PYTHON PROGRAMMING USING SIMPLE STATEMENTS & EXPRESSIONS

(I)LEAP YEAR OR NOT

**PROGRAM:**

year=int(input("enter the year:"))

if(year%4==0):

if(year%100==0):

if(year%400==0):

print("the given year is a leap year")

else:

print("the given year is not a leap year")

enter the year:20000

the given year is a leap year

>>>

(ii)Exchange the values of two variables

SWAPPING TWO NUMBERS – METHOD 1

PROGRAM:

p=int(input("enter the first value:"))

q=int(input("enter the second value:"))

print("the value before swapping are",p,q)

temp=p

p=q

q=temp

print("the values after swapping are",p,q)

enter the first value:48

enter the second value:52

the value before swapping are 48 52

the values after swapping are 52 48

>>>

METHOD 2 (USING COMMA OPERATOR)

PEOGRAM:

s=59

t=16

print("the values before swapping:",s,t)

s,t=s,t

print("the values after swapping:",s,t)

the values before swapping: 59 16

the values after swapping: 59 16

>>>

METHOD 3- USING ARITHEMATIC OPERATION

PROGRAM:

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)

the values before swapping are 45 25

the values after swapping are 25 45

>>>

METHOD 4 – USING XOR GATE

PROGRAM:

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)

the values before swapping are 58 46

the values after swapping are 46 58

>>>

(II)CIRCULATE THE n variables

PROGRAM:

s=int(input("enter the values in a list:"))

list=[]

for i in range(0,s):

element=int(input("enter the value:"))

list.append(element)

print("cirulating the list after")

for i in range(0,s):

element\_deleted=list.pop(0)

list.append(element\_deleted)

print("the ciruclated list after",i+1,"rotation",list)

enter the values in a 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

cirulating the list after

the ciruclated list after 1 rotation [9, 2, 1, 7, 0, 3, 2, 5]

the ciruclated list after 2 rotation [2, 1, 7, 0, 3, 2, 5, 9]

the ciruclated list after 3 rotation [1, 7, 0, 3, 2, 5, 9, 2]

the ciruclated list after 4 rotation [7, 0, 3, 2, 5, 9, 2, 1]

the ciruclated list after 5 rotation [0, 3, 2, 5, 9, 2, 1, 7]

the ciruclated list after 6 rotation [3, 2, 5, 9, 2, 1, 7, 0]

the ciruclated list after 7 rotation [2, 5, 9, 2, 1, 7, 0, 3]

the ciruclated list after 8 rotation [5, 9, 2, 1, 7, 0, 3, 2]

>>>

(III)DISTANCE BETWEEN TWO POINTS

PROGRAM:

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)

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

>>>

CELSIOUS TO FARENHEIT

PROGRAM

a=int(input("enter farenheit value F in degree"))

c=(a-32)\*5/9

print("the celsius value is:",c)

enter farenheit value F in degree28

the celsius value is: -2.2222222222222223

>>>