

Lesson -1

Programming

An introduction to Python



Python: what is it?

Python is a computer programming language often used to build websites and software, automate tasks, and conduct data analysis.

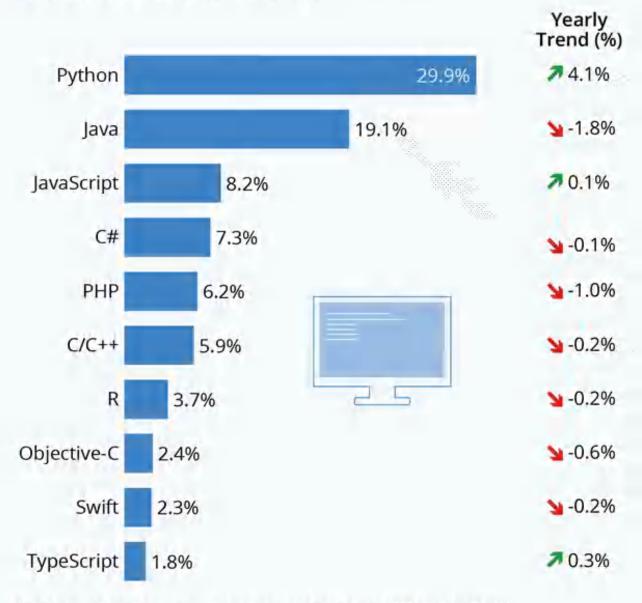
Python is a general-purpose language, meaning it can be used to create a variety of different programs and isn't specialized for any specific problems.

It was created by Guido van Rossum, and released in 1991.



Python Remains Most Popular Programming Language

Popularity of each programming language based on share of tutorial searches in Google



Yearly trend compares percent change from Feb 2019 to Feb 2020 Sources: GitHub, Google Trends







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Why is Python so popular?

Python is popular for a number of reasons

It has a simple syntax that mimics natural language, so it's easier to read and understand. this makes it quicker to build projects, and faster to improve on them.

It's versatile. Python can be used for many different tasks, from web development to machine learning.

It's beginner friendly, making it popular for entry-level coders.

It's open source, which means it's free to use and distribute, even for commercial purposes.

Python's archive of modules and libraries - bundles of code that third-party users have created to expand Python's capabilities—is vast and growing..

Python has a large and active community that contributes to Python's pool of modules and libraries, and acts as a helpful resource for other programmers.

The vast support community means that if coders run into a stumbling block, finding a solution is relatively easy;

Somebody is bound to have run into the same problem before.

What can Python do?

Python can be used on a server to create web applications.

Python can be used alongside software to create workflows.

Python can connect to database systems. It can also read and modify files.

Python can be used to handle big data and perform complex mathematics.

Python can be used for rapid prototyping, or for production-ready software development.

Python Syntax compared to other programming languages

Python was designed for readability, and has some similarities to the English language with influence from mathematics.

Python uses new lines to complete a command, as opposed to other programming languages which often use semicolons or parentheses.

Python relies on indentation, using whitespace, to define scope; such as the scope of loops, functions and classes. Other programming languages often use curly-brackets for this purpose.

How To download and install Python?

- Download Python from Python.org
- Let's Just install the .EXE file which you downloaded
- Now, Open your terminal (Command Prompt)
- Let's make your first EVER PYTHON PROGRAM

Here's another way to make Python programs more easily

- Go to the Google Colab
- Just make your first program