

Netaji Subhash Engineering College
Department of Computer Science & Engineering
B. Tech CSE 2nd Year 3rd Semester
2021-2022

Name of the Course: IT Workshop

Course Code: PCC-CS393

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Class Roll No.: 3

University Roll No.: 10900120003

Date of Experiment: 10/12/2021

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▪ **Assignment No.: 33**

Problem Statement: Write a program to accept a sequence of comma-separated numbers from the user and generate a tuple with those numbers

Python Code:

```
elements=input("Enter a sequence of comma-separated numbers: ")
elements=elements.split(",")

tuple=tuple(elements)
print("Tuple: ",tuple)
```

Sample Output(s):

```
PS C:\Users\lenovo\Desktop\Python lab assignment> python -u
Enter a sequence of comma-separated numbers: 3,4,5,21,111
Tuple: ('3', '4', '5', '21', '111')
PS C:\Users\lenovo\Desktop\Python lab assignment> █
```

▪ **Assignment No.: 34**

Problem Statement: Write a program to add elements in a tuple without using built-in functions

Python Code:

```
ele=input("Enter a sequence of elements: ").split()
```

```
tup=tuple(ele)
sum=0
for i in tup:
    sum=sum+int(i)
print("Sum: ",sum)
```

Sample Output(s):

```
PS C:\Users\lenovo\Desktop\Python lab assignment> python
Enter a sequence of elements: 1 2 3 4 5
Sum: 15
PS C:\Users\lenovo\Desktop\Python lab assignment> █
```

- Assignment No.: 35

Problem Statement: Write a program to calculate the mean of elements in a tuple of integers.

Python Code:

```
ele=input("Enter the elements of tuple: ").split()
tup=tuple(ele)
sum=0
for i in tup:
    sum=sum+int(i)
    result=sum/len(tup)
print("Mean of the numbers: ",result)
```

Sample Output(s):

```
PS C:\Users\lenovo\Desktop\Python lab assignment> python
Enter the elements of tuple: 22 11 33 55 66
Mean of the numbers: 37.4
PS C:\Users\lenovo\Desktop\Python lab assignment> █
```

- Assignment No.: 36

Problem Statement: Write a program to display unique and duplicate elements of a tuple.

Python Code:

```
ele=input("Enter the elements of tuple: ").split()
tup=tuple(ele)
uni=[]
dup=[]
```

```

for i in tup:
    if i in uni:
        dup.append(i)
        uni.remove(i)
    else:
        uni.append(i)
uni=tuple(uni)
dup=tuple(dup)
print("Unique elements are: ",uni)
print("Duplicate elements are: ",dup)

```

OUTPUT –

```

PS C:\Users\lenovo\Desktop\Python lab assignment> python -u
Enter the elements of tuple: 1 2 33 44 11 1 33 1
Unique elements are: ('2', '44', '11', '1')
Duplicate elements are: ('1', '33')
PS C:\Users\lenovo\Desktop\Python lab assignment> █

```

- **Assignment No.: 37**

Problem Statement: Write a program to count the frequency of all the elements in a tuple.

Python Code:

```

def count(tup, x):
    count = 0
    for ele in tup:
        if (ele == x):
            count = count + 1
    return count

ele=input("Enter the elements of tuple: ").split()
tup=tuple(ele)
li=[]
for i in tup:
    if i not in li:
        li.append(i)
for i in li:
    print("Frequency of",i,"is: ",count(tup,i))

```

Sample Output(s):

```
PS C:\Users\lenovo\Desktop\Python lab assignment> python -u
Enter the elements of tuple: 1 2 3 1 2 3 1 5 4
Frequency of 1 is: 3
Frequency of 2 is: 2
Frequency of 3 is: 2
Frequency of 5 is: 1
Frequency of 4 is: 1
PS C:\Users\lenovo\Desktop\Python lab assignment> █
```

Assignment No.: 38

Problem Statement: Write a program to find the distinct pair of numbers whose product is even from a tuple of integers

Python Code:

```
ele=input("Enter the elements of tuple: ").split()
tup=tuple(ele)
for i in range(len(tup)):
    for j in range(i+1,len(tup)):
        a=int(tup[i])
        b=int(tup[j])
        if (a*b)%2==0:
            t=(tup[i],tup[j])
            print(t)
```

Sample Output(s):

```
PS C:\Users\lenovo\Desktop\Python lab assignment> python
Enter the elements of tuple: 1 2 3 4 5
('1', '2')
('1', '4')
('2', '3')
('2', '4')
('2', '5')
('3', '4')
('4', '5')
PS C:\Users\lenovo\Desktop\Python lab assignment> █
```

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