DFS,BFS:

```
import java.util.Scanner;
public class DSGraph
{
	public void Dfs(int i,int adjMat[][],boolean v[])

	{
		if(!v[i]) {
		v[i] = true;

		  System.out.println((i + 1) +"\t");

		  for ( int j = 0; j < adjMat.length; j++ ){

		    if ( adjMat[i][j] ==1  && !v[j] ){

		      Dfs(j, adjMat, v);
		    }

		  }
		}
	}

public static void main(String args[])
{
	int adjMat[][],vnode;
	int size;

	Scanner s=new Scanner(System.in);
```

```
        System.out.println("Enter Size");
         size=s.nextInt();
        {
                vnode=size;
                adjMat=new int[vnode][vnode];
                Scanner in= new Scanner(System.in);
                for(int scr=0;scr<vnode;scr++)
                {
                        for(int dest=0;dest<vnode;dest++)
                        {
                                System.out.println("Enter cost form"+scr+"to"+dest+":");
                                adjMat[scr][dest]=in.nextInt();


                        }
                }
                for(int scr=0;scr<vnode;scr++)
                {
                        for(int dest=0;dest<vnode;dest++)
                        {
                                System.out.print(""+adjMat[scr][dest]+"  ");
                        }
                        System.out.print("\n");
        }
}


        System.out.println("Enter Source");
        int in=s.nextInt();
        DSGraph g=new DSGraph();
```

```
            boolean [] v = new boolean[size];

   for (int i =0; i< v.length; ){

       v[i++] = false;
   }

            g.Dfs(in,adjMat,v);

}

}
```

****

CREATION

```
import java. util. Scanner;

class Graph
 {
 int adjMat[][] , vnode;
 Graph(int size)
 {
 vnode=size;
 adjMat=new int[ vnode][ vnode] ;
 Scanner in= new Scanner(System. in) ;
 for(int scr=0; scr<vnode; scr++)
 {
 for(int dest=0; dest<vnode; dest++)
 {
 System. out. println("Enter cost form"+scr+"to"+dest+":") ;
```

```
adjMat[ scr][ dest]=in. nextInt() ;



}

}

}

public void Print()

{

for(int scr=0; scr<vnode; scr++)

{

for(int dest=0; dest<vnode; dest++)

{

System. out. print(""+adjMat[ scr][ dest]+" ") ;

}

System. out. print("\n") ;

}

}

public void Bfs(int adjMat[] , int S)

{

System. out. println("Enter Source") ;


}

}

public class DSClass {

public static void main(String args[])

{

Scanner s=new Scanner(System. in) ;

System. out. println("Enter Size") ;

int in=s. nextInt() ;
```

```
 Graph g=new Graph(in) ;
g. Print() ;
 }
 }
```