



ASSIGNMENT



1. Write a program to perform mathematical operations

Program:

```
def add1(lt1):
    res=0
    for x in lt1:
        res=res+x
    return res
def sub(lt1):
    res1=0

    for x in lt1:
        res1=x-res1
        print(res1)
    return res1
def mul(lt1):
    res2=1
    for x in lt1:
        res2=res2*x
    return res2
def div(lt1):
    res3=1
    l=len(lt1)
    for x in range(0,l):
        if(x==0):
            res3=lt1[x]
            continue
        res3=res3/lt1[x]
    return res3
def mod(lt1):
    res4=1
    l=len(lt1)
    for x in range(0,l):
        if(x==0):
            res4=lt1[x]
            continue
        res4=res4%lt1[x]
    return res4
def operate():
    print("1.Addition \n2.Subtraction \n3.Multiplication \n4.Division\n5.Modulus ")
    try:
        no=int(input("choice b/w 1 to 5:"))
        if(no>5):
```

```

        raise ValueError("Limit out of range.....")
except ValueError as ve:
    print(ve)
    operate()
except:
    print("Not Integer")
    operate()
try:
    lt=[]
    while True:
        lt.append(int(input()))
except:
    print("Invalid value entered")
if no==1:
    print("Sum is:",add1(lt))
    repeaton()
elif no==2:
    print("Diff is:",sub(lt))
    repeaton()
elif no==3:
    print("Mul is:",mul(lt))
    repeaton()
elif no==4:
    print("Div is:",div(lt))
    repeaton()
elif no==5:
    print("Mod is:",mod(lt))
    repeaton()
else:
    print("error")

res=0
def repeaton():
    rp=input("Do you want to repeat Y/N:")
    if rp=='Y' or rp=='y':
        operate()
    if rp=='N' or rp=='n':
        print("Stopped")
operate()

```

Output:

1.Addition

2.Subtraction

3.Multiplication

4.Division

5.Modulus

choice b/w 1 to 5:1

5

6

.

Invalid value entered

Sum is: 11

Do you want to repeat Y/N:y

1.Addition

2.Subtraction

3.Multiplication

4.Division

5.Modulus

choice b/w 1 to 5:2

6

.

Invalid value entered

6

Diff is: 6

Do you want to repeat Y/N:y

1.Addition

2.Subtraction

3.Multiplication

4.Division

5.Modulus

choice b/w 1 to 5:3

6

5

2

.

Invalid value entered

Mul is: 60

Do you want to repeat Y/N:y

1.Addition

2.Subtraction

3.Multiplication

4.Division

5.Modulus

choice b/w 1 to 5:4

8

2

2

.

Invalid value entered

Div is: 2.0

Do you want to repeat Y/N:y

1.Addition

2.Subtraction

3.Multiplication

4.Division

5.Modulus

choice b/w 1 to 5:5

25

7

.

Invalid value entered

Mod is: 4

Do you want to repeat Y/N:n

Stopped

```
1.Addition
2.Subtraction
3.Multiplication
4.Division
5.Modulus
choice b/w 1 to 5:1
8
9
5
.
Invalid value entered
Sum is: 22
Do you want to repeat Y/N:y
1.Addition
2.Subtraction
3.Multiplication
4.Division
5.Modulus
choice b/w 1 to 5:3
4
5
2
3
1
.
Invalid value entered
Mul is: 120
Do you want to repeat Y/N:n
Stopped
>>> |
```