<https://www.imaginarycloud.com/blog/python-vs-java/>

<https://velog.io/@jnine/%ED%8C%8C%EC%9D%B4%EC%8D%ACPython-%ED%8A%B9%EC%A7%95-%EB%B0%8F-%EC%9E%A5%EB%8B%A8%EC%A0%90-%EC%A0%95%EB%A6%AC>

<https://bioinformaticsandme.tistory.com/124>

코드 작성 차이

<https://www.bmc.com/blogs/python-vs-java/>

<https://raygun.com/blog/java-vs-python/>

immense library

friendly to human language, easy to read and understand codes

simple and intuitive

Python is an Interpreted Language, dynamically typed.

Less code - the developer does not require to type in the variables since these are input during the runtime; does not need enclosing braces or indentation rules.

Python is gentle in its treatment of variables. For example, it can print dictionary objects automatically. With Java it is necessary to use a function that specifically prints a dictionary. Python also casts variables of one type to another to make it easy to print strings and integers.

On the other hand, Java has strict type checking.

<https://docs.oracle.com/cd/E57471_01/bigData.100/extensions_bdd/src/cext_transform_typing.html>

in dynamically-typed languages (like Groovy) can compile even if they contain errors that will prevent the script from running properly (if at all). If a script written in a statically-typed language (such as Java) contains errors, it will fail to compile until the errors have been fixed.

Second, statically-typed languages require you to declare the data types of your variables before you use them, while dynamically-typed languages do not.

활용 분야

Scientific and numeric computing; Machine Learning applications, AI; image processing; language development. GUI

<https://www.javatpoint.com/python-applications>

<https://wikidocs.net/7#_8>

<https://www.python.org/about/apps/>

<https://www.geeksforgeeks.org/top-10-python-applications-in-real-world/>

컴파일 언어

<https://www.ibm.com/docs/en/zos-basic-skills?topic=zos-compiled-versus-interpreted-languages>

<https://wikidocs.net/13875>

<https://velog.io/@pm1100tm/Python-%EC%9D%B8%ED%84%B0%ED%94%84%EB%A6%AC%ED%84%B0%EC%96%B8%EC%96%B4>

<https://www.youtube.com/watch?v=I1f45REi3k4>

Source code -> copy -> interpreter -> run

cross-platform not machine code. flexible, portable

simpler to test

easier to debug or adjust codes

efficiency for programmer

faster coding, slower running -> trade-off

compile each command one by one.