#include<stdio.h>

void DFS(int);

int G[10][10],visited[10],n; //n is no of vertices and graph is sorted in array G[10][10]

int main()

{

int v,i,j;

printf("Enter number of vertices:");

scanf("%d",&n);

//read the adjecency matrix

printf("\nEnter adjecency matrix of the graph:");

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

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

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

//visited is initialized to zero

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

visited[i]=0;

printf("Enter start vertex:");

scanf("%d",&v);

DFS(v);

}

void DFS(int i)

{

int j;

printf("%d ",i);

visited[i]=1;

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

if(!visited[j]&&G[i][j]==1)

DFS(j);

}

O/P:

Enter number of vertices:3

Enter adjecency matrix of the graph:0 1 1

1 0 1

1 1 0

Enter start vertex:1

1 2 3