

Assignment = 01

Day 01

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Difference between Compiler and Interpreter

1. Compiler :-

- It is a translator which takes Input i.e. High-level language, and produces an output at 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.

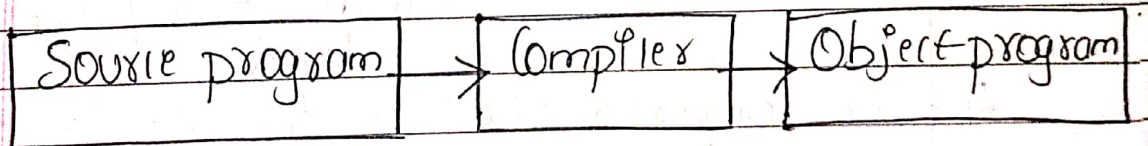


Figure - Compiler - process

2. Interpreter

- An Interpreter is a program that translates a programming language into comprehensible language.
- It translates only one statement of the program at a time.
- Interpreter, more often than not, are smaller than compilers.

preprocessing

processing

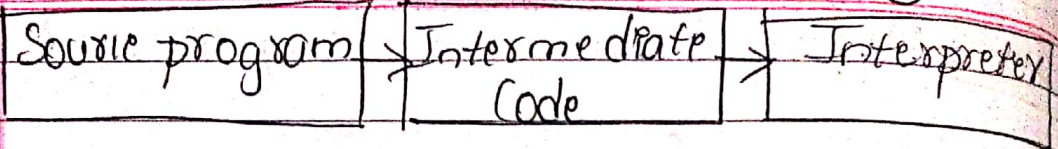


Figure : Interpreter - process

	Compiler	Interpreter
1	Compiler scans the whole program in one go.	Translates program one statement at a time.
2	As it scans the code in one go, the errors are shown at the end together.	Considering it scans one line at a time, errors are shown line by line.
3	Main advantage of compiler is its execution time.	Due to interpreters being slow in executing the object code it is preferred less.
4	It converts the source code into object code.	It doesn't convert source code into object code instead it scans it line by line.
5	It does not require source code for later execution.	It requires code for late execution.
6	Ex: C, C++, C# etc	Python, Ruby, Perl, SNOBOL, MATLABs etc

2 import Java ;

~~public~~ class Student
{

int roll ;

String name ;

float marks ;

void accept () {

System.out.print ("Enter the rollno. :");

name = in.nextLine();

System.out.print ("Enter the Name:");

marks = in.nextLine();

System.out.print ("Enter the marks:");
}

void display () {

System.out.println ("rollno. :");

System.out.print In ("Name:");

System.out.print In ("marks :");

}

}

O/P

Enter Student rollno : Mahesh
Enter Student name : 25
Enter Student marks : 600