Create edge list

An **undirected** graph is illustrated in **adjacent matrix**. Read graph and demonstrate it in **edge list**.

Input Format

The first line is number of vertices NN (1≤N≤103)(1≤N≤103).

NN next lines contain NN numbers in matrix CC building up adjacent matrix.

- If Ci,j=0Ci,j=0: no edge between vertice ii and jj.
- If Ci,j=1Ci,j=1: connection edge between vertice ii and jj.

Vertices are marked from 00 to NN – 1. Ensure that Ci,i=0Ci,i=0 with every vertice ii.

Output Format

The first line is number of edges in graph MM.

MM next lines contain 2 integers uu, vv (u<v)(u<v) corresponding to edge (u,v)(u,v) and edge (v,u)(v,u) in graph.

Note: Print edges following the lexicographical order.

Edge (a,b)(a,b) is lexicographical smaller than
edge (c,d)(c,d) when a<ca<c or (a(a = cc and bb < d)d).

Sample test

inputcopy
2 0 1 1 0
outputcopy
1 0 1
inputcopy
4 0 1 1 0 1 0 1 1 1 1 0 1 0 1 1 0
outputcopy
5 0 1 0 2 1 2 1 3 2 3