"""Write a Python program to store marks scored in subject “Fundamental of Data

Structure” by N students in the class. Write functions to compute following:

a) The average score of class

b) Highest score and lowest score of class

c) Display the list of students who were absent for the test

d) Display mark with highest frequency"""

n=int(input("How many students are there in the Class?-->"))

S=[]

for i in range(n):

data=input("Name of the student "+str(i+1)+" is : ")

S.append(data)

print("Students in class:",S)

score=[]

absent\_student=[]

total=0

for i in S:

marks=eval(input("Marks scored by student "+ i + " in FDS test is:(put marks -1 for absent students) : "))

if marks==-1:

absent\_student.append(i)

else:

score.append(marks)

total+=marks

def avg():

Average=total/(len(score))

print("Average of score of the class : ",Average)

def maxi():

max = score[0]

for mark in score:

if max < mark:

max = mark

print("Highest score of class is : ",max )

def mini():

min=score[0]

for mark in score:

if mark<min:

min=mark

print("Lowest score of class is : ",min)

def freq():

max = j = 0

print("\nMarks\t|\tFrequency")

for i in score:

if(score.index(i)==j):

print(i,"\t|\t",score.count(i))

if(max<score.count(i)):

max = score.count(i)

mark = i

j += 1

print("\nScore",mark,"is with highest frequency",max)

while(1):

print("\nEnter\n1.Average\n2.High score\n3.Lowest Score\n4.Higest Frequency\n5.No. of Absent Students\n6Name of the absent students")

o=input()

if o=='1':

avg()

elif o=='2':

maxi()

elif o=='3':

mini()

elif o=='4':

freq()

elif o=='5':

print("No. of students absent for FDS test : ",len(absent\_student))

elif o=='6':

print("Name of students who were absent for the test are: ",absent\_student)

else:

print("Invalid command !!!")

Break

OUTPUT:-

How many students are there in the Class?-->10

Name of the student 1 is : amar

Name of the student 2 is : amarnath

Name of the student 3 is : arpan

Name of the student 4 is : gourav

Name of the student 5 is : soham

Name of the student 6 is : shravani

Name of the student 7 is : madhura

Name of the student 8 is : thete

Name of the student 9 is : pruthvi

Name of the student 10 is : divyanshu

Students in class: ['amar', 'amarnath', 'arpan', 'gourav', 'soham', 'shravani', 'madhura', 'thete', 'pruthvi', 'divyanshu']

Marks scored by student amar in FDS test is:(put marks -1 for absent students) : 23

Marks scored by student amarnath in FDS test is:(put marks -1 for absent students) : -1

Marks scored by student arpan in FDS test is:(put marks -1 for absent students) : 27

Marks scored by student gourav in FDS test is:(put marks -1 for absent students) : 20

Marks scored by student soham in FDS test is:(put marks -1 for absent students) : 25

Marks scored by student shravani in FDS test is:(put marks -1 for absent students) : 25

Marks scored by student madhura in FDS test is:(put marks -1 for absent students) : 26

Marks scored by student thete in FDS test is:(put marks -1 for absent students) : 15

Marks scored by student pruthvi in FDS test is:(put marks -1 for absent students) : -1

Marks scored by student divyanshu in FDS test is:(put marks -1 for absent students) : 26

Enter

1.Average

2.High score

3.Lowest Score

4.Higest Frequency

5.No. of Absent Students

6Name of the absent students

1

Average of score of the class : 23.375

Enter

1.Average

2.High score

3.Lowest Score

4.Higest Frequency

5.No. of Absent Students

6Name of the absent students

2

Highest score of class is : 27

Enter

1.Average

2.High score

3.Lowest Score

4.Higest Frequency

5.No. of Absent Students

6Name of the absent students

3

Lowest score of class is : 15

Enter

1.Average

2.High score

4.Higest Frequency

4.Higest Frequency

5.No. of Absent Students

6Name of the absent students

4

Marks | Frequency

23 | 1

27 | 1

20 | 1

25 | 2

26 | 2

15 | 1

Score 25 is with highest frequency 2

Enter

1.Average

2.High score

3.Lowest Score

4.Higest Frequency

5.No. of Absent Students

6Name of the absent students

5

No. of students absent for FDS test : 2

Enter

1.Average

2.High score

3.Lowest Score

4.Higest Frequency

5.No. of Absent Students

6Name of the absent students

6

Name of students who were absent for the test are: ['amarnath', 'pruthvi']

Enter

1.Average

2.High score

3.Lowest Score

4.Higest Frequency

5.No. of Absent Students

6Name of the absent students

7

Invalid command !!!