

Java y su ecosistema

Víctor Orozco

16 de octubre de 2020

Intro



Principios de sobrevivencia - Redmonk



Besides the above plot, which can be difficult to parse even at full size, we offer the following numerical rankings. As will be observed, this run produced several ties which are reflected below (they are listed out here alphabetically rather than consolidated as ties because the latter approach led to [misunderstandings](#)). Note that this is actually a list of the Top 21 languages, not Top 20, because of said ties.

- 1 JavaScript
- 2 Java
- 3 PHP
- 4 Python
- 5 C#
- 5 C++
- 5 Ruby
- 8 CSS
- 9 C
- 10 Objective-C

Principios de sobrevivencia - Tiobe



Jul 2020	Jul 2019	Change	Programming Language	Ratings	Change
1	2	▲	C	16.45%	+2.24%
2	1	▼	Java	15.10%	+0.04%
3	3		Python	9.09%	-0.17%
4	4		C++	6.21%	-0.49%
5	5		C#	5.25%	+0.88%
6	6		Visual Basic	5.23%	+1.03%
7	7		JavaScript	2.48%	+0.18%

Principios de sobrevivencia - IEEE

https://spectrum.ieee.org/ns/IEEE_TPL_2019/index/2019/0/0/1/0/1/50/1/50/1/50/1/30/1/30/1/20/1/20/1/5/1/50/1/100/1/50/

SPECTRUM Engineering Topics ▾ Special Reports ▾ Blogs ▾ Multimedia ▾ The Magazine ▾ P



[Create custom ranking](#)

(Click to hide)

Language Ranking: IEEE Spectrum

Rank	Language	Type	Score
1	Python	🌐💻⚙️	100.0
2	Java	🌐📱💻	96.3
3	C	📱💻⚙️	94.4
4	C++	📱💻⚙️	87.5

Principios de sobrevivencia - Forbes



39,341 views | Jul 1, 2019, 05:00am EDT

Venkat Subramaniam: Kotlin And Python Are Fun, But Java Developers Are Semantically Aligned With The Future

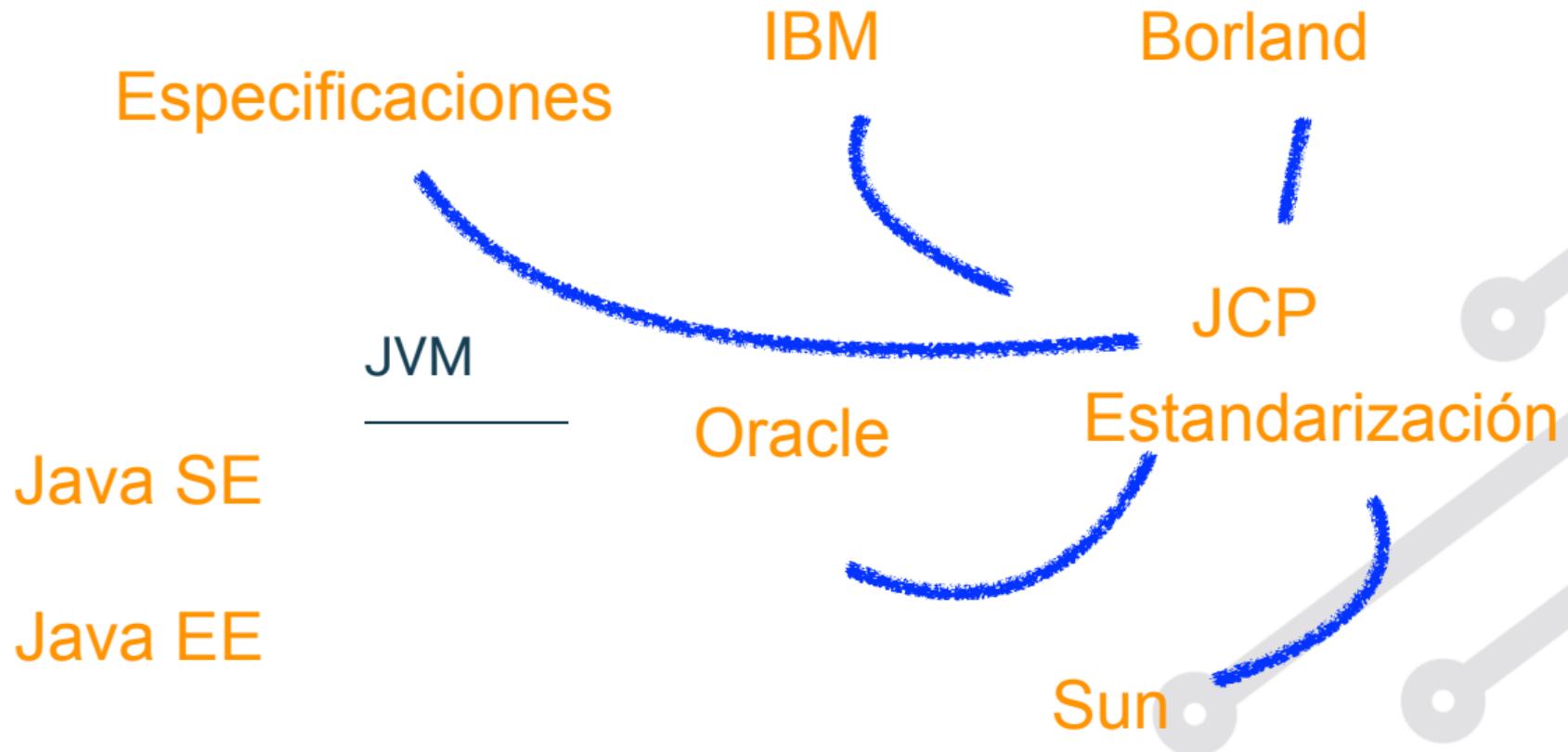


Alexa Weber Morales Brand Contributor
Oracle BRANDVOICE | Paid Program
Innovation

- f Whether he's pacing the keynote stage in stocking feet, or taking you through "[A Dozen Cool Things in JVM Languages](#)," Venkat Subramaniam leaves you with a sense of exhilaration about computer programming.
- t
- in

His gift for inspirational analogy is rare, and even more so because it's about software development.





Lenguaje

¡Yo programo en Java!



Lenguaje

¡Yo programo en el lenguaje Java!



Lenguaje

¡Yo programo en (una de) las plataformas Java!



Lenguaje != Plataforma

Lenguaje, Plataforma

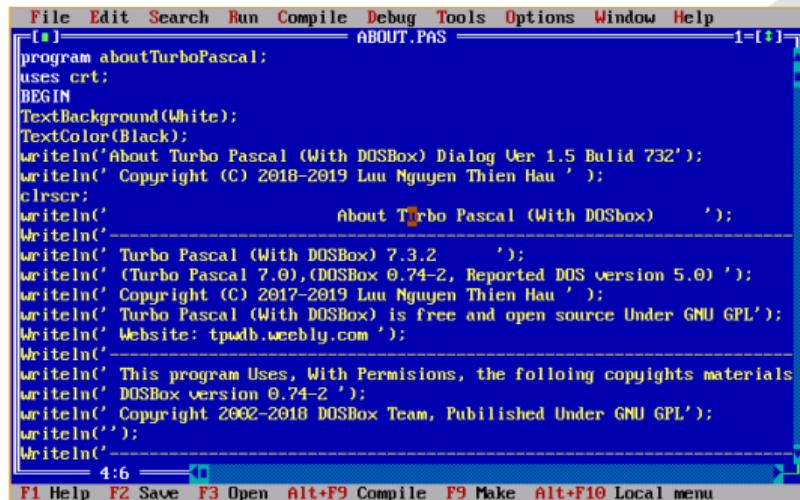
- Compilador
- Entorno de ejecución
- APIs y bibliotecas
- Frameworks
- Editor o IDE



Lenguaje != Plataforma

Turbo Pascal

- Compilador: Borland Pascal
- Bibliotecas y APIs: Borland -e.g. conio.h-
- Editor: Borland



The screenshot shows the Turbo Pascal IDE interface. The menu bar includes File, Edit, Search, Run, Compile, Debug, Tools, Options, Window, and Help. The title bar says "ABOUT.PAS". The code editor displays the following Pascal program:

```
program aboutTurboPascal;
uses crt;
BEGIN
TextBackground(White);
TextColor(Black);
writeln('About Turbo Pascal (With DOSBox) Dialog Ver 1.5 Build 732');
writeln(' Copyright (C) 2018-2019 Luu Nguyen Thien Hau ');
clrscr;
writeln('-----');
writeln(' About Turbo Pascal (With DOSBox) ');
writeln('-----');
writeln(' Turbo Pascal (With DOSBox) 7.3.2 ');
writeln(' (Turbo Pascal 7.0), (DOSBox 0.74-2, Reported DOS version 5.0)');
writeln(' Copyright (C) 2017-2019 Luu Nguyen Thien Hau ');
writeln(' Turbo Pascal (With DOSBox) is free and open source Under GNU GPL');
writeln(' Website: tpuwb.weebly.com ');
writeln('-----');
writeln(' This program Uses, With Permissions, the following copyrights materials ');
writeln(' DOSBox version 0.74-2 ');
writeln(' Copyright 2002-2018 DOSBox Team, Published Under GNU GPL');
writeln('');
writeln('-----');
```

The status bar at the bottom shows keyboard shortcuts: F1 Help, F2 Save, F3 Open, Alt+F9 Compile, F9 Make, Alt+F10 Local menu.



Java

- Compilador: javac (OpenJDK), incremental(Eclipse JDT)
- Entorno ejecución: JVM -e.g. Oracle HotSpot, Amazon Correto, RedHat OpenJDK, IBM J9-, Nativo (GraalVM)
- Bibliotecas y APIs: OpenJDK (estandares) (Oracle, Google, RedHat), Maven Central
- Frameworks: Spring (VMWare), Jakarta EE (Oracle, RedHat)
- Editor: NetBeans (Apache), Eclipse (Eclipse), IntelliJ IDEA (JetBrains), VSCode (Microsoft)

import javax.

import jakarta.



Ecosistema JVM

JVM

- **25 años de desarrollo**
- Nueva versión cada 6 meses
- Software libre GPLv2+Classpath Exception
- Probablemente la maquina virtual más rápida

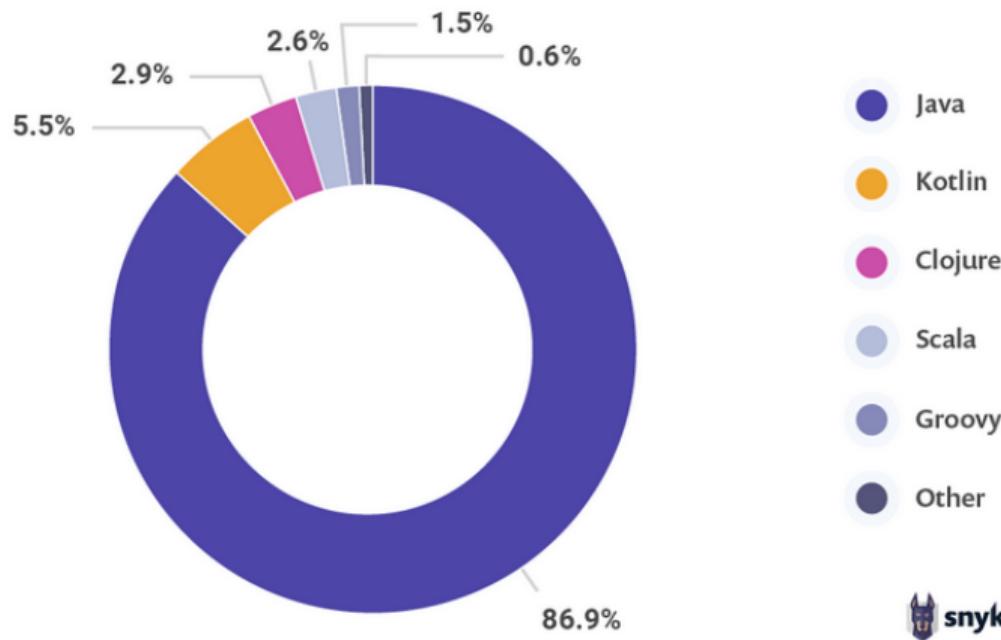


OpenJDK

A large, stylized text logo for "OpenJDK". The word "Open" is in orange, and "JDK" is in blue. A thick, light-grey diagonal ribbon or line starts from the bottom left, passes behind the "O" of "Open", goes over the "p" of "Open", then the "e" of "Open", and the "J" of "JDK", then continues diagonally upwards towards the top right.



Snyk - JVM Ecosystem report 2020

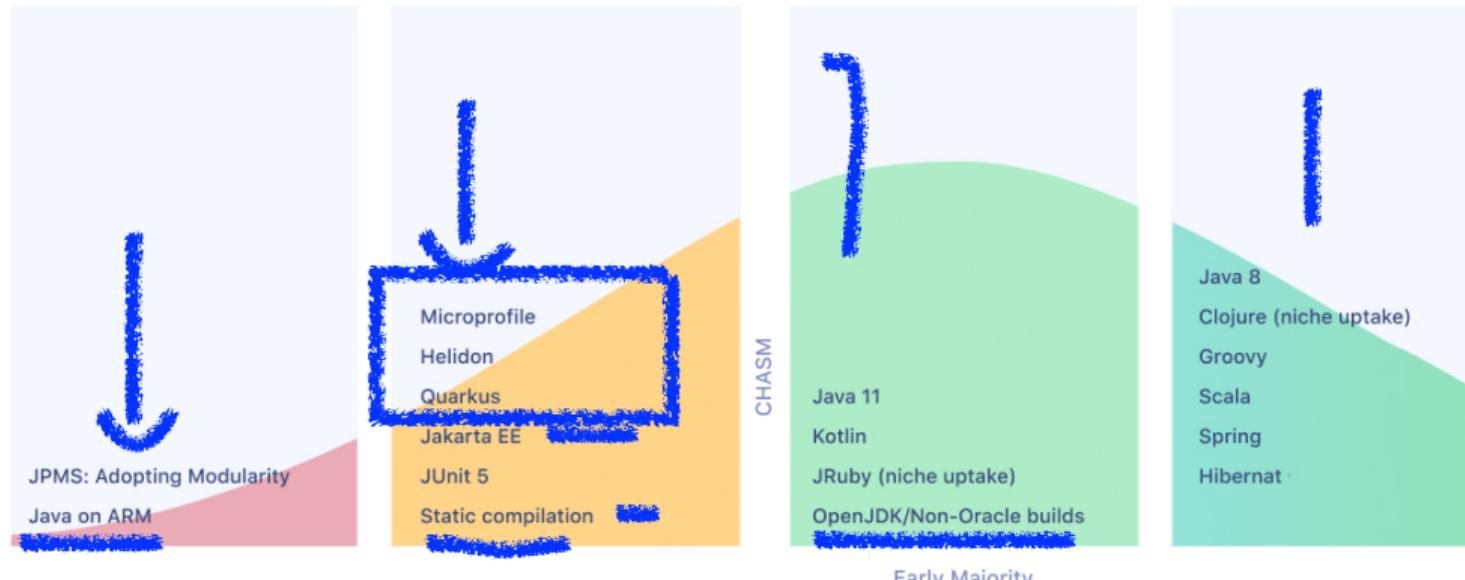


Tendencias

Software Development Java and JVM 2020 Q3 Graph

<http://infoq.link/java2020>

InfoQ



Select your OpenJDK distribution

8 11 12+

AdoptOpenJDK



" AdoptOpenJDK uses infrastructure, build and test scripts to produce prebuilt binaries from OpenJDK™ class libraries and a choice of either the OpenJDK HotSpot or Eclipse OpenJ9 VM. "

8 11 12+

Oracle

" Java Development Kit builds, from Oracle "

8 11 12+

Azul Zulu

" All Zulu builds [of OpenJDK] are TCK-tested and free to download and use without restrictions. "

8 11

Amazon Corretto

" A no-cost, multiplatform, production-ready distribution of the Open Java Development Kit (OpenJDK). Corretto comes with long-term support that will include performance enhancements and security fixes. "

8 11 12+

Red Hat build of OpenJDK

" The Red Hat build of OpenJDK is a free and open source implementation of the Java Platform, Standard Edition (Java SE). "

11 12+

SapMachine



" [...] A SAP supported version of OpenJDK for SAP customers and partners who wish to use OpenJDK to run their applications. "

8 11 12+

Liberica



" Liberica is a 100% open-source Java 8, 9, 10, 11 & 12 implementation. It is built from OpenJDK which BellSoft "

8

IBM developer kits

" Develop and test Java™ Platform Standard Edition applications and applets with the IBM Software Development Kit. "

8

Alibaba Dragonwell8



" [T]he in-house OpenJDK implementation at Alibaba

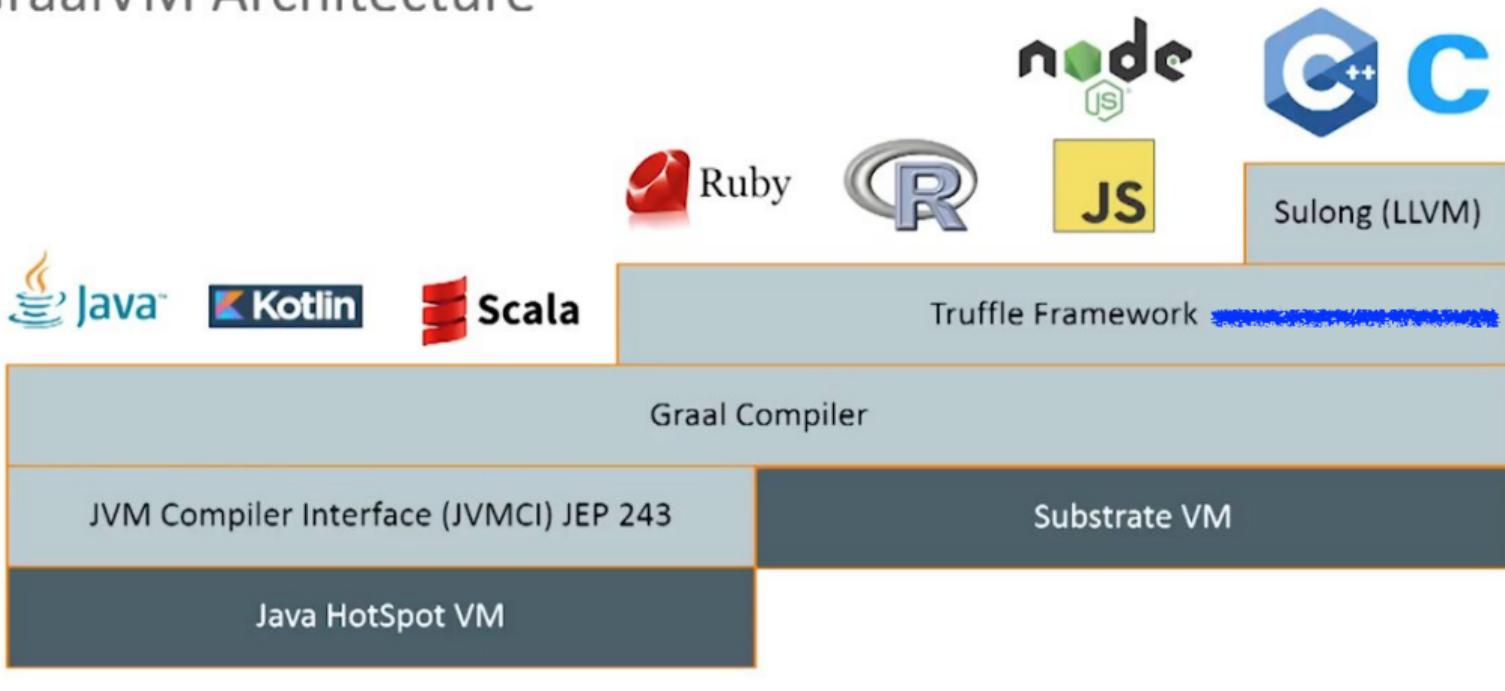
8 11 12+

Your Linux distribution



Many Linux distributions already

GraalVM Architecture



The screenshot shows the top navigation bar of the Jakarta EE website. It includes links for About, Membership, Connect, Resources (with a dropdown arrow), Compatible Products, a search bar, and a Download button. The main banner below the header features the text "Our Members" in large white letters.

Home / Membership / Members

Members

Strategic Members



ORACLE



Tomitribe

Innovate with Us

- ▶ About Jakarta EE
- ▶ Frequently Asked Questions
- ▶ Become a Member
- ▶ Stay Connected
- ▶ Working Group Charter
- ▶ Technical Direction
- ▶ Newsletter Archives



MicroProfile

Optimizing Enterprise Java for a Microservices Architecture

Now Available

MicroProfile 3.3

[More Information](#)



SUPersonic SUBatomic Java

A Kubernetes Native Java stack tailored for OpenJDK HotSpot and GraalVM, crafted from the best of breed Java libraries and standards.

[GET STARTED WITH QUARKUS](#)

QUARKUS
HACKATHON
WINNERS ANNOUNCED

[LEARN MORE](#)

Now Available
QUARKUS 1.8.3

[More Information](#)



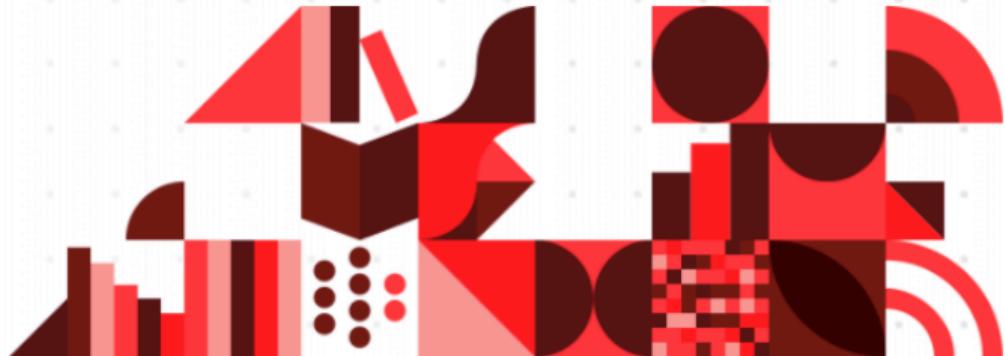
Project Helidon

Lightweight. Fast. Crafted for Microservices.





Machine learning library in Java

[Read more](#)



ORACLE
Certified Professional
Java SE 8 Programmer

ORACLE
Certified Associate
Java SE 8 Programmer

- me@vorozco.com
- @tuxtor
- <http://vorozco.com>
- <http://tuxtor.shekalug.org>



This work is licensed under
Creative Commons Attribution-
NonCommercial-ShareAlike 3.0
Guatemala (CC BY-NC-SA 3.0 GT).



NABENIK @tuxtor
Descubre, usa y vuela!