

TYPES OF LANGUAGES

Types of languages

- Machine language
- Assembly Language
- High-level Language

Machine Language

Advantages of Machine Language

- i) It makes fast and efficient use of the computer.
- ii) It requires no translator to translate the code i.e. Directly understood by the computer

Disadvantages of Machine Language:

- i) All operation codes have to be remembered
- ii) All memory addresses have to be remembered.
- iii) It is hard to amend or find errors in a program written
In the machine language
- iv) These languages are machine dependent i.e. a particular
Machine language can be used on only one type of computer

Assembly Language-

This is another language in which operation codes and operands are given in the form of alphanumeric symbols instead of 0's and 1's. These alphanumeric symbols will be known as mnemonic codes

Advantages of Assembly Language

- i) It is easier to understand and use ,as compared to machine language.
- ii)It is easy to locate and correct errors.
- iii) It is modified easily

Disadvantages of Assembly Language

- i) Like machine language it is also machine dependent.
- ii) Since it is machine dependent therefore programmer Should have the knowledge of the hardware also.

High-level language-

High level computer languages give formats close to English language and the purpose of developing high level languages is to enable people to write programs easily and in their own native language environment (English).

Advantages of High Level Language

- User-friendly
- Similar to English with vocabulary of words and symbols
- Therefore it is easier to learn.
- They require less time to write.
- They are easier to maintain.
- Problem oriented rather than 'machine' based.
- Program written in a high-level language can be translated into many machine language and therefore can run on any computer for which there exists an appropriate translator.
- It is independent of the machine on which it is used i.e. Programs developed in high level language can be run on any Computer

High-level language

Disadvantages of High Level Language

- A high-level language has to be translated into the machine language by a translator and thus a price in computer time is paid.
- The object code generated by a translator might be inefficient Compared to an equivalent assembly language program