Personal\_info=input("I am Priya Dharshini G,a happy learner and an Ex Association Secretary , with a rollnumber of 23472347. Worked with team for HCIIC as a Team leader.In the year 2023, Priya Dharshin has ventured into the domain of Pets Care using Python.")

#word counting

def count\_word\_frequency(paragraph, target\_word):

    words = paragraph.split()

    word\_count = 0

    for word in words:

        word = word.strip('.,!?()[]{}"\'')

        if word.lower() == target\_word.lower():

            word\_count += 1

    return word\_count

paragraph = input("\n\nEnter the paragraph:")

target\_word = input("Enter the word that you want to count:")

frequency = count\_word\_frequency(paragraph, target\_word)

print(f"The word '{target\_word}' appears {frequency} times in the paragraph.\n\n")

num=["0","1","2","3","4","5","6","7","8","9"]

spld\_word=Personal\_info.split(" ")

for i in spld\_word:

    for j in i:

        if j in num:

            if "." in i:

                print(i," is float")

                break

            else:

                print(i,"is int")

                break

        else:

            print(i," : is string")

            break

 #counting datatype

def count\_characters(paragraph):

    alphabets = 0

    numerics = 0

    specials = 0

    for char in paragraph:

        if char.isalpha():

            alphabets += 1

        elif char.isnumeric():

            numerics += 1

        else:

            specials += 1

    return alphabets, numerics, specials

paragraph = "Introducing Priya Dharshini G,a happy learner and an Ex Association Secretary , with a rollnumber of 23472347."

alphabets, numerics, specials = count\_characters(paragraph)

print(f"Alphabets: {alphabets}")

print(f"Numeric characters: {numerics}")

print(f"Special symbols: {specials}\n\n")

#Set Operators

def set\_operations\_example():

    mixed\_set = {1, "Python", 2.263, True, (1, 2)}

    print("Initial Set:", mixed\_set)

    popped\_element = mixed\_set.pop()

    print("\nElement popped:", popped\_element)

    print("Updated Set after pop:", mixed\_set)

    mixed\_set.clear()

    print("\nSet after clear:", mixed\_set)

    mixed\_set.add(42)

    mixed\_set.add("Python")

    mixed\_set.add("World")

    mixed\_set.add(False)

    mixed\_set.add((3, 4))

    mixed\_set.update(["Java","Python","C++","Mongodb"])

    print("Set after adding elements:", mixed\_set)

    mixed\_set.discard("World")

    print("\nSet after discarding 'World':", mixed\_set)

    del mixed\_set

set\_operations\_example()

#sorting the set

def set\_operations\_example():

    pets\_info = {"Pet name", "owner name", "play time", "grooming", "vaccine","vet"}

    print("Initial Set:", pets\_info)

    sorted\_set = sorted(pets\_info, reverse=True)

    print("Sorted Set (Descending Order):", sorted\_set)

set\_operations\_example()

#packing and unpacking of tuple

def tuple\_operations\_example():

    #packing

    pets\_name=("Puppy", "Jupiter", "Cinnu", "Mikky", "Ruby")

    print("Original Tuple:",pets\_name)

    #unpacking

    [first\_language, second\_language, third\_language, fourth\_language, fifth\_language] = pets\_name

    print("\nUnpacked Variables:")

    print("First Language:", first\_language)

    print("Second Language:", second\_language)

    print("Third Language:", third\_language)

    print("Fourth Language:", fourth\_language)

    print("Fifth Language:", fifth\_language)

tuple\_operations\_example()

dmn\_name=("l","i","b","r","a","r","y")

count=0

for i in dmn\_name:

    count=count+1

print("count of r",count)

#tuple slicing

def slicing\_and\_negative\_indexing(domain\_name):

    print("Original Domain Name:", domain\_name)

    print("\nPositive Slicing:")

    print("1. Slicing from index 3 to 9:", domain\_name[3:10])

    print("2. Slicing from index 0 to 7:", domain\_name[:8])

    print("3. Slicing from index 5 to the end:", domain\_name[5:])

    print("4. Slicing from index 2 to 11 with step 2:", domain\_name[2:12:2])

    print("\nNegative Slicing:")

    print("1. Slicing from the end -8 to the end -3:", domain\_name[-8:-2])

    print("2. Slicing from the end -11 to the end -1 with step 2:", domain\_name[-11:-1:2])

    print("\nNegative Indexing:")

    print("Last character:", domain\_name[-1])

    print("Second to last character:", domain\_name[-2])

domain\_name = "Pets Care Management"

slicing\_and\_negative\_indexing(domain\_name)

OUTPUT:

I am Priya Dharshini G,a happy learner and an Ex Association Secretary , with a rollnumber of 23472347. Worked with team for HCIIC as a Team leader.In the year 2023, Priya Dharshin has ventured into the domain of Pets Care using Python.

Enter the paragraph:I am Priya Dharshini G form MCA B. I took Pets Care

Enter the word that you want to count:I

The word 'I' appears 2 times in the paragraph.

Alphabets: 83

Numeric characters: 8

Special symbols: 19

Initial Set: {1, 2.263, (1, 2), 'Python'}

Element popped: 1

Updated Set after pop: {2.263, (1, 2), 'Python'}

Set after clear: set()

Set after adding elements: {'World', False, (3, 4), 'Python', 'Java', 42, 'C++', 'Mongodb'}

Set after discarding 'World': {False, (3, 4), 'Python', 'Java', 42, 'C++', 'Mongodb'}

Initial Set: {'vet', 'Pet name', 'owner name', 'play time', 'vaccine', 'grooming'}

Sorted Set (Descending Order): ['vet', 'vaccine', 'play time', 'owner name', 'grooming', 'Pet name']

Original Tuple: ('Puppy', 'Jupiter', 'Cinnu', 'Mikky', 'Ruby')

Unpacked Variables:

First Language: Puppy

Second Language: Jupiter

Third Language: Cinnu

Fourth Language: Mikky

Fifth Language: Ruby

count of r 7

Original Domain Name: Pets Care Management

Positive Slicing:

1. Slicing from index 3 to 9: s Care

2. Slicing from index 0 to 7: Pets Car

3. Slicing from index 5 to the end: Care Management

4. Slicing from index 2 to 11 with step 2: t aeM

Negative Slicing:

1. Slicing from the end -8 to the end -3: nageme

2. Slicing from the end -11 to the end -1 with step 2: aaee

Negative Indexing:

Last character: t

Second to last character: n