

# COMPUTER LANGUAGE

CLASS VI

CH-1 PERIOD -1

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# LEARNING OUTCOMES

- Learn about types of computer language
- Learn about first generation language or Machine Language
- Learn about second generation or Assembly language

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# PROGRAMS AND COMPUTER LANGUAGES

- A **program** is a set of instruction that tells the computer what to do.
- The process of writing specific instructions in a computer languages called Programming language.
- Computer Languages are classified in to 4 categories.
  - Machine Language
  - Assembly Language
  - High level Language
  - Fourth-generation Language

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# MACHINE LANGUAGE(FIRST GENERATION)

- It is the only Language that computer can directly understand.
- It is expressed in binary form as 0 and 1 where 0 means OFF state and 1 means ON state.

## Advantages

- It is high speed and low memory utilisation

## Disadvantages

- Understanding and learning Machine Language is tough and time consuming process.
- It is very difficult to write and debug programs written in machine Language.
- The program written in Machine language is machine- dependent. That's why Machine language is regarded as Low-level Language(LL).

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**Figure 1.1: First Generation Computer**

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# ASSEMBLY LANGUAGE(SECOND GENERATION)

- This language uses mnemonic codes or symbols in place of 0 and 1. for example operation code for add is 0010 in binary language but in assembly language it can be directly written as ADD for addition.
- Since a computer only understand machine language so assembly language needs to be converted into machine language.
  - The translator program known as **Assembler** were developed to covert assembly language to Machine language.
  - A program written in Assembly language is known as **Source Program**.
  - When it is converted to Machine language is known as **Object Program**.

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# PICTURE OF SECOND GENERATION COMPUTER



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# Recaptulation

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# Assignment

- 1. What is Program?
- 2. What is programming Language?
- 3. What is Machine Language?
- 4. What is Assembly language?
- 5. What is Assembler?

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# THANKING YOU

# ODM EDUCATIONAL GROUP