#include<stdio.h>

#include<stdlib.h>

void dfs(int,int ,int[]);

int graph[11][11];

int main()

{

int n;

printf("Enter number of nodes in the graph\n");

scanf("%d",&n);

printf("enter edges of graph in the form of adjancency matrix\n");

printf("1.Exists\n2.No Edge\n");

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

{

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

{

if(i!=j){

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

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

if(graph[i][j]==0){

graph[i][j]=-1;

}

}

}

}

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

{

int visited[n+1]={0};

if(visited[i]==0)

{

printf("%d",i);

dfs(i,n,visited);

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

{

if(visited[i]==0)

{

printf("\nThe graph is not connected \n");

exit(0);

}

}

}

printf("\n");

}

}

void dfs(int node,int n,int visited[]){

visited[node]=1;

printf(" -> %d",node);

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

if(visited[i]==0 && graph[node][i]==1){

dfs(i,n,visited);

}

}

}

Output:

