Darshan UNIVERSITY
योग: कर्मसु कौशलम्

Python Programming - 2301CS404

Lab - 6

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Tuple

01) WAP to find sum of tuple elements.

In [17]:
```
tuple = (1,2,3,4,5)
total = sum(tuple)

print ("sum of tuple: ",total)
```

```
sum of tuple:  15
```

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

In [71]:
```
tuple = (1,2,6,5,7,4)
k = int (input("Enter value of k: "))
t1 = sorted (set(tuple))
print(t1 [k:])
print(t1 [-k:])
```

```
[6, 7]
[4, 5, 6, 7]
```

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

In [51]:
```
listoftuple = [(2,4),(6,7,8,9,0)]
k = int(input("Enter K:"))
ans = []
for i in listoftuple:
    for j in i:
        if(j%k!=0):
            break;
        else:
            ans.append(i)
print(ans)
```

```
[(6, 7, 8, 9, 0)]
```

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

In [75]:
```
numbers = [1, 2, 3, 4, 5]

result = [(n, n**3) for n in numbers]

print(result)
```

```
[(1, 1), (2, 8), (3, 27), (4, 64), (5, 125)]
```

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

In [66]:
```
listoftup = [(2,4,-1,-2,),(6,7,8,9,0),(-1,0),(2,5,3)]
ans = []
for i in listoftup:
    for j in i:
        if(j<0):
            break;
    else:
       ans.append(i)
print(ans)
```

```
[(6, 7, 8, 9, 0), (2, 5, 3)]
```

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

In [113…
```
t1 = (1,2,3)
l1 = [4,5,6]

l1.extend(t1)
print(l1)

t1 += tuple(t1)
print(t1)
```

```
[4, 5, 6, 1, 2, 3]
(1, 2, 3, 1, 2, 3)
```

07) WAP to remove tuples of length K.

In [103…
```
list_of_tuple = [(1, 2), (3, 4, 5), (6,), (7, 8, 9), (10, 11)]
```

```
k = 2

result = [t for t in list_of_tuple if len(t) != k]

print("List after removing tuples of length", k, ":", result)
```

```
List after removing tuples of length 2 : [(3, 4, 5), (6,), (7, 8, 9)]
```

08) WAP to remove duplicates from tuple.

In [77]:
```
tuple = (1,2,2,3,3,3,4,4,4,4)
print(set(tuple))
```

```
{1, 2, 3, 4}
```

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

In [115…
```
l1 = [1,2,3,4,5]

ans = tuple(l1[i] * l1[i+1] for i in range(0,len(l1)-1))
print(ans)
```

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

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

In [95]:
```
tuple = (1, 2, 3, 4, 3)

distinct = len(tuple) == len(set(tuple))

if distinct:
    print("distinct elements.")
else:
    print("not distinct elements.")
```

```
not distinct elements.
```