PYTHON EXPERIMENT NO:02

# SWAPPING TWO NUMBERS - METHOD 1

p = int(input("Enter the First Value :"))

q = int(input("Enter the Second Value :"))

print("The values before swapping are",p,q)

temp = p

p = q

q = temp

print("The Values after swapping are",p,q)

output:

Enter the First Value :48

Enter the Second Value :52

The values before swapping are 48 52

The Values after swapping are 52 48

# SWAPPING TWO NUMBERS - METHOD 2 [USING COMMA (,) OPERATOR]

s = 59 t = 16

print("The values before Swapping : ",s,t)

s, t = t,s

print("The values after Swapping : ",s,t)

output

The values before Swapping : 59 16

The values after Swapping : 16 59

# SWAPPING TWO NUMBERS - METHOD 3 [USING ARITHMETIC OPERATOR]

x = 45

y = 25

print("The Values before Swapping are",x,y)

x = x + y

y = x - y

x = x - y

print("The Values after Swapping are",x,y)

output:

The Values before Swapping are 45 25

The Values after Swapping are 25 45

# SWAPPING TWO NUMBERS - METHOD 4 [USING XOR GATE]

j = 58

k = 46

print("The Values before Swapping are",j,k)

j = j ^ k

k = j ^ k

j = j ^ k

print("The Values after Swapping are",j,k)

output:

The Values before Swapping are 58 46

The Values after Swapping are 46 58

# CIRCULATE THE VALUES OF n VARIABLES (METHOD-1 Using Inbuilt function)

s=int(input("Enter a the Values in the List :"))

list=[]

for i in range(0,s):

element=int(input("Enter the Value :"))

list.append(element)

print("Circulating the list")

for i in range(0,s):

element\_deleted=list.pop(0)

ist.append(element\_deleted)

print(" The Circulated list after",i+1,"rotation",list)

output:

Enter a the Values in the List :8

Enter the Value :5

Enter the Value :9

Enter the Value :2

Enter the Value :1

Enter the Value :7

Enter the Value :0

Enter the Value :3

Enter the Value :2

Circulating the list

The Circulated list after 1 rotation [9, 2, 1, 7, 0, 3, 2, 5]

The Circulated list after 2 rotation [2, 1, 7, 0, 3, 2, 5, 9]

The Circulated list after 3 rotation [1, 7, 0, 3, 2, 5, 9, 2]

The Circulated list after 4 rotation [7, 0, 3, 2, 5, 9, 2, 1]

The Circulated list after 5 rotation [0, 3, 2, 5, 9, 2, 1, 7]

The Circulated list after 6 rotation [3, 2, 5, 9, 2, 1, 7, 0]

The Circulated list after 7 rotation [2, 5, 9, 2, 1, 7, 0, 3]

The Circulated list after 8 rotation [5, 9, 2, 1, 7, 0, 3, 2]

# CIRCULATE THE VALUES OF n VARIABLES (METHOD-2)

def circulate(c,n):

for i in range (1,n+1):

d=c[i:]+c[:i]

print("Circulate","=",d)

return

c=[178,289,324,448,570,698,188,842,956,106]

n=int(input("Enter n :"))

circulate (c,n)

# CIRCULATE THE VALUES OF n VARIABLES (METHOD-2)

def circulate(c,n):

for i in range (1,n+1):

d=c[i:]+c[:i]

print("Circulate","=",d)

return

c=[178,289,324,448,570,698,188,842,956,106]

n=int(input("Enter n :"))

circulate (c,n)

output:

Enter n :6

Circulate = [289, 324, 448, 570, 698, 188, 842, 956, 106, 178]

Circulate = [324, 448, 570, 698, 188, 842, 956, 106, 178, 289]

Circulate = [448, 570, 698, 188, 842, 956, 106, 178, 289, 324]

Circulate = [570, 698, 188, 842, 956, 106, 178, 289, 324, 448]

Circulate = [698, 188, 842, 956, 106, 178, 289, 324, 448, 570]

Circulate = [188, 842, 956, 106, 178, 289, 324, 448, 570, 698]

# DISTANCE BETWEEN TWO POINTS

x1=int(input("Enter the Value of x1 :"))

x2=int(input("Enter the Value of x2 :"))

y1=int(input("Enter the Value of y1 :"))

y2=int(input("Enter the Value of y2 :"))

D1=(x2-x1)\*\*2

D2=(y2-y1)\*\*2

result=(D1+D2)\*\*0.5

print("Distance between",(x1,x2),"and",(y1,y2),"is : ",result)

output:

Enter the Value of x1 :2

Enter the Value of x2 :6

Enter the Value of y1 :4

Enter the Value of y2 :7

Distance between (2, 6) and (4, 7) is : 5.0

Area Of Triangle using Herons Formula

# Python Program to find the area of triangle

&gt;&gt;&gt; a = 4.503

&gt;&gt;&gt; b = 2.377

&gt;&gt;&gt; c = 3.902

&gt;&gt;&gt; s = (a + b + c) / 2

&gt;&gt;&gt; area = math.sqrt(s \* (s - a) \* (s - b) \* (s - c))

&gt;&gt;&gt; area

4.63511081571606

AREA OF THE CIRCLE

def findArea(r):

PI = 3.142

return PI \* (r\*r);

# Driver method

print(&quot;Area is %.6f&quot; % findArea(5));

Output:

Area is 78.550000