CodeStepByStep

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< Date

You are working on problem set: Project 4 (⏸ Pause)

❓ mostCommon ♡

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

Write a function named **mostCommon** that accepts a string parameter representing a file name, then opens/reads that file's contents, and returns the word that occurs most frequently in the file. Words are separated by one or more spaces. Assume that any duplicate words will occur consecutively. If there is a tie, use the earlier word. You may assume that the string contains at least one word. For example, the following file's data will cause your function to return "Kim" because the word Kim occurs 3 times:

```
Ben Eric  Eric Marty Kim
Kim Kim  Jenny   Nancy
Nancy  Nancy  Paul    Paul
```

.
.
.

```cpp
1
2  string mostCommon( string filename ) {
3
4      ifstream input( filename );
5      string line;
6      string mostFreqUsedWord;
7      string token;
8      int highestwrdcount = 0;
9      int currentwrdcount = 0;
10     string currentword;
11     bool firsttime = true;
```

```
12
13          cout << endl;
14          if ( input.is_open() ) {
15              while ( true ) {
16                  input >> token;
17                  if( input ) {
18                      if(firsttime){
19                          currentwrdcount = 1;
20                          currentword = token;
21                          mostFreqUsedWord = token;
22                          firsttime = false;
23                      }
24                      else{
25                          if(currentword == token){
26                              currentwrdcount++;
27                          }
28                          else
29                          {
30                              if(highestwrdcount < currentwrdcount){
31                                  mostFreqUsedWord = currentword;
32                                  highestwrdcount = currentwrdcount;
33                              }
34                              else
35                              {
36                                  currentwrdcount = 1;
37                                  currentword = token;
38                              }
39                          }
40                      }
41
42                  } else {
43                      break;
44                  }
45              }
46              if(highestwrdcount < currentwrdcount){
47                  mostFreqUsedWord = currentword;
48                  highestwrdcount = currentwrdcount;
49              }
50              input.close();
51          }
52          else {
53              cout << "Unable to open file." << endl;
54          }
55
56          return mostFreqUsedWord;
57
58      }
```

Bare code. Write a fragment of C++ code as described,
without any `main` function or heading around your code.

🚀 Submit   ⚙️

✅ You passed 5 of 5 tests. ✕

test #1:	mostCommon("mostCommon-test1-data.txt")
file input:	mostCommon-test1-data.txt: Ben Eric Eric Marty Kim Kim Kim Jenny Nancy Nancy Nancy Paul Paul
return:	"Kim"
result:	✅ pass

test #2:	mostCommon("mostCommon-test2-data.txt")
file input:	mostCommon-test2-data.txt: Ed Ed Ed Ed Ed Joe Joe Joe Joe Marty Marty Marty Marty Marty Steve Steve Steve
return:	"Ed"
result:	✅ pass

test #3:	mostCommon("mostCommon-test3-data.txt")
file input:	mostCommon-test3-data.txt: Steve Steve Nick Nick Julie Julie Julie
return:	"Julie"
result:	✅ pass

test #4:	mostCommon("mostCommon-test4-data.txt")
file input:	mostCommon-test4-data.txt: Stuart Helene Marty Allison Zorah Adam Cynthia
return:	"Stuart"
result:	✅ pass

test #5:	mostCommon("mostCommon-test5-data.txt")
file input:	mostCommon-test5-data.txt: Zod
return:	"Zod"
result:	✅ pass

Testing began at 2023/04/23 18:05 (PDT) and ran for 1404 ms.

Need help?

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