#include<stdio.h>

#include<conio.h>

int a[20][20],reach[20],n;

void dfs(int v) {

int i;

reach[v]=1;

for (i=1;i<=n;i++)

if(a[v][i] && !reach[i]) {

printf("\n %d->%d",v,i);

dfs(i);

}

}

void main() {

int i,j,count=0;

clrscr();

printf("\n Enter number of vertices:");

scanf("%d",&n);

for (i=1;i<=n;i++) {

reach[i]=0;

for (j=1;j<=n;j++)

a[i][j]=0;

}

printf("\n Enter the adjacency matrix:\n");

for (i=1;i<=n;i++)

for (j=1;j<=n;j++)

scanf("%d",&a[i][j]);

dfs(1);

printf("\n");

for (i=1;i<=n;i++) {

if(reach[i])

count++;

}

if(count==n)

printf("\n Graph is connected"); else

printf("\n Graph is not connected");

getch()

}

