**EXPERIMENT 2**

Date: 27.12.22

**PYTHON PROGRAMMING USING SIMPLE STATEMENTS & EXPRESSIONS**

1. Exchange the Values of two Variables

CODE:

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

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

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

temp = p

p = q

q= temp

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

OUTPUT:  
Enter the first value: 2

Enter the second value:1

The values before swapping are 2 1

The values after swapping are 1 2

#Swapping two numbers – METHOD 2[USING COMMA(,) OPERATOR]

CODE:

s = 15

t = 20

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

s, t = t, s

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

OUTPUT:

The values before Swapping : 15 20

The values after Swapping : 20 15

#Swapping two numbers – METHOD 3

CODE:

**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 OPERATOR]**

CODE:

**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**

1. **CIRCULATE THE n VARIABLES**

CODE:

**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)**

**list.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**

**Circulating the list**

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

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

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

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

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

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

CODE:

**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]**

1. **Distance between two Points**

CODE:

**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**

**IV) To do arithmetic operations**

**CODE:**

**a= int(input("Enter the number1:"))**

**b= int(input("Enter the number2:"))**

**print("The addition of a and b is",a+b)**

**print("The difference between a and b is",a-b)**

**print("The difference between a and b is",a\*b)**

**print("The division of a and b is", a\*b)**

**print("The floor division of a and b is",a//b)**

**print("The modulus of a and b is", a%b)**

**print("The power of a and b is",a\*\*b)**

**OUTPUT:**

**Enter the number1:9**

**Enter the number2:6**

**The addition of a and b is 15**

**The difference between a and b is 3**

**The difference between a and b is 54**

**The division of a and b is 54**

**The floor division of a and b is 1**

**The modulus of a and b is 3**

**The power of a and b is 531441**

**V) To calculate the total costs of book**

CODE:

**s= int(input("Enter the total number of books:"))**

**list=[]**

**total = 0**

**for i in range(0,s):**

**books\_cost = int(input("Enter the costs of the books:"))**

**list.append(books\_cost)**

**for ele in range(0, len(list)):**

**total = total + list[ele]**

**print("The total costs of the book is:", total)**

**OUTPUT:**

**Enter the total number of books2**

**Enter the costs of the books:20**

**Enter the costs of the books:40**

**The total costs of the book is: 60**