

What is Programming Language?

A programming language is a notation designed to connect instructions to a machine or a computer.

Programming languages are mainly used to control the performance of a machine or to express algorithms.

At present, thousand programming languages have been implemented.

In the computer field, many languages need to be stated in an imperative form, while other programming languages utilize declarative form

Types of Programming Languages

The different types of programming languages are discussed below.

Procedural Programming Language

Functional Programming Language

Object-oriented Programming Language

Scripting Programming Language

Logic Programming Language

Procedural Programming Language

The procedural programming language is used to execute a **sequence of statements** which lead to a result.

Typically, this type of programming language uses multiple variables, heavy loops and other elements,

Which separates them from functional programming languages.

Functions of procedural language may control variables, other than function's value returns. For example, printing out information.

Functional Programming Language

Functional programming language typically uses stored data,

frequently avoiding loops in favor of recursive functions.

The functional programming's primary focus is on the return values of functions, and side effects and different suggests that storing state are powerfully discouraged. For example, in an exceedingly pure useful language,

if a function is termed, it's expected that the function not modify or perform any o/p.

It may, however, build algorithmic calls and alter the parameters of these calls.

Functional languages are usually easier and build it easier to figure on abstract issues,

Object-oriented Programming Language

This programming language views the world as a group of objects

that have internal data and external accessing parts of that data.

The aim this programming language is to think about the fault by separating it into a collection of objects that offer services which can be used to solve a specific problem.

One of the main principle of object oriented programming language is encapsulation that everything an object will need must be inside of the object.

This language also emphasizes reusability through inheritance and the capacity to spread current implementations without having to change a great deal of code by using polymorphism.

Scripting Programming Language

These programming languages are often procedural and may comprise object-oriented language elements,

but they fall into their own category as they are normally not full-fledged programming languages with support for development of large systems. For example, they may not have compile-time type checking. Usually, these languages require tiny syntax to get started.

Logic Programming Language

In a sense, this language doesn't tell the computer how to do something, but employing restrictions on what it must consider doing.