**Day 4 python programming**

**1.mean ,median and mode**

From statistics import mean, median, mode

Numbers=[1,2,2,3,4,5,6]

Print(mean(numbers))

Print(median (numbers))

Print(mode(numbers))

**Output:**3.2857

3

2

**2.convert first letter has capital followed by dot**

S=”he is a good teacher”

Words=s. split()

S=[word[0].upper() for word in words]

Result=”.”.join(s)

Print(result)

**Output:** H.I.A.G.T

**3.date has input print the day**

Import calendar

Year, month, date =2024,8,7

Day\_ index= calendar. weekday[year, month, day]

Day\_ name = calendar. day\_ name [day\_ index]

Print(day\_name0

**Output:** Wednesday

**4.days,months,years b/w two dates**

from datetime import datetime

from dateutil.relativedelta import relativedelta

def calculate\_date\_difference(date1\_str, date2\_str):

date\_format = "%Y-%m-%d"

date1 = datetime.strptime(date1\_str, date\_format)

date2 = datetime.strptime(date2\_str, date\_format)

if date1 > date2:

date1, date2 = date2, date1

delta = relativedelta(date2, date1)

total\_days = (date2 - date1).days

return total\_days, delta.years, delta.months, delta.days

date1 = “2024-07-20”

date2 = “2026-04-27”

days, years, months, days\_remaining = calculate\_date\_difference(date1, date2)

print(f"Difference: {years} years, {months} months, {days\_remaining} days (Total days: {days})")

**output:**1 year ,9 months , 7 days

**5.date of first Monday of next month**

from datetime import datetime, timedelta

def first\_monday\_after(date\_str):

date = datetime.strptime (date\_ str, "%Y-%m-%d")

days\_until\_monday = (7 - date. weekday()) % 7

if days\_until\_monday == 0:

days\_until\_monday = 7

return (date + timedelta(days=days\_until\_monday)).strftime("%Y-%m-%d")

input\_date = “2024-04-07”

print(f" First Monday after {input\_ date} is {first\_ Monday\_ after(input\_date)}.")

**output:**2024-05-06

**6.sum of series 1!/1+2!/2+3!/3+----------+n!/n**

from math import factorial

def sum\_ of\_ series(n):

return sum(factorial(i) / i for i in range(1, n + 1))

n = 2

print(f" The sum of the series is: {sum\_ of\_ series(n)}")

**output:** the sum of series:2.0