proj3_vector_sort

Assignment

Write a word count application which does the following;

1. Opens an input file for reading.
2. Reads all the words from the file, count the number of times each word occurs and records this data in a vector.
3. Sorts the vector
4. Writes the sorted vector to an output file.

Where to start:
Define all the functions in array_functions.cpp, and fileio.cpp, just enough to get it to compile, then run it. You will then see the output of running all tests plus your grade. Then begin filling in the implementation for each function.

Note:Notice that content in array_functions.h is in namespace KP and all constants are in namespace constants.

Helpful Bits
ONLY MAKE CHANGES TO array_functions.cpp and fileio.cpp. THESE ARE THE ONLY FILES OF YOURS THAT I WILL TEST

- See the starter project . I have given you quite a bit of code. Use the declarations in the includes folder as a guide to what you need to implement.
- To turn a std::string into a const std::string use c_str() method of string.
- Make sure you call strip_unwanted_chars to get rid of rubbish chars in a token
- Use stringstream to parse each line. Here is a bit of code that may help:

```
:
#include <sstream>

void extractTokensFromLine(std::vector<constants::entry>
&entries,std::string &myString) {

	stringstream ss(myString);
	string tempToken;

	while (getline(ss, tempToken, constants::CHAR_TO_SEARCH_FOR)) {
		processToken(entries, tempToken);
	}
```

```
}
```

This function takes myString and searches for tokens separated by `constants::CHAR_TO_SEARCH_FOR` (which is a space). This constant is defined in the file constants.h.

- Please use the struct in constants to hold token information .

Testing and Verification
This project has a built in tester which runs various tests on your code and will use the test results to calculate your grade.

Sample Run
See ./data folder in the sample project. testdata_full contains some words, testdata_full_processed is correct output after running project2.cpp's test_file function with no sorting.

To Turn In
I just want your array_functions.cpp, and fileio.cpp files, nothing else. Please do not zip this file. Please do not change any of the .cpp or .h files I give you, please do not add any files that your array_functions.cpp depends on since I will not have access to them.

Scary parts
I'm using a templates in testing.cpp . Its sorta like a Java generic, Don't worry about it. Its there to condense code.
I'm also using popen in testing.cpp as a way to run another process, in this case some linux cleanup code and a diff tool. The diff tool that I am using is the standard one from a linux install. I've noted its details in the code.

Grading
Points awarded as per project output (as long as functions attempted).

Special cases:
-5 turn in more than array_functions.cpp
-100 does not compile