#include <iostream>

using namespace std;

int a[10][10],v[10],x=0,n,vertex[10];

void dfs(int i)

{int j;

v[i]=1;

for(j=0;j<n;j++)

{

if(a[i][j]==1 && v[j]==0)

dfs(j);

}

vertex[x++]=i;

}

int main()

{

int i,j,count=0;

cout<<"enter the number of nodes"<<endl;

cin>>n;

cout<<"enter the adjacency matrix"<<endl;

for(i=0;i<n;i++)

{ v[i]=0;

for(j=0;j<n;j++)

cin>>a[i][j];

}

for(i=0;i<n;i++)

{

if(v[i]==0)

{ count++;

dfs(i);

}

}

cout<<endl;

cout<<vertex[n-1]<<" ";

for(i=n-2;i>=0;i--)

cout<<"<"<<" "<<vertex[i]<<" ";

return 0;

}