**DS LAB INTERNAL ( 208W1A1299 )**

**AIM :** To implement linear search algorithm using python .And write all the possible observations

**ALGORITHM :**

**Step 1** : Start

**Step 2** : Take the input for n number of elements

**Step 3** : Declare an empty array ( Eg : Linear = [] )

**Step 4** : for i=0 to i<=n and i++

**do** : take the input integer element and append it in the empty array

**Step 5** : Take the key input the element which is to be found in the given elements

**Step 6** : for i=0 to i<=n and i++ 🡪 do : step 7

**Step 7** : if linear[i] == key

**do**: write key is found at index i

break

**Step 8** : Stop

**CODE :**

**# Implementing Linear search algorithm**

n = int(input("Enter number of elements : "))

linear = []

for i in range(n):

e = int(input("Enter element {} : ".format(i+1)))

linear.append(e)

key = int(input("Enter element to search : "))

for i in range(len(linear)):

if linear[i]==key:

print("{} is present at location : {}".format(key,i))

break

**OUTPUT :**







