```cpp
 1   #include <string>
 2   #include <iostream>
 3   #include <algorithm>
 4   #include <fstream>
 5   #include <iomanip>
 6   #include <queue>
 7
 8   using namespace std;
 9
10   struct bryntype {
11       int numberofmajors;
12       string fieldofstudy;
13   };
14
15   int main() {
16   ifstream inf;
17   ofstream outf;
18   inf.open("datafile.txt");
19   outf.open("outputfile.txt");
20   queue<bryntype> intstringqueue;
21   bryntype classdata;
22   while (!inf.eof()){
23       inf >> classdata.numberofmajors >> classdata.fieldofstudy >> ws;
24       intstringqueue.push(classdata);
25   }
26   outf << "Number of elements in queue: " << intstringqueue.size() << endl;
27   outf << "Elements in queue: " << endl;
28   while (!intstringqueue.empty()) {
29       outf << setw(12) << left << intstringqueue.front().fieldofstudy << " " << ↵
         intstringqueue.front().numberofmajors << endl;
30       intstringqueue.pop();
31   }
32   outf << endl;
33   system("pause");
34   }
35
36
37
```