

Ankara University
Computer Engineering Department
COM267 HW 3
Due Date: 02.11.2018 23:59

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, students with the lowest midterm will be deleted from the list until the class numbers are equalized. After this process, the midterm average of each class will be calculated and 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 are 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
```

(Note: You will call printAll function to display all the structure.)

Example Output (classId classMidtermAverage)

```
1 47.5
66127 50
66123 45
2 72.5
77445 75
77248 70
77245 65
3 67.5
88234 90
88313 45
4 85.0
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;
};
```

