

Why Python?

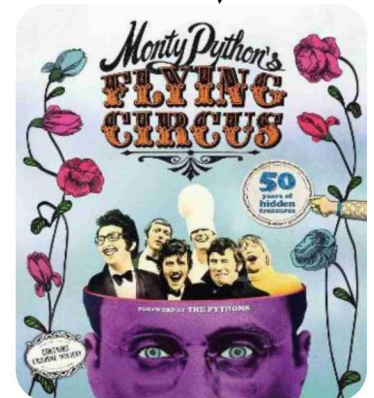
Python is a programming language created by Guido Van Rossum and was released in 1991. It is widely used for general-purpose programming language. It features a dynamic type system and an automatic memory management, and also supports multiple programming paradigms that include object-oriented, imperative, functional programming and procedural styles. Python also features a large and comprehensive standard library.



Guido Van Rossum

History of Python?

Python was conceptualized by **Guido Van Rossum** in late 1980. Guido Van Rossum published the first version of python code (0.9.0) in February 1991 at the CWI (Centrum Wiskunde & Informatica) in the **Netherlands, Amsterdam**. Python is derived from ABC programming language that had been developed at the CWI. Rossum chose the name "**Python**" since he was a big fan of **Monty Python's Flying Circus**. Python is now maintained by a core development team at the institute, although Rossum still holds a vital role in directing its progress.



Monty Python's Flying Circus

Applications of Python?

Python is a platform-independent language, which makes developing applications with it easier and more convenient. The applications of python are:



Python

1. Web Development

2. Game Development

3. Machine Learning and AI

4. Data Science and Data Visualization

5. Desktop GUI

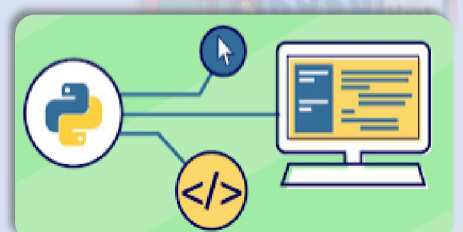
6. Web Scrapping Applications

7. Business Applications

8. Audio and Video Applications

9. Comp-Aided Designing App. (CAD)

10. Embedded Applications



The point here is that every activity has a place where it fits in. It has its own environment with its own requirements. Only if those requirements are met, will the particular activity take place. Similarly, you can't start coding as soon as you start up your computer. We need a particular coding environment to code.

On the web browser, in the official site of python (www.python.org), move to the **Downloads** and click on **All releases**



What is Python IDLE?

Python IDLE provides us with a coding environment. In IDLE, one can code, run the code as well see the results of the code. You can edit, open existing codes, and even save your codes using IDLE. Basically, it provides you with the tools required to code in Python. Hence, it is the perfect Python coding platform.

The Integrated Development and Learning Environment (IDLE) is an integrated development environment (IDE) for Python.



Create your first program to print your name

Program

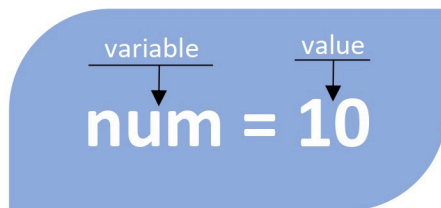
```
untitled.py - C:/Users/dhana/Desktop/untitled.py (3.12.2)
File Edit Format Run Options Window Help
print("Hii, I am Arun")
print('I live in Pune')
print("""My Hobby is to play Cricket""")
print(''''with my friends''')
```

Output

```
Hii, I am Arun
I live in Pune
My Hobby is to play Cricket
with my friends
```


Variable:

You must have noticed that housing societies store large quantities of water in huge tanks. Suppose you need to store a small amount of water. What will you do? You will use a bottle or a glass, right? Depending on the size or amount of a particular thing, there are different containers to store them. Similarly, to store data in a computer device, we need a container. This container is called as variable. Using variables we can store data of different data types such as integers, characters and others. It can have varying value stored inside it. Hence it's called a 'variable'.



Here num is a variable name. Variable names can start with alphabets, cannot start with numbers and symbols. But you can include numbers in between the variable names. Eg: A1=10

Input in Python

The input() function allows user input. The function first takes the user's input and then evaluates the expression, so python automatically knows whether the user entered a string, a number, or a list. In case the input provided is incorrect. Python will raise syntax error or an exception.

Create a program to take the input from user

Program

```
input.py - C:/Users/dhana/Desktop/input.py (3.12.2)
File Edit Format Run Options Window Help
print(" Enter your Name: ")

Name = input()

print(" Welcome to Python",Name)
```

Output

```
Enter your Name:
Arun
Welcome to Python Arun
```