

TIOBE Index for January 2025

January Headline: Python is TIOBE's programming language of the year 2024!

Programming language Python has won the title "TIOBE's programming language of the year 2024". This award is given to the programming language with the highest increase in ratings in one year time. Python gained a whopping 9.3% in 2024. This is far ahead of its competition: Java +2.3%, JavaScript +1.4% and Go +1.2%. Python is everywhere nowadays, and it is the undisputed default language of choice in many fields. It might even become the language with the highest ranking ever in the TIOBE index. Python's only serious drawbacks are (and thus leaving room for competition) its lack of performance and that most errors occur run-time.

Apart from this, two interesting things happened in the TIOBE index top 10 in 2024. The C language lost a lot of popularity and was surpassed by C++ and Java. The main reason for this is that C is replaced by C++ in a lot of embedded software systems. Java and C++ are currently fighting for the top 2 position. The other interesting thing is that PHP said a final farewell to the top 10 and is replaced by Go, which is a top 10 keeper.

Lots of eyes were on Rust and Kotlin this year. Did they live up to their promises in 2024? Rust is still getting more popular. Despite the amazing speed of Rust programs, its steep learning curve will never make it become the lingua franca of the common programmer unfortunately. Kotlin, on the other hand, disappointed: it didn't break through and even lost (possibly permanently) its top 20 position in 2024.

Further down the list we see two new promising languages: Rust's competitor Zig climbed from #149 to #61 in 2024, whereas Mojo, the faster Python, jumped from position #194 to #68. Especially Mojo, which was first released only 2 years ago, addresses exactly what is needed in the programming field. I have high hopes that it will get close to a top 20 position in 2025.








Author:
















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The TIOBE Programming Community index is an indicator of the popularity of programming languages. The index is updated once a month. The ratings are based on the number of skilled engineers world-wide, courses and third party vendors. Popular web sites Google, Amazon, Wikipedia, Bing and more than 20 others are used to calculate the ratings. It is important to note that the TIOBE index is not about the *best* programming language or the language in which *most lines of code* have been written.

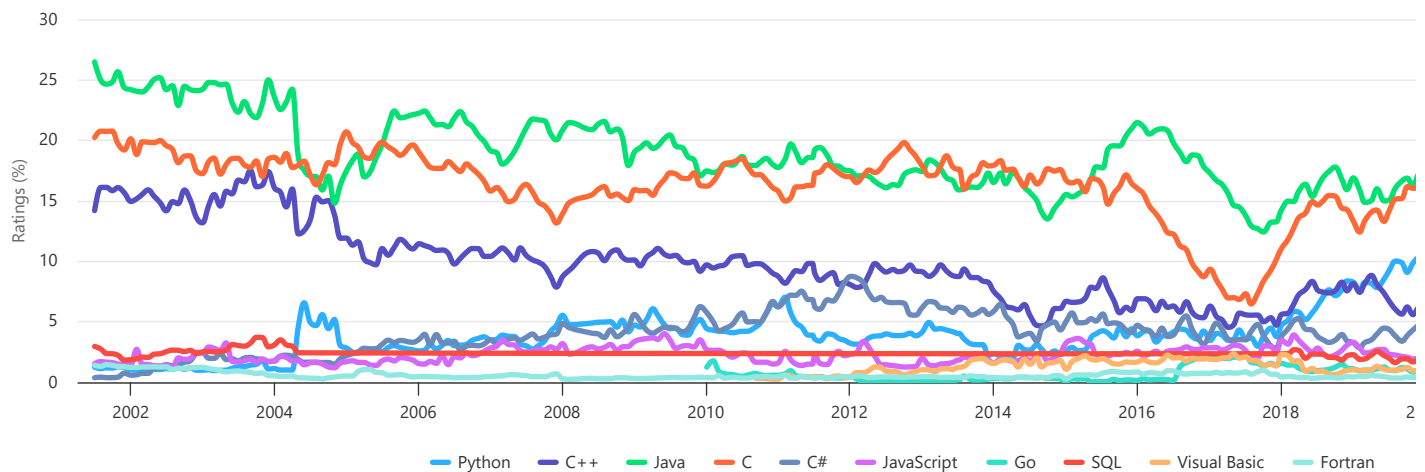
The index can be used to check whether your programming skills are still up to date or to make a strategic decision about what programming language should be adopted when starting to build a new software system. The definition of the TIOBE index can be found [here](#).

Jan 2025	Jan 2024	Change	Programming Language		Ratings
1	1			Python	23.28%
2	3	▲		C++	10.29%
3	4	▲		Java	10.15%
4	2	▼		C	8.86%
5	5			C#	4.45%
6	6			JavaScript	4.20%
7	11	▲		Go	2.61%

Jan 2025	Jan 2024	Change	Programming Language		Ratings
8	9	⬆️	 SQL	SQL	2.41%
9	8	⬆️	 Visual Basic	Visual Basic	2.37%
10	12	⬆️	 Fortran	Fortran	2.04%
11	13	⬆️	 Delphi/Object Pascal	Delphi/Object Pascal	1.79%
12	10	⬆️	 Scratch	Scratch	1.55%
13	7	⬆️	 PHP	PHP	1.38%
14	19	⬆️	 Rust	Rust	1.16%
15	14	⬆️	 MATLAB	MATLAB	1.07%
16	18	⬆️	 Ruby	Ruby	1.06%
17	15	⬆️	 Assembly language	Assembly language	1.01%
18	23	⬆️	 R	R	1.00%
19	16	⬆️	 Swift	Swift	0.99%
20	20	⬆️	 COBOL	COBOL	0.95%

TIOBE Programming Community Index

Source: www.tiobe.com



Other programming languages

The complete top 50 of programming languages is listed below. This overview is published unofficially, because it could be the case that we missed a language. If you have the impression there is a programming language lacking, please notify us at tpci@tiobe.com. Please also check the [overview of all programming languages](#) that we monitor.

Position	Programming Language
21	Prolog
22	Classic Visual Basic

Position	Programming Language
23	SAS
24	Lisp
25	Kotlin
26	Ada
27	Lua
28	(Visual) FoxPro
29	Transact-SQL
30	Scala
31	Julia
32	Perl
33	Dart
34	Haskell
35	Objective-C
36	VBScript
37	Bash
38	ABAP
39	Solidity
40	GAMS
41	PowerShell
42	TypeScript
43	PL/SQL
44	Elixir
45	D
46	Logo
47	RPG
48	Awk
49	ML
50	X++

The Next 50 Programming Languages

The following list of languages denotes #51 to #100. Since the differences are relatively small, the programming languages are only listed (in alphabetical order).

- ABC, ActionScript, Algol, Apex, APL, CFML, CHILL, Clipper, CLIPS, Clojure, Curl, Elm, Erlang, F#, Forth, Groovy, Hack, Icon, Inform, Io, J#, JScript, LabVIEW, Ladder Logic, Modula-2, Mojo, MQL5, NATURAL, Nim, OCaml, Occam, OpenCL, OpenEdge ABL, PL/I, PostScript, Q, Ring, S, Scheme, Simulink, Smalltalk, SPARK, SPSS, Stata, SystemVerilog, Tcl, Vala/Genie, VHDL, Wolfram, Zig

This Month's Changes in the Index

This month the following changes have been made to the definition of the index:

-

Very Long Term History

To see the bigger picture, please find below the positions of the top 10 programming languages of many years back. Please note that these are *average* positions for a period of 12 months.

Programming Language	2025	2020	2015	2010	2005	2000	19
Python	1	3	7	7	7	25	23
C++	2	4	4	3	3	2	1
C	3	2	1	2	1	1	2
Java	4	1	2	1	2	3	-
C#	5	5	5	6	9	9	-
JavaScript	6	7	8	9	10	7	-
Go	7	17	37	184	-	-	-
Visual Basic	8	19	234	-	-	-	-
SQL	9	9	-	-	100	-	-
Fortran	10	29	31	25	15	18	5
Ada	25	35	30	27	16	17	7
Lisp	29	31	18	17	13	16	6
Objective-C	35	10	3	24	40	-	-
(Visual) Basic	-	-	54	5	4	4	3

There are 2 important remarks here:

- There is a difference between "Visual Basic" and "(Visual) Basic" in the table above. Until 2010, "(Visual) Basic" referred to all possible dialects of Basic, including Visual Basic. After some discussion, it has been decided to split "(Visual) Basic" into all its dialects such as Visual Basic .NET, Classic Visual Basic, PureBasic, and Small Basic, just to name a few. Since Visual Basic .NET has become the major implementation of Visual Basic, it is now called "Visual Basic".
- The programming language SQL was added to the TIOBE index in 2018 after somebody pointed out that SQL is Turing Complete. So although this language is very old, it has only a short history in the index.

Programming Language Hall of Fame

The hall of fame listing all "Programming Language of the Year" award winners is shown below. The award is given to the programming language that has the highest rise in ratings in a year.

Year	Winner
2023	🏆 C#
2022	🏆 C++
2021	🏆 Python
2020	🏆 Python
2019	🏆 C
2018	🏆 Python
2017	🏆 C
2016	🏆 Go
2015	🏆 Java

2014	🏆 JavaScript
2013	🏆 Transact-SQL
2012	🏆 Objective-C
2011	🏆 Objective-C
2010	🏆 Python
2009	🏆 Go
2008	🏆 C
2007	🏆 Python
2006	🏆 Ruby
2005	🏆 Java
2004	🏆 PHP
2003	🏆 C++

Bugs & Change Requests

This is the top 5 of most requested changes and bugs. If you have any suggestions how to improve the index don't hesitate to send an e-mail to tpci@tiobe.com.

Apart from "<language> programming", also other queries such as "programming with <language>", "<language> development" and "<language> coding" should be tried out.

Add queries for other natural languages (apart from English). The idea is to start with the Chinese search engine Baidu. This has been implemented partially and will be completed the next few months.

Add a list of all search term requests that have been rejected. This is to minimize the number of recurring mails about Rails, JQuery, JSP, etc.

Start a TIOBE index for databases, software configuration management systems and application frameworks.

Some search engines allow to query pages that have been added last year. The TIOBE index should only track those recently added pages.