constant, literals - Data types

1. Text Data type
   ex: string
2) Numeric Data types
   int , float , complex
   1 1.5 1-2i
3) Sequence Data types
   Tuple List
   ex: (1,2,3) ex: [1,2,3]
4) Mapping Dt
   dict
   ex: {'name': 'John', 'age': 35}
5) Set Data type
   unordered collection
6) Boolean Data types
   ex: True, false
7) None Data types

None

Type conversion

1) implicit Type
2) Explicit Type

ascii values ord() & chr()

operators:

Arithmetic

Module: 10//3 = 3

Modula: 10%. 3 = 1

Exponential: 2**3 = 8

Assignment operator:

+=
-=
%. =
**=

on: ↑ , at

Comparision operators :

a = 10
b = 20
Print (a == b) False
Print (a != b) True

Logical operators :

AND, OR, NOT, XOR, NAND

Membership operators :

in membership
not in Negated membership

Identity operators :

Bitwise operators :

2 & 3

2 → 10
3 → 11

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Python operator Precedence :

BODMAS

Input :

Input() function is used to take input from the user via the keyboard during the Program's execution

Types :

- Input()
- Int()
- Float()

String input

User input for name (string)

name = input ("Please enter you name :")

name = input ("Sravanth")

1) String input & output

Ex:

```
# input statements :
name = input ("enter name:")
Print ("Hello", name, sep=",",
       end = "!")
```

2) Integer Input & output

Expected input - 5
Expected output - "you entered:5"

```
# input statements :
num = int (input ("Give value of
                   num:"))
Print ("you entered:", num,
       sep = "")
```

3) Float input & output

Expected input = 3.14
Expected o/p = "value of Pi=3.14"

```
# input stat
Pi = float (input ("Pi: "))
Print ("value of Pi:", Pi, sep="")
```

4) Taking multiple inputs in single line :

Exp I/P : 10 20 30
Ex o/P : "sum of inputs: 60"

```
a = input ()
x, y, z = a. split (" ")
Sum = int (x)+int (y)+int(z)
Print (sum)
```

5) Specifying Separator in output :

Exp I/P : "John", 25
Ex o/P : "Name : John, Age : 25"

"John", 25

```
# input statements :
int = input ("Enter name and age:")
name, age = inp. split (",")
Print ("Name :", name, ", Age:",
       age, sep=" ")
```

6) End Parameter in output

Exp I/P = 5
Exp o/P = "Countdown : 5 4 3 2 1 Blast off!"

```
# input statements :
n = int (input ("Enter n:"))
Print ("Countdown: 5 4 3 2 1", end =
       " Blast off!")
```

7) Arithmetic operators

Exp I/P : 10, 5
Exp o/P : "Addition : 15, Subtraction : 5, Multiplication : 50, Division : 2.0"

```
# input statements
  # 10, 5
x, y = input ("Enter a and b valu
              :"). split (",")
a = int (x)
b = int (y)
Print ("Addition :", a+b, "Subtra
: ", a-b, "Multiplication :", a*b
"Division :", a/b)
```