

```

#include<stdio.h>

#include<conio.h>

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

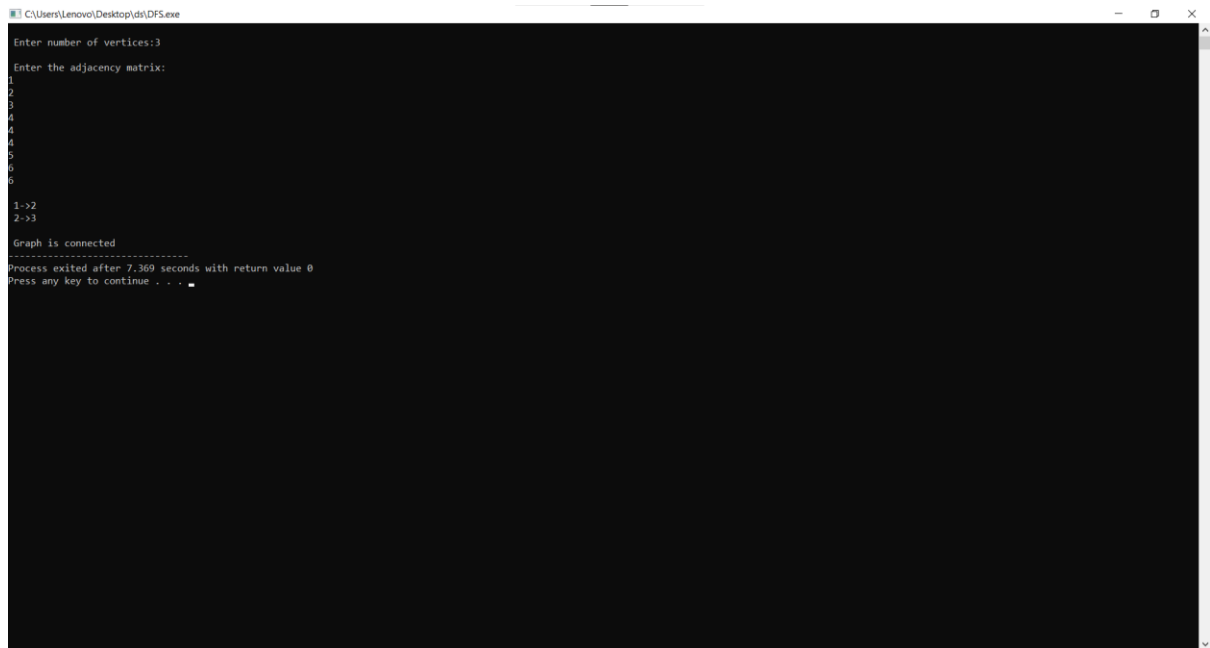
void dfs(int v) {
    int i;
    reach[v]=1;
    for (i=1;i<=n;i++)
        if(a[v][i] && !reach[i]) {
            printf("\n %d->%d",v,i);
            dfs(i);
        }
}

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++;
    }
}

```

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



```
C:\Users\Lenovo\Desktop\dfs.exe  
Enter number of vertices:3  
Enter the adjacency matrix:  
1  
2  
3  
4  
4  
4  
4  
5  
6  
6  
6  
1->2  
2->3  
Graph is connected  
-----  
Process exited after 7.369 seconds with return value 0  
Press any key to continue . . .
```