Computer Science 220
Fall 2012
Program 5

Due: Thursday, October 2, 2012 at 10:50 AM

Learning objectives:
- Develop a Python program that uses numeric data from a text file.

Assignment:
A professor at Hardtack University has an unusual method of grading. The students may or may not all take the same number of tests. The individual tests are weighted, and these weights are used to compute the student's average. **Important:** the weights for all of the tests for a given student must add to 100. Assuming that $w_1 \ldots w_n$ are the weights, and $g_1 \ldots g_n$ are the grades, the average is computed by the formula:

```
((w₁ * g₁) + (w₂ * g₂) + ... + (wₙ * gₙ)) / 100
```

The names of the students and their grades, with weights, are stored in a text file in the format `firstName lastName` w_1 g_1 w_2 g_2 $\ldots$ w_n g_n

Write the program `weightedAverage.py`. Ask the user to enter the name of a file of grades. Compute and print each student's average, using the formula given above. Then compute and print the class average. Display all averages to one decimal place.

For example, if the text file contains:

```
Billy Bother 20 89 30 94 50 82
Hermione Heffalump 40 93 60 97
Kurt Kidd 20 88 30 82 40 76 10 99
```

Then the output might look like this:

```
Billy Bother's average: 87.0
Hermione Heffalump's average: 95.4
Kurt Kidd's average: 82.5

Class average: 88.3
```

Submission:
Submit `weightedAverage.py` to your class account.

Policies:
The policies given in Program 1 are in effect for this and all assignments. Do not forget to include your name and the Certification of Authenticity.