

COMPUTER LANGUAGE

CLASS VI

CH-1 PERIOD -2

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LEARNING OUTCOMES

- Learn about third generation or High level Language and its features.
- Learn about Fourth generation language and its features.
- Learn about compiler and its features.
- Learn about Interpreter and its features.

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HIGH LEVEL LANGUAGE (THIRD GENERATION)

- ***Advantages***

- Simple and User friendly language.
- Language that is machine-independent.

A large number of people started writing using these language, it is known as High-level Language (HL). It is quite similar to English language.

Examples are ***C, C++, Basic, Java, Python etc***

- High level language needs to be translated by using the translator program, there are two translator program widely used. That ***are Interpreter and Compiler***

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Figure 1.3: Third

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LANGUAGE	FEATURES
MACHINE	<ul style="list-style-type: none"> ➤ Uses binary codes to depict operators and data ➤ Machine-dependent ➤ The only language directly understood by a computer
ASSEMBLY	<ul style="list-style-type: none"> ➤ Uses mnemonic codes or symbols instead of binary numbers ➤ Machine-dependent ➤ Has to be converted into machine language by translator programs (Assemblers)
HIGH-LEVEL	<ul style="list-style-type: none"> ➤ Uses English words and Mathematical operators ➤ Machine-independent ➤ Has to be converted into machine language by translator programs (Interpreters and Compilers)
4GL	<ul style="list-style-type: none"> ➤ Machine-independent; minimal user skills required to obtain results ➤ Application development tool

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INTERPRETER

- An interpreter translate a program written in high level language to low level language program line by line.
- It execute the instruction and then repeat the procedure for remaining instruction.
- If any error is there interpreter stop there and show the error.
- The converted program is not stored any where it has to be generated at the time of execution of a program.
- It is preferred for beginners and slow in their execution speed.

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Compiler

- It is a translator program which is used to convert high level language to machine language.
- After compilation , if there is no error, it creates Object file.
- The execution speed is faster as compared to Interpreter.

FOURTH GENERATION LANGUAGE(4GL)

It is more similar to human languages than their previous version.

Advantages

1. Highly User friendly and independent.
2. Very high speed of Execution, designed to deduce the level of programming efforts.
3. Minimum efforts from the user to obtain any information.

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recap

- High level languages are Simple and User friendly language.
- Language that is machine-independent
- Examples are **C , C++ , Basic , Java , Python etc**
- An interpreter translate a program written in high level language to low level language program line by line.
- An interpreter translate a program written in high level language to low level language program line by line.
- It is a translator program which is used to convert high level language to machine language.
- After compilation , if there is no error, it creates Object file.
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Assignment

- 1. What are the features of High level Language?
- 2. Differentiate between interpreter and a compiler.
- 3. List any three characteristics of fourth generation language?

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THANKING YOU

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