Basic Introduction to Python

Python - The most demanding Language in the market

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What we are going to know after this session?

- What is Python ?
- Who developed Python ?
- History of Python.
- Difference between Python and other Programming Languages (like Java)
- Advantages of Python.
- Disadvantages of Python.
- Scope of Python.
- Which are the companies that use Python?
- What can we do with Python?
- Installation of Python.
- Writing up your First Program in Python.
- Running our first Python Program.

What is Python ?

- Interpreted, object-oriented, high level programming language.
- Simple, easy to learn syntax.
- Dynamically typed.
- Shorter than equivalent programs of other languages.
- Provides an increased productivity.

Who developed Python?

It was created by Guido van Rossum and first released in 1991, but it was not that famous back then. It has become one of the most popular programming languages in the world near about 2006.

History of Python

- **Conceived in late 1980's.**
- **Implementation was done in 1991.**
- **Python 2 was released on Oct 16, 2000 with many new features.**
- **It was not so famous back then, it became famous in 2006 when Google started using Python.**

Latest Version of Python

- **Python 3.0, was released on December 3, 2008, after a long period of testing.**
- **Many of its major features have also been backported to the backwards-compatible, while by now unsupported, Python 2.6 and 2.7**
- **Many new versions of Python were released from then, The latest version today available for download is Python 3.8.5**

Difference between Python and other languages

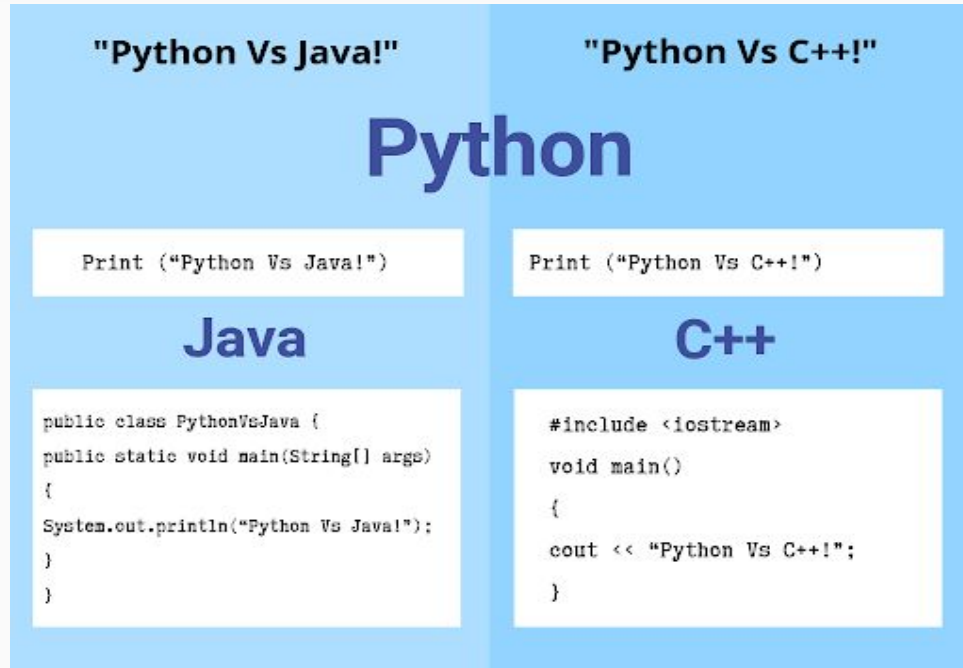The distinguishing features of python:

- **Dynamically typed**
- **Interpreted**
- **White space indentation**
- **First class functions**
- **Decorators**
- **Ease of learning**

It is the best scripting language, and yet not limited to only scripting. You can build huge applications in python quite elegantly.

Comparison between Java, C++ and Python

"Python Vs Java!"

"Python Vs C++!"

Python

Print ("Python Vs Java!")

Print ("Python Vs C++!")

Java

C++

```
public class PythonVsJava {
public static void main(String[] args)
{
System.out.println("Python Vs Java!");
}
}
```

```
#include <iostream>
void main()
{
cout << "Python Vs C++!";
}
```

Advantages of Python

- Versatile, Easy to Use and Fast to Develop.
- Open Source with a Vibrant Community.
- Has All the Libraries You Can Imagine.
- You can Do More with Less Code.
- Speed Limitations.
- Problems with Threading.
- Not Native to Mobile Environment.

Disadvantages of Python

- Speed: Python is slower than C or C++.
- Memory Consumption: Python is not a good choice for memory intensive tasks.
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Scope of Python

- **Web Development:** **Django**, **Flask**, **Pyramid**, **Bottle**, **Tornado**
- **GUI Development:** **tkInter**, **PyGObject**, **PyQt**, **PySide**, **Kivy**
- **Scientific and Numeric:** **SciPy**, **Pandas**, **IPython**
- **Software Development:** **Buildbot**, **Trac**, **Roundup, CPython**
- **System Administration:** **Ansible**, **Salt**, **OpenStack**
- **Machine Learning, Deep Learning, Artificial Intelligence**

And MANY more......

16 Famous Companies that uses PYTHON

Quora

Spotify®

NASA

YouTube

Google

edX®

YAHOO!®

Dropbox

yelp

reddit

DISQUS

IBM

Pinterest

Instagram

Eventbrite®

UBER

What can i do with Python?

- **Machine Learning**
- **Data Science**
- **Block Chain**
- **Web Development**
- **Software Development**
- **Game Development**
- **Web Scraping**

Average Salary of a Python Developer

Installation of Python

The Python download requires about 25 Mb of disk space.

When installed, Python requires about an 90 Mb of disk space.

Link to Download and Install Python : *https://www.python.org/downloads/*

Install Python 3.8.0 (64-bit)

Select Install Now to install Python with default settings, or choose Customize to enable or disable features.

→ **Install Now**
C:\Users_____\AppData\Local\Programs\Python\Python38

Includes IDLE, pip and documentation
Creates shortcuts and file associations

→ **Customize installation**
Choose location and features

☑ Install launcher for all users (recommended)

☐ Add Python 3.8 to PATH

Cancel

Writing my first Python Program

print("Hello World")

Output : Hello World

Thank You !!