

# DFS Traversal 5

Problem

Submissions

Leaderboard

Discussions

Given an undirected and disconnected graph  $G(V, E)$ , print its DFS traversal.

Note:

Here you need to consider that you need to print DFS path starting from vertex 0 only.

$V$  is the number of vertices present in graph  $G$  and vertices are numbered from 0 to  $V-1$ .

$E$  is the number of edges present in graph  $G$ .

Take graph input in the adjacency matrix.

Handle for Disconnected Graphs as well

## Input Format

The first line of input contains two integers, that denote the value of  $V$  and  $E$ .

Each of the following  $E$  lines contains space separated two integers, that denote that there exists an edge between vertex  $a$  and  $b$ .

## Constraints

$$0 \leq V \leq 1000$$

$$0 \leq E \leq (V * (V - 1)) / 2$$

$$0 \leq a \leq V - 1$$

$0 \leq b \leq V - 1$

Time Limit: 1 second

### Output Format

Print the DFS Traversal, as described in the task.

### Sample Input 0

```
4 4
0 1
0 3
1 2
2 3
```

### Sample Output 0

```
0 1 2 3
```

[f](#) [t](#) [in](#)

Contest ends in 17 days

Submissions: [103](#)

Max Score: 10

Difficulty: Medium

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Java 15



```
1 ▼ import java.io.*;
```

```

2  import java.util.*;
3
4  public class Solution {
5      static void display(int mat[][],int st,int v,boolean vis[]){
6          System.out.print(st+" ");
7          vis[st]=true;
8          for(int en=0;en<v;en++){
9              if(mat[st][en]==1 && !vis[en]){
10                 display(mat,en,v,vis);
11             }
12         }
13     }
14     public static void main(String[] args) {
15         /* Enter your code here. Read input from STDIN. Print output to STDOUT. Your class should
16            be named Solution. */
17         Scanner sc=new Scanner(System.in);
18         int v=sc.nextInt();
19         int e=sc.nextInt();
20         int mat[][]=new int[v][v];
21         for(int i=0;i<e;i++){
22             int sv=sc.nextInt();
23             int ev=sc.nextInt();
24             mat[sv][ev]=1;
25             mat[ev][sv]=1;
26         }
27         boolean vis[]=new boolean[v];
28         display(mat,0,v,vis);
29     }

```

Line: 9 Col: 30

 [Upload Code as File](#) ☐ [Test against custom input](#)

Run Code

Submit Code

Testcase 0 

**Congratulations, you passed the sample test case.**

Click the **Submit Code** button to run your code against all the test cases.

**Input (stdin)**

```
4 4
0 1
0 3
1 2
2 3
```

**Your Output (stdout)**

```
0 1 2 3
```

**Expected Output**

```
0 1 2 3
```