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Shakti Utthan Ashram, Lakhisarai – 811311 (Bihar)

Chapter:- 4. PROGRAMMING AND BASICS .

CLASS- IXTH   SUB TEACHER :- VIKASH KR. RAJAK

SUBJECT:- IT   DATE :-   03/06/2020

📖 Topic :- High & Low Level Language, Intrepreter.

➢ *LOW LEVEL LANGUAGE:-*

A language which is one step higher than machine language in human readability is called Assembly Language or a low-level language. In an assembly language binary numbers are replaced by human readable symbols called mnemonics. Thus a low-level language is better in understanding than a machine language for humans and almost has the same efficiency as machine language for computer operation. An assembly language is a combination of mnemonic, operation codes and symbolic codes for addresses. Each computer uses and has a mnemonic code for each instruction, which may vary from computer to computer. Some of the commonly used codes are given in the following table.

Add – ADD ,Subtract – SUB, Multiply – MUL, Compare Registry – CR,

Compare – COMP, Branch Condition –BC, Code Register –LR, Move Characters -MVE

Store Characters –STC, Store Accumulator – STA.

☞ An assembly language is very efficient but it is difficult to work with and it requires good skills for programming. A program written in an assembly language is translated into a machine language before execution. A computer program which translates any assembly language into its equivalent machine code is known as an assembler.
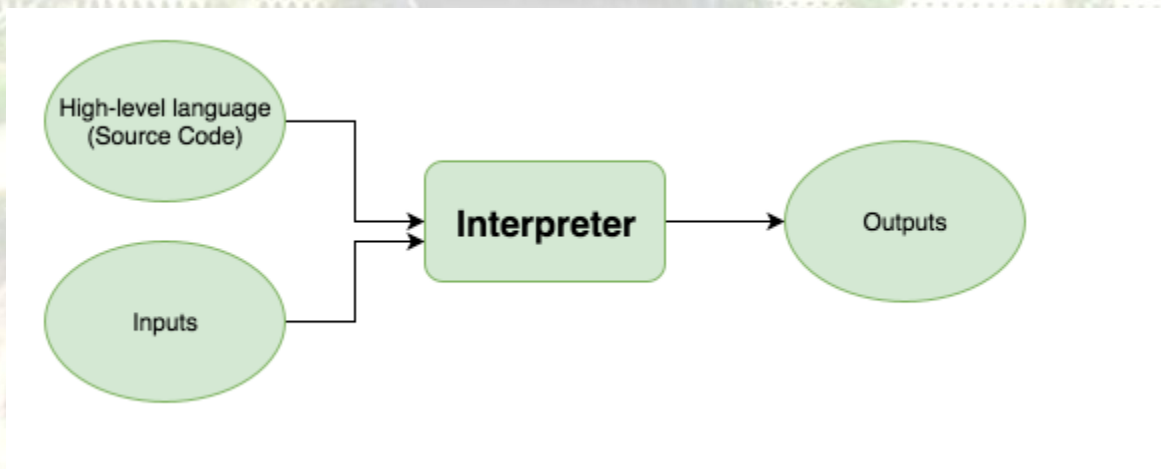
➢ *HIGH – LEVEL LANGUAGE:-*

A language is one step higher than low-level languages in human readability is called high-level language. High – level languages are easy to understand. They are also called English oriented languages in which instruction are given using words. Such as add, subtract, input, print, etc. high level language are very easy for programming, programmer prefer them for software designing that's why

these languages are also called user's friendly languages. Every high level language must be converted into machine language before execution. Every high level language has its own separate translating program called compiler or interpreter. That's why some time these languages are called compiler languages. COBOL, BASIC, PASCAL, RPG, FORTRAN are some high level languages.

➤ *INTERPRETER:-*

An interpreter is a set of programs which translates the high-level language into machine acceptable form. The interpreters are slow in speed as compared to compilers. The interpreter takes a single line of the source code, translates that line into object code and carries it out immediately. The process is repeated line by line until the whole program has been translated and run. If the program loops back to earlier statements, they will be translated afresh each time round. This means that both the source program and the interpreter must remain in the main memory together which may limit the space available for data. Perhaps the biggest drawback of an interpreter is the time it takes to translate and run a program including all the repetition which can be involved.

✎ Home Work (Based on study material of 29-05-20)

Answer the following questions:-

1. Write the types of Computer Language?
2. What is Machine Language?
3. Write advantage of Machine Language?
4. What is Symbolic Language?