CodeStepByStep

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averageValueInFile ♡

Language/Type:	C++ basics streams file input
Related Links:	string istream

Write a function named **averageValueInFile** that accepts a file name as a parameter and reads that file, assumed to be full of real numbers, and returns the average (mean) of the numbers in that file. The parameter, filename, gives the name of a file that contains a list of real numbers. There could be anywhere from zero to many values per line separated by any number of blank spaces. You may assume that the file exists and follows the proper format. For example, if a file named `input.txt` contains the following numbers

```
 1.5
  2.75  9.0

-3.25  0.0       6.5
```

Then the call of
`averageValueInFile("input.txt");`
should return `2.75`.

You may assume that the input file exists and is in the proper format. If the file does not contain any input values, return `0.0`.

Constraints: Your solution should read the file only once, not make multiple passes over the file data.

.
.
.

```
1 double averageValueInFile(string values)
2 {
3     ifstream reading(values);
4     double numbers = 0;
```

```
 5      double sum = 0;
 6      int counting=0;
 7
 8      for ( ;reading >> numbers; )
 9      {
10          sum = sum + numbers;
11          counting++;
12      }
13
14      if (counting == 0)
15      {
16          return 0.0;
17      }
18
19      reading.close();
20      return sum / counting;
21  }
```

Function: Write a C++ function as described, not a complete program.

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✅ **You passed 4 of 4 tests.**   ✖

test #1:	averageValueInFile("averageValueInFile-test1-data.txt")
file input:	<u>averageValueInFile-test1-data.txt:</u>
	1.5
	2.75 9.0
	-3.25 0.0 6.5
return:	2.75
result:	✅ pass

test #2:	averageValueInFile("averageValueInFile-test2-data.txt")
file input:	<u>averageValueInFile-test2-data.txt:</u>
	1000.75 925.0 98776.25
	-29827 3.25 873666.0
return:	157424.0
result:	✅ pass

test #3:	averageValueInFile("averageValueInFile-test3-data.txt")
file input:	<u>averageValueInFile-test3-data.txt:</u>
	42.0
return:	42.0
result:	✅ pass

test #4:	averageValueInFile("averageValueInFile-empty-data.txt")

file input:	averageValueInFile-empty-data.txt:
return:	0.0
result:	✅ pass

Testing began at 2023/04/02 20:30 (PDT) and ran for 1285 ms.

Need help?   ℹ

Stuck on an exercise? Contact your TA or instructor.

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