

```

#include <iostream>

#include <vector>

#include <queue>

using namespace std;

void BFS(int start, vector<vector<int>>& adj, vector<bool>& visited) {

    queue<int> q;

    visited[start] = true;

    q.push(start);

    cout << "BFS Traversal: ";

    while (!q.empty()) {

        int node = q.front();

        q.pop();

        cout << node << " ";

        // Visit all adjacent nodes

        for (int neighbor : adj[node]) {

            if (!visited[neighbor]) {

                visited[neighbor] = true;

                q.push(neighbor);

            }

        }

    }

    cout << endl;

}

int main() {

    int nodes, edges;

    cout << "Enter number of nodes and edges: ";

```

```

cin >> nodes >> edges;

vector<vector<int>> adj(nodes + 1); // adjacency list
vector<bool> visited(nodes + 1, false);

cout << "Enter edges (u v):" << endl;

for (int i = 0; i < edges; ++i) {

    int u, v;

    cin >> u >> v;

    adj[u].push_back(v);

    adj[v].push_back(u); // For undirected graph
}

int startNode;

cout << "Enter starting node: ";

cin >> startNode;

BFS(startNode, adj, visited);

return 0;

}

```

OUTPUT:

Sample Input:

Enter number of nodes and edges: 5 4

Enter edges (u v):

1 2

1 3

2 4

3 5

Enter starting node: 1

BFS Traversal: 1 2 3 4 5