

```

#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");

}

```

The screenshot shows a C++ IDE window titled "C:\Users\ummad\OneDrive\Documents\DFS.cpp - [Executing] - Dev-C++ 5.11". The console output is as follows:

```

Enter number of vertices
3
Enter the adjacency matrix:
2
3
4
5
6
1
2
3
4
1->2
2->3
Graph is connected
-----
Process exited after 12.81 seconds with return value 0
Press any key to continue . . .

```

Below the console, the compiler output shows:

```

- Errors: 0
- Warnings: 0
- Output Filename: C:\Users\ummad\OneDrive\Documents\DFS.exe
- Output Size: 152.2490234375 KiB
- Compilation Time: 0.20s

```

The status bar at the bottom indicates "Line: 15 Col: 7 Sel: 0 Lines: 41 Length: 704 Insert Done parsing in 0.015 seconds". The system tray shows the date and time as "22-09-2022 11:57".