```cpp
/**
if arg1 < arg2 returns a negative number
if arg1 > arg2 returns a positive number
if arg1 == arg2 returns zero
*/

////
// Name: Nancy Programmer
// Section: A, B, or S
// Program Name: MYString Tester
//
// Description: A brief description of the program.  What does the
//  program do (not how it does it: for example, it uses loops)?  Does
//  the program get input?  What kind?  What information is output
//  from the program and to where (screen or file)
////

#include <iostream>
#include <fstream>
#include <vector>
#include <iomanip>
#include "JCString.h"
#include <iostream>

using namespace std;
vector<JCString> vectorSort(const vector<JCString>& wordVec);

int main()
{ // This is a vector of Jeff Strings we need to implement
    vector<JCString> words(100);        // calls default constructor 100 times
    ifstream fin("infile2.txt");

    // READ
    if (fin.fail()) {
        cout << "Couldn't open infile2.txt" << endl;
```

```
36          system("pause");
37          exit(1);
38      }
39
40      int wordCnt = 0;
41      for (wordCnt; words[wordCnt].read(fin); ++wordCnt) {       // empty loop
42          //cout << words[wordCnt].c_str() << '\t';      // for verifying input
43      }
44      words.resize(wordCnt);            //shrink vector to size used
45
46      // SORT
47      vector<JCString> sortedVec = vectorSort(words);
48
49      ofstream outfile("outfile1.txt", ios::app);
50
51      if (!outfile)
52      {
53          cout << "Error Opening File" << endl;
54          return 1;
55      }
56
57      int line = 0;
58      for (JCString str : sortedVec)
59      {
60          outfile << setw(13);
61          str.write(outfile);
62          line++;
63
64          if (line % 6 == 0)
65          {
66              outfile << endl;
67          }
68
69      }
70
```

```
71      outfile.close();
72
73      return 0;
74      // OUTPUT
75
76
77  }
78
79  vector<JCString> vectorSort(const vector<JCString> &wordVec)
80  {
81      bool notDone = false;
82      int i = 0;
83      vector<JCString> sortedVec = wordVec;
84
85      do {
86          notDone = false;
87          for (i = 0; i < sortedVec.size() - 1; i++)
88          {
89              //greater means it comes later in the alphabet to sort things
90              // we put greater ones futher up futher in the vector
91              if ( sortedVec.at(i + 1).lessThan(sortedVec.at(i)) )
92              {
93                  JCString holder = sortedVec.at(i);
94                  sortedVec[i] = sortedVec[i + 1];
95                  sortedVec[i + 1] = holder;
96                  notDone = true;
97              }
98          }
99
100     } while (notDone);
101
102     return sortedVec;
103 }
104
105
```

```
106
107         // OUTPUT to the outfile.txt
108
109
```