

Start here X *DFSpgm.c X

```
1  #include<stdio.h>;
2  #include<conio.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 void main()
15 {
16     int n,i,j, cost[10][10], s[10], con, flag;
17     printf("Enter the number of nodes\n");
18     scanf("%d", &n);
19     printf("Enter the adjacency matrix\n");
20     for(j=0; j<n; j++)
21     {
22         for(i=0; i<n; i++)
23         {
24             scanf("%d", &cost[i][j]);
25         }
26     }
27     con=0;
28     for(j=0; j<n; j++)
29     {
30         for(i=0; i<n; i++)
31         {
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                 {
39                     flag=1;
40                 }
41             }
42             if(flag==0)
43                 con=1;
44         }
45     }
46     if(con==1)
47         printf("Graph is connected\n");
48     else
49         printf("Graph is not connected\n");
50 }
```

Enter the number of nodes

4

Enter the adjacency matrix

1001

0011

1100

1010

Graph is not connected

Process returned 0 (0x0) execution time : 13.530 s

Press any key to continue.


```
1  #include<iostream>
2  using namespace std;
3  void tower_hanoi(int n, char src, char temp, char dest)
4  {
5      if(n == 1)
6      {
7          cout<<"Move"<< n<<"disc from"<<src<<" to"<<dest<<endl;
8          return ;
9      }
10     tower_hanoi(n - 1, src, dest, temp);
11     cout<<"Move"<<n<<"disc from"<<src<<"to"<<dest<<endl;
12     tower_hanoi(n - 1, temp, src, dest);
13 }
14 int main()
15 {
16     int x;
17     cout<<"Enter no of disc"<<endl;
18     cin>>x;
19     tower_hanoi(x, 'A', 'B', 'C');
20     return 0;
21 }
```

```
1  #include<stdio.h>
2  #include<conio.h>
3  void towers(int n,char src,char temp,char dest)
4  {
5      if(n==1)
6      {
7          printf("move disk 1 from %c to %c \n",src,dest);
8          return;
9      }
10     towers(n-1,src,dest,temp);
11     printf("move disk %d from %c to %c \n",n,src,dest);
12     towers(n-1,temp,src,dest);
13 }
14 main()
15 {
16     int n;
17     printf("enter the number of disks:\n");
18     scanf("%d",&n);
19     towers(n,'s','t','d');
20 }
21
```


Enter no of disc

4

Move1disc fromA toB

Move2disc fromAtoC

Move1disc fromB toC

Move3disc fromAtoB

Move1disc fromC toA

Move2disc fromCtoB

Move1disc fromA toB

Move4disc fromAtoC

Move1disc fromB toC

Move2disc fromBtoA

Move1disc fromC toA

Move3disc fromBtoC

Move1disc fromA toB

Move2disc fromAtoC

Move1disc fromB toC

...Program finished with exit code 0

Press ENTER to exit console.