

**SUMANTH S**  
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## **LAB 14: TUPLES**

### **DEFINITION:**

*“A tuple is an immutable sequence data type. This means that once a tuple is created, its contents cannot be changed, added, or removed. Tuples are typically enclosed within parentheses () and can contain zero or more elements separated by commas.”*

### **QUESTIONS:**

**1. Write a Python program to find the number of times 4 appears in the tuple.**

**Input:**

**tuplex = (2, 4, 5, 6, 2, 3, 4, 4, 7 )**

**Output: 3**

```
tuplex = (2, 4, 5, 6, 2, 3, 4, 4, 7 ) # tuple contains with repeated values.  
number_of_times_4_appears = tuplex.count(4) # counting the number 4 using ---> count()  
function  
# print the count value of 4  
print("The number of times 4 appears in the tuple : ",number_of_times_4_appears)
```

### **Output:**

The number of times 4 appears in the tuple : 3

**2. Write a Python program to convert a list to a tuple.**

**Input: listx = [5, 10, 7, 4, 15, 3]**

**Output: (5, 10, 7, 4, 15, 3)**

```
listx = [5, 10, 7, 4, 15, 3] # took an list with values ---> 5,10,7,4,15,3  
print("Original List: ",listx) # print the original list  
print("Convert the list to a tuple: ")  
convert_to_tuple = tuple(listx) # converting the list to tuple using tuple function passing listx as  
argument  
print(convert_to_tuple) # print the tuple
```

### **Output:**

Original List: [5, 10, 7, 4, 15, 3]  
Convert the list to a tuple:  
(5, 10, 7, 4, 15, 3)

**3. Write a Python program to calculate the sum of the numbers in a given tuple.**

**Input:** tuples\_list = [(1, 2), (3, 4), (5, 6)]

**output:** sum of the number:21

```
tuples_list = [(1, 2), (3, 4), (5, 6)] # initializing the values of tuples with list
sum = 0 # initializing sum value --> 0
for tuple in tuples_list: # using for loop for iteration
    sum += tuple[0] + tuple[1] # adding tuple items
print("Sum of the number:", sum) # print the sum of tuple elements
```

### Output:

Sum of the number: 21

**4. Write a Python program to find repeated items in a tuple.**

**tuple\_data = (0,11,1,2,2,2,33,1)**

```
tuple_data = (0,11,1,2,2,2,33,1) # tuple with duplicate values
print("The duplicate values from the given tuple data are :")
for i in range(0, len(tuple_data)): # using for loop to traverse the tuple forward
    for j in range(i+1, len(tuple_data)): # using for loop to traverse the tuple backward
        if tuple_data[i] == tuple_data[j]: # comparing both the tuples
            repeated_items = tuple_data[j] # storing the repeated items in repeated_items variable
            print(repeated_items, end= " ") # print the repeated items
```

### Output:

The duplicate values from the given tuple data are :  
1 2 2 2