#include <iostream>

using namespace std;

int main()

{

int i,j,a[10][10],frt=0,rear=0,n,indegree[10],queu[10],x;

;

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

cin>>n;

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

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

indegree[i]=0;

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

{

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

{

cin>>a[i][j];

if(a[i][j]==1)

indegree[j]++;

}

}

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

{ cout<<"in["<<i<<"]="<<indegree[i]<<endl;

if(indegree[i]==0)

{ queu[rear++]=i;

}

}

cout<<"topological sort:"<<endl;

while(frt!=rear)

{ x=queu[frt++];

cout<<x<<" ";

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

{

if(a[x][j]==1)

{

a[x][j]=0;

indegree[j]--;

if(indegree[j]==0)

{

queu[rear++]=j;

}

}

}

}

return 0;

}