**#include<bits/stdc++.h>**

**using namespace std;**

**struct edge{**

**int u,v,w;**

**};**

**int main(){**

**int n,m,src;**

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

**cin>>n;**

**cout<<endl;**

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

**cin>>m;**

**cout<<endl;**

**cout<<"Enter the source node: "<<endl;**

**cin>>src;**

**cout<<endl;**

**vector<edge>e(m+1);**

**vector<int>dist(n+1,INT\_MAX);**

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

**cout<<"Enter the starting node of the edge : "<<endl;**

**cin>>e[i].u;**

**cout<<"Enter the ending node of the edge : "<<endl;**

**cin>>e[i].v;**

**cout<<"Enter the weight of the edge : "<<endl;**

**cin>>e[i].w;**

**}**

**cout<<"Edge List : "<<endl;**

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

**cout<<e[i].u<<"-->"<<e[i].v<<endl;**

**}**

**dist[src] = 0;**

**for(int i = 1;i<=n;i++){**

**for(int j = 0;j<m;j++){**

**if(dist[e[j].u]<INT\_MAX){**

**dist[e[j].v] = min(dist[e[j].v],(dist[e[j].u]+e[j].w));**

**}**

**}**

**cout<<"Pass : "<<i<<endl;**

**for(int k = 1;k<=n;k++){**

**cout<<k<<" ---> "<<dist[k]<<endl;**

**}**

**cout<<endl;**

**}**

**cout<<endl;**

**for(int i = 1;i<=n;i++){**

**cout<<i<<"-->"<<dist[i]<<endl;**

**}**

**cout<<endl;**

**return 0;**

**}**