Ankara University
Computer Engineering Department
COM2067/COM267 LAB4

A lecturer teaches 4 different classes of Data Structures. The number of students in these classes may be different. Using the node structures given below, perform the given assignment. Be careful to leave student list as sorted when performing the insert operation. Sort will be performed in decreasing order based on the midterm scores. After the insert operation is complete, the midterm average of each class will be calculated. The computed midterm average will be written to classMidtermAverage in the class list. Then the id of each class and the midterm average will be printed on the screen. Write a print method that prints all the structure on the screen to show that the lists are created correctly -**void printAll(nodeClass *head)**. Students who begin with StudentID 66 are in class 1, students starting with 77 in class 2, students starting with 88 are in class 3, and students starting with 99 are in class 4.

Example Input (studentId midterm)

```
99215  75
66123  45
66127  50
99321  90
88234  90
88313  45
77245  65
77248  70
99218  70
99219  80
77445  75
-1
```

Example Output (**classId classMidtermAverage**)

```
1   47.50
66127  50
66123  45
2   70.00
77445  75
77248  70
77245  65
3   67.50
88234  90
88313  45
4   78.75
99321  90
99219  80
99215  75
99218  70
```

struct nodeClass
{
    int classID;
    double classMidtermAverage;
    struct nodeClass *next;
    struct nodeStudent *studentPtr;
};

struct nodeStudent
{
    int studentID;
    int midterm;
    struct nodeStudent *next;
};