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Class-Mtech Comp Sem1

APL EXP2

Aim – Write a menu-Driven text Applications to solve five problems as a menu-driven textbased application. It presents the user with a set of choices (that, e.g., (1) sum of input numbers, (2) average of input numbers, (3) mean of input numbers, (4)median of input numbers, (2) mode of input numbers and (X) Quit. The user makes a selection, which is then executed. The program exits when the user chooses the "quit" option. The great advantage of a program like this is that it allows the user to run as many iterations of your solutions without necessarily having to restart the same program over and over again

In [1]:
```python
import statistics
#asking users how many numbers they want to add in the list .
n=int(input("Enter the number of elements to be inserted: "))
#our list of numbers is stored here...
a=[]
#for loop for appending elements in list as we get input from user
for i in range(0,n):
    Ele=int(input("Enter elements: "))
    a.append(Ele)
Add=sum(a)
#while loop starts here .
while True:
    # menu.
    print("1.Addition of Numbers")
    print("2.Avarage of Numbers")
    print("3.Mean of Numbers")
    print("4.Median of Numbers")
    print("5.Mode Of Numbers")
    print("6.QUIT")
    #asking users about there choice
    choice=int(input("Enter your choice:"))
    #addition of numbers displayed here.
    if choice==1:
        print("Sum of elements is:",Add)
    #avarage of numbers.
    elif choice==2:
        avg=Add/n
        print("Avarage is:",avg)
     #Mean of numbers or avarage.
    elif choice==3:
        mean=Add/n
        print("Mean is:",mean)
     #median of numbers for odd and even number of lists.
    elif choice==4:
        a.sort()
        #median for Even n
        if n % 2==0:
            a1=a[n//2]#floor division discards the fractional part
            a2=a[n//2-1]
            median=(a1+a2)/2
        else:
```

```python
        #Median for odd n
        median=a[n//2]
    print("Median is: " + str(median))
    #mode used predefined function mode and imported statistics library
elif choice==5:
    print("Mode of given data set is % s" % (statistics.mode(a)))
elif choice ==6:
    break
```

```
Enter the number of elements to be inserted: 5
Enter elements: 55
Enter elements: 45
Enter elements: 35
Enter elements: 35
Enter elements: 58
1.Addition of Numbers
2.Avarage of Numbers
3.Mean of Numbers
4.Median of Numbers
5.Mode Of Numbers
6.QUIT
Enter your choice:1
Sum of elements is: 228
1.Addition of Numbers
2.Avarage of Numbers
3.Mean of Numbers
4.Median of Numbers
5.Mode Of Numbers
6.QUIT
Enter your choice:2
Avarage is: 45.6
1.Addition of Numbers
2.Avarage of Numbers
3.Mean of Numbers
4.Median of Numbers
5.Mode Of Numbers
6.QUIT
Enter your choice:3
Mean is: 45.6
1.Addition of Numbers
2.Avarage of Numbers
3.Mean of Numbers
4.Median of Numbers
5.Mode Of Numbers
6.QUIT
Enter your choice:4
Median is: 45
1.Addition of Numbers
2.Avarage of Numbers
3.Mean of Numbers
4.Median of Numbers
5.Mode Of Numbers
6.QUIT
Enter your choice:5
Mode of given data set is 35
1.Addition of Numbers
2.Avarage of Numbers
3.Mean of Numbers
4.Median of Numbers
5.Mode Of Numbers
6.QUIT
Enter your choice:6
```

In [ ]: