

```

1 import java.util.*;
2 import BasicIO.*;
3
4 /**
5  * This program produces a cross reference of a given source file, sampleSource.dat, against a given
6  * key file, reservedWords.dat.
7  *
8  * @author Matt Laidman
9  * @version 1.0 (February 2014)
10 */
11
12
13 public class crossReferencer {
14
15     private ASCIIDataFile kFile = new ASCIIDataFile();
16     private ASCIIDataFile sFile = new ASCIIDataFile();
17
18     Node wordList;
19     Node sourceList;
20
21     public crossReferencer() {
22         wordList = getWords(kFile, wordList);
23         sourceList = getWords(sFile, sourceList);
24         compare(wordList, sourceList);
25     }
26
27
28     private void compare (Node key, Node source) {
29
30         ASCIIDisplayer display = new ASCIIDisplayer(35, 35);
31         Node p, q;
32         String last = "";
33
34         display.show(); // print header
35         display.writeLine("Cross Reference of " + kFile.getFile() + " against "
36             + sFile.getFile() + "\n\nKey Word\t\tLine Number");
37         display.writeLine("-----");
38
39         p = key;
40         while (p != null) { // Loop through key list
41             if (!p.item.equals(last)) { // check to see if doubles in key
42                 display.writeString(p.item + "\t\t");
43                 q = source;
44                 while (q != null) { // Loop through source list
45                     if (q.item.equals(p.item)) { // if items are equal print
46                         line number
47                         display.writeString(q.line + " ");
48                     }
49                     q = q.next;
50                 }
51                 display.newLine();
52                 last = p.item;
53                 p = p.next;
54             }
55         }
56
57     private Node getWords(ASCIIDataFile words, Node list){

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58
59     String line;
60     String word;
61     int lNum = 0;
62     Node p, q;
63
64     while (!words.isEOF()) {
65         lNum++;
66         line = words.readLine(); // read in whole line
67         if (!words.successful()) break;
68         StringTokenizer st = new StringTokenizer(line, " \\t", false); //
tokenize line, space delims
69         while (st.hasMoreTokens()) {
70             word = st.nextToken(); // get token
71             q = null;
72             p = list;
73             while (p != null && word.compareToIgnoreCase(p.item) >= 0) {
74                 q = p;
75                 p = p.next;
76             }
77             if (q == null) { // add to place/end of list
78                 list = new Node(word, lNum, p);
79             } else {
80                 q.next = new Node(word, lNum, p);
81             }
82         }
83     }
84     return list;
85 }
86
87
88 public static void main(String[] args) {new crossReferencer();}
89 }

```