

```
1: // $Id: sortlist.java,v 1.1 2012-02-09 18:54:08-08 - - $
2:
3: import java.util.Scanner;
4: import static java.lang.System.*;
5:
6: class sortlist {
7:
8:     static class list_t {
9:         node_t head;
10:     }
11:     static class node_t {
12:         String item;
13:         node_t link;
14:     }
15:
16:     static void insertascending (list_t list, String newitem) {
17:         node_t prev = null;
18:         node_t curr = list.head;
19:
20:         // Find the insertion position.
21:         while (curr != null) {
22:             if (curr.item.compareTo (newitem) > 0) break;
23:             prev = curr;
24:             curr = curr.link;
25:         }
26:
27:         // Do the insertion.
28:         node_t temp = new node_t();
29:         temp.item = newitem;
30:         temp.link = curr;
31:         if (prev == null) list.head = temp;
32:         else prev.link = temp;
33:     }
34:
35:     public static void main (String[] args) {
36:         Scanner stdin = new Scanner (System.in);
37:         list_t list = new list_t();
38:
39:         while (stdin.hasNextLine()) {
40:             String line = stdin.nextLine();
41:             insertascending (list, line);
42:         }
43:
44:         for (node_t curr = list.head; curr != null; curr = curr.link) {
45:             out.printf ("%s\n", curr.item);
46:         }
47:     }
48: }
49:
50:
51: /*
52: //TEST// (echo "{{Note the ordering of special characters.}}" \
53: //TEST// ;echo "testing the sort" \
54: //TEST// ;echo "is the output sorted" \
55: //TEST// ;echo "Output should be in lexicographic order." \
56: //TEST// ;echo "from this program, is sorted" \
57: //TEST// ;echo "a last line is given" \
58: //TEST// ;echo "BUT A CAPITAL LINE COMES FIRST" \
59: //TEST// ;echo "//Slashes//" \
60: //TEST// ) | runprog -x sortlist.lis -0- ./sortlist
61: //TEST// mkpspdf sortlist.ps sortlist.j* sortlist.lis*
62: */
63:
```

[illegible]

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1:
2: ::::::::::::::::::::::::::::::::::::::::::::
3: log: sortlist.log
4: ::::::::::::::::::::::::::::::::::::::::::::
5:
6:      1 Script   : /afs/cats.ucsc.edu/courses/cmcs012b-wm/bin/runprog
7:      2 limit c  :    0 max core file size (KB)
8:      3 limit f  : 4194303 max output file size (KB)
9:      4 limit t  : 4294967295 max CPU time (sec)
10:     5 stdin   : -
11:     6 stdout  : sortlist.out
12:     7 stderr  : sortlist.err
13:     8 log     : sortlist.log
14:     9 listing : sortlist.lis
15:    10 Command : ./sortlist
16:    11 starting: pid 2855: 18:38:16.00
17:    12 finished: pid 2855: 18:38:16.00, real 0.00, user 0.07, sys 0.03
18:    13 pstatus: 0x0000 EXIT STATUS = 0
19:
20: ::::::::::::::::::::::::::::::::::::::::::::
21: stdout: sortlist.out
22: ::::::::::::::::::::::::::::::::::::::::::::
23:
24:      1 //Slashes//
25:      2 BUT A CAPITAL LINE COMES FIRST
26:      3 Output should be in lexicographic order.
27:      4 a last line is given
28:      5 from this program, is sorted
29:      6 is the output sorted
30:      7 testing the sort
31:      8 {{Note the ordering of special characters.}}
32:
33: ::::::::::::::::::::::::::::::::::::::::::::
34: stderr: sortlist.err
35: ::::::::::::::::::::::::::::::::::::::::::::
36:
```