



Green University of Bangladesh

Department of Computer Science and Engineering

Course Title: Algorithms Lab

Course code: CSE-206

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1)

```
#include<stdio.h>

#include<stdlib.h>

int a[100][100],visited[200],n;

void dfs(int i)
{
    int j;
    visited[i]=1;
    for(j=1;j<=n;j++)
        if(a[i][j] && !visited[j])
        {
            printf(" %c ",i);
            dfs(j);
        }
}

int main()
{
    int i,j,track=0;
    printf("\n Enter number of vertices:");
    scanf("%d",&n);
    for(i=1;i<=n;i++)
        for(j=1;j<=n;j++)
            scanf("%d",&a[i][j]);
    dfs(1);
    for(i=1;i<=n;i++)
    {
```

```

    if(visited[i])
        track++;
    }
    if(track==n)
        printf(" Graph is connected");
    else
        printf(" Graph is not connected");
    return 0;
}

```

2)

```

#include <iostream>
#include<stdio.h>
#include<vector>
using namespace std;
int n, adj[100][100],visited[100]={0},u,v,siz;
void dfs(int s)
{
    visited[s]=1;
    siz = sizeof(adj[s]);
    for(int i=0;i<siz;i++)
    {
        // if(!visited[adj[s][i]])
        if(!visited[i] && adj[s][i]==1)
            dfs(i);
    }
}
}

```

```
int main()
{
    printf("Total Edge : ");
    scanf("%d",&n);
    for (int i=0; i<n;i++)
    {
        //cin>> u>>v;
        // adj[u][]=v;
        // adj[v][]=u;
        for(int j=0;j<n;j++)
            scanf("%d",&adj[i][j]);
    }
    dfs(0);
}
```