CSCI 2170 OLA 3 (due: midnight, Wednesday, Sept 23rd, Deadline: midnight, Sept 30th)

An organization that your little cousin belongs to is selling low-fat cookies. If your cousin's class sells more cookies than any other class, the teacher has promised to take the whole class on a picnic. Of course, your cousins volunteered you to keep track of all the sales and determine the winner.

Each class has an identification name. Each sales slip has the class identification name and the number of boxes sold. You decide to create two arrays: one to hold the identification numbers and one to record the number of boxes sold. The identification numbers range from 1 through 15. Here is a sample of the data:

Class Name	Boxes Sold	
Dragon	23	← this is the first line of the data file
Panda	8	
Tiger	13	
Tiger	7	
Dragon	5	
Panda	6	
Peacock	18	

The first time class name is read, store it in the next free slot in the array of class names and initialize the corresponding position in the array of boxes sold to the number sold on the sales slip. Each subsequent time the class name is read, add the number of boxes sold to the corresponding position in the array of boxes sold. With the above data, the two arrays should look like this:

className:

Dragon	**Panda**	**Tiger**	**Peacock**					

boxes:

28	**14**	**20**	**18**					

When there are no more sales slips, scan the array of boxes sold for the largest value. The class name in the corresponding position in the array of "className" is the class that wins. Your program should output in a table format the number of boxes sold by each class, and output a message showing the winning class name.

Implementation requirements: your program should have at least the following 3 user defined functions:

- **ReadData** (reads the sales information from **boxes.dat**, and performs the appropriate accumulations of boxes sold)
- **FindWinner** (scans the total number of boxes sold by each class, and finds the class that sold the most boxes)
- **DisplayResults** (prints the number of boxes sold by each class in table format and displays the winner class)

Write your program and run it using data file **boxes.dat**. You can copy this data file from my account by using the following command:

cp ~cen/data/boxes.dat your-workspace/project-folder

<u>Programming and submission instructions:</u>

- Name your program **boxes.cpp**.
- After you have successfully debugged your program and the program produces correct output, electronically submit the program using the dropbox "Open Lab 3" on D2L. Submit the source code "boxes.cpp" only.