

## Research and write which is faster? Java or Python

Java is faster as it is a compiled language and python is an interpreted language.

Java's efficiency largely comes from its Just-In-Time (JIT) compiler and support for concurrency. The JIT compiler is a part of the Java Runtime Environment. It improves performance of Java programs by compiling bytecodes into native machine code "just in time" to run. Java Virtual Machine (JVM) calls the compiled code directly. Since the code is not interpreted, compiling does not require processor time and memory usage. Theoretically, this can make a Java program as fast as a native application.

While Java programs are compiled directly, Python is interpreted which slows down Python programs during runtime. Determining the variable type which occurs during runtime increases the workload of the interpreter. Also, remembering the object type of objects retrieved from container objects contributes to memory usage.