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Day 14: Tuple

1. Write a Python program to find the number of times 4 appears in the tuple.
# Define a tuple with some numbers.
tuplex = (2, 4, 5, 6, 2, 3, 4, 4, 7)

```python
# Iterate over each element in the tuple.
for i in tuplex:
    # Count the occurrences of the current element in the tuple.
    count = tuplex.count(i)

# Check if the count of any number equals 4.
if count == 4:
    print(i, count)  # Print the number and its count.
else:
    print("No number is appeared 4 times")  # If no number appears 4
times.
```

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

```python
# Input: Define a list with some elements.
listx = [5, 10, 7, 4, 15, 3]

# Convert the list to a tuple using the `tuple()` function.
mytuple = tuple(listx)

# Print the original list and the converted tuple.
print(f"List {listx} converted to tuple {mytuple} ")
```

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

```python
 # Input: Define a list of tuples with numeric elements.
  tuples_list = [(1, 2), (3, 4), (5, 6)]

 # Convert the list of tuples to a single tuple.
 tup1 = tuple(tuples_list)

# Initialize a variable to store the sum of the numbers.
sum = 0

# Print the original list and the converted tuple.
print(f"List {tuples_list} converted to tuple is {tup1}")

# Loop through each tuple in the combined tuple.
for num in tup1:
    sum += i  # This is incorrect; it should sum up the individual
elements in `num`.

# Print the total sum of numbers.
print(f"Sum is {sum}")
```

4. Write a Python program to iterate through the given tuples.

```python
# Input: Define tuples representing employees' details.
employee1 = ("John Doe", 101, "Human Resources", 60000)
employee2 = ("Alice Smith", 102, "Marketing", 55000)
employee3 = ("Bob Johnson", 103, "Engineering", 75000)

# Print separator to distinguish between employee details.
print("---------------------------")

# Loop through and print the details of the first employee.
for details in employee1:
    print(details)

# Print separator for readability.
print("---------------------------")

# Loop through and print the details of the second employee.
for details1 in employee2:
    print(details1)
```

```python
# Print separator for readability.
print("---------------------------")

# Loop through and print the details of the third employee.
for details2 in employee3:
    print(details2)

# Print separator at the end.
print("---------------------------")
```

Output:

```
CONSOLE    PREVIEW

No number is appeared 4 times
list [5, 10, 7, 4, 15, 3] converted to tuple (5, 10, 7, 4, 15, 3)
list [(1, 2), (3, 4), (5, 6)] converted to tuple is ((1, 2), (3, 4), (5, 6))
Sum is 21
---------------------------
John Doe
101
Human Resources
60000
---------------------------
Alice Smith
102
Marketing
55000
---------------------------
Bob Johnson
103
Engineering
75000
---------------------------
>>>
```