**Compiler and Interpreter**

A programme written in a high-level language is called ***Source Code***. We can feed this programme directly to a computer using any text editor. But microprocessor can understand only machine language. So, there will be an elaborate computer programme to translate the source code to machine language. There are two types of translator programme available now. They are ***Interpreter and Compiler***.

An interpreter reads and executes the high-level programme, line by line. During the execution, if a line is syntactically wrong, it stops the execution with an error message. After correcting it, again we must start from the beginning. During all executions of the same programme, the computer repeats the same steps, which is highly time consuming.

The mode of operation of a compiler is entirely different. Instead of executing an instruction, the compiler converts the entire programme into machine language and stores it to a file. During compilation, the compiler will go through the entire programme and will list out all possible errors with the line numbers. We can correct it and compile it again. If the programme is free from syntax errors, the compiler will convert the programme to machine language and stores it in a location. We can directly execute the programme from this stored file. So, we need the compilation only once. More than that the original source code is safe in the hands of the programmer.

Programme in High level language -

(Source code)

Problem

Identify the problem

Object code in machine language

Algorithm or Flow chart

Executable file

Conversion using human brain

Conversion using linking software

Conversion using human brain

Conversion using

compiler or interpreter