9.2. Create a Graph (Using Adjacency matrix)

#include<stdio.h> #include<conio.h> #include<iostream> using namespace std; class adjmat

{

private:

int adjmat[20][20]; int n;

public:

void creategraph(); void display(); adjmat()

{

for(int i=1;i<=20;i++)

{ for(int j=1;j<=20;j++)

{

adjmat[i][j]=0;

}

}

}

};

void adjmat::creategraph()

{

int i,max\_edge,src,ds; cout<<"Enter no. of vertices"; cin>>n;

max\_edge=(n\*(n-1))/2; for(i=1;i<=max\_edge;i++)

{

cout<<"\nEnter 0,0 to exit"; cout<<"\nEnter source: "; cin>> src;

cout<<"\nEnter destination: "; cin>>ds;

if((ds==0)||(src==0))

{

break;

}

if((ds>n)||(src>n)||(ds<0)||(src<0))

{

cout<<"\nInvalid edge"; i--;

}

else

{

adjmat[src][ds]=1; adjmat[ds][src]=1;

}

}

}

void adjmat::display()

{

int i,j; for(i=1;i<=n;i++)

{

for(j=1;j<=n;j++)

{

cout<<adjmat[i][j]<<" ";

}

cout<<"\n";

}

}

int main()

{

adjmat m1; m1.creategraph();

m1.display();

getch();

}