# Assignment 1 Solutions

#### 1.Write a Python program to print 'Hello Python' ?

In [3]:

print('Hello Python')

Hello Python

#### 2.Write a Python program to do arithmetic operations addition and division ?

In [4]:

**import** operator

ops **=** { "+": operator**.**add, "-": operator**.**sub, "\*":operator**.**mul, "/":operator**.**truediv }

print('Select a Arithmetic Operation: \

\n1.Addition(+)\

\n2.Division(-)\

\n2.Multiplication(\*)\

\n4.Division(/)\

\n3.Stop(0)\n')

**while** **True**:

operator **=** input('Enter a arithmetic operation -> ')

**if** operator **==** '0':

print("Program Stopped successfully")

**break**

**elif** operator **not** **in** ['+','-','\*','/']:

print("Please enter a valid operator")

**else**:

num\_1 **=** int(input('\nEnter 1st Number: '))

num\_2 **=** int(input('Enter 2nd Number: '))

print('{}{}{}={}\n'**.**format(num\_1, operator, num\_2, ops[operator](num\_1,num\_2)))

Select a Arithmetic Operation:

1.Addition(+)

2.Division(-)

2.Multiplication(\*)

4.Division(/)

3.Stop(0)

Enter a arithmetic operation -> +

Enter 1st Number: 10

Enter 2nd Number: 20

10+20=30

Enter a arithmetic operation -> -

Enter 1st Number: 10

Enter 2nd Number: 20

10-20=-10

Enter a arithmetic operation -> \*

Enter 1st Number: 20

Enter 2nd Number: 10

20\*10=200

Enter a arithmetic operation -> /

Enter 1st Number: 200

Enter 2nd Number: 2

200/2=100.0

Enter a arithmetic operation -> 0

Program Stopped successfully

#### 3.Write a Python program to find the area of a triangle ?

In [5]:

height **=** int(input('Enter height of triangle: '))

base **=** int(input('Enter base of triangle: '))

**def** areaOfTriangle(height, base):

print('\nArea of triangle ->', 0.5**\***height**\***base)

areaOfTriangle(height,base)

Enter height of triangle: 100

Enter base of triangle: 50

Area of triangle -> 2500.0

#### 4.Write a Python program to swap two variables ?

In [6]:

num\_1 **=** int(input("Enter First Number: "))

num\_2 **=** int(input("Enter Second Number: "))

**def** swapNumbers(a,b):

temp **=** a

a **=** b

b **=** temp

**return** a,b

print('Before swapping -> ',num\_1, num\_2)

num\_1, num\_2 **=** swapNumbers(num\_1, num\_2)

print('After swapping -> ',num\_1,num\_2)

Enter First Number: 100

Enter Second Number: 200

Before swapping -> 100 200

After swapping -> 200 100

#### 5.Write a Python program to generate a random number ?

In [7]:

**from** random **import** randint

**def** generateRandomNumber(start**=**0, end**=**100000):

print('Random number -> ',randint(start,end))

*# Generating random numbers without arguments*

generateRandomNumber()

*# Generating random numbers with arguments*

generateRandomNumber(0,100)

Random number -> 75610

Random number -> 34