Python Lab session 6 (01-02-2021)

Assignment

Name :- Purushottam Kumar

ID :- 2041

MCA I-Sem (R)

Submission Date :- 02-Feb-2021

```
# <Prog_No:1> <Ex_No:6> <Author: Purushottam Kumar>
# Write a Program to find the sum and mean of elements in a list.

print("\n Output of Prog_No:1 in Ex_No:6 implemented by PURUSHOTTAM KUMAR :\n")
total=0
l=[int(e) for e in input(" ENTER INTEGER SEPERATED BY COMMA : ").split(',')]
for i in l:
    total+=i
mean=total/len(l)

print("\n Sum of List element : ",l," : ",total)
print(" Mean of List element : ",l," : ",mean)
```

OUTPUT

```
== RESTART: H:\#MCA Assignment\Python Assignments\Lab-6 (1 Feb)\Exercise01.py

 Output of Prog_No:1 in Ex_No:6 implemented by PURUSHOTTAM KUMAR :

 ENTER INTEGER SEPERATED BY COMMA : 2,4,2,5,3,5

 Sum of List element :  [2, 4, 2, 5, 3, 5]  :  21
 Mean of List element :  [2, 4, 2, 5, 3, 5]  :  3.5
>>>
== RESTART: H:\#MCA Assignment\Python Assignments\Lab-6 (1 Feb)\Exercise01.py

 Output of Prog_No:1 in Ex_No:6 implemented by PURUSHOTTAM KUMAR :

 ENTER INTEGER SEPERATED BY COMMA : 3,8,1,9,2,4

 Sum of List element :  [3, 8, 1, 9, 2, 4]  :  27
 Mean of List element :  [3, 8, 1, 9, 2, 4]  :  4.5
```

Exercise02.py - H:\#MCA Assignment\Python Assignments\Lab-6 (1 Feb)\Exercise02.py (3.9.1)

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```
# <Prog_No:2> <Ex_No:6> <Author: Purushottam Kumar>
# Write a program to print the elements in a list using an iterator.

print("\n Output of Prog_No:2 in Ex_No:6 implemented by PURUSHOTTAM KUMAR :\n")

a = [n for n in input(" Enter elements in the list : ").split(',')]
print("\n List eLements are : ",end='')
for i in a:
    print(i,end=' ')
```

OUTPUT

```
== RESTART: H:\#MCA Assignment\Python Assignments\Lab-6 (1 Feb)\Exercise02.py

 Output of Prog_No:2 in Ex_No:6 implemented by PURUSHOTTAM KUMAR :

 Enter elements in the list : Ram,Sohan,3,9.4,2,188,Sonu

 List eLements are : Ram Sohan 3 9.4 2 188 Sonu
>>>
== RESTART: H:\#MCA Assignment\Python Assignments\Lab-6 (1 Feb)\Exercise02.py

 Output of Prog_No:2 in Ex_No:6 implemented by PURUSHOTTAM KUMAR :

 Enter elements in the list : 34,54,-5,6,True,18,5,Rina

 List eLements are : 34 54 -5 6 True 18 5 Rina
>>>
```

Exercise03.py - H:\#MCA Assignment\Python Assignments\Lab-6 (1 Feb)\Exercise03.py (3.9.1)

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```
# <Prog_No:3> <Ex_No:6> <Author: Purushottam Kumar>
# Write a program to add 2 to every value in a list using for loop.

print("\n Output of Prog_No:3 in Ex_No:6 implemented by PURUSHOTTAM KUMAR :\n")

l = [int(k) for k in input(" Enter Integer in List : ").split(' ')]
print("\n OLD LIST ELEMENT : ",l)
for i in range(len(l)):
    l[i]+=2
print("\n NEW LIST ELEMENT [+2] : ",l)
```

OUTPUT

```
== RESTART: H:\#MCA Assignment\Python Assignments\Lab-6 (1 Feb)\Exercise03.py

 Output of Prog_No:3 in Ex_No:6 implemented by PURUSHOTTAM KUMAR :

 Enter Integer in List : 2 4 1 6 9 18 -5 2

 OLD LIST ELEMENT :  [2, 4, 1, 6, 9, 18, -5, 2]

 NEW LIST ELEMENT [+2] :  [4, 6, 3, 8, 11, 20, -3, 4]
>>>
== RESTART: H:\#MCA Assignment\Python Assignments\Lab-6 (1 Feb)\Exercise03.py

 Output of Prog_No:3 in Ex_No:6 implemented by PURUSHOTTAM KUMAR :

 Enter Integer in List : -9 2 5 98 36

 OLD LIST ELEMENT :  [-9, 2, 5, 98, 36]

 NEW LIST ELEMENT [+2] :  [-7, 4, 7, 100, 38]
```

Exercise04.py - H:\#MCA Assignment\Python Assignments\Lab-6 (1 Feb)\Exercise04.py (3.9.1)

File Edit Format Run Options Window Help

```
# <Prog_No:4> <Ex_No:6> <Author: Purushottam Kumar>
# WAP to create a list of numbers from 1-20 that are either divisible by 2 or 4 using for loop.

print("\n Output of Prog_No:4 in Ex_No:6 implemented by PURUSHOTTAM KUMAR :\n")

A=[]
for i in range(1,21):
    if(i%2==0 or i%4==0):
        A.append(i)
print("\n LIST ITEMS EITHER DIVISIBLE BY 2 or 4 : ",A)
```

OUTPUT

```
>>>
== RESTART: H:\#MCA Assignment\Python Assignments\Lab-6 (1 Feb)\Exercise04.py ==

 Output of Prog_No:4 in Ex_No:6 implemented by PURUSHOTTAM KUMAR :


 LIST ITEMS EITHER DIVISIBLE BY 2 or 4 :  [2, 4, 6, 8, 10, 12, 14, 16, 18, 20]
>>>
```

Exercise05.py - H:\#MCA Assignment\Python Assignments\Lab-6 (1 Feb)\Exercise05.py (3.9.1)

File Edit Format Run Options Window Help

```
# <Prog_No:5> <Ex_No:6> <Author: Purushottam Kumar>
# WAP to define a list of student names in your class.
# Check whether a student is a member in your class or not.

print("\n Output of Prog_No:5 in Ex_No:6 implemented by PURUSHOTTAM KUMAR :\n")

k=[d for d in input(" ENTER NAME OF STUDENTS OF YOUR CLASS : ").split(' ')]
print("\n STUDENTS LIST : ",k)
opt=input("\n ENTER STUDENT NAME TO SEARCH : ")
if(opt in k):
    print("\n YES ! ",opt," IS A MEMBER OF CLASS")
else:
    print("\n NO ! ",opt," IS NOT A MEMBER OF CLASS")

opt=input("\n ENTER STUDENT NAME TO SEARCH : ")
if(opt in k):
    print("\n YES ! ",opt," IS A MEMBER OF CLASS")
else:
    print("\n NO ! ",opt," IS NOT A MEMBER OF CLASS")
```

OUTPUT

```
== RESTART: H:\#MCA Assignment\Python Assignments\Lab-6 (1 Feb)\Exercise05.py ==

 Output of Prog_No:5 in Ex_No:6 implemented by PURUSHOTTAM KUMAR :

 ENTER NAME OF STUDENTS OF YOUR CLASS : ROHAN MEENA SITA AMAR VIJAY SHIVA RAVISH

 STUDENTS LIST :  ['ROHAN', 'MEENA', 'SITA', 'AMAR', 'VIJAY', 'SHIVA', 'RAVISH']

 ENTER STUDENT NAME TO SEARCH : BHUPESH

 NO !  BHUPESH  IS NOT A MEMBER OF CLASS

 ENTER STUDENT NAME TO SEARCH : VIJAY

 YES !  VIJAY  IS A MEMBER OF CLASS
>>>
```

Exercise06.py - H:\#MCA Assignment\Python Assignments\Lab-6 (1 Feb)\Exercise06.py (3.9.1)

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```
# <Prog_No:6> <Ex_No:6> <Author: Purushottam Kumar>
# WAP to create a list of numbers in the range 1 to 10.
# Then delete all the even numbers from the list and print the final list.

print("\n Output of Prog_No:5 in Ex_No:6 implemented by PURUSHOTTAM KUMAR :\n")

L = [1,2,3,4,5,6,7,8,9,10]
print("\n LIST BEFORE DELETION : ",L)
for i in L:
    if(i & 1==0): # if True then Odd else Even
        L.remove(i)
print("\n LIST AFTER DELETION : ",L)
```

OUTPUT

```
>>>
== RESTART: H:\#MCA Assignment\Python Assignments\Lab-6 (1 Feb)\Exercise06.py

 Output of Prog_No:5 in Ex_No:6 implemented by PURUSHOTTAM KUMAR :


 LIST BEFORE DELETION :  [1, 2, 3, 4, 5, 6, 7, 8, 9, 10]

 LIST AFTER DELETION :  [1, 3, 5, 7, 9]
>>>
```

Exercise07.py - H:\#MCA Assignment\Python Assignments\Lab-6 (1 Feb)\Exercise07.py (3.9.1)

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```
# <Prog_No:7> <Ex_No:6> <Author: Purushottam Kumar>
# WAP to remove all duplicates from a list.

print("\n Output of Prog_No:7 in Ex_No:6 implemented by PURUSHOTTAM KUMAR :\n")

List = [d for d in input(" ENTER VALUE SEPERATED BY COMMA : ").split(',')]
print("\n LIST WITH DUPLICATE ", List)
temp= []
for i in List:
    if i not in temp:
        temp.append(i)
List = temp[::]  #Moving DISTINCT NUMBERS ONLY
del temp     #Deleting Temperory List
print("\n LIST AFTER REMOVING DUPLICATES : ", List)
```

OUTPUT

```
== RESTART: H:\#MCA Assignment\Python Assignments\Lab-6 (1 Feb)\Exercise07.py ==

 Output of Prog_No:7 in Ex_No:6 implemented by PURUSHOTTAM KUMAR :

 ENTER VALUE SEPERATED BY COMMA : 2,9,5,6,2,9,44,15,12,27,Ram,Sita,Ram

 LIST WITH DUPLICATE  ['2', '9', '5', '6', '2', '9', '44', '15', '12', '27', 'Ram', 'Sita', 'Ram']

 LIST AFTER REMOVING DUPLICATES :  ['2', '9', '5', '6', '44', '15', '12', '27', 'Ram', 'Sita']
>>>
========== RESTART: H:\#MCA Assignment\Python Assignments\Lab-6 (1 Feb)\Exercise07.py ====

 Output of Prog_No:7 in Ex_No:6 implemented by PURUSHOTTAM KUMAR :

 ENTER VALUE SEPERATED BY COMMA : SOhan,Sita,Rina,Aryan,Astha,Rina,Monu,SOhan

 LIST WITH DUPLICATE  ['SOhan', 'Sita', 'Rina', 'Aryan', 'Astha', 'Rina', 'Monu', 'SOhan']

 LIST AFTER REMOVING DUPLICATES :  ['SOhan', 'Sita', 'Rina', 'Aryan', 'Astha', 'Monu']
>>>
```

Exercise08.py - H:\#MCA Assignment\Python Assignments\Lab-6 (1 Feb)\Exercise08.py (3.9.1)

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```
# <Prog_No:8> <Ex_No:6> <Author: Purushottam Kumar>
# WAP to add two matrices (using nested list)..

print("\nOutput of Prog_No:8 in Ex_No:6 implemented by PURUSHOTTAM KUMAR :\n")

X = [[12,7,3],[4 ,5,6],[7 ,8,9]]
Y = [[5,8,1],[6,7,3],[4,5,9]]
Sum=[[0,0,0],[0,0,0],[0,0,0]]
for i in range(len(X)):
    for j in range(len(Y)):
        Sum[i][j] = X[i][j] + Y[i][j]
print("1st Matrix : ")
for m in X:
    print(m)
print("\n2nd Matrix : ")
for m in Y:
    print(m)
print("\nSUM of MATRIX")
for m in Sum:
    print(m)
```

OUTPUT

```
== RESTART: H:\#MCA Assignment\Python Assignments\Lab-6 (1 Feb)\Exercise08.py

Output of Prog_No:8 in Ex_No:6 implemented by PURUSHOTTAM KUMAR :

1st Matrix :
[12, 7, 3]
[4, 5, 6]
[7, 8, 9]

2nd Matrix :
[5, 8, 1]
[6, 7, 3]
[4, 5, 9]

SUM of MATRIX
[17, 15, 4]
[10, 12, 9]
[11, 13, 18]
>>>
```