**Python** is a [high-level](https://en.wikipedia.org/wiki/High-level_programming_language), [general-purpose programming language](https://en.wikipedia.org/wiki/General-purpose_programming_language). Its design philosophy emphasizes [code readability](https://en.wikipedia.org/wiki/Code_readability) with the use of [significant indentation](https://en.wikipedia.org/wiki/Off-side_rule).[[33]](https://en.wikipedia.org/wiki/Python_(programming_language)#cite_note-AutoNT-7-33)

Python is [dynamically typed](https://en.wikipedia.org/wiki/Type_system#DYNAMIC) and [garbage-collected](https://en.wikipedia.org/wiki/Garbage_collection_(computer_science)). It supports multiple [programming paradigms](https://en.wikipedia.org/wiki/Programming_paradigm), including [structured](https://en.wikipedia.org/wiki/Structured_programming) (particularly [procedural](https://en.wikipedia.org/wiki/Procedural_programming)), [object-oriented](https://en.wikipedia.org/wiki/Object-oriented_programming) and [functional programming](https://en.wikipedia.org/wiki/Functional_programming). It is often described as a "batteries included" language due to its comprehensive [standard library](https://en.wikipedia.org/wiki/Standard_library).[[34]](https://en.wikipedia.org/wiki/Python_(programming_language)#cite_note-About-34)[[35]](https://en.wikipedia.org/wiki/Python_(programming_language)#cite_note-35)

[Guido van Rossum](https://en.wikipedia.org/wiki/Guido_van_Rossum) began working on Python in the late 1980s as a successor to the [ABC programming language](https://en.wikipedia.org/wiki/ABC_(programming_language)) and first released it in 1991 as Python 0.9.0.[[36]](https://en.wikipedia.org/wiki/Python_(programming_language)#cite_note-36) Python 2.0 was released in 2000. Python 3.0, released in 2008, was a major revision not completely [backward-compatible](https://en.wikipedia.org/wiki/Backward_compatibility) with earlier versions. Python 2.7.18, released in 2020, was the last release of Python 2.[[37]](https://en.wikipedia.org/wiki/Python_(programming_language)#cite_note-37)

Python consistently ranks as one of the most popular programming languages, and has gained widespread use in the [machine learning](https://en.wikipedia.org/wiki/Machine_learning) community.

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| **Python** | |
|  | |
| [**Paradigm**](https://en.wikipedia.org/wiki/Programming_paradigm) | [Multi-paradigm](https://en.wikipedia.org/wiki/Multi-paradigm_programming_language): [object-oriented](https://en.wikipedia.org/wiki/Object-oriented_programming),[[1]](https://en.wikipedia.org/wiki/Python_(programming_language)#cite_note-1) [procedural](https://en.wikipedia.org/wiki/Procedural_programming) ([imperative](https://en.wikipedia.org/wiki/Imperative_programming)), [functional](https://en.wikipedia.org/wiki/Functional_programming), [structured](https://en.wikipedia.org/wiki/Structured_programming), [reflective](https://en.wikipedia.org/wiki/Reflective_programming) |
| [**Designed by**](https://en.wikipedia.org/wiki/Software_design) | [Guido van Rossum](https://en.wikipedia.org/wiki/Guido_van_Rossum) |
| [**Developer**](https://en.wikipedia.org/wiki/Software_developer) | [Python Software Foundation](https://en.wikipedia.org/wiki/Python_Software_Foundation) |
| **First appeared** | 20 February 1991; 33 years ago[[2]](https://en.wikipedia.org/wiki/Python_(programming_language)" \l "cite_note-alt-sources-history-2) |
|  | |
| [**Stable release**](https://en.wikipedia.org/wiki/Software_release_life_cycle) | 3.12.3 [Edit this on Wikidata](https://www.wikidata.org/wiki/Q28865?uselang=en#P348) / 9 April 2024; 45 days ago |
| [**Typing discipline**](https://en.wikipedia.org/wiki/Type_system) | [duck](https://en.wikipedia.org/wiki/Duck_typing), [dynamic](https://en.wikipedia.org/wiki/Dynamic_typing), [strong](https://en.wikipedia.org/wiki/Strong_and_weak_typing);[[3]](https://en.wikipedia.org/wiki/Python_(programming_language)#cite_note-3) [optional type annotations](https://en.wikipedia.org/wiki/Optional_typing) (since 3.5, but those hints are ignored, except with unofficial tools)[[4]](https://en.wikipedia.org/wiki/Python_(programming_language)#cite_note-type_hint-PEP-4) |
| [**OS**](https://en.wikipedia.org/wiki/Operating_system) | **Tier 1**: 64-bit [Linux](https://en.wikipedia.org/wiki/Linux), [macOS](https://en.wikipedia.org/wiki/MacOS); 64- and 32-bit [Windows](https://en.wikipedia.org/wiki/Windows) |