

```
1  #include<stdio.h>
2  #include<stdlib.h>
3  int a[1][10];
4  void dfs(int n, int cost[10][10], int u, int s[])
5  {
6  int v;
7  s[u]=1;
8  for(v=0;v<n;v++)
9  {
10 if((cost[u][v]==1) && (s[v]==0))
11 dfs(n,cost,v,s);
12
13 }
14 }
15 int main()
16 {
17 int n,i,j,cost[10][10],s[10],con,flag;
18 system("cls");
19 printf("Enter the number of nodes\n");
20 scanf("%d",&n);
21 printf("Enter the adjacency matrix\n");
22 for(i=0;i<n;i++)
23 {
24 for(j=0;j<n;j++)
25 scanf("%d",&cost[i][j]);
26
27 }
28 con=0;
29 for(j=0;j<n;j++)
30 {
31 for(i=0;i<n;i++)
32 s[i]=0;
33 dfs(n,cost,j,s);
34 flag=0;
35 for(i=0;i<n;i++)
36 {
37 if(s[i]==0)
38 flag=1;
39
40 }
41 if(flag==0)
42 con=1;
43
44 }
```

main.c

```
37  if(s[1]==0)
38  flag=1;
39
40  }
41  if(flag==0)
42  con=1;
43
44  }
45  if(con==1)
46  printf("Graph is connected\n");
47  else
48  printf("Graph is not connected\n");
49  return 0;
50  }
```



Console

Shell

```
> clang-7 -pthread -lm -o main main.c
```

```
> ./main
```

```
sh: 1: cls: not found
```

```
Enter the number of nodes
```

```
3
```

```
Enter the adjacency matrix
```

```
0 1 0
```

```
1 0 0
```

```
0 0 0
```

```
Graph is not connected
```

```
> █
```





Console

Shell

```
> clang-7 -pthread -lm -o main main.c
```

```
> ./main
```

```
sh: 1: cls: not found
```

```
Enter the number of nodes
```

```
5
```

```
Enter the adjacency matrix
```

```
1 1 1 0 0
```

```
1 1 1 1 0
```

```
1 0 1 0 1
```

```
1 0 0 1 1
```

```
1 1 0 0 0
```

```
Graph is connected
```

```
> 
```

