

```

1: import java.io.*;
2: import java.util.LinkedList;
3: public class topsort {
4:
5:     static BufferedReader ent = new BufferedReader ( new InputStreamReader (System.in) );
6:
7:     static String linha[];
8:
9:     static int intervalo, entradas, master, slave;
10:
11:     public static void main (String cmdline[]) throws IOException {
12:
13:         linha = ent.readLine().split("\\s");
14:
15:         intervalo = Integer.parseInt( linha[0] );
16:         entradas = Integer.parseInt ( linha[1] );
17:
18:         LinkedList[] varal = new LinkedList[intervalo+1];
19:
20:         for (int i=1; i<=intervalo; i++) {
21:             varal[i] = new LinkedList();
22:         }
23:         for (int e=0; e<entradas; e++) {
24:             linha = ent.readLine().split("\\s");
25:
26:             slave = Integer.parseInt( linha[0] );
27:             master = Integer.parseInt( linha[1] );
28:
29:             varal[master].add (slave);
30:         }
31:
32:         LinkedList resultado = new LinkedList();
33:
34:         imprimeVaral (varal);
35:
36:         ordenaTop (varal, resultado);
37:
38:         imprimeResult (resultado);
39:     }
40:
41:     public static void imprimeVaral (LinkedList[] myVaral) {
42:
43:         System.out.println("-----");
44:         for (int i=1; i< myVaral.length; i++) {
45:             System.out.print ("Master "+i+"("+myVaral[i].size()+")> ");
46:             for (int j=0; j< myVaral[i].size(); j++) {
47:                 System.out.print (myVaral[i].get(j)+" ");
48:             }
49:             System.out.println("");
50:         }
51:     }
52:
53:     public static void ordenaTop (LinkedList[] myVaral, LinkedList resultado) {
54:
55:         boolean[] visitados = new boolean[myVaral.length];
56:
57:         visitados[0] = true;
58:
59:         for (int k=1; k< myVaral.length; k++) {
60:             if ( myVaral[k].size() == 0 && !visitados[k] ) {
61:                 for (int z=1; z<myVaral.length; z++) {
62:                     myVaral[z].remove(new Integer(k));
63:                 }
64:                 visitados[k] = true;
65:                 resultado.add(k);
66:
67:                 k=1;
68:             }
69:         }
70:     }
71:
72:     public static void imprimeResult (LinkedList result) {
73:         System.out.println("-----");
74:         for (int i=0; i< result.size(); i++) {
75:             System.out.print( result.get(i) + " ");
76:         }
77:         System.out.println("");
78:         System.out.println("-----");
79:     }
80: }

```