

Python Programming Language Notes



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1. Basic of Programming Language

What is Programming?

Just like we use English, Hindi or other languages to communicate with each other, we use the programming language to communicate with the computer. A programming language is an artificial language designed to express computations that can be performed by a machine, particularly by a computer. It can be used to create programs that control the behavior of a machine, to express algorithms precisely, or as a mode of human communication.

Programming language is the way of communication between the user and a computer. Examples of programming languages are C, C++, Java, Python e.t.c.

Types of Programming Language

There are three types of Programming languages:-

Low-Level Programming Language

- Machine Language
- Assembly Languages or Symbolic Languages

Middle-level Programming language

- C Programming Language

High-level Programming language

- Java, Python, etc..

Read More:- [Basic of Programming Language](#)

2. Introduction to Python Programming

Python is a simple and easy to understand language which feels like reading simple English. This pseudocode nature of Python makes it easy to learn and understandable by beginners.

It can be used in many more types of applications. Python was created by Guido Rossum in 1989. The idea of Python started in the early 1980s but the real implementation started in 1989 and it was finally published in 1991(Feb 27, 1991).

By the way, the language is named after the BBC show “Monty Python’s Flying Circus”. Guido Van Rossum worked that time in a project at the Centrum Wishunde and Informatica, called Amoeba, a distributed operating system.

Features of Python

- Simple
- Expressive
- Interpreted
- Cross-platform
- Free and Open Source
- Object-Oriented Language
- Extensible
- Large Standard Library
- GUI Programming Support
- Dynamic Memory Allocation
- Integrated
- Embeddable

Applications of Python

- Data Science
- Console Applications

- Window/Desktop Applications
- Web Applications
- Machine Learning
- Artificial Intelligence

Python Syntax compared to other programming languages

Python was designed for readability, and has some similarities to the English language with influence from mathematics.

Python uses new lines to complete a command, as opposed to other programming languages which often use semicolons or parentheses.

Python relies on indentation, using whitespace, to define scope; such as the scope of loops, functions and classes. Other programming languages often use curly-brackets for this purpose.

Installation of Python

1. Python can be easily installed by python.org.
2. When you click on the download button, Python can be installed right after you complete the set-up by executing the file for your platform.
3. Just install it like a game!

Simple Hello World Program in Python

Let's write our very first python program. Create a file called hello.py and paste the code which is given below.

```
print("Hello World")
```

Here print is a function which we will study later. On Execution this file(.py file) by typing python hello.py and you will see Hello World printed on the screen.