What is a programming language?

Introduction to programing language

A programming language is a set of rules for converting texts, or graphical programme elements in the case of visual programming languages, into machine code. Programming languages are a type of computer language that is used to implement algorithms in computer programming.

A programming language is a form of written language used to instruct machines.

Step 2: Example of programing language:

Python, Ruby, Java, JavaScript, C, C++, and C# are some examples. All computer programmes and software are written using programming languages.

Explanation for programing language

A programming language is a set of instructions for the computer to follow in order to do a task.

To create programmes, a programmer writes text in the source code of a programming language. The programming language usually utilises real words for some commands (e.g. "if... then... else...", "and," "or") to make the language easier to understand for humans. Many programming languages, like any other language, use punctuation. Many programmes are then compiled, which means that the computer converts the source code into a different language (such as assembly language or machine language) that a computer can understand but is considerably more difficult for a human to comprehend.

Computer programmes must be meticulously written. If a programmer makes a mistake or a programme tries to do something the programmer did not intend for it to accomplish, the programme may "crash" and stop working. A "bug" occurs when a programme encounters a difficulty as a result of the way the code was written. A minor blunder can quickly escalate into a major issue.

There are over 300 programming languages, but you don't need to know them all, and each one serves a distinct purpose (or several). Most are rather simple to learn when compared to spoken languages. Many of the most popular programming languages are listed below.

Type of programing language

The following are the two main categories of computer programming languages:

1. Low-level lingo

2. High-level lingo

Languages at a Basic Level

Low-level programming languages are programming languages that are very near to machine code (0s and 1s).

These languages use binary code to write their programme instructions.

Languages of a High Level

High-level languages are programming languages that are similar to human languages (for example, English languages).

The following are some examples of high-level languages:

Fortran

COBOL

Basic

Pascal

C

Fortran

Java

The high-level languages are comparable to English. Print, input, and other English terminology are used in the computer instructions. However, for writing programme instructions, each high-level language has its own set of rules and grammar. These rules are called syntax of the language.