**Lab - 4**

Prob1: Read elements into a list and show output by printing each elements.

li1=[1,5,7,8,3.14, 4, 5]

li2=[1,[2,3],4,5,6 ]

li3=[1,2,[3,4,5],[6,7] ]

li4=[(1,2,3)]

for x in li1:

    print(x,end=',')

print("\n")

for x in li2:

    print(x,end=',')

print("\n")

for x in li3:

    print(x,end=',')

print("\n")

for x in li4:

    print(x,end=',')

print("\n")

output:

1, 5, 7 ,8, 3.14, 4, 5

1, 2 ,3, 4 ,5 ,6

1 2 3 4 5 6 7

1 2 3

Prob2: Given a list of integer values. Write a python program to check whether it contains same number in adjacent position. Display the count of such adjacent occurrences.

li1=[1,1,5,100,-20,-20,6,0,0]

li2=[10,20,30,40,30,20]

li3=[1,2,2,3,4,4,4,10]

c=0

for i in range(len(li1)-1):

    x=i+1

    if li1[i]==li1[x]:

        c=c+1

print(c)

c=0

for i in range(len(li2)-1):

    x=i+1

    if li2[i]==li2[x]:

        c=c+1

print(c)

c=0

for i in range(len(li3)-1):

    x=i+1

    if li3[i]==li3[x]:

        c=c+1

print(c)

output:

3 ,0, 3

Read a list from the user of arbitrary length, and show following: • print the list entered by the user • print least value and largest value • swap positions of least and largest element • print the list after swapping positions.

def printing(li):

    for x in li:

        print(x,end=',')

    print("\n")

def lela(li,n):

    min=li[0]

    max=li[0]

    z=0

    y=0

    for i in range(n):

        if(max<li[i]):

            max=li[i]

            y=i

        if min>li[i]:

            min=li[i]

            z=i

    print(f"least={min} and max={max}")

    li[z],li[y]=swap(min,max)

def swap(min,max):

    temp=min

    min=max

    max=temp

    return min,max

n=int(input("Size of list: "))

li=[]

for i in range(n):

    x=int(input("Element of list: "))

    li.append(x)

printing(li)

lela(li,n)

printing(li)

output:1,2,3,4,5

least=1 and max=5

5,2,3,4,1

Prob4: Read two lists enrol and name from the user of 10 elements. The list enrol contains enrolment numbers and list name contains names of the students. Now read enrolment number from the user to search in the list, if the enrolment is found in the list then print enrolment and name of the student. Otherwise print -1.

enroll=[]

name=[]

for x in range(10):

    i=int(input("Enter the enrolment number: 221b"))

    enroll.append(i)

    j=input("Enter the name: ")

    name.append(j)

z=int(input("Enter the enrolment number to be searched: 221b"))

c=0

for x,y in zip(enroll,name):

    if z==x:

        print(f" Enrolment id= 221b{x} and name of the student is {y}")

        c=c+1

if c==0:

    print("-1")

output:

Enter the enrolment number to be searched: 221b282

Enrolment id= 221b282 and name of the student is Priyanshu jain