Submit the source file and the output file with your name and assignment number to Canvas

Objective: File I/O, random number generator

Write a program to compute average numeric grades for a course. The course records are in a file that will serve as the input file. The input file is in exactly the following format: Each line contains a student's last name, then one comma, then the student's first name, then one space, then up to ten quiz scores all on one line.

The quiz scores are whole numbers and are separated by one space. Your program will take its input from this file and send its output to a second file.
The data in the output file will be the same as the data in the input file except that there will be one additional number (of type double) at the end of each line. This number will be the average of the student's ten quiz scores.

- Generate a random integer, N, that can be any number between (0 <= N <= 10). This number represents the number of quizzes each student takes; it can be 10 at most if the student completes all the quizzes.
- Now generate N random integers between 1 and 20 that represent the quiz scores.
- Input the student names along with their quiz scores onto a file.
- Repeat this for 10 students.
- Compute the average score for each student and store it along with the grades in an output file. If a student missed some quizzes the average is still the total score divided by 10.

Sample input file:

Smith, Adam 20 19 18 17 16 15 14 13 12 11
Randal, Bob 12 13 4 19 12 13 1
Delony, Danny 20 20 20 20 20 20 20
Cooly, Carly 20 20 20 20 20 20 20 20 20 20
Genius, Gina 10 10

Sample output file:
"This file displays the students' quiz scores along with the average score for each student."

Smith, Adam 20 19 18 17 16 15 14 13 12 11: 15.5
Randal, Bob 12 13 0 4 19 12 13: 7.3
Delony, Danny 20 20 20 20 20 20 20: 14.0
Cooly, Carly 20 20 20 20 20 20 20 20 20 20: 20.0
Genius, Gina 10 10: 2.0

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Method:

Your program should be modularized and support abstractness. For this reason, your program consists of functions.

1- A function that will generate a random int between 0 and 10.
2- Another function that would generate a random integer between 1 and 20.
3- Input/output functions.
4- Function that does averaging.

Note: Use functions that have file streams as all or some of their arguments.
Note: Submit your output file along with the source code.