**Assignment [String and List]**

1. **Write a program to find the sum of all elements of a list.**

l1=[1,2,3,4,5]

print(sum(l1))

**OUTPUT:**

15

1. **Write a program to find the maximum and minimum element of a list.**

l1=[1,2,3,4,5]

print("maximum=",max(l1),"\nminimum=",min(l1))

**OUTPUT:**

maximum= 5

minimum= 1

1. **Write a program to find the position of maximum and minimum element’s position in a list.**

l1=[1,5,8,4,7,33,65,43]

ma= max(l1)

mi=min(l1)

print("Index of maximum no=",l1.index(ma))

print("Index of minimum no=",l1.index(mi))

**OUTPUT:**

Index of maximum no= 6

Index of minimum no= 0

1. **Write a program to print all the element in a list that are greater than a given value.**

l1=[1,5,8,4,7,33,65,43]

a=int(input("Enter a number:"))

for i in l1:

if(a < i):

print(i ,end="\t")

**OUTPUT:**

Enter a number:4

5 8 7 33 65 43

5. **Write a program to print all the common elements of 2 list.**

l1=[1,3,5,6,7,8,4]

l2=[2,4,6,8]

for i in l2:

if i in l1:

print(i,end="\t")

**OUTPUT:**

4 6 8

6. **Write a program to reverse a list.**

l1=[1,2,3,4,5,7,8,9]

l2=l1[::-1]

print(l2)

**OUTPUT:**

[9, 8, 7, 5, 4, 3, 2, 1]

7. **Write a program to find the second largest and second smallest value from a list.**

l1=[1,2,3,4,5,7,8,9]

large=max(l1)

small=min(l1)

lar2=small

sma2=large

for i in l1:

if lar2 < i and i != large:

lar2=i

if sma2 > i and i !=small:

sma2=i

print("second largest=",lar2)

print("second smallest=",sma2)

**OUTPUT:**

second largest= 8

second smallest= 2

8. **Write a program to find the average of all elements in a list.**

l1=[1,5,6,4,3]

print(sum(l1)//len(l1))

**OUTPUT:**

3

9. **Write a program to to generate random numbers within a given range and store it in a list.**

import random

mi=int(input("Enter the minimum range"))

m=int(input("Enter the maximum range"))

l1=[]

for i in range(10):

l1.append(random.randint(mi,m))

print(l1)

**OUTPUT:**

Enter the minimum range50

Enter the maximum range100

[68, 91, 96, 88, 91, 71, 67, 92, 64, 51]

**10.Write a program to split the even and odd elements into 2 different lists.**

l1=[1,2,3,4,5,6,7,8,9,10]

even=[]

odd=[]

for i in l1:

if i % 2==0:

even.append(i)

else:

odd.append(i)

print("The even are =",even)

print("Teh odd are =",odd)**OUTPUT:**

The even are = [2, 4, 6, 8, 10]

Teh odd are = [1, 3, 5, 7, 9]

12. **Write a Python script that takes input from the user and displays that input back in upper and lower cases.**

str=input("Enter a String")

print(str.upper())

print(str.lower())

**OUTPUT:**

Enter a StringsiliCon

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13. **Write a Python program to count and display each of the vowels of a given text.**

str=input("Enter a String ")

v='aeiou'

count =0

for i in str:

if i in v:

count+=1

print("The number of vowel in the string is ",count)

**OUTPUT:**

Enter a String silicon

The number of vowel in the string is 3

14. **Write a Python program to remove spaces from a given string.**

str=input("enter a String")

s=""

for i in str:

if i != ' ':

s+=i

print(s)

**OUTPUT:**

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15. **Write a Python program to capitalize first and last letters of each word of a given string.**

str=input("Enter a String")

l1=[]

for i in str.split():

l1.append(i[0].upper()+i[1:len(i)-1]+i[-1].upper())

print(l1)

**OUTPUT:**

Enter a StringSilicon institute of technology

['SilicoN', 'InstitutE', 'OF', 'TechnologY']