

## Python Basic Input and Output

In Python, we use the **print()** function to output data to the screen. Sometimes we might want to take input from the user. We can do so by using the **input()** function.

**Note : Python takes all the input as a string input by default.**

### 1- Give the outputs of the following instructions:

- `print( 1, 1, 2024, sep='!', end='!')`  
.....
- `x = 3 ; y = 12; mul = x * y ; print('The value of x is {} and y is {}'.format(x, y))`  
.....
- `print('{2} is the multiplication of {0} and {1}'.format(x, y, mul))`  
.....
- `add = x + y ; print("The new number after addition is %d" % add)`  
.....
- `sub = x - y ; print(f' The new number after subtraction is {sub} ')`  
.....
- `name = input("Enter your first name: ") ;`  
.....
- `age = int ( input ("Enter your age: ")); n = age + 1; print ( name + " your age will be next year! ", n)`  
.....
- `S1,S2 = input ("Enter two values separated by space character").split(); print(" S1= ", S1, " S2= ",S2)`  
.....

### Writing scripts:

Use the editor provided by (you can use any third party python IDE) to write the following scripts:

1. Write a python script that takes two variables as input then exchanges their values. Example: when a = 2 and b = 5, the script will give a = 5 and b = 2.
2. Write a script that receives two **integers**, then writes their sum and their difference
3. Write the Cylinder program, which calculates and displays the volume of a cylinder after entering its radius R and its height H.
4. Write a program that calculates and displays the absolute value of a real number x entered by the user (use the built-in function `abs(x)`).