python-programming-lab-6

March 13, 2025

Python Programming - 2301CS404

Gohel Neel

Enrollnment No. : 23010101089

Roll No. 340

Date: 30-12-2024

Lab - 6

1 Tuple

1.0.1 01) WAP to find sum of tuple elements.

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

```
23
```

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

[45]:
```
t1 = (15,1,2,1,2,3,26,21,3,4,5,6)
k = int(input("Enter k "))
s = {i for i in t1}
l1 = list(s)
min = l1[:k]
max = l1[-k:]
print(max)
print(min)
```

```
Enter k 3
[15, 21, 26]
[1, 2, 3]
```

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

[59]:
```
l1 = [(1,2,-33) , (2,6,4) , (4,5,6)]
k = int(input("Enter k "))
res = [t for t in l1 if all(i%k==0 for i in t)]
print(res)
```

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

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

[52]:
```
n = int(input("Enter size of list "))
l1 = []
for i in range(0,n):
    n1 = int(input("Enter number "))
    l1.append(n1)

l1 = [(i,i**3) for i in l1]
print(l1)
```

```
Enter size of list 3
Enter number 1
Enter number 2
Enter number 3
[1, 2, 3]
[(1, 1), (2, 8), (3, 27)]
```

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

[57]:
```
l1 = [(1,2,-33) , (2,3,4) , (4,5,6)]
res = [t for t in l1 if all(i>0 for i in t)]
print(res)
```

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

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

[69]:
```
l1 = [(1,2,-33) , (2,3,4) , (4,5,6)]
t = (7,8)
l1.append(t)
print(l1)
```

```
[(1, 2, -33), (2, 3, 4), (4, 5, 6), (7, 8)]
```

1.0.7 07) WAP to remove tuples of length K.

[68]:
```
t4 = (15,1,3,26,21,3,4,5,6)
k = int(input("Enter k "))
legth = 0
for i in t4:
    legth+=1
new = t4[:legth - k]
print(new)
```

```
Enter k 6
(15, 1, 3)
```

1.0.8 08) WAP to remove duplicates from tuple.

[62]:
```
t5 = (15,1,2,1,2,3,26,21,3,4,5,6)
s = {i for i in t5}
tu = tuple(s)
print(tu)
```

```
(1, 2, 3, 4, 5, 6, 15, 21, 26)
```

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

[1]:
```
tup = (1,2,3,4,3,2,1)
result = ()
for i in range(len(tup) - 1):
    result += (tup[i] * tup[i + 1],)
print(result)
```

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

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

[80]:
```
t = (1,2,3,3,4,5)
temp = 0
for i in t:
    if(t.count(i) > 1):
        temp = i
print(temp,"is multiple time tuple not distinct")
```

```
3 is multiple time tuple not distinct
```

[ ]:
```

```