………………………………………………………………….Assignment……………………………………………………………………

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 )

#code

def count\_occurrences(tuplex, target):

count = 0 # Initialize a counter to keep track of

occurrences

for item in tuplex: # Iterate over each item in the tuple

if item == target: # If the item matches the target number

count += 1 # Increment the counter

return count # Return the final count

tuplex = (2, 4, 5, 6, 2, 3, 4, 4, 7) # Given input tuple

target\_number = 4 # Target number to find occurrences of

occurrences = count\_occurrences(tuplex, target\_number) # Call the function to count

occurrences of the target

number in the tuple

# Print the result

print("Number of times", target\_number, "appears in the tuple:", occurrences)

output: Number of times 4 appears in the tuple: 3

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

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

//code

def list\_to\_tuple(listx):

tuple\_result = tuple(listx) # Using the tuple() function to convert

the list to a tuple

return tuple\_result # Return the resulting tuple

listx = [5, 10, 7, 4, 15, 3] # Given input list

tuple\_result = list\_to\_tuple(listx) # Call the function to convert the list to a

tuple

print(tuple\_result) # Print the resulting tuple

output: (5, 10, 7, 4, 15, 3)

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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)]

//code

def sum\_of\_tuples(tuples\_list):

total\_sum = 0 # Initialize the total sum to zero

for tup in tuples\_list: # Iterate over each tuple in the list

for num in tup: # Iterate over each number in the tuple

total\_sum += num # Add the number to the total sum

return total\_sum # Return the total sum

tuples\_list = [(1, 2), (3, 4), (5, 6)] # Given input tuple list

result = sum\_of\_tuples(tuples\_list) # Call the function to calculate the sum of

numbers in the tuple list

print("Sum of the numbers in the tuple list:", result) # Print the resulting sum

output: Sum of the numbers in the tuple list: 21

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4. Write a python program and iterate the given tuples

 Input:

employee1 = ("John Doe", 101, "Human Resources", 60000)

employee2 = ("Alice Smith", 102, "Marketing", 55000)

employee3 = ("Bob Johnson", 103, "Engineering", 75000)

//code

# Define the tuples for each employee

employee1 = ("John Doe", 101, "Human Resources", 60000)

employee2 = ("Alice Smith", 102, "Marketing", 55000)

employee3 = ("Bob Johnson", 103, "Engineering", 75000)

employees = [employee1, employee2, employee3] # Create a list of all employee

tuples

for employee in employees: # Iterate over each employee

tuple

# Unpack the employee tuple into variables for easier access

name, emp\_id, department, salary = employee

print("Name:", name) # Print the details of each

employee

print("Employee ID:", emp\_id)

print("Department:", department)

print("Salary:", salary)

print() # Add a blank line for better

readability

output: Name: John Doe

Employee ID: 101

Department: Human Resources

Salary: 60000

Name: Alice Smith

Employee ID: 102

Department: Marketing

Salary: 55000

Name: Bob Johnson

Employee ID: 103

Department: Engineering

Salary: 75000