PYTHON LAB EX 2

1.EXCHANGE OF TWO VALUES

A.USING THIRD VARIABLE

a=int(input("first value:"))

b=int(input("second value:"))

c=a

a=b

b=c

print("the exchanged values are" ,a,b)

OUTPUT:

first value:2

second value:3

the exchanged values are 3 2

B.USING COMMA OPERATOR

x=int(input("first value:"))

y=int(input("second value:"))

x,y=y,x

print("the exchanged values are",x,y)

OUTPUT:

first value:2

second value:3

the exchanged values are 3 2

C.USING ARITHMETIC OPERATOR

a=int(input("first value:"))

b=int(input("second value:"))

a=a+b

b=a-b

a=a-b

print("the exchanged values are ",a,b)

OUTPUT:

first value:10

second value:15

the exchanged values are 15 10

D.USING XOR OPERATOR

a=int(input("first value :"))

b=int(input("second value:"))

a=a^b

b=a^b

c=a^b

print("the exchanged values are",a,b)

OUTPUT:

first value:2

second value:3

the exchanged values are 3 2

2.CIRCULATING THE LIST OF VALUES

A.USING IN-BUILD FUNCTIONS

a=input("enter values:").split(',')

print("the original list is",a,',''\n',"circulating the list")

for i in range(len(a)):

a.append(a[0])

a.pop(0)

print(a)

OUTPUT:

enter values:1,2,3,4,5

the original list is ['1', '2', '3', '4', '5'] ,

circulating the list

['2', '3', '4', '5', '1']

['3', '4', '5', '1', '2']

['4', '5', '1', '2', '3']

['5', '1', '2', '3', '4']

['1', '2', '3', '4', '5']

B.USING SLICING OPERATOR

a=input("enter values:").split(',')

print("the original list is",a,',''\n',"circulating the list")

for i in range(len(a)):

cir=a[1:]+[a[0]]

print(cir)

OUTPUT: enter values:1,2,3,4,5

the original list is ['1', '2', '3', '4', '5'] ,

circulating the list

['2', '3', '4', '5', '1']

['3', '4', '5', '1', '2']

['4', '5', '1', '2', '3']

['5', '1', '2', '3', '4']

['1', '2', '3', '4', '5']

3.DISTANCE BETWEEN TWO POINTS

import math

x1=int(input("enter x1:"))

x2=int(input("enter x2:"))

y1=int(input("enter y1:"))

y2=int(input("enter y2:"))

d=math.sqrt((x2-x1)\*\*2+(y2-y1)\*\*2)

print("the distance between two points is:",d)

OUTPUT:

enter x1:3

enter x2:7

enter y1:2

enter y2:8

the distance between two points is: 7.211102550927978