Bahria University, Islamabad

Department of Software Engineering

Artificial Intelligence Lab

(Fall-2021)

Teacher: Engr. M Waleed Khan

Student : M Iqrar Ijaz Malik

Enrollment : 01-131182-021

Lab Journal: 2

Date: 10-11-2021

Task No:	Task Wise Marks		Documentation Marks		Total Marks (20)
	Assigned	Obtained	Assigned	Obtained	
1	15		5		

Comments:

Signature

LAB

Lab No: 2

Getting Started with Python (Part-2)

Introduction

- **Collections:**
  Collections in Python are containers that are used to store collections of data, for example, list, dict, set, tuple etc. These are built-in collections. Several modules have been developed that provide additional data structures to store collections of data. One such module is the Python collections.
- **mLists:**
  Python knows several compound data types, used to group together other values. The most versatile is the list, which can be written as a list of comma-separated values (items) between square brackets. Lists might contain items of different types, but usually the items all have the same type.
- **Tuples:**
  We saw that lists and strings have many common properties, such as indexing and slicing operations.
  They are two examples of sequence data types (see Sequence Types — list, tuple, range). Since Python is an evolving language, other sequence data types may be added. There is also another standard sequence data type: the tuple.

Tools Used

Tool used to perform this task is **PyCharm Community Addition**

Task 1: Dr. John Wesley has a spreadsheet containing a list of student's ID, marks, class and name.

Your task is to help Dr. Wesley calculate the average marks of the students.

Average = Sum of all marks/Total Students

Note:

1. Columns can be in any order. IDs, marks, class, and name can be written in any order in the spreadsheet.

2. Columns names are ID, MARKS, CLASS and NAME. (The spelling and cast type of these names won't change).

Input Format:

The first line contains an integer N, the total number of students

The second line contains the names of the columns in any order.

The next N lines contains the MARKS, IDs, NAME and class, under their respective column names.

Constraints:

0 < N <= 100

Output Format: Print the average marks of the list corrected to 2 decimal places.

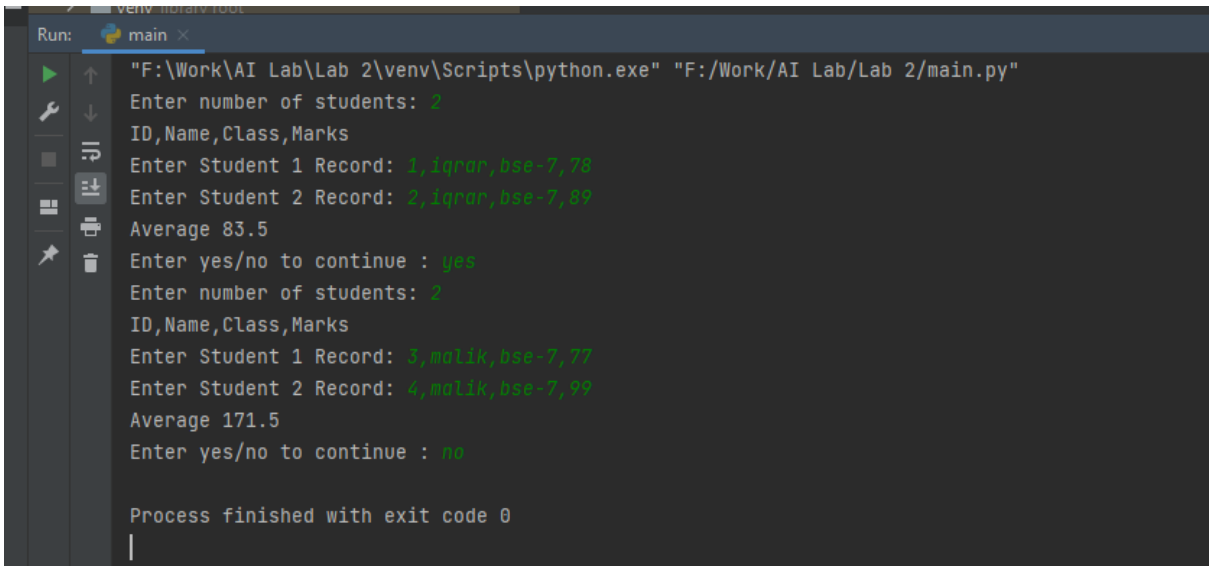
Code

main.py

```
student_table = {}


def Average_Calculator():
    student = int((input("Enter number of students: ")))
    print("ID,Name,Class,Marks")
    for i in range(student):
        temp = list(input("Enter Student " + str(i + 1) + " Record: ").split(","))
        student_id = temp[0]
        del temp[0]
        student_table[student_id] = temp
    sum = 0
    for i in student_table.keys():
        sum += int(student_table[i][2])
    print("Average", sum / student)

```

```
Average_Calculator()
while True:
    a = input("Enter yes/no to continue : ")
    if a == "yes":
        Average_Calculator()
        continue
    elif a == "no":
        break
    else:
        print("Enter either yes/no")

```

Screenshot



Conclusion

I completed the tasks given to us and pasted output above.