

```

#include<stdio.h>

#include<conio.h>

int a[20][20],reach[20],n;

void dfs(int v) {

int i;

reach[v]=1;

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

    if(a[v][i] && !reach[i]) {

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

dfs(i);

    }

}

int main() {

int i,j,count=0;

printf("\n Enter number of vertices:");

scanf("%d",&n);

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

reach[i]=0;

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

    a[i][j]=0;

}

printf("\n Enter the adjacency matrix:\n");

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

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

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

dfs(1);

printf("\n");

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

if(reach[i])

    count++;

}

```

```
if(count==n)
printf("\n Graph is connected"); else
printf("\n Graph is not connected");
```

```
Enter number of vertices:2
Enter the adjacency matrix:
3
5
6
7

1->2

Graph is connected
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Process exited after 18.39 seconds with return value 0
Press any key to continue . . .
```