

Introduction to Python



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Programming Language

- A programming language is a computer language that is used by the programmers to communicate with computer
- It is a set of instructions written in any specific language to perform a specific task

Eg: Python, Java, C#



Python

- Python is one of the most widely used user-friendly programming language
- Its open source and developed in 1990
- It's mostly used in
 - Machine Learning
 - Artificial Intelligence
 - Big Data
 - GUI
 - Robotics
 - REST API
 - Web applications



Advantages

- Python is easy to read, easy to understand, and easy to write.
- Huge community support
- It integrates with other programming languages like C, C++, and Java.
- Python executes code line-by-line, so it is easy for the programmer to find the error that occurred in the code.
- Python is platform-independent means you can write code once and run it anywhere.



Disadvantages

- Python works with the interpreter. That's why it is slower than other programming languages like C and C++.



Data Types

In computer science and computer programming, a data type or simply type is an attribute of data which tells the compiler or interpreter how the programmer intends to use the data.



Data Types in Python

Text Type	str	"Hello world"
Numeric Types	Int, float, complex	50, 6.8, 2j
Sequence Types	List, tuple, range	["apple", "banana", "cherry"] ("apple", "banana", "cherry") range(10)
Mapping Type	dict	{ "name" : "John", "age" : 36 }
Set Types:	set, frozenset	{"apple", "banana", "cherry"} frozenset({"apple", "banana", "cherry"})



Data Types in Python

Boolean type	bool	True / False
Binary Types	Bytes, bytearray	
None Type	NoneType	



Anaconda installation

<https://www.anaconda.com/>