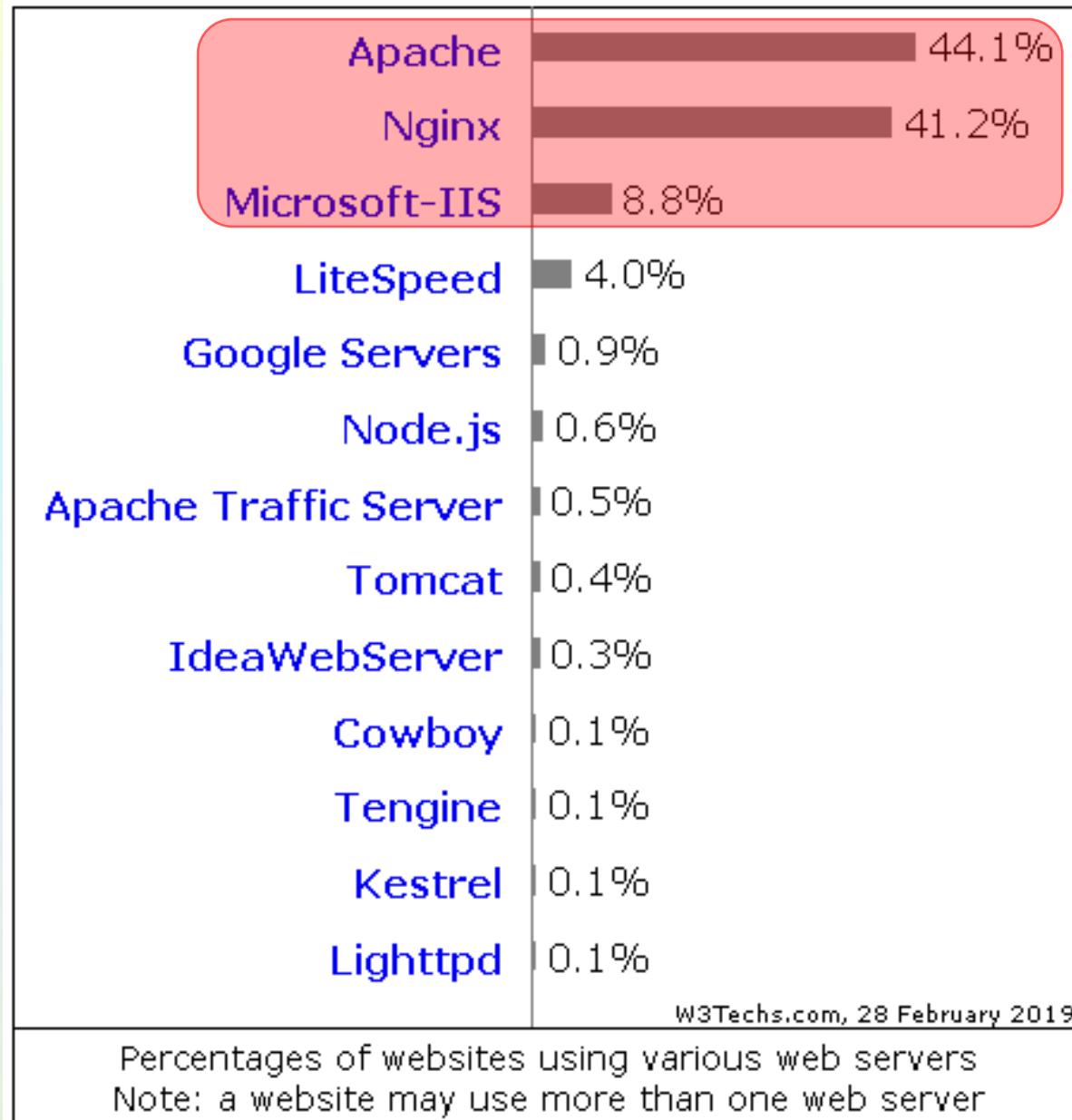


Write here the technology name to check if it is working on all browsers

<https://caniuse.com/#feat=>

Browsers Statistics in the World – January 2019

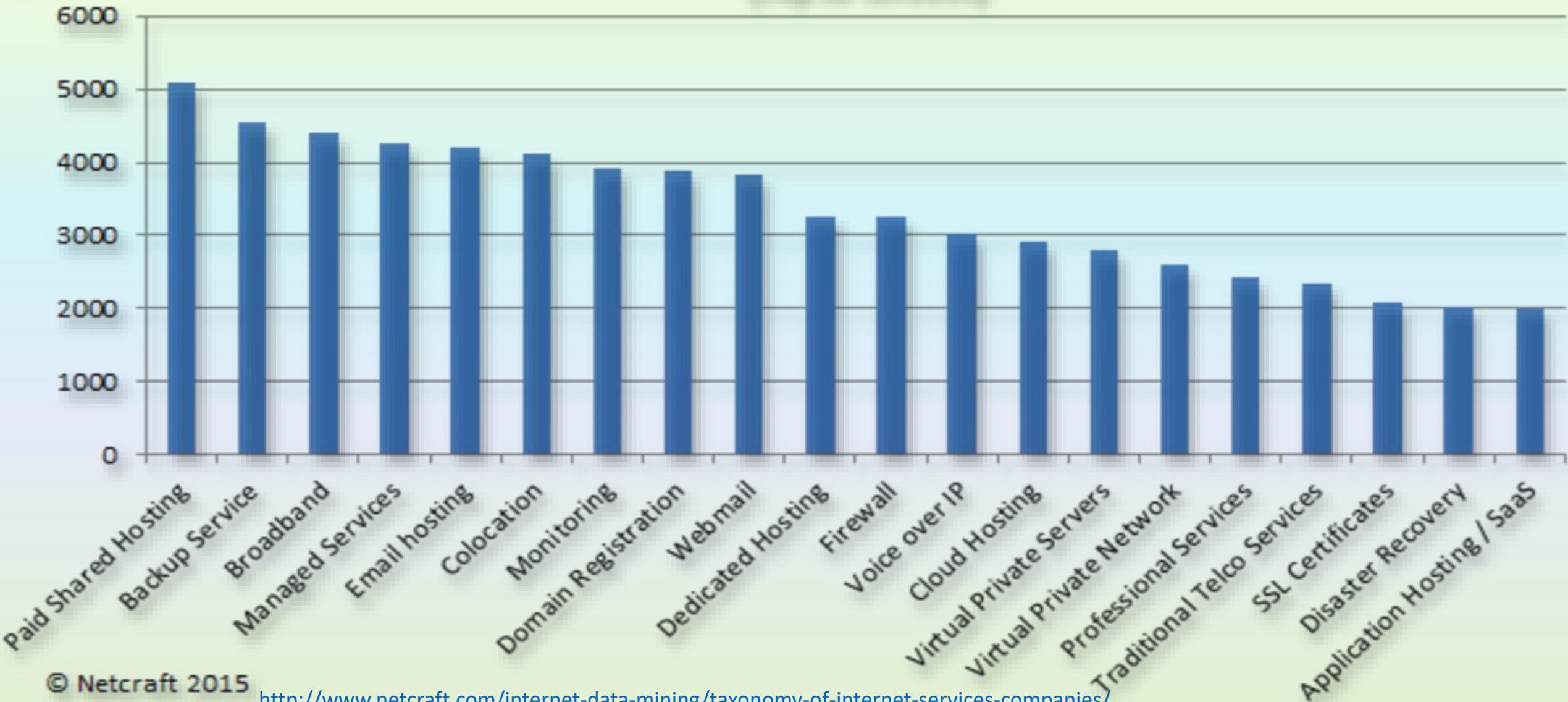




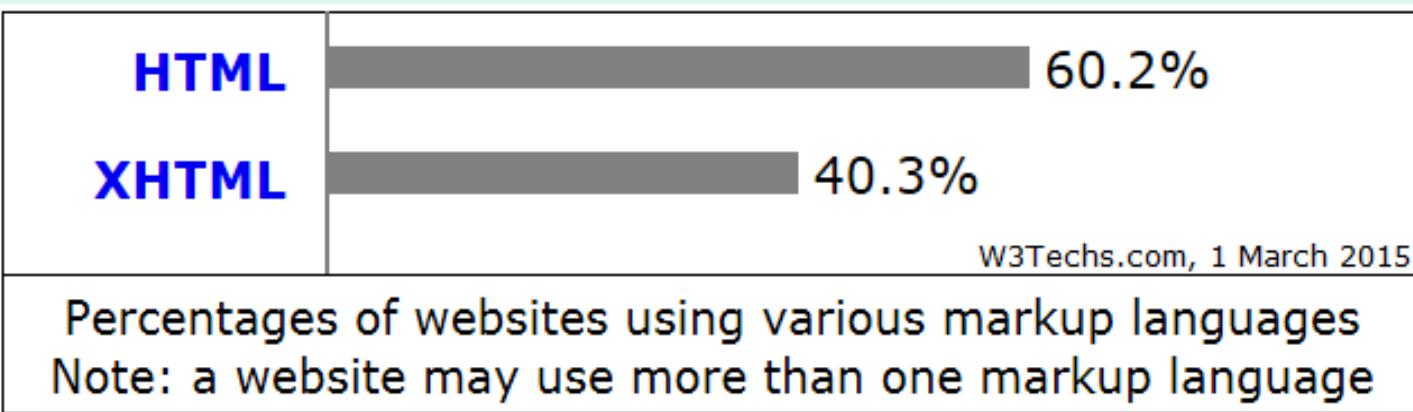
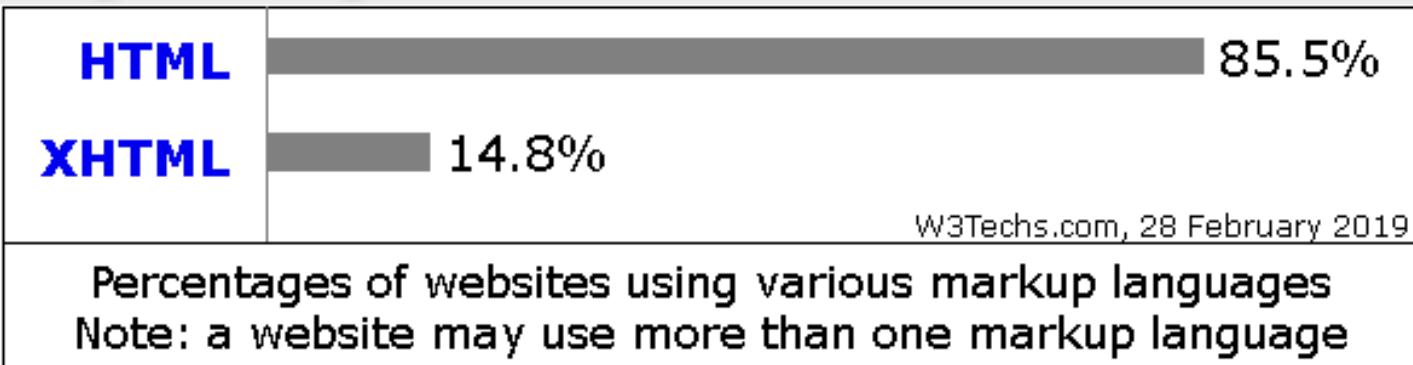
Number of Companies Offering each Service



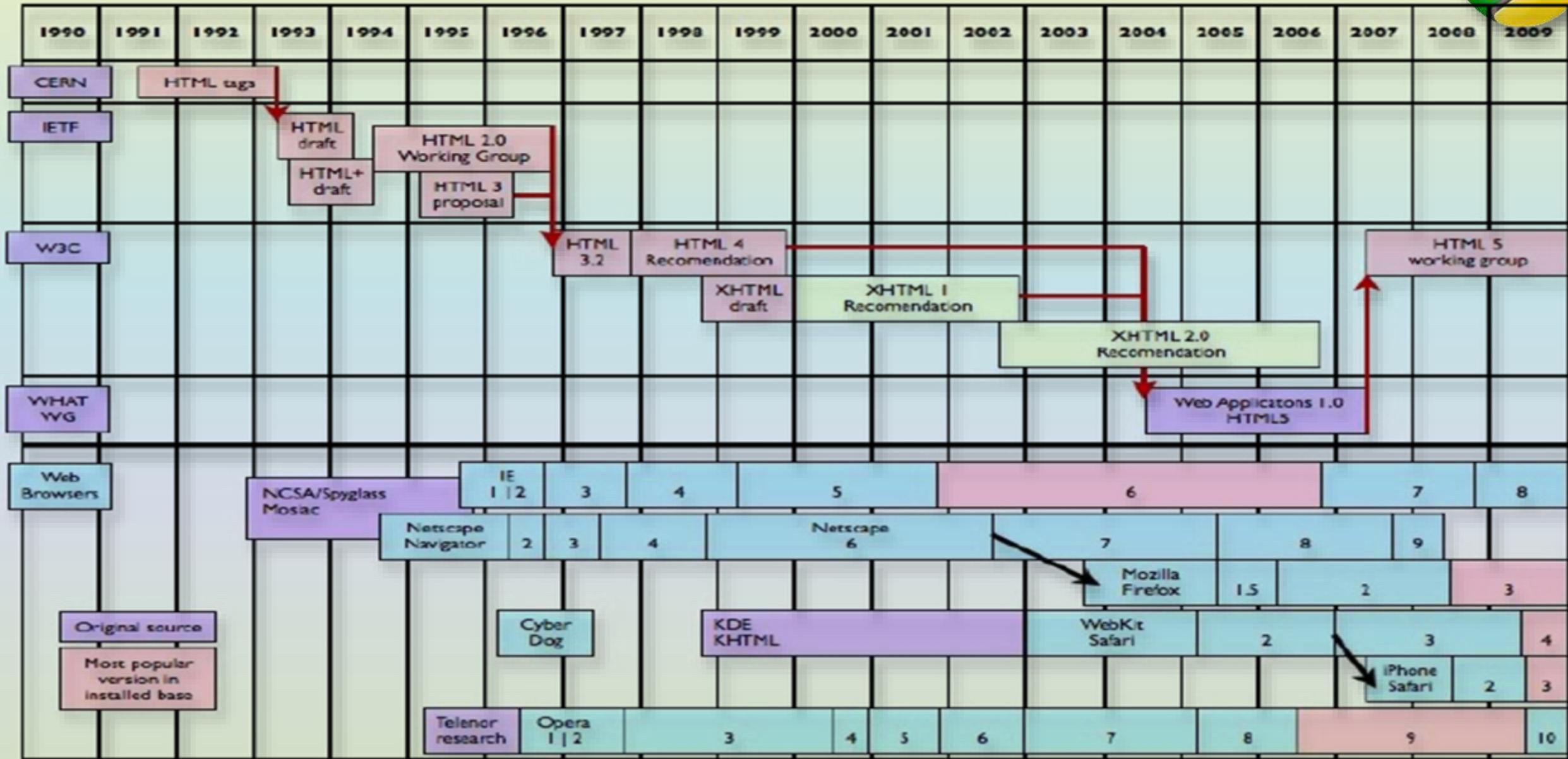
Number of Companies Offering Each Service (Top 20 Services)



Markup Languages Usage – HTML vs XHTML



HTML, XHTML - Evolution

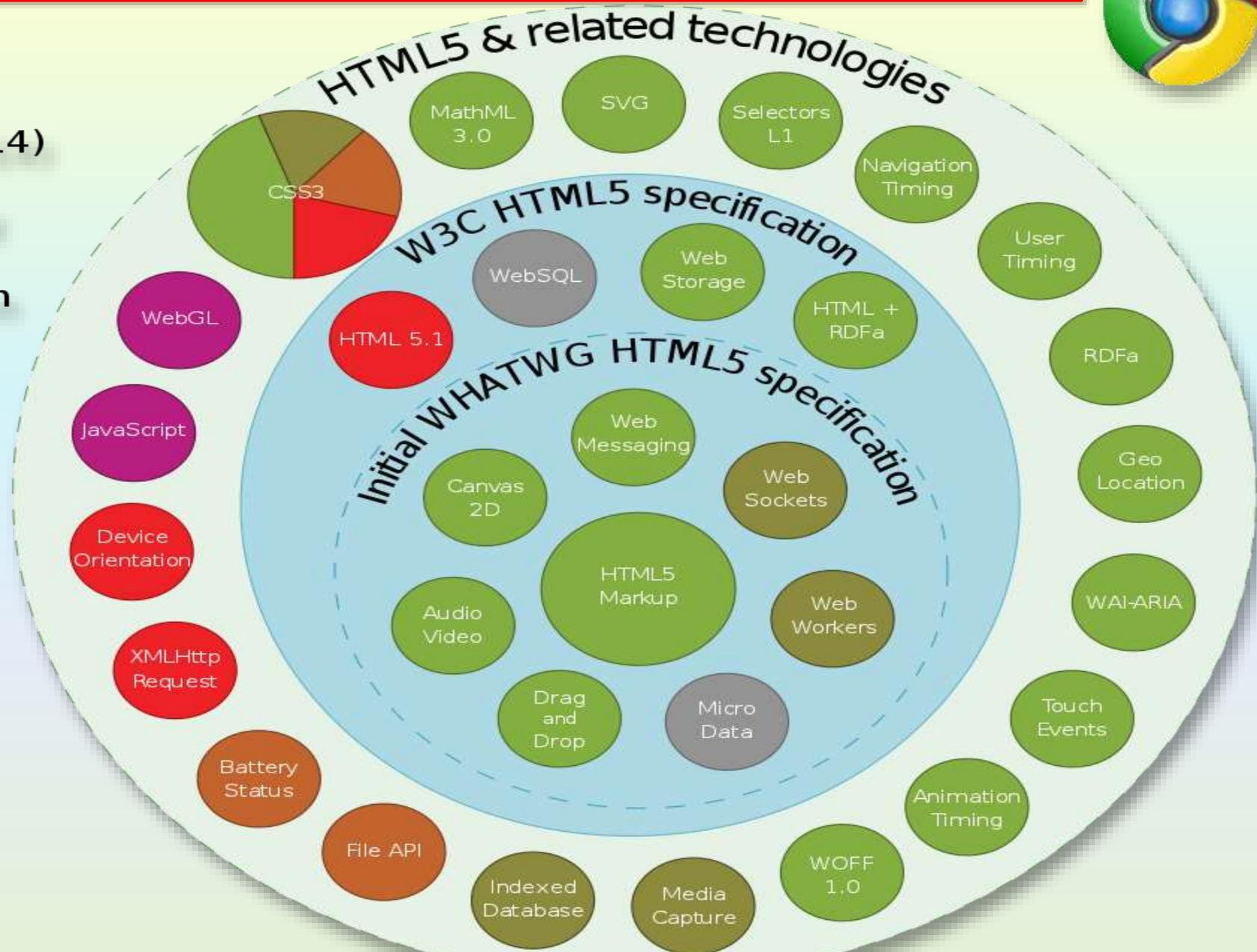




HTML5

Taxonomy & Status (October 2014)

- Recommendation/Proposed
- Candidate Recommendation
- Last Call
- Working Draft
- Non-W3C Specifications
- Deprecated or inactive





What Does HTML5 Do?



<STORAGE>

Data can be stored on a user's computer or mobile device, so Web apps work without an Internet connection.



<TYPE>

Web pages can have flashier type with more fonts, shadows, colors and other effects.



< MOTION >

Objects move on Web pages and react to the movements of a cursor.



<GAMES>

Interactive games can run with just a Web browser without installing other software or plug-ins.



Key features of the next Web programming standard.



<VIDEO>

Video can be embedded in a Web page without a plug-in. Browser makers have not agreed on formats.



<3D>

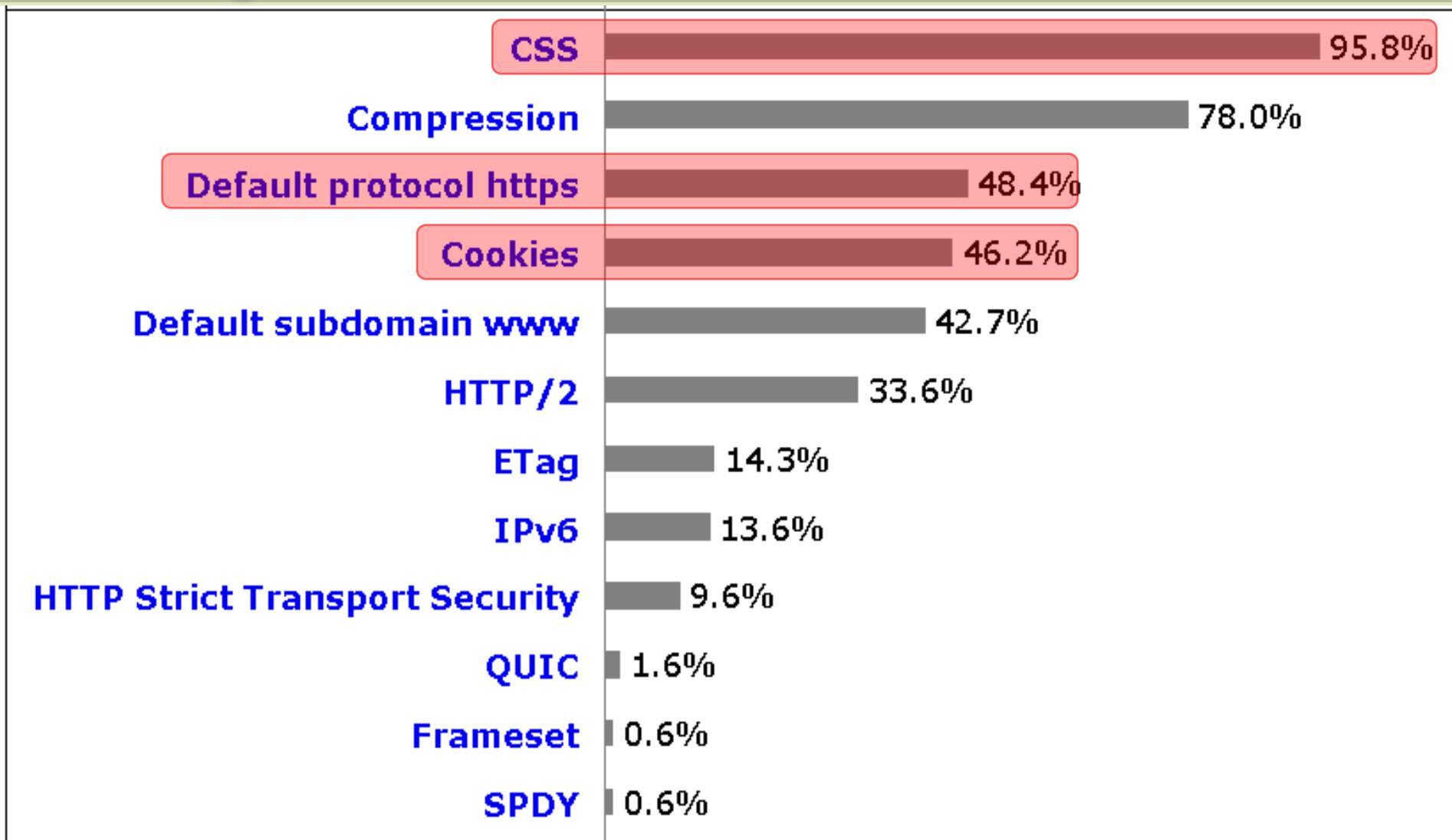
A technology called WebGL can create interactive 3-D effects using a computer's graphics processor.



<AUDIO>

Audio is played without a plug-in. Browser makers have not agreed on formats.

Site Elements Usage



W3Techs.com, 28 February 2019

Percentages of websites using various site elements
Note: a website may use more than one site element



CSS3

Taxonomy & Status (September 2017)

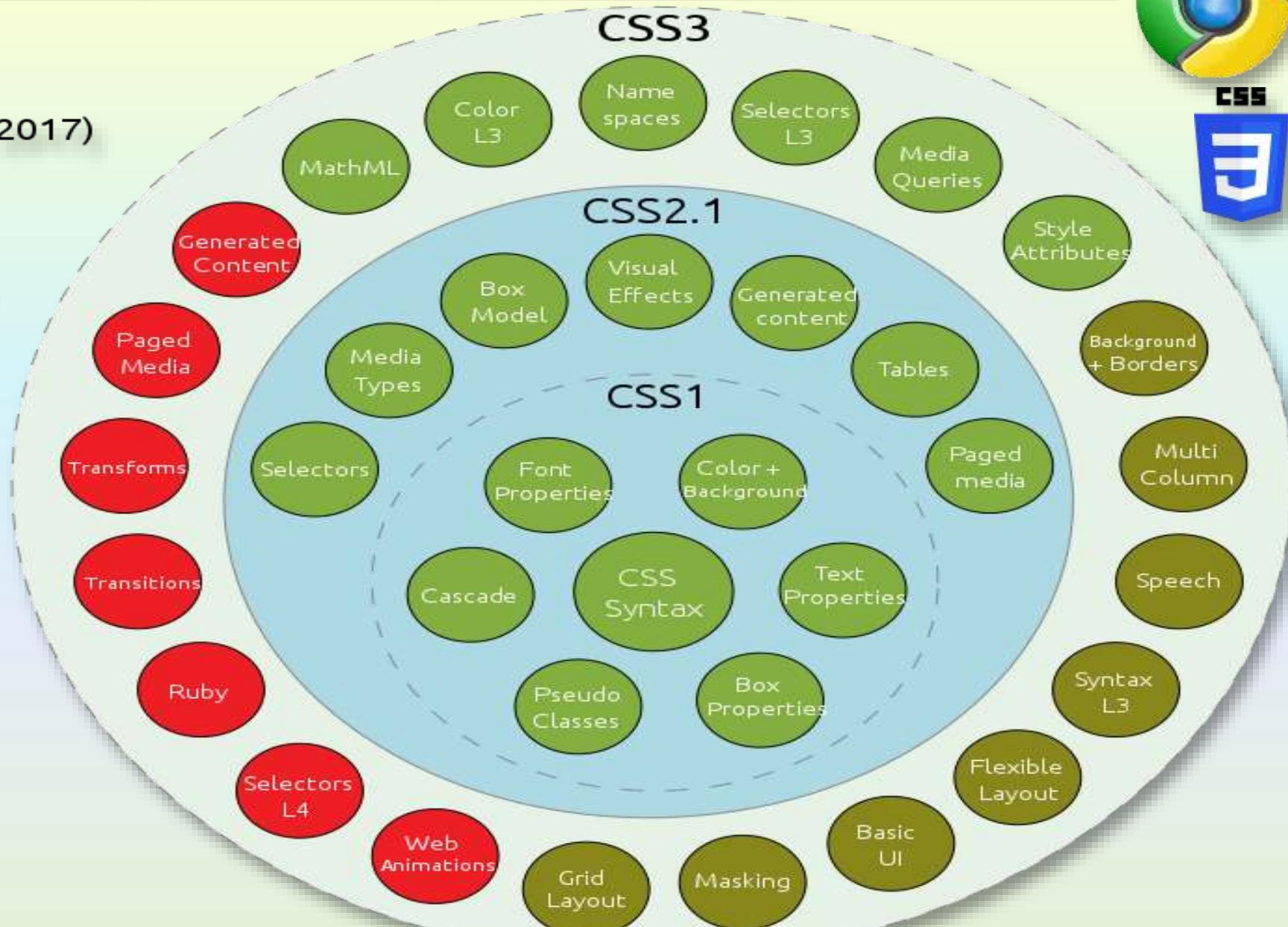
● W3C Recommendation

● Candidate Recommendation

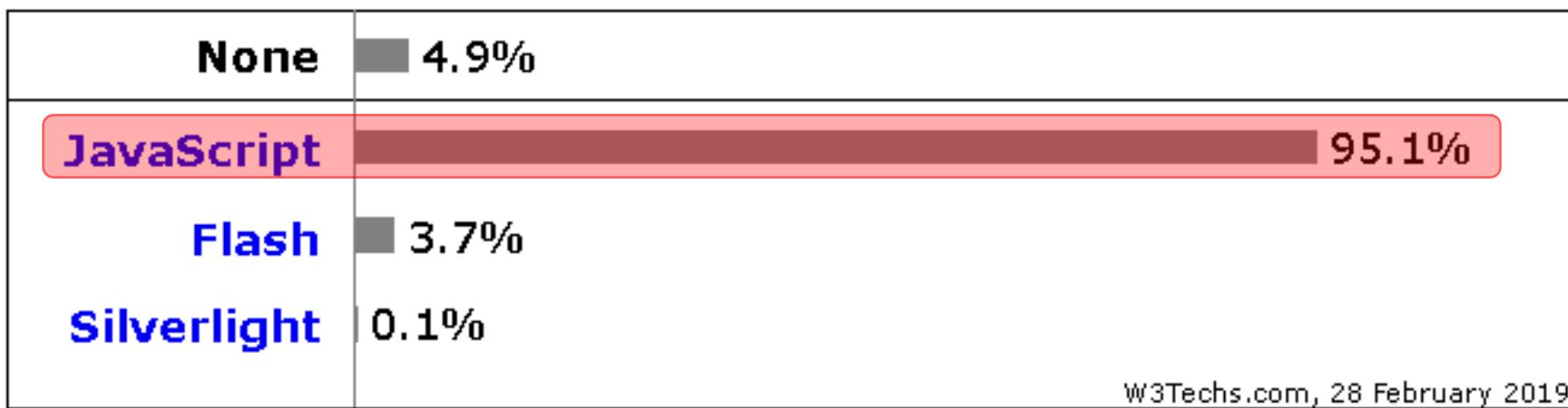
● Last Call

● Working Draft

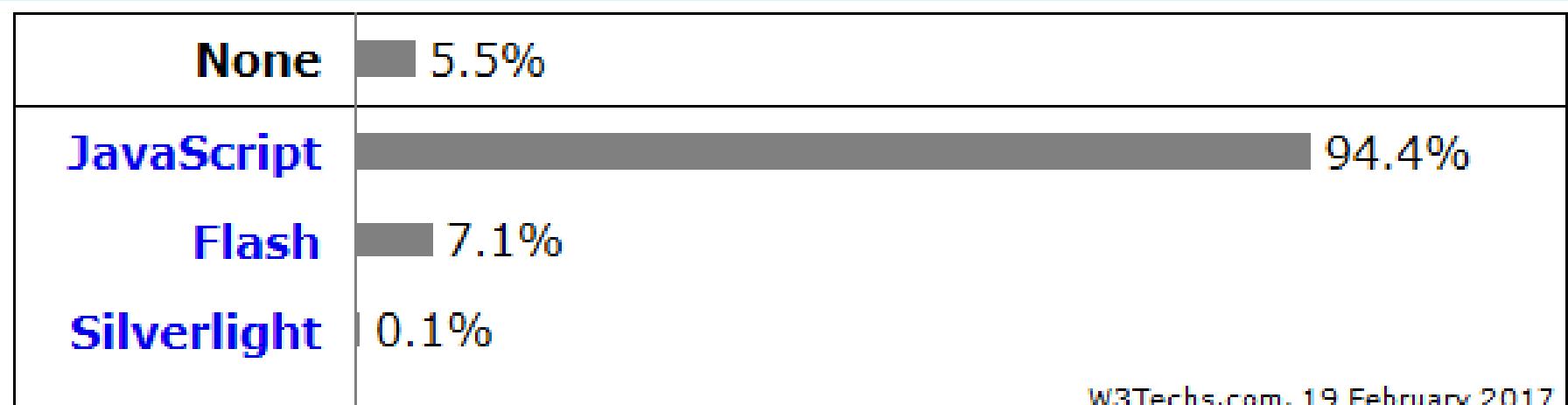
● Obsolete or inactive



Client-side Programming Language Usage

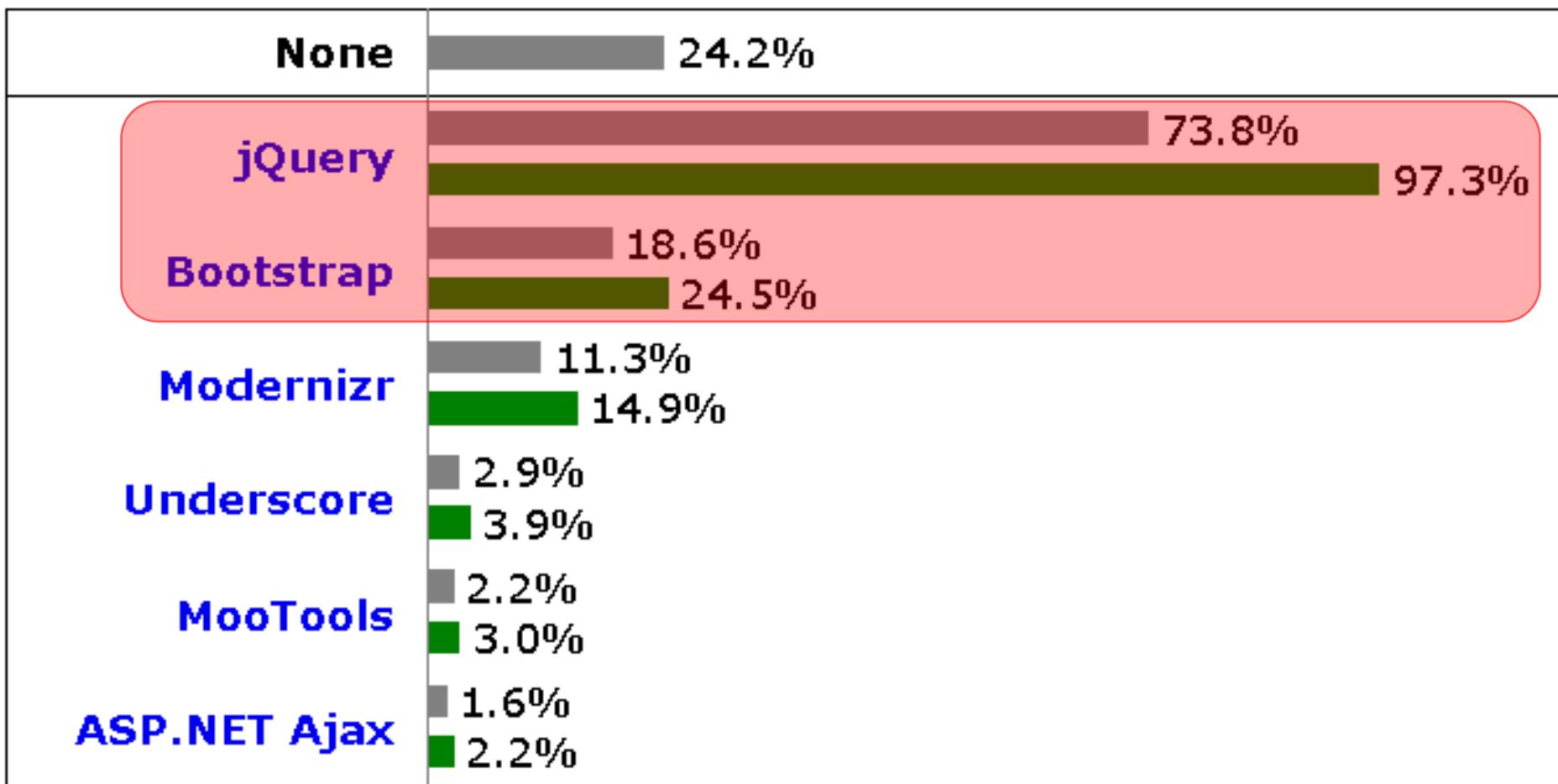


Percentages of websites using various client-side programming languages
Note: a website may use more than one client-side programming language



Percentages of websites using various client-side programming languages
Note: a website may use more than one client-side programming language

JavaScript Library Usage

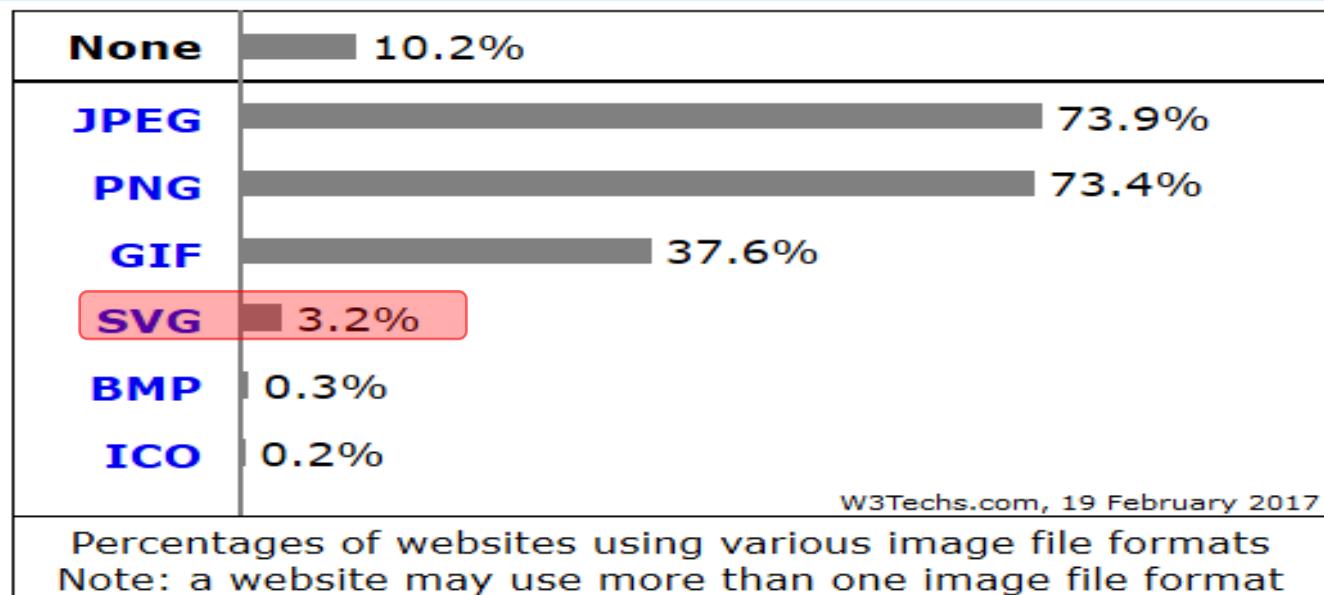
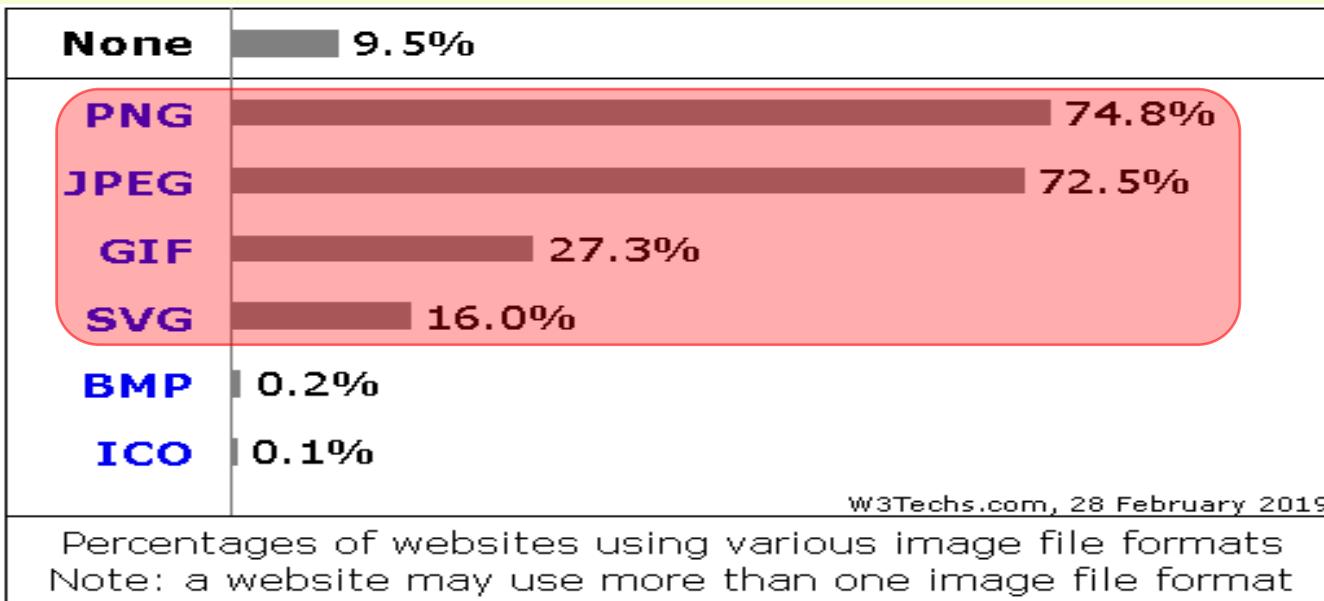


W3Techs.com, 28 February 2019

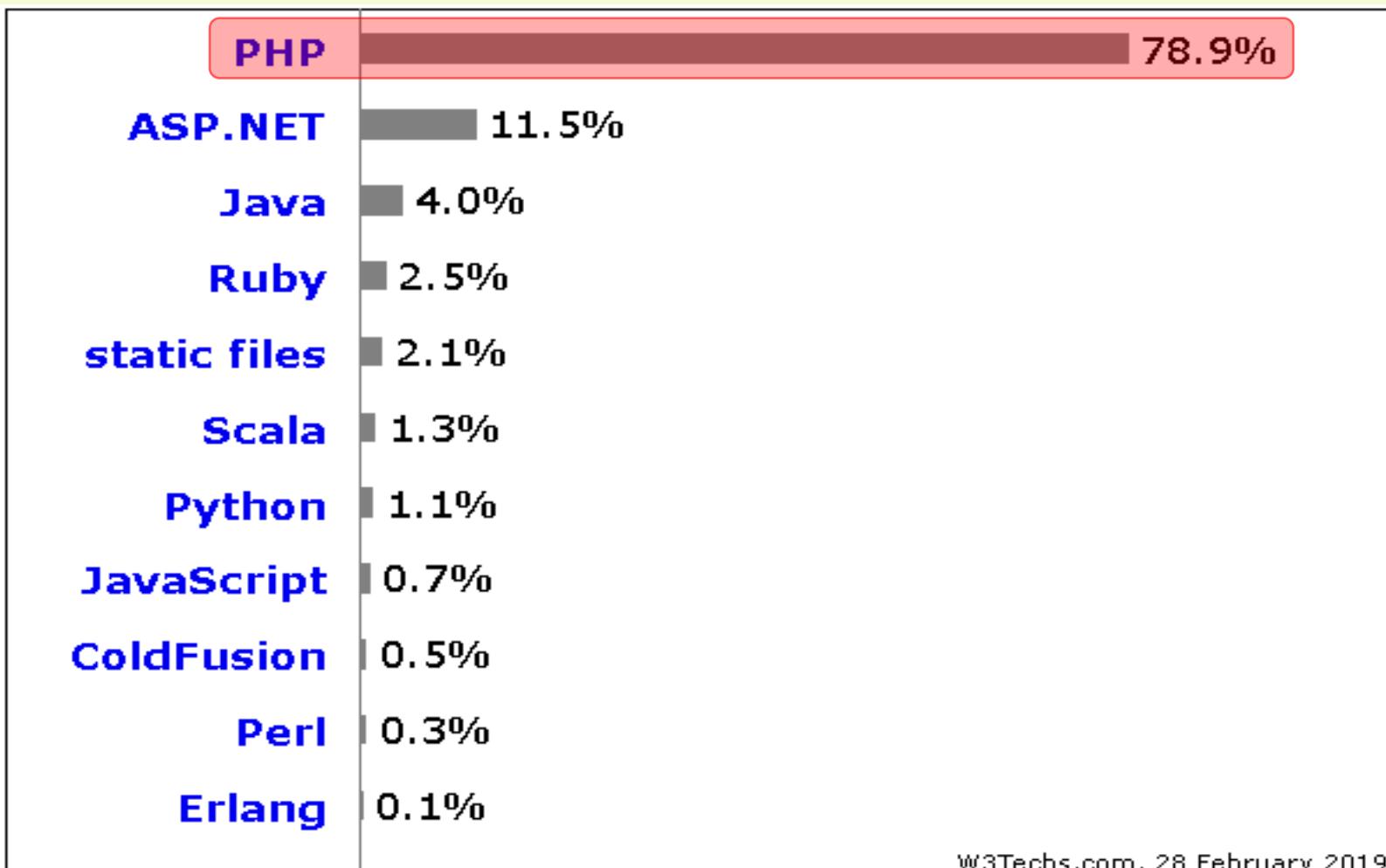
■ absolute usage percentage ■ market share

Percentages of websites using various JavaScript libraries
Note: a website may use more than one JavaScript library

Image File Format Usage



Server-side Programming Language Usage

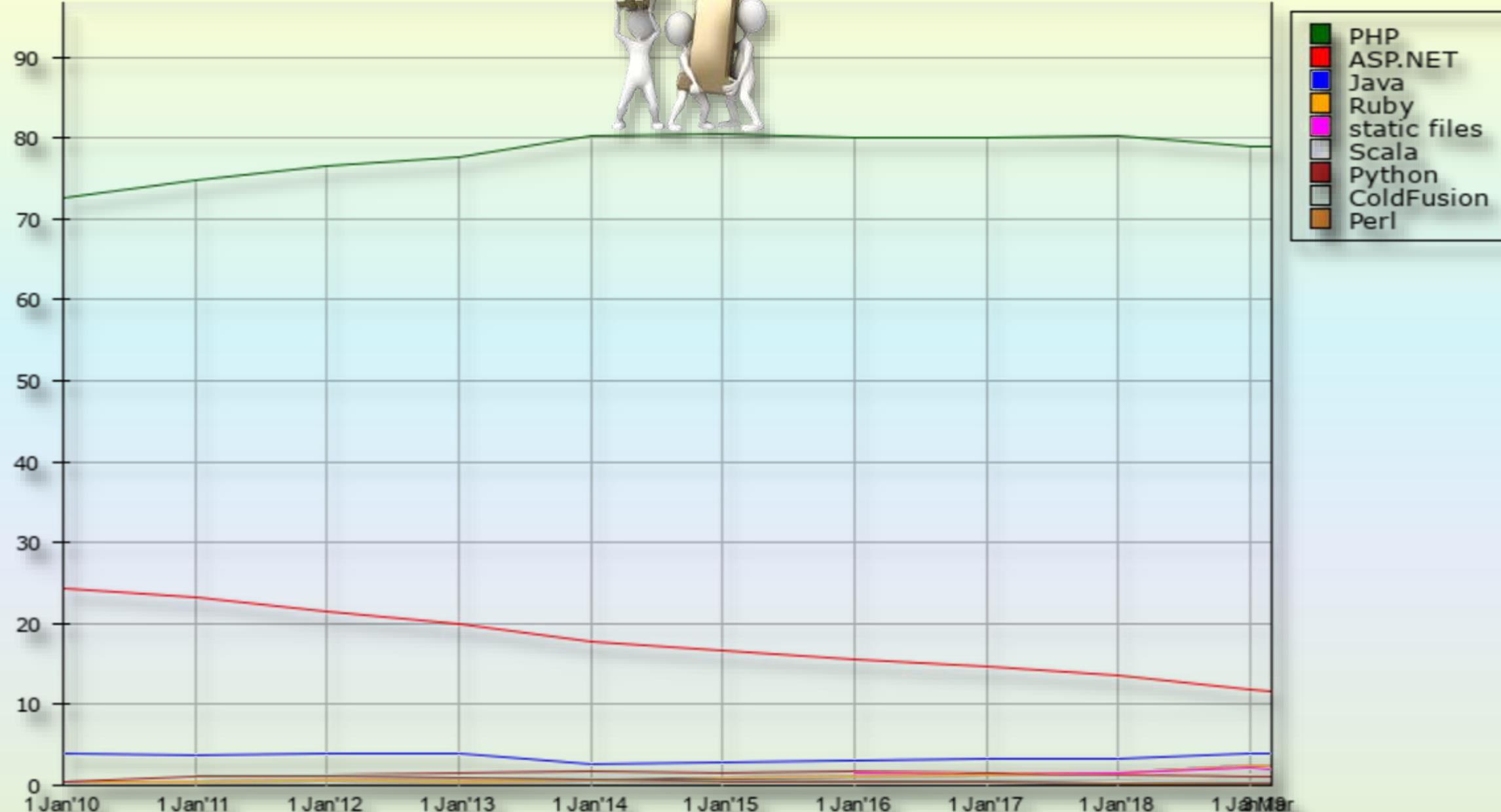


W3Techs.com, 28 February 2019

Percentages of websites using various server-side programming languages

Note: a website may use more than one server-side programming language

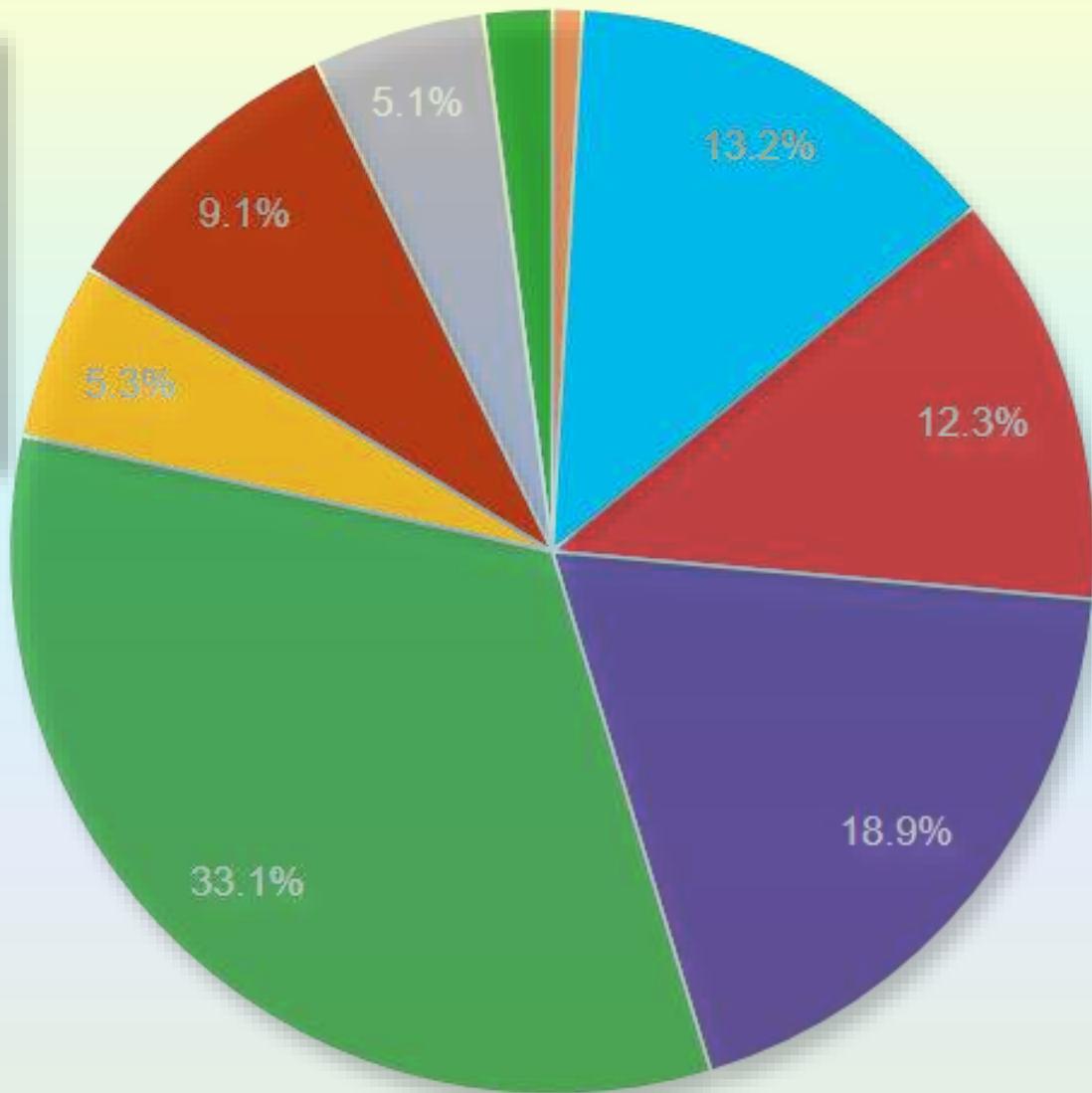
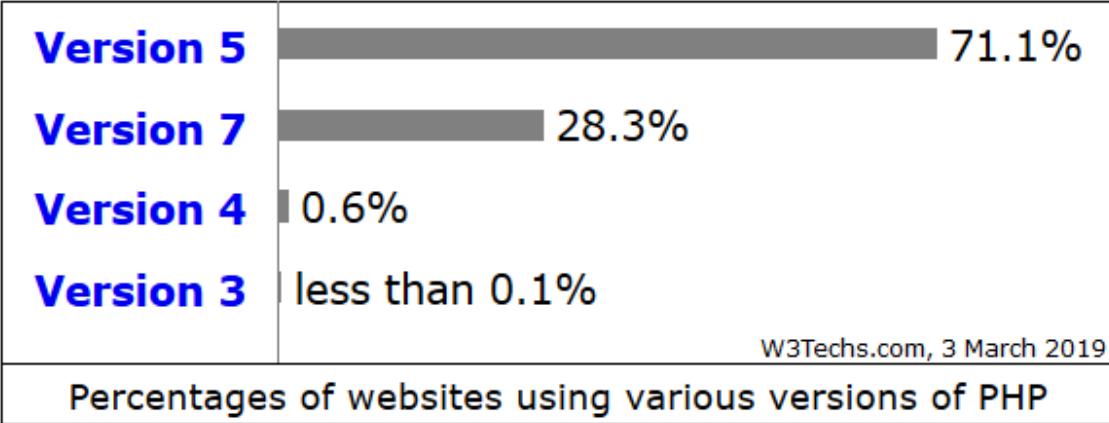
PHP usage 2010-2019



PHP versions in WordPress



- 7.3
- 7.2
- 7.1
- 7.0
- 5.6
- 5.5
- 5.4
- 5.3
- 5.2



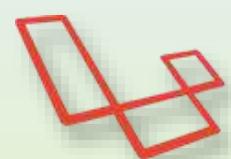
PHP versions benchmarks (2019)



WordPress 5.0

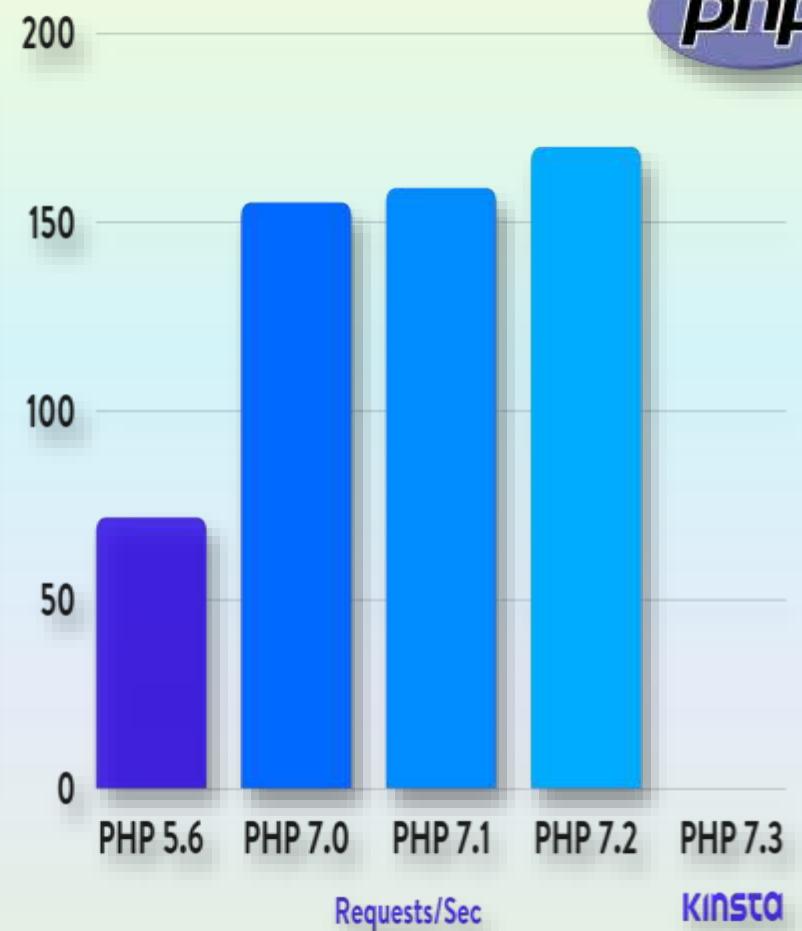


Laravel 5.4.36

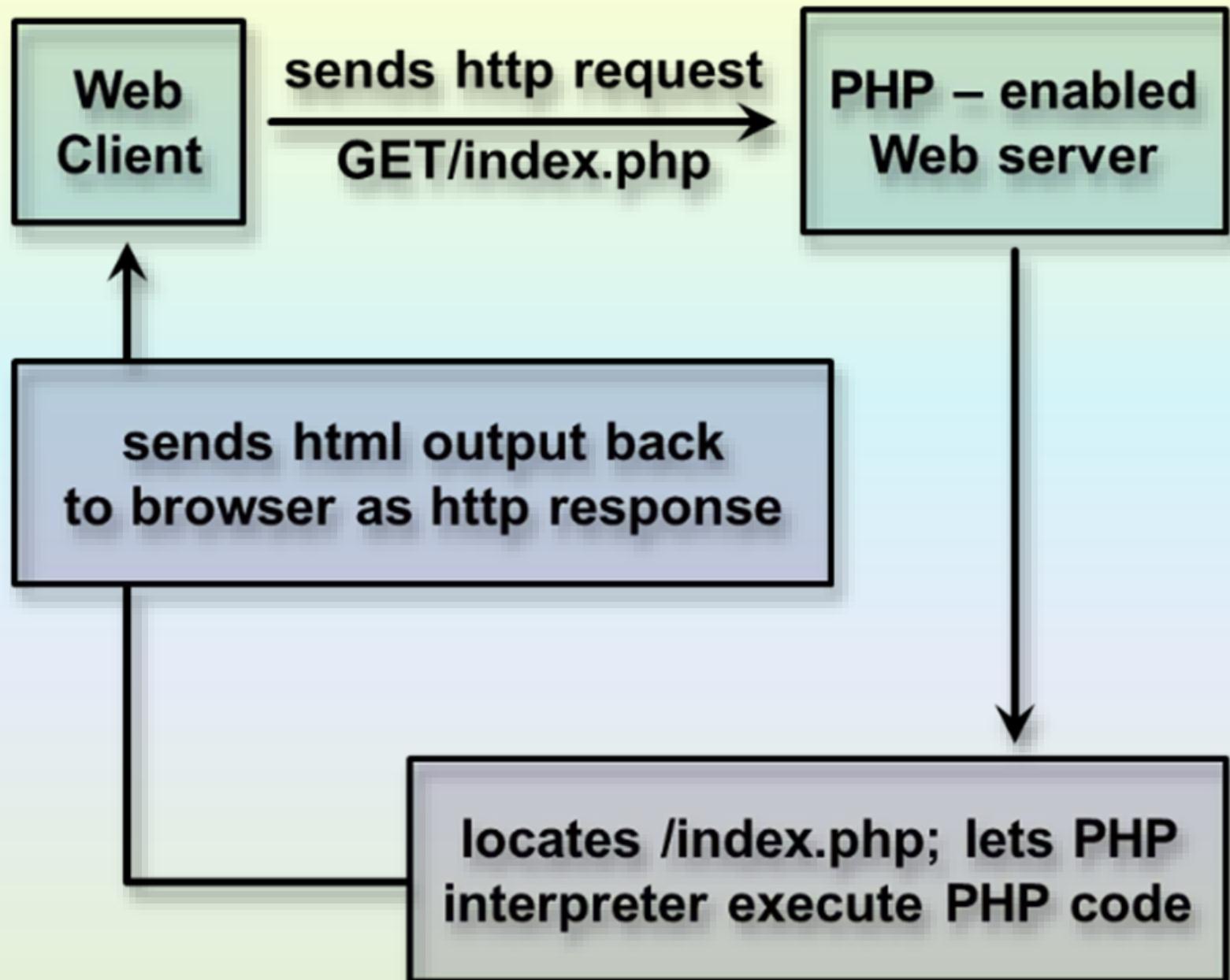


Laravel

Symfony 3.3.6



Symfony



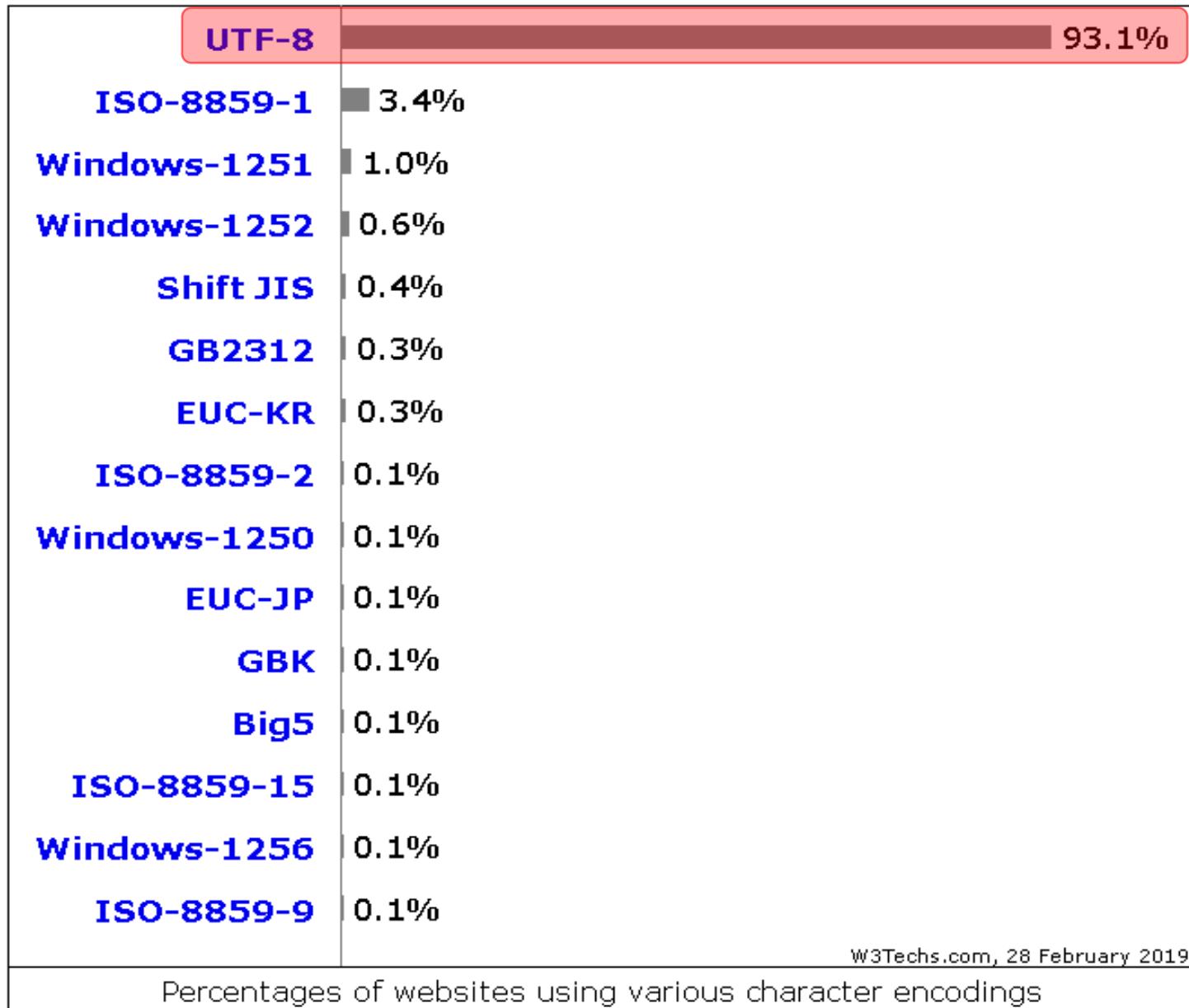
DB Engines Ranking



343 systems in ranking, February 2019

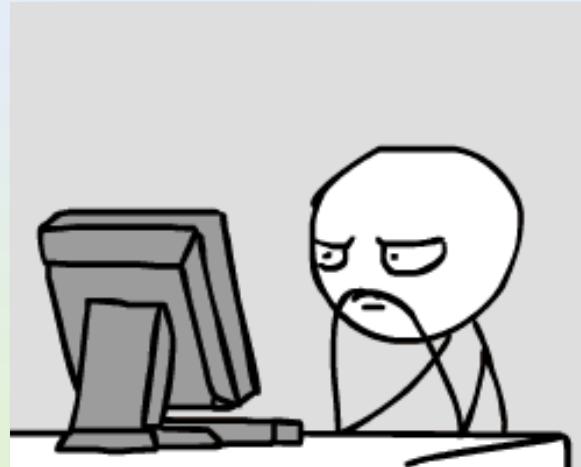
Rank			DBMS	Database Model	Score		
Feb 2019	Jan 2019	Feb 2018			Feb 2019	Jan 2019	Feb 2018
1.	1.	1.	Oracle	Relational, Multi-model	1264.02	-4.82	-39.26
2.	2.	2.	MySQL	Relational, Multi-model	1167.29	+13.02	-85.18
3.	3.	3.	Microsoft SQL Server	Relational, Multi-model	1040.05	-0.21	-81.98
4.	4.	4.	PostgreSQL	Relational, Multi-model	473.56	+7.45	+85.18
5.	5.	5.	MongoDB	Document	395.09	+7.91	+58.67
6.	6.	6.	IBM Db2	Relational, Multi-model	179.42	-0.43	-10.55
7.	7.	8.	Redis	Key-value, Multi-model	149.45	+0.43	+22.43
8.	8.	9.	Elasticsearch	Search engine, Multi-model	145.25	+1.81	+19.93
9.	9.	7.	Microsoft Access	Relational	144.02	+2.41	+13.95
10.	10.	11.	SQLite	Relational	126.17	-0.63	+8.89

Character Encodings Usage



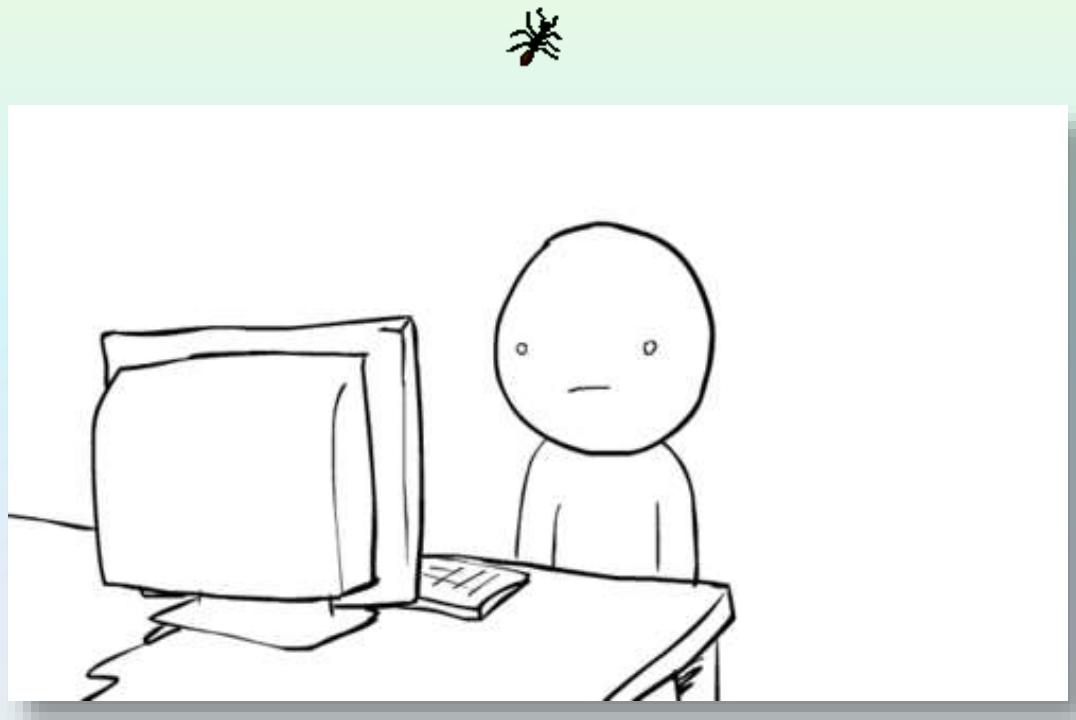
W3Techs.com, 28 February 2019

Thick Client



IDE

- AI
- debugging
- GIT,



Android
Studio



Visual Studio

Google search "Best IDE Software" C++/php/JavaScript/....

https://en.wikipedia.org/wiki/Comparison_of_integrated_development_environments

<http://vschart.com/compare/visual-studio-code/vs/eclipse-ide>

<https://stackshare.io/stackups/android-studio-vs-eclipse-vs-netbeans>

Windows XP, Vista, 7, 8, 8.1, 10



MacOS



MacOS

Linux



Linux

Android 4, 5, 6, 7



iOS



Windows Phone



No FUTURE

Visual Studio Timeline



Visual Studio®

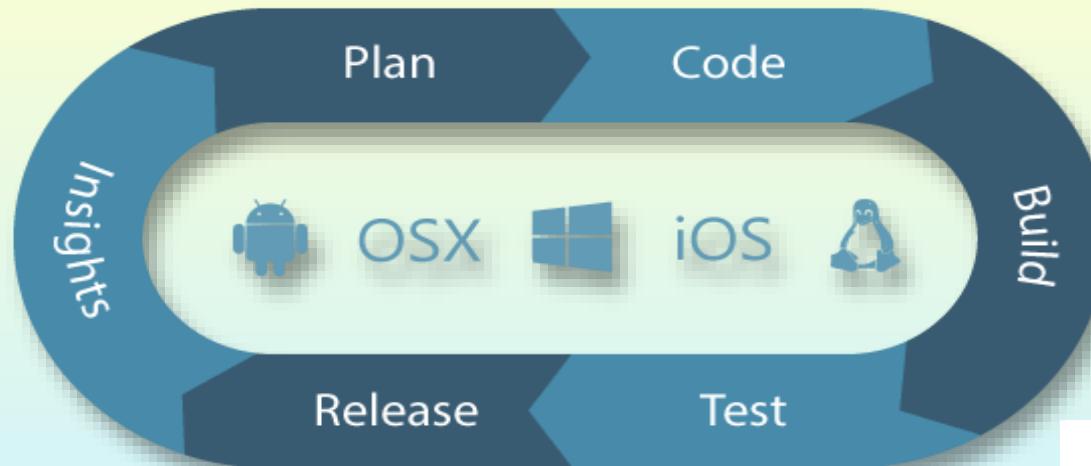
Product name	Version	cl.exe	.NET	Date
VS 97	5.0	N/A	-	1997
VS 6.0	6.0	12.00	-	1998
VS .NET 2002	7.0	13.00	1.0	2002
VS .NET 2003	7.1	13.10	1.1	2003
VS 2005	8.0	14.00	2.0, 3.0	2005
VS 2008	9.0	15.00	2.0, 3.0, 3.5	2007
VS 2010	10.0	16.00	2.0 – 4.0	2010
VS 2012	11.0	17.00	2.0 – 4.5.2	2012
VS 2013	12.0	18.00	2.0 – 4.5.2	2013
VS 2015	14.0	19.00	2.0 – 4.6	2015
VS 2017	15.0	19.10	2.0 – 4.6.2; Core 1.0	2017
VS 2019	16.0			2019

NO FUTURE

Visual Studio Team Services



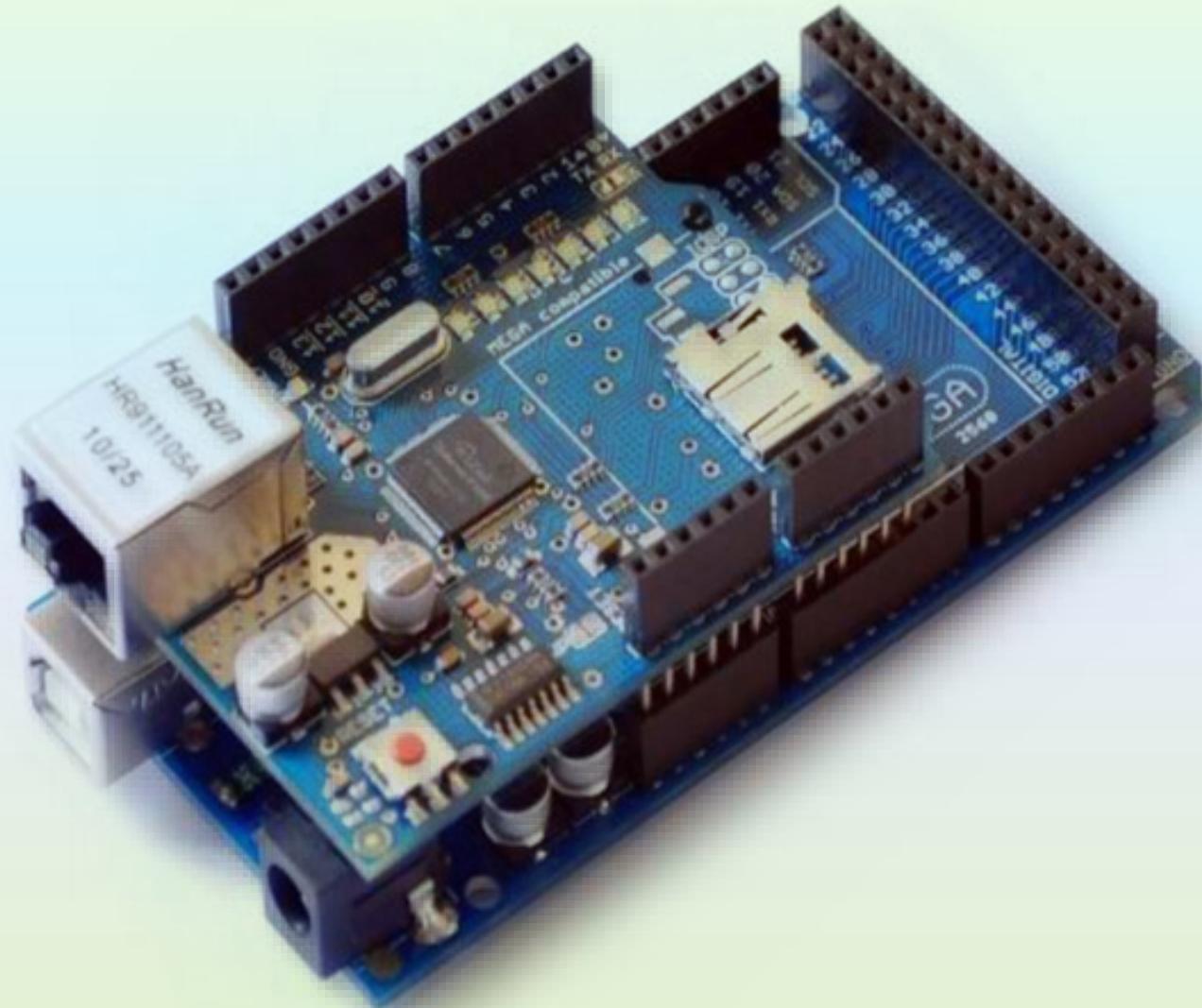
Visual Studio



Visual Studio Online is now
Visual Studio Team Services



Web Arduino Applications



Plik Edycja Widok Historia Zakładki Narzędzia Pomoc

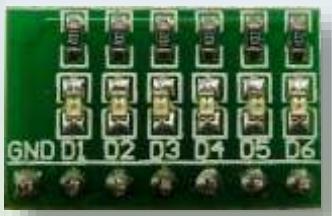
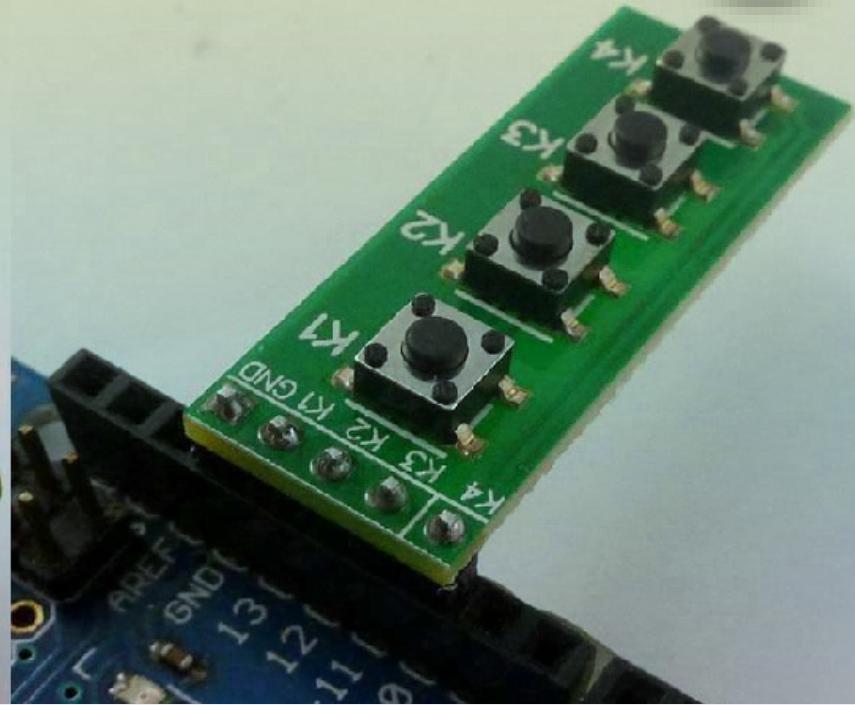
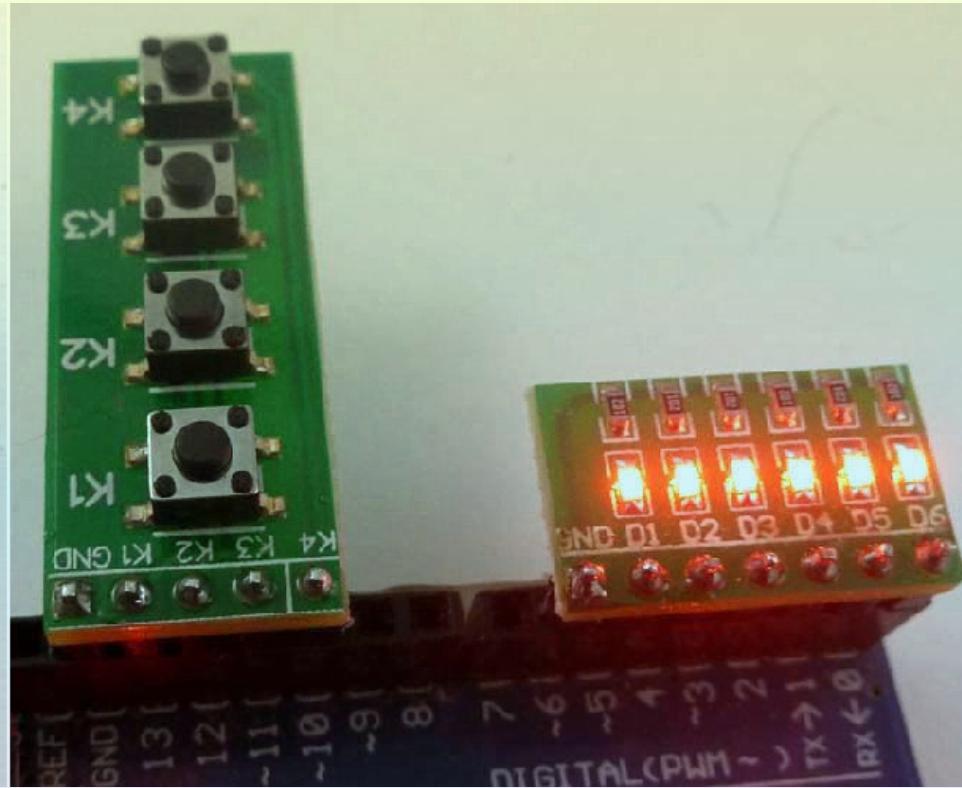
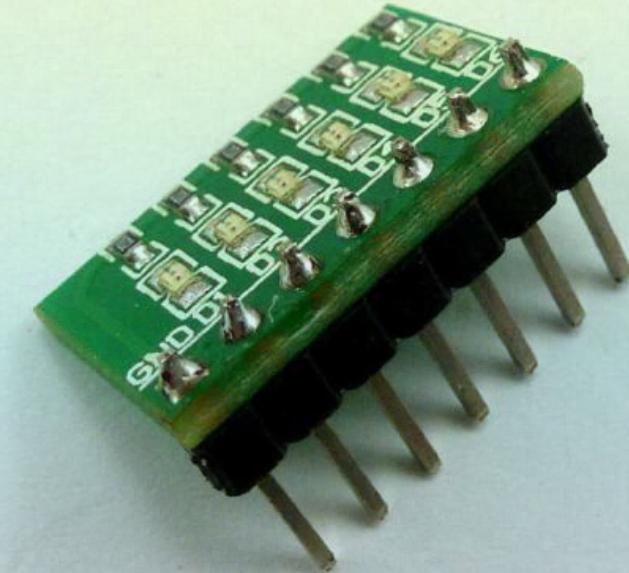
Roundcube Webmail X System Poczty W... X Mega-DIO X

192. ... 125 EKO freeeco PV Byd fff EF Dic W1 125

Mega-ADIO 59

DO	DI	AI	AO
Q1	I1	AI0: 0.073	AO1: 0
Q2	I2	AI1: 0.073	AO2: 0
Q3	I3	AI2: 0.073	AO3: 0
Q4	I4	AI3: 0.073	AO4: 0
Q5	I5	AI4: 0.073	AO5: 0
Q6	I6	AI5: 0.073	AO6: 0
Q7	I7	AI6: 0.073	AO7: 0
Q8	I8	AI7: 0.073	AO8: 0
Q9	I9	AI8: 0.073	AO9: 0
Q10	I10	AI9: 0.078	AO10: 0
Q11	I11	AI10: 0.078	
Q12	I12	AI11: 0.078	
Q13	I13	AI12: 0.078	
Q14	I14	AI13: 0.078	
		AI14: 0.078	
		AI15: 0.073	

Web Arduino Applications – Digital Inputs and Outputs



Cost \$1