COMPILER AND INTERPRETERS:

Compliers and interpreters are programs that help convert the high level language (Source Code) into machine codes to be understood by the computers. Computer programs are usually written on high level languages. A high level language is one that can be understood by humans. To make it clear, they contain words and phrases from the languages in common use – English or other languages for example. However, computers cannot understand high level languages as we humans do. They can only understand the programs that are developed in binary systems known as a machine code. To start with, a computer program is usually written in high level language described as a source code. These source codes must be converted into machine language and here comes the role of compilers and interpreters.

**1.**[**Compiler**](https://www.geeksforgeeks.org/introduction-of-compiler-design/)**:**   
It is a translator which takes input i.e., High-Level Language, and produces an output of low-level language i.e. machine or assembly language.

* A compiler is more intelligent than an assembler it checks all kinds of limits, ranges, errors, etc.
* But its program run time is more and occupies a larger part of memory. It has slow speed because a compiler goes through the entire program and then translates the entire program into machine codes.



Compiler-Process

**2.**[**Interpreter**](https://www.geeksforgeeks.org/compiler-vs-interpreter-2/)**:**   
An interpreter is a program that translates a programming language into a comprehensible language. –

* It translates only one statement of the program at a time.
* Interpreters, more often than not are smaller than compilers.

