Darshan UNIVERSITY

योग: कर्मसु कौशलम्

Python Programming - 2301CS404

Lab - 6

Dhol Namra

23010101407

30-12-2024

Tuple

01) WAP to find sum of tuple elements.

In [1]:
```
t1 = (1,2,3,4,5,6,7)
sum=0
for i in t1:
    sum+=i
print(sum)
```

```
28
```

02) WAP to find Maximum and Minimum K elements in a given tuple.

In [21]:
```
t1 = (83,99,41,3,10,23,63,65)
k = int(input("Enter elements k value:"))
l1 = list(t1)
l1.sort()
t2 = tuple(l1)
print("Minimum elements:",t2[:k],"\nMaximun elements:",t2[-k:])
```

```
Minimum elements: (3, 10)
Maximun elements: (83, 99)
```

03) WAP to find tuples which have all elements divisible by K from a list of tuples.

In [8]:
```
t1=[(2,3,4),(2,4,6),(3,6,9)]
k = int(input("Enter divisible num:"))
ans=[]
for tup in t1:
    count=0
    for i in tup:
        if(i%k!=0):
            count+=1
    if(count == 0):
        ans.append(tup)
print(ans)
```

```
[(2, 4, 6)]
```

04) WAP to create a list of tuples from given list having number and its cube in each tuple.

In [32]:
```
li = [1,2,3,4,5,6,7,8,9]
t1 = [(i,i**3) for i in li]
print(t1)
```

```
[(1, 1), (2, 8), (3, 27), (4, 64), (5, 125), (6, 216), (7, 343), (8, 512), (9, 729)]
```

05) WAP to find tuples with all positive elements from the given list of tuples.

In [10]:
```
t1 = [(-1, 2, 3), (4, 5, 6), (7, -8, 9), (10, 11, 12)]
pt = []
for tup in t1:
    count=0
    for i in tup:
        if(i<0):
            count+=1
    if(count==0):
        pt.append(tup)
print("Positive Elements List of Tuple:", pt)
```

```
Positive Elements Tuple: [(4, 5, 6), (10, 11, 12)]
```

06) WAP to add tuple to list and vice – versa.

In [34]:
```
l = [1, 2, 3]
t = (4, 5, 6)
l.append(t)
print("List after adding tuple:",l)

t2 = t + tuple(l)
print("Tuple after adding list:", t2)
```

```
List after adding tuple: [1, 2, 3, (4, 5, 6)]
Tuple after adding list: (4, 5, 6, 1, 2, 3, (4, 5, 6))
```

07) WAP to remove tuples of length K.

In [19]:
```
t1 = [(1, 2, 3), (4, 5), (6, 7, 8, 9), (10, 11)]
k = int(input("Length of tuple to remove: "))
li=[]
for i in t1:
    if len(i)!=k:
        li.append(i)
print("List after removing:", li)
```

```
List after removing: [(4, 5), (6, 7, 8, 9), (10, 11)]
```

08) WAP to remove duplicates from tuple.

In [24]:
```
t1 = (1,1,2,3,3,4,5,2,4,1,8,6,9,2,3,5,1,4)
li = []
for tup in t1:
    if tup not in li:
        li.append(tup)
t2 = tuple(li)
print(t2)
```

```
(1, 2, 3, 4, 5, 8, 6, 9)
```

09) WAP to multiply adjacent elements of a tuple and print that resultant tuple.

In [28]:
```
t1 = (1,2,3,4,5,6)
li=[]
for i in range(0,len(t1)-1):
    li.append(t1[i]*t1[i+1])
t2 = tuple(li)
print(t2)
```

```
(2, 6, 12, 20, 30)
```

10) WAP to test if the given tuple is distinct or not.

In [39]:
```
t1 = (1,6,3,9,2,5,0)
li = list(t1)
distinct = True
for i in range(0,len(t1)):
    for j in range(i+1,len(t1)):
        if(t1[i]==t1[j]):
            distinct = False
            break
if (distinct):
    print("Distinct")
else:
    print("Not Distinct")
```

```
Distinct
```

In [ ]:
```

```