Python Programming Basic Assignment1

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

```
def greet():
    '''
    this function will just print greetings.
    '''
    print("Hello Python")

greet()
```

```
Hello Python
```

In [25]:

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

```
def calculate():
    '''
    this function will give you addition and divisions of two integers.
    '''
    try:
        a = int(input("Enter 1st number: "))
        b = int(input("Enter 2nd number: "))
        #addition = a+b
        #division = a/b
        print("\nAddition of {} and {} is {}".format(a,b,a+b))
        print("Division of {} and {} is {}".format(a,b,a/b))
    except Exception as e:
        print("\nSome exception occurred: ",e)

calculate()
```

```
Enter 1st number: 10
Enter 2nd number: 20

Addition of 10 and 20 is 30
Division of 10 and 20 is 0.5
```

In [26]:

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

```
def triangleArea():
    '''
    this function will calculate the area of a triangle.
    '''
```

```
    try:
        a = float(input("Enter first side: "))
        b = float(input("Enter second side: "))
        c = float(input("Enter third side: "))

        s = (a+b+c)/2

        area = (s*(s-a)*(s-b)*(s-c)) ** 0.5

        print("\nThe area of triangle is %.2f"%area)

    except Exception as e:
        print("\nSome exception occurred: ",e)

triangleArea()
```

```
Enter first side: 10
Enter second side: 5
Enter third side: 7

The area of triangle is 16.25
```

In [24]:

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

```
def swap():
    '''
    this function will swap two variables.
    '''
    try:
        a = int(input("Enter a: "))
        b = int(input("Enter b: "))

        print("\nBefore Swapping")
        print("a={} and b={}".format(a,b))

        a,b = b,a

        print("\nAfter Swapping")
        print("a={} and b={}".format(a,b))

    except Exception as e:
        print("\nSome exception occurred: ",e)

swap()
```

```
Enter a: 10
Enter b: 20

Before Swapping
a=10 and b=20

After Swapping
a=20 and b=10
```

In [38]:

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

```
import random

def genRandom():
    '''
    this function will generate a random number, including both the end points.
    '''
    try:
        lb = int(input("Enter Lower bound to generate a number: "))
        ub = int(input("Enter Upper bound to generate a number: "))

        random_number = random.randint(lb,ub)

        print("\nRandom number {} is generated between {} and {} including both the end points".format(random_number,lb,ub))

    except Exception as e:
        print("\nSome exception occurred: ",e)

genRandom()
```

```
Enter Lower bound to generate a number: 10
Enter Upper bound to generate a number: 50

Random number 42 is generated between 10 and 50 including both the end points
```