Adjacency list:

#include<iostream>

#include<unordered\_map>

#include<list>

using namespace std;

class graph{

public:

unordered\_map<int,list<int>>adj;

void addEdge(int u,int v,bool direction){

//direction =0->undirected

//direction =1->directed graph

//create an edge from u to v

adj[u].push\_back(v);

if(direction==0){

adj[v].push\_back(u);

}

}

void printAdjLIst(){

for(auto i:adj){

cout<<i.first<<"->";

for(auto j:i.second){

cout<<j<<" ";

}

cout<<endl;

}

}

};

int main(){

int n;

cout<<"Enter the number of nodes"<<endl;

cin>>n;

int m;

cout<<"Enter the number of edges"<<endl;

cin>>m;

graph g;

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

int u,v;

cin>>u>>v;

//creating an undirection graph

g.addEdge(u,v,0);

}

g.printAdjLIst();

}

Output:

