

Python: Context

Isaac Boixaderas

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- Created by Guido van Rossum in 1989.
- Named after Monty Python, a British comedy group.



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Programming languages

- Set of instructions to communicate with computers.
- Used for creating software and applications.
- Intermediary between human thought and machines.

Hello world!

Python

```
print("Hello, World!")
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Java

```
public class HelloWorld {  
    public static void main(String[] args) {  
        System.out.println("Hello, World!");  
    }  
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Javascript

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console.log("Hello, World!");
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C++

```
#include <iostream>

int main() {
    std::cout << "Hello, World!" << std::endl;
    return 0;
}
```











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Programming languages popularity (TIOBE index)

- Indicator of popularity among programming languages.
- Updated once a month.
- Ratings calculated:
 - Number of skilled engineers world-wide.
 - Courses.
 - Third party vendors.
 - Lines of code written.
- It is not about the best language.

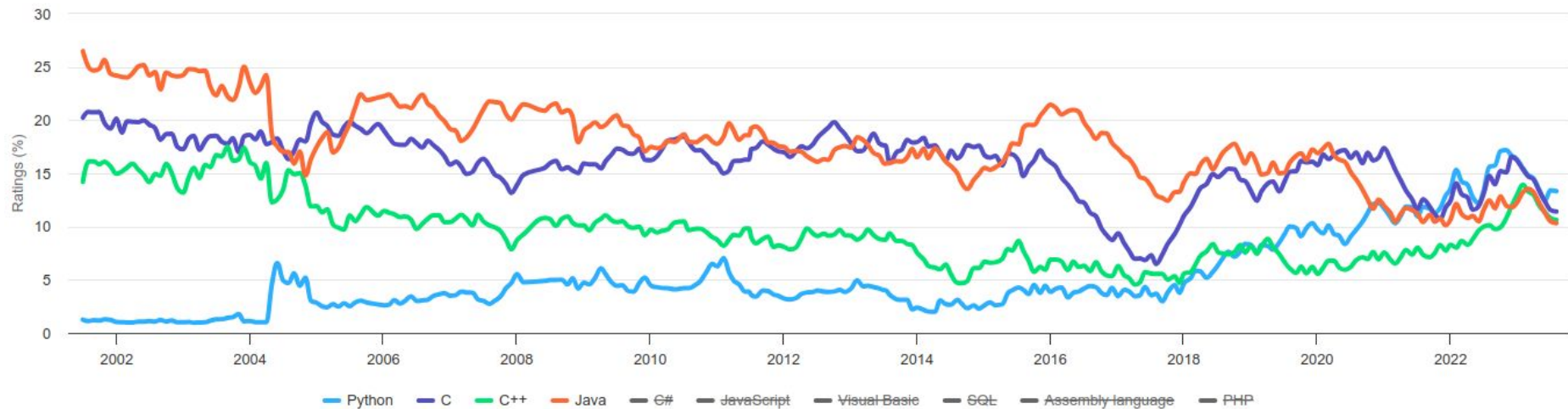
TIOBE index (August 2023)

Aug 2023	Aug 2022	Change	Programming Language		Ratings
1	1			Python	13.33%
2	2			C	11.41%
3	4	▲		C++	10.63%
4	3	▼		Java	10.33%
5	5			C#	7.04%
6	8	▲		JavaScript	3.29%
7	6	▼		Visual Basic	2.63%
8	9	▲		SQL	1.53%
9	7	▼		Assembly language	1.34%
10	10			PHP	1.27%

TIOBE index

TIOBE Programming Community Index

Source: www.tiobe.com



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- Extensive community support.

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- Threading, particularly for CPU-bound tasks.

When to (definitely) use Python

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- Although Python shines in the above points, you can use it in almost all kinds of projects and enjoy its benefits.

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- 3D intensive applications.
- You could make a case against Python for large projects, although good practices and good programmers could easily overcome the disadvantages :)

Where is Python used?

- Google: internal systems, Youtube, App Engine.
- Facebook: infrastructure management, machine learning.
- NASA: data analysis, simulations, mission planning.
- Netflix: data analysis, recommendation algorithms, infrastructure.
- Dropbox.
- Spotify.
- Reddit.
- Quora.
- Eve Online.
- ...

Python maintainers

- Python Software Foundation (PSF).
 - Non-profit corporation founded in 2001, with HQ in the US and Canada.
 - Provides support for development and distribution of Python.