def accept\_array(A):

n = int(input("Enter the total no. of student : "))

for i in range(n):

x = int(input("Enter the roll no of student %d : "%(i+1)))

A.append(x)

print("Student Info accepted successfully\n\n")

return n

def display\_array(A,n):

if(n == 0) :

print("\nNo records in the database")

else :

print("Students Array : ",end=' ')

for i in range(n) :

print("%d "%A[i],end=' ')

print("\n");

def Linear\_Search(A,n,X) :

for i in range(n) :

if(A[i] == X) :

return i

return -1

def Sentinel\_Search(A,n,X) :

last = A[n-1]

i = 0

A[n-1] = X

while(A[i] != X) :

i = i +1

A[n-1] = last

if( (i < n-1) or (X == A[n-1]) ) :

return i

else :

return -1

def Main() :

A = []

while True :

print ("\t1 : Accept & Display Students info ")

print ("\t2 : Linear Search")

print ("\t3 : Sentinel Search")

print ("\t4 : Exit")

ch = int(input("Enter your choice : "))

if (ch == 4):

print ("End of Program")

quit()

elif (ch==1):

A = []

n = accept\_array(A)

display\_array(A,n)

elif (ch==2):

X = int(input("Enter the roll\_no to be searched : "))

Ls = Linear\_Search(A,n,X)

if(Ls == -1) :

print("\tRoll no to be Searched not Found\n")

else :

print("\tRoll no found at location %d"%(Ls + 1))

elif (ch==3):

X = int(input("Enter the roll\_no to be searched : "))

Fs = Sentinel\_Search(A,n,X)

if(Fs == -1) :

print("\tRoll no to be Searched not Found\n")

else :

print("\tRoll no found at location %d"%(Fs+ 1))

else :

print ("Wrong choice entered !! Try again")

Main()