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17/SCI01/020

CSC310 Assignment

1.A translator is a programming language processor that converts a [computer program from one language](https://teachcomputerscience.com/programming-languages/%22%20%5Ct%20%22_blank) to another. It takes a program written in source code and converts it into machine code.It discovers and identifies the error during translation.

2.Difference Between Compiler Interpreter and Assembler

Definition

A compiler is a software that converts programs written in a high-level language into machine language. An interpreter is a software that translates a high-level language program into machine language while an assembler is a software that converts programs written in assembly language into machine language.

Functionality

Compiler converts the whole high-level language program to machine language at a time. Interpreter converts the high-level language program to machine language line by line. In contrast, assembler converts assembly language program to machine language.

Language

Languages such as C, C++ use compilers to convert the code. Languages such as Ruby, Perl, Python, PHP uses an interpreter and assembly language uses an assembler.

3. High Level language is needed because they do not interact directly with the hardware. Rather, they focus more on the complex arithmetic operations, optimal program efficiency and easiness in coding. Writing programs in binary is complex and cumbersome process. Programs in high level language is written using English statements. Hence, to make programming more programmers friendly.