DAY-4

1. MEAN,MEDIAN,MODE:

import statistics

numbers = [12, 15, 12, 15, 16, 18, 18, 18, 19, 20]

mean = statistics.mean(numbers)

median = statistics.median(numbers)

mode = statistics.mode(numbers)

print("Mean:", mean)

print("Median:", median)

print("Mode:", mode)

OUTPUT:

Mean: 16.3

Median: 16.5

Mode: 18

1. CONVERT FIRST LETTER AS CAPITAL AND FIRST LETTER FOLLOWED BY DOT I… :

sentence = input("Enter a sentence: ")

titled\_sentence = sentence.title()

initials = ""

words = titled\_sentence.split()

for word in words:

if word: # Check if the word is not empty

initials += word[0] + "."

print("Titled Sentence:",titled\_sentence)

print("Initials:",initials)

OUTPUT:

Titled Sentence: World Health Organization

Initials: W.H.O.

1. DATE TO DAY :

import datetime

date\_input = input("Enter a date (YYYY-MM-DD): ")

year, month, day = map(int, date\_input.split('-'))

date\_object = datetime.datetime(year, month, day)

day\_of\_week = date\_object.strftime("%A")

print("The day of the week is:", day\_of\_week)

OUTPUT:

Enter a date (YYYY-MM-DD): 2024-08-07

The day of the week is: Wednesday

1. TWO DAYS AS INPUT PRINT THE NO OF DAYS,MONTHS,YEAR B/W THESE TWO DATES :

import datetime

start\_date\_input = input("Enter the start date (YYYY-MM-DD): ")

start\_year, start\_month, start\_day = map(int, start\_date\_input.split('-'))

start\_date = datetime.date(start\_year, start\_month, start\_day)

end\_date\_input = input("Enter the end date (YYYY-MM-DD): ")

end\_year, end\_month, end\_day = map(int, end\_date\_input.split('-'))

end\_date = datetime.date(end\_year, end\_month, end\_day)

delta = end\_date - start\_date

days = delta.days

years = end\_date.year - start\_date.year

months = end\_date.month - start\_date.month

if months < 0:

months += 12

years -= 1

print("Number of days:",days)

print("Number of months:",months)

print("Number of years:"years)

OUTPUT:

Enter the start date (YYYY-MM-DD): 2023-01-01

Enter the end date (YYYY-MM-DD): 2024-08-07

Number of days: 582

Number of months: 7

Number of years: 1

1. DATE AS INPUT AND FIND THE DATE OF FIRST MONDAY OF NEXT MONTH

import datetime

date\_input = input("Enter a date (YYYY-MM-DD): ")

year, month, day = map(int, date\_input.split('-'))

date = datetime.date(year, month, day)

if month == 12:

next\_month = 1

next\_year = year + 1

else:

next\_month = month + 1

next\_year = year

first\_day\_of\_next\_month = datetime.date(next\_year, next\_month, 1)

day\_of\_week = first\_day\_of\_next\_month.weekday()

days\_until\_monday = (7 - day\_of\_week) % 7

if days\_until\_monday == 0:

days\_until\_monday = 7

first\_monday = first\_day\_of\_next\_month + datetime.timedelta(days=days\_until\_monday)

print("The first Monday of the next month is:", first\_monday)

OUTPUT:

Enter a date (YYYY-MM-DD): 2024-08-07

The first Monday of the next month is: 2024-09-02

1. SUM OF SERIES :

import math

N = int(input("Enter the value of N: "))

sum\_series = 0

for i in range(1, N + 1):

sum\_series += i / math.factorial(i)

print("The sum of the series is:",sum\_series)

OUTPUT:

Enter the value of N: 5

The sum of the series is: 2.708333333333333