```
#include <iostream>
                                                        }
#include <vector>
                                                      };
#include <unordered_set>
                                                      int main() {
#include <unordered_map> // Added for
                                                        Graph g;
unordered map
                                                         int V. E:
using namespace std;
                                                        cout << "Enter the number of vertices:
class Graph {
  unordered map<int, vector<int>>
                                                        cin >> V;
adjList; // Added unordered map
                                                        cout << "Enter the number of edges: ";
declaration
                                                        cin >> E;
public:
                                                         cout << "Enter the edges in the format
  void addEdge(int u, int v) {
                                                      'u v' (separated by space):" << endl;
    adjList[u].push_back(v);
                                                         for (int i = 0; i < E; ++i) {
    adjList[v].push_back(u); // Assuming
                                                           int u, v;
it's an undirected graph
                                                           cin >> u >> v;
  }
                                                           g.addEdge(u, v);}
  void dfsUtil(int v, unordered_set<int>&
visited) {
                                                         int startVertex:
                                                         cout << "Enter the starting vertex for
    visited.insert(v);
                                                      DFS: ";
    cout << v << " ":
                                                         cin >> startVertex:
                                                         cout << "Depth First Traversal: ";
    for (int neighbor : adiList[v]) {
                                                        g.dfs(startVertex);
       if (visited.find(neighbor) ==
visited.end()) {
         dfsUtil(neighbor, visited);
                                                        return 0;
       }
                                                         Enter the number of vertices: 5
                                                         Enter the number of edges: 4
                                                         Enter the edges in the format 'u v' (separated by space):
                                                         1.2
  void dfs(int start) {
                                                         1.3
                                                         2.4
                                                         3.5
    unordered_set<int> visited;
                                                         Enter the starting vertex for DFS: 1
                                                         Depth First Traversal: 1 2 4 3 5
    dfsUtil(start, visited);
                                                         === Code Execution Successful ===
```