

Operators:

- Arithmetic Operator -> +,-,*,%,/(float values),/(integer values),
**(power)
- Logical Operator -> AND(and),OR(or),NOT(!)
 - > Checking (T or F)
 - > T or F
- Bitwise Operator -> AND(&),OR(|),shift(<<,>>)
 - > Values (T or F)
 - > Value
- Relational Operator -> <,>,<=,>=,!=, etc.,
- Assignment Operator -> +=,-=,/=,%=,//=,etc., A = A+B => A+=B
- Membership Operator -> in, not in -> checking (data structures)
- Identity Operator -> is,is not -> checking (strings)

Example:

```
AND -> T   &   T   -> T
      -> (1) & (2) -> True
OR  -> F   |   F   -> F
      -> (1) | (2) -> False
```

A = 20

B = 2

A +=B => A = 22, B = 2

print(A,B) => (22,2)

Reading data from User:

- Dynamic -> n number of inputs n number of outputs
- Static -> 1 single value input 1 value output

=> Static -> Fixed value

=> Dynamic -> User has to given an input

Input format:

```
-> a = input() -> user(data)
-> a = ? -> By default (string data type)
-> b = input("Enter a value:")
-> input() => Display[user prompt]
           => Reads Data from user[data]
```

Output format:

-> <https://pyformat.info>

In [1]:

```
1 z = input()
2 print(z,type(z))
3 z
```

```
345
345 <class 'str'>
```

Out[1]:

```
'345'
```

In [2]:

```
1 d = input("Enter a value from user: ")
2 print(d,type(d))
3 d
```

```
Enter a value from user: 45
45 <class 'str'>
```

Out[2]:

```
'45'
```

```
Enter your name: rakesh
Entered data from u is: rakesh
```

```
2
5
Entered numbers are 2 and 5
```

In [5]:

```
1 se = input("Enter your name: ")
2 print("Entered data from u is:",se)
```

```
Enter your name: raju
Entered data from u is: raju
```

In [8]:

```
1 r = input("Enter first value: ")
2 b = input("Enter second value: ")
3 print("Entered numbers are",r,"and",b)
```

```
Enter first value: 5
Enter second value: 6
Entered numbers are 5 and 6
```

In [13]:

```
1 t = input("Enter a value: ")
2 y = input("Enter b value: ")
3 print("Entered numbers are {1} and {0}".format(y,t))
4 print("Entered numbers are %s and %s"%(y,t))
```

Enter a value: 7

Enter b value: 9

Entered numbers are 7 and 9

Entered numbers are 9 and 7

Type Casting:

-> int -> It converts to integer values(int())

-> float -> It converts to floating values(float())

-> string -> It converts to string values(str())

In [16]:

```
1 n = '2349723984792374897239847901273390817293871092739871239472938764980126394612903469'
2 len(n)
```

Out[16]:

195

In [22]:

```
1 n = int(input())
2 print(n)
3 print(n,type(n))
```

5

5

5 <class 'int'>

In [23]:

```
1 k = float(input())
2 print(k,type(k))
3 k = str(k)
4 print(k,type(k))
```

45

45.0 <class 'float'>

45.0 <class 'str'>

In []:

```
1
```