Darshan UNIVERSITY

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Python Programming - 2301CS404

Lab - 6

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Tuple

01) WAP to find sum of tuple elements.

In [17]:
```
t1 = []
n = int(input("Enter trhe size of tuple"))
for i in range(n):
    t1.append(int(input("Enter the element")))
t1 = tuple(t1)
print(sum((t1)))
```

```
10
```

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

In [19]:
```
t1 = []
n = int(input("Enter trhe size of tuple"))
for i in range(n):
    t1.append(int(input("Enter the element")))
t1 = tuple(t1)
t1 = sorted(t1)
k = int(input("Enter k"))
print(tuple(t1[:k:1]))
print(tuple(t1[:k:-1]))
```

```
(1, 2)
(5, 4)
```

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

In [22]:
```
t1 = []
n = int(input("Enter trhe size of tuple"))
for i in range(n):
    t1.append(int(input("Enter the element")))
t1 = tuple(t1)
count = 0
k = int(input("Enter k"))
for i in t1:
    if i%k == 0:
        print(i)
        count += 1
if count == 0:
    print(f"No element is devisable by {k}")
```

```
No element is devisable by 6
```

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

In [42]:
```
t1 = []
n = int(input("Enter trhe size of tuple"))
for i in range(n):
    t1.append(int(input("Enter the element")))
t1 = tuple(t1)
ans = [(t1[i],t1[i]**3) for i in range(len(t1))]
ans
########################################################################## OR ###############
# ans = []
# for i in range(0,len(t1)):
#     temp = (t1[i],t1[i]**3)
#     ans.append(temp)
# ans
```

Out[42]:
```
[(2, 8), (3, 27)]
```

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

In [47]:
```
t1 = [(1, 2, 3), (5, 6, -7), (18, 45, 93)]
ans = []
for i in range(len(t1)):
    for j in range(len(t1[i])):
        if t1[i][j] >= 0:
            ans.append(t1[i][j])
print(tuple(ans))
```

```
(1, 2, 3, 5, 6, 18, 45, 93)
```

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

In [53]:
```
t1 = []
a = [1,2,3]
b = [1,2,3]
c = [1,2,3]
t1.append(a)
t1.append(b)
t1.append(c)
print(tuple(t1))
########################################################## vice - versa ##############
t2 = []
a = [1,2,3]
b = [1,2,3]
c = [1,2,3]
t2.append(tuple(a))
t2.append(tuple(b))
t2.append(tuple(c))
print(t2)
```

```
([1, 2, 3], [1, 2, 3], [1, 2, 3])
[(1, 2, 3), (1, 2, 3), (1, 2, 3)]
```

07) WAP to remove tuples of length K.

In [1]:
```
l1 = [(1, 2), (1, 2, 3), (1, 2, 3, 4), (1, 2, 3, 4, 5)]
k = int(input("Enter the length"))
l = [i for i in l1 if len(i) != k]
print(l)
```

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

08) WAP to remove duplicates from tuple.

In [3]:
```
t1 = (1,2,2,3)
t1 = set(t1)
t1 = tuple(t1)
t1
```

Out[3]: (1, 2, 3)

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

In [4]:
```
t1 = (1,2,3,4)
t1 = list(t1)
for i in range(len(t1)-1):
    t1[i] = t1[i] * t1[i+1]
t1 = tuple(t1)
t1
```

Out[4]: (2, 6, 12, 4)

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

In [6]:
```
t1 = (1,2,3,4,5)
flag = True
temp = t1[0]
for i in range(i,len(t1)):
    for j in range(i+1,len(t1)):
        if t1[i] == t1[j]:
            flag = False
            break
if flag:
    print("distinct")
else:
    print("not distinct")
```

```
distinct
```