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1  package Assign_2;
2
3  import BasicIO.*;
4
5  public class Process
6  {
7      private WordReader read;
8      private Node list;
9      private ASCIIIDisplayer display;
10
11     public Process()
12     {
13         String words;
14         read = new WordReader();
15         display = new ASCIIIDisplayer();
16
17         for(;;)
18         {
19             words = read.readWord();
20             search(words);
21             if (read.isEOF()) break;
22         }
23         sortList();
24         printOut(list);
25     } // constructor
26     private void search(String words) //this method use to search the actual word
27     {
28         Node p;
29         Word word;
30         p = list;
31         for(;;)
32         {
33             if(p == null) break;
34             if (words.equalsIgnoreCase(p.item.getWord()))
35             {
36                 int frequency = p.item.getFreq();
37                 p.item.theFreq(frequency + 1);
38                 return;
39             }
40             p = p.next;
41         }
42         word = new Word(words, 1);
43         if (list == null)
44         {
45             list = new Node(word, null);
46         }
47         else
48         {
49             Node q = new Node(word, null);
50             q.next = list;
51             list = q;
52         }
53     }
54     private void sortList() //this method used node to move and save the information
55     {
56         Node p;
57         Node q;
58
59         p = list;
60
61         if (list.next == null) return;

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62
63     while (p != null)
64     {
65         q = p.next;
66         while (q != null)
67         {
68             if (p.item.getFreq() < q.item.getFreq())
69             {
70                 Word word = p.item;
71                 p.item = q.item;
72                 q.item = word;
73             }
74             q = q.next;
75         }
76         p = p.next;
77     }
78 }
79 private void printOut(Node list) { //this method is used to output the data
80     Node p;
81     p = list;
82     while (p != null) {
83         display.writeInt(p.item.getFreq());
84         display.writeString(p.item.getWord());
85         display.newLine();
86         p = p.next;
87     }
88     display.close();
89 }
90 public static void main(String[] args) {Process a = new Process();}
91
92 }
93 //xinan wang NO.5535802

```