

## Python

it is high level, interpreted, object oriented program,  
indented, dynamically is called as python

### Features of Python

- \* Simple Syntax / easy to learn
- \* Libraries
- \* Open Source
- \* platform Independent
- \* less memory
- \* runs fast compared to some programs

### Applications of python

- \* Web development
- \* Mobile app development
- \* Machine learning | deep learning
- \* AI
- \* Cyber security
- \* graphics
- \* IoT
- \* automation
- \* desktop app development

4/9/25

-7 Comments :-

They are part of code but they won't consider  
in execution time

## Two types of comments

- Single line comment  
# My 1st program



## Key words :-

They are the reserved words used for particular task and they cannot used as identifiers (variable, function name...etc)

ex:- True | false, for, if, else, while, break

-> variables: - ~~variables are objects that store data~~  
it is places where we store our values.

Ex:  $a = 5$

A is the variable & is the value

↳ valid variable declaration

$$a = 5$$

A = 10

Num = 1

NUM = 11

Emp-ID = 123

emp name = "Nisha" or 'Nish' ~~nitawalwa~~

\* invalid variable declaration :-

- variable should not start with the numbers ex:-  $\ln =$

```
= struct#name@ = "down"
```

- struct name@ = "own" for freq

- stu id = 345

should not give any spoke

- Data types :-
- \* It is a pre-defined component and specify the data category

Python  
Types of datatype :-

- \* int, float, complex (comes under Numerical data type)
- \* str, bool (real & imaginary)  
e.g.:  $5j + 7$

Special datatypes (data structures)

\* list

\* tuple

\* list

\* dict

- Complex :-

Real      Imaginary

$5j + 7$       } Input  
type (a)

Complex      → Output

Ex: a = 2, b = 3, c = 4

b = 3      a, b, c = 4, 6, 7      a, b, c

c = 4

→ Input and output function

Input :- Anything we take it from user is called  
input input()

Output :- Anything we display to user is called  
output output()

eg:- a = int(input())

1.

b = int(input())

2

a+b

3

Page No.:

Date:

Write a program to read employee id,  
employee name, employee phone num  
and print the details

a = str(input("enter employee name:"))

b = str(input("enter employee ID:"))

c = int(input("enter employee phone:"))

print(a)

print(b)

print(c)

Output:- Enter employee Name: nisha

enter employee ID : 018B1210018

Enter employee Phone: 6362621641

nisha

018B1210018

6362621641

*super noothook* --nh = d<sup>2</sup> + d<sub>1</sub>  
*super noothook* --noothook - d<sup>2</sup> = d<sub>1</sub>

→ Read 2 float numbers from user  
 $a = 2.45$ ,  $b = 3.55$   
print ( $a+b$ )  
6.00

```
x = float(input("enter a value:"))
```

```
y = float(input("Enter a value:"))
```

print(x+y)

$\sin(\pi/4 + \pi/4) = \sin(\pi/4 + \pi/4)$

point ("sum of:", "+", "y", "=", "x+y")

```
print ("Sum of {x} + {y} = {z} ".format(x,y,z))
```

↓ what what had - had

## #.format method

point (F" sum of  $\{x\}^3 + \{y\}^3 = \{x+y\}^3$ ")

~~stations~~

→ WAP to calculate area of triangle and circle with given input

$$A_{0\bar{1}} = \int_0^c s^x b^x b$$

$$AOC = 3.14 \times r \times r$$

program :- b = float (input ())

h = float (input())

$\gamma = \text{Plot}(\text{input}(c))$

ADT :

$$A\alpha = 3.142 \times r \times s$$

point (if the area of triangle is  $\{AOT\}$  ) In  
the area of circle is  $\{AOc(2^{\circ})\}$

{ formula }  
{ formula } )

→

## Operators:-

Arithmetic operation , it gives only quotient value.

+ - \* / % // \*\*

it gives only  
remainder value

## \* Relational ope :-

> < >= <= != !=

## \* Logical ope :-

and      Not      OR      XOR      XNOR

A	B	AND	OR
---	---	-----	----

fail	fail	False	False
------	------	-------	-------

f	Pass	f	True
---	------	---	------

P	F	F	T
---	---	---	---

P	P	T	T
---	---	---	---

## \* NOT

NOT (True) = FALSE

NOT (FALSE) = True

## \* Assignment op:-

= += -= \*= /= \*= %=%

\*\*=

Syntax :- var = var + value