# UNIT-2

## What is Translator?

A translator is a software that converts one language to another language so the computer can understand and run it. A translator changes programming code written by humans into machine language that the computer can execute.

### Different types of translators:-

There are three different types of translators.

① **Compiler** :- A compiler is a translator used to convert high-level programming to low-level programming language. It converts the whole program in one session and reports error detected after the conversion. After compilation, the program can be run many times without recompiling.

② **Assembler** :- An Assembler is a translator that converts a program written in Assembly language into machine language. Assembly language uses mnemonics like ADD, MOV, SUB etc, But the CPU understand only 0 and 1

So, the assembler converts these mnemonics into machine instructions which is executed by CPU. If any error present, it report the error.

**Interpreter:** An Interpreter is a translator that converts a high-level language program into machine code line by line and execute it immediately. It reads the first line of the program. Translate it into machine code. Executes it immediately then moves to the next line. If any error is found, it stops at that line and show the error. It does not create an object code, translation and execution happen together. Example python, PHP, Javascript etc