Project 7

Tuesday April 18

Project 7

Implement a program that produces two grade lists. The input to the program will be an integer specifying the number of students followed by lines of student data. Each line will contain a 5 digit student ID# (you will treat this a string), a last name and two test scores. For each student the program will compute the average test score. After the program has computed the average of the test scores it will print two class lists. The first list will be sorted by name in alphabetical order. The second list will be sorted by average test score in descending order. The average should be printed with two digits after the decimal point. In the list sorted by average test scores use the last name as a secondary sort key for averages that are the same. See the example below. Your sorting algorithm must use an insertion sort.

Your implementation must use parallel arrays. Next week when I start classes/objects I will show you a different want to solve a problem like this but you implementation for project 7 cannot create any new classes.

Project 7 Example Input and Output

Input

```
9
21654 Gagne 95 93
98714 Green 87 92
90765 Doe 72 65
48725 Wilson  88 73
71625 Gagnon 64 73
65495 Perez 83 85
97721 Segura 82 78
87107 Baker 63 52
77162 Anderson 74 63
```

Output

ID#	Name	T1	T2	AVG
77162	Anderson	74	63	68.50
87107	Baker	63	52	57.50
90765	Doe	72	65	68.50
21654	Gagne	95	93	94.00
71625	Gagnon	64	73	68.50
98714	Green	87	92	89.50
65495	Perez	83	85	84.00
97721	Segura	88	91	89.50
48725	Wilson	88	73	80.50

ID#	Name	T1	T2	AVG
21654	Gagne	95	93	94.00
98714	Green	87	92	89.50
97721	Segura	88	91	89.50
65495	Perez	83	85	84.00
48725	Wilson	88	73	80.50
77162	Anderson	74	63	68.50
90765	Doe	72	65	68.50
71625	Gagnon	64	73	68.50
87107	Baker	63	52	57.50

Project 7 Requirements

- You must write the code yourself

- The name of the class must be **ClassLists** and the file containing your program must be called **ClassList.java.** Remember java is case sensitive.

- Include a comment describing the purpose of the program. The comment should include your name. Include a comment in each method that briefly explains **what (not how)** the method does

- You can ask questions of your classmates but you **MUST NOT** share code. If you have a question it is usually better to ask me.

- Use meaningful **variable names and proper indentation**.

- This is a hard program. Start early!

Project 7 Submission

- Upload one zip file to Canvas. The zip file must contain only one file called ClassLists.java.

- The project is worth 60 points. The project must be submitted on time.

-