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Python Programming - 2301CS404

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Lab - 6

## 1 Tuple

### 1.0.1 01) WAP to find sum of tuple elements.

```
[138]: a=(10,20,30,401,5,23,6,1,46,2,)
sum=0
for i in a:
    sum=sum+i
print(sum)
```

544

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

```
[144]: a=(1,5,2,3.5,6,9.5,8,4,8,15,26,32,54,0,2,56,14)
k=int(input("enter the kth value"))
count=0
a=sorted(a)
print( 'min : ',a[0:k])
print('max: ', a[: -1+(-k):-1])
```

enter the kth value 3

min : [0, 1, 2]

max: [56, 54, 32]

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

```
[23]: a=[(1,2,3),(8,0,8),(2,4,6,8,1)]
k=int(input("enter k"))
for i in a:
    flag=True
```

```

for j in i :
    if(j%k!=0):
        flag=False
        break;
if(flag==True):
    print(i)

```

enter k 2

(8, 0, 8)

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

```

[134]: a=[1,5,6,3,2,4]
t=[(i,i**2) for i in a]
print(t)

```

[(1, 1), (5, 25), (6, 36), (3, 9), (2, 4), (4, 16)]

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

```

[106]: a=[(1,2,-3),(8,0,8),(2,4,-6,8,1),(1,4,56,)]
for i in a :
    flag=True
    for j in i :
        if(j<0):
            flag=False
            break;
    if(flag==True):
        print(i)

```

(8, 0, 8)

(1, 4, 56)

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

```

[145]: a=[1,2,3]
b=(1,2,3)
c=[1,2,3]
d=(1,2,3)
print("tuple to list add")
a.append(b)
print(a)
print("list to tuple add")
d=d+(c,)
print(d)

```

tuple to list add  
[1, 2, 3, (1, 2, 3)]  
list to tuple add  
(1, 2, 3, [1, 2, 3])

### 1.0.7 07) WAP to remove tuples of length K.

```
[143]: a=[(1,2,3),(8,0,9),(2,3,5,5),(5,1,2,6),(5,9,6,8,4)]
k=int(input("enter k"))
a = [i for i in a if len(i) != k]
print(a)
```

enter k 4  
[(1, 2, 3), (8, 0, 9), (5, 9, 6, 8, 4)]

### 1.0.8 08) WAP to remove duplicates from tuple.

```
[146]: a=(1,5,2,3,5,6,9,15,8,4)
temp=list(a)
i=0
while(i<len(temp)):
    if(temp[i] in temp[i+1:]):
        temp.remove(temp[i])
    else:
        i=i+1
print(temp)
```

[1, 2, 3, 5, 6, 9, 15, 8, 4]

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

```
[75]: a=(1,5,2,3,5,6,9,15,8,4)
result=()
for i in range(len(a)-1):
    result += (a[i] * a[i+1],)
print(result)
```

(5, 10, 6, 15, 30, 54, 135, 120, 32)

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

```
[161]: a=(1,5,2,3,5,6,9,15,8,4)
# a=(1,23,4,56,7,89,)
flag=True
for i in a:
    if(a.count(i)!=1):
```

```
    flag=False
if flag==True:
    print('distinct')
else:
    print('not distinct')
```

distinct

[ ]: