

TYPES OF PROGRAMMING LANGUAGES



1- Low level vs High level

COMPARISON	LOW LEVEL	HIGH LEVEL
Readability	Closer to machine code, harder to read	More human-readable, easier to code
Speed	VERY FAST AS IT WORKS DIRECTLY WITH HARDWARE	Relatively slower due to additional translation
LANGUAGES USED	ASSEMBLY, C	Python, Java
USAGE	System programming, hardware control	Application development, AI

2- Interpreted vs Compiled

COMPARISON	INTERPRETED	COMPILED
Execution Method	Executes code line by line at runtime	Converts entire code into an executable file before running
Speed	Slower due to runtime interpretation	Faster as it is precompiled
Examples	Python, JavaScript	C, C++

3- Programming VS Scripted

COMPARISON	PROGRAMMING LANGUAGE	SCRIPTING LANGUAGE
Usage	Usage Used for developing full applications and software	Used for automating tasks within applications
Example	Java, C++	Python, Bash, JavaScript

4- Open source vs not open source

COMPARISON	OPEN SOURCE	NOT OPEN SOURCE
cost	Free and modifiable	Paid and proprietary
Example	Linux, Python	Windows, MATLAB

5- Support OOP vs not supporting OOP

COMPARISON	SUPPORT OOP	NOT SUPPORTING OOP
Concept	Uses objects and classes	Uses procedural or functional approach
Example	Python, Java, C++	C, Assembly, Bash

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