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Python Assignment Day 1

1-Write a Python program which accepts the user's first and last name and print them in reverse order with a space between them.

In [5]:
```
def show_Name(firstname, lastname):
    print(lastname,firstname)
```

In [7]:
```
show_Name("mostafa","nasser")
```

```
nasser mostafa
```

In [48]:
```
#or:
f = input("Enter first name: ")
l = input("Enter Last name: ")
print(l+ " " + f)
```

```
Enter first name: mostafa
Enter Last name: nasser
nasser mostafa
```

2- Write a Python program that accepts an integer (n) and computes the value of n+nn+nnn.

In [18]:
```
def sum(n1,n2,n3):
    print(n1+n2+n3)
```

In [19]:
```
sum(5,55,555)
```

```
615
```

3- Write a Python program to print the following here document. Sample string :a string that you "don't" have to escape

In [23]:
```
print(''' "a string that you "don't" have to escape
This
is a ....... multi-line heredoc string --------> example
" ''')
```

```
 "a string that you "don't" have to escape
This
is a ....... multi-line heredoc string --------> example
"
```

4- Write a Python program to get the volume of a sphere with radius 6.

In [41]:
```
def sphere_vol(x):
    print((4/3)*(22/7)*x**3)
```

In [42]:
```
sphere_vol(6)
```

```
905.142857142857
```

5- Write a Python program that will accept the base and height of a triangle and compute the area.

In [43]:
```
b = int(input("Input the base : "))
h = int(input("Input the height : "))

area = b*h/2

print("area = ", area)
```

```
Input the base : 15
Input the height : 10
area =  75.0
```

6- Consider dividing a string into two halves Case1: The length is even, the front and back halves are the same length. Case2: The length is odd, we'll say that the extra char goes in the front half. E.g., 'abced', the front half is 'abc', the back half'de. Given 2 strings, a and b, return a string of the form: (a-front + b-front) + (a-back +b-back)

In [130]:
```
# Python3 code to demonstrate working of
# Splitting string into equal halves
# Using list comprehension + string slicing

# initializing string
test_str = "mostafanasser"

# printing original string
print("The original string is : " + test_str)

# Using list comprehension + string slicing
# Splitting string into equal halves
res_first = test_str[0:len(test_str)//2]
res_second = test_str[len(test_str)//2  if len(test_str)%2 == 0
                                  else ((len(test_str)//2)+1):]

# printing result
front_half = print("The first part of string : " + res_first)
back_half = print("The second part of string : " + res_second + str(test_str[l
en(test_str)//2]))
```

```
The original string is : mostafanasser
The first part of string : mostaf
The second part of string : nassera
```

7- Given two points represented as x1,y1,x2,y2 . Return the (float) distance between them considering the following distance equation.

In [49]:
```
import math
p1 = [4, 0]
p2 = [6, 6]
distance = math.sqrt( ((p1[0]-p2[0])**2)+((p1[1]-p2[1])**2) )

print(distance)
```

```
6.324555320336759
```

In [4]:
```
import math
x1,x2,y1,y2 = 50,20,30,10
print( "distance between the two points =" , math.sqrt( (x2 - x1)**2 + (y2 - y
1)**2 ))
```

```
distance between the two points = 36.05551275463989
```