

C++ is widely used in general-purpose programming languages. The language allows you to encapsulate high and low-level language features. So, it is seen as an intermediate-level language. It also used to develop complex systems where the hardware level coding requires.

- C++ is multi-paradigm means it follows three paradigms Generic, Imperative, and Object-Oriented.
- C++ provides performance and memory efficiency.
- It provides high-level abstraction.
- C++ is compatible with C.
- The language allows the reusability of code.

Python is a high-level object-oriented programming language. It has built-in data structures, combined with dynamic binding and typing, which makes it an ideal choice for rapid application development. Python also offers support for modules and packages, which allows system modularity and code reuse.

It is one of the fastest programming languages as it requires very few lines of code. Its emphasis is on readability and simplicity, which make it a great choice for beginners.

- Very simple syntax compared to Java, C, and C++ languages.
- It is used for Machine Learning, Deep Learning, and the general overarching AI field.
- Very useful in data analysis and visualization.
- Extensive library and handy tools for developers/programmer
- Python is cross-compatible
- Python has its auto-installed shell
- Compared with the code of other languages, python code is easy to write and debug. Therefore, its source code is relatively easy to maintain.
- Python is a portable language so that it can run on a wide variety of Operating systems and platforms.
- Python comes with many prebuilt libraries, which makes your development task easy.
- Python helps you to make complex programming simpler. As it internally deals with memory addresses, garbage collection.
- Python provides an interactive shell that helps you to test the things before it's actual implementation.
- Python offers database interfaces to all major commercial DBMS systems.
- Supports imperative and functional programming
- Python is famous for its use in IoT.

KEY DIFFERENCES:

- Python code runs through an interpreter while C++ code is pre-compiled
- Python supports Garbage Collection whereas C++ does not support Garbage Collection
- Python is slower, on the other hand, C++ is faster than Python
- In Python, Rapid Prototyping is possible because of the small size of the code while in C++, Rapid Prototyping not possible because of larger code size
- Python is easy to learn language whereas C++ has a stiff learning curve as it has lots of predefined syntaxes and structure

Python	C++
Supports Garbage Collection	Does not support Garbage Collection
Python programs are easier to write	Not easy in contrast to Python because of its complex syntax.
Run through interpreter	C++ is pre-compiled
Rapid Prototyping is possible because of the small size of the code	Rapid Prototyping not possible because of larger code size
Python is difficult to be installed on a windows box	Not have an issue while installing in the windows system.
Python is nearer to plain English language. Therefore, it is easy to learn language.	C++ has a stiff learning curve as it has lots of predefined syntaxes and structure
Python is slower.	C++ is faster than Python
Python has more English like syntax, so readability is very high.	C++ code readability is weak when compared with Python code.
In Python, variables are accessible outside the loop.	The scope of the C++ variables is limited within the loops.
Famous companies using Python are Google, Lyft, Twitch, Telegram.	Famous companies using C++ are Uber technologies, Netflix, Spotify, Instagram.
TIOBE rating is 3	TIOBE rating is 4
The average salary for a Python Developer is \$120,359 per year in the United States of America.	The average salary for a C++ Developer is \$108,809 per year in the United States.