Name : Shruti Baravkar

Exam seat no:

Roll no : SE265

Batch : B1

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Assignment-2

Experiment Number 2 : Write a python program to store marks stored in subject "Fundamentals of Data Structure" by

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

1. The average score of the class.

2. Highest score and lowest score of the class.

3. Count of students who were absent for the test.

4. Display mark with highest frequency.

def average(listofmarks):

sum=0

count=0

for i in range(len(listofmarks)):

if listofmarks[i]!=-999:

sum+=listofmarks[i]

count+=1

avg=sum/count

print("Total Marks : ", sum)

print("Average Marks : {:.2f}".format(avg))

def Maximum(listofmarks):

for i in range(len(listofmarks)):

if listofmarks[i]!=-999:

Max=listofmarks[0]

break

for i in range(1,len(listofmarks)):

if listofmarks[i]>Max:

Max=listofmarks[i]

return(Max)

def Minimum(listofmarks):

for i in range(len(listofmarks)):

if listofmarks[i]!=-999:

Min=listofmarks[0]

break

for i in range(1,len(listofmarks)):

if listofmarks[i]<Min:

Min=listofmarks[i]

return(Min)

def absentcount(listofmarks):

count=0

for i in range(len(listofmarks)):

if listofmarks[i]==-999:

count+=1

return(count)

def maxFrequency(listofmarks):

i=0

Max=0

print("Marks | Frequency")

for j in listofmarks:

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

print(j," | ",listofmarks.count(j))

if listofmarks.count(j)>Max:

Max=listofmarks.count(j)

mark=j

i=i+1

return(mark,Max)

marksinFDS=[]

numberofstudents=int(input("Enter total number of students : "))

for i in range(numberofstudents):

marks=int(input("Enter marks of student "+str(i+1)+" : "))

marksinFDS.append(marks)

flag=1

while flag==1:

print("\n\n--------------------MENU--------------------\n")

print("1. Total and Average Marks of the Class")

print("2. Highest and Lowest Marks in the Class")

print("3. Number of Students absent for the test")

print("4. Marks with Highest Frequency")

print("5. Exit\n")

ch=int(input("Enter your Choice (from 1 to 5) :"))

if ch==1:

average(marksinFDS)

a = input("Do you want to continue (yes/no) :")

if a == "yes":

flag = 1

else:

flag = 0

print("Thanks for using this program!")

elif ch==2:

print("Highest Score in Class : ", Maximum(marksinFDS))

print("Lowest Score in Class : ", Minimum(marksinFDS))

a = input("Do you want to continue (yes/no) :")

if a == "yes":

flag = 1

else:

flag = 0

print("Thanks for using this program!")

elif ch==3:

print("Number of Students absent in the test : ", absentcount(marksinFDS))

a = input("Do you want to continue (yes/no) :")

if a == "yes":

flag = 1

else:

flag = 0

print("Thanks for using this program!")

elif ch==4:

mark,fr = maxFrequency(marksinFDS)

print("Highest frequency is of marks {0} that is {1} ".format(mark,fr))

a = input("Do you want to continue (yes/no) :")

if a == "yes":

flag = 1

else:

flag = 0

print("Thanks for using this program!")

elif ch==5:

flag=0

print("Thanks for using this program!")

else:

print("!!Wrong Choice!! ")

a=input("Do you want to continue (yes/no) :")

if a=="yes":

flag=1

else:

flag=0

print("Thanks for using this program!")

#OUTPUT

Enter total number of students : 3

Enter marks of student 1 : 50

Enter marks of student 2 : 54

Enter marks of student 3 : 76

--------------------MENU--------------------

1. Total and Average Marks of the Class

2. Highest and Lowest Marks in the Class

3. Number of Students absent for the test

4. Marks with Highest Frequency

5. Exit

Enter your Choice (from 1 to 5) :1

Total Marks : 180

Average Marks : 60.00

Do you want to continue (yes/no) :yes

--------------------MENU--------------------

1. Total and Average Marks of the Class

2. Highest and Lowest Marks in the Class

3. Number of Students absent for the test

4. Marks with Highest Frequency

5. Exit

Enter your Choice (from 1 to 5) :2

Highest Score in Class : 76

Lowest Score in Class : 50

Do you want to continue (yes/no) :yes

--------------------MENU--------------------

1. Total and Average Marks of the Class

2. Highest and Lowest Marks in the Class

3. Number of Students absent for the test

4. Marks with Highest Frequency

5. Exit

Enter your Choice (from 1 to 5) :3

Number of Students absent in the test : 0

Do you want to continue (yes/no) :yes

--------------------MENU--------------------

1. Total and Average Marks of the Class

2. Highest and Lowest Marks in the Class

3. Number of Students absent for the test

4. Marks with Highest Frequency

5. Exit

Enter your Choice (from 1 to 5) :4

Marks | Frequency

50 | 1

54 | 1

76 | 1

Highest frequency is of marks 50 that is 1

Do you want to continue (yes/no) :no

Thanks for using this program!

Process finished with exit code 0